PACIFICORP

RESOURCE AND MARKET PLANNING PROGRAM

RAMPP - 6

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Executive Summary

PacifiCorp's RAMPP-6 Report covers its long-range Integrated Resource Planning (IRP) process. RAMPP-6 was created during a period of unprecedented uncertainty. Assumptions regarding forecasted regulated load, forecasted market prices for electricity and gas and system resources are all impacted by changes occurring in the industry.

Integrated resource planning is an ongoing process. The need for continual updating of the basic assumptions and analysis is evident from the pace of change during 2000 and 2001. The assumptions included in this report were finalized during May of 2000. At that time wholesale market forecasts were $20-30 MWH and the potential for rolling blackouts was not even conceived. During the summer of 2000 it became apparent that the western markets were very unstable. Prices reached into the thousands of dollars per megawatt-hour and by years end California was experiencing severe shortages resulting in mandatory curtailments and rolling blackouts.

This report represents a static analysis based on the assumptions that were finalized in May of 2000. While it is necessary to "lock down" assumptions at some point in time in order to allow the formal production of a report such as this the underlying model has been continually updated and is used for ad-hoc ongoing analysis to support the decision making process. Some of this analysis is included as an addendum to the report.

The Company intends to continue to perform ad-hoc analysis and to inform the Commissions of the results of the analysis as part of its regular communications with the Commissions and in support of Company decisions impacted by that analysis.

Given the current state of uncertainty this report attempts to bracket potential scenarios rather than plan for a specific future. The approach used is a weighted-average of a number of potential sensitivities. The major finding is that PacifiCorp may be near load/resource balance and will need to carefully evaluate the impacts of current market conditions, new resource opportunities and demand side initiatives. Currently, the RAMPP optimization model is supplementing Company owned resources in the early years with market purchases under the weighted average scenario. With the potential for sustained higher prices the Company may choose to accelerate new resource development.

The company will continue to support ongoing Demand Side Management (DSM) programs including both energy efficiency programs and load reduction programs, implement cost-effective system improvements, and take advantage of resource acquisition opportunities that cost-effectively meet the future needs of the company.

PacifiCorp implemented two significant changes in assumptions in preparation of the new RAMPP-6 weighted average base case. The first change is a shotgun approach to forecasting market prices and gas prices. Under this approach multiple starting prices were paired with multiple growth rates to yield a scatter of potential futures. The second change is the incorporation of a weighted-average approach to address uncertainty in the forecasts. By weighting and averaging the results of a variety of potential future scenarios the Company believes that this case informs the reader with information with which to prepare a future strategy.

Another major change in the industry that is not addressed in this report is the formation of a regional transmission organization. PacifiCorp, along with other regional utilities, filed a plan with the FERC to form an RTO. The details of the formation are not yet determined. Ultimately, this approach to transmission could have impacts on the transmission constraints currently modeled in the RAMPP process.

The RAMPP-6 documents include the main report and an appendix with model output results from the sensitivities. A continuation of the RAMPP-5 approach is the use of a sweeps for most of the sensitivities. Each sweep included up to 12 sensitivities, whereby the company varied one factor in small increments to better understand how variation in that factor can affect planning issues. The sensitivities included sweeps of gas and wholesale market prices, load change, environmental adders, and several other smaller issues. More than 100 potential future scenarios were modeled. Individual results are included in the appendix.

The results from the sensitivities were consistent with results from sensitivities run in RAMPP-4 and RAMPP-5. The continuing conclusions are as follows:

- The least-cost supply-side resource choice continues to be gas-fired plants under the modeled gas price forecasts (it was coal-fired in RAMPP-3 and gas-fired in RAMPP-4 and in the RAMPP-4 Update). Sensitivities modeled after the completion of this report indicate that at gas prices only slightly higher than the upper end of the modeled prices, coal becomes the least cost resource,

- Increasing amounts of DSM are cost effective,

- Renewables are becoming cost effective in the high gas price scenarios.

- Expanding transmission capacity is not a cost effective choice at this time.

- Environmental adders would result in significantly higher prices for customers (real levelized customer prices would be 30 percent higher at a $40/ton adder for carbon dioxide).

It should be noted that the assumptions embodied in RAMPP 6 due not reflect the currently high and volatile gas and market prices. The Company proposes to continue to model scenarios proposed by the RAMPP Advisory Group to reflect this rapidly changing environment and to convene regular RAMPP Advisory Group meetings to discuss the results of these scenarios.

PacifiCorp is on track for achieving the items in the RAMPP-5 Action Plan. The company has achieved its objectives in demand-side management; it has used the market for acquisition of peaking resources, it has made improvements in system efficiency, it has participated in development of the Foote Creek Wind project; and it has been actively involved in the competitive marketplace.

The company anticipates that as open access continues to affect more of the states in which it serves, that IRP will continue to change. The traditional model of IRP does not fit well with a competitive environment. As the company operates in an increasingly competitive environment, its planning will continue to evolve. The company proposes that this report RAMPP-6 become the basis for an ongoing analysis. Included with this report is a set of sensitivities completed at the request of the RAMPP Advisory Group. These sensitivities demonstrate the value both of the RAMPP-6 report itself and of the ongoing dialog with the RAMPP Advisory Group. The RAMPP optimization process can be used to test assumptions about potential futures. The Company proposes that it host regularly scheduled and ad-hoc meetings with the RAMPP Advisory Group to both solicit and present scenarios based on the RAMPP optimization process. This approach has the advantage of being able to present analysis in real time, rather than waiting for the formal report on a two-year cycle. Ultimately, this approach may lead to a restructured IRP process that includes more frequent scenario analysis building off of a base model.

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Chapter 1: Introduction

This document reports on PacifiCorp's sixth Resource and Market Planning Program (RAMPP-6) cycle, the company's Integrated Resource Planning (IRP) process. PacifiCorp completed its fifth IRP cycle, RAMPP-5, in December 1997.

The IRP report documents the internal and external processes used by PacifiCorp to analyze future load growth, the ability of its existing power plants to meet customers' electric energy needs, and the need for new resources, including new power plants, power purchases, and customer efficiency programs.

PacifiCorp provides electricity and related energy services to 1.3 million customers in six western states: California, Idaho, Oregon, Utah, Washington and Wyoming. Almost half of the company's retail sales are to industrial customers, about one-fourth to commercial customers, and about one-fourth to residential customers.

PacifiCorp's IRP process serves two primary purposes:

1) It provides a long-range plan and framework to guide the company in evaluating resource and market decisions including short term action plans.

2) It complies with regulatory commission requirements for integrated resource planning. Chapter 2 discusses these regulatory requirements.

Overall, PacifiCorp's RAMPP process aims at minimizing costs and risks to customers and providing value to the company's shareholders. The goal is to achieve the lowest possible cost in providing electricity services to customers, while recognizing the appreciable uncertainties affecting future requirements, power sources, and the environment in which the company operates.

RAMPP provides a long-range look at the company's load and resource position, identifies risks and strategies that merit additional analysis, and provides a framework for the analysis of specific resource opportunities. This analysis requires an understanding of the changes occurring in the electric utility industry.

Change continues to drive the electric utility industry. The Company recently filed for the formation of a Regional Transmission Organization with the FERC. The details of the organization have not yet been worked out, but it will likely affect the availability and price of transmission. The Company has also filed to restructure itself into a generation company, a service company and independent distribution companies in each jurisdiction. The next chapter on Regulatory Requirements addresses the challenge the company faces in fitting its planning into an IRP model that was developed during a more predictable time in the industry.

IRP Assumptions

Planning over a 20-year horizon requires assumptions about events that are simply unknowable. Three key areas for PacifiCorp are load forecasting, wholesale activities and market prices.

Load Forecasting

Early in the RAMPP public process a discussion was held to decide how to handle the load forecast. Open access is already available in PacifiCorp's California service territory. In Oregon open access will begin in October of 2001. Up to one-half of Oregon's load may be required to leave the regulated system. The legislatures of Washington, Idaho and Utah all have had active restructuring committees, though no legislation is currently being considered. These activities make load forecasting extremely problematic. The decision by the RAMPP Advisory Group was that the basic assumption should be that all regulated load continues to be planned for over the planning horizon. Scenarios were built off of this assumption to reflect any impacts of future potential load loss.

Wholesale Balancing Adjustment

The second key assumption that the company has made for the new RAMPP-6 Reference Case is in the area of wholesale activities. Wholesale sales and purchases have decreased but continue to account for a significant part of PacifiCorp's revenues. The company does not include wholesale sales and purchases of less than one year in its resource planning. However, wholesale sales and purchases of more than one year are part of the load and resource mix.

The company is making an adjustment in the RAMPP-6 Reference Case for planning purposes. This adjustment will remove the impact of temporary imbalances between the level of wholesale purchases and the level of wholesale sales on planning. The purpose of the adjustment is to assure that the planning model does not select new generating resources in order to make wholesale sales. The adjustment increases the amount of short-term wholesale purchases necessary either to achieve a 10% reserve margin or to balance the wholesale sales. The Company has historically used wholesale sales to optimize the operation of the system and will continue to do so in the future, this adjustment is for planning purposes only. The actual operation of the system is optimized based on the availability of company owned resources, the prices for short term wholesale power and the load requirements including long term wholesale sales.

Market Prices

The third key assumption that the company has made for the new RAMPP-6 Reference Case is in the area of market prices. Natural gas and wholesale market prices have a major impact on the Company. These costs are beyond the control of the Company and are difficult to forecast accurately. The Company has developed a new technique to assist in the analysis of natural gas and wholesale market price risks. This technique which we refer to as the "shotgun" approach will be discussed in greater detail later.

Significant Events

A number of significant events are impacting PacifiCorp's planning. These demonstrate the continuously changing nature of the industry and the need for planning flexibility:

- Currently unprecedented high gas and market prices
- Increasing focus on power plant emissions
- Reliability
- Distributed generation
- Piecemeal restructuring
- Hydro relicensing

Unprecedented High Prices

During 2000 the western energy grid has experienced spot energy prices that are magnitudes higher than ever seen previously, as high as $5,000 MWH. While actual trading at this level has been very minimal these prices reflect the impacts of California restructuring and current balance between loads and resources. It is likely that high prices will prevail for the next several years until sufficient new generation is developed to stabilize the market.

Natural gas (the fuel of choice for new generation) prices reached levels never before seen. This may cause the market to remain higher than expected for a longer period of time as the high gas prices are reflected in the costs of gas fired combustion turbine generators.

Power Plant Emissions

The Environmental Protection Agency has sued several power plant owners in other regions and reached compliance agreements with two utilities under the New Source Review powers of the Federal Clean Air Act. Discussions continue at the federal level regarding the possibility of CO2 emissions controls to address global warming. The EPA proposes to develop rules for regulating mercury emissions from all of the nation's coal-fired plants. As the majority of PacifiCorp's generation is fueled by coal these developing situations increase the possibility that costly environmental mitigation measures may be required at the company's existing generating facilities or may shorten their economic lives.

Reliability

At the same time power supplies have tightened up, demands for more reliable service have increased. Newer facets of the economy, such as the semiconductor industry and the Internet, require power that is of a very high reliability. Reliability legislation has been introduced at the federal level. At one time, reliability and restructuring were issues to be dealt with simultaneously. It's now more likely that reliability legislation will be handled on a stand-alone basis.

Distributed Generation

An emerging alternative to central station generation is smaller generation units that can be placed at a customer's site. On a widespread basis, these units would reduce the need for new transmission lines and large generating plants. Distributed generation technology, utilizing fuel cells and natural gas, is advancing, and as it enters the mainstream energy world, it likely will impact utility loads and costs (especially for customer-owned facilities).

Piecemeal Restructuring

Restructuring initiatives have been focused at the state level, resulting in a hodgepodge of rules and regulations that vary considerably from state to state. In PacifiCorp's service area, California's restructuring struggles have attracted national, if not worldwide, attention. Oregon is scheduled to open its doors to competition in 2001. Other states served by PacifiCorp are taking a "wait-and-see" attitude. The company, then, is dealing with a variety of competing interests within its own service area.

In the states, industry restructuring activities range from those which are on the sidelines content to watch the action to those which are actively implementing direct access for retail customers.

Fifteen states and the District of Columbia have retail wheeling in place or have finalized a legislative or regulatory plan:

- Arizona
- California
- Connecticut
- Delaware
- District of Columbia
- Illinois
- Maine
- Maryland
- Massachusetts
- Michigan
- Montana
- New Jersey
- New York
- Ohio
- Pennsylvania
- Rhode Island

In another nine states, enabling legislation has been enacted or company-specific restructuring cases are in progress:

- Arkansas
- Nevada
- New Hampshire
- New Mexico
- Oklahoma
- Oregon
- Texas
- Virginia
- West Virginia

In the following 15 states, restructuring legislation is pending or commissions are studying the issue:

- Alabama
- Alaska
- Florida
- Georgia
- Hawaii
- Indiana
- Iowa
- Louisiana
- Minnesota
- Missouri
- North Carolina
- North Dakota
- South Carolina
- Vermont
- Wisconsin

In 11 states, no substantial action on restructuring is taking place:

- Colorado
- Idaho
- Kansas
- Kentucky
- Mississippi
- Wyoming
- Nebraska
- South Dakota
- Tennessee
- Utah
- Washington

The following tables provides a state-by-state summary of open access activities. first for the states in PacifiCorp's existing service territory, and then for the other 44 states.

State Summary of Open Access In PacifiCorp's Existing Service Territory

	Retail Access Start Date	Legislation and Commission Activity On Retail Access
CA	Choice for all customers began 3/31/98.	• Enacted legislation allows full open access for all customers. • Record-setting high wholesale and retail prices in 2000 due to generation constraints and flawed market structure threatens to derail open access.
ID	No date has been determined.	• Restructuring is not being considered by the PUC. • The legislature may be forced to deal with restructuring issues due to a federal court decision that Idaho doesn't sufficiently oversee the monopolies granted to utilities.
OR	Competition for non-residential customers begins 10/1/01.	• Legislation on restructuring (SB 1149) was enacted in 7/99. • PUC rulemaking activities underway to implement restructuring.
UT	No date has been determined.	• A legislative task force on deregulation has been meeting but is not expected to propose a bill for the 2001 session. • No commission action on restructuring is expected in 2001.
WA	No date has been determined.	• The legislature is not expected to address restructuring during its 2001 session. • Restructuring is not on the commission's radar screen.
WY	No date has been determined.	• Restructuring legislation could be considered during the 2001 session. • The commission is not actively considering restructuring.

State Summary of Open Access in Other States

	Retail Access Start Date	Legislation and Commission Activity on Retail Access
AL	No date has been determined.	• No restructuring legislation has been enacted. • The commission reviewed restructuring and accepted a 10/00 staff recommendation against implementing competition.
AK	No date has been determined.	• Restructuring legislation has been introduced but not enacted. • The commission has informally investigated restructuring issues.
AZ	Commission rules call for complete open access on 1/1/01.	• The commission has issued rules governing competition, but they have been stayed by the courts over pricing issues. • Legislation in 1998 affirmed the commission's authority over open access for IOUs.
AR	Legislation calls for competition beginning 1/1/02 (subject to delay)	• Restructuring legislation was enacted in 1999. • The commission is recommending that competition be delayed until 10/1/03.
CO	No date has been determined.	• Restructuring legislation was introduced but not enacted. • The commission has done a survey on restructuring issues but is generally deferring to the legislature on this subject.
CT	Retail access became available for all customers on 7/1/00.	• Restructuring legislation to phase-in competition between 1/1/00 and 7/1/00 was enacted in 1998. • The commission approved utility restructuring plans, directed asset divestiture and approved stranded cost recovery in accordance with restructuring legislation.
DE	Virtually all customers had choice by 10/1/00.	• Restructuring legislation was enacted in 1999. • The commission has directed the opening of the state's electricity market.
DC	Customer choice is to be phased in between 1/1/02 and 1/1/04.	• Restructuring legislation was enacted in 1/00. • The commission has examined restructuring and approved utility-specific restructuring plans.
FL	No date has been determined.	• No restructuring legislation has been enacted. • The commission has informally studied restructuring issues.

	Retail Access Start Date	Legislation and Commission Activity on Retail Access
GA	No date has been determined.	• No restructuring legislation has been enacted. • The commission has conducted workshops on restructuring issues.
HI	No date has been determined.	• Restructuring legislation has not been enacted. • The commission has held informal sessions on restructuring.
IL	Phase-in to competition is underway; all customers to have retail access by 5/1/02.	• Restructuring legislation was enacted in 1997. • The commission has supervised the transition to open access, but most policy – as well as details – related to restructuring is prescribed by legislation.
IN	No date has been determined.	• Restructuring legislation was introduced, but not enacted. • The commission has held informal workshops on restructuring.
IA	No date has been determined.	• Restructuring legislation has been introduced but not enacted. • Regulators have studied restructuring but have taken no further action.
KS	No date has been determined.	• Restructuring legislation has been introduced but not enacted. • The commission has informally investigated restructuring.
KY	No date has been determined.	• No restructuring legislation has been enacted. • The commission held only informal discussions on restructuring and generally concludes it isn't in the state's best interest.
LA	No date has been determined.	• No restructuring legislation has been enacted. • The commission has examined restructuring but has yet to determine if it's in the public interest.
ME	Retail choice has been available since 3/00.	• Restructuring legislation was enacted on 5/29/97, calling for customer choice beginning 3/01/00. • The commission has approved generation divestiture, standard offer prices and various restructuring settlement agreements.
MD	Retail access phase-in will occur between 7/1/00 and 7/1/02.	• Restructuring legislation was enacted in 4/99. • The commission approved restructuring settlements that required choice to be available by 7/1/00.

	Retail Access Start Date	Legislation and Commission Activity on Retail Access
MA	Open access began 3/1/98.	• Restructuring legislation was enacted in 1997. • The commission has approved restructuring agreements for all applicable utilities.
MI	All customers to be phased-in to choice by 1/1/02.	• Restructuring legislation was enacted in 6/00. • The commission has approved restructuring settlements and is working to determine applicable stranded costs.
MN	No date has been determined.	• Restructuring legislation has not been enacted. • The commission has investigated restructuring.
MS	No date has been determined.	• Legislation on restructuring has not been enacted. • The commission in 5/00 determined retail choice is not in the public interest and suspended its restructuring docket.
MO	No date has been determined.	• Several restructuring bills have been introduced, but not enacted. • The commission has investigated restructuring issues but taken no action.
MT	Large customers received choice on 7/1/98; phase-in for other customers by 7/1/02.	• Enacted legislation requires access to be phased in beginning on 7/1/98. • The commission has reviewed restructuring plans and proposed rules governing restructuring.
NE	No date has been determined.	• Restructuring isn't on the radar screen of the state, which is entirely served by public power.
NV	No later than 9/1/01 (by gubernatorial order)	• Legislation was enacted in 7/97, calling for direct access for all customers beginning 12/31/99. Subsequent legislation allows the governor to delay the start date. • The commission approved a global settlement with Nevada utilities that allows competition to be phased in by 12/31/01.
NH	No date has been determined.	• Enacted legislation requires access for all customers by 7/1/98. The start date was delayed by court battles over stranded costs. • The commission has approved a settlement allowing restructuring to go forward.
NJ	Retail access for all customers began in 11/99.	• Restructuring legislation was enacted in 2/99. • The commission has issued rules for restructuring and adopted company-specific restructuring plans.
NM	Customer choice is	• Restructuring legislation was enacted on 4/8/99.

	Retail Access Start Date	Legislation and Commission Activity on Retail Access
	to begin on 1/1/02 and be completed by 7/1/02.	• The commission has approved restructuring agreements, but final restructuring rules are yet to be completed.
NY	Retail access to be phased-in company-by-company between 5/1/99 and 7/1/01.	• Several restructuring bills have been introduced, but none have been passed while the legislature allows the commission to restructure the market administratively. • The commission has reached settlements with utilities for access to be phased in beginning 1998.
NC	No date has been determined.	• Restructuring legislation has been introduced, but not enacted. A legislative committee is studying restructuring issues, especially stranded costs. • The commission has placed the issue on hold pending enabling legislation.
ND	No date has been determined.	• Restructuring legislation has not been enacted. • The commission has conducted informal discussions on restructuring issues.
OH	Retail access begins 1/1/01.	• Restructuring legislation was enacted in 7/99. • The commission has approved comprehensive transition plans for the state's utilities.
OK	Customer choice is set to begin 7/1/02.	• Enacted legislation requires full access to be complete by 7/1/02. • Due to California events, debate is centered around delaying the competition date.
PA	Complete access began 1/2/00.	• Restructuring legislation was enacted in 1996. • The commission approved individual restructuring plans for each utility and has supervised what may be the most successful restructuring program to date.
RI	Full retail access began in 1/98.	• Enacted legislation required access will be phased-in by 7/1/98. • The commission approved utility-specific restructuring plans and set default service rates.
SC	No date has been determined.	• Restructuring legislation has been introduced, but not enacted. • The commission has determined a restructuring implementation process without recommending that restructuring actually take place.
SD	No date has been	• No legislation has been introduced.

	Retail Access Start Date	Legislation and Commission Activity on Retail Access
	determined.	• The commission has informally been reviewing activities from other states, but has taken no action.
TN	No date has been determined.	• No legislation has been introduced. • The Commission has provided reports on restructuring to the legislature.
TX	Competition is to be phased-in beginning 1/1/02.	• Restructuring legislation was enacted in 6/99. • The commission has issued comprehensive rules governing restructuring and approved company-specific restructuring plans.
VT	No date has been determined.	• Several restructuring bills have been introduced without being enacted. • The commission has managed several proceedings dealing with restructuring issues.
VA	Retail access is to be phased-in between 1/1/02 and 1/1/04.	• Legislation enacted in 1998 and 1999 requires retail competition to be phased-in by 1/1/04 • The commission has conducted various rulemaking proceedings related to restructuring and approved restructuring plans for the state's utilities.
WV	Open access to begin by 4/01.	• The commission developed a collaborative restructuring plan that the legislature enacted in 3/00.
WI	No date has been determined.	• The legislature and commission have focused on reliability and power supply issues in place of restructuring.
FED	No date has been determined.	• Several pieces of major restructuring legislation have been introduced without being enacted.

Hydro relicensing efforts

Hydro Relicensing is actively licensing 13 projects throughout our service territory representing 993 megawatts. We are in various stages of relicensing the different projects in our portfolio. Licensing is initiated five years in advance of license expiration, however, actual practice is that the process generally takes longer. Projects are issued annual licenses with existing terms and conditions until FERC issues a new license. Licensing involves numerous and potentially conflicting state and federal laws/regulations and many stakeholders. New licenses generally contain terms and conditions that involve significant capital expenditures and result in lost generation as a result of higher in-stream flows for aquatic habitat.

Condit - We reached a settlement to remove the Condit project in 2006 pending FERC approval, receipt of an amended license and acquisition of all necessary permits.

Klamath - We are in the initial stage of relicensing Klamath and the license expires in March 2006.

Lewis River - We are engaged in a process that will result in license applications or settlement which is anticipated in the 2004/2005 timeframe.

North Umpqua - We are continuing the negotiations at the North Umpqua project.

Bear River - License applications have been submitted for all the Bear River projects.

Bigfork - An application was filed with FERC in August 2000.

American Fork - An application has been filed with FERC and a settlement of issues is under negotiation.

Powerdale - Project relicensing is ongoing and an Environmental Assessment is anticipated from FERC in 2001.

Prospect - Project relicensing is ongoing and scheduled to be completed by license expiration in 2005

The remainder of this report covers the essential elements of IRP. Chapter 2 reviews regulatory requirements for IRP. Chapter 3 provides a full discussion of the sensitivities performed for RAMPP-6. Chapter 4 identifies the updated inputs for the new RAMPP-6 reference case. Chapter 5 consists of the new RAMPP-6 action plan. The last chapter discusses the company's performance on the RAMPP-5 action plan.

Another document, the Input and Results Appendix, provides detailed information about model inputs and results.

Chapter 2: Regulatory Requirements

This chapter reviews the Integrated Resource Planning (IRP) guidelines as established by state regulatory commissions. It also lists the requirements for RAMPP-6 from the RAMPP-5 acknowledgment reviews by the Oregon, Washington, Idaho, and Utah Commissions and the company's response to each requirement. The final section reviews the public advisory process the company used in developing the study plan, inputs, and analyses for this report.

IRP Regulatory Requirements

This report, along with the Technical Appendix, complies with regulatory commission requirements for integrated resource planning in Idaho, Montana, Oregon, Utah, and Washington. Guidelines established in those states require the company to:

- Examine a range of forecasts for electricity demand and incorporate other uncertainties in the analysis,

- Consider all feasible alternatives for balancing resource supply with electricity demand,

- Assess supply and demand alternatives in a consistent manner,

- Assess possible impacts on external costs in evaluating resource alternatives,

- Consider the goal of IRP to be least cost to the utility and its customers consistent with the long-run public interest,

- Describe a credible long-range plan for balancing supply and demand and related uncertainties, and a short-range set of actions consistent with that long-range plan, and

- Prepare the plan with substantial public involvement.

The RAMPP process at PacifiCorp involves several functions. They include integrated resource planning, demand-side policy and planning, fuel supply, generation engineering and planning, transmission engineering and planning, distribution engineering and planning, load forecasting, financial planning, regulation, government affairs, retail marketing and sales, and wholesale marketing and sales. These groups confer with other groups in the company when they need additional information and when developing or updating information to ensure coordination among all groups who rely on the same or similar information.

Requirements for RAMPP-6 From RAMPP-5 Acknowledgment Reviews

This discussion describes the specific recommendations from each commission, and the company's response to each recommendation. Four of the states in which PacifiCorp has service territory have issued orders or letters either acknowledging or not acknowledging RAMPP-5: Oregon, Idaho, Washington, and Utah. Following are issues raised and the company's response to each:

Acknowledgment - Utah

The Utah Public Service Commission issued their acknowledgment order for RAMPP-5 on April 21, 1999. In the order the Commission concluded that RAMPP-5 did not meet the criteria for acknowledgement and ordered that deficiencies be rectified in RAMPP-6.

> Utah Requirement: Inputs used in the IRP modeling should be consistent with Commission orders and rate filings unless the RAMPP Advisory Group agrees with a particular change.
>
> Response: The Company has endeavored to assure that all inputs are consistent with Commission orders and rate filings. In particular the IRP model assumes the same plant lives for existing resources as were approved in the recent depreciation study.
>
> Utah Requirement: Consistency between the IRP Action Plan and the Company's Strategic Business Plan.
>
> Response: The Company filed a proposal in November of 2000 to disaggregate into a generation company, a service company and local distribution companies. Under the disaggregation proposal, load growth will be managed through contractual arrangements between the distribution company, the generation company and potentially other third parties. RAMPP 6 does not attempt to incorporate the impacts of this stated business plan in its analysis due to timing issues. The action plan of RAMPP 6 is relevant in the instance that the disaggregation does not occur.

Utah Requirement: A quantitative risk analysis must be performed in RAMPP-6 if that IRP is to qualify for Commission acknowledgement.

Response: The Company hosted several discussions on risk analysis during the public process. A variety of techniques were discussed. The Company has chosen to use a weighted average scenario to address this issue. This approach is developed by weighting the likelihood of many possible scenarios, thereby generating a composite scenario which demonstrates a potential course of action. Chapter 3 contains a detailed description of the process. In Chapter 5 the Company discusses how the information derived from this risk analysis is used to develop the action plan.

Utah Requirement: Load forecasts: The Commission order contends that the Company has underestimated loads and challenges the assumption that the Company will lose 10 percent of its load to competition over the next five years. The order directs the Company to perform a new load forecast for its next IRP which will not include speculative assumptions about the impact of potential competition.

Response: For the purposes of RAMPP-6 the Company has assumed no load loss in the reference case. Load loss has been incorporated through sensitivities and in the weighted-average risk analysis.

Utah Requirement: Load forecasts: The order states that new load forecasts should start with current loads and justify any growth estimates that are inconsistent with recent growth rates.

Response: PacifiCorp has based the RAMPP-6 load forecasts on modeling assumptions using the best current information. The forecast for Utah is lower than what has been experienced in recent years due to a number of factors discussed below. The report also contains a sensitivity run that assumes a higher load growth than the reference case.

Utah has enjoyed a strong economy in recent years due to many factors. The overall health of the US economy provided much of the stimulus. A diversification of Utah's industry base has been another contributing factor. Also, there has been a building boom during this time that includes construction spending for the 2002 Winter Olympics. Finally, Utah has enjoyed an ample supply of skilled labor to help attract new businesses. Much of which has been provided by an immigration of workers from other states with higher unemployment (mostly California). All of these factors have contributed to Utah's economic growth and subsequently a significant annual rate of energy load growth during the same period of time.

A healthy US economy and US demand for Utah goods helps sustain Utah employment in that past. However, the US annual GDP growth rate is expected to slow from its current rate of 4.2% growth. It is reasonable to expect US demand for Utah products to slow as well. As Utah's economy cools we expect labor growth to slow and contribute to slowing the rate of energy load growth as well.

The end of the 2002 Olympics is also expected to play a role in slower energy load growth in Utah. Preparation for the Olympics has contributed to Utah's load growth between 1996 and 2000. Based on the effects of other Olympic games on local economies and energy load growth we expect a significant drop in commercial energy load in service sector businesses such as restaurants and hotels after the games. Also, several construction projects around Salt Lake City will be completed for the Olympics. As construction winds down, growth in the need for construction labor and supporting businesses will subside. Both of these will also diminish energy needs.

Also, several states including California now have healthier economies than before and labor is more likely to remain in those states rather than move to Utah to find work. It appears labor migration to Utah has contributed to its strong economy and therefore energy load growth. A slowdown of labor immigration into Utah slows the need for energy because the growth of demand for services such as housing, food, schools, hospitals etc. are less. As the growth for these services subsides we expect the rate of energy growth to slow.

Utah Requirement: Wholesale Sale Considerations: The order expects that the Company and the parties will recommend a method which accounts for potential ratepayer benefits of wholesale sales while mitigating the risk associated with such commitments.

Response: RAMPP-5 assumed wholesale purchases to be equal to wholesale sales, thus isolating the wholesale activities from the retail activities. It is important to control the modeling of wholesale activities such that the model does not build new resources simple to supply wholesale activity. In RAMPP-6 we have modified the RAMPP-5 assumption. In RAMPP-6 wholesale sales have been met by company resources until the reserve margin is reduced to 10%. At that point, wholesale purchases are assumed to meet additional wholesale sales.

This eliminates the potential for the model to choose to build new resources simply to meet wholesale sales. Note that the actual operation of the system is optimized based on the availability of company owned resources, the prices for short term wholesale power and the load requirements including long term wholesale sales. This adjustment does not and is not intended to reflect the actual operation of the system. This adjustment prevents the optimization model from choosing to build new generating resources to serve wholesale sales. In this manner new generation development is restricted to serving retail loads.

Acknowledgment - Oregon
The Oregon Public Utility Commission issued its RAMPP-5 acknowledgment in Order No. 99-279 on April 16, 1999. The order included no additional requirements for RAMPP-6.

Acknowledgment - Washington
The Washington Utilities and Transportation Commission issued its RAMPP-5 acknowledgement by letter dated December 22, 1998. The letter contained no additional requirements for RAMPP-6.

Acknowledgment - Idaho
The Idaho Public Utilities Commission issued its acknowledgement of RAMPP-5 by letter dated February 20, 1998. The letter contained no additional requirements for RAMPP-6.

Evolution of IRP

The electric industry is facing a period of unprecedented change. For a multi-jurisdictional utility like PacifiCorp the change is further complicated The company faces differing restructuring impacts in each of its jurisdictions. This leads to significant uncertainty regarding regulated requirements in the future. The possibilities range from retention of service territories with increased wholesale competition to a model in which all customers must choose a generation supplier. Utilities could remain vertically integrated or disaggregate and form generation companies, transmission companies, distribution companies, or combinations of those three structures. PacifiCorp has recently filed a plan to disaggregate into local distribution companies, a service company and a generation company.

PacifiCorp believes that integrated resource planning is difficult, at best, under these circumstances. At worst, it can be misleading. As the electric utility industry evolves to a more competitive marketplace the assumptions of traditional IRP rules increasingly do not fit the new environment. The Company recommends that discussions continue on an ongoing basis between interested parties to determine the elements of the integrated resource planning process that still have value and which should be discarded.[1]

PacifiCorp introduced an Update Report into the IRP cycle at the end of 1996 (the RAMPP-4 Update - 1997 IRP Report) and an interim report in this RAMPP. The purpose of these reports was to respond to the rapidly changing nature of the industry. IRP, as traditionally conducted at PacifiCorp, resulted in a report that is generally out-of-date by the time the company files it every two years. This occurs because of the sequence of activities in each cycle: update inputs, develop base case, preparation and analysis of sensitivities, draft report, comments, and then the final report. Thus, the time period between updating the inputs and issuing the final report was at least 18 months. By that time, costs had changed, markets had changed, and even the company's situation could have changed.[2] Given today's market realities and the need to make quick decisions, an out-of-date report is not very useful to the company.

PacifiCorp recommends that less focus be placed on the biennial report generation and more focus placed on interim updates and scenario modeling. Accompanying this report is a set of scenarios requested by the RAMPP advisory group to determine the impacts on the resource selections if certain assumptions changed, such as higher gas prices. PacifiCorp believes there is significant value in this type of analysis. One option to the current IRP process would be periodic, perhaps quarterly, IRP advisory group meetings. Prior to and at these meetings the advisory group members could submit scenarios that they would like to see modeled and reported at the meeting. The Company feels that this approach would provide more real time information and would have a higher value both to the interested parties and the company.

Public Advisory Process

The public advisory process mainly occurs through meetings of the RAMPP Advisory Group (RAG). The group includes representatives from public agencies and private organizations. The group identifies issues, suggests changes or additions to input assumptions, and submits comments on the draft report.

PacifiCorp began using a public advisory group during the development of RAMPP-1 (in 1988 and 1989). The company re-convened that group for RAMPP-2 (in 1990, 1991 and 1992), for RAMPP-3 (in 1992, 1993 and 1994), for RAMPP-4 (in 1994 and 1995), for the RAMPP-4 Update (in 1995 and 1996), for RAMPP-5 in 1997 and for RAMPP-6 in 1998-2000. Oregon and Washington

[1] See RAMPP-5 for a more complete discussion of the current issues facing integrated resource planning.

[2] Both the merger with ScottishPower and the passage of Senate Bill 1149 which restructured the industry in Oregon occurred during the development of RAMPP-6.

public agencies and customer groups began sending representatives during RAMPP-1. Utah public agencies and customer groups began sending representatives to the group during RAMPP-2. Idaho and Wyoming agencies began sending representatives during RAMPP-3.

The company held nine public advisory group meetings as it developed the input assumptions, sensitivities and held discussions on IRP related topics.

October 2, 1998
- RAMPP 5 Acknowledgements
- Risk Analysis
- Defining components and timing of RAMPP 6

February 19, 1999
- Incorporating wholesale activity into RAMPP
- Revisions to the load forecasting model

May 7, 1999
- Update of current resources, sales and purchases
- Impact on resource requirements of depreciation lives assumption
- Impact of a potential sale of the Centralia plant

July 9, 1999
- Northwest regional load and resource balance – Guest speaker: Wally Gibson, NWPPC
- Conservation
- Load forecast update
- Role of IRP in a deregulated future

September 10, 1999
- Transmission system changes and upgrades
- Distribution system changes and upgrades
- Load forecast update
- Wind Power update
- 2000 Action Plan

November 22, 1999
- Final load forecast
- Fuel price forecast scenarios/ranges
- Market price forecast scenarios/ranges
- Plant lives for modeling purposes
- Clean Air Act enforcement
- Scenario planning
- 2000 Action Plan for DSM

March 17, 2000
- Current generation resource options
- Current capital costs
- Initial modeling runs
- Scenario planning

July 28, 2000
- Impact of Oregon SB 1149
- Discussion of Modeling Results
    - Review of Weighted Average 'Weights'
    - Risk Analysis

March 9, 2001
- Review of draft report

Participants in the RAMPP-5 Advisory Group included public agency staff, private groups, and customer representatives. The following is a list of the groups and individuals represented:

Applied Economics Group
Community Energy Project (representing residential customers)
Idaho Public Utilities Commission
Industrial Customers of Northwest Utilities
Northwest Energy Coalition
Oregon Department of Energy
Oregon Public Utility Commission
Portland General Electric
Utah Committee of Consumer Services
Utah Office of Energy and Resource Planning
Utah Division of Public Utilities
Utah Public Service Commission
Washington Department of Community Trade
and Economic Development
Washington Utilities and Transportation Commission
Washington Water Power
Wyoming Public Service Commission

Chapter 3: Results

Introduction

RAMPP is an evolving process. Since the IRP process began at PacifiCorp 10 years ago, the Company has produced five full reports and two updates. Much has been learned in this process and the RAMPP-6 report builds on the work already done in earlier studies. Given this body of knowledge the RAMPP-6 report was designed to focus on the current level of uncertainty and in the process verify that lessons learned in earlier RAMPPs are still valid today.

One major aspect of the RAMPP-6 process is the decision to eliminate analysis that is particularly time consuming but has little use in the decision making process. Paramount among these processes is DSM analysis and the financial analysis that is "bolted on" after the analysis work is completed. Both processes are exceedingly time consuming and can be replaced by simpler analysis. In the case of the DSM analysis, we have elected in RAMPP-6 to escalate the prices from RAMPP-5 rather than recreate DSM programs. The Company made this decision partially because of the high quality of the RAMPP-5 DSM analysis.

The second area that the Company has reconfigured is the "bolt on" financial model used in RAMPP-3 to RAMPP-5. The Total System Production Cost (TSPC) model will replace this model. The TSPC model was originally developed for an avoided cost filing in Idaho and has more recently been used to analyze industrial contracts and hydro plant relicensing proposals.

The output from a typical IPM run consists primarily of the variable costs resulting from the simulated operation of the system. In previous financial models, the variable cost output was combined with fixed costs to determine total Company cost that roughly tied to forecast total Company costs. In the TSPC model, the fixed costs are not added and only the variable costs are studied. Since the TSPC are intended to be compared between runs, adding the fixed costs of the Company to two runs and then subtracting the difference would not alter the analysis. The TSPC model has the further advantage that results come directly from the IPM model and all financial calculations are in an Excel spreadsheet.

All TSPC analysis is at Total Resource Cost or TRC. Typically the analysis can be done using two methods, TRC and utility cost. Utility cost is the cost that the utility pays, TRC is the cost that society as a whole pays. For potential and existing resources, utility cost and TRC are the same. For DSM however, utility cost and TRC are different. To comply with Commission rules, all DSM analysis uses TRC rather than utility costs.

Case List

In developing RAMPP-6 the Company completed 104 computer runs:

Number	Case Type	Case Numbers	Example of Case Name
2	Reference Cases	Cases 1 - 2	base.case
48	"Shotgun" Gas Cases	Cases 11 - 58	fuel.190H.26
30	Load Loss Cases	Cases 71 - 100	loads.sys.6
12	Environmental Adders	Cases 101 - 112	enviro.25
12	Special Interest Cases	Cases 121 - 132	firm.ind

Cases can be referenced by either their Case Name or by their Case Number. Note that not all Case Numbers are used.

Reference Cases

The two Reference Cases are "Reference Case" and "Weighted Average Reference Case." Their Case Names are "base.case" and "wtd.case".

"Shotgun" Gas Cases

The forty-eight "Shotgun" Gas Cases are discussed in greater detail later in this chapter. Each gas case is referenced by three assumptions:

(1) the starting gas price in cents per MMBtu namely 130, 160, 190, 220, 250 and 280;
(2) the assumed natural gas and wholesale market price escalation rate either H (high) or L (low);
(3) by an assumed starting wholesale purchase price in mills per kWh namely 22, 26, 30 or 34.

"Shotgun" Gas Cases will typically start with the word "fuel" to denote that it is a gas case. Thus a gas price case will have a Case Name "fuel.'gas price'+'escalation rate'.'wholesale market price' ". For example Case 31 can be reference by "fuel.190H.26". Meaning that the starting natural gas price is 190 cents per MMBtu, that it has a high natural gas and wholesale market price escalation rate and that the wholesale market price is 26 mills per kWh. In some exhibits where we are only discussing the gas cases, the Case Name might be shortened to 'gas price'+'escalation rate'.'wholesale market price' in order to save space.

The term "Shotgun" Gas Cases comes from the forecast method used. Six starting gas prices with two different escalation rates produces a graph with gas price forecast lines that starts narrow and spreads out over time.

Load Loss Cases

The thirty load loss cases deal with possible loss of retail load. The thirty cases are actually made up of three groups of 10 runs. We believe that load loss is likely in two states, Oregon as a result of the Oregon Senate Bill 1149 (SB1149) and in Utah as a result of deregulation discussions currently underway in the state. [3] The combination of both Oregon and Utah load loss is what we call system load loss.

In each case, the Company attempted to determine the least and most load that is likely to leave due to deregulation. This creates a range of possible load loss from minimum loss to maximum loss. We broke this range into ten equal estimates, granulating from minimum to maximum and we numbered them 1 to 10.

With this introduction, the thirty load loss cases can be referenced by two assumptions. First, the state where the loss will occur namely, 'ut' (Utah), 'or' (Oregon) or 'sys' (system). Second, the degree of load loss measured from 1 the minimum to 10 the maximum.

The load loss cases have the prefix "load" to designate them as load loss cases. Thus the worst case scenario is Case 80 with a Case Name "loads.sys.10". In this case, retail load will decline by 50% in Oregon and by 40% in Utah plus the loss of the four largest industrial customers in Utah.

Environmental Adders Cases

The Environmental Adders Cases are an Oregon regulatory requirement as required by Commission order UM 424.

As in RAMPP-5 the Company will be presenting 12 environmental adders cases. The level of environmental adders range from $1 to $40 per ton of CO2, from $100 to $4,000 per ton of TSP and from $125 to $5,000 per ton of NOx. The Company uses a gradual phase in approach for environmental adders. For each dollar of CO2 tax, there is an additional $100 per ton of TSP and $125 per ton of NOx. The Company's gradual phase in approach results in all environmental taxes increasing from a minimum case of $1, $100, and $125 to a maximum case of $40, $4,000 and $5,000.

The environmental adder case has the prefix "enviro" to designate it as an environmental adder case. Environmental Adder Case Names are " 'enviro.'multiplier' " where multiplier is from 1 to 10 plus 25 and 40. Since the

[3] It should be noted that subsequent to this analysis it has been determined that legislative action in Utah is unlikely in the near future. Further, the loss associated with Oregon's restructuring plan is uncertain.

multiplier and the dollars per ton of CO2 are the same. these two terms are used interchangeably.

Environmental or emissions adders have been studied in great detail in previous RAMPPs and the lessons learned are still valid in RAMPP-6. The Company believes that an actual Carbon Tax is unlikely. A more likely resolution of current concerns about global climate issues is the use of both offsets and on system changes to reduce emissions. A trading system, similar to that adopted for sulfur dioxide emissions, is favored as a mechanism for lowering overall compliance costs for any future greenhouse gas requirements. The Company's experience suggests that there is a significant amount of offsets for CO2 available for about $2.00 per ton. [4]

Special Interest Cases

As in previous RAMPP studies, the Company is requested by the Regulatory Advisory Group (RAG) to prepare runs that have special interest to the group. Some studies are included by the Company to study or verify results to questions raised during the development of RAMPP.

Twelve Special Interest Cases were developed. These runs related to:

Carrying cost of potential power plants
Gas-fired capital cost sensitivity
Escalation rated needed to make renewable cost effective
Utah load growth, industrial load loss and load modeling
Critical Water Hydro modeling

Each Special Interest Cases has a unique Case Name and can be referenced by that Case Name.

Refer to Table 3-1 for a complete listing of the 104 Case Names used in RAMPP-6. The case and group weighting will be discussed later in this chapter.

[4] Although a significant amount of offsets are available at this time, it is likely that if all other utilities are acquiring offsets that the price of offsets would increase significantly. As in all commodities there is an upward sloping supply curve for carbon offsets.

Table 3-1
Case List

Case No.	Case Name	Description		Weighting Case	Weighting Group
1	Base.Case	R-6 Reference	Equal to Case 190H.26		
2	wtd.case	R-6 Weighted Average Case	45% Gas, 45% Load Loss, 10% Enviro, 0% Misc		
11	fuel.130L.22	Gas Price 130 c/MMBTU with -1.0% Real Esc	Wholesale Price 22 Mills/kWh with -0.6% Real Esc	1.80	45.0
12	fuel.160L.22	Gas Price 160 c/MMBTU with -1.2% Real Esc	Wholesale Price 22 Mills/kWh with -0.7% Real Esc	1.80	
13	fuel.190L.22	Gas Price 190 c/MMBTU with -1.4% Real Esc	Wholesale Price 22 Mills/kWh with -0.8% Real Esc	1.80	
14	fuel.220L.22	Gas Price 220 c/MMBTU with -1.6% Real Esc	Wholesale Price 22 Mills/kWh with -1.0% Real Esc		
15	fuel.250L.22	Gas Price 250 c/MMBTU with -1.8% Real Esc	Wholesale Price 22 Mills/kWh with -1.1% Real Esc		
16	fuel.280L.22	Gas Price 280 c/MMBTU with -2.0% Real Esc	Wholesale Price 22 Mills/kWh with -1.2% Real Esc		
17	fuel.130H.22	Gas Price 130 c/MMBTU with +1.0% Real Esc	Wholesale Price 22 Mills/kWh with +0.6% Real Esc	1.80	
18	fuel.160H.22	Gas Price 160 c/MMBTU with +0.8% Real Esc	Wholesale Price 22 Mills/kWh with +0.5% Real Esc	1.80	
19	fuel.190H.22	Gas Price 190 c/MMBTU with +0.6% Real Esc	Wholesale Price 22 Mills/kWh with +0.4% Real Esc	1.80	
20	fuel.220H.22	Gas Price 220 c/MMBTU with +0.4% Real Esc	Wholesale Price 22 Mills/kWh with +0.2% Real Esc		
21	fuel.250H.22	Gas Price 250 c/MMBTU with +0.2% Real Esc	Wholesale Price 22 Mills/kWh with +0.1% Real Esc		
22	fuel.280H.22	Gas Price 280 c/MMBTU with +0.0% Real Esc	Wholesale Price 22 Mills/kWh with +0.0% Real Esc		
23	fuel.130L.26	Gas Price 130 c/MMBTU with -1.0% Real Esc	Wholesale Price 26 Mills/kWh with -0.6% Real Esc		
24	fuel.160L.26	Gas Price 160 c/MMBTU with -1.2% Real Esc	Wholesale Price 26 Mills/kWh with -0.7% Real Esc	1.80	
25	fuel.190L.26	Gas Price 190 c/MMBTU with -1.4% Real Esc	Wholesale Price 26 Mills/kWh with -0.8% Real Esc	1.80	
26	fuel.220L.26	Gas Price 220 c/MMBTU with -1.6% Real Esc	Wholesale Price 26 Mills/kWh with -1.0% Real Esc	1.80	
27	fuel.250L.26	Gas Price 250 c/MMBTU with -1.8% Real Esc	Wholesale Price 26 Mills/kWh with -1.1% Real Esc	1.80	
28	fuel.280L.26	Gas Price 280 c/MMBTU with -2.0% Real Esc	Wholesale Price 26 Mills/kWh with -1.2% Real Esc		
29	fuel.130H.26	Gas Price 130 c/MMBTU with +1.0% Real Esc	Wholesale Price 26 Mills/kWh with +0.6% Real Esc		
30	fuel.160H.26	Gas Price 160 c/MMBTU with +0.8% Real Esc	Wholesale Price 26 Mills/kWh with +0.5% Real Esc	1.80	
31	fuel.190H.26	Gas Price 190 c/MMBTU with +0.6% Real Esc	Wholesale Price 26 Mills/kWh with +0.4% Real Esc	1.80	
32	fuel.220H.26	Gas Price 220 c/MMBTU with +0.4% Real Esc	Wholesale Price 26 Mills/kWh with +0.2% Real Esc	1.80	
33	fuel.250H.26	Gas Price 250 c/MMBTU with +0.2% Real Esc	Wholesale Price 26 Mills/kWh with +0.1% Real Esc	1.80	
34	fuel.280H.26	Gas Price 280 c/MMBTU with +0.0% Real Esc	Wholesale Price 26 Mills/kWh with +0.0% Real Esc		
35	fuel.130L.30	Gas Price 130 c/MMBTU with -1.0% Real Esc	Wholesale Price 30 Mills/kWh with -0.6% Real Esc		
36	fuel.160L.30	Gas Price 160 c/MMBTU with -1.2% Real Esc	Wholesale Price 30 Mills/kWh with -0.7% Real Esc		
37	fuel.190L.30	Gas Price 190 c/MMBTU with -1.4% Real Esc	Wholesale Price 30 Mills/kWh with -0.8% Real Esc	1.80	
38	fuel.220L.30	Gas Price 220 c/MMBTU with -1.6% Real Esc	Wholesale Price 30 Mills/kWh with -1.0% Real Esc	1.80	
39	fuel.250L.30	Gas Price 250 c/MMBTU with -1.8% Real Esc	Wholesale Price 30 Mills/kWh with -1.1% Real Esc	1.80	
40	fuel.280L.30	Gas Price 280 c/MMBTU with -2.0% Real Esc	Wholesale Price 30 Mills/kWh with -1.2% Real Esc	1.80	
41	fuel.130H.30	Gas Price 130 c/MMBTU with +1.0% Real Esc	Wholesale Price 30 Mills/kWh with +0.6% Real Esc		
42	fuel.160H.30	Gas Price 160 c/MMBTU with +0.8% Real Esc	Wholesale Price 30 Mills/kWh with +0.5% Real Esc		
43	fuel.190H.30	Gas Price 190 c/MMBTU with +0.6% Real Esc	Wholesale Price 30 Mills/kWh with +0.4% Real Esc		
44	fuel.220H.30	Gas Price 220 c/MMBTU with +0.4% Real Esc	Wholesale Price 30 Mills/kWh with +0.2% Real Esc	1.80	
45	fuel.250H.30	Gas Price 250 c/MMBtu with +0.2% Real Esc	Wholesale Price 30 Mills/kWh with +0.1% Real Esc	1.80	
46	fuel.280H.30	Gas Price 280 c/MMBTU with +0.0% Real Esc	Wholesale Price 30 Mills/kWh with +0.0% Real Esc	1.80	
47	fuel.130L.34	Gas Price 130 c/MMBTU with -1.0% Real Esc	Wholesale Price 34 Mills/kWh with -0.6% Real Esc		
48	fuel.160L.34	Gas Price 160 c/MMBTU with -1.2% Real Esc	Wholesale Price 34 Mills/kWh with -0.7% Real Esc		
49	fuel.190L.34	Gas Price 190 c/MMBTU with -1.4% Real Esc	Wholesale Price 34 Mills/kWh with -0.8% Real Esc		
50	fuel.220L.34	Gas Price 220 c/MMBTU with -1.6% Real Esc	Wholesale Price 34 Mills/kWh with -1.0% Real Esc		
51	fuel.250L.34	Gas Price 250 c/MMBTU with -1.8% Real Esc	Wholesale Price 34 Mills/kWh with -1.1% Real Esc	1.80	
52	fuel.280L.34	Gas Price 280 c/MMBTU with -2.0% Real Esc	Wholesale Price 34 Mills/kWh with -1.2% Real Esc	1.80	
53	fuel.130H.34	Gas Price 130 c/MMBTU with +1.0% Real Esc	Wholesale Price 34 Mills/kWh with +0.6% Real Esc		
54	fuel.160H.34	Gas Price 160 c/MMBTU with +0.8% Real Esc	Wholesale Price 34 Mills/kWh with +0.5% Real Esc		
55	fuel.190H.34	Gas Price 190 c/MMBTU with +0.6% Real Esc	Wholesale Price 34 Mills/kWh with +0.4% Real Esc		
56	fuel.220H.34	Gas Price 220 c/MMBTU with +0.4% Real Esc	Wholesale Price 34 Mills/kWh with +0.2% Real Esc		
57	fuel.250H.34	Gas Price 250 c/MMBTU with +0.2% Real Esc	Wholesale Price 34 Mills/kWh with +0.1% Real Esc	1.80	
58	fuel.280H.34	Gas Price 280 c/MMBTU with +0.0% Real Esc	Wholesale Price 34 Mills/kWh with +0.0% Real Esc	1.80	

Table 3-1 (Continued)
Case List

Case No.	Case Name	Description		Weighting Case	Weighting Group
71	loads.sys.1	System Load Loss - Utah 'Big 4'	1%/Year, 4% Ttl Utah, 32% Oregon Loss in 2002	3.00	30.0
72	loads.sys.2	System Load Loss - Utah 'Big 4'	2%/Year, 8% Ttl Utah, 34% Oregon Loss in 2002	3.00	
73	loads.sys.3	System Load Loss - Utah 'Big 4'	3%/Year, 12% Ttl Utah, 36% Oregon Loss in 2002	3.00	
74	loads.sys.4	System Load Loss - Utah 'Big 4'	4%/Year, 16% Ttl Utah, 38% Oregon Loss in 2002	3.00	
75	loads.sys.5	System Load Loss - Utah 'Big 4'	5%/Year, 20% Ttl Utah, 40% Oregon Loss in 2002	3.00	
76	loads.sys.6	System Load Loss - Utah 'Big 4'	6%/Year, 24% Ttl Utah, 42% Oregon Loss in 2002	3.00	
77	loads.sys.7	System Load Loss - Utah 'Big 4'	7%/Year, 28% Ttl Utah, 44% Oregon Loss in 2002	3.00	
78	loads.sys.8	System Load Loss - Utah 'Big 4'	8%/Year, 32% Ttl Utah, 46% Oregon Loss in 2002	3.00	
79	loads.sys.9	System Load Loss - Utah 'Big 4'	9%/Year, 36% Ttl Utah, 48% Oregon Loss in 2002	3.00	
80	loads.sys.10	System Load Loss - Utah 'Big 4'	10%/Year, 40% Ttl Utah, 50% Oregon Loss in 2002	3.00	
81	loads.or.1	Oregon SB1149 Load Loss	32% Load Loss in 2002	1.00	10.0
82	loads.or.2	Oregon SB1149 Load Loss	34% Load Loss in 2002	1.00	
83	loads.or.3	Oregon SB1149 Load Loss	36% Load Loss in 2002	1.00	
84	loads.or.4	Oregon SB1149 Load Loss	38% Load Loss in 2002	1.00	
85	loads.or.5	Oregon SB1149 Load Loss	40% Load Loss in 2002	1.00	
86	loads.or.6	Oregon SB1149 Load Loss	42% Load Loss in 2002	1.00	
87	loads.or.7	Oregon SB1149 Load Loss	44% Load Loss in 2002	1.00	
88	loads.or.8	Oregon SB1149 Load Loss	46% Load Loss in 2002	1.00	
89	loads.or.9	Oregon SB1149 Load Loss	48% Load Loss in 2002	1.00	
90	loads.or.10	Oregon SB1149 Load Loss	50% Load Loss in 2002	1.00	
91	loads.ut.1	Utah Load Loss - Utah 'Big 4'	1% Load loss per year, Total Loss of 4%	0.50	5.0
92	loads.ut.2	Utah Load Loss - Utah 'Big 4'	2% Load loss per year, Total Loss of 8%	0.50	
93	loads.ut.3	Utah Load Loss - Utah 'Big 4'	3% Load loss per year, Total Loss of 12%	0.50	
94	loads.ut.4	Utah Load Loss - Utah 'Big 4'	4% Load loss per year, Total Loss of 16%	0.50	
95	loads.ut.5	Utah Load Loss - Utah 'Big 4'	5% Load loss per year, Total Loss of 20%	0.50	
96	loads.ut.6	Utah Load Loss - Utah 'Big 4'	6% Load loss per year, Total Loss of 24%	0.50	
97	loads.ut.7	Utah Load Loss - Utah 'Big 4'	7% Load loss per year, Total Loss of 28%	0.50	
98	loads.ut.8	Utah Load Loss - Utah 'Big 4'	8% Load loss per year, Total Loss of 32%	0.50	
99	loads.ut.9	Utah Load Loss - Utah 'Big 4'	9% Load loss per year, Total Loss of 36%	0.50	
100	loads.ut.10	Utah Load Loss - Utah 'Big 4'	10% Load loss per year, Total Loss of 40%	0.50	
101	enviro.1	Environmental Adder Case	CO2 at $1, TSP at $100, NOx at $125/Ton	5.00	10.0
102	enviro.2	Environmental Adder Case	CO2 at $2, TSP at $200, NOx at $250/Ton	2.50	
103	enviro.3	Environmental Adder Case	CO2 at $3, TSP at $300, NOx at $375/Ton	1.25	
104	enviro.4	Environmental Adder Case	CO2 at $4, TSP at $400, NOx at $500/Ton	0.63	
105	enviro.5	Environmental Adder Case	CO2 at $5, TSP at $500, NOx at $625/Ton	0.31	
106	enviro.6	Environmental Adder Case	CO2 at $6, TSP at $600, NOx at $750/Ton	0.16	
107	enviro.7	Environmental Adder Case	CO2 at $7, TSP at $700, NOx at $875/Ton	0.08	
108	enviro.8	Environmental Adder Case	CO2 at $8, TSP at $800, NOx at $1000/Ton	0.04	
109	enviro.9	Environmental Adder Case	CO2 at $9, TSP at $900, NOx at $1125/Ton	0.02	
110	enviro.10	Environmental Adder Case	CO2 at $10, TSP at $1000, NOx at $1250/Ton	0.01	
111	enviro.25	Environmental Adder Case	CO2 at $25, TSP at $2500, NOx at $3125/Ton	0.00	
112	enviro.40	Environmental Adder Case	CO2 at $40, TSP at $4000, NOx at $5000/Ton	0.00	
121	capcost.down	Capital Cost Sensitivity	20% Decrease in Real Levelized Carrying Charge	-	-
122	capcost.up	Capital Cost Sensitivity	20% Increase in Real Levelized Carrying Charge	-	
123	gas.low	Gas-fired Resource Sensitivity	High Gas Resource Capital Cost	-	
124	gas.high	Gas-fired Resource Sensitivity	Low Gas Resource Capital Cost	-	
125	trans.zero	No Transmission Cost	for Gas-fired Resources	-	
126	renew.geotherm	Renewable Cost Sensitivity	Escalation rate needed to bring on by 2010	-	
127	renew.solar	Renewable Cost Sensitivity	Escalation rate needed to bring Solar on by 2010	-	
128	renew.wind	Renewable Cost Sensitivity	Escalation rate needed to bring Wind on by 2010	-	
129	Utah.grow	Utah grows 50% faster to 2010	then 25% faster to 2020	-	
130	loads.big4	Loss of Utah 'Big 4' Interruptible Customers	at end of Current Contracts	-	
131	firm.ind	Large Customers Modeled as	Firm Retail Customers	-	
132	critical.wtr	Hydro Resources Modeled	at Critical Water Levels	-	
			Total Weight	100	100

Reference Case (Case 1)

One of the lessons learned from earlier RAMPPs is that there needs to be a single case that is selected as a reference case. In earlier studies the "Base Case" was the Company's best guess about what the future would look like. In this RAMPP, the Company has not made a formal gas and wholesale market price forecast but has developed a "Shotgun" of possible forecasts. Thus the Company does not have a "Base Case" per say. Since we determined a reference case was needed, the Company selected a gas and wholesale market price forecast that was in the middle of the "Shotgun" of possible forecasts. Case 31 or fuel.190H.26 was selected as the Reference Case. The reference case has the Case Name base.case.

The base.case assumes gas prices start at 190 cents/ MMBtu, that there is high gas and wholesale market price escalation and that the wholesale market price starts at 26 mills/kWh. The gas price escalates at .6% real or 3.4% nominal per year. Wholesale market prices start at 26 mills/kWh and escalate at .36% real or 3.16% nominal per year.

Table 3-2 shows the Incremental Summer Capacity of Resource Additions. As in RAMPP-4 and RAMPP-5, gas-fired resources are the least cost alternative for new resources. Cogeneration and combined cycle combustion turbine (CCCT) have very similar total system costs and are selected first. In the Or/Wa transmission bubble, cogeneration is selected first and CCCTs are selected second. In the Utah transmission bubble CCCTs are built until cogeneration resources become economical. Resources are selected in the Or/Wa bubble first because the bubble is resource deficit and because gas-fired resources can be sited at a lower altitude, which allows for higher gas resource efficiency.

In the year 2020 potential coal-fired resources become economical and are selected. In RAMPP-6 we have added increased modeling detail related to technological change as expressed in dollars per kW. Coal's capital cost is assumed to decline 3.8% per year in real terms (52% by 2020) while gas-fired capital cost decreases only 2.3% year (35% by 2020). The difference in the rate of technological improvements narrows the cost differences between the two technologies by the year 2020. This cost decline is particularly important for the high capital cost, low variable cost coal plants.

In the year 2020 of the study, the model selects a transmission line from the Wyoming transmission bubble to the Utah bubble. To be more accurate, the model selects 472 MW of coal-fired resources and then builds a 247 MW transmission line to move the energy to the Utah transmission bubble. This type of transaction occurs when the cost difference between two bubbles covers the incremental capital cost to build the line and also to cover losses along the line.

Also in the year 2020 the model selects a small amount of wind resource. This is the first time that a renewable resource has been cost effective.

Having looked at the resources that were selected, we will now look at the resources that were not selected. As in previous RAMPP reports, geothermal resources are not cost effective and therefor are not selected. Short-term capacity purchases are selected rather than simple cycle combustion turbines. This is true even though the assumed cost of the short-term capacity purchase has increased substantially in this report and the assumed price escalation rate is substantial. Pumped storage was not economical so it was not selected. Integrated gas combined cycle (IGCC) units were only selected in high gas price cases. These units convert coal to gas and burn the gas in a combined cycle CT.

Table 3-2
Reference Case (Case 1) Assuming Gas Prices Start at 190 Cents/MMBtu
Wholesale Prices Start at 26 Mills/kWh and With High Escalation Rates

Incremental Summer Capacity (MW) of Resource Additions

		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
	Short-term Cap Purch	40.2	1.3	171.0	-	-	-	-	-	-	286.9	-	427.8
	DSM Programs	6.8	6.7	7.2	7.2	7.1	7.3	7.3	7.2	7.1	7.2	26.6	42.9
	Or/Wa Wind	-	-	-	-	-	-	-	-	-	-	-	72.0
O	Or/Wa Geothermal	-	-	-	-	-	-	-	-	-	-	-	-
R	Or/Wa Cogen 1	-	-	-	94.0	94.0	14.1	-	-	-	-	-	-
/	Or/Wa Cogen 2	-	-	-	382.9	171.6	37.0	206.3	51.9	-	-	456.9	-
W	Or/Wa Combined Cycle	-	-	-	-	-	-	-	-	207.8	-	101.1	266.6
A	Or/Wa Bridger Transm	-	-	-	-	-	-	-	-	-	-	-	-
	All Others	-	-	-	-	-	-	-	-	-	-	-	-
	Total	**6.8**	**6.7**	**7.2**	**484.1**	**272.7**	**58.4**	**213.6**	**59.1**	**214.9**	**7.2**	**584.6**	**381.5**
G	DSM Programs	0.6	0.6	0.7	0.6	0.7	0.6	0.7	0.7	0.6	0.7	2.4	3.2
O	Goshen Cogen 1	-	-	-	-	-	-	-	-	-	-	28.2	-
S	Goshen Cogen 2	-	-	-	-	-	-	-	-	-	-	-	-
H	Goshen Combined C CT	-	-	-	-	-	-	-	-	-	-	-	-
E	Goshen Bridger Trans	-	-	-	-	-	-	-	-	-	-	-	-
N	Goshen Hunter Transm	-	-	-	-	-	-	-	-	-	-	-	-
	Total	**0.6**	**0.6**	**0.7**	**0.6**	**0.7**	**0.6**	**0.7**	**0.7**	**0.6**	**0.7**	**30.6**	**3.2**
	DSM Programs	13.9	13.4	12.5	13.1	13.2	12.6	13.2	12.7	12.4	12.9	47.3	75.2
	Utah Cogen 1	-	-	-	14.1	-	-	-	-	-	-	-	-
	Utah Cogen 2	-	-	-	-	-	-	-	-	-	-	1,208.4	464.8
U	Utah Combined Cycle	-	-	-	48.3	68.3	12.7	12.9	185.8	-	-	568.0	294.3
T	Utah IGCC Hunter 4	-	-	-	-	-	-	-	-	-	-	-	-
A	Utah PC Hunter 4	-	-	-	-	-	-	-	-	-	-	-	400.0
H	Utah Coal $23.25/Ton	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Wyo/Ut Tran L	-	-	-	-	18.8	-	-	-	-	-	-	246.5
	All Others	-	-	-	-	-	-	-	-	-	-	-	-
	Total	**13.9**	**13.4**	**12.5**	**75.5**	**100.3**	**25.3**	**26.1**	**198.5**	**12.4**	**12.9**	**1,823.7**	**1,480.8**
W	DSM Programs	2.3	2.3	2.4	2.4	2.4	2.4	2.5	2.5	2.5	2.5	9.3	15.7
Y	Wyo Wind	-	-	-	-	-	-	-	-	-	-	-	54.0
O	Wyo Combined Cycle	-	-	-	-	-	-	-	-	-	-	-	-
M	Wyo PC Wyodak 2	-	-	-	-	-	-	-	-	-	-	-	325.0
I	Wyo Coal $6.70/Ton	-	-	-	-	-	-	-	-	-	-	-	146.6
N	All Others	-	-	-	-	-	-	-	-	-	-	-	-
G	**Total**	**2.3**	**2.3**	**2.4**	**2.4**	**2.4**	**2.4**	**2.5**	**2.5**	**2.5**	**2.5**	**9.3**	**541.3**
T	DSM Programs	23.6	23.0	22.8	23.3	23.4	22.9	23.7	23.1	22.6	23.3	85.6	137.0
O	Short-term Cap Purch	40.2	1.3	171.0	-	-	-	-	-	-	286.9	-	427.8
T	Cogeneration	-	-	-	491.0	265.6	51.1	206.3	51.9	-	-	1,693.5	464.8
A	Combined Cycle CT	-	-	-	48.3	68.3	12.7	12.9	185.8	207.8	-	669.1	560.9
L	Coal	-	-	-	-	-	-	-	-	-	-	-	871.6
	Transmission Lines	-	-	-	-	18.8	-	-	-	-	-	-	372.5
	Total	**63.8**	**24.3**	**193.8**	**562.6**	**376.1**	**86.7**	**242.9**	**260.8**	**230.4**	**310.2**	**2,448.2**	**2,834.6**

Annual Summer Peak Capacity (MW)

		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
S	Native Load	7,987	8,030	8,203	8,435	8,608	8,767	8,937	9,052	9,267	9,399	10,535	12,042
Y	Long Term Sales	2,377	2,239	2,120	1,890	1,647	1,647	1,327	1,324	1,324	1,249	1,149	1,104
S	DSM Programs	(24)	(47)	(69)	(93)	(116)	(139)	(163)	(186)	(208)	(232)	(317)	(454)
T	**Total Requirements**	**10,340**	**10,222**	**10,254**	**10,232**	**10,139**	**10,275**	**10,101**	**10,190**	**10,383**	**10,416**	**11,367**	**12,692**
E													
M	Existing Generation	9,179	9,185	9,007	8,836	8,821	8,700	8,704	8,473	8,477	8,302	7,372	6,176
	Long Term Purchases	1,351	1,345	1,226	1,076	1,076	1,076	676	676	626	626	558	536
L	Short-term Market	806	714	875	814	571	571	651	648	698	623	591	568
&	Short-term Cap Purch	40	1	171	-	-	-	-	-	-	287	-	428
R	New Resources	1	1	1	540	893	957	1,176	1,414	1,621	1,621	3,988	6,258
	Total Resources	**11,377**	**11,246**	**11,280**	**11,266**	**11,361**	**11,304**	**11,207**	**11,211**	**11,422**	**11,459**	**12,509**	**13,966**
	Reserves	1,037	1,023	1,026	1,033	1,221	1,028	1,105	1,020	1,039	1,043	1,142	1,274
	Reserve Margin (%)	10.0	10.0	10.0	10.1	12.0	10.0	10.9	10.0	10.0	10.0	10.0	10.0

The model preferred gas-fired over coal-fired and pulverized coal over the IGCC technology.

Note the "Reserve Margin (%)" on the last line of Table 3-2. The reserve margin is greater than 10% in the years 2004, 2005 and 2007. Reserve margins greater than 10% typically occur when it is economical to overbuild new resource in order to make profitable short-term wholesale sales. With gas prices at 190 cent/MMBtu, gas-fired resource can be built for about 24 mills/kWh (Or/Wa Cogen 2). The assumed average annual wholesale market price is 26 mills/kWh. Under these conditions, the model selected new resource in the early years in order to make profitable wholesale sales. In later years, gas price escalation makes overbuilding less attractive.

Table 3-3 shows the Cumulative Annual Energy in aMW.

Weighted Average Reference Case (Case 2)

The wtd.case was developed to assist in the analysis of risk potential. During the early phases of RAMPP-6 development, each case was given an equal weight with the assumption that each case was equally likely to occur. At a later stage of RAMPP-6 development, each case was reviewed to determine if the case seemed reasonable and the likelihood that that future would occur.[5]

Weighting - Weighting Groups

In determining the weight that should be applied to each case, we did a two step process. First we broke the 103 cases into groups, specifically the "Shotgun" gas, load loss, environmental adder and special interest groups. Each group was assigned a group weighting which represents our concern about that group's impact upon the Company. Second we studied the likelihood that a given case would occur and assigned that case a portion of the group weight.

The "Shotgun" Gas group was weighted equally with the load loss group. The "Shotgun" Gas Cases will help determine the type of new resources that should be built. The load loss group will help determine when the regulated portion of the Company should build or contract for that new resource.

[5] On September 15, 2000 the Company sent a draft weighted average case to the RAMPP advisory group via e-mail requesting proposals for alternative weightings. No alternative suggestions were received and the draft case was used in this report.

Table 3-3
Reference Case Assuming Gas Prices Start at 190 Cents/MMBtu
Wholesale Prices Start at 26 Mills/kWh and with High Escalation Rates

Cumulative Annual Energy (aMW)

		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
	DSM Programs	5.2	10.4	15.9	21.5	27.1	32.8	38.5	44.1	49.7	55.4	76.3	110.0
	Or/Wa Wind	-	-	-	-	-	-	-	-	-	-	-	80.5
O	Or/Wa Geothermal	-	-	-	-	-	-	-	-	-	-	-	-
R	Or/Wa Cogen 1	-	-	-	93.1	186.2	200.1	200.1	200.1	200.1	200.1	200.1	200.1
/	Or/Wa Cogen 2	-	-	-	179.0	548.8	585.5	789.7	841.1	841.1	841.1	1,293.3	1,293.3
W	Or/Wa Combined Cycle	-	-	-	-	-	-	-	-	202.7	205.7	284.0	520.2
A	Or/Wa Bridger Transm	-	-	-	-	-	-	-	-	-	-	-	-
	All Others	-	-	-	-	-	-	-	-	-	-	-	-
	Total	**5.2**	**10.4**	**15.9**	**493.6**	**762.2**	**818.5**	**1,028.4**	**1,085.4**	**1,293.6**	**1,302.3**	**1,853.7**	**2,204.2**
G	DSM Programs	0.5	0.9	1.4	1.9	2.4	2.9	3.4	3.9	4.4	4.9	6.7	9.4
O	Goshen Cogen 1	-	-	-	-	-	-	-	-	-	-	27.9	27.9
S	Goshen Cogen 2	-	-	-	-	-	-	-	-	-	-	-	-
H	Goshen Combined C CT	-	-	-	-	-	-	-	-	-	-	-	-
E	Goshen Bridger Trans	-	-	-	-	-	-	-	-	-	-	-	-
N	Goshen Hunter Transm	-	-	-	-	-	-	-	-	-	-	-	-
	Total	**0.5**	**0.9**	**1.4**	**1.9**	**2.4**	**2.9**	**3.4**	**3.9**	**4.4**	**4.9**	**34.6**	**37.3**
	DSM Programs	9.1	17.7	25.8	34.3	42.9	51.0	59.5	67.8	75.8	84.2	115.3	165.5
	Utah Cogen 1	-	-	-	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0
U	Utah Cogen 2	-	-	-	-	-	-	-	-	-	-	1,179.0	1,639.9
T	Utah Combined Cycle	-	-	-	46.9	113.2	125.5	138.0	315.2	308.8	318.3	725.9	957.6
A	Utah IGCC Hunter 4	-	-	-	-	-	-	-	-	-	-	-	-
H	Utah PC Hunter 4	-	-	-	-	-	-	-	-	-	-	-	366.6
	Utah Coal $23.25/Ton	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Wyo/Ut Tran L	-	-	-	-	16.8	17.8	17.8	17.8	17.8	17.8	17.8	252.2
	All Others	-	-	-	-	-	-	-	-	-	-	-	-
	Total	**9.1**	**17.7**	**25.8**	**95.1**	**186.8**	**208.2**	**229.3**	**414.7**	**416.4**	**434.3**	**2,052.1**	**3,395.8**
W	DSM Programs	1.8	3.6	5.5	7.3	9.3	11.2	13.1	15.1	17.1	19.1	26.7	39.5
Y	Wyo Wind	-	-	-	-	-	-	-	-	-	-	-	60.4
O	Wyo Combined Cycle	-	-	-	-	-	-	-	-	-	-	-	-
M	Wyo PC Wyodak 2	-	-	-	-	-	-	-	-	-	-	-	297.8
I	Wyo Coal $6.70/Ton	-	-	-	-	-	-	-	-	-	-	-	134.4
N	All Others	-	-	-	-	-	-	-	-	-	-	-	-
G	**Total**	**1.8**	**3.6**	**5.5**	**7.3**	**9.3**	**11.2**	**13.1**	**15.1**	**17.1**	**19.1**	**26.7**	**532.2**
	DSM Programs	16.5	32.6	48.6	65.1	81.6	97.8	114.5	130.9	147.0	163.7	225.0	324.5
	Short-term Cap Purch	-	-	-	-	-	-	-	-	-	-	-	6.4
T	Cogeneration	-	-	-	486.0	749.0	799.6	1,003.8	1,055.2	1,055.2	1,055.2	2,714.4	3,175.3
O	Combined Cycle CT	-	-	-	46.9	113.2	125.5	138.0	315.2	511.5	523.9	1,009.9	1,477.8
T	Coal	-	-	-	-	-	-	-	-	-	-	-	798.8
A	Transmission	-	-	-	-	16.8	17.8	17.8	17.8	17.8	17.8	17.8	252.2
L	Simple Cycle	-	-	-	-	-	-	-	-	-	-	-	-
	Wind	-	-	-	-	-	-	-	-	-	-	-	140.9
	Total	**16.5**	**32.6**	**48.6**	**598.0**	**960.6**	**1,040.8**	**1,274.2**	**1,519.1**	**1,731.5**	**1,760.6**	**3,967.1**	**6,175.8**
		-	-	-	-	-	-	-	-	-	-	-	-
S	Native Load	5,677	5,745	5,882	6,002	6,123	6,248	6,393	6,540	6,691	6,814	7,622	8,697
Y	Pump Storage/Peak Retu	277	277	225	223	223	223	223	223	223	223	223	223
S	Long Term Sales	1,550	1,418	1,350	1,240	1,054	1,006	853	850	811	794	692	668
T	Short-term Sales	1,503	1,481	1,378	1,822	1,977	1,912	1,983	1,998	2,034	1,873	2,313	2,322
E	DSM Programs	(17)	(33)	(49)	(65)	(82)	(98)	(115)	(131)	(147)	(164)	(225)	(325)
M	**Total Requirements**	**8,991**	**8,888**	**8,786**	**9,222**	**9,295**	**9,292**	**9,337**	**9,481**	**9,612**	**9,540**	**10,626**	**11,586**
		-	-	-	-	-	-	-	-	-	-	-	-
	Existing Generation	7,380	7,375	7,330	7,372	7,283	7,247	7,255	7,145	7,146	7,053	6,190	5,071
L	Long Term Purchases	700	710	750	737	737	737	528	338	338	335	243	242
&	Short-term Market	806	708	600	503	317	269	325	512	472	459	449	426
R	Short-term Purchases	105	95	106	77	80	96	70	97	72	96	1	2
	New Resources	-	-	-	533	879	943	1,160	1,388	1,585	1,597	3,742	5,845
	Total Resources	**8,991**	**8,888**	**8,786**	**9,222**	**9,295**	**9,292**	**9,337**	**9,481**	**9,612**	**9,540**	**10,626**	**11,586**

The environmental adder group will determine the incremental cost of meeting new environmental regulation. The Company feels that there is a fairly high likelihood that some type of environmental regulation will be implemented. The only question is the size of the environmental regulation and when it will be implemented. We therefore assumed a moderate group weighting.

We prepared twelve special interest cases to study the impact of various events or to search for break points. For example, we studied the rate of price decline necessary to make solar a price competitive resource by the year 2010 (Case 127). Since these sensitivities are not intended to model likely events, we have excluded them from the wtd.case.

The Company assigned the following weights to each group.

"Shotgun" Gas Cases	45%
Load Loss	45%
Environmental Adder	10%
Special Interest	0%

These weights are included in the last column of Table 3-1.

Weighting - Likelihood within Groups

The second step in assigning weights to the wtd.case was to determine within each group the likelihood that a given case would occur.

Background - "Shotgun" Gas Cases

As we demonstrated in RAMPP-5, natural gas and wholesale market prices must be selected carefully to produce reasonable and sustainable results. When we selected the very wide fuel and wholesale ranges, we knew that many of the scenarios would not be sustainable in the long run and would need to be removed.

Unsustainable results will occur when:

(1) Gas prices are high and wholesale market prices are low. The model will select short-term market purchases and will not build resources. Assuming other utilities face a similar environment, utilities will attempt to purchase resources and will not be willing to build resources. Competition for wholesale energy will push wholesale market prices higher. Therefore, the high gas/ low wholesale market price assumption is not sustainable in the long run.

(2) Gas prices are low and wholesale market prices are high. The model will build gas-fired resources and sell the excess energy on the wholesale market. Assuming other utilities also face this environment, then everyone will want to sell and no one will want to buy forcing the high wholesale market prices down. Likewise, additional demand on gas supplies will force gas prices up. Therefore, the low gas/ high wholesale market price assumption is not sustainable in the long run.

Analysis - "Shotgun" Gas Cases
One of the tabs in the appendix covers the "Selection of Weights for Wtd Average Reference Case". This tab shows the decision process for removing non-sustainable gas/price combinations.

In making the decision, we sorted the gas scenarios by average net wholesale sales. Low average net sales are characteristic of the high gas/ low wholesale market price assumption and high average net sales are characteristic of the low gas/ high wholesale market price assumption. We looked for natural break points in the scenarios and removed those cases with unreasonably high or unreasonably low new wholesale sales.

As a check for the reasonableness of the scenario removal, we took reserve margin and subtracted 10% to produce a measure of resources built to make wholesale sales. A second criteria was developed with a rough estimate of the gas/price mismatch. This double check verified that scenarios with high excess reserve margin or with a gas/price mismatch should be removed.

Of the 48 cases that we developed, eight were removed for having high gas prices with low wholesale market prices. Fifteen cases were removed for having low gas prices with high wholesale market prices. This left 25 cases that are sustainable in the long term. Each of the remaining 25 cases was given an equal weight (1.80%) since all are sustainable in the long term and all are equally likely to occur.

An argument might be made that the higher starting gas prices and wholesale market prices are more likely in the long term. This is possible but a lesson learned in RAMPP-3 is high long term wholesale market prices are capped by construction of pulverized coal or more likely integrated gasification combined cycle (IGCC) resources. Pulverized coal resources can be built at as little as 29 mills/kWh with large quantities being available at 31 mills/kWh. IGCC resources can be built at about 33 mills/kWh.

Load Loss Studies

The state of Oregon has passed Senate Bill 1149 which mandates deregulation of portions of Oregon's load. In Utah there has been growing pressure to deregulate large customers. Given these realities, we determined that it is likely that both the Oregon and Utah load loss event will occur. Since the Oregon load loss is mandated by law, we felt that the likelihood of an Oregon only load loss was greater than the likelihood of a Utah only load loss. Within each group, we felt that each case is equally likely to occur and should have an equal weight.

The Company assigned the following weights:

Load Loss Type	Group Weight	Individual Weight
System Load Loss	30%	3.0%
Oregon only	10%	1.0%
Utah only	5%	0.5%

Table 3-4 is the Incremental Summer Capacity of Resource Additions of the wtd.case.

Table 3-5 is the Cumulative Annual Energy of the wtd.case.

Environmental Adder Cases

During recent years the Company has seen growing concern about global climate issues. A draft UN scientific report presented at the recent International Climate Change Conference (COP 6) concluded that human activities are causing global warming. COP 6 seemed more concerned with how do we handle global climate change rather than the more preliminary question of does global climate change actually exist.

In the US, the more likely resolution of current concerns about global climate issues are the use of both offsets and on-system process changes to reduce emissions rather than a tax denominated in dollars per ton. However, we will group those additional operating costs and continue to refer to them as a carbon adder. We use the per-ton denominator to indicate the size of environmental costs that would be imposed on the Company.

We felt that a carbon adder of $1 per ton is more likely than one at $40 per ton. We felt that the likelihood of a carbon adder declines rapidly as the size of the adder increased. As a rough estimate, we assumed that the likelihood of a $2 carbon adder was one half the likelihood of a $1 per ton level. Given that carbon offsets are available at about $2 per ton, we felt comfortable with assuming that 75% of the environmental adder likelihood should be contained in the $1 or $2 per ton cases. 94% of the likelihood of a carbon adder should be contained in the cases that are represented by $4 per ton or less.

Table 3-4
Weighted Average Reference Case (Case 2)
Weighting 45% Gas, 45% Load Loss, 10% Enviro, 0% Misc

Incremental Summer Capacity (MW) of Resource Additions

		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
	Short-term Cap Purch	27.3	1.1	94.5	-	-	-	-	-	7.8	157.7	8.8	294.4
	DSM Programs	6.3	6.2	6.7	6.7	6.6	6.8	6.8	6.7	6.7	6.7	24.9	40.4
	Or/Wa Wind	-	-	0.0	-	-	-	-	-	-	-	6.7	53.6
O	Or/Wa Geothermal	-	-	-	-	-	-	-	-	-	-	-	0.0
R	Or/Wa Cogen 1	-	-	-	60.9	66.5	17.5	10.9	6.8	0.0	-	39.3	-
/	Or/Wa Cogen 2	-	-	-	213.6	61.5	50.2	113.9	49.0	41.1	0.2	443.5	143.3
W	Or/Wa Combined Cycle	-	-	-	30.3	0.0	-	2.1	6.9	64.9	4.3	50.5	185.4
A	Or/Wa Bridger Transm	-	-	-	-	-	-	-	-	-	-	-	28.1
	All Others	-	-	-	-	-	-	-	-	-	-	-	-
	Total	**6.3**	**6.2**	**6.7**	**311.5**	**134.7**	**74.5**	**133.7**	**69.5**	**112.6**	**11.2**	**565.0**	**450.8**
G	DSM Programs	0.6	0.6	0.6	0.6	0.6	0.6	0.7	0.6	0.7	0.7	2.3	3.2
O	Goshen Cogen 1	-	-	-	5.1	0.4	-	-	-	-	-	22.7	-
S	Goshen Cogen 2	-	-	-	0.0	-	-	-	-	-	-	-	-
H	Goshen Combined C CT	-	-	-	-	-	-	-	-	-	-	-	-
E	Goshen Bridger Trans	-	-	-	-	-	-	-	-	-	-	-	-
N	Goshen Hunter Transm	-	-	-	-	-	-	-	-	-	-	-	-
	Total	**0.6**	**0.6**	**0.6**	**5.8**	**1.0**	**0.6**	**0.7**	**0.6**	**0.7**	**0.7**	**25.0**	**3.2**
	DSM Programs	13.6	13.0	12.3	12.9	13.1	12.4	13.1	12.7	12.4	12.9	47.2	75.1
	Utah Cogen 1	-	-	-	9.2	0.1	-	0.4	0.6	-	-	3.9	-
	Utah Cogen 2	-	-	-	0.0	0.0	0.0	0.0	0.0	-	-	1,016.7	631.7
U	Utah Combined Cycle	-	-	-	43.4	16.7	10.7	9.6	123.1	1.4	-	367.3	491.5
T	Utah IGCC Hunter 4	-	-	-	-	-	-	-	-	-	-	3.5	5.9
A	Utah PC Hunter 4	-	-	-	-	-	3.9	-	-	-	-	46.5	81.9
H	Utah Coal $23.25/Ton	-	-	-	-	-	-	-	-	-	-	-	19.4
	Utah Wyo/Ut Tran L	-	-	-	-	19.6	-	-	-	-	-	17.8	166.8
	All Others	-	-	-	-	-	-	-	-	-	-	-	-
	Total	**13.6**	**13.0**	**12.3**	**65.5**	**49.5**	**27.0**	**23.2**	**136.3**	**13.8**	**12.9**	**1,502.8**	**1,472.3**
W	DSM Programs	2.2	2.2	2.4	2.4	2.4	2.4	2.4	2.5	2.5	2.5	9.1	15.5
Y	Wyo Wind	-	-	0.0	-	-	-	-	-	-	-	4.9	38.2
O	Wyo Combined Cycle	-	-	-	0.0	0.0	-	-	-	-	-	0.0	0.0
M	Wyo PC Wyodak 2	-	-	-	-	-	-	-	-	-	-	29.2	199.5
I	Wyo Coal $6.70/Ton	-	-	-	-	-	-	-	-	-	-	6.9	107.8
N	All Others	-	-	-	-	-	-	-	-	-	-	-	-
G	**Total**	**2.2**	**2.2**	**2.4**	**2.4**	**2.4**	**2.4**	**2.4**	**2.5**	**2.5**	**2.5**	**50.3**	**360.9**
T	DSM Programs	22.7	22.1	21.9	22.6	22.7	22.2	23.0	22.5	22.2	22.8	83.5	134.2
O	Short-term Cap Purch	27.3	1.1	94.5	-	-	-	-	-	7.8	157.7	8.8	294.4
T	Cogeneration	-	-	-	288.9	128.5	67.7	125.2	56.5	41.1	0.2	1,526.1	774.9
A	Combined Cycle CT	-	-	-	73.7	16.7	10.7	11.7	130.0	66.3	4.3	417.9	676.9
L	Coal	-	-	-	-	-	3.9	-	-	-	-	86.2	414.5
	Transmission Lines	-	-	0.0	-	19.6	-	-	-	-	-	29.4	286.7
	Total	**50.0**	**23.2**	**116.4**	**385.2**	**187.6**	**104.6**	**159.9**	**209.0**	**137.3**	**184.9**	**2,152.0**	**2,581.6**
	Annual Summer Peak Capacity (MW)												
S	Native Load	7,917.7	7,502.1	7,592.8	7,738.5	7,897.6	8,044.2	8,201.4	8,307.6	8,505.8	8,626.7	9,665.7	11,051.3
Y	Long Term Sales	2,377.0	2,166.9	2,047.9	1,817.9	1,574.9	1,574.9	1,254.9	1,251.9	1,251.9	1,176.9	1,076.9	1,031.9
S	DSM Programs	(22.8)	(44.8)	(66.6)	(89.0)	(111.9)	(134.0)	(157.2)	(179.7)	(201.8)	(224.8)	(308.1)	(442.4)
T	**Total Requirements**	**10,271.9**	**9,624.2**	**9,574.1**	**9,467.4**	**9,360.5**	**9,485.1**	**9,299.1**	**9,379.8**	**9,555.9**	**9,578.8**	**10,434.5**	**11,640.8**
E													
M	Existing Generation	9,179.0	9,185.0	9,007.0	8,836.0	8,820.0	8,699.1	8,703.1	8,472.1	8,476.1	8,301.1	7,353.1	6,209.3
	Long Term Purchases	1,350.7	1,344.6	1,225.8	1,076.0	1,076.0	1,076.0	676.0	676.0	626.0	626.0	558.3	536.4
L	Short-term Market	805.7	713.6	875.4	814.0	571.0	571.0	651.0	648.0	698.0	623.0	590.7	567.9
&	Short-term Cap Purch	27.3	1.1	94.5	-	-	-	-	-	7.8	157.7	8.8	294.4
R	New Resources	1.0	1.0	1.0	363.6	528.4	610.8	747.7	934.2	1,041.6	1,046.0	3,109.5	5,262.5
	Total Resources	**11,363.6**	**11,245.3**	**11,203.8**	**11,089.6**	**10,995.5**	**10,956.9**	**10,777.8**	**10,730.3**	**10,849.5**	**10,753.8**	**11,620.4**	**12,870.5**
	Reserves	1,092.4	1,621.4	1,629.5	1,621.8	1,634.6	1,471.6	1,478.4	1,350.1	1,293.2	1,174.4	1,185.6	1,229.5
	Reserve Margin (%)	10.6	17.6	17.9	18.2	18.5	16.4	16.8	15.2	14.2	12.8	11.6	10.7

Table 3-5
Weighted Average Reference Case (Case 2)
Weighting 45% Gas, 45% Load Loss, 10% Enviro, 0% Misc

Cumulative Annual Energy (aMW)

		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
	DSM Programs	4.8	9.5	14.5	19.6	24.7	29.8	35.0	40.1	45.2	50.4	69.5	100.8
	Or/Wa Wind	-	-	11.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.5	67.5
O	Or/Wa Geothermal	-	-	-	-	-	-	-	-	-	-	-	0.0
R	Or/Wa Cogen 1	-	-	-	60.3	126.2	143.6	154.4	161.2	161.2	161.2	200.1	200.1
/	Or/Wa Cogen 2	-	-	-	211.1	271.4	320.8	434.0	482.3	522.4	523.6	961.3	1,096.4
W	Or/Wa Combined Cycle	-	-	-	29.9	29.6	30.0	32.0	38.6	101.9	107.1	146.8	324.8
A	Or/Wa Bridger Transm	-	-	-	-	-	-	-	-	-	-	-	26.0
	All Others	-	-	-	-	-	-	-	-	-	-	-	-
	Total	**4.8**	**9.5**	**14.5**	**320.9**	**451.9**	**524.2**	**655.4**	**722.2**	**830.7**	**842.3**	**1,385.2**	**1,815.5**
G	DSM Programs	0.4	0.9	1.4	1.8	2.3	2.8	3.3	3.8	4.3	4.8	6.5	9.2
O	Goshen Cogen 1	-	-	-	5.0	5.4	5.4	5.4	5.4	5.4	5.4	27.9	27.9
S	Goshen Cogen 2	-	-	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
H	Goshen Combined C CT	-	-	-	-	-	-	-	-	-	-	-	-
E	Goshen Bridger Trans	-	-	-	-	-	-	-	-	-	-	-	-
N	Goshen Hunter Transm	-	-	-	-	-	-	-	-	-	-	-	-
	Total	**0.4**	**0.9**	**1.4**	**6.8**	**7.7**	**8.3**	**8.7**	**9.2**	**9.7**	**10.2**	**34.5**	**37.1**
	DSM Programs	8.8	17.3	25.2	33.6	42.1	50.1	58.6	66.9	74.9	83.4	114.5	164.8
	Utah Cogen 1	-	-	-	9.0	9.1	9.1	9.5	10.1	10.1	10.1	14.0	14.0
U	Utah Cogen 2	-	-	-	0.0	0.1	0.1	0.1	0.1	0.1	0.1	976.7	1,599.3
T	Utah Combined Cycle	-	-	-	40.8	56.4	66.8	75.9	189.6	189.6	195.8	488.2	899.6
A	Utah IGCC Hunter 4	-	-	-	-	-	-	-	-	-	-	3.2	1.6
H	Utah PC Hunter 4	-	-	-	-	-	3.5	3.5	3.5	3.5	3.5	46.2	121.2
	Utah Coal $23.21/Ton	-	-	-	-	-	-	-	-	-	-	-	17.8
	Utah Wyo/Ut Tran L	-	-	-	-	17.6	18.6	18.6	18.6	18.6	18.6	35.6	193.9
	All Others	-	-	-	-	-	-	-	-	-	-	-	-
	Total	**8.8**	**17.3**	**25.3**	**83.4**	**125.3**	**148.3**	**166.4**	**288.9**	**296.9**	**311.6**	**1,678.2**	**3,019.1**
W	DSM Programs	1.7	3.5	5.3	7.2	9.1	11.0	12.9	14.8	16.8	18.8	26.2	38.8
Y	Wyo Wind	-	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.5	48.2
O	Wyo Combined Cycle	-	-	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
M	Wyo PC Wyodak 2	-	-	-	-	-	-	-	-	-	-	26.8	209.6
I	Wyo Coal $6.70/Ton	-	-	-	-	-	-	-	-	-	-	6.3	105.1
N	All Others	-	-	-	-	-	-	-	-	-	-	-	-
G	**Total**	**1.7**	**3.5**	**5.3**	**7.2**	**9.1**	**11.0**	**12.9**	**14.9**	**16.8**	**18.8**	**64.9**	**401.9**
	DSM Programs	15.8	31.2	46.4	62.2	78.1	93.7	109.8	125.6	141.2	157.3	216.8	313.6
	Short-term Cap Purch	0.0	-	0.0	-	-	-	-	-	-	-	0.0	4.2
T	Cogeneration	-	-	-	285.5	412.2	479.0	603.4	659.1	699.2	700.5	2,180.0	2,937.6
O	Combined Cycle CT	-	-	-	70.7	86.1	96.8	108.0	228.3	291.5	302.9	635.0	1,224.4
T	Coal	-	-	-	-	-	3.5	3.5	3.5	3.5	3.5	12.5	462.3
A	Transmission	-	-	-	-	17.6	18.6	18.6	18.6	18.6	18.6	35.6	219.9
L	Simple Cycle	-	-	-	-	-	-	-	-	-	-	-	-
	Wind	-	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.0	115.7
	Total	**15.8**	**31.2**	**46.4**	**418.4**	**594.0**	**691.8**	**843.4**	**1,035.2**	**1,154.2**	**1,182.9**	**3,162.9**	**5,277.7**
		-	-	-	-	-	-	-	-	-	-	-	-
S	Native Load	5,633.2	5,337.1	5,419.3	5,484.4	5,594.3	5,709.2	5,841.0	5,975.8	6,114.0	6,228.5	6,971.4	7,951.5
Y	Pump Storage/Peak Retu	276.9	269.8	223.9	222.2	222.3	219.5	222.0	222.8	223.0	223.1	223.2	223.2
S	Long Term Sales	1,542.6	1,334.3	1,257.6	1,147.0	961.2	913.9	760.1	757.5	718.0	701.8	599.8	575.8
T	Short-term Sales	1,546.1	1,832.2	1,768.6	2,071.7	2,091.7	2,071.6	2,106.4	2,100.5	2,085.2	1,952.6	2,260.2	2,298.1
E	DSM Programs	(15.8)	(31.2)	(46.4)	(62.2)	(78.1)	(93.7)	(109.8)	(125.6)	(141.2)	(157.3)	(216.8)	(313.6)
M	**Total Requirements**	**8,983.0**	**8,742.3**	**8,622.9**	**8,863.1**	**8,791.4**	**8,820.4**	**8,819.7**	**8,930.9**	**8,999.0**	**8,948.6**	**9,837.8**	**10,734.9**
		-	-	-	-	-	-	-	-	-	-	-	-
	Existing Generation	7,376.2	7,266.6	7,211.3	7,217.3	7,160.8	7,149.9	7,174.3	7,094.5	7,105.7	7,029.5	6,166.2	5,094.7
L	Long Term Purchases	700.0	709.5	749.3	736.5	736.5	736.6	527.3	337.9	337.9	335.6	243.1	239.8
&	Short-term Market	805.7	708.2	600.4	502.5	316.7	269.4	325.0	511.8	472.3	459.3	449.2	426.3
R	Short-term Purchases	101.0	58.0	61.9	50.5	61.5	66.5	59.4	77.1	70.2	98.8	33.2	14.2
	New Resources	-	-	0.0	356.3	515.9	598.1	733.6	909.5	1,012.9	1,025.6	2,946.1	4,960.0
	Total Resources	**8,983.0**	**8,742.3**	**8,622.9**	**8,863.1**	**8,791.4**	**8,820.4**	**8,819.7**	**8,930.9**	**8,999.0**	**8,948.6**	**9,837.8**	**10,734.9**

Weighted Average Reference Case - Analysis

Once the weightings were determined, analysis of the wtd.case began. The purpose of the weighted case was to provide some information that might be used in a risk mitigation strategy. The most striking result from the analysis is that is differs only slightly from the reference case. Comparing the incremental summer capacity resources between the reference case and the weighted average case it demonstrates that within the range of sensitivities incorporated in the weighted average case the model chooses comparable amounts of short term capacity purchases in the first three years and gas fired co-generation and combined cycle CTs starting in 2004. Slightly more capacity purchases and slightly higher development of new generation occurs in the reference case. This is due to the consideration of potential load loss in the weighted average case. The company concludes that development of new resources is warranted in the next three to five years.[6]

Additionally, the weighted average case demonstrates the potential risk of over-development. The table below shows that reserve margins in the wtd.case increase to as high as 18.5% as a result of new resource selection and declining regulated load.

Comparison of Summer Reserve Margin

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Wtd.case	10.6	17.6	17.9	18.2	18.5	16.4	16.8	15.2	14.2	12.8
Base.case	10.0	10.0	10.0	10.1	12.0	10.0	10.9	10.0	10.0	10.0
Difference	0.6	7.6	7.9	8.1	6.5	6.4	5.9	5.2	4.2	2.8

These increases in reserve margin may result in higher generation costs for retail customers if deregulation results in the loss of regulated load. The Company believes this risk is minimal due to the slowing pace of deregulation activities within its service territory.

Component Analysis - "Shotgun" Gas Cases

In developing the component analysis of the "Shotgun" Gas Cases the Company removed all other cases from the wtd.case and increased the gas/wholesale group weighting to 100%. Thus each of the 25 remaining possible gas/wholesale cases had a 4% likelihood of occurring.

The wtd.case with 100% gas/wholesale weighting showed results that were remarkably similar to the Reference Case (base.case). Reserve margins in the year 2004 were above the base.case by 1.1% meaning that the model selected resources in order to make profitable short-term wholesale sales. Base.case

[6] Analysis is ongoing to evaluate the potential need to accelerate the development of new resources due to current high market prices and potential shortage of available capacity.

reserve margin was 10.1% and the component wtd.case was 11.2%. The component case continued to have reserve margins above 10% from 2004 till 2009 although the surplus capacity represents only about 100 MW.

Short-term capacity purchase was virtually identical between the base.case and the component case. During the period between 2001 and 2003, construction lead time limits the number of capacity addition options available to the model. Although the model can select solar or wind resources, the model typically prefers the short-term capacity purchase to meet capacity needs. This suggests that the Company should purchase short-term capacity to balance load in the short-term regardless of the gas/wholesale forecast.

The 100% gas/wholesale component case selected a slightly different mix of gas and coal resources in the later years of the study.

Table 3-6 shows an analysis of incremental summer resources selected assuming a 100% gas/wholesale weighting. The comparison is made to the Reference Case (base.case).

Table 3-6
Comparison Between 100% Gas Only Component of Wtd.Case
Vs Reference Case (Base.Case)

Incremental Summer Capacity (MW) of Resource Additions

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
100% Gas / Wholesale Price Component of Wtd.Case												
DSM Programs	23.3	22.6	22.4	22.9	23.1	22.5	23.3	22.7	22.3	23.0	84.3	135.1
Short-term Cap Purch	41.5	2.2	172.2	-	-	-	-	-	17.2	249.8	19.7	503.9
Cogeneration	-	-	-	500.5	179.1	120.5	170.6	73.7	43.5	0.3	1,277.2	858.7
Combined Cycle CT	-	-	-	153.0	18.0	22.2	13.2	212.0	118.2	9.3	813.8	693.4
Coal	-	-	-	-	-	8.6	-	-	-	-	191.6	365.1
All Others	-	-	-	-	20.6	-	-	-	-	-	63.2	193.4
Total	**64.7**	**24.8**	**194.6**	**676.5**	**240.8**	**173.8**	**207.0**	**308.5**	**201.3**	**282.5**	**2,449.7**	**2,749.5**
RAMPP-6 Reference Case (Base.Case)												
DSM Programs	23.6	23.0	22.8	23.3	23.4	22.9	23.7	23.1	22.6	23.3	85.6	137.0
Short-term Cap Purch	40.2	1.3	171.0	-	-	-	-	-	-	286.9	-	427.8
Cogeneration	-	-	-	491.0	265.6	51.1	206.3	51.9	-	-	1,693.5	464.8
Combined Cycle CT	-	-	-	48.3	68.3	12.7	12.9	185.8	207.8	-	669.1	560.9
Coal	-	-	-	-	-	-	-	-	-	-	-	871.6
All Others	-	-	-	-	18.8	-	-	-	-	-	-	372.5
Total	**63.8**	**24.3**	**193.8**	**562.6**	**376.1**	**86.7**	**242.9**	**260.8**	**230.4**	**310.2**	**2,448.2**	**2,834.6**
Difference (Wtd.Case less Base.Case)												
DSM Programs	(0.3)	(0.4)	(0.4)	(0.4)	(0.3)	(0.4)	(0.4)	(0.4)	(0.3)	(0.3)	(1.3)	(1.9)
Short-term Cap Purch	1.3	0.9	1.2	-	-	-	-	-	17.2	(37.1)	19.7	76.1
Cogeneration	-	-	-	9.5	(86.5)	69.4	(35.7)	21.8	43.5	0.3	(416.3)	393.9
Combined Cycle CT	-	-	-	104.7	(50.3)	9.5	0.3	26.2	(89.6)	9.3	144.7	132.5
Coal	-	-	-	-	-	8.6	-	-	-	-	191.6	(506.5)
All Others	-	-	-	-	1.8	-	-	-	-	-	63.2	(179.1)
Total	**0.9**	**0.5**	**0.8**	**113.9**	**(135.3)**	**87.1**	**(35.9)**	**47.7**	**(29.1)**	**(27.7)**	**1.5**	**(85.1)**

Component Analysis - Load Loss

As in the Gas/wholesale component study above, the Company adjusted the load loss group weight to 100% and reduced all other group weights to zero.

Table 3-7 shows Annual Summer Peak Capacity for the 100% load loss component of the wtd.case versus the base.case.

Analysis of the 100% load loss component of the wtd.case shows a small load loss in 2001 related to large industrial customers going to market. In 2002 there is a large movement of regulated load to deregulated load. Loss of regulated load continues to grow because the Company assumed load loss as a percent of total load rather than a fixed one-time loss.

Note that reserve margin resources available to serve regulated load increases to 2,367 MW (27.6%) in 2003 and declines thereafter as the system slowly moves to resource balance.

Table 3-7
Comparison Between 100% Load Loss Component of Wtd.Case
Vs Reference Case (Base.Case)

Annual Summer Peak Capacity (MW)

		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
	100% Load Loss Component of Wtd.Case												
S	Native Load	7,833	6,857	6,847	6,887	7,029	7,161	7,302	7,398	7,575	7,683	8,603	9,840
Y	Long Term Sales	2,377	2,079	1,960	1,730	1,487	1,487	1,167	1,164	1,164	1,089	989	944
S	DSM Programs	(22)	(43)	(64)	(86)	(109)	(130)	(153)	(175)	(197)	(220)	(302)	(434)
T	**Total Requirements**	**10,188**	**8,892**	**8,742**	**8,531**	**8,407**	**8,517**	**8,316**	**8,387**	**8,542**	**8,552**	**9,290**	**10,350**
E													
M	Existing Generation	9,179	9,185	9,007	8,836	8,817	8,696	8,700	8,469	8,473	8,298	7,366	6,176
	Long Term Purchases	1,350	1,344	1,226	1,076	1,076	1,076	676	676	626	626	558	536
L	Short-term Market	806	714	875	814	571	571	651	648	698	623	591	568
&	Short-term Cap Purch	10	-	-	-	-	-	-	-	-	38	-	39
R	New Resources	1	1	1	32	101	123	187	264	302	302	2,013	4,205
	Total Resources	**11,346**	**11,244**	**11,109**	**10,758**	**10,565**	**10,466**	**10,214**	**10,057**	**10,099**	**9,887**	**10,529**	**11,524**
	Reserves	1,159	2,352	2,367	2,227	2,158	1,949	1,898	1,671	1,556	1,334	1,238	1,174
	Reserve Margin (%)	11.4	26.8	27.6	26.9	26.5	23.7	23.6	20.6	18.9	16.2	13.6	11.5
	RAMPP-6 Reference Case (Base.Case)												
S	Native Load	7,987	8,030	8,203	8,435	8,608	8,767	8,937	9,052	9,267	9,399	10,535	12,042
Y	Long Term Sales	2,377	2,239	2,120	1,890	1,647	1,647	1,327	1,324	1,324	1,249	1,149	1,104
S	DSM Programs	(24)	(47)	(69)	(93)	(116)	(139)	(163)	(186)	(208)	(232)	(317)	(454)
T	**Total Requirements**	**10,340**	**10,222**	**10,254**	**10,232**	**10,139**	**10,275**	**10,101**	**10,190**	**10,383**	**10,416**	**11,367**	**12,692**
E													
M	Existing Generation	9,179	9,185	9,007	8,836	8,821	8,700	8,704	8,473	8,477	8,302	7,372	6,176
	Long Term Purchases	1,351	1,345	1,226	1,076	1,076	1,076	676	676	626	626	558	536
L	Short-term Market	806	714	875	814	571	571	651	648	698	623	591	568
&	Short-term Cap Purch	40	1	171	-	-	-	-	-	-	287	-	428
R	New Resources	1	1	1	540	893	957	1,176	1,414	1,621	1,621	3,988	6,258
	Total Resources	**11,377**	**11,246**	**11,280**	**11,266**	**11,361**	**11,304**	**11,207**	**11,211**	**11,422**	**11,459**	**12,509**	**13,966**
	Reserves	1,037	1,023	1,026	1,033	1,221	1,028	1,105	1,020	1,039	1,043	1,142	1,274
	Reserve Margin (%)	10.0	10.0	10.0	10.1	12.0	10.0	10.9	10.0	10.0	10.0	10.0	10.0
	Difference (Wtd.Case less Base.Case)												
S	Native Load	(154)	(1,173)	(1,356)	(1,548)	(1,579)	(1,606)	(1,635)	(1,654)	(1,692)	(1,716)	(1,932)	(2,202)
Y	Long Term Sales	-	(160)	(160)	(160)	(160)	(160)	(160)	(160)	(160)	(160)	(160)	(160)
S	DSM Programs	2	4	5	7	7	9	10	11	11	12	15	20
T	**Total Requirements**	**(152)**	**(1,330)**	**(1,512)**	**(1,701)**	**(1,732)**	**(1,758)**	**(1,785)**	**(1,803)**	**(1,841)**	**(1,864)**	**(2,077)**	**(2,342)**
E													
M	Existing Generation	-	-	(0)	(0)	(4)	(4)	(4)	(4)	(4)	(4)	(6)	-
	Long Term Purchases	(1)	(1)	-	-	-	-	(0)	(0)	-	(0)	-	0
L	Short-term Market	(0)	-	-	(0)	-	-	-	-	-	-	-	-
&	Short-term Cap Purch	(30)	(1)	(171)	-	-	-	-	-	-	(249)	-	(389)
R	New Resources	-	-	-	(508)	(792)	(834)	(989)	(1,150)	(1,319)	(1,319)	(1,975)	(2,053)
	Total Resources	**(31)**	**(2)**	**(171)**	**(508)**	**(796)**	**(838)**	**(993)**	**(1,154)**	**(1,323)**	**(1,572)**	**(1,980)**	**(2,442)**
	Reserves	122	1,329	1,341	1,194	937	921	793	651	517	291	96	(100)
	Reserve Margin (%)	1.4	16.8	17.6	16.8	14.5	13.7	12.7	10.6	8.9	6.2	3.6	1.5

This seems to imply that some of the LT sales are discretionary.

Even with load loss the system selects some low cost resources which can be used to make profitable short-term sales. Some cogeneration resources can be added for as little as 21 mills/kWh and then presumably can be sold in the market place for 26 mills/kWh or more likely for 24 mills/kWh as a second tier sale.

Review of the energy balance shows, as would be expected, that net short-term market transactions increase drastically as the surplus resources are used to make additional short-term or deregulated sales.

"Shotgun" Gas Cases

After competing a discussion of the first major type of runs, the Reference Cases, we move to the "Shotgun" Gas Cases.

The intent of the "Shotgun" Gas Cases was to develop a better understanding of the risks that the Company faces as a result of various gas price and wholesale market price combinations. A second reason is to search for the breakpoints between feasible and infeasible gas / wholesale market combinations.

In RAMPP-5 the Company developed a separate gas forecast and a wholesale market price forecast. The Company then studied the interaction between gas and wholesale market prices. For example, in RAMPP-5 the Company studied the impact of gas price that started at the initial level then increased drastically at some future point. The lessons learned in the RAMPP-5 studies are easily transferable to the current cases. Using the RAMPP-5 analysis as a starting point the Company elected to start with a very wide initial set of gas prices and match them with an equally wide combination of wholesale market prices[7].

We know from the outset that many of the gas and wholesale combinations would not be sustainable in the long run[8]. The real question was which combinations were sustainable and which were not. Implicit in this assumption was knowledge gained in earlier RAMPP studies, that gas and wholesale market prices are interdependent. A change in one will impact the other. Gas prices are assumed to be more independent than wholesale market prices, hence we start with gas prices and then study their impact on wholesale market prices.

A note about the interdependence of gas prices and wholesale market prices. Natural gas is about 60% of the fully loaded cost of a new gas-fired resource. While gas-fired resources remain the potential resource of choice, the cost of natural gas will contribute to total cost of this resource and thereby the price at which energy can be sold. In a free marketplace, wholesale market prices will increase until the price is sufficient to support additional potential resources. If

[7] The ranges for the shotgun cases for gas prices and wholesale prices were established in May of 2000. At that time it was thought that they encompassed any potential future. It should be noted that current gas and market prices greatly exceed the upper value of the shotgun cases.
[8] Refer to Page 31, Background - "Shotgun" Gas Cases, for a discussion of why runs are not sustainable.

that resource is a gas-fired resource then the price of natural gas will determine the long run cap on wholesale market prices.[9]

Another way of looking at the interdependence of gas prices and wholesale market prices is to assume a given level of wholesale market prices, say 30 mills/kWh. If this wholesale market price is above the total resource cost of gas-fired resources then the free market will encourage the addition of gas-fired resources. The additional resources in the wholesale marketplace will tend to force down the wholesale market prices. Meanwhile, the building of gas-fired resources will reduce gas supplies and utilize limited pipeline space thereby pushing up the cost of gas prices. In this way the wholesale market prices will decline and the natural gas prices will increase until equilibrium is reached.

Two other factors should be mentioned during this discussion of microeconomics. First, gas-fired resources are the resource of choice if the price of natural gas remains relatively low. In RAMPP-3, gas prices were much higher and coal was the least cost resource. It therefore follows that if long term gas prices increase above the long term cost of coal-fired resources, then coal-fired resources will be built and will moderate the demand for natural gas. The second factor that should be mentioned is the possibility of coal gasification. If natural gas prices increase above the cost of this technology, then coal gasification might very well step in to increase the supply of gas and thereby moderate upward pressure on natural gas prices. Naturally the combination of these factors is the integrated gasification combined cycle (IGCC) which involves the conversion of coal to gas that is then consumed in a conventional combined cycle combustion turbine. This technology is available at about 33 mills/kWh.

[9] This analysis is only correct for gas prices where gas-fired resources are the resource of choice. As gas prices increase other technologies such as coal-fired resources would become economically viable and would weaken and eventually break the gas price / wholesale price relationship.

Summer Reserve Margin

Summer Reserve Margin as a percent of load is contained in Graphs 3-8 and 3-9. Graph 3-8 shows the first two wholesale market starting prices of 22 and 26 mills/kWh. Graph 3-9 shows the remaining two wholesale market starting prices of 30 and 34 mills/kWh. Along the Y-axis is the Case Name. Since all the cases in each graph are from the same wholesale market price group, the wholesale market suffix has been replaced by "OK" meaning that the case is sustainable in the long term or by "x" meaning that it is not[10]. The cases have been grouped with gas prices increasing from left to right with low price escalation on the left and high price escalation on the right.

At the 22 mills/kWh wholesale market price level, six of the twelve cases are sustainable; those cases with gas prices below 220 ¢/MMBtu. At the 26 mills/kWh wholesale market price level, eight of the twelve cases are sustainable with the 130 ¢/MMBtu cases dropping out but the 200 and 250 ¢/MMBtu cases becoming viable. At the 30 mills/kWh wholesale market price level, 160 and the 190 ¢/MMBtu with high gas price escalation drop out while the 280 ¢/MMBtu cases become viable. At the 34 mills/kWh wholesale market price level, only four cases are sustainable, those with gas prices above 250 ¢/ MMBtu.

Reserve margins are set in RAMPP to be not less than 10%. Reserve margin above 10% typically mean that the model is selecting a resource and then using the resource to make profitable wholesale sales. Reserve margins significantly above 10% is a symptom of a gas price / wholesale market price mismatch.

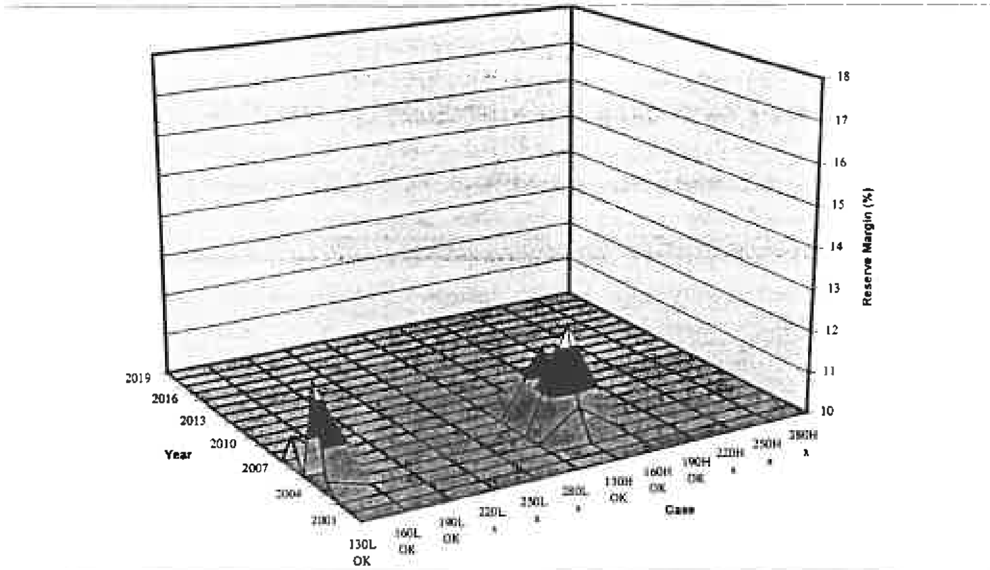
Extra reserve margin may also be caused by other factors. Transmission constraints may require the building of additional resources if power can't be supplied into a transmission bubble from the outside. DSM resources usually take several years to get into place, which may cause a surplus during the ramp up years. Resources may be overbuilt in anticipation of the retirement of a large plant. Some resources are cheaper if built within a "construction window". Wind resources built before the expiration of the renewable resource tax credit it a good example of a "construction window". Technology change might make old units uneconomical thus allowing the construction of new economical resources. Government intervention may require the building of new resource. The Environmental Adder Cases have surplus resources built to avoid the carbon adder.

[10] Refer to Page 31, Background - "Shotgun" Gas Cases, for a discussion of why runs are not sustainable.

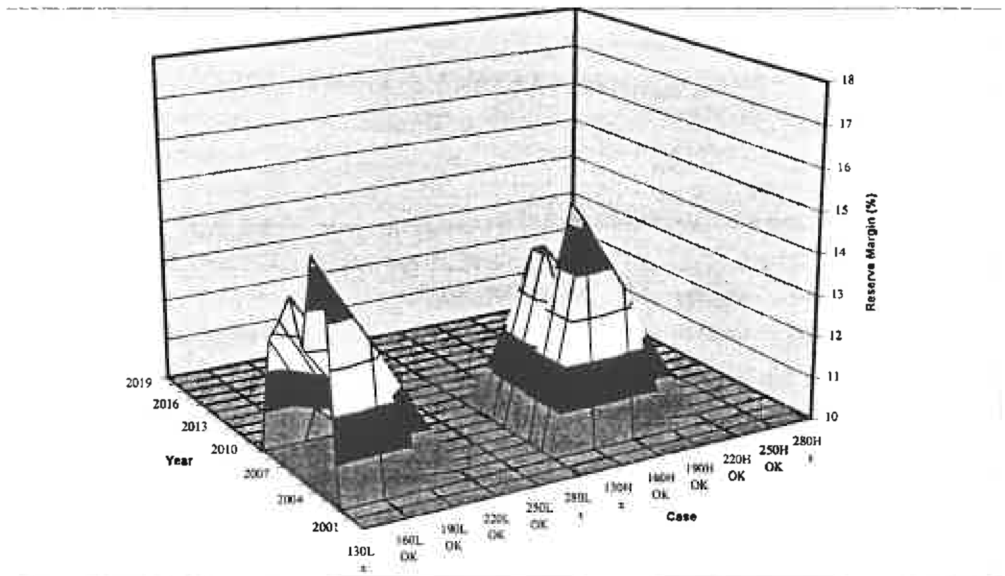
Graph 3-8

Summer Reserve Margin (% of Firm Load)

22 Mills/kWh Wholesale Market Price, Gas Price 130 to 280 C/MMBtu, Escalation Low or High



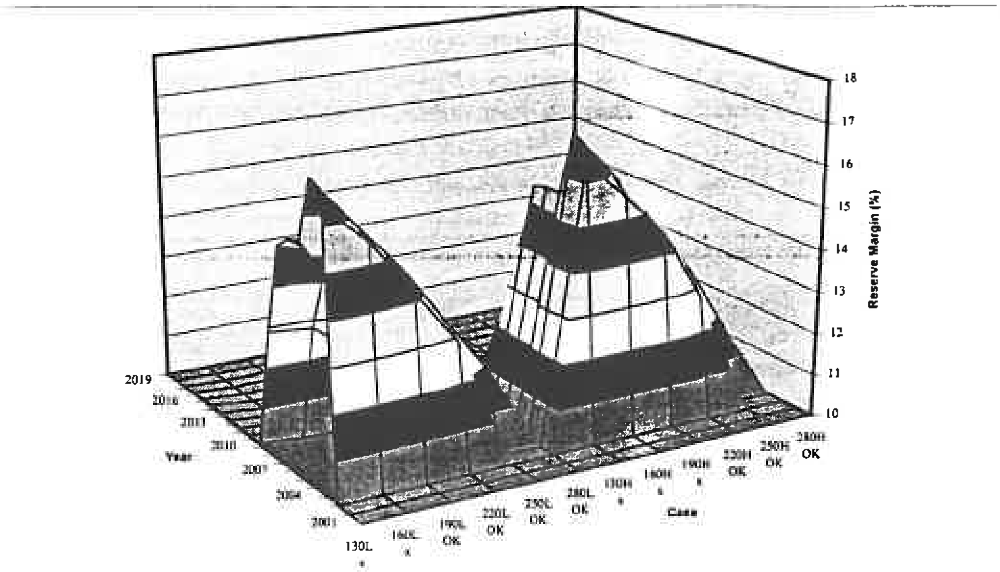
26 Mills/kWh Wholesale Market Price, Gas Price 130 to 280 C/MMBtu, Escalation Low or High



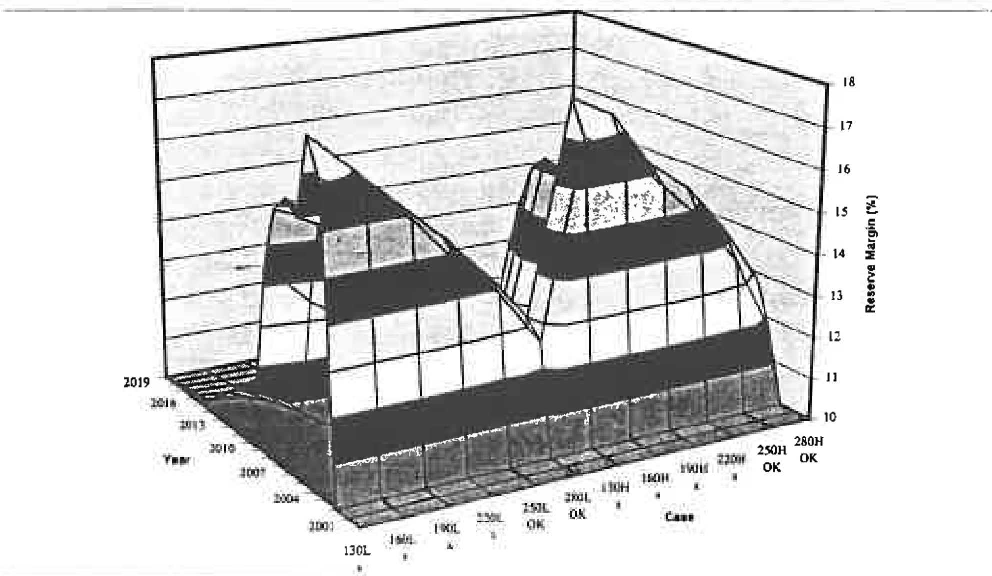
Graph 3-9

Summer Reserve Margin (% of Firm Load)

30 Mills/kWh Wholesale Market Price, Gas Price 130 to 280 C/MMBtu, Escalation Low or High



34 Mills/kWh Wholesale Market Price, Gas Price 130 to 280 C/MMBtu, Escalation Low or High



Net Short-term Wholesale Sales

Graphs 3-10 and 3-11 show Net Short-term Wholesale Sales. The term "net" means that short-term purchases have been subtracted from wholesale sales to obtain net short-term sales. Net Short-term Wholesale Sales does not include the energy included in the Wholesale Balancing Adjustment.[11]
An unusually low sales level is characteristic of a high gas price coupled with a low wholesale market price. Looking at Graph 3-10 with 22 mills/kWh wholesale market price, note that there is a definite cliff at 220 ¢/MMBtu. The cliff still exists at the 26 mills/kWh wholesale market price level but disappears at higher prices.

An unusually high sales level is characteristic of a low gas price coupled with a high wholesale market price. Looking at Graph 3-11 with 34 mills/kWh wholesale market price, a high plateau (high net sales) shows up in the early years of the study, declines slightly then return. The plateau is smaller at the 30 mills/kWh price level and has disappeared at lower wholesale market price levels.

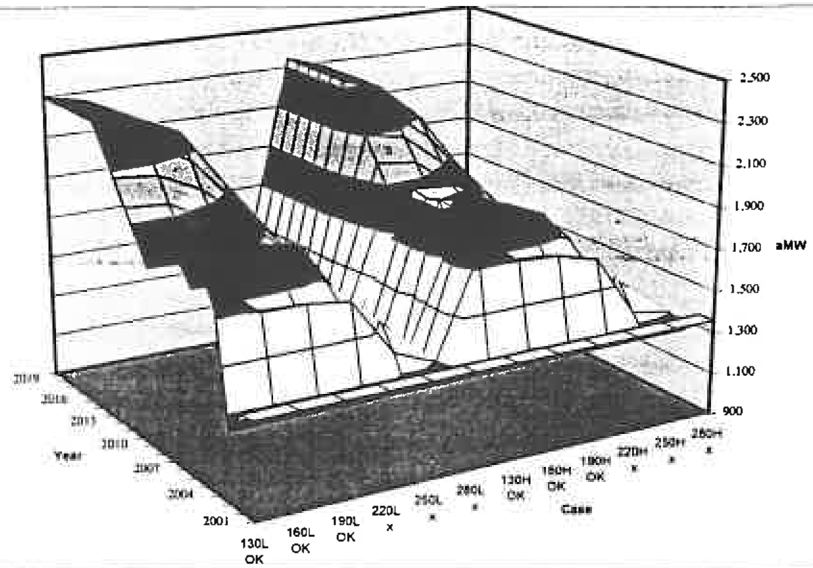
In all four graphs, the level of net sales starts out at about 1400 aMW for 2001 and 2002. In 2003 these net sales decline to about 1270 aMW. In 2004 net sale increase drastically. This shape is because resources are, for the most part, fixed for the three years. Gas-fired resources typically have a four-year lead-time and become available in 2004.

[11] Refer to Page 2, Wholesale Balancing Adjustment, for a discussion of the Wholesale Balancing Adjustment. This adjustment starts at 806 aMW in 2001 and declines to 472 aMW by 2010.

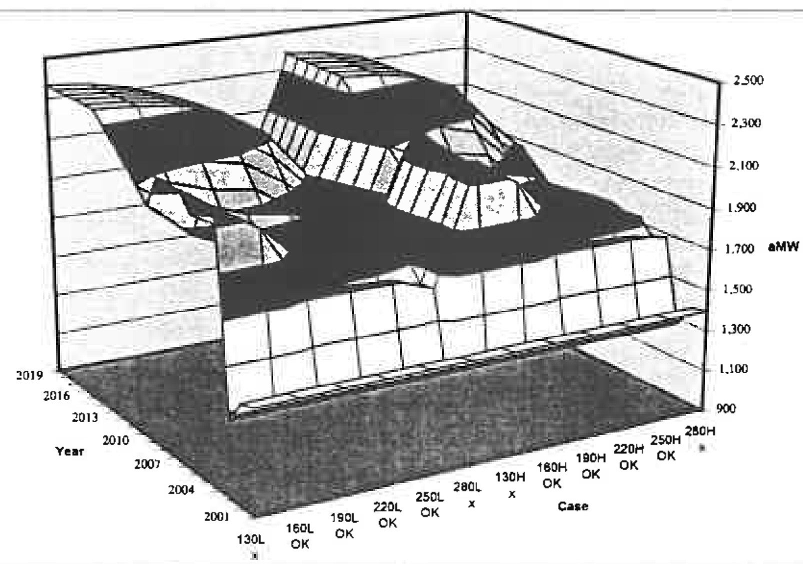
Graph 3-10

Net Short-Term Wholesale Sales (aMW)

22 Mills/kWh Wholesale Market Price, Gas Price 130 to 280 C/MMBtu, Escalation Low or High



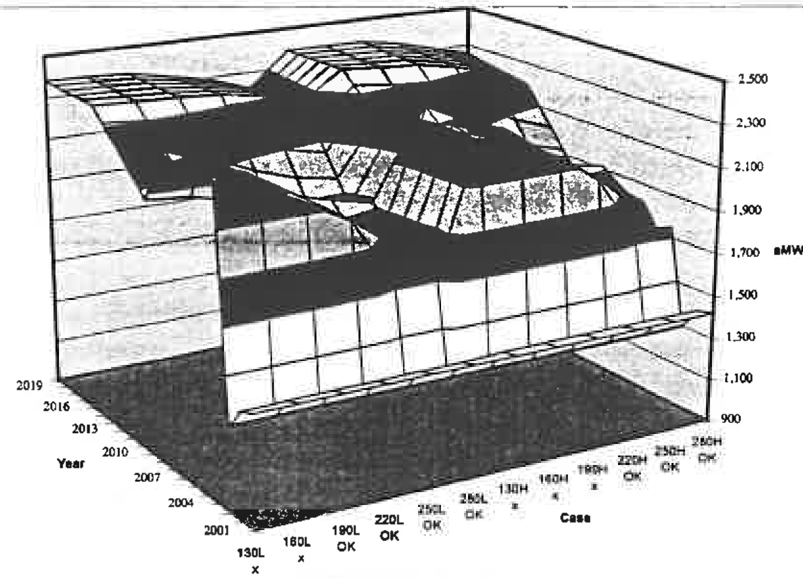
26 Mills/kWh Wholesale Market Price, Gas Price 130 to 280 C/MMBtu, Escalation Low or High



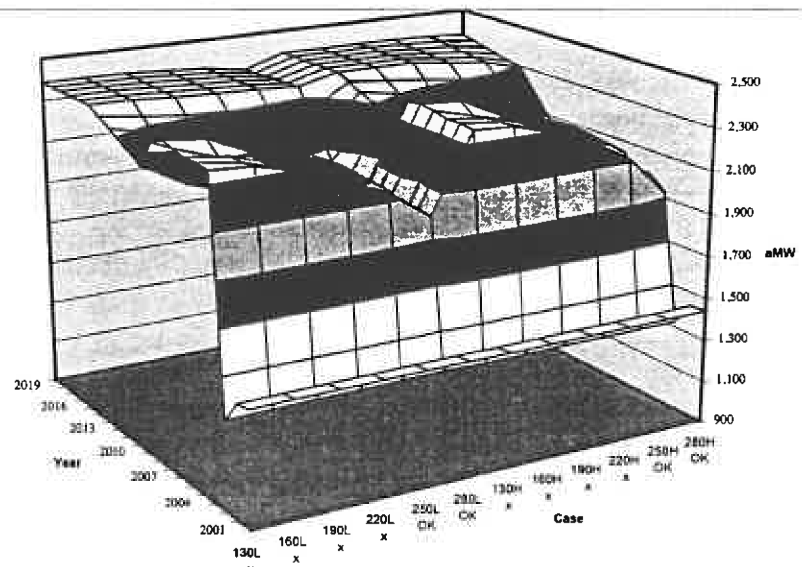
Graph 3-11

Net Short-Term Wholesale Sales (aMW)

30 Mills/kWh Wholesale Market Price, Gas Price 130 to 280 C/MMBtu, Escalation Low or High



34 Mills/kWh Wholesale Market Price, Gas Price 130 to 280 C/MMBtu, Escalation Low or High



Short-term Capacity Purchase

Graphs 3-12 and 3-13 show the summer short-term capacity purchase Summer Short-term Capacity Purchase. This purchase was first introduced in RAMPP-4, as a short-term solution to capacity needs. In that study the Company determined that summer short-term capacity could be purchased for $6 per kW-season. In RAMPP-6 the purchase costs starts at $44 per kW-season[12].

Selection of an unusually large amount of short-term capacity is characteristic of a high gas price / low wholesale market price imbalance. Where gas prices are high and wholesale market prices low, the model reduces sales and makes large wholesale purchases to cover energy needs. The model will then purchase short-term capacity to cover capacity requirements. Looking at Graph 3-12 and 22 mills/kWh wholesale market price you will note that the model selects as much as 1,000 MW of capacity. Looking at Graph 3-13 and gas price 30 mills/kWh you will note that the model selects a much more moderate amount of capacity.

Selection of an unusually low amount of short-term capacity is characteristic of a low gas price / high wholesale market price imbalance. When gas is cheap and wholesale market prices high, the model builds surplus gas-fired resources to make wholesale sales. Short-term capacity is therefore not needed and is not selected. Looking at Graph 3-13 and 34 mills/kWh wholesale market price you will note the absence of any purchase in the mid-years of the study.

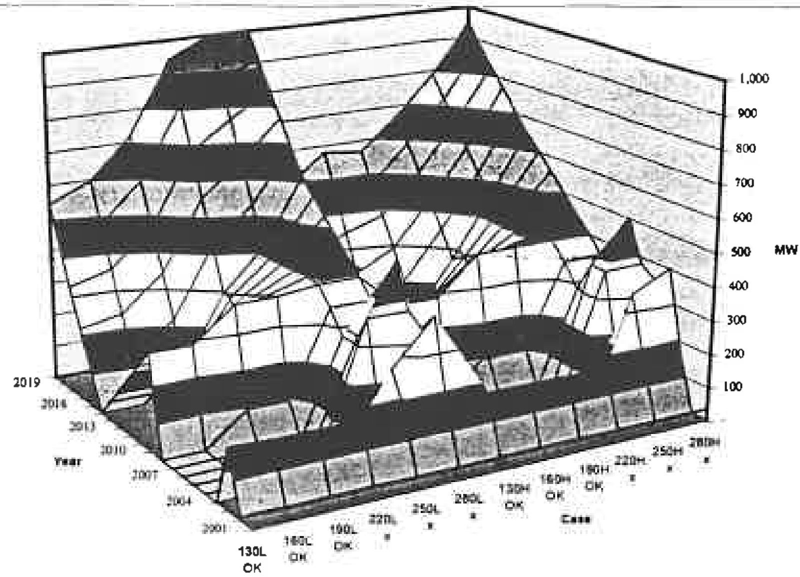
Note that in all graphs there is an initial purchase of 40, 2 and 171 MW in the first three years of the study. As mentioned above, the resources are generally fixed the first three years of the model and this purchase is necessary to meet reserve margin requirements. Also shown in all graphs is a short-term capacity purchase in the year 2020. This purchase is an end effect, meaning the model will select a capacity purchase over a base load plant near the end of the study. This tendency is because the 20 years remaining in the study is not a sufficient time period to get the full benefit of base load fuel savings.

[12] The $44 per kW-season was established in May of 2000. At that time it was thought that $44 per kW-season represented a reasonable estimate of the cost of a short-term seasonal capacity purchase. It should be noted that current market prices greatly exceed this estimate.

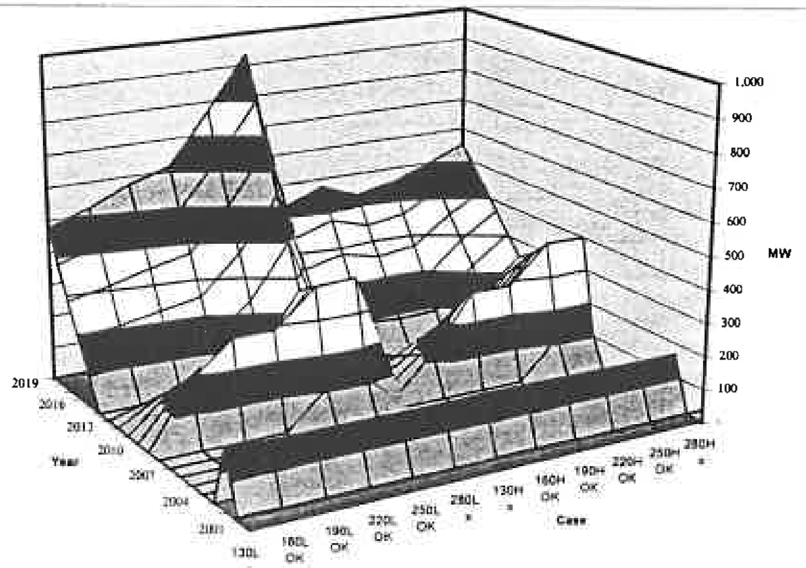
Graph 3-12

Summer Short-Term Capacity Purchase (MW)

22 Mills/kWh Wholesale Market Price, Gas Price 130 to 280 C/MMBtu, Escalation Low or High



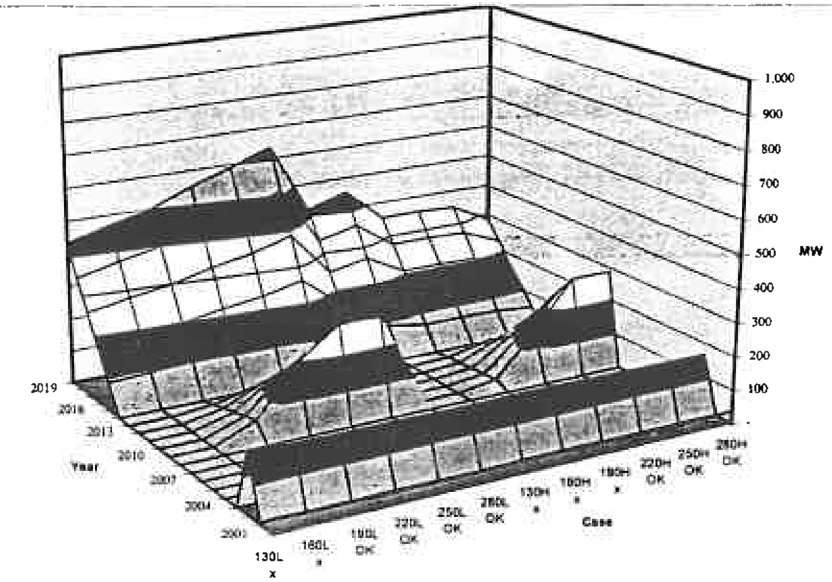
26 Mills/kWh Wholesale Market Price, Gas Price 130 to 280 C/MMBtu, Escalation Low or High



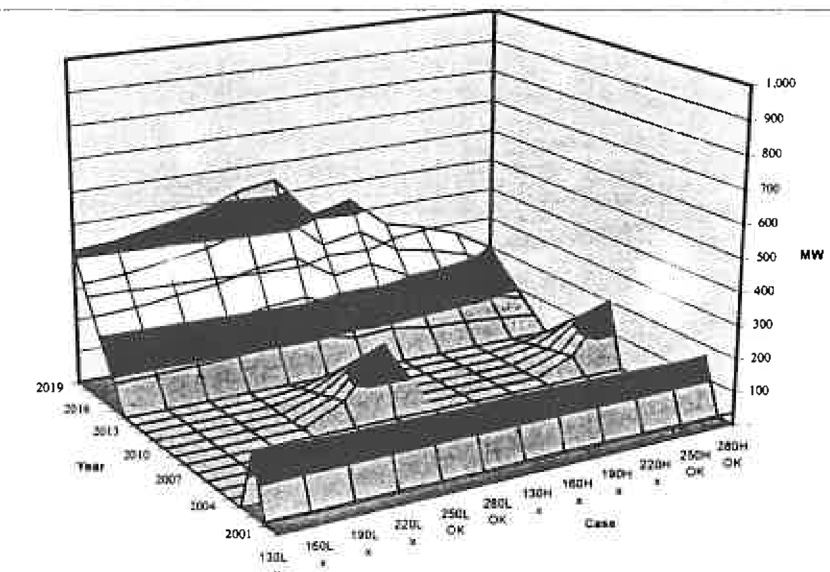
Graph 3-13

Summer Short-Term Capacity Purchase (MW)

30 Mills/kWh Wholesale Market Price, Gas Price 130 to 280 C/MMBtu, Escalation Low or High



34 Mills/kWh Wholesale Market Price, Gas Price 130 to 280 C/MMBtu, Escalation Low or High



Gas-fired Resources

With gas prices between 130 and 280 ¢/MMBtu, natural gas is the logical fuel of choice. At gas prices of 190 ¢/MMBtu, COMBINED CYCLE CT plants can be developed for about 24 mills/kWh. Coal-fired plant can be developed for about 31 mills/kWh. Hence gas-fired resources are selected in large numbers to meet load growth and to replace retired coal plants.

We us the word "gas-fired" to refer to three types of potential resources located in four different transmission bubbles. Cogen 1 plants are small units with high capital cost but very low incremental running costs. Cogen 2 plants are Hermiston type cogeneration plants. Combined Cycles are large combined cycle combustion turbines.

Listed below are the gas-fired resources selected in base.case for years 2004-2008. The model doesn't select gas-fired resources before 2004 due to construction lead times.

Incremental Summer Capacity (MW) of Resource Additions

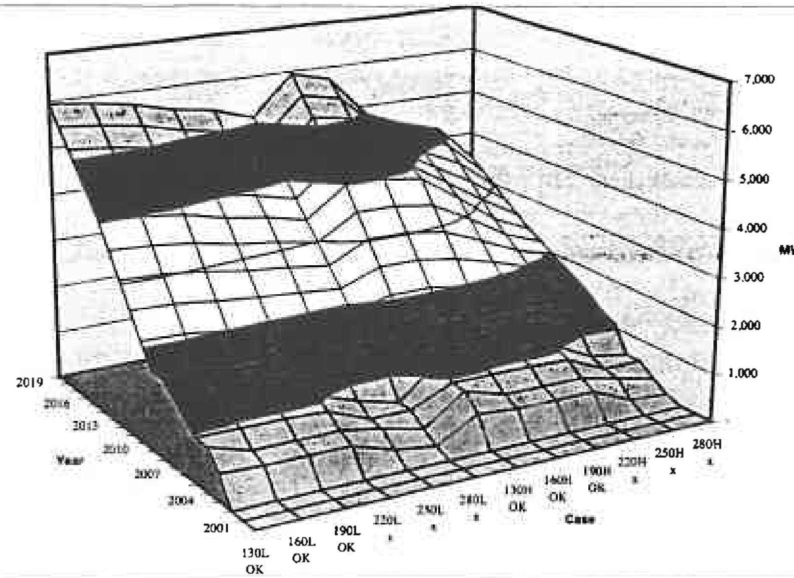
	2004	2005	2006	2007	2008
Or/Wa Cogen 1	94.0	94.0	14.1	-	-
Or/Wa Cogen 2	382.9	171.6	37.0	206.3	51.9
Or/Wa Combined Cycle	-	-	-	-	-
Goshen Cogen 1	-	-	-	-	-
Goshen Cogen 2	-	-	-	-	-
Utah Cogen 1	14.1	-	-	-	-
Utah Cogen 2	-	-	-	-	-
Utah Combined Cycle	48.3	68.3	12.7	12.9	185.8
Wyo Combined Cycle	-	-	-	-	-
Cogeneration	491.0	265.6	51.1	206.3	51.9
Combined Cycle CT	48.3	68.3	12.7	12.9	185.8

Graphs 3-14 and 3-15 show the selection and timing of gas-fired resources. The graphs show that total gas resources selected by the end of the study is fairly similar regardless of wholesale market price. However, the difference between the graphs is in the mid-years of the study when some gas/wholesale market price combinations encourages the selection of surplus resources in order to make wholesale sales.

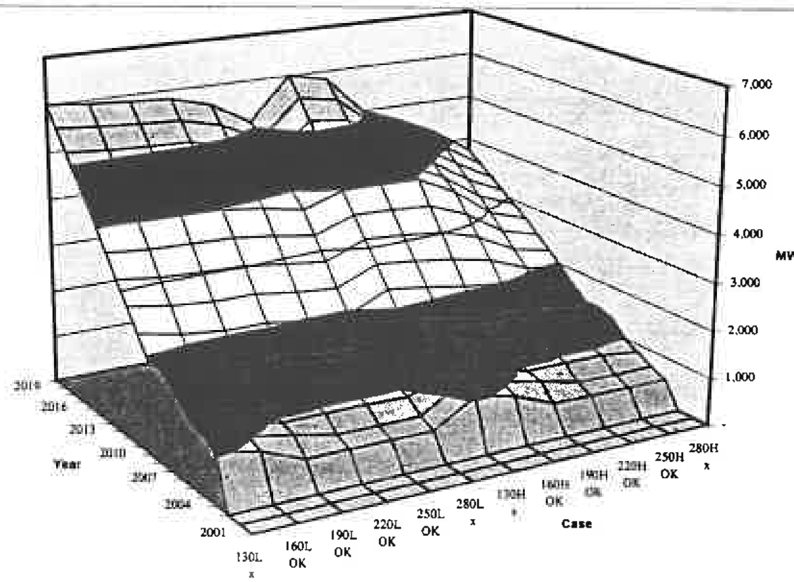
Graph 3-14

Summer Cogeneration & Combined Cycle Resources Selected (MW)

22 Mills/kWh Wholesale Market Price, Gas Price 130 to 280 C/MMBtu, Escalation Low or High



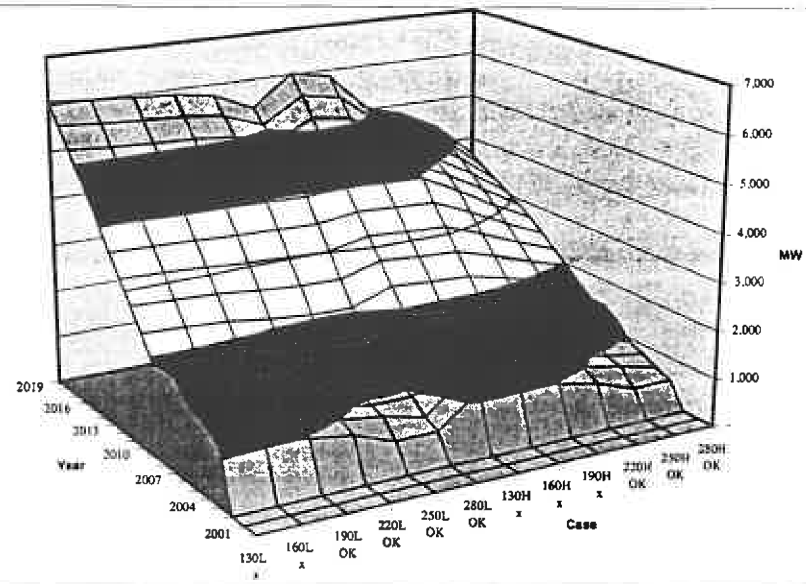
26 Mills/kWh Wholesale Market Price, Gas Price 130 to 280 C/MMBtu, Escalation Low or High



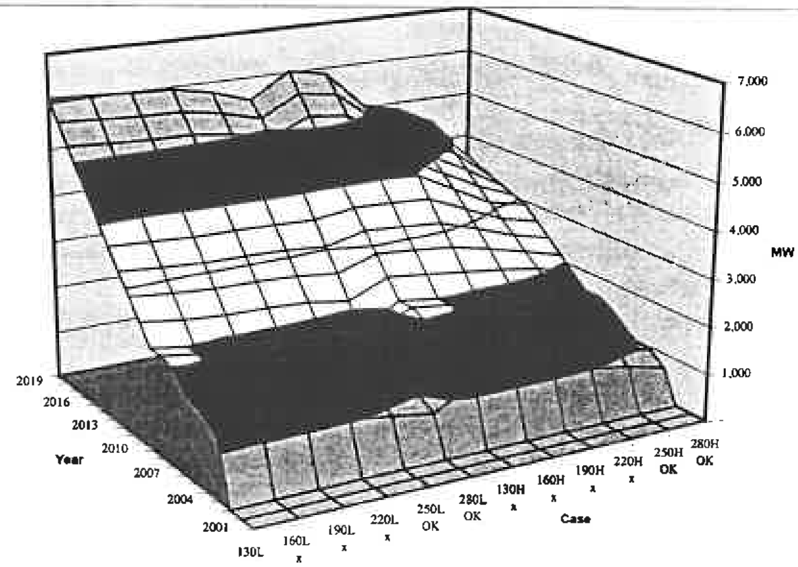
Graph 3-15

Summer Cogeneration & Combined Cycle Resources Selected (MW)

30 Mills/kWh Wholesale Market Price, Gas Price 130 to 280 C/MMBtu, Escalation Low or High



34 Mills/kWh Wholesale Market Price, Gas Price 130 to 280 C/MMBtu, Escalation Low or High



Coal-fired Resources

One of the results from the RAMPP-5 study was the determination that gas-fired resources are economical up to 280 ¢/MMBtu and that coal resources are more economical thereafter. RAMPP-6 found that this break point is still accurate. At 280 ¢/MMBtu Or/Wa gas-fired resources cost about 28 mills/kWh but because of higher elevation, Utah gas-fired resources cost 31 mills/kWh. A limited amount of Utah coal-fired resources could be built for 29 mills/kWh with large quantities of Wyoming coal-fired resources being available at 31 mills/kWh.

With these starting points the breakpoint between the two types of plant will vary depending upon the assumed fuel price escalation rates. Graphs 3-16 and 3-17 confirm that coal is selected when gas prices are as little as 190 mills/kWh with larger coal resource selections taking place at higher gas prices. Virtually all coal-fired resources selected were in cases with high gas escalation rates.

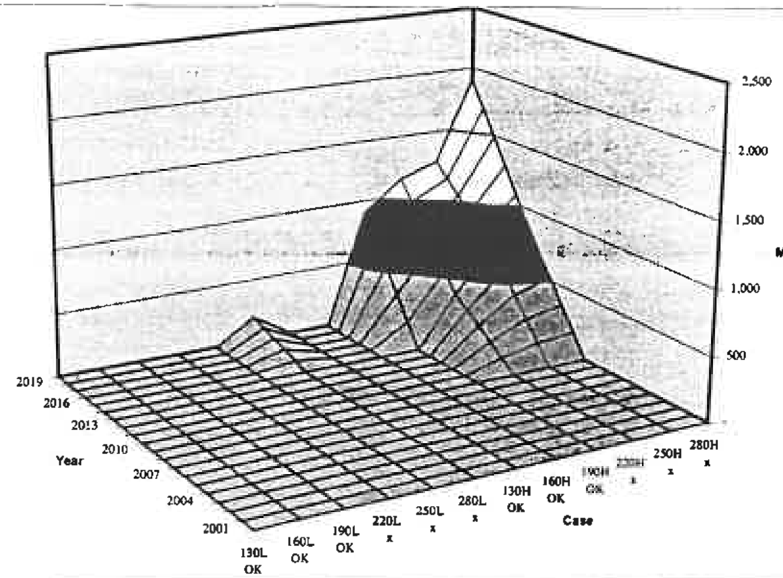
A note about coal-fired resource labels. The Company prepared a detailed study of coal resource as part of the RAMPP-4 study. At that time the Company determined that a Hunter 4 plant could be fueled with coal costing $20 per ton, that a limited number of plants would be fueled at $23.25/ton and an unlimited number of plants could be fueled at $27/ton. For consistency with earlier RAMPP reports, we have retained the coal-fired resource labels even though we have escalated the coal price with inflation. Utah coal prices in RAMPP-6 are $22.50, $26.16 and $30.38. Wyoming plants have been handled in a similar fashion.

Tables 3-18 to 3-21 show the results from the base.case and gas cases at the tenth year (2010) of the 20-year planning horizon. The first section of the table shows summer peak capacity and the second section shows annual energy. The third section shows the difference between the current case and base.case for summer peak capacity.

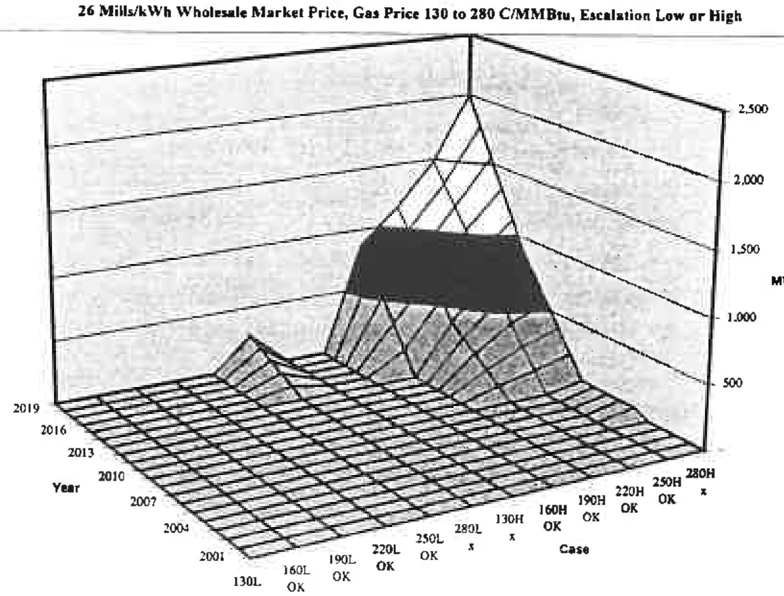
Graph 3-16

Coal Fired Resources Selected (MW)

22 Mills/kWh Wholesale Market Price, Gas Price 130 to 280 C/MMBtu, Escalation Low or High



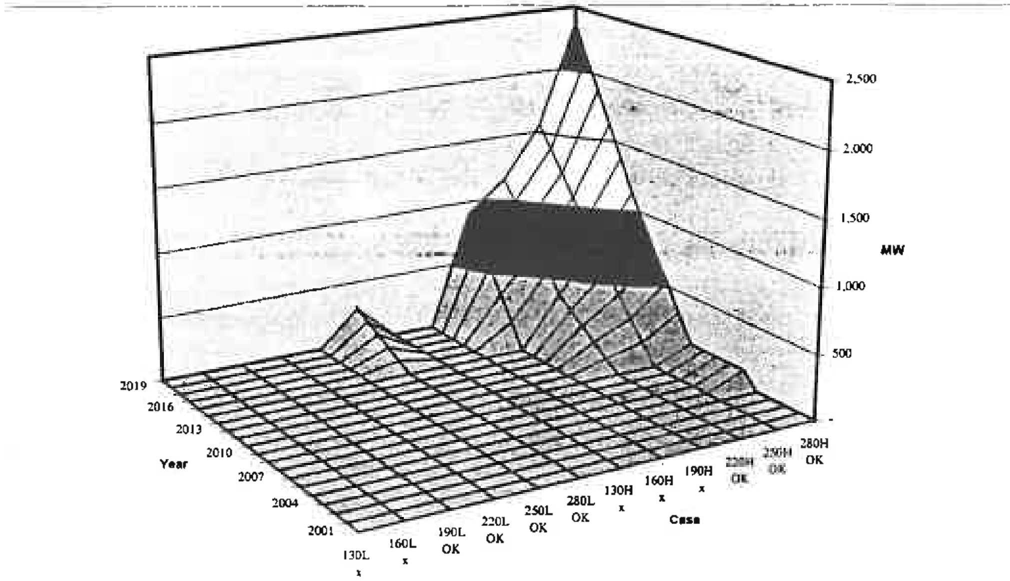
26 Mills/kWh Wholesale Market Price, Gas Price 130 to 280 C/MMBtu, Escalation Low or High



Graph 3-17

Coal Fired Resources Selected (MW)

30 Mills/kWh Wholesale Market Price, Gas Price 130 to 280 C/MMBtu, Escalation Low or High



34 Mills/kWh Wholesale Market Price, Gas Price 130 to 280 C/MMBtu, Escalation Low or High

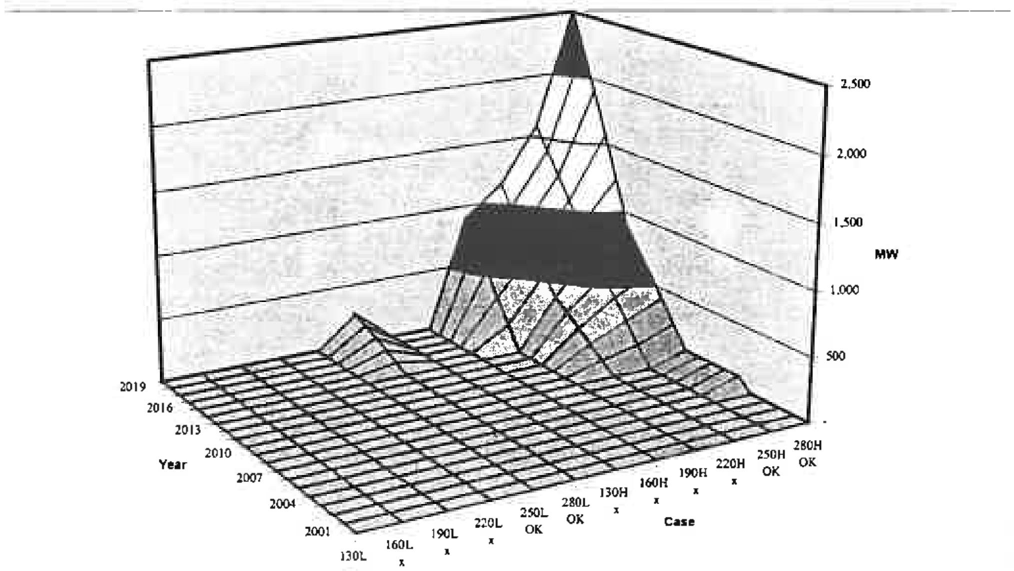


Table 3-18
Capacity and Energy Selected in the Year 2010
Wholesale Market Price 22 Mills/kWh, Gas Price 130 to 280 C/MMBtu

	Reference	130L.22	160L.22	190L.22	220L.22	250L.22	280L.22	130H.22	160H.22	190H.22	220H.22	250H.22	280H.22
Case #	1	11	12	13	14	15	16	17	18	19	20	21	22
Summer Peak Capacity in Year 2010 (MW)													
1 Native Load	9,399	9,399	9,399	9,399	9,399	9,399	9,399	9,399	9,399	9,399	9,399	9,399	9,399
2 Long Term Sales	1,249	1,249	1,249	1,249	1,249	1,249	1,249	1,249	1,249	1,249	1,249	1,249	1,249
3 less DSM	(232)	(196)	(219)	(221)	(223)	(230)	(231)	(221)	(224)	(232)	(233)	(240)	(245)
4 **Total Requirements**	10,416	10,452	10,429	10,427	10,425	10,418	10,417	10,427	10,424	10,416	10,415	10,408	10,403
5 Existing Generation	8,302	8,321	8,321	8,321	8,321	8,321	8,321	8,321	8,321	8,321	8,321	8,321	8,321
6 Long Term Purchase	626	626	626	627	626	626	626	626	626	626	626	626	626
7 New Resources													
8 Short Term Market	623	623	623	623	623	623	623	623	623	623	623	623	623
9 Renewable	-	-	-	-	-	-	-	-	-	-	-	-	-
10 Cogeneration	1,066	949	959	914	995	1,080	677	945	963	1,108	1,011	1,053	244
11 Combined Cycle CT	536	689	656	604	520	415	818	668	647	380	476	425	1,224
12 Coal	-	-	-	-	-	-	-	-	-	-	-	-	-
13 Transmission	19	-	-	-	-	-	-	-	-	-	-	-	-
14 Peaking Resources	287	291	288	383	382	395	394	288	288	401	400	401	405
15 **Total Resources**	11,459	11,499	11,473	11,472	11,468	11,461	11,460	11,472	11,468	11,460	11,458	11,450	11,444
16 Reserves	1,043	1,046	1,044	1,044	1,044	1,043	1,043	1,044	1,043	1,043	1,043	1,042	1,041
17 Reserve Margin (%)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Annual Energy in Year 2010 (aMW)													
18 Native Load	6,814	6,814	6,814	6,814	6,814	6,814	6,814	6,814	6,814	6,814	6,814	6,814	6,814
19 Pump Storage/Peak Return	223	223	223	223	223	223	223	223	223	223	223	223	223
20 Long Term Sales	794	794	794	794	794	794	794	794	794	794	794	794	794
21 Short Term Sales	1,873	1,880	1,840	1,734	1,699	1,638	1,543	1,890	1,886	1,774	1,692	1,626	1,506
22 less DSM	(164)	(136)	(151)	(152)	(155)	(161)	(161)	(152)	(155)	(164)	(164)	(172)	(176)
23 **Total Requirements**	9,540	9,575	9,520	9,412	9,375	9,308	9,213	9,569	9,562	9,441	9,359	9,285	9,161
24 Existing Generation	7,053	7,020	7,019	7,023	7,030	7,032	7,039	7,047	7,052	7,061	7,064	7,063	7,062
25 Long Term Purchases	335	335	335	335	335	335	335	335	335	335	335	335	335
26 Short Term Purchases	96	141	109	117	114	149	200	132	129	153	148	171	245
27 New Resources													
28 Short Term Market	459	459	459	459	459	459	459	459	459	459	459	459	459
28 Renewable	468	375	460	467	467	467	469	467	467	468	469	491	503
29 Cogeneration	1,055	939	949	905	983	1,022	627	935	953	1,092	977	963	237
30 Combined Cycle CT	524	682	649	573	453	310	553	661	634	340	377	294	823
31 Coal	-	-	-	-	-	-	-	-	-	-	-	-	-
32 Transmission	18	-	-	-	-	-	-	-	-	-	-	-	-
33 Peaking Resources	-	-	-	-	-	-	-	-	-	-	-	-	-
34 **Total Resources**	9,540	9,575	9,520	9,412	9,375	9,308	9,213	9,569	9,562	9,441	9,359	9,285	9,161
DIFFERENCE Case LESS base.case (Summer Peak Capacity)													
35 Native Load	-	-	-	-	-	-	-	-	-	-	-	-	-
36 Long Term Sales	-	-	-	-	-	-	-	-	-	-	-	-	-
37 less DSM	-	36	13	11	9	2	1	11	8	-	(1)	(8)	(13)
38 **Total Requirements**	-	36	13	11	9	2	1	11	8	-	(1)	(8)	(13)
39 Existing Generation	-	19	19	19	19	19	19	19	19	19	19	19	19
40 Long Term Purchase	-	-	(1)	0	(0)	-	(0)	(0)	0	0	(0)	(0)	(0)
41 New Resources													
42 Short Term Market	-	-	-	-	-	-	-	-	-	-	-	-	-
43 Renewable	-	-	-	-	-	-	-	-	-	-	-	-	-
44 Cogeneration	-	(117)	(107)	(152)	(71)	14	(389)	(121)	(103)	42	(55)	(13)	(822)
45 Combined Cycle CT	-	153	120	68	(16)	(121)	282	132	111	(156)	(60)	(111)	688
46 Coal	-	-	-	-	-	-	-	-	-	-	-	-	-
47 Transmission	-	(19)	(19)	(19)	(19)	(19)	(19)	(19)	(19)	(19)	(19)	(19)	(19)
48 Peaking Resources	-	4	2	96	95	108	107	1	1	114	113	114	118
49 **Total Resources**	-	40	14	13	9	2	1	13	9	1	(1)	(9)	(15)
50 Reserves	-	3	1	1	1	-	-	1	-	-	-	(1)	(2)
51 Reserve Margin (%)	-	-	-	-	-	-	-	-	-	-	-	-	-

YEAR

End - Beg + 1 ,, - Beg, End)

(1+ Nom)/(1+ Infl) - 1

Table 3-19
Capacity and Energy Selected in the Year 2010
Wholesale Market Price 26 Mills/kWh, Gas Price 130 to 280 C/MMBtu

	Reference	130L.26	160L.26	190L.26	220L.26	250L.26	280L.26	130H.26	160H.26	190H.26	220H.26	250H.26	280H.26
Case #	1	23	24	25	26	27	28	29	30	31	32	33	34
Summer Peak Capacity in Year 2010 (MW)													
1 Native Load	9,399	9,399	9,399	9,399	9,399	9,399	9,399	9,399	9,399	9,399	9,399	9,399	9,399
2 Long Term Sales	1,249	1,249	1,249	1,249	1,249	1,249	1,249	1,249	1,249	1,249	1,249	1,249	1,249
3 less DSM	(232)	(196)	(219)	(221)	(223)	(230)	(232)	(221)	(224)	(232)	(236)	(240)	(244)
4 **Total Requirements**	**10,416**	**10,452**	**10,429**	**10,427**	**10,425**	**10,418**	**10,416**	**10,427**	**10,424**	**10,416**	**10,412**	**10,408**	**10,404**
5 Existing Generation	8,302	8,321	8,321	8,321	8,321	8,321	8,321	8,321	8,303	8,302	8,315	8,301	8,321
6 Long Term Purchase	626	626	626	626	626	626	626	626	626	626	626	626	626
7 New Resources													
8 Short Term Market	623	623	623	623	623	623	623	623	623	623	623	623	623
9 Renewable	-	-	-	-	-	-	-	-	-	-	-	-	-
10 Cogeneration	1,066	1,034	980	958	1,090	1,108	982	1,054	1,038	1,066	1,062	1,156	1,147
11 Combined Cycle CT	536	894	736	654	520	387	505	847	738	536	536	322	273
12 Coal	-	-	-	-	-	-	-	-	-	-	-	-	57
13 Transmission	19	-	-	-	-	-	-	-	18	19	6	19	-
14 Peaking Resources	287	-	187	288	288	395	401	-	121	287	286	401	398
15 **Total Resources**	**11,459**	**11,499**	**11,474**	**11,472**	**11,469**	**11,461**	**11,460**	**11,472**	**11,468**	**11,459**	**11,455**	**11,450**	**11,446**
16 Reserves	1,043	1,046	1,044	1,044	1,044	1,043	1,043	1,044	1,043	1,043	1,042	1,042	1,041
17 Reserve Margin (%)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Annual Energy in Year 2010 (aMW)													
18 Native Load	6,814	6,814	6,814	6,814	6,814	6,814	6,814	6,814	6,814	6,814	6,814	6,814	6,814
19 Pump Storage/Peak Return	223	223	223	223	223	223	223	223	223	223	223	223	223
20 Long Term Sales	794	794	794	794	794	794	794	794	794	794	794	794	794
21 Short Term Sales	1,873	2,080	1,969	1,902	1,893	1,789	1,719	2,088	1,999	1,873	1,839	1,720	1,672
22 less DSM	(164)	(136)	(151)	(152)	(155)	(161)	(164)	(152)	(155)	(164)	(167)	(172)	(174)
23 **Total Requirements**	**9,540**	**9,775**	**9,649**	**9,581**	**9,569**	**9,460**	**9,386**	**9,766**	**9,674**	**9,540**	**9,502**	**9,379**	**9,328**
24 Existing Generation	7,053	7,025	7,049	7,063	7,059	7,066	7,066	7,048	7,052	7,053	7,064	7,052	7,070
25 Long Term Purchases	335	335	335	335	335	335	335	335	335	335	335	337	337
26 Short Term Purchases	96	48	107	134	136	161	170	43	62	96	86	110	133
27 New Resources													
28 Short Term Market	459	459	459	459	459	459	459	459	459	459	459	459	459
28 Renewable	468	375	460	467	467	467	468	467	467	468	486	491	503
29 Cogeneration	1,055	1,024	970	949	1,079	1,093	954	1,043	1,027	1,055	1,051	1,138	1,073
30 Combined Cycle CT	524	885	729	641	501	345	402	839	723	524	501	264	205
31 Coal	-	-	-	-	-	-	-	-	-	-	-	-	52
32 Transmission	18	-	-	-	-	-	-	-	17	18	6	18	-
33 Peaking Resources	-	-	-	-	-	-	-	-	-	-	-	-	-
34 **Total Resources**	**9,540**	**9,775**	**9,649**	**9,581**	**9,569**	**9,460**	**9,386**	**9,766**	**9,674**	**9,540**	**9,502**	**9,379**	**9,328**
DIFFERENCE Case LESS base.case (Summer Peak Capacity)													
35 Native Load	-	-	-	-	-	-	-	-	-	-	-	-	-
36 Long Term Sales	-	-	-	-	-	-	-	-	-	-	-	-	-
37 less DSM	-	36	13	11	9	2	-	11	8	-	(4)	(8)	(12)
38 **Total Requirements**	-	**36**	**13**	**11**	**9**	**2**	-	**11**	**8**	-	**(4)**	**(8)**	**(12)**
39 Existing Generation	-	19	19	19	19	19	19	19	1	-	13	(1)	19
40 Long Term Purchase	-	(0)	0	(0)	0	0	0	(0)	(0)	-	(1)	(0)	(0)
41 New Resources													
42 Short Term Market	-	-	-	-	-	-	-	-	-	-	-	-	-
43 Renewable	-	-	-	-	-	-	-	-	-	-	-	-	-
44 Cogeneration	-	(32)	(86)	(108)	24	43	(84)	(12)	(28)	-	(4)	90	82
45 Combined Cycle CT	-	358	201	118	(16)	(149)	(31)	311	203	-	0	(213)	(263)
46 Coal	-	-	-	-	-	-	-	-	-	-	-	-	57
47 Transmission	-	(19)	(19)	(19)	(19)	(19)	(19)	(19)	(1)	-	(13)	1	(19)
48 Peaking Resources	-	(287)	(100)	1	1	108	114	(287)	(166)	-	(1)	114	111
49 **Total Resources**	-	**40**	**15**	**13**	**10**	**2**	**1**	**13**	**9**	-	**(4)**	**(9)**	**(13)**
50 Reserves	-	3	1	1	1	-	-	1	-	-	(1)	(1)	(2)
51 Reserve Margin (%)	-	-	-	-	-	-	-	-	-	-	-	-	-

Table 3-20
Capacity and Energy Selected in the Year 2010
Wholesale Market Price 30 Mills/kWh, Gas Price 130 to 280 C/MMBtu

		Reference	130L30	160L30	190L30	220L30	250L30	280L30	130H30	160H30	190H30	220H30	250H30	280H30
	Case #	1	35	36	37	38	39	40	41	42	43	44	45	46
Summer Peak Capacity in Year 2010 (MW)														
1	Native Load	9,399	9,399	9,399	9,399	9,399	9,399	9,399	9,399	9,399	9,399	9,399	9,399	9,399
2	Long Term Sales	1,249	1,249	1,249	1,249	1,249	1,249	1,249	1,249	1,249	1,249	1,249	1,249	1,249
3	less DSM	(232)	(196)	(214)	(221)	(223)	(228)	(232)	(221)	(224)	(232)	(236)	(240)	(244)
4	**Total Requirements**	10,416	10,452	10,434	10,427	10,425	10,420	10,416	10,427	10,424	10,416	10,412	10,408	10,404
5	Existing Generation	8,302	8,321	8,321	8,321	8,319	8,311	8,321	8,321	8,304	8,304	8,274	8,210	8,264
6	Long Term Purchase	626	626	626	626	626	626	626	626	626	626	626	626	626
7	New Resources													
8	Short Term Market	623	623	623	623	623	623	623	623	623	623	623	623	623
9	Renewable	-	-	-	-	-	-	-	-	-	-	-	-	-
10	Cogeneration	1,066	1,027	1,039	1,041	1,063	1,072	1,064	1,066	1,071	1,077	1,134	1,328	1,279
11	Combined Cycle CT	536	913	869	807	634	533	538	897	826	792	606	266	189
12	Coal	-	-	-	-	-	-	-	-	-	-	-	-	123
13	Transmission	19	-	-	-	2	10	-	-	16	16	46	109	56
14	Peaking Resources	287	-	-	53	201	287	287	-	-	19	145	286	286
15	**Total Resources**	11,459	11,511	11,479	11,472	11,469	11,463	11,459	11,534	11,467	11,459	11,455	11,450	11,445
16	Reserves	1,043	1,058	1,044	1,044	1,044	1,043	1,043	1,106	1,043	1,043	1,042	1,042	1,041
17	Reserve Margin (%)	10.0	10.1	10.0	10.0	10.0	10.0	10.0	10.6	10.0	10.0	10.0	10.0	10.0
Annual Energy in Year 2010 (aMW)														
18	Native Load	6,814	6,814	6,814	6,814	6,814	6,814	6,814	6,814	6,814	6,814	6,814	6,814	6,814
19	Pump Storage/Peak Return	223	223	223	223	223	223	223	223	223	223	223	223	223
20	Long Term Sales	794	794	794	794	794	794	794	794	794	794	794	794	794
21	Short Term Sales	1,873	2,108	2,118	2,096	1,986	1,938	1,918	2,144	2,129	2,118	2,031	1,936	1,896
22	less DSM	(164)	(136)	(148)	(152)	(155)	(159)	(164)	(152)	(155)	(164)	(168)	(172)	(174)
23	**Total Requirements**	9,540	9,803	9,801	9,774	9,662	9,610	9,586	9,822	9,804	9,785	9,694	9,595	9,553
24	Existing Generation	7,053	7,048	7,048	7,064	7,067	7,061	7,070	7,049	7,053	7,054	7,029	6,972	7,019
25	Long Term Purchases	335	335	335	335	335	336	335	335	335	335	335	337	337
26	Short Term Purchases	96	41	70	96	126	162	166	36	74	81	113	153	159
27	New Resources													
28	Short Term Market	459	459	459	459	459	459	459	459	459	459	459	459	459
28	Renewable	468	375	446	467	467	467	468	467	467	468	488	491	503
29	Cogeneration	1,055	1,016	1,029	1,030	1,053	1,061	1,052	1,055	1,061	1,066	1,122	1,314	1,256
30	Combined Cycle CT	524	904	860	789	620	521	503	888	807	774	592	256	156
31	Coal	-	-	-	-	-	-	-	-	-	-	-	-	113
32	Transmission	18	-	-	-	2	9	-	-	15	15	44	104	54
33	Peaking Resources	-	-	-	-	-	-	-	-	-	-	-	-	-
34	**Total Resources**	9,540	9,803	9,801	9,774	9,662	9,610	9,586	9,822	9,804	9,785	9,694	9,595	9,553
DIFFERENCE Case LESS base.case (Summer Peak Capacity)														
35	Native Load	-	-	-	-	-	-	-	-	-	-	-	-	-
36	Long Term Sales	-	-	-	-	-	-	-	-	-	-	-	-	-
37	less DSM	-	36	18	11	9	4	-	11	8	-	(4)	(8)	(12)
38	**Total Requirements**	-	36	18	11	9	4	-	11	8	-	(4)	(8)	(12)
39	Existing Generation	-	19	19	19	17	9	19	19	2	2	(28)	(92)	(38)
40	Long Term Purchase	-	(0)	(0)	(0)	0	(0)	-	(0)	(0)	-	0	-	(1)
41	New Resources													
42	Short Term Market	-	-	-	-	-	-	-	-	-	-	-	-	-
43	Renewable	-	-	-	-	-	-	-	-	-	-	-	-	-
44	Cogeneration	-	(39)	(27)	(25)	(3)	6	(2)	0	5	11	68	262	213
45	Combined Cycle CT	-	377	333	271	98	(3)	2	361	290	257	70	(270)	(347)
46	Coal	-	-	-	-	-	-	-	-	-	-	-	-	123
47	Transmission	-	(19)	(19)	(19)	(17)	(9)	(19)	(19)	(3)	(3)	27	90	38
48	Peaking Resources	-	(287)	(287)	(234)	(86)	0	-	(287)	(287)	(268)	(142)	(1)	(1)
49	**Total Resources**	-	52	20	13	10	4	-	75	8	-	(4)	(9)	(14)
50	Reserves	-	15	1	1	1	-	-	63	-	-	(1)	(1)	(2)
51	Reserve Margin (%)	-	0.1	-	-	-	-	-	0.6	-	-	-	-	-

Table 3-21
Capacity and Energy Selected in the Year 2010

Wholesale Market Price 34 Mills/kWh, Gas Price 130 to 280 C/MMBtu

	Reference	130L.34	160L.34	190L.34	220L.34	250L.34	280L.34	130H.34	160H.34	190H.34	220H.34	250H.34	280H.34
Case #	1	47	48	49	50	51	52	53	54	55	56	57	58
Summer Peak Capacity in Year 2010 (MW)													
1 Native Load	9,399	9,399	9,399	9,399	9,399	9,399	9,399	9,399	9,399	9,399	9,399	9,399	9,399
2 Long Term Sales	1,249	1,249	1,249	1,249	1,249	1,249	1,249	1,249	1,249	1,249	1,249	1,249	1,249
3 less DSM	(232)	(196)	(214)	(221)	(223)	(228)	(232)	(221)	(224)	(232)	(235)	(240)	(244)
4 **Total Requirements**	10,416	10,452	10,434	10,427	10,425	10,420	10,416	10,427	10,424	10,416	10,413	10,408	10,404
5 Existing Generation	8,302	8,321	8,321	8,321	8,316	8,302	8,279	8,321	8,300	8,284	8,283	8,244	8,224
6 Long Term Purchase	626	626	626	626	626	626	626	626	626	626	626	626	626
7 New Resources													
8 Short Term Market	623	623	623	623	623	623	623	623	623	623	623	623	623
9 Renewable	-	-	-	-	-	-	-	-	-	-	-	-	-
10 Cogeneration	1,066	1,135	1,064	1,066	1,085	1,116	1,145	1,172	1,137	1,100	1,158	1,335	1,336
11 Combined Cycle CT	536	972	915	835	813	719	537	947	873	801	727	499	250
12 Coal	-	-	-	-	-	-	-	-	-	-	-	-	91
13 Transmission	19	-	-	-	5	18	41	-	20	36	37	76	96
14 Peaking Resources	287	-	-	-	-	58	207	-	-	-	-	47	199
15 **Total Resources**	11,459	11,678	11,550	11,472	11,469	11,463	11,458	11,689	11,580	11,471	11,456	11,450	11,446
16 Reserves	1,043	1,225	1,116	1,044	1,044	1,043	1,043	1,261	1,156	1,054	1,042	1,042	1,041
17 Reserve Margin (%)	10.0	11.7	10.7	10.0	10.0	10.0	10.0	12.1	11.1	10.1	10.0	10.0	10.0
Annual Energy in Year 2010 (aMW)													
18 Native Load	6,814	6,814	6,814	6,814	6,814	6,814	6,814	6,814	6,814	6,814	6,814	6,814	6,814
19 Pump Storage/Peak Return	223	223	223	223	223	223	223	223	223	223	223	223	223
20 Long Term Sales	794	794	794	794	794	794	794	794	794	794	794	794	794
21 Short Term Sales	1,873	2,245	2,152	2,131	2,132	2,096	1,987	2,269	2,217	2,152	2,145	2,120	2,008
22 less DSM	(164)	(136)	(148)	(152)	(155)	(159)	(164)	(152)	(155)	(164)	(167)	(172)	(174)
23 **Total Requirements**	9,540	9,941	9,834	9,810	9,808	9,767	9,654	9,947	9,892	9,819	9,809	9,779	9,664
24 Existing Generation	7,053	7,045	7,048	7,069	7,064	7,053	7,034	7,045	7,052	7,038	7,037	7,003	6,985
25 Long Term Purchases	335	335	335	335	335	335	335	335	335	335	335	335	336
26 Short Term Purchases	96	17	34	76	77	96	129	13	47	84	89	108	147
27 New Resources													
28 Short Term Market	459	459	459	459	459	459	459	459	459	459	459	459	459
28 Renewable	468	375	446	467	467	467	468	467	467	468	487	491	503
29 Cogeneration	1,055	1,123	1,054	1,055	1,074	1,105	1,134	1,160	1,125	1,089	1,146	1,321	1,322
30 Combined Cycle CT	524	962	905	816	793	702	524	935	855	781	707	482	241
31 Coal	-	-	-	-	-	-	-	-	-	-	-	-	84
32 Transmission	18	-	-	-	5	17	39	-	19	35	36	72	91
33 Peaking Resources	-	-	-	-	-	-	-	-	-	-	-	-	-
34 **Total Resources**	9,540	9,941	9,834	9,810	9,808	9,767	9,654	9,947	9,892	9,819	9,809	9,779	9,664
DIFFERENCE Case LESS base.case (Summer Peak Capacity)													
35 Native Load	-	-	-	-	-	-	-	-	-	-	-	-	-
36 Long Term Sales	-	-	-	-	-	-	-	-	-	-	-	-	-
37 less DSM	-	36	18	11	9	4	-	11	8	-	(3)	(8)	(12)
38 **Total Requirements**	-	36	18	11	9	4	-	11	8	-	(3)	(8)	(12)
39 Existing Generation	-	19	19	19	14	-	(23)	19	(2)	(18)	(19)	(58)	(78)
40 Long Term Purchase	-	(0)	(0)	(0)	(0)	0	(0)	(0)	(0)	(0)	(0)	0	(0)
41 New Resources													
42 Short Term Market	-	-	-	-	-	-	-	-	-	-	-	-	-
43 Renewable	-	-	-	-	-	-	-	-	-	-	-	-	-
44 Cogeneration	-	69	(2)	-	19	51	79	106	71	34	92	269	270
45 Combined Cycle CT	-	436	379	299	277	183	1	411	337	265	191	(37)	(286)
46 Coal	-	-	-	-	-	-	-	-	-	-	-	-	91
47 Transmission	-	(19)	(19)	(19)	(14)	(1)	22	(19)	1	18	19	57	77
48 Peaking Resources	-	(287)	(287)	(287)	(287)	(229)	(80)	(287)	(287)	(287)	(287)	(240)	(88)
49 **Total Resources**	-	219	91	13	10	4	(1)	230	121	12	(3)	(9)	(13)
50 Reserves	-	182	73	1	1	-	-	218	113	11	(1)	(1)	(2)
51 Reserve Margin (%)	-	1.7	0.7	-	-	-	-	2.1	1.1	0.1	-	-	-

Load Loss Cases

The next group of cases after the "Shotgun" Gas Cases is the Load Loss Cases. This group of cases is made up of thirty cases that were intended to explore the impact of expected regulated load that will be lost as the Company and the industry transitions from a regulated to a more deregulated environment.

As discussed earlier, the load loss case is made up of three groups of ten cases. The three groups are load loss in Oregon, load loss in Utah and load loss in both Oregon and Utah.

Load Loss - Oregon

In 1999 the Oregon State legislature passed Senate Bill 1149 (SB1149) that requires the deregulation of the Oregon electric industry. The bill requires that large customers and some smaller customers move from a regulated environment to a deregulated environment. The Company is still required to provide regulated service to residential and small general service customers.

Early in the RAMPP cycle, the Company made a preliminary estimate of the load loss that could be expected as a result of SB 1149. This estimate is included in the appendix in the Retail Load Loss assumption tab. The Company concluded that between 32% and 50% of total load would be transitioned to deregulated load as a result of SB 1149.

In creating the 10 Oregon load loss scenarios, we started with a 32% load loss in 2002 and incremented 2% per case up to a 50% load loss. The 32% load loss case has the Case Name loads.or.1 while the 50% load loss case is loads.or.10.

Oregon load in 2002 is expected to be 2,380 MW in the summer, 2,833 in the winter with 1,953 average annual MWH. The 32% load loss would be 762 MW summer, 907 MW winter and 625 aMW. The 50% load loss would result in regulated load declining by 1,190 MW summer, 1,417 MW in the winter and 976 aMW. We have assumed that the load loss is a percent of total load rather than a fixed MW value. Thus the regulated load loss increases as forecast total load increases over time.

It should be noted that the model was not modified to allow additional short-term market transactions as a result of the movement of regulated to deregulated load. It could be argued that if 1,000 MW of regulated load moves to the deregulated marketplace, that additional profitable sales of 1,000 MW should then be available. The current model has two price tiers. A given amount of short-term sales can be made at the market price plus an additional amount can be made at a lower price. If regulated load moves to the deregulated market place, then both tiers should probably be increased to reflect the greater possible sales.

Load Loss - Utah

The Utah load loss is made up of two components, the loss of four industrial customers at the end of their current contract and loss of retail load of up to 40% of total load.

Utah has four of the Company's largest industrial customer, namely Geneva Steel Corporation, Nucor Steel, Magnesium Corporation of America, and Kennecott Energy and Coal Company. These customers are often referred to as the "Utah Big Four" or simply the "Big Four". The Company estimates that the Big Four will have coincident demand of about 370 MW in the summer and 540 MW in the winter of 2001. Energy is estimated at 3.7 million MWH or 420 aMW. Their size represents 5.5% percent of 1999 booked retail load.

The Oregon load loss will occur with the implementation of the SB 1149 restructuring with the entire load loss occurring in a single year. In the Utah load loss cases, we have assumed a more gradual transition. We assumed that the impact is transitioned over a four-year period starting in the year 2001. The last year of the transition 2004 with the 2004 value percentage impact continuing on through the remainder of the study. For the highest impact of 40%, 10% would transition per year until 2004 then the 40% loss would continue to the end of the study.

The Utah Big Four are assumed to transition to market regardless of other load loss that might occur in the state of Utah. Wh... 4. Not same as pg 2 Tab 5 14A.

Utah's expected load in 2004 is 4,018 MW in the summer, 3,244 MW in the winter and 2,517 aMW. The 40% load loss would be 1,607 MW in the summer, 1,298 MW in the winter and 1,007 aMW. As in the Oregon Load Loss Cases, we have assumed that the load loss is a percent of total load rather than a fixed MW value. Thus the regulated load loss increases as forecast total load increases over time.

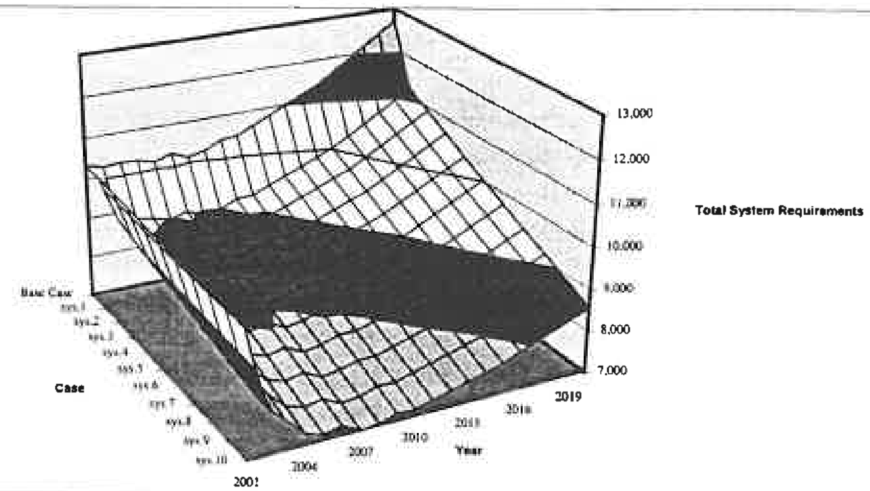
Load Loss - System

The combination of both the Oregon load loss and the Utah load loss represents the system load loss. Technically, the two load losses are independent meaning that it is possible for Oregon load loss to be fairly minor while Utah load loss might exceed projections. For our purposes, we have assumed that the factors that would cause customer participation in the deregulated marketplace will be common between states. This assumption would suggest customer load loss would occur in step between states. We therefore have matched up the Oregon minimum case loads.or.1 with the similar Utah case loads.ut.1 to create the system load loss case loads.sys.1. As with the other load loss cases, the system load loss case start with the minimum impact at 1 and the maximum impact at 10.

Just as we did in the Utah load loss cases, we have assumed that regardless of the load loss that occurs, the "Big Four" industrial customers will leave the system at the end of their current contracts.

Graph 3-22 shows the impact of the System Load Loss Assumptions. The graph has been turned so that the base.case is at the far axis and the maximum load loss is near the front. The Z-axis is Total System Requirements including Long Term Sales reduced by the impact of DSM.

Graph 3-22
Total System Load Requirements including Long Term Sales and Reduced by DSM (Summer MW)
System Load Loss - Utah Big 4 plus 4-40% of Load, Oregon 32-50% of Load in 2002



Base.case starts at 10,340 MW and remains relatively flat for the first few years as load growth is offset by the expiration of long term sales contracts. Late in the decade, most long-term contracts have expired and growth occurs at about 200 MW per year.

In the system load loss cases, three events are shown. The Utah gradual load loss over four years, the loss of the Big Four industrial customer and the Oregon SB 1149 load loss in 2002. The "Big Four" load loss occurs in 2001 but misses the summer peak so the impact is not shown till 2002. The Oregon SB 1149 load loss occurs entirely in 2002. The combined impact in 2002 is a minimum load loss of 1,000 MW with a maximum load loss of 2,100.

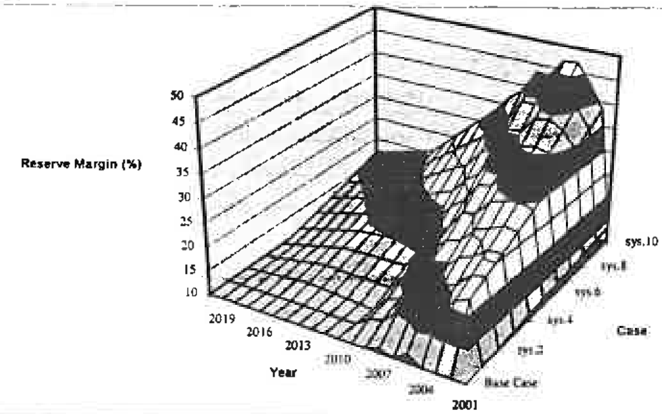
The other graphs in Graph 3-23 show the reserve margin impact of the Oregon and the Utah only load loss.

Tables 3-24 to 3-26 show the results from the base.case and load loss cases at the tenth year (2010) of the 20-year planning horizon. The first section of the table shows summer peak capacity and the second section shows annual energy. The third section shows the difference between the current case and base.case for summer peak capacity.

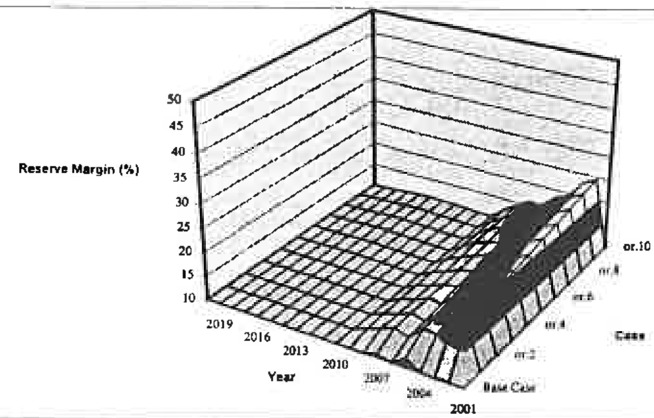
Graph 3-23

System Reserve Margin in Percent

System Load Loss - Utah Big 4 plus 4-40% of Load, Oregon 32-50% of Load in 2002



Oregon Load Loss Sweep - 32% to 50% of Load Lost in 2002



Utah Load Loss - Utah Big 4 Interruptible Customers plus 4% to 40% of Load

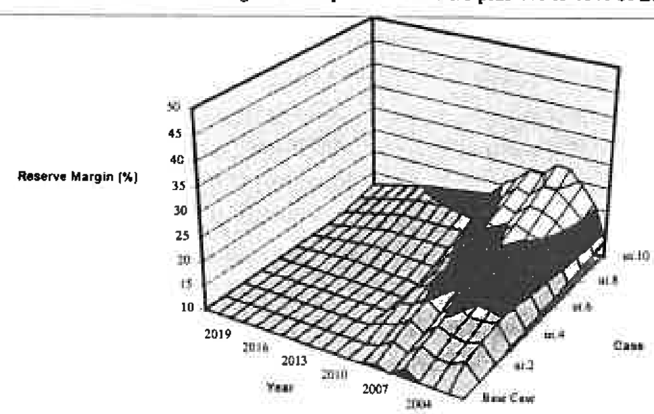


Table 3-24
Capacity and Energy Selected in the Year 2010
System Load Loss - Loss Utah Big 4, 4% to 40% Utah, 32% to 50% Oregon in 2002

		Reference	sys.1	sys.2	sys.3	sys.4	sys.5	sys.6	sys.7	sys.8	sys.9	sys.10
	Case #	1	71	72	73	74	75	76	77	78	79	80
Summer Peak Capacity in Year 2010 (MW)												
1	Native Load	9,399	8,366	8,140	7,914	7,688	7,463	7,238	7,012	6,786	6,560	6,335
2	Long Term Sales	1,249	1,043	1,043	1,043	1,043	1,043	1,043	1,043	1,043	1,043	1,043
3	less DSM	(232)	(224)	(224)	(224)	(225)	(224)	(221)	(214)	(209)	(202)	(198)
4	**Total Requirements**	**10,416**	**9,185**	**8,959**	**8,733**	**8,506**	**8,282**	**8,060**	**7,841**	**7,620**	**7,401**	**7,180**
5	Existing Generation	8,302	8,321	8,321	8,321	8,321	8,321	8,321	8,321	8,321	8,321	8,321
6	Long Term Purchase	626	626	626		626	626	626	626	626	626	626
7	New Resources											
8	Short Term Market	623	623	623	623	623	623	623	623	623	623	623
9	Renewable	-	-	-	-	-	-	-	-	-	-	-
10	Cogeneration	1,066	445	286	198	102	6	-	-	-	-	-
11	Combined Cycle CT	536	-	-	-	-	-	-	-	-	-	-
12	Coal	-	-	-	-	-	-	-	-	-	-	-
13	Transmission	19	-	-	-	-	-	-	-	-	-	-
14	Peaking Resources	287	90	-	-	-	-	-	-	-	-	-
15	**Total Resources**	**11,459**	**10,106**	**9,857**	**9,769**	**9,673**	**9,577**	**9,571**	**9,571**	**9,571**	**9,571**	**9,571**
16	Reserves	1,043	920	897	1,035	1,166	1,294	1,511	1,729	1,951	2,170	2,390
17	Reserve Margin (%)	10.0	10.0	10.0	11.8	13.7	15.6	18.7	22.1	25.6	29.3	33.3
Annual Energy in Year 2010 (aMW)												
18	Native Load	6,814	5,979	5,822	5,666	5,509	5,353	5,196	5,040	4,883	4,727	4,570
19	Pump Storage/Peak Return	223	223	223	223	223	223	223	223	223	223	220
20	Long Term Sales	794	530	530	530	530	530	530	530	530	530	530
21	Short Term Sales	1,873	1,843	1,810	1,858	1,914	1,968	2,105	2,232	2,314	2,395	2,400
22	less DSM	(164)	(155)	(155)	(155)	(158)	(155)	(154)	(149)	(146)	(142)	(139)
23	**Total Requirements**	**9,540**	**8,420**	**8,230**	**8,122**	**8,018**	**7,918**	**7,901**	**7,876**	**7,804**	**7,733**	**7,581**
24	Existing Generation	7,053	7,067	7,065	7,064	7,063	7,063	7,061	7,052	7,011	6,940	6,788
25	Long Term Purchases	335	337	335	335	335	335	334	334	334	334	334
26	Short Term Purchases	96	116	88	68	59	56	46	31	-	-	-
27	New Resources											
28	Short Term Market	459	459	459	459	459	459	459	459	459	459	459
28	Renewable	468	467	467	467	467	467	460	421	410	393	387
29	Cogeneration	1,055	440	283	196	101	6	-	-	-	-	-
30	Combined Cycle CT	524	-	-	-	-	-	-	-	-	-	-
31	Coal	-	-	-	-	-	-	-	-	-	-	-
32	Transmission	18	-	-	-	-	-	-	-	-	-	-
33	Peaking Resources	-	-	-	-	-	-	-	-	-	-	-
34	**Total Resources**	**9,540**	**8,420**	**8,230**	**8,122**	**8,018**	**7,918**	**7,901**	**7,876**	**7,804**	**7,733**	**7,581**
DIFFERENCE Case LESS base.case (Summer Peak Capacity)												
35	Native Load	-	(1,033)	(1,259)	(1,485)	(1,711)	(1,936)	(2,161)	(2,387)	(2,613)	(2,839)	(3,064)
36	Long Term Sales	-	(206)	(206)	(206)	(206)	(206)	(206)	(206)	(206)	(206)	(206)
37	less DSM	-	8	8	8	7	8	11	18	23	30	34
38	**Total Requirements**	-	**(1,231)**	**(1,457)**	**(1,683)**	**(1,910)**	**(2,134)**	**(2,356)**	**(2,575)**	**(2,796)**	**(3,015)**	**(3,236)**
39	Existing Generation	-	19	19	19	19	19	19	19	19	19	19
40	Long Term Purchase	-	0	(0)	(626)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
41	New Resources											
42	Short Term Market	-	-	-	-	-	-	-	-	-	-	-
43	Renewable	-	-	-	-	-	-	-	-	-	-	-
44	Cogeneration	-	(621)	(780)	(868)	(964)	(1,060)	(1,066)	(1,066)	(1,066)	(1,066)	(1,066)
45	Combined Cycle CT	-	(536)	(536)	(536)	(536)	(536)	(536)	(536)	(536)	(536)	(536)
46	Coal	-	-	-	-	-	-	-	-	-	-	-
47	Transmission	-	(19)	(19)	(19)	(19)	(19)	(19)	(19)	(19)	(19)	(19)
48	Peaking Resources	-	(197)	(287)	(287)	(287)	(287)	(287)	(287)	(287)	(287)	(287)
49	**Total Resources**	-	**(1,353)**	**(1,602)**	**(1,690)**	**(1,786)**	**(1,882)**	**(1,888)**	**(1,888)**	**(1,888)**	**(1,888)**	**(1,888)**
50	Reserves	-	(123)	(146)	(8)	123	251	468	686	908	1,127	1,347
51	Reserve Margin (%)	-	-	-	1.8	3.7	5.6	8.7	12.1	15.6	19.3	23.3

Table 3-25
Capacity and Energy Selected in the Year 2010
Oregon Load Loss - Loss 32% to 50% of Oregon Load in 2002

		Reference	or.1	or.2	or.3	or.4	or.5	or.6	or.7	or.8	or.9	or.10
	Case #	1	81	82	83	84	85	86	87	88	89	90
	Summer Peak Capacity in Year 2010 (MW)											
1	Native Load	9,399	8,538	8,484	8,430	8,376	8,322	8,269	8,215	8,161	8,107	8,053
2	Long Term Sales	1,249	1,249	1,249	1,249	1,249	1,249	1,249	1,249	1,249	1,249	1,249
3	less DSM	(232)	(224)	(224)	(224)	(224)	(224)	(224)	(224)	(224)	(224)	(224)
4	**Total Requirements**	10,416	9,563	9,509	9,455	9,401	9,347	9,294	9,240	9,186	9,132	9,078
5	Existing Generation	8,302	8,244	8,228	8,231	8,228	8,227	8,216	8,211	8,208	8,194	8,188
6	Long Term Purchase	626	626	626	626	626	626	626	626	626	626	626
7	New Resources											
8	Short Term Market	623	623	623	623	623	623	623	623	623	623	623
9	Renewable	-	-	-	-	-	-	-	-	-	-	-
10	Cogeneration	1,066	519	487	441	394	347	308	270	226	216	216
11	Combined Cycle CT	536	257	243	245	243	242	231	216	213	184	149
12	Coal	-	-	-	-	-	-	-	-	-	-	-
13	Transmission	19	76	92	89	92	93	104	108	111	126	131
14	Peaking Resources	287	175	161	146	137	124	117	110	97	77	53
15	**Total Resources**	11,459	10,521	10,461	10,402	10,343	10,283	10,225	10,165	10,106	10,047	9,988
16	Reserves	1,043	957	952	947	941	936	930	925	920	914	909
17	Reserve Margin (%)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
	Annual Energy in Year 2010 (aMW)											
18	Native Load	6,814	6,090	6,045	6,000	5,955	5,910	5,864	5,819	5,774	5,729	5,684
19	Pump Storage/Peak Return	223	223	223	223	223	223	223	223	223	223	223
20	Long Term Sales	794	794	794	794	794	794	794	794	794	794	794
21	Short Term Sales	1,873	1,841	1,842	1,840	1,838	1,837	1,835	1,830	1,829	1,838	1,847
22	less DSM	(164)	(155)	(155)	(155)	(155)	(155)	(155)	(155)	(155)	(155)	(155)
23	**Total Requirements**	9,540	8,794	8,749	8,702	8,655	8,608	8,562	8,512	8,465	8,429	8,393
24	Existing Generation	7,053	7,001	6,987	6,989	6,987	6,986	6,976	6,972	6,969	6,956	6,951
25	Long Term Purchases	335	340	341	341	341	339	340	341	341	342	342
26	Short Term Purchases	96	158	157	154	156	158	160	160	159	159	157
27	New Resources											
28	Short Term Market	459	459	459	459	459	459	459	459	459	459	459
28	Renewable	468	467	467	467	467	467	467	467	467	467	467
29	Cogeneration	1,055	514	482	437	390	344	305	267	224	214	214
30	Combined Cycle CT	524	250	236	238	235	235	224	210	207	179	145
31	Coal	-	-	-	-	-	-	-	-	-	-	-
32	Transmission	18	72	87	84	87	88	99	103	106	119	125
33	Peaking Resources	-	-	-	-	-	-	-	-	-	-	-
34	**Total Resources**	9,540	8,794	8,749	8,702	8,655	8,608	8,562	8,512	8,465	8,429	8,393
	DIFFERENCE Case LESS base.case (Summer Peak Capacity)											
35	Native Load	-	(861)	(915)	(969)	(1,023)	(1,077)	(1,130)	(1,184)	(1,238)	(1,292)	(1,346)
36	Long Term Sales	-	-	-	-	-	-	-	-	-	-	-
37	less DSM	-	8	8	8	8	8	8	8	8	8	8
38	**Total Requirements**	-	(853)	(907)	(961)	(1,015)	(1,069)	(1,122)	(1,176)	(1,230)	(1,284)	(1,338)
39	Existing Generation	-	(58)	(74)	(71)	(74)	(75)	(86)	(91)	(94)	(108)	(114)
40	Long Term Purchase	-	-	(0)	(1)	0	(0)	0	-	0	0	0
41	New Resources											
42	Short Term Market	-	-	-	-	-	-	-	-	-	-	-
43	Renewable	-	-	-	-	-	-	-	-	-	-	-
44	Cogeneration	-	(547)	(579)	(625)	(672)	(719)	(758)	(796)	(840)	(850)	(850)
45	Combined Cycle CT	-	(279)	(293)	(291)	(293)	(294)	(305)	(319)	(322)	(352)	(387)
46	Coal	-	-	-	-	-	-	-	-	-	-	-
47	Transmission	-	57	73	70	73	74	85	90	92	107	112
48	Peaking Resources	-	(112)	(126)	(141)	(150)	(163)	(170)	(177)	(190)	(210)	(234)
49	**Total Resources**	-	(938)	(998)	(1,057)	(1,116)	(1,176)	(1,234)	(1,294)	(1,353)	(1,412)	(1,471)
50	Reserves	-	(86)	(91)	(96)	(102)	(107)	(113)	(118)	(123)	(129)	(134)
51	Reserve Margin (%)	-	-	-	-	-	-	-	-	-	-	-

Table 3-26
Capacity and Energy Selected in the Year 2010
Utah Load Loss - Loss Utah Big 4, 4% to 40% of Utah Load by 2004

		Reference	ut.1	ut.2	ut.3	ut.4	ut.5	ut.6	ut.7	ut.8	ut.9	ut.10
	Case #	1	91	92	93	94	95	96	97	98	99	100
	Summer Peak Capacity in Year 2010 (MW)											
1	Native Load	9,399	9,227	9,055	8,883	8,711	8,540	8,368	8,196	8,024	7,852	7,681
2	Long Term Sales	1,249	1,043	1,043	1,043	1,043	1,043	1,043	1,043	1,043	1,043	1,043
3	less DSM	(232)	(232)	(232)	(232)	(231)	(231)	(229)	(229)	(229)	(229)	(225)
4	**Total Requirements**	**10,416**	**10,038**	**9,866**	**9,694**	**9,523**	**9,352**	**9,182**	**9,010**	**8,838**	**8,666**	**8,499**
5	Existing Generation	8,302	8,321	8,321	8,321	8,321	8,321	8,321	8,321	8,321	8,321	8,321
6	Long Term Purchase	626	626	626	626	626	626	626	626	626	626	626
7	New Resources											
8	Short Term Market	623	623	623	623	623	623	623	623	623	623	623
9	Renewable	-	-	-	-	-	-	-	-	-	-	-
10	Cogeneration	1,066	1,040	982	934	877	717	634	570	491	450	390
11	Combined Cycle CT	536	150	152	135	28	-	-	-	-	-	-
12	Coal	-	-	-	-	-	-	-	-	-	-	-
13	Transmission	19	-	-	-	-	-	-	-	-	-	-
14	Peaking Resources	287	282	149	25	-	-	-	-	-	-	-
15	**Total Resources**	**11,459**	**11,043**	**10,854**	**10,665**	**10,476**	**10,288**	**10,205**	**10,141**	**10,062**	**10,021**	**9,961**
16	Reserves	1,043	1,005	988	971	953	936	1,022	1,131	1,224	1,355	1,462
17	Reserve Margin (%)	10.0	10.0	10.0	10.0	10.0	10.0	11.1	12.6	13.8	15.6	17.2
	Annual Energy in Year 2010 (aMW)											
18	Native Load	6,814	6,702	6,591	6,480	6,368	6,257	6,146	6,034	5,923	5,812	5,700
19	Pump Storage/Peak Return	223	223	223	223	223	223	223	223	223	223	223
20	Long Term Sales	794	530	530	530	530	530	530	530	530	530	530
21	Short Term Sales	1,873	1,851	1,886	1,911	1,855	1,799	1,816	1,856	1,864	1,913	1,941
22	less DSM	(164)	(164)	(164)	(164)	(163)	(163)	(162)	(162)	(162)	(162)	(159)
23	**Total Requirements**	**9,540**	**9,143**	**9,066**	**8,980**	**8,812**	**8,646**	**8,552**	**8,481**	**8,377**	**8,315**	**8,235**
24	Existing Generation	7,053	7,067	7,065	7,063	7,063	7,064	7,066	7,060	7,057	7,058	7,050
25	Long Term Purchases	335	336	335	335	335	335	334	334	334	334	334
26	Short Term Purchases	96	102	84	65	60	78	66	63	40	19	5
27	New Resources											
28	Short Term Market	459	459	459	459	459	459	459	459	459	459	459
28	Renewable	468	467	467	467	467	467	467	469	469	469	454
29	Cogeneration	1,055	1,030	972	925	868	710	627	565	486	445	386
30	Combined Cycle CT	524	149	150	133	28	-	-	-	-	-	-
31	Coal	-	-	-	-	-	-	-	-	-	-	-
32	Transmission	18	-	-	-	-	-	-	-	-	-	-
33	Peaking Resources	-	-	-	-	-	-	-	-	-	-	-
34	**Total Resources**	**9,540**	**9,143**	**9,066**	**8,980**	**8,812**	**8,646**	**8,552**	**8,481**	**8,377**	**8,315**	**8,235**
	DIFFERENCE Case LESS base.case (Summer Peak Capacity)											
35	Native Load	-	(172)	(344)	(516)	(688)	(859)	(1,031)	(1,203)	(1,375)	(1,547)	(1,718)
36	Long Term Sales	-	(206)	(206)	(206)	(206)	(206)	(206)	(206)	(206)	(206)	(206)
37	less DSM	-	-	-	-	1	1	3	3	3	3	7
38	**Total Requirements**	-	**(378)**	**(550)**	**(722)**	**(893)**	**(1,064)**	**(1,234)**	**(1,406)**	**(1,578)**	**(1,750)**	**(1,917)**
39	Existing Generation	-	19	19	19	19	19	19	19	19	19	19
40	Long Term Purchase	-	(1)	(0)	(1)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
41	New Resources											
42	Short Term Market	-	-	-	-	-	-	-	-	-	-	-
43	Renewable	-	-	-	-	-	-	-	-	-	-	-
44	Cogeneration	-	(26)	(84)	(132)	(189)	(349)	(432)	(496)	(575)	(616)	(676)
45	Combined Cycle CT	-	(386)	(384)	(401)	(508)	(536)	(536)	(536)	(536)	(536)	(536)
46	Coal	-	-	-	-	-	-	-	-	-	-	-
47	Transmission	-	(19)	(19)	(19)	(19)	(19)	(19)	(19)	(19)	(19)	(19)
48	Peaking Resources	-	(5)	(138)	(262)	(287)	(287)	(287)	(287)	(287)	(287)	(287)
49	**Total Resources**	-	**(416)**	**(605)**	**(794)**	**(983)**	**(1,171)**	**(1,254)**	**(1,318)**	**(1,397)**	**(1,438)**	**(1,498)**
50	Reserves	-	(38)	(55)	(72)	(90)	(107)	(21)	88	181	312	419
51	Reserve Margin (%)	-	-	-	-	-	-	1.1	2.6	3.8	5.6	7.2

Environmental Adder Cases

The next group of cases studied in RAMPP-6 is the Environmental Adder Cases. The environmental adder cases included twelve sensitivities that test the impact of potential environmental compliance costs on system planning. In each case, PacifiCorp converted the environmental adder to a mills/kWh value and added it to the variable cost of existing and potential resources.

In RAMPP-3 the Company prepared twenty-one cases to study the impact of various environmental adders under alternative load growth and DSM assumptions. In RAMPP-4 the Company scaled back the number of runs, preparing a least-cost case, a mid-cost case and a high-cost case. Environmental adder levels used in RAMPP-3 and RAMPP-4 provided information about externality costs, the implied cost of emission on society. As such the adder levels were set very high. However, environmental adders at these levels are highly unlikely and thus did not provide useful utility planning information.

CO_2 emission levels for enviro.10, enviro.25 and enviro.40 are 55, 31 and 22 million tons per year in 2004. The implied impact on the Company for just the CO_2 adder is $550, $775 and $880 million per year. The Company feels that impacts at these levels are not politically viable.

To provide useful information, the environmental adder level needed to be reduced to a level that represented politically viable levels likely to be imposed on the Company. The Company believes that politically viable levels are those near the cost of potential carbon dioxide (CO_2) offsets. Offsets are a trading mechanism where one ton of emission into the atmosphere is offset by one ton extraction from the air in the form of tree planting and reforesting.

In RAMPP-5 the Company developed a gradual environmental adder analysis that included environmental adder levels that were more politically viable. The gradual environmental adder analysis consisted of a maximum carbon dioxide (CO_2) adder of $40 per ton, a total suspended particulate (TSP) adder of $4,000 per ton and a nitrous oxide (NO_x) adder of $5,000 per ton. Dividing $4,000 and $5,000 by the $40 per ton resulted in an adder ratio of $100 per ton of TSP and $125 per ton of NO_x for each $1 per ton of CO_2. The Company used this ratio in developing runs from $1 to $10 per ton of CO_2 tax plus additional levels at $25 and $40 per ton. The RAMPP-6 study uses the exact same approach to study the impact of a potential environmental adder tax.

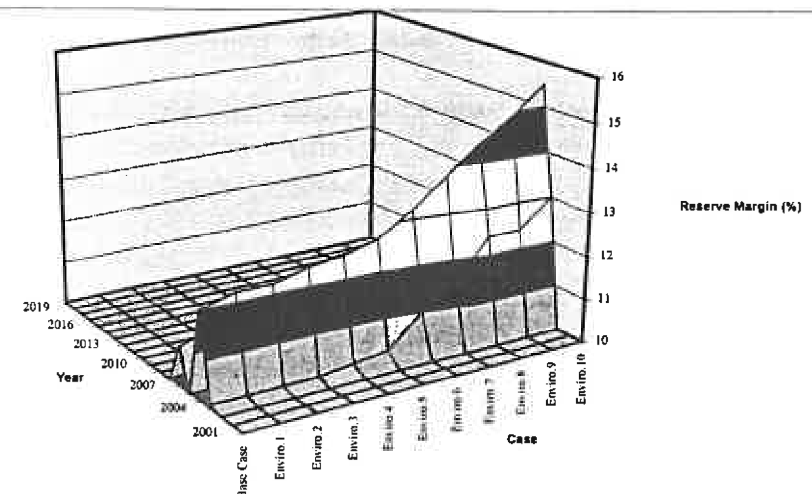
As mentioned earlier in the chapter, the Company believed that the likely form of the environmental adder would be a combination of both carbon offsets and on-system changes to reduce emissions. The Company doesn't know at this time what form this combination is likely to take, however, we can estimate the impact by estimating the cost per-ton.

Environmental Adder Analysis

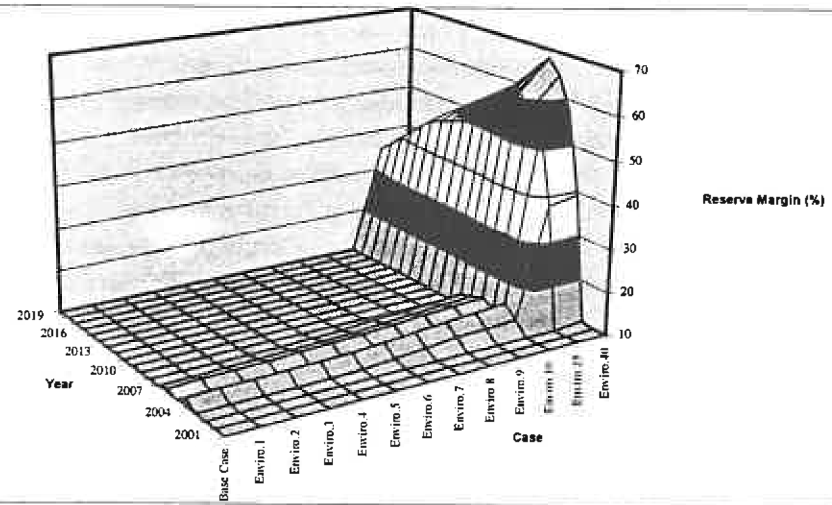
Inclusion of an environmental adder has two principle effects. At low adder levels, the model responds by operating the system differently. At higher adder levels the model will replace existing coal-fired resources and replace them with wind, geothermal and gas-fired resources.

Graph 3-27 shows the reserve margin for the environmental adder cases. The base.case selected some resources in 2005 above the 10% reserve margin required by the Company. This addition was primarily to take advantage of short-term wholesale sales. With the advent of environmental adders, all short-term purchase and sale prices have been increased to include the gas-fired environmental adders.

Graph 3-27
System Reserve Margin in Percent
Environmental Adder Cases (Adders at $1 to $10 per Ton)



Environmental Adder Cases Including $25 and $40 per Ton Cases

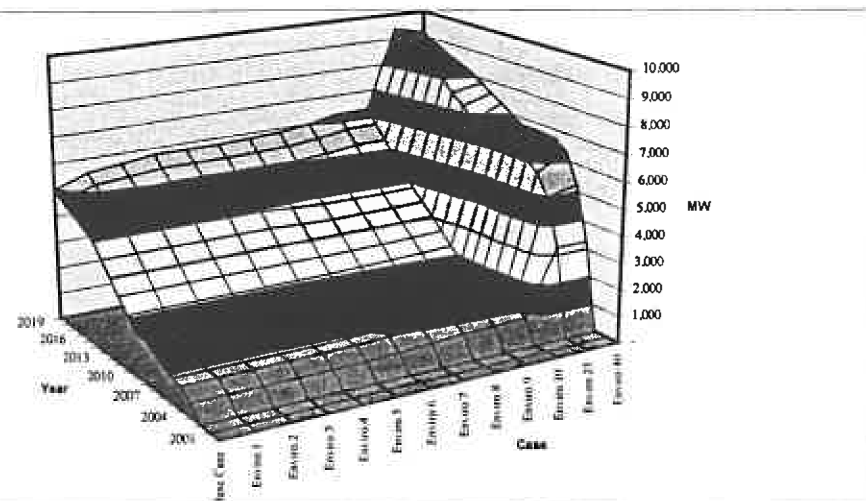


Graph 3-27 shows that reserve margin increases slightly from 12.0 percent for the base.case to 12.7% for enviro.5. This increase reflects changes in the way the system is dispatched. Above the enviro.5 level, $5 per ton of CO2, the model selects gas-fired resources at a faster pace. Up to the enviro.10 level the changes in the graph reflect dispatching the system differently as well as some system reconfiguring.

Moving to the enviro.25 and enviro.40 levels we see a drastic increase in reserve margin. At these levels of reserve margin, the model is rebuilding the system to reduce the impact of the environmental adders.

Graph 3-28 shows the summer gas-fired resources selected. As in the base.case, gas-fired resources are the resource of choice in the environmental adder cases. For the low-level environmental adders the level of gas-fired resources selected increases slightly as the level of environmental adder increases. Base.case selects 539 MW of gas-fired resources in 2004 and 334 in 2005. Enviro.10 selects 837 mw in 2004 and 381 in 2005.

Graph 3-28
Summer Cogeneration & Combined Cycle Resources Selected (MW)
Environmental Adder Cases



At the enviro.25 and enviro.40 level gas-fired resources are selected in large numbers to replace existing generation. At the enviro.25 level, 3,264 MW of gas-fired resources is selected in 2004 and 1,742 MW in 2005.

One of the ways that the model could respond to environmental adders is to change the level of wholesale transactions. Graph 3-29 shows net short-term wholesale sales. The term "net wholesale sales" means wholesale sales less wholesale purchases. As this graph shows, the level of wholesale transactions are reasonably stable up until enviro.5. At enviro.6 the number of wholesale purchases gradually increases causing the net level of short-term wholesale sales to decline.

At the enviro.25 level the model makes 900 aMW of wholesale purchases and no wholesale sales in the years 2001-2003. This level of wholesale transactions was made to avoid the relatively high cost of operating existing coal-fired resources. With the building of large amounts of gas-fired resources in 2004 the model makes only 846 aMW of wholesale purchases and 106 aMW of wholesale sales.

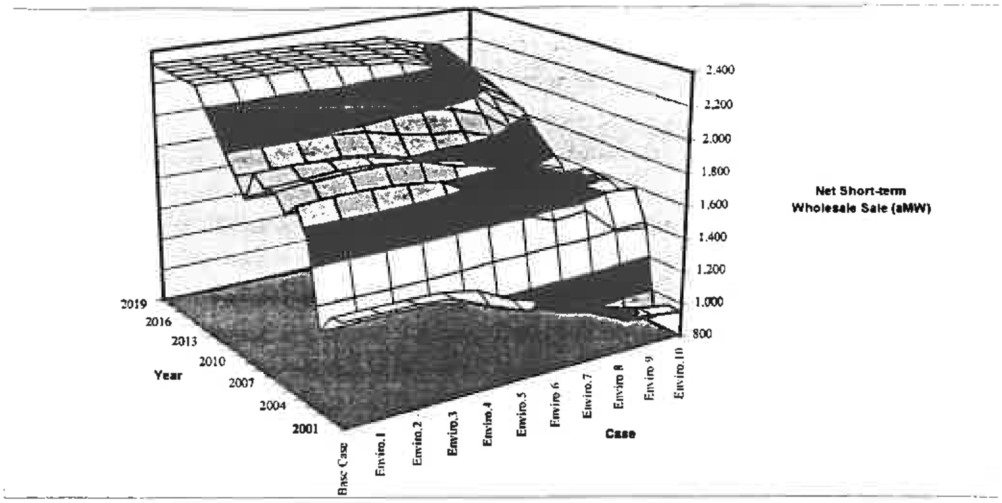
Emissions

Graph 3-30 shows the CO2 emissions in thousands of tons. For the base.case, CO2 emissions remain stable during the 20-year planning horizon. As the level of environmental adders increases emission levels decline gradually, particularly in the later years of the study. This decline late in the study is caused by the replacement of coal-fired plant with cleaner gas-fired resources. The enviro.25 and enviro.40 cases have drastically reduced emission levels caused by the early retirement of existing coal-fired resources and the selection of large amounts of gas-fired resources.

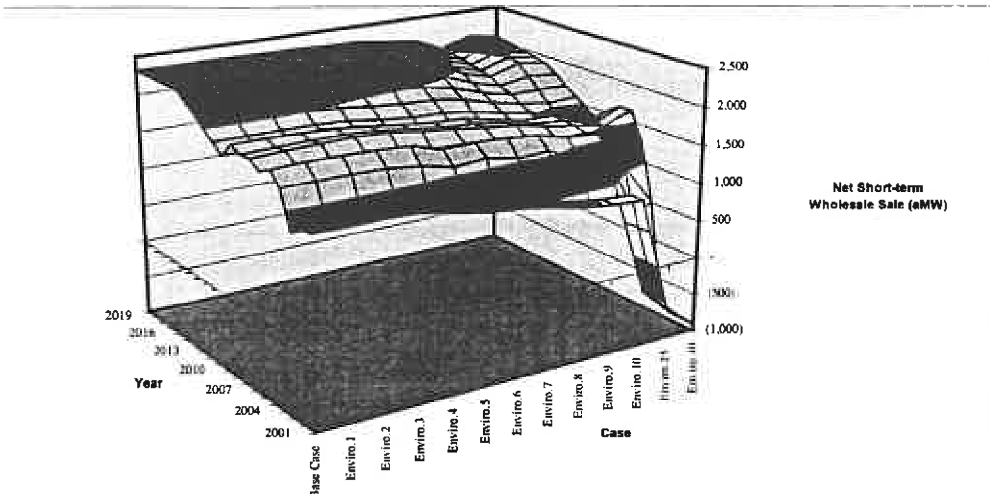
Graph 3-29

Net Short-term Wholesale Sales (aMW)

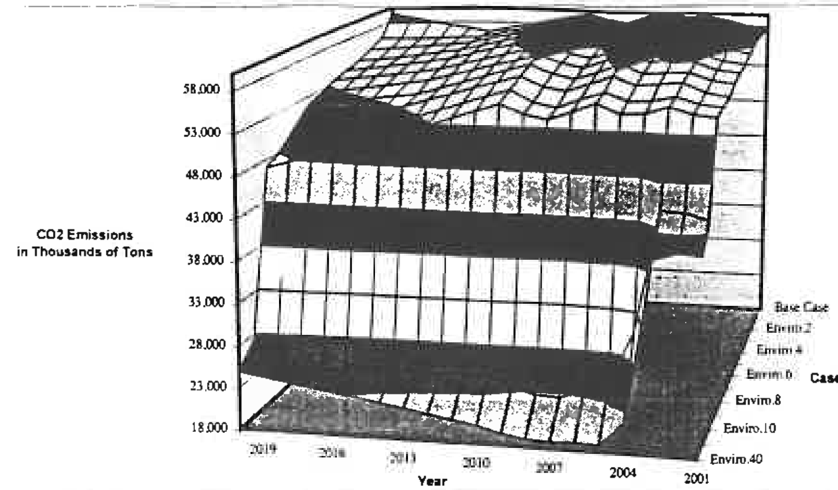
Environmental Adder Cases (Adders at $1 to $10 per Ton)



Environmental Adder Cases Including $25 and $40 per Ton Cases



Graph 3-30
CO2 Emissions in Thousands of Tons
Environmental Adder Cases Including $25 and $40 per Ton Cases



Graph 3-31 shows CO2 emissions in pounds per MWH. This graph shows the gradual decline of emissions as older coal-fired resources are retired.

Graph 3-31
CO2 Emissions in Pounds per MWH
Environmental Adder Cases Including $25 and $40 per Ton Cases

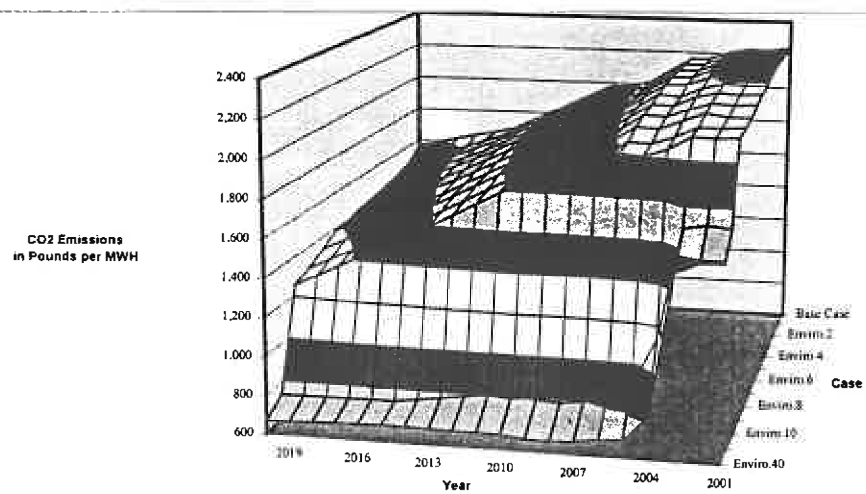


Table 3-32 shows the results from the base.case and environmental cases at the tenth year (2010) of the 20-year planning horizon. The first section of the table shows summer peak capacity and the second section shows annual energy. The third section shows the difference between the current case and base.case for summer peak capacity.

Table 3-32
Capacity and Energy Selected in the Year 2010

Environmental Tax Sweep - CO2 Tax from $1 to $40/Ton, TSP $100 to $4000/Ton, NOx $125 to $5000/Ton

		Reference	enviro.1	enviro.2	enviro.3	enviro.4	enviro.5	enviro.6	enviro.7	enviro.8	enviro.9	enviro.10	enviro.25	enviro.40
	Case #	1	101	102	103	104	105	106	107	108	109	110	111	112
	Summer Peak Capacity in Year 2010 (MW)													
1	Native Load	9,399	9,399	9,399	9,399	9,399	9,399	9,399	9,399	9,399	9,399	9,399	9,399	9,399
2	Long Term Sales	1,249	1,249	1,249	1,249	1,249	1,249	1,249	1,249	1,249	1,249	1,249	1,249	1,249
3	less DSM	(232)	(232)	(232)	(232)	(235)	(238)	(239)	(242)	(242)	(243)	(242)	(254)	(262)
4	**Total Requirements**	10,416	10,416	10,416	10,416	10,413	10,410	10,409	10,406	10,406	10,405	10,406	10,394	10,386
5	Existing Generation	8,302	8,319	8,321	8,321	8,321	8,321	8,321	8,321	8,321	8,321	8,321	8,321	8,321
6	Long Term Purchase	626	626	626	626	626	626	626	626	626	626	626	626	626
7	New Resources													
8	Short Term Market	623	623	623	623	623	623	623	623	623	623	623	623	623
9	Renewable	-	-	-	-	-	-	-	-	-	-	-	126	226
10	Cogeneration	1,066	1,073	1,269	1,272	1,279	1,296	1,310	1,324	1,355	1,416	1,456	3,350	3,440
11	Combined Cycle CT	536	529	333	329	319	328	337	376	381	374	384	2,722	3,277
12	Coal	-	-	-	-	-	-	-	-	-	-	-	-	-
13	Transmission	19	2	-	-	-	-	-	-	-	-	-	-	-
14	Peaking Resources	287	287	287	287	287	257	233	177	141	86	36	-	-
15	**Total Resources**	11,459	11,460	11,459	11,459	11,455	11,452	11,451	11,447	11,448	11,446	11,448	15,770	16,515
16	Reserves	1,043	1,043	1,043	1,043	1,042	1,042	1,042	1,042	1,042	1,042	1,042	5,376	6,128
17	Reserve Margin (%)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	51.7	59.0
	Annual Energy in Year 2010 (aMW)													
18	Native Load	6,814	6,814	6,814	6,814	6,814	6,814	6,814	6,814	6,814	6,814	6,814	6,814	6,814
19	Pump Storage/Peak Return	223	223	223	223	223	223	223	223	223	223	223	223	223
20	Long Term Sales	794	794	794	794	794	794	794	794	794	794	794	794	794
21	Short Term Sales	1,873	1,871	1,869	1,867	1,847	1,821	1,766	1,759	1,707	1,688	1,647	1,543	1,654
22	less DSM	(164)	(164)	(164)	(164)	(168)	(171)	(172)	(175)	(175)	(176)	(175)	(184)	(190)
23	**Total Requirements**	9,540	9,539	9,536	9,535	9,511	9,481	9,426	9,415	9,363	9,344	9,303	9,191	9,295
24	Existing Generation	7,053	7,068	7,067	7,059	7,031	6,938	6,860	6,810	6,723	6,599	6,479	1,933	1,367
25	Long Term Purchases	335	335	335	335	335	335	335	335	335	350	356	376	292
26	Short Term Purchases	96	96	96	96	103	141	141	129	128	163	187	271	295
27	New Resources													
28	Short Term Market	459	459	459	459	459	459	459	459	459	459	459	459	459
28	Renewable	468	468	468	468	487	488	488	488	488	488	487	1,634	2,406
29	Cogeneration	1,055	1,062	1,256	1,259	1,266	1,282	1,297	1,310	1,341	1,402	1,442	3,316	3,402
30	Combined Cycle CT	524	517	323	326	316	325	333	372	377	371	380	2,695	3,244
31	Coal	-	-	-	-	-	-	-	-	-	-	-	-	-
32	Transmission	18	2	-	-	-	-	-	-	-	-	-	-	-
33	Peaking Resources	-	-	-	-	-	-	-	-	-	-	-	141	236
34	**Total Resources**	9,540	9,539	9,536	9,535	9,511	9,481	9,426	9,415	9,363	9,344	9,303	9,191	9,295
	DIFFERENCE Case LESS base.case (Summer Peak Capacity)													
35	Native Load	-	-	-	-	-	-	-	-	-	-	-	-	-
36	Long Term Sales	-	-	-	-	-	-	-	-	-	-	-	-	-
37	less DSM	-	-	-	-	(3)	(6)	(7)	(10)	(10)	(11)	(10)	(22)	(30)
38	**Total Requirements**	-	-	-	-	(3)	(6)	(7)	(10)	(10)	(11)	(10)	(22)	(30)
39	Existing Generation	-	17	19	19	19	19	19	19	19	19	19	19	19
40	Long Term Purchase	-	-	-	-	(1)	(1)	(1)	(1)	0	(1)	(0)	(0)	(0)
41	New Resources													
42	Short Term Market	-	-	-	-	-	-	-	-	-	-	-	-	-
43	Renewable	-	-	-	-	-	-	-	-	-	-	-	126	226
44	Cogeneration	-	7	203	206	213	230	244	258	289	350	390	2,285	2,375
45	Combined Cycle CT	-	(7)	(203)	(207)	(217)	(208)	(199)	(160)	(155)	(161)	(152)	2,187	2,742
46	Coal	-	-	-	-	-	-	-	-	-	-	-	-	-
47	Transmission	-	(17)	(19)	(19)	(19)	(19)	(19)	(19)	(19)	(19)	(19)	(19)	(19)
48	Peaking Resources	-	-	-	-	(0)	(30)	(54)	(110)	(146)	(201)	(251)	(287)	(287)
49	**Total Resources**	-	1	-	-	(4)	(7)	(8)	(12)	(11)	(13)	(11)	4,311	5,056
50	Reserves	-	-	-	-	(1)	(1)	(1)	(1)	(1)	(1)	(1)	4,333	5,085
51	Reserve Margin (%)	-	-	-	-	-	-	-	-	-	-	-	41.7	49.0

Validity of High Environmental Adders

The Company does not believe that the enviro.25 and enviro.40 cases are realistic representations of a likely future. First, both cases are based on the same gas and wholesale market assumptions as the base.case. In the unlikely event that environmental adders increase to this level, prices would certainly increase substantially above the assumed 190¢/MMBtu gas and 26 mills/kWh wholesale market prices. Second, the model assumes a rapid increase in gas-fired resources. It is unlikely that the suppliers of gas-fired plants could increase capacity fast enough to meet the increase in nationwide demand. The capital cost of gas-fired resources would certainly increase substantially. Third, with the likely drastic increase in gas and capital cost, other potential resources would become economically viable and would be selected rather than gas-fired resources. Fourth, the Company believes that the load forecast is accurate assuming reasonable resource prices. Enviro.25 and enviro.40 would result in environmental adder, fuel, capital and system restructuring costs that would produce consumer rates that are beyond this "reasonable" level. Price elasticity of demand would reduce forecast demand. Fifth, as mentioned earlier, the implied cost impact at the $10, $20 and $40 per ton levels are $550, $775 and $880 million per year. The Company feels that impacts at these levels are not politically viable.

Special Interest Cases

As part of each RAMPP study the Company typically does a series of studies to address issues or questions that come up during the RAG meetings. In RAMPP-6 we have completed twelve special interest cases. Table 3-33 is a list of these twelve cases along with their Case Names.

Table 3-33
List of Special Interest Cases

Case Number	Case Name	Description	
121	capcost.down	Capital Cost Sensitivity	20% Decrease in Real Levelized Carrying Charge
122	capcost.up	Capital Cost Sensitivity	20% Increase in Real Levelized Carrying Charge
123	gas.low	Gas-fired Resource Sensitivity	High Gas Resource Capital Cost
124	gas.high	Gas-fired Resource Sensitivity	Low Gas Resource Capital Cost
125	trans.zero	No Transmission Cost	for Gas-fired Resources
126	renew.geotherm	Renewable Cost Sensitivity	Escalation rate needed to bring Geothermal on by 2010
127	renew.solar	Renewable Cost Sensitivity	Escalation rate needed to bring Solar on by 2010
128	renew.wind	Renewable Cost Sensitivity	Escalation rate needed to bring Wind on by 2010
129	Utah.grow	Utah grows 50% faster to 2010	then 25% faster to 2020
130	loads.big4	Loss of Utah 'Big 4' Industrial	Customers at end of Current Contracts
131	firm.ind	Large Customers Modeled as	Firm Retail Customers
132	critical.wtr	Hydro Resources Reduced to	Critical Water Levels

Gas-Fired Capital Cost Sensitivities

Three sets of special interest cases were prepared to study concerns brought up during several RAG meetings regarding the capital cost estimates for potential resources. The three sets are the Capital Cost Sensitivities (Cases 121 & 122), the Gas Fired Resource Sensitivities (Cases 123 & 124) and the No Transmission Cost for Gas Fired Resource Case (Case 125).

In RAMPP-5 capital costs for gas-fired resources declined because of soft demand in the industry. In RAMPP-6 demand for gas-fired resources had firmed up and resource prices had returned to a more long-term level. The RAG group was concerned that capital cost fluctuations might have a material impact on the study. The purpose of these capital cost sensitivities were to determine the impact of fluctuating capacity cost.

Capital Cost Sensitivities

The first set of cases is the capital cost sensitivity.

The IPM model takes the potential capital cost and multiplies it by a real levelized carrying cost to obtain an annual cost per kW. These sensitivities can be looked at as testing the sensitivity to either a change in the capital cost assuming the carrying charge remains constant or a change to the carrying charge assuming the capital cost remains constant. To complete this study, we modified the carrying charge by 20% rather than the individual capital costs.

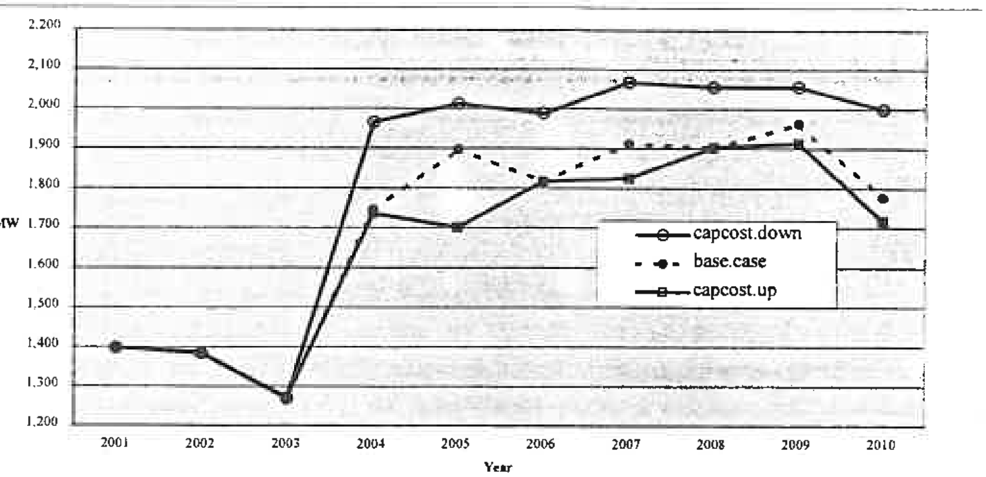
This section has been written as if capital costs for all potential resources have declined or increased 20%. It could have just as easily been written as the real levelized carrying charge has declined or increased by 20%. The results are exactly the same.

In the capcost.down case the capital cost of all potential resources were reduced by 20%. Since all capital costs shifted downward by the same amount we would have thought that the reduction in capital cost would have no impact. However, a reduction of the potential resource generation cost makes them more economical relative to the wholesale marketplace. This cost advantage made it possible for the model to select additional gas-fired resources in order to make profitable wholesale market sales.

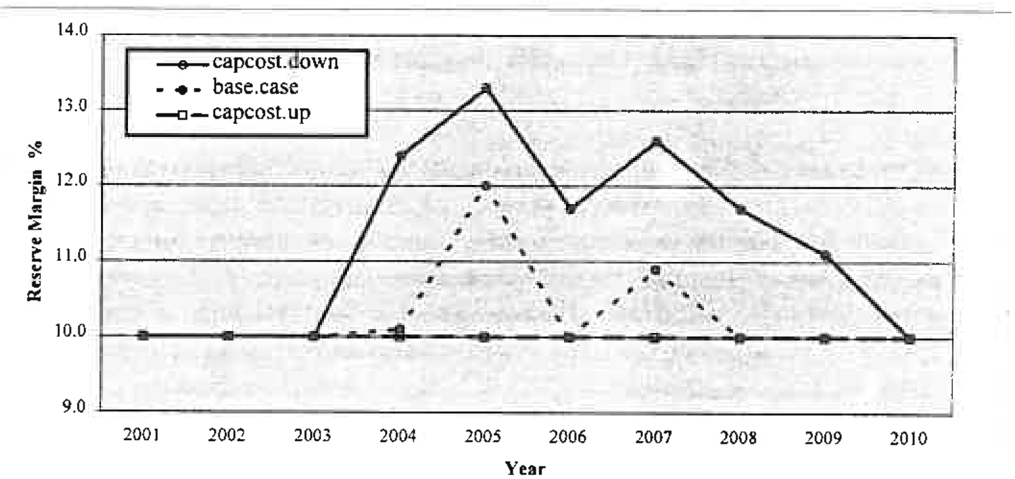
In capcost.up the reverse is true and the model made fewer wholesale market sales. Graph 3-34 shows the impact on net short-term wholesale market transactions. Note that the model is more sensitive to a reduction in capital cost than it is to an increase in capital cost.

Graph 3.35 shows the Summer Reserve Margin. In capcost.down case, the selection of additional gas-fired resources increases reserve margin above the minimum 10% required by the Company. The opposite is true for capcost.up. The additional capital cost made wholesale sales less economical and the model selected the minimum 10% reserve margin.

Graph 3-34
Net Short-term Wholesale Sales (aMW)
Capital Cost Increased 20% and Decreased 20% Relative to Base.Case



Graph 3-35
Summer Reserve Margin (%)
Capital Cost Increased 20% and Decreased 20% Relative to Base.Case



Another impact of the change in capital cost is the mix of resources selected. Gas-fired resources retains a fairly large advantage of other possible technologies, coal-fired, wind and geothermal. Not all resources have the same mix of capital cost versus fuel cost. In the capcost.up case the model switches from cogeneration to combined cycle combustion turbine resources since cogeneration has a higher capital costs. For example, in 2004 the model selected 343 fewer MW of Cogeneration while adding an additional 333 MW of Combined Cycle.

Coal-fired resources tend to benefit most from the 20% reduction in capital cost because the are more capital intensive. Thus the decline in capital cost narrows the difference between gas-fired and coal-fired resources. A 20% reduction in capital cost was not a sufficient change to make a significant impact on the amount of coal-fired resources selected.

The reduction in capital costs resulted in reduced costs to the system. Total System Production Cost (TSPC), 40 year NPV of all production costs, declined by $597 million as a result of the lower capital costs in the capcost.down case. TSPC increased $552 million in the capcost.up case.

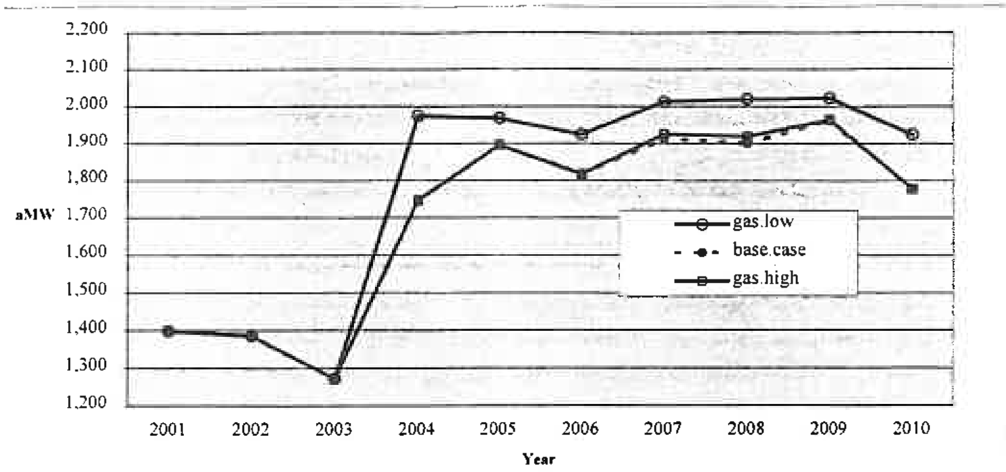
Gas-Fired Resource Sensitivity

The second set of gas-fired capital cost studies is the Gas-Fired Resource Sensitivity. When the Company develops its estimate of capital costs the Company obtains price information from several different sources. The Company then develops a single price to represent all of the different options for a given type of resource. In this set of cases, the Company tested the impact of selecting the least price the Company might expect to pay (gas.low) versus the highest price that the Company is might expect to pay (gas.high).

In the previous set of cases, the Company modified the annual carrying charge to effect an across the board increase or decrease to all gas-fired resources. In this set of cases, each individual combined cycle combustion turbine (CCCT) resource was adjusted to either a low capital cost or the high capital cost. The least cost estimate was a Siemons-Westinghouse "F" CCCT with two gas turbines married to one steam turbine. The quote was from Gas Turbine World and came in at $452 per kW. The high cost estimate for a similar General Electric CCCT was quoted directly by the manufacturer at $524 per kW. The capital cost price spread was $72 or 16 percent.

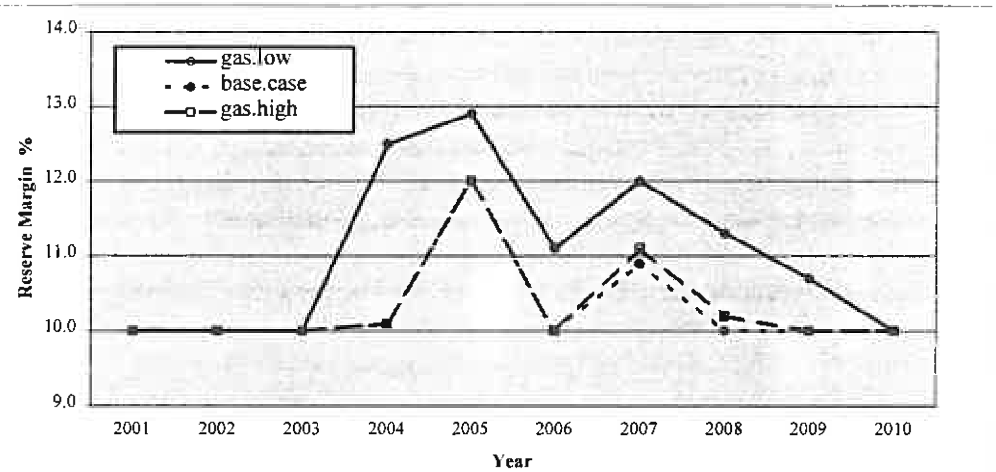
Graph 3-36 shows the short-term wholesale sale from the two cases. Since base.case and gas.high had very similar prices, these two cases produced virtually identical results. As in the Capital Cost Sensitivities, the reduction in capital costs results in gas fired resources being relatively less expensive compared to wholesale market sales. This reduction in cost allows the model to select additional profitable short-term wholesale sales.

Graph 3-36
Net Short-term Wholesale Sales (aMW)
Low and High CCCT Capital Cost Price Versus Base.Case



Graph 3-37 shows the Summer Reserve Margin for the gas.low and gas.high cases. This graph confirms that with lower capital costs, the model selects additional gas-fired resource in order to make wholesale sales.

Graph 3-37
Summer Reserve Margin (%)
Low and High CCCT Capital Cost Price Versus Base.Case



The reduction in capital costs resulted in reduced costs to the system. Total System Production Cost (TSPC), 40 year NPV of all production costs, declined by $236 million as a result of the lower capital costs in the gas.low case. TSPC increased $11 million in the gas.high case.

Transmission Capital Cost
The third set of Gas-Fired Capital Cost Studies is the No Transmission Cost for Gas Fired Resource Case (Case 125).

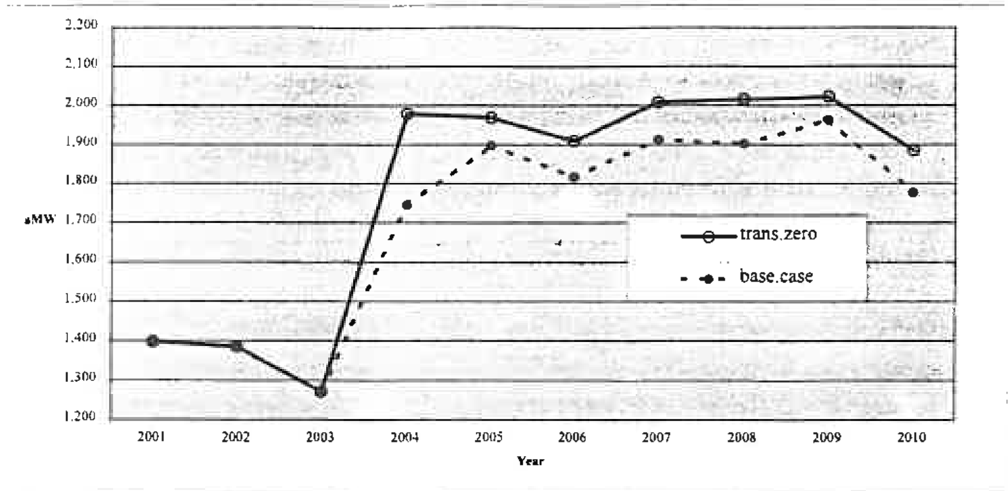
In calculating the cost of a new potential resource, the Company includes an estimate for the transmission capital cost required to bring a given resource to the system grid. In the case of Wyoming Coal this transmission cost to integrate the resource is considerable. A Wyoming coal plant would be located on the eastern side of the state and transmission plant would need to be added to the west side of the state.

The level of the transmission interconnection capital cost was questioned even though this cost is relatively low. It was argued that the next gas-fired resource would be located at the intersection of a gas pipeline and a transmission line and would have little if any transmission cost. Another group argued that all such locations are taken and a short transmission line would be required. This study reviews the impact of setting the transmission capital cost for gas-fired resources to zero.

The results of the study are similar to the capcost.down and gas.low cases already reviewed. Since the capital cost has declined relative to the wholesale market transaction, the model selected additional gas-fired resources to make additional profitable wholesale market sales. This increase in gas-fired resources increased the reserve margin in the years 2004 to 2009 above the level contained in the base.case.

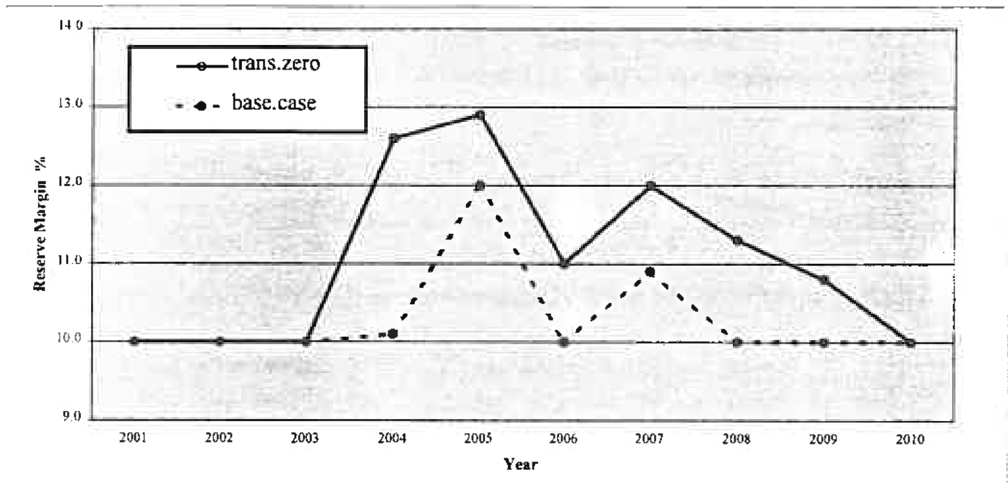
Graph 3-38 shows the Net Short-term Wholesale Sales for the No Transmission Capital Cost case.

Graph 3-38
Net Short-term Wholesale Sales (aMW)
No Transmission Capital Cost for Gas-Fired Resources Versus Base.Case



Graph 3-39 shows the Summer Reserve Margin for the No Transmission Capital Cost Case.

Graph 3-39
Summer Reserve Margin (%)
No Transmission Capital Cost for Gas-Fired Resources Versus Base.Case



The elimination of transmission interconnection capital costs for gas-fired resources reduced the Total System Production Cost (TSPC) by $195 million. The TSPC is the 40-year net present value of the production cost of the Company.

Renewable Resource Escalation Rates

In this set of three cases, the Company studied the question of "what escalation rate would make renewables cost effective by the year 2010." The three types of renewable studied were geothermal (renew.geotherm), solar (renew.solar) and wind (renew.wind).

Prices for renewable resources have been declining in recent years. Photovoltaic prices in particular have been declining as research into this technology has reduced costs and increased energy output for the resource. The Company was looking for the rate of price decline necessary to make the technology cost effective against other resources by the year 2010.

For renew.geotherm we found:

Price Reduction	Summer Capacity
0%	No Geothermal
-10%	300 MW in 2020
-15%	300 MW in 2020
-20%	300 MW in 2020
-25%	600 MW in 2015
-30%	100 MW in 2008
	300 MW by 2010

For renew.solar we found:

Price Reduction	Summer Capacity
0%	No Solar
-10%	No Solar
-15%	20 MW in 2015
-20%	43 MW in 2015
-25%	43 MW in 2015
-30%	119 MW in 2009
	238 MW by 2010

For renew.wind we found:

Price Reduction	Summer Capacity
0%	121 MW in 2020
-10%	121 MW in 2015
-12%	121 MW in 2015
-14%	121 MW in 2015
-18%	121 MW in 2015
-20%	121 MW in 2015
-21%	121 MW in 2015
-22%	121 MW in 2008

These runs were done using an earlier version of the RAMPP-6 base.case. The study was not updated when the newer version of the RAMPP-6 base.case was completed.

Utah Growth Study

Two special interest cases were prepared at the specific request of the Utah representative at the RAG meetings.

The Utah representatives voiced concerns about the Company's load forecast. They were concerned that the Company's Utah load growth assumptions were to low and that the growth rate assumption should be increased. The Company completed a special study (Utah.grow) assuming that the Utah transmission bubble load grows 50% faster then currently forecasted up to the year 2010 then 25% faster thereafter.[13]

In the Utah.grow case, the Company developed the modified growth rate by taking the 2001 and 2010 end points and calculating the average growth rate during this period. This initial growth rate was increased 50% for purposes of this study. A similar method was used for the 2010 to 2020 time period.

	Description	Winter	Summer	aMW
2001 Load	3,086	3,846	2,384	
2010 Load	3,751	4,556	2,916	
Total Change	21.53%	18.45%	22.31%	
Annual Growth Rate	2.19%	1.90%	2.26%	
+50% Growth Rate	3.29%	2.85%	3.39%	
Adjusted 2010 Load	4,128	4,952	3,220	

[13] As noted in chapter 2 the Company does not expect Utah's current high load growth to continue into the future. These sensitivities are presented to evaluate the impact of continued high load growth.

Table 3-40 shows the original and revised Utah transmission bubble loads.

Table 3-40
Utah Transmission Bubble Loads

	As Revised			As Originally Filed			Difference		
Year	UTAH			UTAH			UTAH		
	Win	Sum	aMW	Win	Sum	aMW	Win	Sum	aMW
2001	3,086	3,846	2,384	3,086	3,846	2,384	-	-	-
2002	3,187	3,956	2,465	3,083	3,820	2,384	105	136	82
2003	3,292	4,068	2,549	3,155	3,909	2,447	138	160	102
2004	3,400	4,184	2,636	3,244	4,018	2,517	157	166	119
2005	3,512	4,303	2,725	3,330	4,113	2,560	182	190	165
2006	3,627	4,426	2,818	3,413	4,201	2,607	215	225	210
2007	3,747	4,552	2,913	3,497	4,306	2,666	250	246	247
2008	3,870	4,682	3,012	3,584	4,344	2,727	286	338	286
2009	3,997	4,815	3,114	3,674	4,490	2,789	323	325	326
2010	4,128	4,952	3,220	3,751	4,556	2,916	378	397	304
2011	4,288	5,159	3,365	3,841	4,760	3,044	447	399	321
2012	4,453	5,374	3,517	3,940	4,893	3,122	514	481	396
2013	4,625	5,598	3,676	4,033	4,998	3,212	593	601	464
2014	4,804	5,832	3,842	4,134	5,122	3,301	670	710	541
2015	4,990	6,075	4,016	4,228	5,240	3,383	762	835	633
2016	5,182	6,328	4,197	4,325	5,374	3,458	857	955	739
2017	5,382	6,592	4,386	4,431	5,492	3,561	952	1,100	826
2018	5,590	6,867	4,585	4,592	5,690	3,705	999	1,177	879
2019	5,806	7,154	4,792	4,712	5,840	3,813	1,094	1,314	979
2020	6,031	7,452	5,008	4,836	5,993	3,923	1,194	1,459	1,085

Graph 3-41 shows total system load requirement compared to the base.case.

Table 3-42 shows the summer peak capacity difference between Utah.grow versus base.case. As a result of the new Utah load, the model responded by selecting addition short-term capacity purchases for 2002-2003. Thereafter the model met the incremental Utah load growth primarily with Utah combined cycles. In the later years of the study the model returned to the marketplace for short-term capacity purchases.

Utah Big 4

As part of the load loss studies the Company developed a case to isolate the impact of losing the Utah Big 4 industrial customers. The assumption behind this case is that the Utah industrial customers will transition to purchasing their power from the wholesale marketplace at the end of their current contracts. This being the case, the resources that were formerly used to serve these customers would be freed up and available for use by our retail customers.

Graph 3-41
Total System Load Requirements including Long Term Sales and Reduced by DSM (Summer MW)
Utah Load Grows 50% Faster (Utah.grow) Versus Base.Case

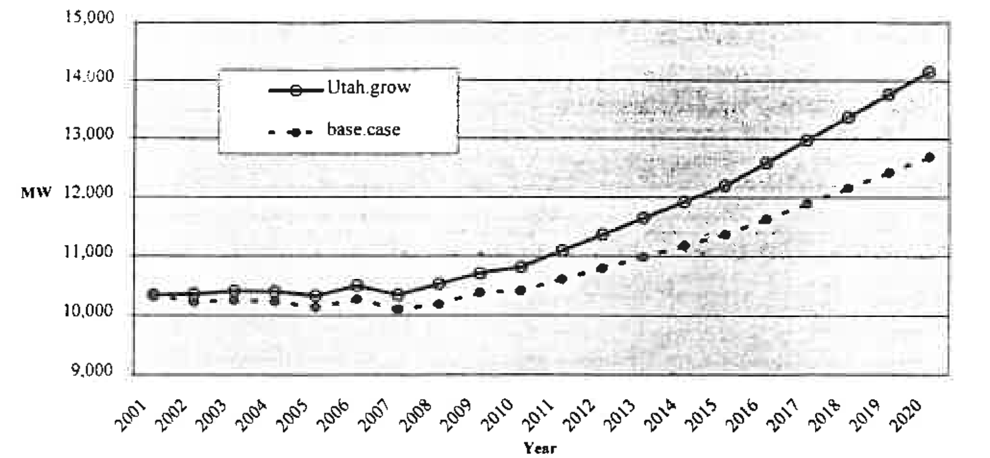


Table 3-42
Utah Load Grows 50% Faster (Utah.grow) LESS Base.Case
Annual Summer Peak Capacity (MW)

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
Native Load	-	136.0	159.0	166.0	190.0	225.0	246.0	338.0	325.0	396.0	835.0	1,459.0
Long Term Sales	-	-	-	-	-	-	-	-	-	-	-	-
DSM Programs	-	-	-	-	-	-	-	-	-	-	-	-
Total Requirements	-	**136.0**	**159.0**	**166.0**	**190.0**	**225.0**	**246.0**	**338.0**	**325.0**	**396.0**	**835.0**	**1,459.0**
Existing Generation	-	-	-	-	(23.0)	(23.0)	(23.0)	(23.0)	(23.0)	(23.0)	(23.0)	-
Long Term Purchases	-	(0.6)	0.1	-	-	-	-	-	-	(0.1)	(0.5)	0.3
Short Term Market	-	-	-	-	-	-	-	-	-	-	-	-
Short Term Cap Purch	-	149.6	174.9	-	-	-	-	-	-	78.1	233.5	393.7
New Resources	-	-	-	174.0	186.0	270.0	282.0	394.0	380.0	380.0	708.0	1,211.0
Total Resources	-	**149.0**	**175.0**	**174.0**	**163.0**	**247.0**	**259.0**	**371.0**	**357.0**	**435.0**	**918.0**	**1,605.0**
Reserves	-	14.0	16.0	8.0	(26.0)	23.0	14.0	34.0	33.0	39.0	83.0	146.0
Reserve Margin (%)	-	-	-	(0.1)	(0.4)	-	(0.1)	-	-	-	-	-

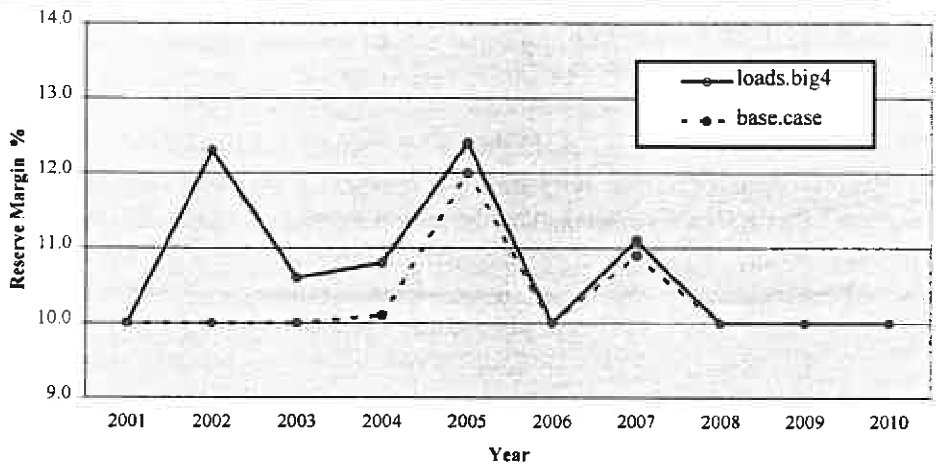
Table 3-43 shows the summer peak capacity difference between loads.big4 versus base.case. During the 2002-2003 the model selects less short-term capacity from the wholesale market. After 2003 the model selects less gas-fired resources roughly equal to the 206 MW loss of summer coincident load.

Table 3-43
Annual Summer Peak Capacity (MW)
Loss of Utah Big 4 Industrial Customers Versus Base.Case

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
Native Load	-	-	-	-	-	-	-	-	-	-	-	-
Long Term Sales	-	(206.0)	(206.0)	(206.0)	(206.0)	(206.0)	(206.0)	(206.0)	(206.0)	(206.0)	(206.0)	(206.0)
DSM Programs	-	-	-	-	-	-	-	-	-	-	-	-
Total Requirements	-	**(206.0)**	**(206.0)**	**(206.0)**	**(206.0)**	**(206.0)**	**(206.0)**	**(206.0)**	**(206.0)**	**(206.0)**	**(206.0)**	**(206.0)**
Existing Generation	-	-	-	-	19.0	19.0	19.0	19.0	19.0	19.0	19.0	-
Long Term Purchases	-	(0.7)	-	-	-	-	-	-	-	-	-	(0.1)
Short Term Market	-	-	-	-	-	-	-	-	-	-	-	-
Short Term Cap Purch	-	(1.3)	(171.0)	-	-	-	-	-	-	-	-	32.1
New Resources	-	-	-	(156.0)	(213.0)	(246.0)	(229.0)	(246.0)	(245.0)	(245.0)	(245.0)	(259.0)
Total Resources	-	**(2.0)**	**(171.0)**	**(156.0)**	**(194.0)**	**(227.0)**	**(210.0)**	**(227.0)**	**(226.0)**	**(226.0)**	**(226.0)**	**(227.0)**
Reserves	-	205.0	35.0	50.0	12.0	(20.0)	(4.0)	(21.0)	(20.0)	(21.0)	(21.0)	(21.0)
Reserve Margin (%)	-	2.1	0.6	0.7	0.4	-	0.2	-	-	-	-	-

Graph 3-44 shows the major impact from the loss of the Utah Big 4. Summer reserve margin increases in the year that the customers are lost and remains high until matching the base.case levels in the year 2006.

Graph 3-44
Summer Reserve Margin (%)
Loss of Utah Big 4 Industrial Customers Versus Base.Case

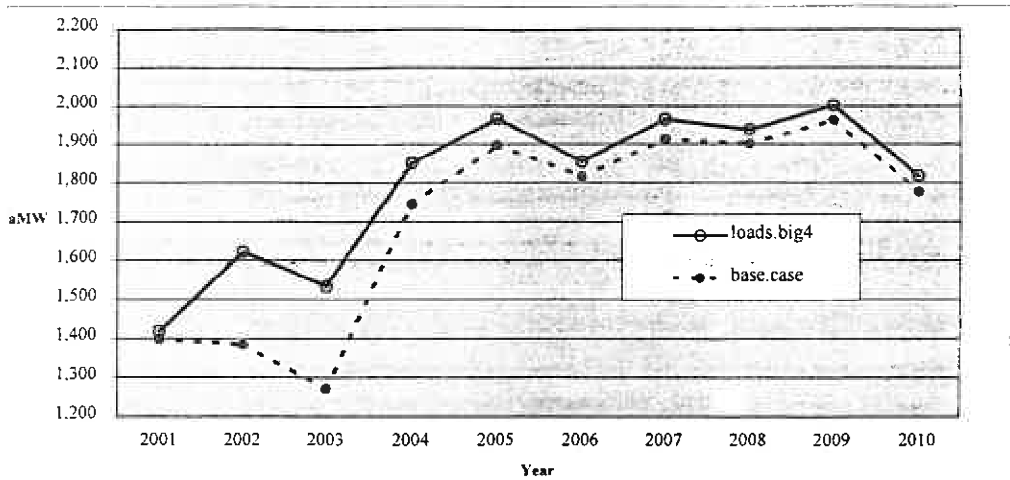


Graph 3-45 shows the impact on net short-term wholesale sales. Although the model returns to base.case reserve margin levels by 2006, the model is able to make additional profitable wholesale market sales through the end of the study.

Large Customers Modeled as Firm Retail Load

Interruptible load has been modeled as a simultaneous purchase and sale since at least RAMPP-3 up to and including RAMPP-6. In a simultaneous purchase and sale the interruptible load is included as a firm wholesale sale and the load that can be interrupted is included as a potential sale at an interruptible trigger price. The model will then select the purchase if it is economical to do so.

Graph 3-45
Net Short-term Wholesale Sales (aMW)
Loss of Utah Big 4 Industrial Customers Versus Base.Case



In early drafts of RAMPP-6 the size of the simultaneous purchase and sale were identical. In June 2000, the portion of the potential purchase was reduced to more accurately model revisions to the large industrial's contracts. The reduction has the effect of making the "Utah Big 4" industrial customers the equivalent of a firm wholesale load. Other interruptible customers were not modified and we continued to model them as a simultaneous purchase and sale. This modeling however left some questions about modeling large industrial customers as wholesale transactions. The firm.ind case was developed to address these questions.

In an early draft of firm.ind the Company modeled the Utah Big 4 as retail load without modifying the other interruptible customers. This early run produced results that were exactly identical to base.case. Long-term sales decline by an amount exactly equal to the amount that Native Load increased. In the final draft of firm.ind, the Company has moved all large industrial customers to retail load. This modeling treatment has the effect of eliminating the ability to model interruptible load so this potential resource has been lost.

Table 3-46 shows the summer peak capacity difference between firm.ind versus base.case.

Table 3-46

Case firm.ind Large Customers Modeled as Firm Retail Customers LESS Base.Case

Annual Summer Peak Capacity (MW)

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
Native Load	367.0	367.0	367.0	367.0	367.0	367.0	367.0	367.0	367.0	367.0	367.0	368.0
Long Term Sales	(368.0)	(367.0)	(367.0)	(367.0)	(367.0)	(367.0)	(367.0)	(367.0)	(367.0)	(367.0)	(367.0)	(367.0)
DSM Programs	-	-	-	-	-	-	-	-	-	-	-	-
Total Requirements	**(1.0)**	-	-	-	-	-	-	-	-	-	-	**1.0**
Existing Generation	-	-	-	-	(2.0)	(2.0)	(2.0)	(2.0)	(2.0)	(2.0)	(2.0)	-
Long Term Purchases	(161.3)	(162.0)	(160.9)	(161.0)	(161.0)	(161.0)	(161.0)	(161.0)	(161.0)	(161.0)	(161.4)	(161.6)
Short Term Market	-	-	-	-	-	-	-	-	-	-	-	-
Short Term Cap Purch	159.3	161.0	160.9	-	-	-	-	-	-	-	105.4	111.6
New Resources	-	-	-	152.0	16.0	162.0	68.0	162.0	163.0	163.0	57.0	50.0
Total Resources	**(2.0)**	**(1.0)**	-	**(9.0)**	**(147.0)**	**(1.0)**	**(95.0)**	**(1.0)**	-	-	**(1.0)**	-
Reserves	(2.0)	-	-	(9.0)	(146.0)	-	(94.0)	-	-	-	-	-
Reserve Margin (%)	-	-	-	(0.1)	(1.4)	-	(0.9)	-	-	-	-	-

Note that native load and long-term sales change by an equal amount. The long-term sale is the firm industrial customer's load. The long-term purchase is the loss of the interruptible resource. The model responses to the loss of the interruptible purchase by selecting additional short-term capacity from the market in the early years and then selecting additional gas-fired resources in the years 2004-2010. In the later years of the study the model selects some short-term capacity purchases and some gas-fired resources.

Critical Water

In the RAMPP-5 Utah acknowledgement order the Utah Commission ordered the Company to revisit critical water in RAMPP-6. The Company has traditionally produced its resource planning based on average water years rather than critical water years. The critical.wtr case was developed using critical water stream flows rather than average water.

The Company has three major groups of resources that are effected by hydro conditions. These resources are Pacific Hydro, Mid-Columbia and Utah Hydro. Pacific Hydro is the Pacific Power hydro plants including Swift, Umpqua, Merwin, Yale and Boyle hydro facilities. Mid-Columbia includes Wanapum, Priest Rapids and Rocky Reach. Utah Hydro is the Utah Power hydro plants including Grace, Oneida Cutler and Soda hydro facilities.

For RAMPP-6 the Company broke the traditional Utah Hydro into the Goshen and Utah transmission bubbles. 94% of Utah Hydro energy is located in the Utah transmission bubble with 6% in Goshen.

There are several ways to define critical water. For our purposes we sorted total hydro generation from lowest to highest. We averaged the lowest 5 years for Pacific Hydro and Mid-Columbia and the lowest 3 years for Utah hydro. Five and three represents about 10% of the stream flow years used in the study. For Northwest hydro we used 50 years of hydro data from 1929 to 1978. For Utah hydro we used 26 years of hydro data from 1974 to 1999.

Table 3-47 shows a summary of the critical water definition. This table shows that the difference between critical water and average water is 171 aMW. Critical water generation is 608 aMW or 78% of average generation.

Table 3-47
Analysis of Critical Water Flows for Hydro Modeling
Stream flows converted to aMW

	Season				
Pacific Hydro	Win	Spr	Sum	Fall	Annual
Average of Lowest 5 Years	542.7	402.7	260.5	376.0	395.7
Average	705.2	513.8	329.1	450.3	499.9
Ratio 5 Years / Average	77.0%	78.4%	79.1%	83.5%	79.2%
Difference	-162.5	-111.1	-68.6	-74.3	-104.2
Mid-Columbia					
Average of Lowest 5 Years	205.5	163.4	169.4	181.0	180.2
Average	263.5	197.4	219.4	192.6	218.6
Ratio 5 Years / Average	78.0%	82.8%	77.2%	94.0%	82.4%
Difference	-58.0	-34.0	-50.0	-11.6	-38.4
Utah Hydro					
Average of Lowest 3 Years	18.0	37.4	58.4	16.7	32.7
Average	50.5	71.9	69.4	51.3	60.8
Ratio 3 Years / Average	35.6%	52.1%	84.1%	32.5%	53.8%
Difference	-32.5	-34.5	-11.0	-34.6	-28.1
Total					
Average of Lowest 3 Years	766.2	603.6	488.2	573.6	608.6
Average	1,019.2	783.2	617.9	694.1	779.4
Ratio Lowest / Average	75.2%	77.1%	79.0%	82.6%	78.1%
Difference	-253.0	-179.6	-129.7	-120.5	-170.8

Utah critical water generation fluctuates more from year to year than hydro in the Northwest. Utah hydro critical water generation is 32.7 aMW or 54% of average generation. Hydro in the Northwest has critical water about 80% of average generation. Utah hydro represents only about 8% of total average generation so this fluctuation has only a minor impact.

The critical water year impact on hydro capacity is less than the 78% of average experienced by energy. Many hydro facilities have water storage capability and would reduce off-peak generation while maintaining on-peak generation. For modeling purposes, the Company assumed that hydro capacity declined by 10% as a result of critical water.

Table 3-48 shows the summer peak capacity results of the critical.wtr case. Existing generation declines as capacity from the Mid-Columbia contract declines. In the early years of the study the model selects short-term capacity purchase from the wholesale market and in later years replaces lost capacity by selection of gas-fired resources.

Table 3-48
Summer Peak Capacity (MW)
Hydro Resources Modeled at Critical Water Levels

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
Native Load	-	-	-	-	-	-	-	-	-	-	-	-
Long Term Sales	-	-	-	-	-	-	-	-	-	-	-	-
DSM Programs	-	-	-	-	-	-	-	-	-	-	-	-
Total Requirements	-	-	-	-	-	-	-	-	-	-	-	-
Existing Generation	(134.0)	(134.0)	(135.0)	(135.0)	(116.0)	(103.0)	(103.0)	(103.0)	(103.0)	(85.0)	(79.0)	(98.0)
Long Term Purchases	(0.4)	(0.6)	0.4	-	-	-	-	-	-	(0.1)	(0.5)	0.6
Short Term Market	-	-	-	-	-	-	-	-	-	-	-	-
Short Term Cap Purch	133.4	134.6	134.6	-	-	-	-	-	-	(17.9)	11.5	19.4
New Resources	-	-	-	138.0	127.0	103.0	110.0	131.0	104.0	104.0	68.0	78.0
Total Resources	1.0	-	-	23.0	11.0	-	7.0	28.0	1.0	1.0	-	-
Reserves	-	-	-	23.0	12.0	-	7.0	28.0	-	-	-	-
Reserve Margin (%)	-	-	-	0.2	0.2	-	0.1	0.1	-	-	-	-

Table 3-49 shows the annual energy impact of the critical.wtr case.

Table 3-49
Annual Energy (aMW)
Hydro Resources Modeled at Critical Water Levels

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
Native Load	-	-	-	-	-	-	-	-	-	-	-	-
Pump Storage/Peak Return	-	-	-	-	-	-	-	-	-	-	-	-
Long Term Sales	-	-	-	-	-	-	-	-	-	-	-	-
Short Term Sales	(150.3)	(149.0)	(125.9)	(7.4)	(35.4)	(58.5)	(12.5)	(24.5)	(36.6)	1.2	(1.5)	(23.7)
DSM Programs	-	-	-	-	-	-	-	-	-	-	-	-
Total Requirements	(150.2)	(149.1)	(125.9)	(7.4)	(35.3)	(58.5)	(12.4)	(24.5)	(36.6)	1.2	(1.6)	(23.7)
	-	-	-	-	-	-	-	-	-	-	-	-
Existing Generation	(173.1)	(172.8)	(171.1)	(174.8)	(151.7)	(140.2)	(139.5)	(141.4)	(140.7)	(115.0)	(108.4)	(125.7)
Long Term Purchases	-	-	1.3	-	-	-	-	-	-	-	-	(1.8)
Short Term Market	-	-	-	-	-	-	-	-	-	-	-	-
Short Term Purchases	22.9	23.7	43.8	11.4	(12.5)	(22.3)	15.7	(13.7)	(7.7)	12.6	2.9	3.9
New Resources	-	-	-	156.1	128.8	104.0	111.3	130.6	111.8	103.6	103.9	99.9
Total Resources	(150.2)	(149.1)	(125.9)	(7.4)	(35.4)	(58.5)	(12.4)	(24.5)	(36.6)	1.2	(1.6)	(23.7)

Critical water reduces generation 171 aMW in 2001 with a declining impact as resources from the Mid-Columbia contract decline. Generation levels do not match exactly because Existing Generation includes all existing generation not just hydro. The model responds to reduced hydro generation in the early years of the study by reducing short-term sales and increasing short-term purchases. In 2004 the model selects additional gas-fired resources to replace the lost generation.

Looking at Total System Production Cost we can study the financial impact of critical water. The reduction of hydro generation from average to critical water increased the 40-year NPV of system production costs by $474 million. From 2001 to 2003 the loss of hydro energy costs about 26.5 mills/kWh which is roughly equal to the assumed wholesale market price. After 2003 the cost declines to around 22 mills/kWh which is more in line with gas-fired resource costs.

Table 3-50 shows the results from the base.case, wtd.case and the Special Interest Cases at the tenth year (2010) of the 20-year planning horizon. The first section of the table shows summer peak capacity and the second section shows annual energy. The third section shows the difference between the current case and base.case for summer peak capacity.

Table 3-50
Capacity and Energy Selected in the Year 2010
Special Interest Cases

	Reference	Wtd Average	Gas Carrying Cost Down	Gas Carrying Cost Up	Gas Cap Cost Low	Gas Cap Cost High	Transm Zero	Renewable Price Advantage Geotherm	Renewable Price Advantage Solar	Renewable Price Advantage Wind	Utah Grow	Utah Big 4	Firm Ind	Critical Water
Case #	1	2	121	122	123	124	125	126	127	128	129	130	131	132
Summer Peak Capacity in Year 2010 (MW)														
1 Native Load	9,399	8,627	9,399	9,399	9,399	9,399	9,399	9,399	9,399	9,399	9,795	9,399	9,766	9,399
2 Long Term Sales	1,249	1,177	1,249	1,249	1,249	1,249	1,249	1,249	1,249	1,249	1,249	1,043	882	1,249
3 less DSM	(232)	(225)	(224)	(233)	(232)	(232)	(230)	(232)	(232)	(232)	(232)	(232)	(232)	(232)
4 **Total Requirements**	**10,416**	**9,579**	**10,424**	**10,415**	**10,416**	**10,416**	**10,418**	**10,416**	**10,416**	**10,416**	**10,812**	**10,210**	**10,416**	**10,416**
5 Existing Generation	8,302	8,301	8,187	8,321	8,321	8,292	8,321	8,305	8,294	8,269	8,279	8,321	8,300	8,217
6 Long Term Purchase	626	626	626	626	626	626	626	626	626	626	626	626	465	626
7 New Resources														
8 Short Term Market	623	623	623	623	623	623	623	623	623	623	623	623	623	623
9 Renewable	-	0	-	-	-	-	-	300	238	126	-	-	-	-
10 Cogeneration	1,066	708	1,336	913	216	917	641	1,233	1,148	1,019	1,106	1,073	1,103	1,202
11 Combined Cycle CT	536	313	517	626	1,544	685	1,078	169	335	457	853	302	660	521
12 Coal	-	4	-	-	-	-	-	-	-	-	-	-	-	-
13 Transmission	19	20	133	-	-	29	-	16	26	51	41	-	20	-
14 Peaking Resources	287	158	46	348	128	287	171	187	168	287	365	287	287	269
15 **Total Resources**	**11,459**	**10,754**	**11,468**	**11,458**	**11,460**	**11,459**	**11,461**	**11,459**	**11,459**	**11,459**	**11,894**	**11,233**	**11,459**	**11,460**
16 Reserves	1,043	1,174	1,043	1,043	1,043	1,043	1,043	1,043	1,043	1,043	1,082	1,022	1,043	1,043
17 Reserve Margin (%)	10.0	12.8	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Annual Energy in Year 2010 (aMW)														
18 Native Load	6,814	6,229	6,814	6,814	6,814	6,814	6,814	6,814	6,814	6,814	7,117	6,814	7,232	6,814
19 Pump Storage/Peak Return	223	223	223	223	223	223	223	223	223	223	223	223	223	223
20 [illegible]erm Sales	794	702	794	794	794	794	794	794	794	794	794	530	375	794
21 [illegible]rm Sales	1,873	1,953	[illegible]	1,832	1,984	1,872	1,953	1,936	1,839	1,888	1,920	1,908	2,049	1,874
22 [illegible]SM	(164)	(157)	[illegible]	(164)	(164)	(164)	(161)	(164)	(165)	(164)	(164)	(164)	(164)	(164)
23 **Total Requirements**	**9,540**	**8,949**	**9,733**	**9,499**	**9,652**	**9,539**	**9,624**	**9,603**	**9,505**	**9,555**	**9,890**	**9,311**	**9,716**	**9,541**
24 Existing Generation	7,053	7,029	6,943	7,070	7,067	7,044	7,068	7,054	7,045	7,023	7,032	7,068	7,045	6,938
25 Long Term Purchases	335	336	335	337	335	335	335	335	339	335	335	335	333	335
26 Short Term Purchases	96	99	58	115	61	95	68	76	111	93	97	89	131	109
27 New Resources														
28 Short Term Market	459	459	459	459	459	459	459	459	459	459	459	459	459	459
28 Renewable	468	461	467	469	467	468	467	1,023	563	858	468	468	468	468
29 Cogeneration	1,055	700	1,320	904	214	908	635	1,220	1,137	1,009	1,095	1,062	1,092	1,190
30 Combined Cycle CT	524	303	491	615	1,516	671	1,058	164	326	446	834	297	636	510
31 Coal	-	4	-	-	-	-	-	-	-	-	-	-	-	-
32 Transmission	18	19	126	-	-	27	-	15	25	49	39	-	19	-
33 Peaking Resources	-	0	-	-	-	-	-	279	63	141	-	-	-	-
34 **Total Resources**	**9,540**	**8,949**	**9,733**	**9,499**	**9,652**	**9,539**	**9,624**	**9,603**	**9,505**	**9,555**	**9,890**	**9,311**	**9,716**	**9,541**
DIFFERENCE Case LESS base.case (Summer Peak Capacity)														
35 Native Load	-	(772)	-	-	-	-	-	-	-	-	396	-	367	-
36 Long Term Sales	-	(72)	-	-	-	-	-	-	-	-	-	(206)	(367)	-
37 less DSM	-	7	8	(1)	-	-	2	-	-	-	-	-	-	-
38 **Total Requirements**	-	**(837)**	**8**	**(1)**	-	-	**2**	-	-	-	**396**	**(206)**	-	-
39 Existing Generation	-	(1)	(115)	19	19	(10)	19	3	[illegible]	(33)	(23)	19	(2)	(85)
40 Long Term Purchase	-	(0)	(1)	-	(0)	-	0	-	0	-	(0)	-	(161)	(0)
41 New Resources														
42 Short Term Market	-	-	-	-	-	-	-	-	-	-	-	-	-	-
43 Renewable	-	-	-	-	-	-	-	300	238	126	-	-	-	-
44 Cogeneration	-	(358)	270	(153)	(850)	(149)	(425)	167	82	(47)	41	7	37	136
45 Combined Cycle CT	-	(222)	(19)	91	1,009	149	542	(367)	(201)	(79)	317	(234)	124	(15)
46 Coal	-	4	-	-	-	-	-	-	-	-	-	-	-	-
47 Transmission	-	1	114	(19)	(19)	10	(19)	(3)	7	32	22	(19)	1	(19)
48 Peaking Resources	-	(129)	(241)	61	(159)	-	(116)	(100)	(119)	-	78	-	-	(18)
49 **Total Resources**	-	**(705)**	**9**	**(1)**	**1**	-	**2**	-	-	-	**435**	**(226)**	-	**1**
50 Reserves	-	131	-	-	-	-	-	-	-	-	39	(21)	-	-
51 Reserve Margin (%)	-	2.8	-	-	-	-	-	-	-	-	-	-	-	-

Chapter 4: Modeling Inputs

To prepare the new RAMPP-6 reference case, the Company reviewed all of the modeling inputs and updated those that changed.

Major Input Assumption Changes since RAMPP-5

The Company also made revisions to the following key inputs:

- Load Forecast
- Gas prices revised to 'shotgun' gas forecast
- Short-term wholesale market prices revised to 'shotgun' forecast
- Cost of capital,
- Potential resource costs and transmission costs.
- Capital Cost modeling including rate of technological change

The following text discusses each of these areas and other input assumptions for the new RAMPP-6 reference case.

The Model
The Company continues to use the IPM model from ICF Resources, Inc. for its IRP modeling work. The IPM is a capacity expansion, linear programming model that minimizes the present value of total resource production costs. The modeling uses a 20-year planning horizon plus and additional 20 end-effect years to recognize the financial benefits of investments made in the last few years of the planning period. To keep model run times manageable, the Company required the model to select new resources for only some of the years in the study period. These "run years" for the RAMPP-6 base case included each of the first ten years, then in the fifteen twentieth and thirtieth years. There were no code changes in the model between RAMPP-5 and RAMPP-6.

Reserve Margin
The RAMPP-6 reference case continues to use a 10 percent reserve margin.

Geographic Areas and Transmission Limits

PacifiCorp has enough transmission capacity in each geographic area it serves to meet local load requirements. However, transmission constraints limit the transfer of power between areas. These constraints are particularly evident between the western and eastern parts of PacifiCorp's system. The model recognizes these transmission constraints between geographic areas. It dispatches new and existing resources and additional generating resources so that power flowing between geographic areas stays within these transmission limits.

The model uses simultaneous equations to find a least cost solution, considering alternative ways to meet load growth needs:

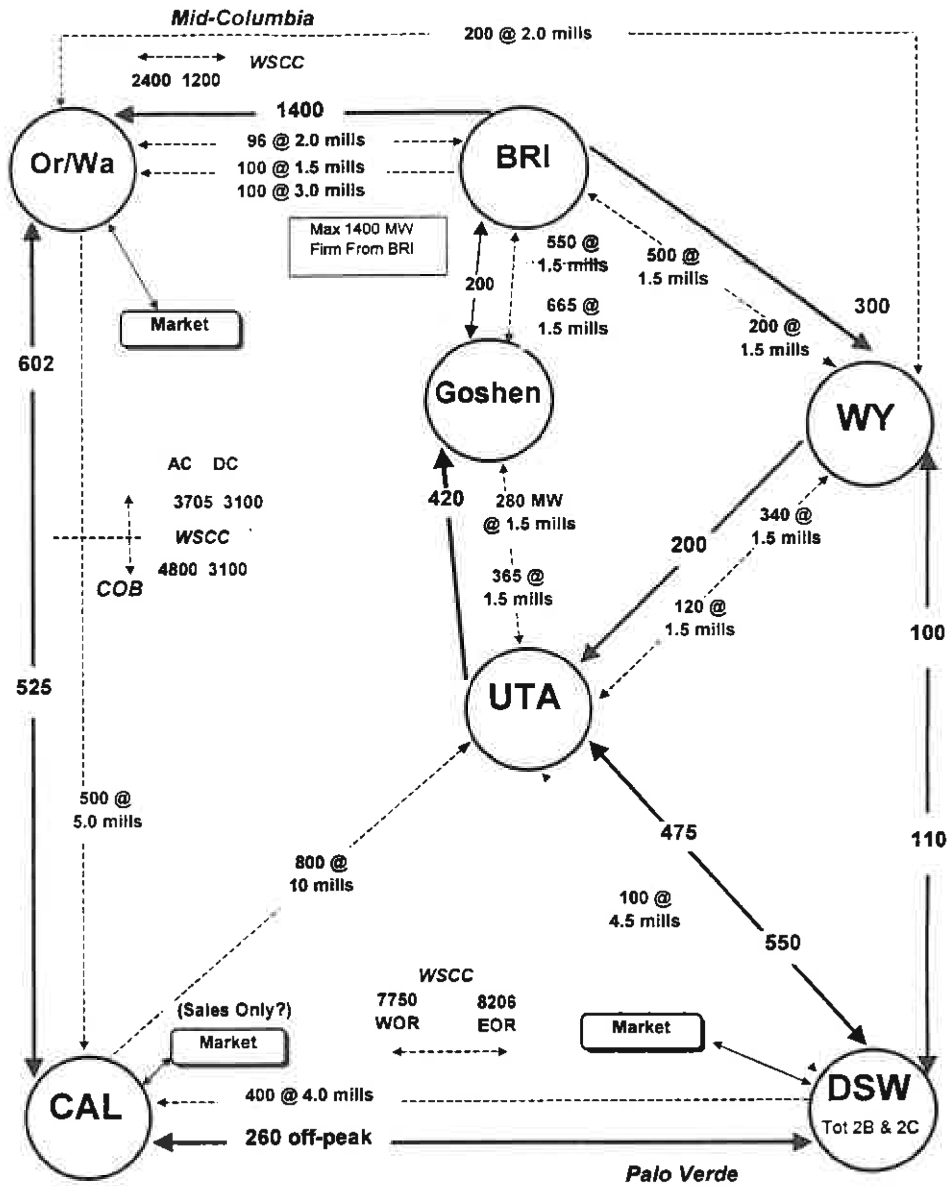
1. existing resources within a geographic area,
2. available resources from other areas that can move over the existing transmission network,
3. an increase in transmission capability and
4. adding resources in a manner that respects the transfer limits.

Map 4-1 shows the geographic representation of PacifiCorp's system as input into the model. The arrows and numbers indicate the transmission paths and the amount of power PacifiCorp can move along those paths. A designation such as "96 @ 2.0 mills" indicates that the model could move an additional 96 MW of power at a price of 2 mill/kWh[14]. Transfer constraints involve a combination of the official published transfer capabilities recognized by the Western System Coordinating Council (WSCC), or the level of contract rights PacifiCorp has secured from and sold to other utilities. The transmission modeling changes from the RAMPP 5 topology improved the representation of PacifiCorp's contractual transmission limitations.

[14] It should be noted that the Company does not own or have rights to the additional capacity listed on Map 4-1. This transfer capability may not be available during periods of high transmission loads, during hot summer weather or during periods of critical water.

Map 4-1

Geographic Regions and Transfer Capabilities



The model includes the following geographic areas:

- Or/Wa: represents load areas in Oregon and Washington as used in this report; it signifies the western side of the PacifiCorp system. This area includes the Colstrip coal-fired plants, the Hermiston and James River cogeneration plants, the Pacific and Mid-Columbia hydro resources, the BPA peaking contracts, and other purchased power contracts.

- CAL: represents the California market.

- Goshen: represents the Northern Idaho load area; it includes half of the Idaho state load and 6% of what the Company has traditionally modeled as Utah hydro.

- BRI: represents the Bridger interconnection; it includes the Jim Bridger coal-fired plant. The model recognizes that the plant's location and nearby transmission connections with Idaho Power impost constraints on the system.

- WYO: represents load areas in eastern Wyoming; it includes the Dave Johnston and Wyodak coal-fired plants and some purchased power.

- UTA: represents load areas in southern Idaho, southwestern Wyoming and in Utah; it includes the Carbon, Huntington, Hunter and Naughton coal-fired plants, the Blundell geothermal plant, the Gadsby gas-fired plant, the Foote Creek Wind Project, the Little Mountain Cogeneration plant, most of Utah hydro resources, and purchased power contracts.

- DSW: represents the Desert Southwest market; it includes the Cholla, Craig and Hayden thermal plants and power sales contracts in the Desert Southwest.

In the past, transmission planners typically used the concepts of firm and non-firm transmission. However, with recent changes in the rules that apply to transmission operations, these distinctions are less applicable. A more appropriate approach is to think in terms of probability of a transmission path being available. The Company recognizes the new transmission reality by using a step function in the modeling of transmission limits among the geographic areas used in RAMPP modeling. The Company included in the model a transmission capacity between each of the geographic areas, and additional capacity available for a price.

Map 4-1 shows the model inputs for prices of additional transmission capacity. For example, from BRI to OWC there is 1,400 MW of transmission capacity available. Additional transmission capacity of 100 and 96 MW was input into the model at prices of 1.5 and 2 mills/kWh, respectively. The model will load the

1,400 line first. If additional capacity is needed the model will purchase up to 100 MW at 1.5 mills/kWh and an additional 96 MW at 2 mills/kWh.

Load Forecast

The long range electricity sales forecast is an estimate of how much electricity retail customers (including both interruptible and regular sales for resale customers) will require in the next 20 years. For the IRP process, the Company prepares an annual forecast for each customer class (residential, commercial, industrial, irrigation, and other customer classes) and then aggregates them. The Company uses as inputs to the load forecasting model a consistent set of economic, demographic, and price projections (such as employment, population, and income) specific to each of the seven geographic areas, in six states served by the Company. The system wide forecast is the sum of the seven geographic area forecasts.

The Company uses two basic forecasting methods: a combined econometric/end-use analysis for the residential and commercial classes, and an econometric forecast of the remaining customer groups.

After preparation of the energy forecast, the next step is preparation of an hourly load forecast for each of the seven geographic areas. This includes separate hourly forecasts for firm and interruptible customers in the two geographic areas where such forecasts are appropriate. This requires breaking the annual energy into monthly data on the basis of historic seasonal patterns. Further refinements develop weekly, daily and finally hourly load forecasts using historical patterns of energy use. Summing up the respective geographic area hourly forecasts produces hourly load forecasts for the Pacific and Utah Divisions and for the total Company. The maximum total Company load for each month is the peak load for the Company. The forecasting techniques allow for the production of total, firm peak, and energy forecasts.

The following discussion of the load forecasting methodology contains two sections. The first section on economics and demographics describes the methodology used to generate the employment, population, and income forecasts. The second section on energy forecasts describes the methodology used to produce the annual residential, commercial, industrial, other sales forecasts, and the hourly forecasts.

Using Economic and Demographic Factors

Within the Company's forecasting methodology, employment serves as the major determinant of future trends among the many economic and demographic variables used to drive the sales forecasting equations. Employment is also input into the equations that forecast other economic and demographic variables. The importance of employment determination derives from regional export base theory. This assumes that the local economy consists of two distinct sectors: basic and non-basic.

The basic sector consists of those industries that produce goods destined for sales outside of the local area and whose market demand comes primarily from the national level. The employment categories in the basic category are: manufacturing, mining, agriculture, and federal government. For each historic year, and for each employment category and geographic area, a regional share is calculated for each industry. This regional share is used to forecast employment for each future period.

The non-basic sector theoretically represents those businesses whose output serves the local market and whose market demand is largely determined by the level of basic employment and output in the local economy. Non-basic employment categories are: transportation, communications, and public utilities; wholesale and retail trade; finance, insurance, and real estate; services; contract construction; state and local government; and non-farm proprietors. The Company recognizes that a lot of commercial employment (traditionally treated as non-basic) has assumed a more basic nature. To recognize this, the equations which determine the non-basic employment forecasts include variables such as real gross national product, national output, housing starts, a time trend, along with basic employment. These equations regress employment in each of the categories as a function of variables that include some of the following: a lagged dependent variable; basic employment; and the national variables mentioned above. The inclusion of basic employment in the specification is a direct application of regional export base theory. As basic employment increases, it causes the non-basic sector to expand. The inclusion of the national variables in the specification reflects the theory that some non-basic employment behave more like basic employment.

The relationship between the basic and non-basic sectors has not been constant over time. This is because as productivity, and hence real wages of basic sector workers has increased, their expanded purchasing power has caused the non-basic sector to develop more rapidly. A second reason is the changing preferences of consumers away from goods-producing or basic industries towards those that are more service-oriented.

Population per non-agricultural employee in each geographic area is forecast as a function of population per non-agricultural employee at the state level. When multiplied by the forecast of non-agricultural employment at the service territory level this ratio produces a population forecast.

The Company includes two primary measures of income in the forecast of total electricity sales. Total personal income impacts energy utilization in the commercial sector. It consists of labor and proprietors' income, as well as income transfer payments, dividends, interest, and rent. Real per capita income measures purchasing power, which impacts energy choice in the residential sector. Together these two measures make up the Company's economic forecasting system to project total personal income on a service territory basis.

Forecasting Energy Use

The major factor in forecasting future electricity sales is anticipated consumer use. The Company predicts the level of use for each of its four customer classes; residential, commercial, industrial, and other. Each customer segment has particular end uses for electricity. To predict the overall level of future electricity use for any one customer class, the Company looks at how the customers in that class use electricity and how much electricity they use. Future usage depends on:

- How many customers are currently equipped for each end use (the saturation level),

- How many additional customers will be equipped for that end use in the future (the penetration level),

- How much electricity is currently consumed (level of use) for that activity,

- How electricity consumption for that activity will change in the future.

The retail sales forecast uses the frozen efficiencies concept. This means that average usage per appliance are held at their 1998 levels throughout the forecast period. There are two exceptions: First, if government standards for new appliances become more stringent, then the Company assumes that all appliances purchased after the date of the new standards will conform. Second, if a state has energy standards, or is considering standards such as Oregon's model conservation standards, the model assumes that new buildings will observe them.

The Company's residential end-use forecasting model forecasts specific uses of electricity in the customer's home. It is a hybrid econometric-end use model. The model explicitly considers factors such as persons per household, fuel prices, per capita income, housing structure types, and other variables that influence residential customer demand for electricity. Residential demand is projected assuming fourteen end-uses: space heat, water heat, electric ranges, dishwashers, electric dryers, refrigerators, lighting, air conditioning, freezers, water beds, electric clothes washers, hot tubs, well pumps, and residual uses. Air conditioning can be either central, window, or evaporative (swamp cooler).

For each end use, the Company looks first at saturation levels (the number of customers equipped for that end use) and how those saturation levels may change with demographic and economic factors. The saturation level for each end use is estimated based on Company survey information. Then the Company determines the penetration level given the economic and demographic future assumptions. In addition, using historic information, the Company considers how many houses that currently have that end use are being demolished. The shorter lifetime of various appliances compared to the lifetime of a home is considered in determining the number of customers who use electricity for each end use.

The basic structure of the end-use model is to multiply forecast appliance saturations (percentage of homes with a particular appliance) by the appropriate housing stock. The result is then multiplied by the annual average electricity usage per appliance.

The commercial model forecasts electric energy use per square foot for each of seven end uses, for twelve commercial activities, for each of the seven geographic areas served by the Company. The seven end-uses are space heating, water heating, space cooling, ventilation, refrigeration, lighting, & miscellaneous uses. The twelve vertical market segments (building types or commercial activities) are: communications/utilities/transportation, food stores, retail stores, restaurants, wholesale trade, lodging, schools, hospitals, other health services, offices, services, and miscellaneous.

The saturation levels and usage per square foot for each of the commercial end uses have been estimated using data from commercial surveys, commercial customer consumption data, and engineering estimates. Usage per square foot for existing buildings is based on 1996 levels. Usage per square foot for new buildings has been estimated using engineering models and assuming current practices.

Each of the twelve vertical market segments is based on Standard Industrial Classifications (SIC). The basic structure of the end-use model is to multiply forecast end use saturations (percentage of square feet with a particular end use) by the appropriate amount of square footage. The result is then multiplied by the annual average electricity usage per square foot for each end use.

PacifiCorp's industrial sector is not dominated by a small number of firms or industries. The heterogeneous mix of customers and industries, combined with their widely divergent electricity consumption characteristics per unit of output, requires a substantial amount of disaggregation in developing a proper forecasting model for this sector. Accordingly, the industrial sector has been heavily disaggregated within the manufacturing and mining customer segments. The manufacturing sector is broken down into ten categories based upon the SIC System. These categories are food processing (SIC 20), lumber & wood products (SIC 24), paper & allied products (SIC 26), chemicals & allied products (SIC 28), petroleum refining (SIC 29), stone, clay & glass (SIC 32), primary metals (SIC

33), electrical machinery (SIC 36), and transportation equipment (SIC 37). In all geographic areas, sales to a residual manufacturing category (all remaining manufacturing SIC codes) are forecast. Forecasts are only made for the major SICs within a particular geographic area, that is, when sales to that SIC within a geographic area are significant. The forecast for each industrial segment is not broken down into end uses because industrial customers in each segment tend to use electricity in the same way, although individual plant processes may vary.

The industrial sector is modeled using an econometric forecasting system. Conceptually, the best method of forecasting electricity sales would be on a per unit of output basis. However, this information is not available at the state service territory level. Accordingly, sales are forecast on a per employee basis. Therefore, electricity sales per employee are regressed in equations which may contain the following independent variables: a lagged dependent variable, relative price for fuel or energy used, national output in the industry, and a time trend. Not all equations contain all the independent variables. The results and the forecast of employment are used to arrive at the forecast of industrial electricity sales.

The disaggregated industrial sector allows the industry mix to vary over time. Each industry's employment is forecast to grow at a different rate and significant differences exist in both the level and trend of energy consumption per employee. Each industry also varies considerably in the magnitude of its response to changes in electricity and fossil fuel prices. Only with a disaggregated model can these differences be explicitly analyzed.

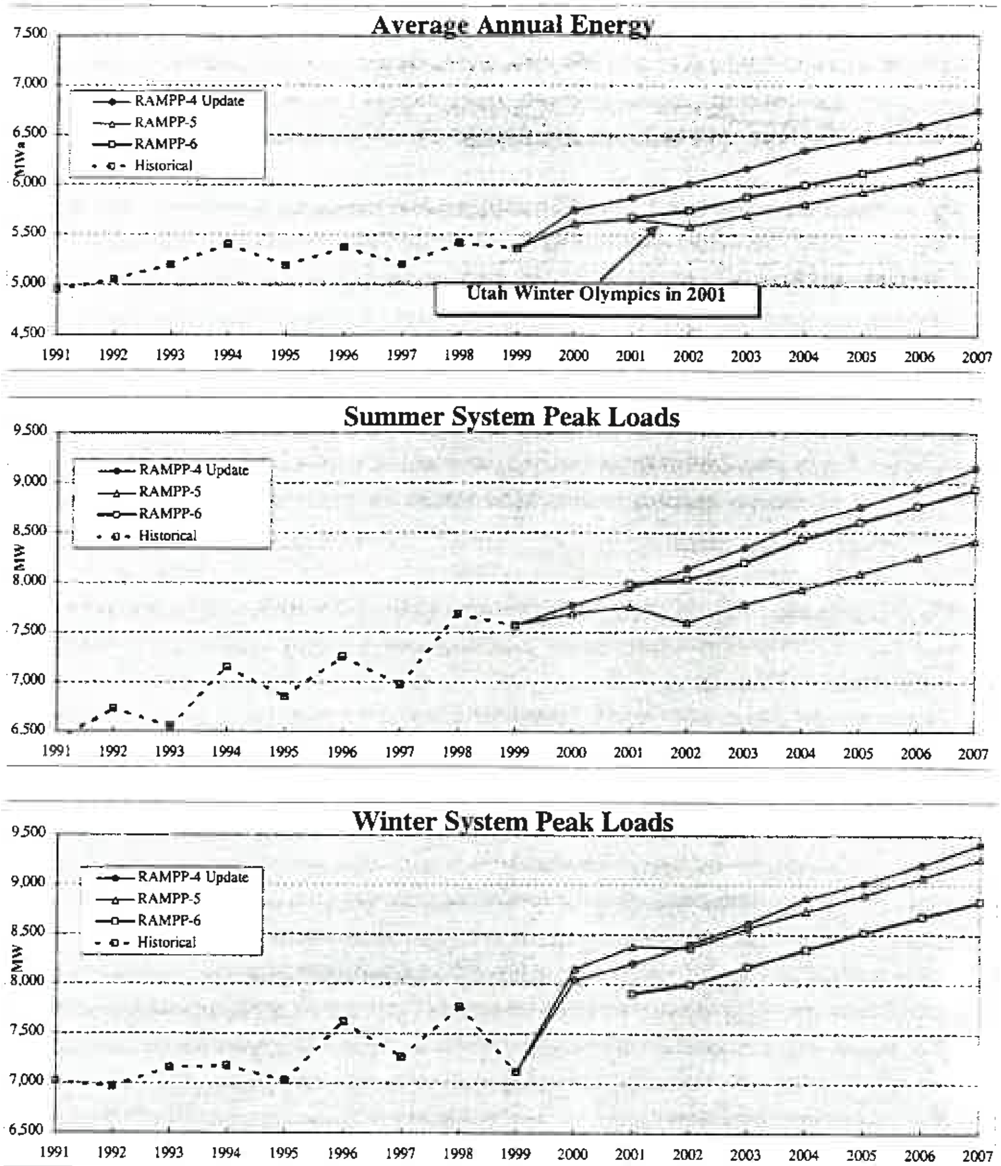
The Company broke the industries' electricity consumption forecasts into two pieces, employment and megawatt hour consumption per employee before multiplying them together to arrive at total consumption. Intensity of use per employee assumes that capital stock, utilization rates, and technology are not fixed. Electricity use per employee will either increase or decrease as investments are made that substitute more or less electricity for all other factors of production. The inclusion of a lagged dependent variable, real electricity prices, and real fossil fuel prices in the electricity use in the employee equations captures this effect.

The other classes include irrigation, street and highway lighting, interdepartmental and other sales to public authorities. Electricity sales to these smaller customer classes are either forecast using econometric equations or the sales are held constant at historic levels.

Service territory changes

On November 2, 1998 the Montana Public Service Commission approved the sale of the Company's Montana properties to Flathead Electric Cooperative, Inc. The Company also intends to sell its California service territory. The loads associated with these service territories have been removed from the load forecast.

Graph 4-2
RAMPP 6 Load Forecast



Note that California and Montana are excluded from the RAMPP-6 forecast but are included in all others.

Existing System

The Company's existing system for meeting retail load requirements includes existing power plants and firm purchase contracts. Table 4-3 shows the updated data inputs on the existing system. It shows the year-by-year amounts of summer capacity available from each of the Company's plants. In the following discussion, all of the MW figures listed are for summer capacity.

Table 4-3
Existing System - Summer Capacity (MW)
RAMPP-6 Reference Case

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
Thermal Plants												
Carbon 1,2	175	175	175	175	175	175	175	175	175	175	-	-
Cholla 4	380	380	380	380	380	380	380	380	380	380	380	380
Colstrip 3,4	144	144	144	144	144	144	144	144	144	144	144	144
Craig 1,2	165	165	165	165	165	165	165	165	165	165	165	165
Dave Johnstn 1,2,3,4	772	772	772	772	772	772	772	772	772	772	772	772
Gadsby 1,2,3	235	235	235	235	235	235	235	-	-	-	-	-
Hayden 1,2	78	78	78	78	78	78	78	78	78	78	78	78
Hermiston	454	454	454	454	454	454	454	454	454	454	454	454
Hunter 1,2,3	1,122	1,122	1,122	1,122	1,122	1,122	1,122	1,122	1,122	1,122	1,122	1,122
Huntington 1,2	895	895	895	895	895	895	895	895	895	895	895	-
James River	52	52	52	52	52	52	52	52	52	52	52	-
Jim Bridger 1,2,3,4	1,413	1,413	1,413	1,413	1,413	1,413	1,413	1,413	1,413	1,413	1,413	1,413
Naughton 1,2,3	700	700	700	700	700	700	700	700	700	700	-	-
Wyodak	268	268	268	268	249	249	249	249	249	249	249	-
Total Thermal	6,853	6,853	6,853	6,853	6,834	6,834	6,834	6,599	6,599	6,599	5,724	4,528
Renewables												
Blundell Geothermal	23	23	23	23	23	23	23	23	23	23	23	23
BPA Peaking	925	925	750	575	575	575	575	575	575	575	575	575
BPA Supp Capacity	9	8	-	-	-	-	-	-	-	-	-	-
Hydro Goshen	3	3	3	3	3	3	3	3	3	3	3	3
Hydro Pacific	869	869	869	869	869	869	869	869	869	869	869	869
Hydro Utah	52	52	52	52	52	52	52	52	52	52	52	52
Mid-Columbia	422	422	422	422	422	297	297	297	297	118	55	55
T&D Eff PPL	5	10	12	15	17	20	23	26	29	32	38	38
T&D Eff UPL	2	4	6	8	10	11	12	13	14	15	17	17
Wind Foote Creek	16	16	16	16	16	16	16	16	16	16	16	16
Total Renewables	2,326	2,332	2,154	1,983	1,987	1,866	1,870	1,874	1,878	1,703	1,648	1,648
Existing Generation	9,179	9,185	9,007	8,836	8,821	8,700	8,704	8,473	8,477	8,302	7,372	6,176
Existing Generation	9,179	9,185	9,007	8,836	8,821	8,700	8,704	8,473	8,477	8,302	7,372	6,176
Long Term Purchases	1,351	1,345	1,226	1,076	1,076	1,076	676	676	626	626	558	536
Short Term Market P	806	714	875	814	571	571	651	648	698	623	591	568
Short Term Cap Purch	40	1	171	-	-	-	-	-	-	287	-	428
New Resources	-	-	-	540	893	957	1,176	1,414	1,621	1,621	3,988	6,258
Total Resources	11,377	11,246	11,280	11,266	11,360	11,304	11,207	11,210	11,422	11,459	12,509	13,966

Of the resources which the Company has available to meet load in 2001, 60% will be Company owed thermal resources, 12% will be Company owed hydro, wind or geothermal and the remaining 28% purchased. Of the 3,131 MW of purchased capacity required, 2,285 MW are in the form of existing long-term contract and 846 MW will need to be purchased from the short-term wholesale market.

The Company plans to continually improve its thermal plants, hydro plants, transmission system, and distribution system. This involves efficiency improvements, ongoing repair, replacement and maintenance activities, and regulatory compliance, but not upgrades to the capacity of particular units. As with any system improvement, the Company assures that it can pass an avoided cost test before committing the capital.

Annual capital expenditures for efficiency improvements at the Company's coal plants range from $9.25 /kW to $18.50 /kW and average $13.75/kW. If the Company spent the same amount (in real dollars) every year for a 40 year plant life, the present value would be about $250/kW. The cost of efficiency improvements including the cost of necessary pollution control improvements is low relative to new resource costs,. New resources currently cost a minimum of $500/kW. For this reason, RAMPP includes efficiency improvements as part of ongoing maintenance of the existing system rather than as a resource choice in the portfolio. The Company coordinates the timing of efficiency improvement work with other maintenance work to minimize the total cost of the project.

Many of PacifiCorp's hydroelectric facilities are undergoing federal relicensing. The Company is collaborating with other interested parties in this process to balance multiple interests. RAMPP-6 assumes the Company will be successful in its relicensing efforts. However, the Company recognizes that the success of relicensing will depend on many factors including the market price of energy; the economics of continued project operation under imposed new license conditions; as well as the economics of non-operational scenarios such as project decommissioning and project sale. The Company will examine each hydroelectric facility and determine if the plant makes economic sense given these constraints.

The Company has completed turbine upgrades at three plant, Hunter, Huntington and Jim Bridger. These turbine upgrades resulted in efficiency improvements equivalent to 175 MW. With the completion of these major turbine increases, the Company does not currently have plans for turbine upgrades at any other plants.

Plant	Unit	Year	Original	New
Jim Bridger	# 3	1996	520 MW	530 MW
	# 2	1997	520 MW	530 MW
	# 1	1998	520 MW	530 MW
	# 4	2000	520 MW	530 MW
Huntington	# 1	1997	420 MW	440 MW
	# 2	1998	425 MW	455 MW
Hunter	# 2	1997	415 MW	430 MW
	# 3	1998	405 MW	460 MW
	# 1	1999	415 MW	430 MW

PacifiCorp is an active participant in the wholesale market place. The Company breaks wholesale transactions into two principle types, short-term and long-term. Included in the short-term designation are spot market transactions and short-term contracts. Spot market transactions occur hourly on a real time basis. Short-term contracts are for days or weeks but less than one year. The IPM model then determines an amount of short-term transactions that are cost effective for each hour at the price input into the model. Short-term transactions also include contracts for power for the next week or month.

Long-term transactions are contractual obligations that have terms exceeding one year. As part of the update process the Company reviewed each long-term-transaction to determine if modeling assumptions track actual transaction experience. In addition, the Company adds new transactions and deletes expired contracts.

Table 4-4 shows the summer long-term wholesale purchases. Summer is the season that the Company has it's highest loads and is the season with the greatest capacity constraints.

Table 4-4
Long-term Wholesale Purchases
Summer Capacity (MW)

Purchases	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
APS Sea Ex (P)	-	-	-	-	-	-	-	-	-	-	-	-
APS Supplemental	-	-	-	-	-	-	-	-	-	-	-	-
Black Hills Capacity	68	68	68	68	68	68	68	68	68	68	-	-
BPA Spring Ex (P)	-	-	-	-	-	-	-	-	-	-	-	-
BPA Summer Ex (P)	-	-	-	-	-	-	-	-	-	-	-	-
Colockum (P)	103	103	-	-	-	-	-	-	-	-	-	-
CSPE	18	16	-	-	-	-	-	-	-	-	-	-
Deseret Annual	104	-	-	-	-	-	-	-	-	-	-	-
Deseret Expansion	-	-	-	-	-	-	-	-	-	-	-	-
Deseret NF	-	-	-	-	-	-	-	-	-	-	-	-
Gem State	22	22	22	22	22	22	22	22	22	22	22	22
Grant County	14	14	14	14	14	14	14	14	14	14	14	14
GSLM	-	-	-	-	-	-	-	-	-	-	-	-
Idaho Load Control	150	150	150	150	150	150	150	150	150	150	150	150
Interruptible (P)	161	161	161	161	161	161	161	161	161	161	161	161
IPC	-	-	-	-	-	-	-	-	-	-	-	-
PGE Cove	2	2	2	2	2	2	2	2	2	2	2	2
QF Goshen	9	9	9	9	9	9	9	9	9	9	9	9
QF Or/Wa	67	67	67	67	67	67	67	67	67	67	67	67
QF Utah	60	60	60	60	60	60	60	60	60	60	60	60
QF Wyoming	3	3	3	3	3	3	3	3	3	3	3	3
Redding (P)	22	22	22	22	22	22	22	22	22	22	22	-
SCE Winter	-	-	-	-	-	-	-	-	-	-	-	-
So Idaho Ex (P)	-	-	-	-	-	-	-	-	-	-	-	-
TransAlta	300	400	400	400	400	400	-	-	-	-	-	-
Tri-State Basic	50	50	50	50	50	50	50	50	50	50	50	50
Tri-State Ex (P)	-	-	-	-	-	-	-	-	-	-	-	-
WWP Seasonal Ex (P)	50	50	50	50	50	50	50	50	-	-	-	-
WWP Summer Purchase	150	150	150	-	-	-	-	-	-	-	-	-
Purchased Power	1,351	1,345	1,226	1,076	1,076	1,076	676	676	626	626	558	537

Table 4-5 shows the summer long-term wholesale sales.

Table 4-5
Long-term Wholesale Sales
Summer Capacity (MW)

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
Sales												
APPA	35	15	25	-	-	-	-	-	-	-	-	-
APS Sea Ex (S)	480	480	480	480	480	480	480	480	480	480	480	480
Black Hills 1996	30	30	-	-	-	-	-	-	-	-	-	-
Black Hills Load	65	60	55	50	50	50	50	50	50	50	50	50
BPA Spring Ex (S)	-	-	-	-	-	-	-	-	-	-	-	-
BPA Summer Ex (S)	-	-	-	-	-	-	-	-	-	-	-	-
BPA Wind Sale	6	6	6	6	6	6	6	6	6	6	6	6
Canadian Entitlement	5	4	-	-	-	-	-	-	-	-	-	-
CDWR	100	100	100	100	-	-	-	-	-	-	-	-
Citizens Power	80	80	-	-	-	-	-	-	-	-	-	-
Clark County PUD	100	-	-	-	-	-	-	-	-	-	-	-
Clark-WT	10	10	-	-	-	-	-	-	-	-	-	-
Colockum (S)	-	-	-	-	-	-	-	-	-	-	-	-
Cowlitz-BHP	10	-	-	-	-	-	-	-	-	-	-	-
Deseret Supplemental	-	-	-	-	-	-	-	-	-	-	-	-
Green Mountain	-	-	-	-	-	-	-	-	-	-	-	-
Hinson	-	-	-	-	-	-	-	-	-	-	-	-
Hurricane Net Sale	3	3	3	3	3	3	3	-	-	-	-	-
Large Industrials	367	367	367	367	367	367	367	367	367	367	367	367
Montana Sell Back	70	70	70	70	70	70	-	-	-	-	-	-
Okanogan	5	-	-	-	-	-	-	-	-	-	-	-
PNGC	-	-	-	-	-	-	-	-	-	-	-	-
PSCol	176	176	176	176	176	176	176	176	176	176	176	176
Puget 2	200	200	200	-	-	-	-	-	-	-	-	-
Redding (S)	-	-	-	-	-	-	-	-	-	-	-	-
SCE OWC	100	100	100	100	100	100	-	-	-	-	-	-
SCE Utah	100	100	100	100	100	100	-	-	-	-	-	-
Sierra 2	75	75	75	75	75	75	75	75	75	-	-	-
SMUD	100	100	100	100	100	100	100	100	100	100	-	-
So Idaho Ex (S)	-	-	-	-	-	-	-	-	-	-	-	-
Springfield	45	45	45	45	45	45	45	45	45	45	45	-
Springfield II	-	-	-	-	-	-	-	-	-	-	-	-
Tri-State Ex (S)	50	50	50	50	50	50	-	-	-	-	-	-
UMPA 1	8	8	8	8	-	-	-	-	-	-	-	-
UMPA 2	21	25	25	25	25	25	25	25	25	25	25	25
WAPA 1	60	60	60	60	-	-	-	-	-	-	-	-
WAPA 2	75	75	75	75	-	-	-	-	-	-	-	-
WWP Seasonal Ex (S)	-	-	-	-	-	-	-	-	-	-	-	-
Total Sales	2,377	2,239	2,120	1,890	1,647	1,647	1,327	1,324	1,324	1,249	1,149	1,104

Summary of Changes to the RAMPP Model since RAMPP-5

Existing Resources

Thermal plants	Thermal levels and life adjusted to be consistent with Utah Engineering Estimates
Centralia	Central was sold in 2000 and has been excluded (637 MW)
BPA Peaking	Reduced BPA Peaking contract amounts
BPA Supp Capacity	Updated to more accurately reflect actual purchases
Hydro Pacific	Updated to Pacific NW Coordination Agreement levels
Hydro Utah	Split between Goshen and Utah Transmission bubbles
Mid Columbia	Updated to Pacific NW Coordination Agreement levels
T&D Eff	Historical T&D efficiencies will be included in the new load forecast
Wind Foote Creek	Foote Creek at full output offset by a new BPA Wind Sale

Purchase

BPA South Oregon	Contract expired in 1998
Colockum	Updated to more accurately reflect actual purchases
Deseret Annual	Updated to more accurately reflect actual purchases
Interruptible (P)	Customer Contracts revised in 2000
IPC	Revised Modeling
QFs	Updated Study of QF Capacity
TransAlta	New Purchase from Centralia Power Plant

Sales

APPA	Contract revision in April 1998; Contract extended
Azusa	Contract expired in 1998
Black Hills Load	Contract revision in September 1997
BPA Wind Sale	New Contract
Canadian Entitlement	Updated to more accurately reflect actual sales
Citizens Power	New Contract
Clark County PUD	Updated to more accurately reflect actual sales
Clark-FW	New Contract
Clark-WT	New Contract
Cowlitz BHP	Corrected contract end date, Expires April 30, 2002
ESI Kaiser	Contract expired in 1999
Glenbrook	Contract expired in 1998
Hurricane Net Sale	New Contract
Large Industrials	Revised Industrial Modeling
Montana Sell Back	New Contract
Nevada 1	Contract expired in 1999
Pan Energy	Contract expired in 1998

PECO	Contract expired in 1998
Redding	Convert exchange to Sale
Sierra Pacific 1	Contract terminated by Sierra effective April 30, 2000
UMPA 1	Corrected contract end date, Expires June 2005
WAPA 1	Updated to more accurately reflect actual sales

Demand-Side Management

For RAMPP-6, the Company input into the model DSM costs that were 15 percent less than the Company's true estimate of those costs. The 15 percent reduction consists of 10 percent to reflect non-quantified benefits of DSM and 5 percent for transmission and distribution benefits of DSM.

In RAMPP-4 and RAMPP-5 the Company introduced the concept of DSM bundles. Each bundle included several DSM measures with similar costs. The model input was the average cost for the measures in each bundle. This approach allowed the model to select an amount of DSM that was cost effective in a manner similar to that for supply side alternatives.

Table 4-6 shows the bundles for each of the sectors: commercial, industrial, irrigation, and residential. The table shows the fully loaded cost for each of the bundles and the amount of DSM potential over the study period. It also shows the annual cut-off cost limits used in developing bundle sizes. The total amount of DSM potential offered to the model for the entire 20 year study period was 430 aMW.

Commercial and industrial DSM measures fell into eight bundles for each segment, with the first three bundles including most of the resource. The eighth bundle contains all resources above 30 mills/kWh. Only one irrigation bundle was necessary for each state. Residential DSM required one bundle for each state for residential new construction, and two bundles for each state for appliances. The appliance measures are grouped according to their cost.

The Company used the guidelines as established in the Oregon Commission's UM-551 as a screening guideline for commercial and industrial bundles. For each measure the Company calculated total resource costs including incremental measure cost, measure design and modeling assistance, commissioning and quality control, program administration, taxes and interest charges. Each measure's savings to calculate TRC included the dollar value of savings in electricity, gas, water usage, and labor savings.

Table 4-6 Page 1 of 2

DSM Total Costs and Savings Potential by Resource Bundle

Program Description	Resource Bundle Cut-Off Limits Lower (S/MWH)	Upper (S/MWH)	Levelized 40-Year TRC (S/MWH) *	2001-2020 Savings (aMW)
COM-EXISTING-1-OWC	-100	8	2.69	16.42
COM-EXISTING-2-OWC	8	15	17.40	10.83
COM-EXISTING-3-OWC	15	20	24.61	7.46
COM-EXISTING-4-OWC	20	22	30.91	2.28
COM-EXISTING-5-OWC	22	25	33.63	1.94
COM-EXISTING-6-OWC	25	27	38.20	0.31
COM-EXISTING-1-IDA	-100	8	0.90	0.21
COM-EXISTING-2-IDA	8	15	16.81	0.07
COM-EXISTING-3-IDA	15	20	22.68	0.11
COM-EXISTING-4-IDA	20	22	28.05	0.00
COM-EXISTING-1-WY	-100	8	1.41	1.55
COM-EXISTING-2-WY	8	15	16.02	0.84
COM-EXISTING-3-WY	15	20	23.09	0.44
COM-EXISTING-4-WY	20	22	79.98	0.01
COM-EXISTING-1-UT	-100	8	2.05	48.26
COM-EXISTING-2-UT	8	15	17.01	15.46
COM-EXISTING-3-UT	15	20	25.74	26.11
COM-EXISTING-4-UT	20	22	30.68	0.19
COM-EXISTING-5-UT	22	25	34.20	4.56
COM-EXISTING-6-UT	25	27	37.60	1.21
COM-NEW-1-OWC	-100	8	2.87	20.00
COM-NEW-2-OWC	8	15	17.15	17.18
COM-NEW-3-OWC	15	20	24.48	3.47
COM-NEW-4-OWC	20	22	30.48	2.49
COM-NEW-5-OWC	22	25	33.98	2.86
COM-NEW-6-OWC	25	27	36.96	0.35
COM-NEW-1-IDA	-100	8	3.98	1.58
COM-NEW-2-IDA	8	15	15.81	0.80
COM-NEW-3-IDA	15	20	21.71	0.18
COM-NEW-4-IDA	20	22	28.75	0.00
COM-NEW-1-WY	-100	8	2.98	5.97
COM-NEW-2-WY	8	15	16.80	2.99
COM-NEW-3-WY	15	20	23.22	0.77
COM-NEW-4-WY	20	22	29.71	0.00
COM-NEW-1-UT	-100	8	4.30	16.45
COM-NEW-2-UT	8	15	16.38	10.36
COM-NEW-3-UT	15	20	23.99	5.19
COM-NEW-4-UT	20	22	29.75	0.00
COM-NEW-5-UT	22	25	33.49	0.88
COM-NEW-6-UT	25	27	37.46	0.27
IND-EXISTING-1-OWC	0	5	10.07	19.30
IND-EXISTING-2-OWC	5	10	22.55	6.75
IND-EXISTING-3-OWC	10	15	30.93	3.64
IND-EXISTING-1-OWC	0	5	10.07	19.30
IND-EXISTING-2-OWC	5	10	22.55	6.75

Includes replacement cost and program admin costs and bulk-up

Table 4-6

Page 2 of 2

DSM Total Costs and Savings Potential by Resource Bundle

Program Description	Resource Bundle Cut-Off Limits Lower ($/MWH)	Upper ($/MWH)	Levelized 40-Year TRC ($/MWH) *	2001-2020 Savings (aMW)
IND-EXISTING-3-OWC	10	15	30.93	3.64
IND-EXISTING-4-OWC	15	17	39.03	8.68
IND-EXISTING-5-OWC	17	22	50.51	6.61
IND-EXISTING-6-OWC	22	27	63.60	5.97
IND-EXISTING-1-IDA	0	5	10.60	3.52
IND-EXISTING-2-IDA	5	10	23.73	1.23
IND-EXISTING-3-IDA	10	15	32.55	0.66
IND-EXISTING-4-IDA	15	17	41.08	1.58
IND-EXISTING-1-WY	0	5	10.37	17.95
IND-EXISTING-2-WY	5	10	23.23	6.28
IND-EXISTING-3-WY	10	15	31.85	3.38
IND-EXISTING-4-WY	15	17	40.20	8.08
IND-EXISTING-1-UT	0	5	10.73	19.03
IND-EXISTING-2-UT	5	10	24.03	6.66
IND-EXISTING-3-UT	10	15	32.96	3.59
IND-EXISTING-4-UT	15	17	41.60	8.56
IND-EXISTING-5-UT	17	22	53.84	6.52
IND-EXISTING-6-UT	22	27	67.79	5.88
IRR-EXISTING-1-OWC	0	32	52.67	2.27
IRR-EXISTING-1-IDA	0	32	68.47	2.01
IRR-EXISTING-1-WY	0	32	52.67	0.04
IRR-EXISTING-1-UT	0	32	55.45	0.59
SGCENTS-OWC	0	32	18.61	4.95
SGCENTS-UT	0	32	18.61	1.13
SGCENTS-WY	0	32	18.61	2.42
SGCENTS-IDA	0	32	18.61	0.36
AP.RTRO-B1-OWC	0	32	0.00	0.26
AP.RTRO-B1-UT	0	32	0.00	1.73
AP.RTRO-B1-WY	0	32	0.00	0.44
AP.RTRO-B1-IDA	0	32	0.00	0.15
AP.RTRO-B2-OWC	0	32	31.52	7.11
AP.RTRO-B2-UT	0	32	31.52	7.62
AP.RTRO-B2-WY	0	32	31.52	1.20
AP.RTRO-B2-IDA	0	32	0.00	0.66
AP.New-B1-OWC	0	32	0.00	13.34
AP.New-B1-UT	0	32	0.00	14.17
AP.New-B1-WY	0	32	0.00	2.20
AP.New-B1-IDA	0	32	7.19	1.28
AP.New-B2-OWC	0	32	7.19	0.60
AP.New-B2-UT	0	32	7.19	0.75
AP.New-B2-WY	0	32	7.19	0.06
AP.New-B2-IDA	0	32	0.00	0.07
AP.New-B3-OWC	0	32	0.00	0.02
AP.New-B3-UT	0	32	0.00	0.17
AP.New-B3-WY	0	32	0.00	0.06
AP.New-B3-IDA	0	32	31.52	0.01

Gas Prices

In previous RAMPP studies the Company has prepared a natural gas price forecast. For example in the RAMPP-5 the Company developed forecasted gas prices for the Pacific Northwest as well as the Mountain West. The raw gas price was then combined with region specific transportation charges to get a plant gate price.

In RAMPP-6 the Company has decided to take a different approach.
The Company looked for a range of gas prices that would cover the likely price that the Company might face in the near future. Internal discussion resulting in a minimum of 130 ¢/MMBtu and a maximum of 280 ¢/MMBtu.[15]

Refer to Table 4-7, which shows the gas price assumptions. As you can see gas prices start at 280 H and go down to 130 L. The 'H' and 'L' refers to the assumed gas price escalation after the initial year. The far right column shows that price escalation rate. The Graph 4-8 shows the information in the Table 4-7 but in a graph format.

Table 4-7

"Shotgun" Natural Gas Price Forecast
Cents/MMBtu (Nominal Dollars)

Gas Case (MMBtu & Esc)	Study Year 2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Nominal Escalation
280 H	280	288	296	304	313	321	330	340	349	359	2.80%
280 L	280	282	284	287	289	291	294	296	298	301	0.80%
250 H	250	258	265	273	281	290	299	307	317	326	3.00%
250 L	250	253	255	258	260	263	265	268	271	273	1.00%
220 H	220	227	234	242	250	258	266	274	283	292	3.20%
220 L	220	223	225	228	231	234	236	239	242	245	1.20%
190 H	**190**	**196**	**203**	**210**	**217**	**225**	**232**	**240**	**248**	**257**	**3.40%**
190 L	190	193	195	198	201	204	207	209	212	215	1.40%
160 H	160	166	172	178	184	191	198	205	212	220	3.60%
160 L	160	163	165	168	170	173	176	179	182	185	1.60%
130 H	130	135	140	145	151	157	163	169	175	182	3.80%
130 L	130	132	135	137	140	142	145	147	150	153	1.80%

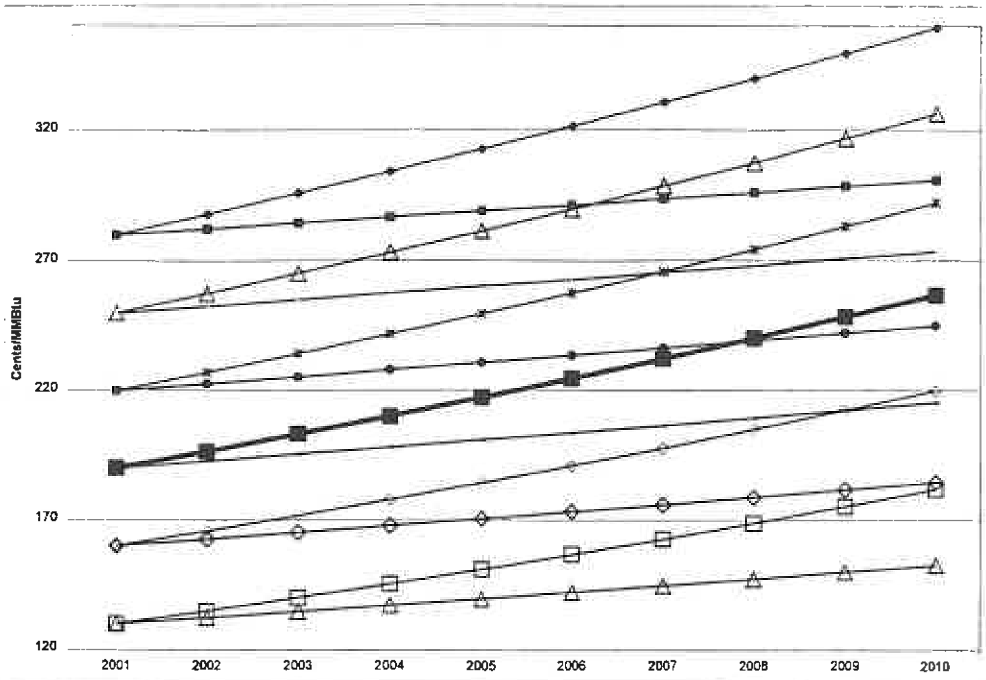
Unique to this type of analysis is the differing gas price escalation. In earlier RAMPP studies an assumed natural gas escalation rate was developed. In RAMPP-6 each gas price has two assumed escalation rate, a high and a low. The escalation rates differ by the price of gas assumed. Looking at Table 4-7, note that the 280 H gas case has an escalation rate of 2.8% or a zero real inflation rate. This compares to 130 H, which has a 3.8% escalation rate or 1% real. The thought behind the differing escalation rate is that if prices start high, then competitive price pressures would tend to moderate future price increases. If the initial price starts low, then higher price escalation is likely.

[15] The ranges for the shotgun cases for gas prices and wholesale prices were established in May of 2000. At that time it was thought that they encompassed any potential future. It should be noted that current gas and market prices greatly exceed the upper value of the shotgun cases.

Note that the Reference Case gas price is the 190 H level which has been bolded in Table 4-7.

Looking at Graph 4-8 it can be seen that the gas 'shotgun' has twelve price forecasts that blanket gas price from as low as 130 cents/MMBtu to as high as 360 cents/MMBtu. This is where the term 'shotgun' comes from, the forecast looks like the shot pattern from a shotgun.

Graph 4-8
"Shotgun" Natural Gas Price Forecast Cents/MMBtu



"Shotgun" Wholesale Price Forecast

The wholesale price forecast was developed in the same manner as the gas price forecast. The Company selected four short-term wholesale prices, which seem to blanket the likely long term wholesale market. These prices are 22, 26, 30 and 34 mills/kWh. Long term wholesale prices below 22 mills/kWh are not likely because that level of price would require long term natural gas prices to remain below 130 cents/MMBtu. Wholesale prices above 34 mill/kWh are capped by coal fired resources as discussed in Chapter 3.

Each of the four wholesale prices was matched up with each of the twelve gas price forecast for a total of 48 combinations.

Table 4-9 shows the 26 mills/kWh starting point and the twelve gas price forecasts. The wholesale price escalation rate is slightly different than the gas price escalation rate in Table 4-7. The Company determined that gas represents about 60% of the cost of a typical combined cycle CT. Therefore wholesale price escalation rate was set at 60% of the real gas price escalation rate. The escalation rates shown in Tables 4-7 and 4-9 are nominal so the assumed inflation rate of 2.8% was added.

Table 4-9
"Shotgun" Short-term Wholesale Market Prices
Assuming 26 Mills/kWh Starting Price (Nominal Dollars)

Gas Case (MMBtu & Esc)	Study Year										Nominal
	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Escalation
280 H	26.0	26.7	27.5	28.2	29.0	29.8	30.7	31.5	32.4	33.3	2.80%
280 L	26.0	26.4	26.8	27.3	27.7	28.1	28.6	29.1	29.5	30.0	1.60%
250 H	26.0	26.8	27.5	28.3	29.2	30.0	30.9	31.8	32.7	33.7	2.92%
250 L	26.0	26.4	26.9	27.4	27.8	28.3	28.8	29.3	29.8	30.3	1.72%
220 H	26.0	26.8	27.6	28.4	29.3	30.2	31.1	32.1	33.0	34.0	3.04%
220 L	26.0	26.5	27.0	27.5	28.0	28.5	29.0	29.5	30.1	30.6	1.84%
190 H	**26.0**	**26.8**	**27.7**	**28.5**	**29.4**	**30.4**	**31.3**	**32.3**	**33.3**	**34.4**	**3.16%**
190 L	26.0	26.5	27.0	27.6	28.1	28.6	29.2	29.8	30.4	31.0	1.96%
160 H	26.0	26.9	27.7	28.6	29.6	30.6	31.6	32.6	33.7	34.8	3.28%
160 L	26.0	26.5	27.1	27.7	28.2	28.8	29.4	30.0	30.7	31.3	2.08%
130 H	26.0	26.9	27.8	28.7	29.7	30.7	31.8	32.9	34.0	35.1	3.40%
130 L	26.0	26.6	27.2	27.8	28.4	29.0	29.6	30.3	30.9	31.6	2.20%

For base.case the escalation rate was:

Gas	.6% Real	plus 2.8% Inflation =	3.40% Nominal Escalation
Wholesale	.6% x 60%	plus 2.8% Inflation =	3.14% Nominal Escalation

Graph 4-10 shows the 26 mills/kWh starting points. If one of the other three starting price had been selected the lines shown in 4-9 would have shifted up or down accordingly.

Geographical, Seasonal and TOD Wholesale Market Prices

Discussion of wholesale prices would not be complete without a discussion of the detail behind average annual prices.

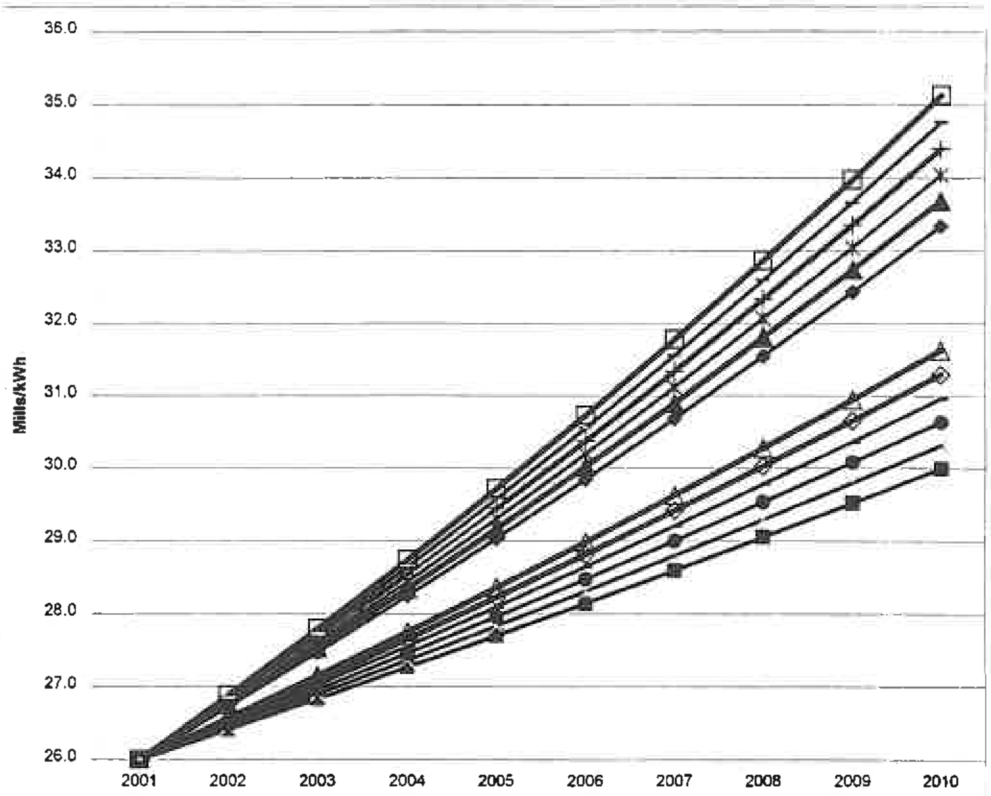
Geographic Prices.

Just like any other commodity, product prices tend to vary by geographical location. In the RAMPP study wholesale prices vary at three primary locations, COB which stands for the California / Oregon Border, Mid-Columbia and Palo Verde. These locations refer to the most common points where wholesale transactions occur.

It is often assumed that since all areas of the Northwest are interconnected that a single wholesale price would apply at any given time. Transmission constrains however, allow for differing wholesale prices between geographical areas.

Where COB and Mid-Columbia are both located within the Or/Wa transmission bubble, we have elected to combine these prices into a single wholesale price. Typically, COB and Mid-Columbia prices have been very similar while prices at Palo Verde have been slightly higher.

Graph 4-10
"Shotgun" Short-term Wholesale Market Prices



In developing geographic price differentiation, the Company looked at historical prices, December 1998 to November 1999 and determined the price difference between COB/Mid-Columbia and Palo Verde. This price difference, 1.27 mills/kWh has been included in the development of forecast wholesale prices.

Seasonal Prices.

Wholesale prices fluctuate considerably between season. During spring run-offs, prices in the Northwest can drop below 5 mills/kWh. During the summer a hour kWh can cost 10 times that much. Seasonal prices vary primarily based upon seasonal demand and seasonal resource availability primarily hydro.

In developing seasonal price differentials the Company looked at the December 1998 to November 1999 historical period. Prices were grouped into the seasons used by the IPM model, namely:

Win	December to February
Spr	March to May
Sum	June to August
Fall	September to November

The Company then determined the average price during each season to determine the seasonal cost profile of wholesale prices.

Time of Day Prices.

Price fluctuations do no stop at the seasonal level. Prices fluctuate on a daily and even hourly basis. Typically, prices increase as load on the system increases. Power plant dispatch computers utilize low cost power plants first and ramp up higher cost resources as loads increase. Daily price swings are somewhat dampened by energy exchanges where energy is taken during the day and returned at night.

For market transaction purposes, hours are defined as HLH or high load hours, and LLH or low load hours. In developing wholesale price differential, the Company looked at the December 1998 to November 1999 historical period and grouped transactions in HLH and LLH time periods. The Company analyzed the detailed historical data to determine prices by month by time of day.

Table 4-11 shows the geographically and TOD differentiated short-term wholesale market price used for the 26 mills/kWh starting price. Graph 4-12 shows the same information that is in Table 4-11 for the high load hours.

Table 4-11

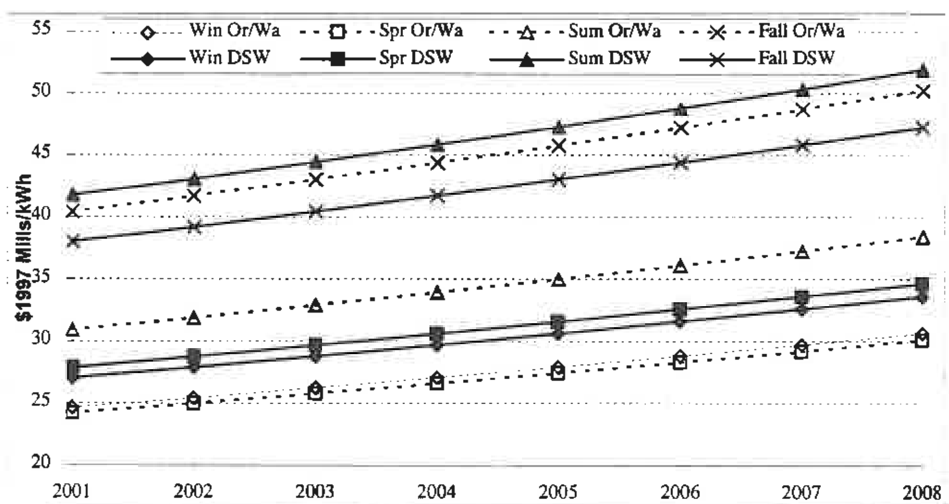
Wholesale Market Prices and Escalation (Base.Case)

26 Mills/kWh Starting Price - High Price Escalation

	California/Oregon Border				Palo Verde				Average	Real
	Win	Spr	Sum	Fall	Win	Spr	Sum	Fall	Annual	Escalation
	High Load Hours (57% of hours)									%
2001	24.7	24.2	30.9	40.4	27.0	27.9	41.8	38.0	31.9	
2002	25.4	25.0	31.9	41.7	27.9	28.8	43.1	39.2	32.9	3.16%
2003	26.2	25.8	32.9	43.0	28.8	29.7	44.4	40.5	33.9	3.16%
2004	27.1	26.6	33.9	44.4	29.7	30.6	45.8	41.7	35.0	3.16%
2005	27.9	27.4	35.0	45.8	30.6	31.6	47.3	43.1	36.1	3.16%
2006	28.8	28.3	36.1	47.2	31.6	32.6	48.8	44.4	37.2	3.16%
2007	29.7	29.2	37.2	48.7	32.6	33.6	50.3	45.8	38.4	3.16%
2008	30.6	30.1	38.4	50.3	33.6	34.7	51.9	47.3	39.6	3.16%
	Low Load Hours (43% of hours)									%
2001	19.4	16.3	16.6	32.9	15.1	15.9	19.3	22.5	19.7	
2002	20.0	16.8	17.1	33.9	15.6	16.4	20.0	23.2	20.4	3.16%
2003	20.6	17.3	17.6	35.0	16.1	16.9	20.6	23.9	21.0	3.16%
2004	21.3	17.9	18.2	36.1	16.6	17.5	21.2	24.6	21.7	3.16%
2005	21.9	18.4	18.7	37.2	17.1	18.0	21.9	25.4	22.4	3.16%
2006	22.6	19.0	19.3	38.4	17.7	18.6	22.6	26.2	23.1	3.16%
2007	23.3	19.6	20.0	39.6	18.2	19.2	23.3	27.1	23.8	3.16%
2008	24.1	20.2	20.6	40.9	18.8	19.8	24.1	27.9	24.5	3.16%

Graph 4-12

Wholesale Market Prices: High-Load Hours



Or/Wa =COB (California Oregon Border) and Mid Columbia based prices.
DSW = Palo Verde based prices.

Cost of Capital

Cost of capital determines the annualization rate used in calculating the total resource cost for each resource in the portfolio, both demand-side and supply-side. A higher cost of capital results in a higher total resource cost. The nominal cost of capital used for the RAMPP-6 base case is 9.1 percent. This is capital cost in the traditional format used by regulators. However, it is a mix of pre-tax and after-tax capital costs. Debt is on a pre-tax basis, while preferred and common equity costs are on an after-tax basis. From a financial analysis perspective, investment alternatives are evaluated on the present value of a project's after-tax cash flows. To calculate the nominal discount rate, an after tax cost of capital is calculated by removing income taxes from the cost of debt. The resulting nominal discount rate is 7.82 percent. After adjusting for inflation the real after tax discount rate is 4.88 percent.

The real cost of capital decreased from 5.39 percent in the RAMPP-5 to 4.88 percent. Inflation decreased from 3.5 percent in the RAMPP-5 to 2.8 percent. The forecast of inflation was provided by Standard's & Poor's DRI Long Range Focus. Table 4-13 shows the RAMPP-6 and RAMPP-5 components.

Table 4-13
Comparison of RAMPP-6 Vs RAMPP-5
Cost of Capital

RAMPP-6	Capital		Weighted Cost	
	Structure	Cost	Pre-tax	After-tax
Debt	47.40%	7.13%	3.38%	2.10%
Preferred Stock	3.80%	6.02%	0.23%	0.23%
Market Equity	48.80%	11.25%	5.49%	5.49%
Total	100.00%		9.10%	7.82%
Inflation	2.80%			
Real Discount Rate	4.88%			

RAMPP-5	Capital		Weighted Cost	
	Structure	Cost	Pre-tax	After-tax
Debt	38.00%	8.20%	3.12%	1.93%
Preferred Stock	4.00%	7.80%	0.31%	0.31%
Market Equity	58.00%	11.80%	6.84%	6.84%
Total	100.00%		10.27%	9.09%
Inflation	3.50%			
Real Discount Rate	5.39%			

Wholesale Balancing Adjustment

One of the Major assumptions in RAMPP-6 is the wholesale balancing adjustment. The purpose of the adjustment is to assure that the planning model does not select new generating resources in order to make wholesale sales. The adjustment increases the amount of short-term wholesale purchases necessary either to achieve a 10% reserve margin or to balance wholesale sales.

Refer to Table 4-14 for the calculation of the Wholesale Balancing Adjustment. For capacity, the adjustment looks at the size the capacity necessary to achieve a 10% reserve margin and also the difference between long-term wholesale sales less long-term wholesale purchases. The adjustment is the lessor of the two. For energy, there is the additional constraint that the adjustment can not be greater then the summer capacity purchase.

For summer capacity, the adjustment for the years 2001 to 2003 is the amount of capacity necessary to achieve a 10% reserve margin. After 2003, the adjustment is long-term wholesale sales less purchases.

For energy, the adjustment for the year 2001 is 806 aMW which is equal to the summer capacity adjustment. After 2001 the adjustment is long-term wholesale sales less purchases.

Table 4-14

Wholesale Balancing Adjustment

	Summer Peak Capacity (MW)	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
S	Native Load	7,987	8,030	8,203	8,435	8,608	8,767	8,937	9,052	9,267	9,399
Y	Long Term Sales	2,377	2,239	2,120	1,890	1,647	1,647	1,327	1,324	1,324	1,249
S	DSM Programs	(24)	(48)	(71)	(95)	(120)	(143)	(168)	(192)	(215)	(239)
T	**Total Requirements**	10,340	10,221	10,252	10,230	10,135	10,271	10,096	10,184	10,376	10,409
E											
M	Existing Generation	9,179	9,185	9,007	8,836	8,821	8,700	8,704	8,473	8,477	8,302
	Long Term Purchases	1,351	1,344	1,226	1,076	1,076	1,076	676	676	626	626
L	Wholesael Balancing Adj	806	714	875	814	571	571	651	648	698	623
&	Short Term Cap Purch	39	-	169	-	-	-	-	-	-	286
R	New Resources				536	885	952	1,171	1,407	1,614	1,614
	Total Resources	11,375	11,243	11,277	11,262	11,353	11,299	11,202	11,204	11,415	11,451
	Reserves	1,037	1,023	1,026	1,031	1,218	1,028	1,106	1,019	1,039	1,042
	Reserve Margin (%)	10.0	10.0	10.0	10.1	12.0	10.0	10.9	10.0	10.0	10.0
	Purchase up to 10% Reserve	806	714	876	1,341	1,252	1,522	1,726	2,053	2,311	2,236
	Net Long Term Transactions	1,026	895	894	814	571	571	651	648	698	623

Capacity is the lessor of Purchase to make 10% Reserve Margin or Net Long Term Wholesale Transactions

	Annual Energy (aMW)	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
S	Native Load	5,677	5,745	5,882	6,002	6,123	6,248	6,393	6,540	6,691	6,814
Y	Pump Storage/Peak Return	277	277	225	223	223	223	223	223	223	223
S	Long Term Sales	1,550	1,418	1,350	1,240	1,054	1,006	853	850	811	794
T	Short Term Sales	1,504	1,482	1,380	1,822	1,974	1,912	1,983	1,998	2,034	1,873
E	DSM Programs	(17)	(34)	(51)	(68)	(85)	(102)	(119)	(137)	(154)	(171)
M	Total Requirements	8,991	8,888	8,786	9,219	9,288	9,288	9,332	9,475	9,605	9,533
	Existing Generation	7,380	7,375	7,330	7,374	7,283	7,247	7,255	7,145	7,146	7,053
L	Long Term Purchases	700	710	750	737	737	737	528	338	338	335
&	Wholesael Balancing Adj	806	708	600	503	317	269	325	512	472	459
R	Short Term Purchases	105	95	106	78	80	96	70	97	72	96
	New Resources	-	-	-	528	871	938	1,155	1,382	1,577	1,590
	Total Resources	8,991	8,888	8,786	9,219	9,288	9,288	9,332	9,475	9,605	9,533
	Purchase up to Summer Peak	806	714	876	814	571	571	651	648	698	623
	Purchase Net Transactions	850	708	600	503	317	269	325	512	472	459

Energy is the lessor of Summer Peak Capacity or Net Long Term Wholesale Transactions

Supply-Side Resources

The biggest change in supply-side resources is a significant increase in capital costs for combustion turbines. Most of the cost increases are due to increased activity in building power plants and a sellers market in combustion turbines. It is becoming increasingly apparent that only natural gas-fired combustion turbine power plants can be environmentally permitted in most parts of the country. The capacity shortage also is putting increased pressure on building plants creating a shortage of large, high efficient combustion turbines. Turbine manufacturers are taking advantage of this supply/demand imbalance to increase prices on the most popular machines by as much as 30% to 40% from levels seen a couple of years ago. It is expected that these prices will remain for the foreseeable future and decrease only slightly as the capacity issues subside. Since the last RAMPP, costs for natural gas-based power plants have increased approximately 33 to 38 percent as reflected by budgetary estimates from the manufacturers. Conversely costs for coal-fired plants continue to decline as demand for coal plants decrease. Costs for coal plants have fallen by about 10 percent, before accounting for escalation, since the last RAMPP report.

The Company updated the portfolio of supply-side resources by first adjusting costs to 2001 dollar values using an escalation rate of 3 percent. In general costs were updated using the escalation rate unless specifically mentioned above.

The portfolio for RAMPP 6 includes a number of new options including:

- Small Cogeneration. This option is intended to reflect industrial opportunities that can use a topping turbine to recover lost heat. Costs are based upon a cogeneration plant of 50 MW.

- Large Cogeneration. This option reflects the installation of a large "F" type combustion turbine in combined cycle mode supplying steam to an industrial host. Costs are based upon a cogeneration plant of 290 MW.

- Aeroderivative Simple Cycle Gas Turbine. A representative aeroderivative gas turbine has been included in the form of an LM6000PC machine. These machines, which have their origin in the aircraft industry, can be packaged in high efficiency packages that have shorter lead times to installation than traditional frame machines. The nature of these machines allows for quicker starts and may prove effective as sources of short-term capacity. Their principal drawback is higher installation and O&M costs as compared to the larger frame gas turbines.

- Medium sized simple cycle frame machine. To represent the cost of a medium sized simple cycle machine a Siemens-Westinghouse 501D5 machine has been included. The medium sized frame machines have the added advantage of being able to startup in 10 minutes which can help support system reserve requirements. Conversely the larger "G" type combustion turbine has not been included in the simple cycle options because it does not have a good simple cycle profile for reserve support.

- Large 2 x 1 combined cycle machines. Two combustion turbines combined with a single steam turbine (2 x 1) is becoming the power plant of choice as new combined cycle gas turbines are gaining acceptance. This configuration is similar to the Klamath Falls project and represents a way to keep power plant costs down in the face of higher combustion turbine costs. The 2 x 1 configuration can represent as much as a 20% cost reduction from installing two 1 x1 configuration combustion turbines.

Table 4-15 shows the potential resources sorted by TRC and each of the cost components. Fixed operation and maintenance (O&M) expenses for resources in the portfolio include the ongoing capital cost required to keep the proposed power plant operational and efficient. On-going capital cost for new resources is \$7.00/kW for coal resources and \$2.00/kW for gas-fired and other plants

The two pages of Table 4-15 show the portfolio of supply-side resources included in the modeling. It begins with non-cost characteristics: unit sizes (although the model selects only the exact amount needed to bring the system to a 10 percent reserve margin), first year available, outage rates, heat rates, and emissions. The table continues with full cost information, beginning with capital costs for the plant and transmission needed to connect it to the backbone transmission system. The table converts this to an annual payment amount using the payment factor, and adds fixed O&M to arrive at a total annual fixed cost. The table then converts the total annual fixed cost to a mills/kWh. The overall mills/kWh is never input into the model. The model calculates its own mills/kWh to make its resource addition selections based on how the system needs a particular resource in each year. The Company uses this table, and the resulting TRC, as a reasonableness check against model output results.

As with RAMPP-5 the least cost supply-side resource is gas-fired co-generation, followed by gas-fired combined cycle combustion turbine (CCCT). Coal-fired resources cost about 4 mills/kWh more, and renewables are even more expensive. Therefore, when the model needs to add new resources, it adds the least cost choice: gas-fired co-generation plants.

Transmission Costs

The Company uses a "Block Study" to provide simplified, generic cost estimates for initial transmission feasibility studies. The Company adjusted transmission costs to reflect our current "Block Study" estimates. The portfolio of costs for new supply-side resource includes the cost to connect the new resource to the backbone transmission grid. No changes were made on the estimated distance from the backbone grid, the cost estimate to span those distances was simply updated. Table 4-16 shows the capital cost required to connect supply side resources to the existing local transmission grid. The table also shows the capital cost required to build transmission line between regions. Table 4-15 shows the entire portfolio of potential resources includes a column showing the transmission cost to connect each resource to the existing transmission grid.

Table 4-15

Page 1 of 2

Potential Resource Cost - Sorted by Total Resource Costs

Assuming Reference Case - Starting Fuel Price of 190 c/MMBtu and Real Escalation of 0.6 % Per Year

Description	Unit Size MW: Unit Size	Unit Size MW: Max Annual	Unit Size MW: MWs Avail.	1st Year Avail	Approximate Location	Distance to Transm.	Reserve Margin Contribution	Forced Outage Rate	Maint. Outage Rate	Full Load Heat Rate (BTU/kWh): Incremental	Full Load Heat Rate (BTU/kWh): Average	Emissions (lbs/MMBTU): NOX	Emissions (lbs/MMBTU): TSP	Emissions (lbs/MMBTU): CO2	Capital Cost: Unit Cost	Capital Cost: Trans-mission
Or/Wa Cogen 1	25	100	215	2004	Western OR / WA	0	100%	3.3%	3.8%	4,850	5,110	0.016	0.003	118.0	$ 659	$ -
Goshen Cogen 1	21	30	30	2004	Central Idaho	0	100%	3.3%	3.8%	4,850	5,110	0.016	0.003	118.0	$ 775	$ -
Utah Cogen 1	21	15	15	2004	Wasatch Front UT	0	100%	3.3%	3.8%	4,850	5,110	0.016	0.003	118.0	$ 775	$ -
Or/Wa Combined Cycle	400	800	-	2004	Western OR / WA	15	100%	3.3%	3.8%	6,190	6,520	0.016	0.003	118.0	$ 533	$ 87
Or/Wa Cogen 2	132	528	1,390	2004	Western OR / WA	10	100%	3.3%	3.8%	6,090	6,410	0.016	0.003	118.0	$ 594	$ 66
Goshen Combined C CT	340	680	-	2004	Central Idaho	20	100%	3.3%	3.8%	6,190	6,520	0.016	0.003	118.0	$ 627	$ 109
Utah Combined Cycle	340	680	-	2004	Wasatch Front UT	20	100%	3.3%	3.8%	6,190	6,520	0.016	0.003	118.0	$ 627	$ 109
Goshen Cogen 2	112	337	230	2004	Central Idaho	15	100%	3.3%	3.8%	6,090	6,410	0.016	0.003	118.0	$ 699	$ 87
Utah Cogen 2	112	449	1,780	2004	Wasatch Front UT	15	100%	3.3%	3.8%	6,090	6,410	0.016	0.003	118.0	$ 699	$ 87
Wyo Combined Cycle	320	640	-	2004	Wyoming	25	100%	3.3%	3.8%	6,190	6,520	0.016	0.003	118.0	$ 666	$ 126
Utah PC Hunter 4 $20/Ton	400	400	400	2006	Hunter 4	0	100%	4.0%	4.5%	9,560	10,060	0.100	0.015	206.0	$ 1,127	$ -
Wyo PC Wyodak 2	325	325	325	2006	Wyodak 2	300	100%	4.0%	4.5%	9,560	10,060	0.100	0.015	206.0	$ 1,318	$ 594
Wyo Coal $6.70/Ton	325	325	-	2006	Powder Rvr B	300	100%	4.0%	4.5%	9,560	10,060	0.100	0.015	206.0	$ 1,318	$ 594
Utah IGCC Hunter 4	262	262	262	2006	Hunter 4	0	100%	5.0%	4.5%	7,980	8,400	0.070	0.015	206.0	$ 1,450	$ -
Wyo IGCC Wyodak 2	262	262	262	2006	Wyodak - 2	300	100%	5.0%	4.5%	7,980	8,400	0.070	0.015	206.0	$ 1,450	$ 594
Wyo IGCC CT	262	262	-	2006	Powder Rvr B	300	100%	5.0%	4.5%	7,980	8,400	0.070	0.015	206.0	$ 1,450	$ 594
Utah Coal $23.25/Ton	400	400	1,250	2006	Emery County UT	35	100%	4.0%	4.5%	9,560	10,060	0.100	0.015	206.0	$ 1,318	$ 148
Utah IGCC CT	262	524	-	2006	Emery County UT	35	100%	5.0%	4.5%	7,980	8,400	0.070	0.015	206.0	$ 1,450	$ 148
Utah Coal $27.00/Ton	400	400	1,250	2006	Emery County UT	35	100%	4.0%	4.5%	9,560	10,060	0.100	0.015	206.0	$ 1,318	$ 148
Or/Wa Wind	200	200	200	2003	Western OR / WA	40	40%	5.0%	0.0%	-	-	-	-	-	$ 1,000	$ 191
Wyo Wind	150	150	150	2003	Foote Creek Rim	0	40%	5.0%	0.0%	-	-	-	-	-	$ 1,228	$ -
Or/Wa Geothermal	50	100	300	2003	Glass Mountain	25	100%	1.5%	3.8%	10,000	10,000	-	-	-	$ 2,414	$ 126
Utah Geothermal	50	100	300	2003	Blundell	25	100%	1.5%	3.8%	10,000	10,000	-	-	-	$ 2,414	$ 126
Utah Solar	68	136	1,000	2002	Southern Utah	0	97%	0.0%	0.0%	-	-	-	-	-	$ 5,004	$ -
Or/Wa Simple CycleCT	186	372	-	2004	Western OR / WA	15	100%	1.5%	0.0%	10,520	11,070	0.016	0.003	118.0	$ 433	$ 87
Utah Simple Cycle CT	158	316	-	2004	Wasatch Front UT	20	100%	1.5%	0.0%	10,520	11,070	0.016	0.003	118.0	$ 509	$ 109
Wyo Simple Cycle CT	149	298	-	2004	Wyoming	25	100%	1.5%	0.0%	10,520	11,070	0.016	0.003	118.0	$ 541	$ 126
Goshen Bridger Trans	500	500	1,000	2004	Central Idaho	0	100%	0.0%	0.0%	-	-	-	-	-	$ -	$ 328
Goshen Hunter Transm	500	500	1,000	2004	Central Idaho	0	100%	0.0%	0.0%	-	-	-	-	-	$ -	$ 328
Or/Wa Bridger Transm	500	500	1,000	2004	Western OR / WA	0	100%	0.0%	0.0%	-	-	-	-	-	$ -	$ 328
Utah Wyo/Ut Tran L	500	500	1,000	2004	NE Utah	0	100%	0.0%	0.0%	-	-	-	-	-	$ -	$ 330
Or/Wa Pump Storage	200	200	500	2005	Malin Area	25	100%	1.0%	0.0%	-	-	-	-	-	$ 760	$ 126
Utah Pumped Storage	200	200	200	2005	NE Utah	25	100%	1.0%	0.0%	-	-	-	-	-	$ 760	$ 126

Table 4-15

Potential Resource Sorted by Total Resource Costs

Assuming Reference Case - Starting Fuel Price of 190 c/MMBtu and Real Escalation of 0.6 % Per Year

Description	Capital Cost $/kW: Total Cap Cost	Payment Factor	Annual Pmt $/kW-Yr	Fixed Cost: Fixed O&M $/kW-Yr: O&M	Other	Total	Ttl Fixed $/kW-Yr	Convert to Mills: Expected Utilization	Ttl Fixed Mills/kWh	Energy Cost in 2005 ($2001): 1st Year ¢/MMBTU	Levelized ¢/MMBTU	Levelized Mills/kWh	Variable Costs ¢/MMBTU: O&M	Fuel	Total Resource Cost
Or/Wa Cogen 1	$ 659	8.37%	$ 55.16	$ 25.69	-	$ 25.69	$ 80.85	85%	10.86	194.60	206.05	9.99	0.15	-	21.00
Goshen Cogen 1	$ 775	8.37%	$ 64.89	$ 30.22	-	$ 30.22	$ 95.12	85%	12.77	194.60	206.05	9.99	0.15	0.58	23.50
Utah Cogen 1	$ 775	8.37%	$ 64.89	$ 30.22	-	$ 30.22	$ 95.12	85%	12.77	194.60	206.05	9.99	0.15	0.58	23.50
Or/Wa Combined Cycle	$ 620	8.37%	$ 51.93	$ 26.86	-	$ 26.86	$ 78.79	85%	10.58	194.60	206.05	12.75	0.51	-	23.85
Or/Wa Cogen 2	$ 660	8.37%	$ 55.21	$ 29.69	-	$ 25.69	$ 80.90	85%	10.86	194.60	206.05	12.55	0.50	-	23.91
Goshen Combined C CT	$ 736	8.37%	$ 61.63	$ 31.60	-	$ 31.60	$ 93.23	85%	12.52	194.60	206.05	12.75	0.51	0.74	26.53
Utah Combined Cycle	$ 736	8.37%	$ 61.63	$ 31.60	-	$ 31.60	$ 93.23	85%	12.52	194.60	206.05	12.75	0.51	0.74	26.53
Goshen Cogen 2	$ 786	8.37%	$ 65.81	$ 34.93	-	$ 34.93	$ 100.74	85%	13.53	194.60	206.05	12.55	0.50	0.73	27.31
Utah Cogen 2	$ 786	8.37%	$ 65.81	$ 34.93	-	$ 34.93	$ 100.74	85%	13.53	194.60	206.05	12.55	0.50	0.73	27.31
Wyo Combined Cycle	$ 792	8.37%	$ 66.28	$ 33.58	-	$ 33.58	$ 99.86	85%	13.41	194.60	206.05	12.75	0.51	0.74	27.42
Utah PC Hunter 4 $20/Ton	$ 1,127	7.72%	$ 87.00	$ 43.46	-	$ 43.46	$ 130.46	85%	17.52	100.21	110.98	10.61	0.51	-	28.64
Wyo PC Wyodak 2	$ 1,912	7.72%	$ 147.64	$ 43.46	-	$ 43.46	$ 191.10	85%	25.66	44.25	46.03	4.40	0.51	-	30.58
Wyo Coal $6.70/Ton	$ 1,912	7.72%	$ 147.64	$ 43.46	-	$ 43.46	$ 191.10	85%	25.66	45.61	47.44	4.54	0.51	-	30.71
Utah IGCC Hunter 4	$ 1,450	7.72%	$ 111.94	$ 41.16	-	$ 41.16	$ 153.10	85%	20.56	100.21	110.98	8.86	2.40	-	31.82
Wyo IGCC Wyodak 2	$ 2,044	7.72%	$ 157.83	$ 41.16	-	$ 41.16	$ 198.99	85%	26.72	44.25	46.03	3.67	2.40	-	32.80
Wyo IGCC CT	$ 2,044	7.72%	$ 157.83	$ 41.16	-	$ 41.16	$ 198.99	85%	26.72	45.61	47.44	3.79	2.40	-	32.91
Utah Coal $23.25/Ton	$ 1,466	7.72%	$ 113.14	$ 43.46	-	$ 43.46	$ 156.60	85%	21.03	116.49	129.01	12.33	0.51	-	33.87
Utah IGCC CT	$ 1,598	7.72%	$ 123.33	$ 41.16	-	$ 41.16	$ 164.49	85%	22.09	116.49	129.01	10.30	2.40	-	34.79
Utah Coal $27.00/Ton	$ 1,466	7.72%	$ 113.14	$ 43.46	-	$ 43.46	$ 156.60	85%	21.03	135.28	149.82	14.32	0.51	-	35.86
Or/Wa Wind	$ 1,191	9.32%	$ 111.02	$ 15.09	-	$ 15.09	$ 126.11	36%	40.55	-	-	-	-	-	40.55
Wyo Wind	$ 1,228	9.32%	$ 114.45	$ 15.09	-	$ 15.09	$ 129.54	36%	41.66	-	-	-	-	-	41.66
Or/Wa Geothermal	$ 2,540	8.90%	$ 226.03	$ 18.88	-	$ 18.88	$ 244.91	90%	31.06	113.83	113.83	11.38	2.12	-	44.57
Utah Geothermal	$ 2,540	8.90%	$ 226.03	$ 18.88	-	$ 18.88	$ 244.91	90%	31.06	113.83	113.83	11.38	2.12	-	44.57
Utah Solar	$ 5,004	9.32%	$ 466.37	$ 19.77	-	$ 19.77	$ 486.14	23%	242.07	-	-	-	3.50	-	245.57
Or/Wa Simple CycleCT	$ 520	8.59%	$ 44.70	$ 13.58	$ 15.20	$ 28.78	$ 73.48	15%	55.92	194.60	206.05	21.68	0.10	0.74	78.43
Utah Simple Cycle CT	$ 619	8.59%	$ 53.14	$ 15.98	$ 17.51	$ 33.49	$ 86.63	15%	65.93	194.60	206.05	21.68	0.10	2.00	89.71
Wyo Simple Cycle CT	$ 667	8.59%	$ 57.29	$ 16.98	$ 17.51	$ 34.49	$ 91.77	15%	69.84	194.60	206.05	21.68	0.10	2.00	93.62
Goshen Bridger Trans	$ 328	7.72%	$ 25.31	-	-	-	$ 25.31	100%	2.89	-	-	-	-	-	2.89
Goshen Hunter Transm	$ 328	7.72%	$ 25.31	-	-	-	$ 25.31	100%	2.89	-	-	-	-	-	2.89
Or/Wa Bridger Transm	$ 328	7.72%	$ 25.31	-	-	-	$ 25.31	100%	2.89	-	-	-	-	-	2.89
Utah Wyo/Ut Tran L	$ 330	7.72%	$ 25.48	-	-	-	$ 25.48	100%	2.91	-	-	-	-	-	2.91
Or/Wa Pump Storage	$ 886	7.52%	$ 66.60	$ 16.63	-	$ 16.63	$ 83.23	30%	31.67	-	-	-	-	-	31.67
Utah Pumped Storage	$ 886	7.52%	$ 66.60	$ 16.63	-	$ 16.63	$ 83.23	30%	31.67	-	-	-	-	-	31.67

Table 4-16

Transmission Capital Costs to Connect Supply Side Resources & Capital Costs to Connect Transmission Bubbles

	Project	Project Size (KW)	Miles New Line	Regional Service (Costs to serve loads) (within the region) ($)	Regional Service ($/KW)	Inter-Regional Service (Incremental costs to serve) (loads in other Regions) ($)	Inter-Regional Service ($/KW)
	Specific Sites					**Small Incremental Increase**	
O	Co-Gen #1				$0	$7,500,000	$ 164
R	**Generic Estimates**					for 50 MW	
	Co-Gen #2	200,000	10	$12,000,000	$ 66	**Larger Incremental Increase**	
W	Simple Cycle	200,000	15	$16,000,000	$ 87	$30,000,000	$ 328
A	Combined Cycle	200,000	15	$16,000,000	$ 87	for 100 MW	
	Geothermal	200,000	25	$23,000,000	$ 126		
	Pumped Storage	200,000	25	$23,000,000	$ 126		
	Specific Sites						
U	Co-Gen #1				$ -	**Small Incremental Increase**	
T	Hunter #4 Pulv Coal	440,000	0	$0	$ -	$7,500,000	$ 164
A	Hunter #5, 6, 7, 8...	440,000	35	$59,400,000	$ 148	for 50 MW	
H	Hunter #4, IGCC	240,000	0	$0	$ -	**Larger Incremental Increase**	
	Other Utah IGCC	240,000	35	$32,400,000	$ 148	$30,000,000	$ 328
						for 100 MW	
	Generic Estimates					**Large New 500KV AC**	
	Utah Photovoltaic Solar				$ -	$1,005,650,000	$ 1,099
	Co-Gen #2	200,000	15	$16,000,000	$ 87	for 1000 MW	
	Simple Cycle	200,000	20	$20,000,000	$ 109		
	Combined Cycle	200,000	20	$20,000,000	$ 109	**Large New 500KV DC**	
	Geothermal	200,000	25	$23,000,000	$ 126	$1,325,650,000	$ 724
	Pumped Storage	200,000	25	$23,000,000	$ 126	for 2000 MW	
	Wind Complex	200,000	40	$35,000,000	$ 191		
	Specific Sites * RAMPP 5 Estimates						
W	Wyodak #2, Pulv Coal	260,000	300	$141,440,000	$ 594	$78,520,000	$ 330
Y	Wyodak #2, IGCC	260,000	300	$141,440,000	$ 594	for 200 miles	
O	Other Wyo Pulv Coal	260,000	300	$141,440,000	$ 594	for 260mw	
M	Other Wyo IGCC	260,000	300	$141,440,000	$ 594	Wyo to Utah	
I	**Generic Estimates**						
N	Simple Cycle CT	200,000	25	$23,000,000	$ 126		
G	Combined Cycle CT	200,000	25	$23,000,000	$ 126		
	Wind Complex	200,000	40	$35,000,000	$ 191		

Notes

1) All costs adjusted to 2001 dollars using 3% escalation
2) Genaric costs from EES/Estimating Block Study - Catalog
3) Unit costs assuming 200MW size (per RAMPP 5)

Chapter 5: RAMPP-6 Action Plan

RAMPP 6 incorporates a weighted-average risk analysis approach to assist in developing an action plan. This approach provides the reader with information regarding the likely outcomes of actions given a variety of uncertainties. The Company has found this information to be helpful in analyzing potential near term actions.

Integrated resource plan modeling determines the optimum balance of market purchases, new generation and energy efficiency programs under a specific set of assumptions. The current state of the electric industry is very volatile and uncertain. The company's service territory has been experiencing strong growth in demand, especially in the state of Utah.
Oregon's restructuring process will ultimately proportion the company's generating resources between the regulated cost-of-service customers and an unregulated business. At the time RAMPP 6 was developed the outcome of this division was not known. Consequently, both the loads served and the resources available have been assumed to remain constant for this analysis. Oregon's restructuring process also precludes building new resources for the regulated customers.

The company has proposed, in a separate proceeding, a restructuring of itself. A full discussion of that proposal is beyond the scope of this document, however a brief summary would be that the company be restructured into distribution company's at the state level, plus a generation company and a service company. Regulated loads would be served on a contractual basis with the generation company. Such a restructuring would focus future planning on a state by state basis. An optimum resource plan would be developed based on the states' particular requirements. It would also allow for diversification of resources on a state by state basis if desired, i.e. the distribution company could contract for a portion of its requirements from the affiliate generation company, third party generators and the market.

These uncertainties demand a flexible approach to the short-term action plan. Actions taken prior to the resolution of these issues may be a gamble on a particular outcome and may place the customer or the shareholder or both at risk.[16]

[16] In 1997 California required that its three largest utilities purchase solely from the market to serve retail customers and encouraged them to divest of their non-nuclear generation or demonstrate a public interest for why they should not. In April of 2001 Pacific Gas and Electric

Recognizing the difficulty of determining a definitive action plan the company focused on three key issues:

1) The cost-effective amount of energy efficiency for 2001 and 2002.

2) The decision year for development of new resources.

3) The risks associated with development of new resources.

The model chooses resources based on one criteria, their ability to lower total costs over a 40-year period. This provides useful information to the company, but management makes its resource acquisition decisions on other criteria as well. Evaluation of any specific opportunity requires more extensive financial and operational analysis than is included in a system-wide long-term evaluation such as RAMPP. RAMPP provides a general guide, which is useful to assure that timing of decision points is determined.

Specifications:

(1) Demand Side Management:

The reference case and the weighted average risk analysis are consistent in the levels of DSM chosen. The reference case would choose 16.5 aMW in 2001 and 16.1 aMW in 2002. The weighted average reference case chooses 16 aMW in 2001 and 15 aMW in 2002. These targets are slightly higher than those the target of 9-13 aMW in RAMPP 5 reflecting the higher market and gas prices and the proximity to new resources required. Table 5-1 shows a 16.5 aMW DSM target for 2001 and 2002 by sector and state.[17]

filed for chapter 11 bankruptcy due to the inability to recover the costs of the high market prices through its retail rates.

[17] DSM programs in Oregon will be run under the auspices of a newly created non-profit entity after October 1, 2001 due to the restructuring legislation. Average MW savings will be determined by the non-profit entity and credited to the company on a yet to be determined basis.

Table 5-1
DSM Selected for 2001/2002 by Sector and State

	Oregon	Washington	Idaho	Utah	Wyoming	Total
Energy aMW						
Residential	0.65	0.07	0.10	1.17	0.21	2.20
Commercial	2.61	0.93	0.14	6.86	0.58	11.12
Industrial	0.70	0.28	0.21	1.03	0.97	3.19
Total	3.96	1.28	0.45	9.06	1.76	16.51
Summer MW						
Residential	1.18	0.12	0.20	2.20	0.40	4.10
Commercial	3.31	1.19	0.20	10.50	0.90	16.10
Industrial	0.71	0.29	0.10	1.00	0.90	3.00
Total	5.21	1.59	0.50	13.70	2.20	23.20
Winter MW						
Residential	1.09	0.11	0.10	2.40	0.30	4.00
Commercial	7.73	2.77	0.10	10.90	1.10	22.60
Industrial	0.71	0.29	0.10	1.00	0.90	3.00
Total	9.53	3.17	0.30	14.30	2.30	29.60

In addition to its DSM acquisition activities, the company will continue to support and work with other parties in the development of public funding mechanisms and alternative implementation strategies for DSM and renewable resources[18].

As in previous RAMPPs, the company based its DSM targets on DSM costs that are 15 percent lower than costs the company actually incurs. The 15 percent reduction reflects the 10 percent Regional Act Credit and an additional 5 percent for avoided investment in transmission and distribution.

(2) Existing System:
Continue to make cost effective improvements to the existing generation, transmission, and distribution systems.

[18] In 2000 the Utah commission initiated an advisory panel to develop a system benefit charge proposal for funding energy efficiency. Also in 2000 the Washington Utilities and Transportation Commission approved a system benefits charge approach to funding energy efficiency.

Although the RAMPP modeling did not separate out specific existing system improvements, the company uses the results of avoided cost calculations to determine the cost effectiveness of investments in the existing system. Loss savings projections are integrated into capital alternative analysis for expenditure decisions. Purchases of equipment, such as transformers and wire, are made to achieve the lowest total owning cost over the life of the investment, including losses which are priced at projected avoided costs.

Improving the existing system includes pursuing cost effective opportunities to relieve transmission constraints through distributed generation. The technology of distributed generation is improving in both performance and cost, and the company will continue to evaluate any opportunities that arise for cost effective use of that technology.

(3) New generation:

Continue to evaluate the regional and system specific needs for new generation. Develop, as appropriate, new generation in either the regulated or unregulated power supply business.

A review of the reference case and the weighted average risk analysis case provides insight into the actions that the company will consider. The reference case indicates a need for 540 MW of summer capacity in 2004. The weighted-average risk analysis indicates a need for 364 MW at that same time.[19]

The company will be monitoring closely the developments in the western market during 2001 in order to make an informed decision as to how this requirement will be met.

The risk analysis provides insight into the decision process. If the company proceeds to develop new resources for the 2004 time frame and a loss of load materializes, the company will be in a position with an 18.2% reserve. This reserve margin is significantly higher than that required to provide safe and reliable service. As such, customers will be paying rates higher than they otherwise would be. Shareholders face the risk that regulatory commissions will not allow inclusion of the new generation in the rates proposed by the company as these resources may not be deemed to pass the "used and useful" standard. Both customers and shareholders

[19] In both cases the model is also choosing to make short term capacity and short term market purchases. If market prices remain high it may be economical to build new generation sooner than allowed by the model. The model is constrained by expected siting, permitting and construction time. Accelerated siting/permitting processes have been proposed in several states that may speed the process.

are exposed to the risk that each individual western utility concludes a similar need and builds new capacity to meet the perceived need. This simultaneous response to the current high market prices and perceived shortage could result in an over-capacity situation, rendering the newly constructed facilities uneconomic.

The company believes that it must carefully weigh the impacts on customers and shareholders before it can commit to a specific new generation strategy. Resolution of the Oregon restructuring plan, the company's proposed reorganization, consideration of potential changes in the California market and restructuring efforts within our service territory will all be considered.

The Company proposes to use this critical decision-making time frame to demonstrate the effectiveness of an ongoing IRP process. Scenarios suggested by regulators and interested parties will be modeled using the RAMPP-6 model as a base. These results will then be used to inform the decision process for both the Company, regulators and other interested parties.

Specific actions that are under consideration in 2001 and 2002 include the addition of single cycle turbines at the Gadsby site in Salt Lake and at West Valley City[20] in Utah to meet near term capacity constraints. The Company is also considering building a fourth coal fired unit at the Hunter site in Utah. The consideration of a coal unit is an example of the use of risk analysis in planning. This RAMPP indicates that natural gas fired units are lowest cost, however that conclusion is based on gas price ranges which are lower than those currently observed in the market. If gas continues at its current high prices, coal becomes more economical. Weighed against the gas prices in the decision process is the potential for further emission controls which would impact the costs of a coal fired facility.

[20] At the time the report was being written it was not yet known whether the West Valley site would be built by the regulated business or by PacifiCorp Power Marketing.

Chapter 6: Performance on RAMPP-5 Action Plan

This chapter will summarize the 1998-2000 performance on the RAMPP-5 action plan.

In the RAMPP-5 action plan, the company discussed the uncertain nature of the industry over the next 10 to 20. Events since then have done nothing to reduce that uncertainty. The action plan emphasized continuing to acquire cost-effective demand-side resources, system efficiencies and other cost effective opportunities as they arise.

(1) DSM goal from RAMPP-5:

Implement the amount of demand side activity consistent with a competitive utility environment, considering cost and financial and price impacts. Continue with on-going DSM activity, finding the most cost effective areas for investment. Achieve 9 to 13.5 aMW of installed cost effective savings in 1998, and an additional 9 to 13.5 aMW in 1999.

Performance: The company achieved 12.2 aMW of cost effective DSM in 1998 and 14.03 aMW in 1999. At the time this report is being published final 2000 savings have not been determined. In 1999 the company committed to an accelerated program in Oregon as part of the Scottish Power merger stipulations. Enhanced programs for commercial and industrial customers were approved by the Oregon Public Utilities Commission in May of 2000. In 2000 the Company proposed a system benefit charge approach to funding energy efficiency programs in Washington. In October of 2000 the Washington Utilities and Transportation Commission approved collection of $2.8 million annually to fund energy efficiency programs in that state. In Utah the company co-chairs a task force investigating the benefits of a system benefits charge approach for that state. The task force will issue a report to the Utah Public Service Commission in March of 2001.

In addition the company extended its commitment to fund projects of the Northwest Energy Efficiency Alliance for five years beginning in 2000. The Northwest Energy Efficiency Alliance has proven very effective in identifying opportunities for market transformation energy efficiency programs. Contrasted with traditional energy efficiency programs these programs seek to remove market barriers for energy efficient products and services. The organization currently manages over 30 programs ranging from horizontal access washing machines to waste water treatment aeration to training commercial building operators. Full descriptions of the programs and the organization may be found at www.nwalliance.org.

(2) Existing System:
Continue to make cost effective improvements to the existing generation, transmission, and distribution systems.

Performance: Examples of recent system investments or plans include:

- $202,000 of expenditures in fiscal 2001 for distribution system capacitors with calculated rates of return based on loss savings ranging from 3% to 25%.
- Installation of 421,000 MVAR of main grid capacitor banks during fiscal 2001 and 2002 for the purpose of both system voltage support as well as loss savings.
- Rebuild of 115 kV Line 14 in northern California to eliminate the large losses that are currently experienced during high loadings.
- Efficiency improvements resulting in a 165 aMW increase in capacity were completed at the Jim Bridger, Huntington and Hunter plants.

(3) Pursue cost-effective resource acquisition opportunities:
Pursue cost-effective resource acquisitions opportunities that meet the future needs of the company.

Performance: The Company completed development of the Foote Creek Rim Wind project in the fall of 1999. This project is 80 percent owned by PacifiCorp and 20 percent owned by Eugene Water and Electric Board. The project has a capacity of 41.4 MW.

PACIFICORP

RESOURCE AND MARKET PLANNING PROGRAM

RAMPP - 6

APPENDIX: MODEL OUTPUT

JUNE - 2001

Printed on Recycled Paper

825 N.E. Multnomah
Portland, Oregon 97232
(503) 813-5000

PACIFICORP
PACIFIC POWER UTAH POWER

July 3, 2001

98 2035 05

Wyoming Public Service Commission
Hansen Building
2515 Warren Avenue, Suite 300
Cheyenne, WY 82002

Attn; Mr. Steve Oxley,
Commission Secretary

RE: Biennial Filing of Electric Integrated Resource Plan

Dear Mr. Oxley:

Enclosed are six copies of PacifiCorp's sixth integrated resource planning submittal entitled, *PacifiCorp's Resource and Market Planning Program - RAMPP-6*, along with a *Model Output Appendix*. Enclosed also is an addendum to the report entitled *RAMPP-6 Special Studies*. Copies of the report and appendix are also available on the Company's World Wide Web page, the Internet address is: www.pacificorp.com/prodsvs/rampp.html.

RAMPP-6 is the result of nearly three years of work by the company and its external advisory group. This process began in the fall of 1998 with the expectation that the report would be issued in December of 1999. Upon recommendation by the company and approval by the advisory group the company filed for and was granted an extension of the filing due date to December 31, 2000. The purpose of this extension was to allow the report to incorporate changes that were occurring in the industry during 1998 and 1999. While this additional time allowed the company and the advisory group to develop better strategies for dealing with future uncertainty the assumptions developed for RAMPP-6 were finalized in May of 2000. The unprecedented events in the electricity market that have occurred since then have had two major impacts on the report.

First, the report was not filed as anticipated on December 31, 2000. The company apologizes for the delay.

Second, the report does not reflect the impacts of the recent events. The integrated resource planning process is a biennial process that culminates in a plan looking forward over the subsequent 20 years. RAMPP, like most utilities' IRP processes, was developed during a period of relative stability in the industry. For the early RAMPP processes. the relatively static nature of the electric industry meant that the results of the analysis were still consistent with the state of the industry at the time the report was filed. This has become less true over the later RAMPPs and for RAMPP-6, itdoes not appear to be the caseat all. The current state of the industry is not encompassed in any of the scenarios analyzed in the study. Nonetheless, the study stands on its own merits and will provide a useful base for current and future analysis. The results in the study necessarily flow from the assumptions in the study.

Future analysis may require using the base model developed for RAMMP-6 with assumptions updated to current conditions. Included as an addendum to the RAMPP-6 report is a set of special studies that were developed at the request of the RAMPP advisory group. The company believes that special studies such as these are a mechanism by which the integrated resource planning process can be made more real-time.

In anticipation of continued change within the electric industry, the Company is currently reforming its long range planning process. A centralized Resource Planning function is being created that will be able to evaluate and compare the resource options available to the Company such as adding resources, repowering resources, purchasing commodity, or the various sophisticated financial transactions being offered in today's energy marketplace,. The function will be staffed by experts in generation, transmission, modeling, economics and regulatory requirements. The purpose of the function will be to better align the Company's long range planning, regulatory requirements and business planning.

Please acknowledge receipt by stamping or initialing the duplicate copy of this letter attached and returning the same in the enclosed self-addressed, stamped envelope.

Sincerely,

Brian Hedman, Manager
Manager, Regulatory

Enclosures

825 N.E. Multnomah
Portland, Oregon 97232
(503) 813-5000

PACIFICORP
PACIFIC POWER UTAH POWER

July 3, 2001

Idaho Public Utilities Commission
472 West Washington
Boise, ID 83702

Attn: Jean Jewell
Commission Secretary

Re: Biennial Filing of Electric Integrated Resource Plan

Dear Ms. Walters:

Enclosed are six copies of PacifiCorp's sixth integrated resource planning submittal entitled, *PacifiCorp's Resource and Market Planning Program - RAMPP-6*, along with a *Model Output Appendix*. Enclosed also is an addendum to the report entitled *RAMPP-6 Special Studies.* Copies of the report and appendix are also available on the Company's World Wide Web page, the Internet address is: www.pacificorp.com/prodsvs/rampp.html.

RAMPP-6 is the result of nearly three years of work by the company and its external advisory group. This process began in the fall of 1998 with the expectation that the report would be issued in December of 1999. Upon recommendation by the company and approval by the advisory group the company filed for and was granted an extension of the filing due date to December 31, 2000. The purpose of this extension was to allow the report to incorporate changes that were occurring in the industry during 1998 and 1999. While this additional time allowed the company and the advisory group to develop better strategies for dealing with future uncertainty the assumptions developed for RAMPP-6 were finalized in May of 2000. The unprecedented events in the electricity market that have occurred since then have had two major impacts on the report.

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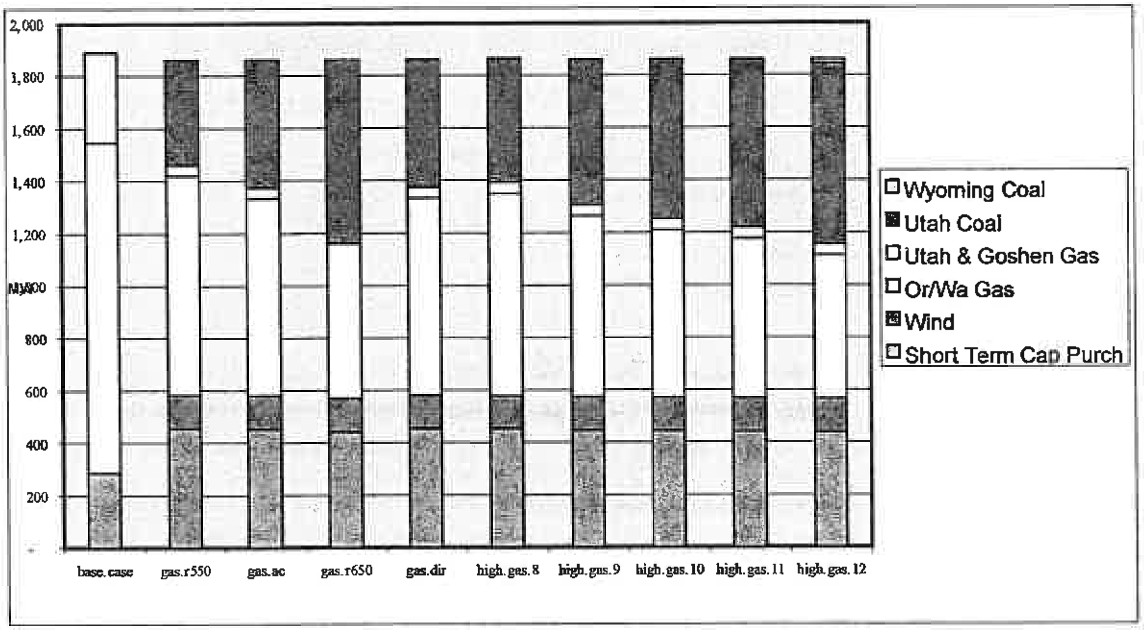
Brian Hedman, Manager
Manager, Regulatory

Enclosures

Other Gas Cases - Resource Selection in the Year 2010



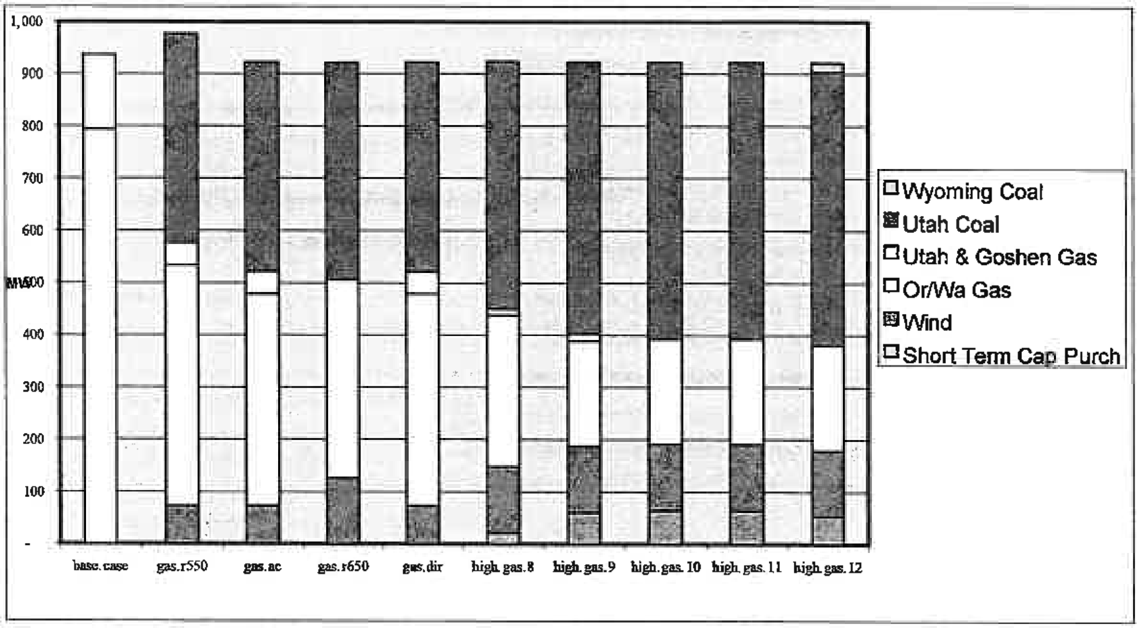
Results:

In each of the cases the model switched a large part of both east side and west side gas-fired resources to coal-fired resources.

The graph below shows the resource selection by the year 2006. Base.case and several similar high.gas price cases were included for comparison purposes.

The graph shows two distinct changes that occur. First that most Utah and a large part of Or/Wa gas-fired resources has been replaced by coal-fired resources, specifically *Utah PC Hunter 4* in 2006 and some additional *Utah Coal $23.25/Ton* depending upon the case. Second that wind resources are selected to bridge the construction lead time between gas-fired resources and coal-fired resources.

Other Gas Cases - Resource Selection in the Year 2006



Looking at a similar graph for the year 2010 shows that some capacity requirements are met by the selection of *Short Term Cap Purch*. This is a short-term seasonal wholesale market capacity purchase. Note that coal-fired resources selected remains fairly constant from 2006 to 2010 while additional Or/Wa gas-fired resources are selected.

RAMPP-6 Special Studies

Other High Gas Price Scenarios

Purpose:

The purpose of the special gas cases was to explore the impact of various high gas price and escalation rate assumptions.

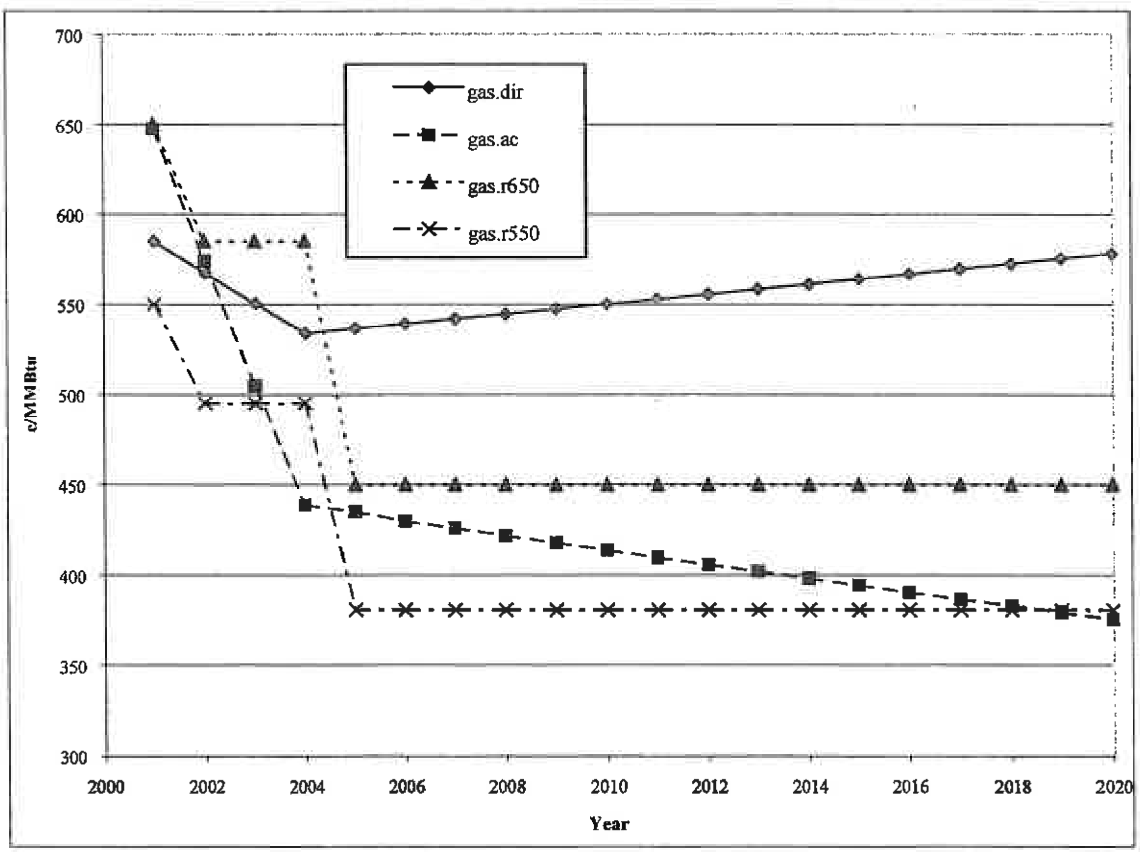
Major Assumptions:

The case was based upon Case 58 or fuel.280H.34. Fuel.280H.34 is the highest gas price in the original RAMPP-6 study at 280 c/MMBtu and with the highest short-term wholesale prices at 34 mills/kWh. This case was selected to be consistent with other high gas price cases.

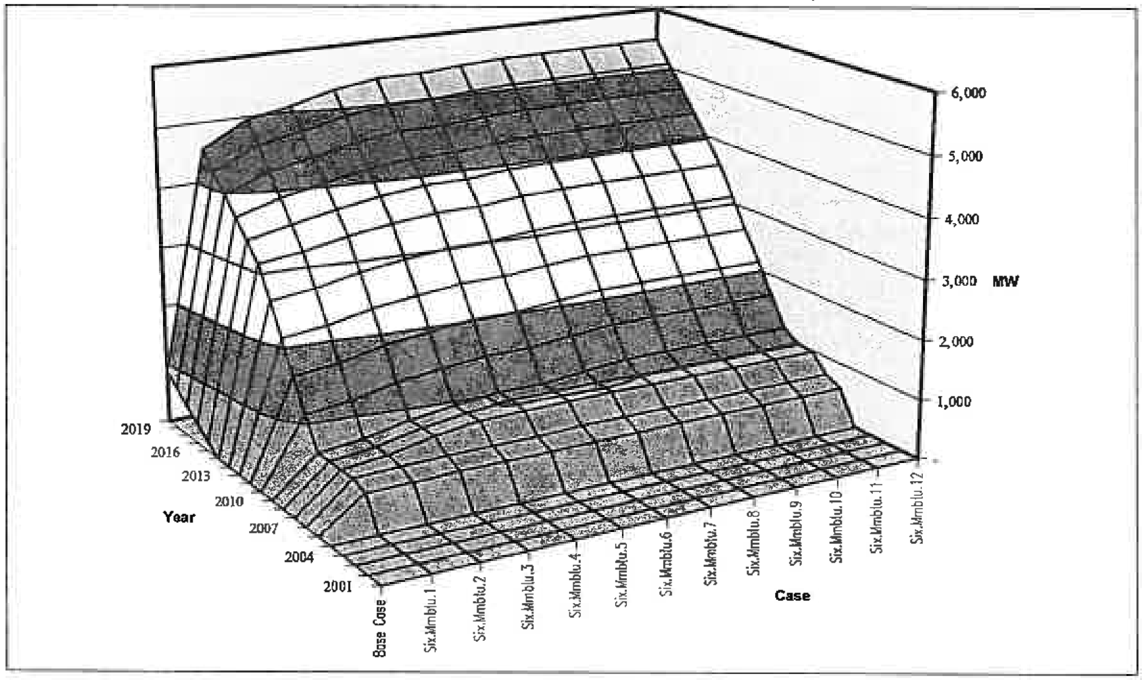
The cases are:

gas.dir	Gas prices starting at 585 c/MMBtu and escalating at escalation rates as published by DIR.
gas.ac	Gas prices starting at 647 c/MMBtu and escalating at 'avoided cost' escalation rates.
gas.r650	Gas prices starting at 650 c/MMBtu and escalating at rates proposed by Rich Collins.
gas.r550	Gas prices starting at 550 c/MMBtu and escalating at rates proposed by Rich Collins.

Gas Price Forecast for Special Gas Price Cases



Coal Fired Resources Selected (MW)

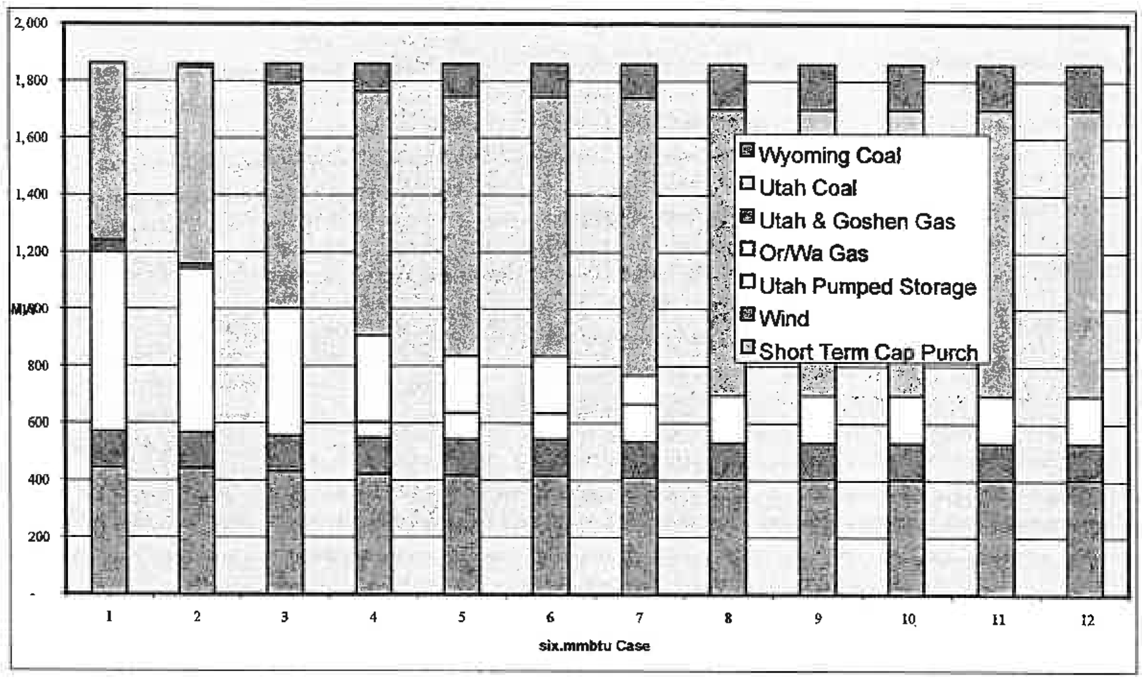


Two plants were excluded from the model runs, *Utah IGCC Hunter 4* and *Wyo IGCC Wyodak 2*. These two IGCC plants have lower capital and fuel costs because of their location next to existing plants. Two other plants. *Utah PC Hunter 4* and *Wyo PC Wyodak 2* are modeled with similar capital cost and fuel cost advantages. Since the pulverized coal technology has a very slight price advantage and the capital cost and fuel savings can only be enjoyed by one plant, the IGCC plants were excluded.

Results:

This sweep shows that with a high starting gas price and increasing gas price escalation, the model will select more coal-fired resources in the 2008 to 2010 time frame. Total coal-fired resource selection in the 2015 and 2020 years tend to be similar across all cases in the sweep. Likewise, the model tends to select similar amounts of coal-fired resource in the 2006-2007 years, across all cases in the sweep. The only major difference is the sweeps is the resource mix transition from Or/Wa gas-fired resources to coal-fired resources with additional Utah pumped storage.

six.mmbtu - Resource Selection in the Year 2010



The graph below shows that that the total coal-fired resources selected from 4,550 to 5,450 MW in the year 2020 as gas price escalation increase.

The resource selection in the year 2020 consists of

1. *Utah PC Hunter 4* in 2006
2. all available *Wyo IGCC Wyodak 2* and *Utah Coal $23.25/Ton* resource in 2015
3. all available *Utah Wyo/Ut Tran L*, a Wyoming to Utah transmission line, in 2015
4. some *Wyo Coal $6.70/Ton* until the transmission constraints precludes additional resource selection
5. some *Utah Coal $27.00/Ton* resource in increasing quantities as gas price escalation increases

The change in coal-fired resources selected in the 2008-2010 time frame is the selection of *Wyo PC Wyodak 2* at an earlier time.

RAMPP-6 Special Studies

600 Cent/MMBtu Sweep six.mmbtu

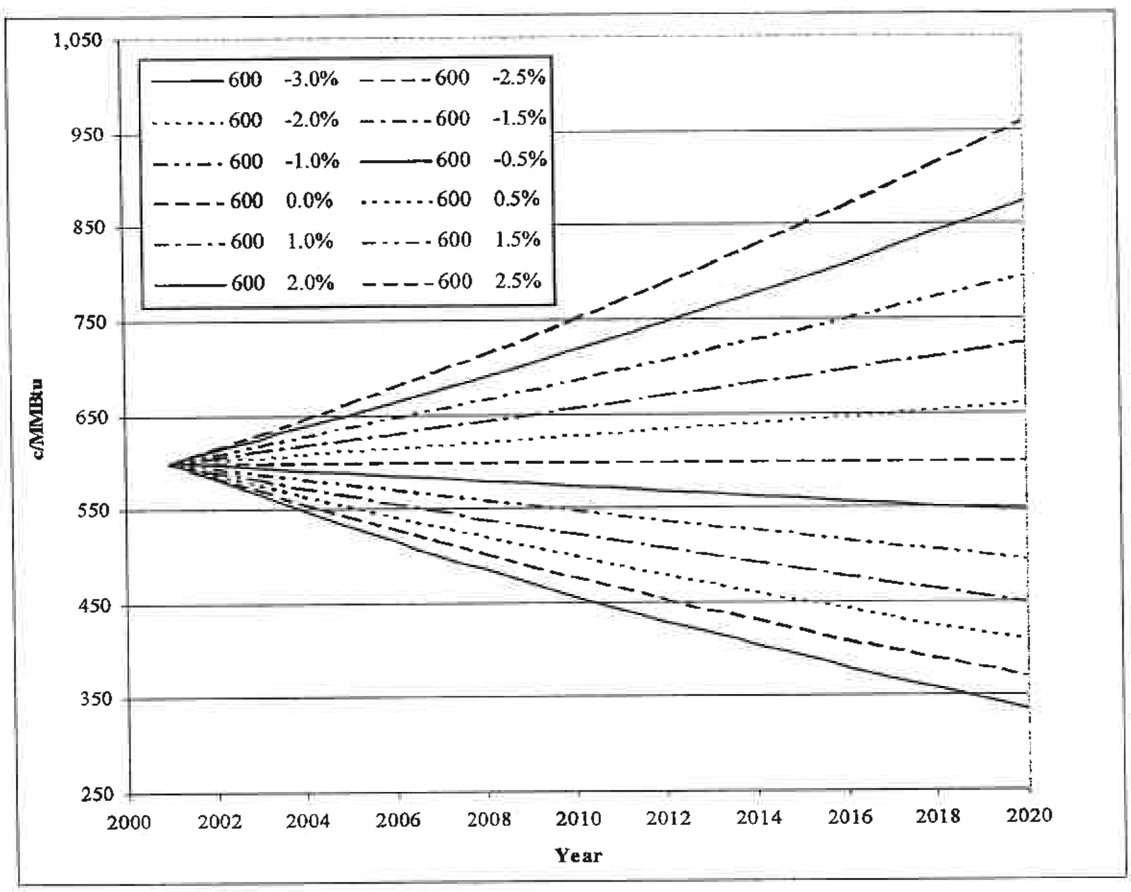
Purpose:

The purpose of the high.gas sweep was to explore the impact of high gas prices with different gas price escalation rates. The primary interest was the break points between different resources selected.

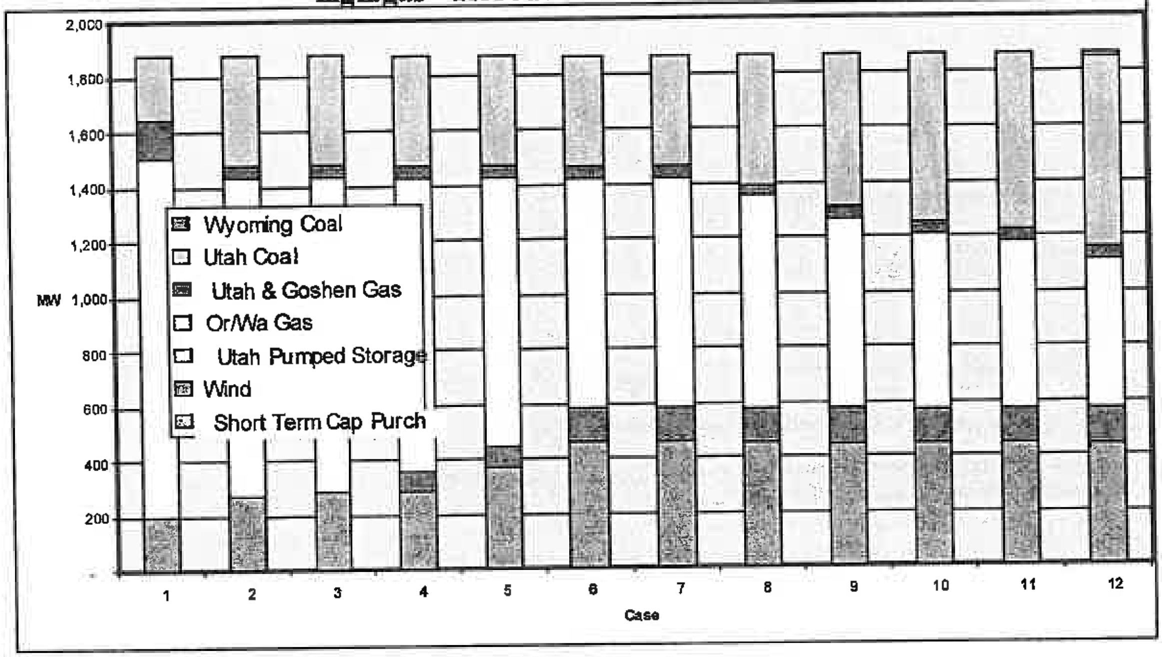
Major Assumptions:

The case was based upon Case 58 or fuel.280H.34. Fuel.280H.34 is the highest gas price in the original RAMPP-6 study at 280 c/MMBtu and with the highest short-term wholesale prices at 34 mills/kWh. This case was selected because we knew that coal resources would be entering the resource mix at 28 to 34 mill/kWh. The short-term wholesale price of 34 mills/kWh roughly equal the real levelized cost of new coal-fired resources.

Gas price for this sweep all start at 600 c/MMBtu and have twelve different real gas price escalation rates ranging from -3.0% to 2.5%. The Company feels that gas prices within this range start at a level that are not sustainable in the future and that only the cases with a large negative real price escalation are meaningful.

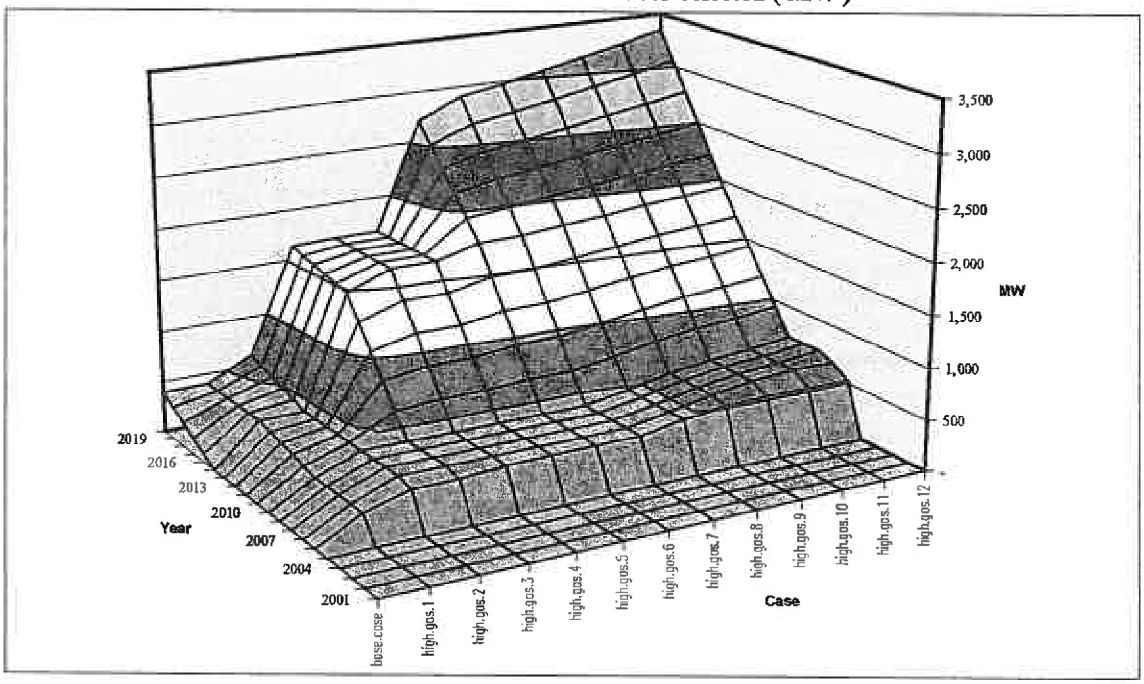


high.gas - Resource Selection in the



$6.70/Ton is selected until the transmission lines transmission limits precludes additional resource selection.

Utah Coal Fired Resources Selected (MW)



During the third break point gas price, 460 to 640 c/MMBtu, the model begins selecting the *Utah Coal $27.00/Ton* resource in increasing quantities as gas price increases.

Two things to note. First, as additional coal-fired resources are selected an equal amount of gas-fired resources is displaced. The model displaces primarily Utah gas-fired resources but Or/Wa gas-fired resources are also displaced. The model continues to select some Or/Wa gas-fired resource probably because no coal-fired resources are available in that transmission bubble.

Second, *Wyo Coal $6.70/Ton* is cheaper than *Utah Coal $27.00/Ton* yet the model selects a limited amount of *Wyo Coal $6.70/Ton.* The reverse selection is because of transmission constraints limiting the amount of energy that can be transferred to other regions. The model does have the capability to build a limited amount of transmission between transmission bubbles. The model selects all available Wyoming to Utah transmission resources in 2015. It is possible that if additional transmission were available, that the model would select additional Wyoming coal over Utah coal.

The graph below shows resource selection in the year 2010. This is a stacked graph with total resource needs of about 1850 MW and with the components of total resource needs represented by different shades within the resource stack. . The stacked graph gives a visual presentation of the transition from Or/Wa gas-fired resource in high.gas.1 to coal-fired resources.

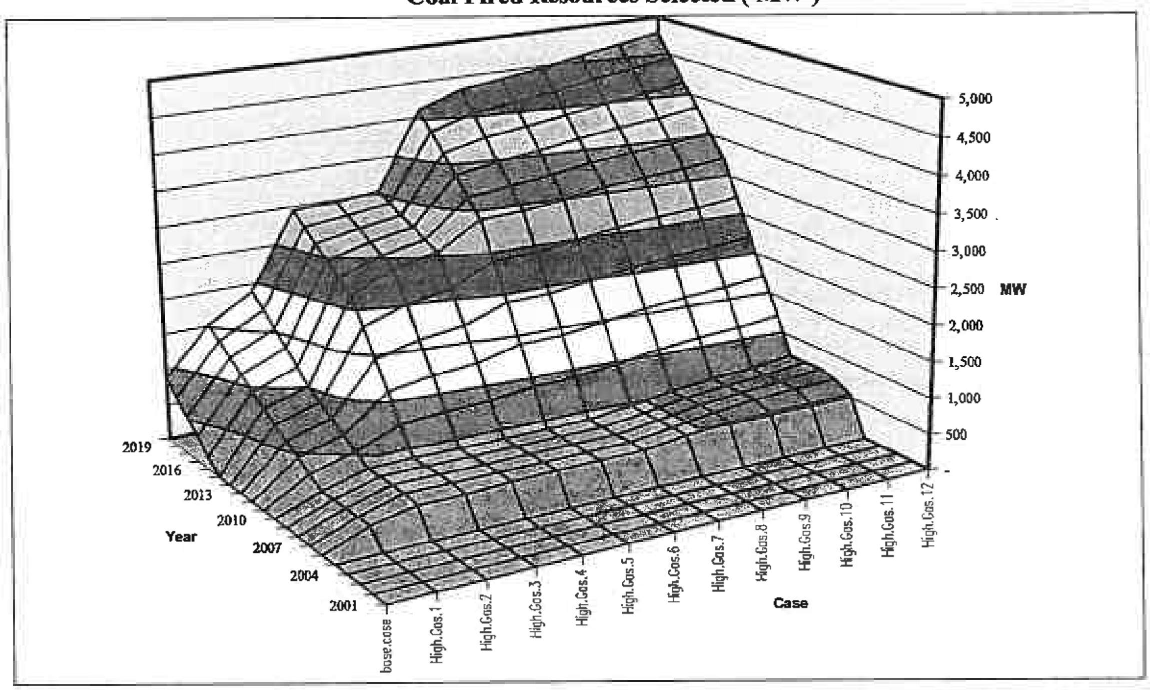
Two plants were excluded from the model runs, *Utah IGCC Hunter 4* and *Wyo IGCC Wyodak 2*. These two IGCC plants have lower capital and fuel costs because of their location next to existing plants. Two other plants. *Utah PC Hunter 4* and *Wyo PC Wyodak 2* are modeled with similar capital cost and fuel cost advantages. Since the pulverized coal technology has a very slight price advantage and the capital cost and fuel savings can only be enjoyed by one plant, the IGCC plants were excluded.

Coal-fired resources are modeled based upon a RAMPP-4 coal availability study. In that study, the Company determined that there was sufficient coal to construct one additional 400 MW plant at the Hunter location, that sufficient coal was available at $23.25 per ton to construct 1250 MW and that an unlimited amount of coal was available at $27 per ton. A similar modeling methodology applies to Wyoming coal-fired resources with a lower cost Wyodak 2 resource and unlimited amounts of coal available at $6.70/ton. This study produces a coal-fired resource supply curve with increasing quantity of resources available at increasing costs. Note that the coal labels have been retained from the RAMPP-4 study but that the underlying coal prices have been increase with inflation.

Results

The model produced three distinct break points, gas price levels 310 to 340, 370 to 430 and 460 to 640 c/MMBtu. These three level break points tie exactly to the coal-fired resource supply curve discussed above.

Coal Fired Resources Selected (MW)



During the first break point gas price, 310 to 340 c/MMBtu, the model selects *Utah PC Hunter 4* in 2006, the first year that that resource is available. The model selects *Wyo IGCC Wyodak 2* and *Utah Wyo/Ut Tran L*, a Wyoming to Utah transmission line, in 2015. *Utah PC Hunter 4* is the least cost coal-fired resource and the model correctly selects that resource first. *Wyo IGCC Wyodak 2* is the second least cost coal-fired resource and the model correctly selects this resource second.

During the second break point gas price, 370 to 430, the model selects *Utah PC Hunter 4* in 2006 and then selects all available *Wyo IGCC Wyodak 2* and *Utah Coal $23.25/Ton* resource in 2015. Some *Wyo Coal*

RAMPP-6 Special Studies

High Gas Price Sweep high.gas

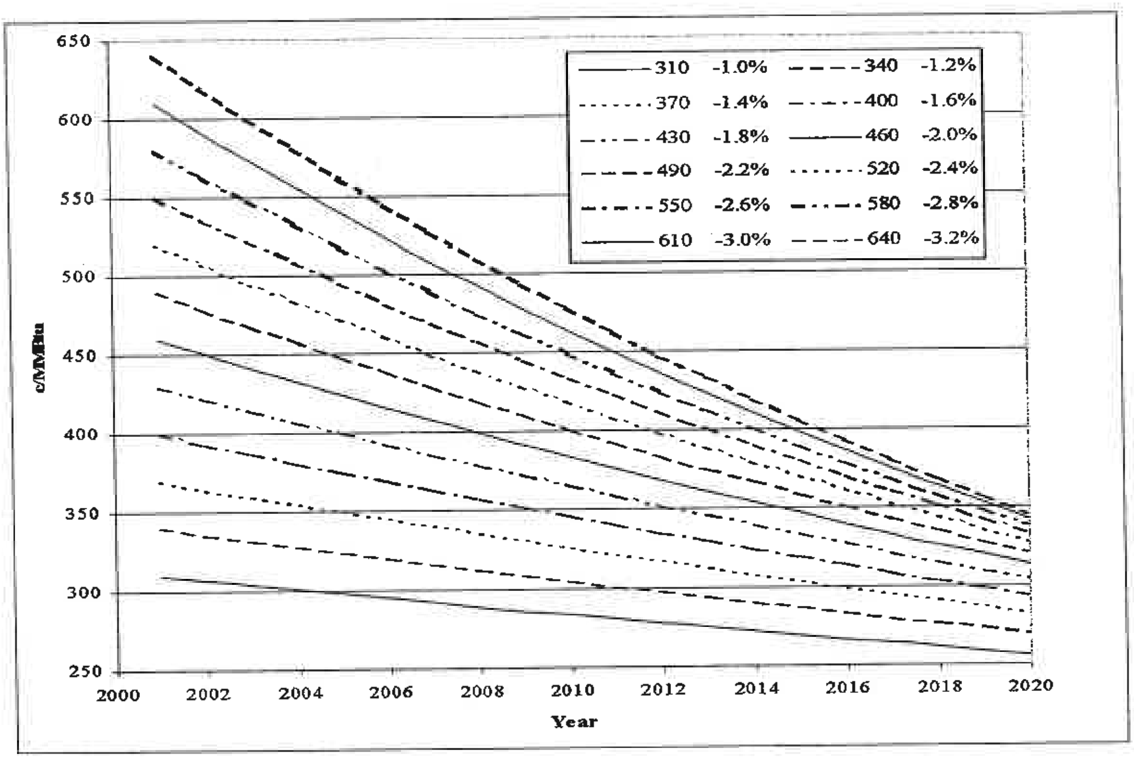
Purpose:

The purpose of the high.gas sweep was to explore the impact of high gas prices above those assumed in RAMPP-6. The primary interest was the break points between different resources selected.

Major Assumptions:

The case was based upon Case 58 or fuel.280H.34. Fuel.280H.34 is the highest gas price in the original RAMPP-6 study at 280 c/MMBtu and with the highest short-term wholesale prices at 34 mills/kWh. This case was selected because we knew that coal resources would be entering the resource mix at 28 to 34 mill/kWh. The short-term wholesale price of 34 mills/kWh roughly equal the real levelized cost of new coal-fired resources.

Gas prices started at 310 c/MMBtu and increased by 30 c/MMBtu up to 640 c/MMBtu. Gas price real escalation started at -1.0% for the 310 c/MMBtu case and decreased to -3.2% at 640 c/MMBtu. This combination of starting points and real escalation rates produces a wide starting point that narrows over time to a narrow band between 256 and 345 c/MMBtu by the year 2020. The wide starting point band was selected to look for the break points as gas prices increase, not necessarily to model the current gas price levels. The real gas price escalation rates were selected to recognize that gas price at the current high levels are probably not sustainable in the future and are likely to fall toward the long run cost of bringing natural gas to market.



825 N.E. Multnomah
Portland, Oregon 97232
(503) 813-5000

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July 3, 2001

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Utah Public Service Commission
Heber M. Wells Building, Fourth Floor
160 East 300 South
Salt Lake City, UT 84111

Attn: Julie Orchard,
Commission Secretary

RE: Biennial Filing of Electric Integrated Resource Plan

Dear Ms. Orchard:

Enclosed are six copies of PacifiCorp's sixth integrated resource planning submittal entitled, *PacifiCorp's Resource and Market Planning Program - RAMPP-6*, along with a *Model Output Appendix*. Enclosed also is an addendum to the report entitled *RAMPP-6 Special Studies.* Copies of the report and appendix are also available on the Company's World Wide Web page, the Internet address is: www.pacificorp.com/prodsvs/rampp.html.

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Second, the report does not reflect the impacts of the recent events. The integrated resource planning process is a biennial process that culminates in a plan looking forward over the subsequent 20 years. RAMPP, like most utilities' IRP processes, was developed during a period of relative stability in the industry. For the early RAMPP processes. the relatively static nature of the electric industry meant that the results of the analysis were still consistent with the state of the industry at the time the report was filed. This has become less true over the later RAMPPs and for RAMPP-6, itdoes not appear to be the caseat all. The current state of the industry is not encompassed in any of the scenarios analyzed in the study. Nonetheless, the study stands on its own merits and will provide a useful base for current and future analysis. The results in the study necessarily flow from the assumptions in the study.

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In anticipation of continued change within the electric industry, the Company is currently reforming its long range planning process. A centralized Resource Planning function is being created that will be able to evaluate and compare the resource options available to the Company such as adding resources, repowering resources, purchasing commodity, or the various sophisticated financial transactions being offered in today's energy marketplace,. The function will be staffed by experts in generation, transmission, modeling, economics and regulatory requirements. The purpose of the function will be to better align the Company's long range planning, regulatory requirements and business planning.

Please acknowledge receipt by stamping or initialing the duplicate copy of this letter attached and returning the same in the enclosed self-addressed, stamped envelope.

Sincerely,

Brian K. Hedman
Manager, Regulation

Enclosures

825 N.E. Multnomah
Portland, Oregon 97232
(503) 813-5000

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July 3, 2001

Oregon Public Utility Commission
550 Capital Street NE, Ste. 215
Salem, OR 97301-2551

Attn: Janice Fulker,
Administrator - Regulatory Operations

RE: Commission Order #89-507
Biennial Filing of Electric Integrated Resource Plan

Dear Ms. Fulker:

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July 3, 2001

Washington Utilities & Transportation Commission
1300 S. Evergreen Park Drive, S.W.
P.O. Box 47250
Mail Stop: FY-11/7250
Olympia, WA 98504-7250

Attn: Carole Washburn,
Executive Secretary

RE: Administrative Rules #WAC-480-100-251
Biennial Filing of Electric Integrated Resource Plan

Dear Mr. McLellan:

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July 3, 2001

The Docket Office
California Public Utilities Commission
505 Van Ness Avenue
San Francisco, CA 94102-3298

RE: U-901-E
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Brian Hedman, Manager
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Enclosures

PacifiCorp

Integrated Resource Planning

RAMPP-6

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4	Supply Side Resources - Costs and Characteristics	R6 - 4 - Supply Side Resources - Rev.4b
5	Retail Load Forecast	R6 - 5 - Load Forecast
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15	Reference Case - Case 1 / Case 31	R6 -15 - Reference Case
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17	Resources by Year - Tables and Graphs	R6 -17 - Results by Year
18	Loads and Resources in the Year 2010	R6 -18 - Summary L&R in Year 2010
19	Total System Production Cost (TSPC)	R6 -19 - Total System Production Cost
20	Projected Net System Emissions	R6 -20 - Emissions
21	Capital Cost Sensitivities +/- 20% Change in Cost	R6 -21 - Capital Cost Sensitivities
22	Gas-fired Capital Cost - Min / Max Capital Cost	R6 -22 - Gas-fired Capital Cost
23	No Transmission Capital Cost for Gas-fired Plants	R6 -23 - Transmission Zero
24	Escalation Rate Needed to Select Renewable Resource	R6 -24 - Renewable Cost
25	Utah Load Grows 50% Faster than Forecast	R6 -25 - Utah grows 50% faster
26	Loss of Utah Big 4 Industrials Customers	R6 -26 - Utah Big 4 Industrials
27	Industrials as Modeled as Retail Load	R6 -27 - Industrials as Retail Load
28	Critical Water Hydro	R6 -28 - Critical Water Hydro

PacifiCorp

Integrated Resource Planning

RAMPP-6

Potential Resources

Assuming Case Starting fuel price of 190 c/MMBtu

and real escalation of 0.6 % per year

Tab 1

PacifiCorp

Potential Resources

RAMPP-6

Sorted by Type then by Total Resource Cost [Assuming Case Starting fuel price of 190 c/MMBtu and real escalation of 0.6 % per year]

		Unit Size MW			1st	Distance	Reserve	Forced	Maint.	Full Load Heat Rate		Emissions			Capital Cost	
Short Name	Description	Unit Size	Max Annual	MWs Avail.	Year Avail	to Transm.	Margin Contribution	Outage Rate	Outage Rate	Incremental	Average	NOX	TSP	CO2	Unit Cost	Trans-mission
										BTU/kWh		lbs/MMBTU				
OC1	Or/Wa Cogen 1	25	100	215	2004	0	100%	3.3%	3.8%	4,850	5,110	0.016	0.003	118.0	$ 659	$ -
GC1	Goshen Cogen 1	21	30	30	2004	0	100%	3.3%	3.8%	4,850	5,110	0.016	0.003	118.0	$ 775	$ -
UC1	Utah Cogen 1	21	15	15	2004	0	100%	3.3%	3.8%	4,850	5,110	0.016	0.003	118.0	$ 775	$ -
OCC	Or/Wa Combined Cycle	400	800	-	2004	15	100%	3.3%	3.8%	6,190	6,520	0.016	0.003	118.0	$ 533	$ 87
OC2	Or/Wa Cogen 2	132	528	1,390	2004	10	100%	3.3%	3.8%	6,090	6,410	0.016	0.003	118.0	$ 594	$ 66
GCC	Goshen Combined C CT	340	680	-	2004	20	100%	3.3%	3.8%	6,190	6,520	0.016	0.003	118.0	$ 627	$ 109
UCC	Utah Combined Cycle	340	680	-	2004	20	100%	3.3%	3.8%	6,190	6,520	0.016	0.003	118.0	$ 627	$ 109
GC2	Goshen Cogen 2	112	337	230	2004	15	100%	3.3%	3.8%	6,090	6,410	0.016	0.003	118.0	$ 699	$ 87
UC2	Utah Cogen 2	112	449	1,780	2004	15	100%	3.3%	3.8%	6,090	6,410	0.016	0.003	118.0	$ 699	$ 87
WCC	Wyo Combined Cycle	320	640	-	2004	25	100%	3.3%	3.8%	6,190	6,520	0.016	0.003	118.0	$ 666	$ 126
UG1	Utah PC Hunter 4 $20/Ton	400	400	400	2006	0	100%	4.0%	4.5%	9,560	10,060	0.100	0.015	206.0	$ 1,127	$ -
WG1	Wyo PC Wyodak 2	325	325	325	2006	300	100%	4.0%	4.5%	9,560	10,060	0.100	0.015	206.0	$ 1,318	$ 594
WG2	Wyo Coal $6.70/Ton	325	325	-	2006	300	100%	4.0%	4.5%	9,560	10,060	0.100	0.015	206.0	$ 1,318	$ 594
UCY	Utah IGCC Hunter 4	262	262	262	2006	0	100%	5.0%	4.5%	7,980	8,400	0.070	0.015	206.0	$ 1,450	$ -
WCY	Wyo IGCC Wyodak 2	262	262	262	2006	300	100%	5.0%	4.5%	7,980	8,400	0.070	0.015	206.0	$ 1,450	$ 594
WCZ	Wyo IGCC CT	262	262	-	2006	300	100%	5.0%	4.5%	7,980	8,400	0.070	0.015	206.0	$ 1,450	$ 594
UG2	Utah Coal $23.25/Ton	400	400	1,250	2006	35	100%	4.0%	4.5%	9,560	10,060	0.100	0.015	206.0	$ 1,318	$ 148
UCZ	Utah IGCC CT	262	524	-	2006	35	100%	5.0%	4.5%	7,980	8,400	0.070	0.015	206.0	$ 1,450	$ 148
UG3	Utah Coal $27.00/Ton	400	400	1,250	2006	35	100%	4.0%	4.5%	9,560	10,060	0.100	0.015	206.0	$ 1,318	$ 148
OW1	Or/Wa Wind	200	200	200	2003	40	40%	5.0%	0.0%	-	-	-	-	-	$ 1,000	$ 191
WW1	Wyo Wind	150	150	150	2003	0	40%	5.0%	0.0%	-	-	-	-	-	$ 1,228	$ -
OGT	Or/Wa Geothermal	50	100	300	2003	25	100%	1.5%	3.8%	10,000	10,000	-	-	-	$ 2,414	$ 126
UGT	Utah Geothermal	50	100	300	2003	25	100%	1.5%	3.8%	10,000	10,000	-	-	-	$ 2,414	$ 126
OCT	Or/Wa Simple CycleCT	186	372	-	2004	15	100%	1.5%	0.0%	10,520	11,070	0.016	0.003	118.0	$ 433	$ 87
UCT	Utah Simple Cycle CT	158	316	-	2004	20	100%	1.5%	0.0%	10,520	11,070	0.016	0.003	118.0	$ 509	$ 109
WCT	Wyo Simple Cycle CT	149	298	-	2004	25	100%	1.5%	0.0%	10,520	11,070	0.016	0.003	118.0	$ 541	$ 126
GET	Goshen Bridger Trans	500	500	1,000	2004	0	100%	0.0%	0.0%	-	-	-	-	-	$ -	$ 328
GEV	Goshen Hunter Transm	500	500	1,000	2004	0	100%	0.0%	0.0%	-	-	-	-	-	$ -	$ 328
OET	Or/Wa Bridger Transm	500	500	1,000	2004	0	100%	0.0%	0.0%	-	-	-	-	-	$ -	$ 328
UET	Utah Wyo/Ut Tran L	500	500	1,000	2004	0	100%	0.0%	0.0%	-	-	-	-	-	$ -	$ 330
OPS	Or/Wa Pump Storage	200	200	500	2005	25	100%	1.0%	0.0%	-	-	-	-	-	$ 760	$ 126
UPS	Utah Pumped Storage	200	200	200	2005	25	100%	1.0%	0.0%	-	-	-	-	-	$ 760	$ 126
USR	Utah Solar	68	136	1,000	2002	0	97%	0.0%	0.0%	-	-	-	-	-	$ 5,004	$ -

Potential Resources

Sorted by Type then by Total Resour

Short Name	Description	Capital Cost $/kW: Total Cap Cost	Capital Cost $/kW: Payment Factor	Capital Cost $/kW: Annual Pmt $/kW-Yr	Fixed Cost: Fixed O&M $/kW-Yr: O&M	Fixed Cost: Fixed O&M $/kW-Yr: Other	Fixed Cost: Fixed O&M $/kW-Yr: Total	Fixed Cost: Ttl Fixed $/kW-Yr	Convert to Mills: Expected Utilization	Convert to Mills: Ttl Fixed Mills/kWh	Energy Cost in 2005 ($2001): 1st Year ¢/MMBTU	Energy Cost in 2005 ($2001): Levelized ¢/MMBTU	Energy Cost in 2005 ($2001): Levelized Mills/kWh	Variable Costs ¢/MMBTU: O&M	Variable Costs ¢/MMBTU: Fuel	Total Resource Cost
OC1	Or/Wa Cogen 1	$ 659	8.37%	$ 55.16	$ 25.69	-	$ 25.69	$ 80.85	85%	10.86	194.60	206.05	9.99	0.15	-	21.00
GC1	Goshen Cogen 1	$ 775	8.37%	$ 64.89	$ 30.22	-	$ 30.22	$ 95.12	85%	12.77	194.60	206.05	9.99	0.15	0.58	23.50
UC1	Utah Cogen 1	$ 775	8.37%	$ 64.89	$ 30.22	-	$ 30.22	$ 95.12	85%	12.77	194.60	206.05	9.99	0.15	0.58	23.50
OCC	Or/Wa Combined Cycle	$ 620	8.37%	$ 51.93	$ 26.86	-	$ 26.86	$ 78.79	85%	10.58	194.60	206.05	12.75	0.51	-	23.85
OC2	Or/Wa Cogen 2	$ 660	8.37%	$ 55.21	$ 29.69	-	$ 25.69	$ 80.90	85%	10.86	194.60	206.05	12.55	0.50	-	23.91
GCC	Goshen Combined C CT	$ 736	8.37%	$ 61.63	$ 31.60	-	$ 31.60	$ 93.23	85%	12.52	194.60	206.05	12.75	0.51	0.74	26.53
UCC	Utah Combined Cycle	$ 736	8.37%	$ 61.63	$ 31.60	-	$ 31.60	$ 93.23	85%	12.52	194.60	206.05	12.75	0.51	0.74	26.53
GC2	Goshen Cogen 2	$ 786	8.37%	$ 65.81	$ 34.93	-	$ 34.93	$ 100.74	85%	13.53	194.60	206.05	12.55	0.50	0.73	27.31
UC2	Utah Cogen 2	$ 786	8.37%	$ 65.81	$ 34.93	-	$ 34.93	$ 100.74	85%	13.53	194.60	206.05	12.55	0.50	0.73	27.31
WCC	Wyo Combined Cycle	$ 792	8.37%	$ 66.28	$ 33.58	-	$ 33.58	$ 99.86	85%	13.41	194.60	206.05	12.75	0.51	0.74	27.42
UG1	Utah PC Hunter 4 $20/Ton	$ 1,127	7.72%	$ 87.00	$ 43.46	-	$ 43.46	$ 130.46	85%	17.52	100.21	110.98	10.61	0.51	-	28.64
WG1	Wyo PC Wyodak 2	$ 1,912	7.72%	$ 147.64	$ 43.46	-	$ 43.46	$ 191.10	85%	25.66	44.25	46.03	4.40	0.51	-	30.58
WG2	Wyo Coal $6.70/Ton	$ 1,912	7.72%	$ 147.64	$ 43.46	-	$ 43.46	$ 191.10	85%	25.66	45.61	47.44	4.54	0.51	-	30.71
UCY	Utah IGCC Hunter 4	$ 1,450	7.72%	$ 111.94	$ 41.16	-	$ 41.16	$ 153.10	85%	20.56	100.21	110.98	8.86	2.40	-	31.82
WCY	Wyo IGCC Wyodak 2	$ 2,044	7.72%	$ 157.83	$ 41.16	-	$ 41.16	$ 198.99	85%	26.72	44.25	46.03	3.67	2.40	-	32.80
WCZ	Wyo IGCC CT	$ 2,044	7.72%	$ 157.83	$ 41.16	-	$ 41.16	$ 198.99	85%	26.72	45.61	47.44	3.79	2.40	-	32.91
UG2	Utah Coal $23.25/Ton	$ 1,466	7.72%	$ 113.14	$ 43.46	-	$ 43.46	$ 156.60	85%	21.03	116.49	129.01	12.33	0.51	-	33.87
UCZ	Utah IGCC CT	$ 1,598	7.72%	$ 123.33	$ 41.16	-	$ 41.16	$ 164.49	85%	22.09	116.49	129.01	10.30	2.40	-	34.79
UG3	Utah Coal $27.00/Ton	$ 1,466	7.72%	$ 113.14	$ 43.46	-	$ 43.46	$ 156.60	85%	21.03	135.28	149.82	14.32	0.51	-	35.86
OW1	Or/Wa Wind	$ 1,191	9.32%	$ 111.02	$ 15.09	-	$ 15.09	$ 126.11	36%	40.55	-	-	-	-	-	40.55
WW1	Wyo Wind	$ 1,228	9.32%	$ 114.45	$ 15.09	-	$ 15.09	$ 129.54	36%	41.66	-	-	-	-	-	41.66
OGT	Or/Wa Geothermal	$ 2,540	8.90%	$ 226.03	$ 18.88	-	$ 18.88	$ 244.91	90%	31.06	113.83	113.83	11.38	2.12	-	44.57
UGT	Utah Geothermal	$ 2,540	8.90%	$ 226.03	$ 18.88	-	$ 18.88	$ 244.91	90%	31.06	113.83	113.83	11.38	2.12	-	44.57
OCT	Or/Wa Simple CycleCT	$ 520	8.59%	$ 44.70	$ 13.58	$ 15.20	$ 28.78	$ 73.48	15%	55.92	194.60	206.05	21.68	0.10	0.74	78.43
UCT	Utah Simple Cycle CT	$ 619	8.59%	$ 53.14	$ 15.98	$ 17.51	$ 33.49	$ 86.63	15%	65.93	194.60	206.05	21.68	0.10	2.00	89.71
WCT	Wyo Simple Cycle CT	$ 667	8.59%	$ 57.29	$ 16.98	$ 17.51	$ 34.49	$ 91.77	15%	69.84	194.60	206.05	21.68	0.10	2.00	93.62
GET	Goshen Bridger Trans	$ 328	7.72%	$ 25.31	-	-	-	$ 25.31	100%	2.89	-	-	-	-	-	2.89
GEV	Goshen Hunter Transm	$ 328	7.72%	$ 25.31	-	-	-	$ 25.31	100%	2.89	-	-	-	-	-	2.89
OET	Or/Wa Bridger Transm	$ 328	7.72%	$ 25.31	-	-	-	$ 25.31	100%	2.89	-	-	-	-	-	2.89
UET	Utah Wyo/Ut Tran L	$ 330	7.72%	$ 25.48	-	-	-	$ 25.48	100%	2.91	-	-	-	-	-	2.91
OPS	Or/Wa Pump Storage	$ 886	7.52%	$ 66.60	$ 16.63	-	$ 16.63	$ 83.23	30%	31.67	113.83	-	-	-	-	31.67
UPS	Utah Pumped Storage	$ 886	7.52%	$ 66.60	$ 16.63	-	$ 16.63	$ 83.23	30%	31.67	-	-	-	-	-	31.67
USR	Utah Solar	$ 5,004	9.32%	$ 466.37	$ 19.77	-	$ 19.77	$ 486.14	23%	242.07	-	-	-	3.50	-	245.57

PacifiCorp

Potential Resources

RAMPP-6

Sorted by Unit Name [Assuming Case Starting fuel price of 190 c/MMBtu and real escalation of 0.6 % per year]

Short Name	Description	Unit Size MW: Unit Size	Unit Size MW: Max Annual	Unit Size MW: MWs Avail.	1st Year Avail	Distance to Transm.	Reserve Margin Contribution	Forced Outage Rate	Maint. Outage Rate	Full Load Heat Rate BTU/kWh: Incremental	Full Load Heat Rate BTU/kWh: Average	Emissions lbs/MMBTU: NOX	Emissions lbs/MMBTU: TSP	Emissions lbs/MMBTU: CO2	Capital Cost: Unit Cost	Capital Cost: Trans-mission
GC1	Goshen Cogen 1	21	30	30	2004		100%	3.3%	3.8%	4,850	5,110	0.016	0.003	118.0	$ 775	$ -
GC2	Goshen Cogen 2	112	337	230	2004	15	100%	3.3%	3.8%	6,090	6,410	0.016	0.003	118.0	$ 699	$ 87
GCC	Goshen Combined C CT	340	680	-	2004	20	100%	3.3%	3.8%	6,190	6,520	0.016	0.003	118.0	$ 627	$ 109
GET	Goshen Bridger Trans	500	500	1,000	2004		100%	0.0%	0.0%	-	-	-	-	-	$ -	$ 328
GEV	Goshen Hunter Transm	500	500	1,000	2004		100%	0.0%	0.0%	-	-	-	-	-	$ -	$ 328
OC1	Or/Wa Cogen 1	25	100	215	2004		100%	3.3%	3.8%	4,850	5,110	0.016	0.003	118.0	$ 659	$ -
OC2	Or/Wa Cogen 2	132	528	1,390	2004	10	100%	3.3%	3.8%	6,090	6,410	0.016	0.003	118.0	$ 594	$ 66
OCC	Or/Wa Combined Cycle	400	800	-	2004	15	100%	3.3%	3.8%	6,190	6,520	0.016	0.003	118.0	$ 533	$ 87
OCT	Or/Wa Simple CycleCT	186	372	-	2004	15	100%	1.5%	0.0%	10,520	11,070	0.016	0.003	118.0	$ 433	$ 87
OET	Or/Wa Bridger Transm	500	500	1,000	2004		100%	0.0%	0.0%	-	-	-	-	-	$ -	$ 328
OGT	Or/Wa Geothermal	50	100	300	2003	25	100%	1.5%	3.8%	10,000	10,000	-	-	-	$ 2,414	$ 126
OPS	Or/Wa Pump Storage	200	200	500	2005	25	100%	1.0%	0.0%	-	-	-	-	-	$ 760	$ 126
OW1	Or/Wa Wind	200	200	200	2003	40	40%	5.0%	0.0%	-	-	-	-	-	$ 1,000	$ 191
UC1	Utah Cogen 1	21	15	15	2004		100%	3.3%	3.8%	4,850	5,110	0.016	0.003	118.0	$ 775	$ -
UC2	Utah Cogen 2	112	449	1,780	2004	15	100%	3.3%	3.8%	6,090	6,410	0.016	0.003	118.0	$ 699	$ 87
UCC	Utah Combined Cycle	340	680	-	2004	20	100%	3.3%	3.8%	6,190	6,520	0.016	0.003	118.0	$ 627	$ 109
UCT	Utah Simple Cycle CT	158	316	-	2004	20	100%	1.5%	0.0%	10,520	11,070	0.016	0.003	118.0	$ 509	$ 109
UCY	Utah IGCC Hunter 4	262	262	262	2006	0	100%	5.0%	4.5%	7,980	8,400	0.070	0.015	206.0	$ 1,450	$ -
UCZ	Utah IGCC CT	262	524	-	2006	35	100%	5.0%	4.5%	7,980	8,400	0.070	0.015	206.0	$ 1,450	$ 148
UET	Utah Wyo/Ut Tran L	500	500	1,000	2004		100%	0.0%	0.0%	-	-	-	-	-	$ -	$ 330
UG1	Utah PC Hunter 4 $20/Ton	400	400	400	2006		100%	4.0%	4.5%	9,560	10,060	0.100	0.015	206.0	$ 1,127	$ -
UG2	Utah Coal $23.25/Ton	400	400	1,250	2006	35	100%	4.0%	4.5%	9,560	10,060	0.100	0.015	206.0	$ 1,318	$ 148
UG3	Utah Coal $27.00/Ton	400	400	1,250	2006	35	100%	4.0%	4.5%	9,560	10,060	0.100	0.015	206.0	$ 1,318	$ 148
UGT	Utah Geothermal	50	100	300	2003	25	100%	1.5%	3.8%	10,000	10,000	-	-	-	$ 2,414	$ 126
UPS	Utah Pumped Storage	200	200	200	2005	25	100%	1.0%	0.0%	-	-	-	-	-	$ 760	$ 126
USR	Utah Solar	68	136	1,000	2002		97%	0.0%	0.0%	-	-	-	-	-	$ 5,004	$ -
WCC	Wyo Combined Cycle	320	640	-	2004	25	100%	3.3%	3.8%	6,190	6,520	0.016	0.003	118.0	$ 666	$ 126
WCT	Wyo Simple Cycle CT	149	298	-	2004	25	100%	1.5%	0.0%	10,520	11,070	0.016	0.003	118.0	$ 541	$ 126
WCY	Wyo IGCC Wyodak 2	262	262	262	2006	300	100%	5.0%	4.5%	7,980	8,400	0.070	0.015	206.0	$ 1,450	$ 594
WCZ	Wyo IGCC CT	262	262	-	2006	300	100%	5.0%	4.5%	7,980	8,400	0.070	0.015	206.0	$ 1,450	$ 594
WG1	Wyo PC Wyodak 2	325	325	325	2006	300	100%	4.0%	4.5%	9,560	10,060	0.100	0.015	206.0	$ 1,318	$ 594
WG2	Wyo Coal $6.70/Ton	325	325	-	2006	300	100%	4.0%	4.5%	9,560	10,060	0.100	0.015	206.0	$ 1,318	$ 594
WW1	Wyo Wind	150	150	150	2003		40%	5.0%	0.0%	-	-	-	-	-	$ 1,228	$ -

PacifiCorp

Potential Resources

RAMPP-6

Sorted by Unit Name   [Assuming C

		Capital Cost $/kW			Fixed Cost				Convert to Mills	Energy Cost in 2005 $2001 (190				Variable Costs		Total
Short Name	Description	Total Cap Cost	Payment Factor	Annual Pmt $/kW-Yr	Fixed Costs $/kW-Yr O&M	Fuel	Total	Ttl Fixed $/kW-Yr	Expected Utilization	Ttl Fixed Mills/kWh	1st Year ¢/MMBTU	Levelized ¢/MMBTU	Levelized Mills/kWh	¢/MMBTU O&M	Fuel	Resource Cost
GC1	Goshen Cogen 1	$ 775	8.37%	$ 64.89	$ 30.22	-	$ 30.22	$ 95.12	85%	12.77	194.60	206.05	9.99	0.15	0.58	23.50
GC2	Goshen Cogen 2	$ 786	8.37%	$ 65.81	$ 34.93	-	$ 34.93	$ 100.74	85%	13.53	194.60	206.05	12.55	0.50	0.73	27.31
GCC	Goshen Combined C CT	$ 736	8.37%	$ 61.63	$ 31.60	-	$ 31.60	$ 93.23	85%	12.52	194.60	206.05	12.75	0.51	0.74	26.53
GET	Goshen Bridger Trans	$ 328	7.72%	$ 25.31				$ 25.31	100%	2.89						2.89
GEV	Goshen Hunter Transm	$ 328	7.72%	$ 25.31				$ 25.31	100%	2.89						2.89
OC1	Or/Wa Cogen 1	$ 659	8.37%	$ 55.16	$ 25.69	-	$ 25.69	$ 80.85	85%	10.86	194.60	206.05	9.99	0.15	-	21.00
OC2	Or/Wa Cogen 2	$ 660	8.37%	$ 55.21	$ 29.69	-	$ 25.69	$ 80.90	85%	10.86	194.60	206.05	12.55	0.50	-	23.91
OCC	Or/Wa Combined Cycle	$ 620	8.37%	$ 51.93	$ 26.86	-	$ 26.86	$ 78.79	85%	10.58	194.60	206.05	12.75	0.51	-	23.85
OCT	Or/Wa Simple CycleCT	$ 520	8.59%	$ 44.70	$ 13.58	$ 15.20	$ 28.78	$ 73.48	15%	55.92	194.60	206.05	21.68	0.10	0.74	78.43
OET	Or/Wa Bridger Transm	$ 328	7.72%	$ 25.31				$ 25.31	100%	2.89						2.89
OGT	Or/Wa Geothermal	$ 2,540	8.90%	$ 226.03	$ 18.88	-	$ 18.88	$ 244.91	90%	31.06	113.83	113.83	11.38	2.12	-	44.57
OPS	Or/Wa Pump Storage	$ 886	7.52%	$ 66.60	$ 16.63	-	$ 16.63	$ 83.23	30%	31.67	-	-	-	-	-	31.67
OW1	Or/Wa Wind	$ 1,191	9.32%	$ 111.02	$ 15.09	-	$ 15.09	$ 126.11	36%	40.55	-	-	-	-	-	40.55
UC1	Utah Cogen 1	$ 775	8.37%	$ 64.89	$ 30.22	-	$ 30.22	$ 95.12	85%	12.77	194.60	206.05	9.99	0.15	0.58	23.50
UC2	Utah Cogen 2	$ 786	8.37%	$ 65.81	$ 34.93	-	$ 34.93	$ 100.74	85%	13.53	194.60	206.05	12.55	0.50	0.73	27.31
UCC	Utah Combined Cycle	$ 736	8.37%	$ 61.63	$ 31.60	-	$ 31.60	$ 93.23	85%	12.52	194.60	206.05	12.75	0.51	0.74	26.53
UCT	Utah Simple Cycle CT	$ 619	8.59%	$ 53.14	$ 15.98	$ 17.51	$ 33.49	$ 86.63	15%	65.93	194.60	206.05	21.68	0.10	2.00	89.71
UCY	Utah IGCC Hunter 4	$ 1,450	7.72%	$ 111.94	$ 41.16	-	$ 41.16	$ 153.10	85%	20.56	100.21	110.98	8.86	2.40	-	31.82
UCZ	Utah IGCC CT	$ 1,598	7.72%	$ 123.33	$ 41.16	-	$ 41.16	$ 164.49	85%	22.09	116.49	129.01	10.30	2.40	-	34.79
UET	Utah Wyo/Ut Tran L	$ 330	7.72%	$ 25.48				$ 25.48	100%	2.91						2.91
UG1	Utah PC Hunter 4 $20/Ton	$ 1,127	7.72%	$ 87.00	$ 43.46	-	$ 43.46	$ 130.46	85%	17.52	100.21	110.98	10.61	0.51	-	28.64
UG2	Utah Coal $23.25/Ton	$ 1,466	7.72%	$ 113.14	$ 43.46	-	$ 43.46	$ 156.60	85%	21.03	116.49	129.01	12.33	0.51	-	33.87
UG3	Utah Coal $27.00/Ton	$ 1,466	7.72%	$ 113.14	$ 43.46	-	$ 43.46	$ 156.60	85%	21.03	135.28	149.82	14.32	0.51	-	35.86
UGT	Utah Geothermal	$ 2,540	8.90%	$ 226.03	$ 18.88	-	$ 18.88	$ 244.91	90%	31.06	113.83	113.83	11.38	2.12	-	44.57
UPS	Utah Pumped Storage	$ 886	7.52%	$ 66.60	$ 16.63	-	$ 16.63	$ 83.23	30%	31.67	-	-	-	-	-	31.67
USR	Utah Solar	$ 5,004	9.32%	$ 466.37	$ 19.77	-	$ 19.77	$ 486.14	23%	242.07	-	-	-	3.50	-	245.57
WCC	Wyo Combined Cycle	$ 792	8.37%	$ 66.28	$ 33.58	-	$ 33.58	$ 99.86	85%	13.41	194.60	206.05	12.75	0.51	0.74	27.42
WCT	Wyo Simple Cycle CT	$ 667	8.59%	$ 57.29	$ 16.98	$ 17.51	$ 34.49	$ 91.77	15%	69.84	194.60	206.05	21.68	0.10	2.00	93.62
WCY	Wyo IGCC Wyodak 2	$ 2,044	7.72%	$ 157.83	$ 41.16	-	$ 41.16	$ 198.99	85%	26.72	44.25	46.03	3.67	2.40	-	32.80
WCZ	Wyo IGCC CT	$ 2,044	7.72%	$ 157.83	$ 41.16	-	$ 41.16	$ 198.99	85%	26.72	45.61	47.44	3.79	2.40	-	32.91
WG1	Wyo PC Wyodak 2	$ 1,912	7.72%	$ 147.64	$ 43.46	-	$ 43.46	$ 191.10	85%	25.66	44.25	46.03	4.40	0.51	-	30.58
WG2	Wyo Coal $6.70/Ton	$ 1,912	7.72%	$ 147.64	$ 43.46	-	$ 43.46	$ 191.10	85%	25.66	45.61	47.44	4.54	0.51	-	30.71
WW1	Wyo Wind	$ 1,228	9.32%	$ 114.45	$ 15.09	-	$ 15.09	$ 129.54	36%	41.66	-	-	-	-	-	41.66

Potential Resources

Sorted by Unit Type [Assuming Case Starting fuel price of 190 c/MMBtu and real escalation of 0.6 % per year]

Short Name	Description	Unit Size MW: Unit Size	Unit Size MW: Max Annual	Unit Size MW: MWs Avail.	1st Year Avail	Distance to Transm.	Reserve Margin Contribution	Forced Outage Rate	Maint. Outage Rate	Full Load Heat Rate (BTU/kWh): Incremental	Full Load Heat Rate (BTU/kWh): Average	Emissions (lbs/MMBTU): NOX	Emissions (lbs/MMBTU): TSP	Emissions (lbs/MMBTU): CO2	Capital Cost: Unit Cost	Capital Cost: Transmission
GC1	Goshen Cogen 1	21	30	30	2004	0	100%	3.3%	3.8%	4,850	5,110	0.016	0.003	118.0	$ 775	$ -
OC1	Or/Wa Cogen 1	25	100	215	2004	0	100%	3.3%	3.8%	4,850	5,110	0.016	0.003	118.0	$ 659	$ -
UC1	Utah Cogen 1	21	15	15	2004	0	100%	3.3%	3.8%	4,850	5,110	0.016	0.003	118.0	$ 775	$ -
GC2	Goshen Cogen 2	112	337	230	2004	15	100%	3.3%	3.8%	6,090	6,410	0.016	0.003	118.0	$ 699	$ 87
OC2	Or/Wa Cogen 2	132	528	1,390	2004	10	100%	3.3%	3.8%	6,090	6,410	0.016	0.003	118.0	$ 594	$ 66
UC2	Utah Cogen 2	112	449	1,780	2004	15	100%	3.3%	3.8%	6,090	6,410	0.016	0.003	118.0	$ 699	$ 87
GCC	Goshen Combined C CT	340	680	-	2004	20	100%	3.3%	3.8%	6,190	6,520	0.016	0.003	118.0	$ 627	$ 109
OCC	Or/Wa Combined Cycle	400	800	-	2004	15	100%	3.3%	3.8%	6,190	6,520	0.016	0.003	118.0	$ 533	$ 87
UCC	Utah Combined Cycle	340	680	-	2004	20	100%	3.3%	3.8%	6,190	6,520	0.016	0.003	118.0	$ 627	$ 109
WCC	Wyo Combined Cycle	320	640	-	2004	25	100%	3.3%	3.8%	6,190	6,520	0.016	0.003	118.0	$ 666	$ 126
OCT	Or/Wa Simple CycleCT	186	372	-	2004	15	100%	1.5%	0.0%	10,520	11,070	0.016	0.003	118.0	$ 433	$ 87
UCT	Utah Simple Cycle CT	158	316	-	2004	20	100%	1.5%	0.0%	10,520	11,070	0.016	0.003	118.0	$ 509	$ 109
WCT	Wyo Simple Cycle CT	149	298	-	2004	25	100%	1.5%	0.0%	10,520	11,070	0.016	0.003	118.0	$ 541	$ 126
UCY	Utah IGCC Hunter 4	262	262	262	2006	0	100%	5.0%	4.5%	7,980	8,400	0.070	0.015	206.0	$ 1,450	$ -
WCY	Wyo IGCC Wyodak 2	262	262	262	2006	300	100%	5.0%	4.5%	7,980	8,400	0.070	0.015	206.0	$ 1,450	$ 594
UCZ	Utah IGCC CT	262	524	-	2006	35	100%	5.0%	4.5%	7,980	8,400	0.070	0.015	206.0	$ 1,450	$ 148
WCZ	Wyo IGCC CT	262	262	-	2006	300	100%	5.0%	4.5%	7,980	8,400	0.070	0.015	206.0	$ 1,450	$ 594
UG1	Utah PC Hunter 4 $20/Ton	400	400	400	2006	0	100%	4.0%	4.5%	9,560	10,060	0.100	0.015	206.0	$ 1,127	$ -
WG1	Wyo PC Wyodak 2	325	325	325	2006	300	100%	4.0%	4.5%	9,560	10,060	0.100	0.015	206.0	$ 1,318	$ 594
UG2	Utah Coal $23.25/Ton	400	400	1,250	2006	35	100%	4.0%	4.5%	9,560	10,060	0.100	0.015	206.0	$ 1,318	$ 148
WG2	Wyo Coal $6.70/Ton	325	325	-	2006	300	100%	4.0%	4.5%	9,560	10,060	0.100	0.015	206.0	$ 1,318	$ 594
UG3	Utah Coal $27.00/Ton	400	400	1,250	2006	35	100%	4.0%	4.5%	9,560	10,060	0.100	0.015	206.0	$ 1,318	$ 148
GET	Goshen Bridger Trans	500	500	1,000	2004	0	100%	0.0%	0.0%	-	-	-	-	-	$ -	$ 328
OET	Or/Wa Bridger Transm	500	500	1,000	2004	0	100%	0.0%	0.0%	-	-	-	-	-	$ -	$ 328
UET	Utah Wyo/Ut Tran L	500	500	1,000	2004	0	100%	0.0%	0.0%	-	-	-	-	-	$ -	$ 330
GEV	Goshen Hunter Transm	500	500	1,000	2004	0	100%	0.0%	0.0%	-	-	-	-	-	$ -	$ 328
OPS	Or/Wa Pump Storage	200	200	500	2005	25	100%	1.0%	0.0%	-	-	-	-	-	$ 760	$ 126
UPS	Utah Pumped Storage	200	200	200	2005	25	100%	1.0%	0.0%	-	-	-	-	-	$ 760	$ 126
OGT	Or/Wa Geothermal	50	100	300	2003	25	100%	1.5%	3.8%	10,000	10,000	-	-	-	$ 2,414	$ 126
UGT	Utah Geothermal	50	100	300	2003	25	100%	1.5%	3.8%	10,000	10,000	-	-	-	$ 2,414	$ 126
OW1	Or/Wa Wind	200	200	200	2003	40	40%	5.0%	0.0%	-	-	-	-	-	$ 1,000	$ 191
WW1	Wyo Wind	150	150	150	2003	0	40%	5.0%	0.0%	-	-	-	-	-	$ 1,228	$ -
USR	Utah Solar	68	136	1,000	2002	0	97%	0.0%	0.0%	-	-	-	-	-	$ 5,004	$ -

PacifiCorp

Potential Resources

RAMPP-6

Sorted by Unit Type [Assuming Ca

Short Name	Description	Capital Cost $/kW: Total Cap Cost	Capital Cost $/kW: Payment Factor	Capital Cost $/kW: Annual Pmt $/kW-Yr	Fixed Cost: Fixed O&M $/kW-Yr O&M	Fixed Cost: Fixed O&M $/kW-Yr Other	Fixed Cost: Fixed O&M $/kW-Yr Total	Fixed Cost: Ttl Fixed $/kW-Yr	Convert to Mills: Expected Utilization	Convert to Mills: Ttl Fixed Mills/kWh	Energy Cost in 2005 ($2001): 1st Year ¢/MMBTU	Energy Cost in 2005 ($2001): Levelized ¢/MMBTU	Energy Cost in 2005 ($2001): Levelized Mills/kWh	Variable Costs ¢/MMBTU: O&M	Variable Costs ¢/MMBTU: Fuel	Total Resource Cost
GC1	Goshen Cogen 1	$ 775	8.37%	$ 64.89	$ 30.22	-	$ 30.22	$ 95.12	85%	12.77	194.60	206.05	9.99	0.15	0.58	23.50
OC1	Or/Wa Cogen 1	$ 659	8.37%	$ 55.16	$ 25.69	-	$ 25.69	$ 80.85	85%	10.86	194.60	206.05	9.99	0.15	-	21.00
UC1	Utah Cogen 1	$ 775	8.37%	$ 64.89	$ 30.22	-	$ 30.22	$ 95.12	85%	12.77	194.60	206.05	9.99	0.15	0.58	23.50
GC2	Goshen Cogen 2	$ 786	8.37%	$ 65.81	$ 34.93	-	$ 34.93	$ 100.74	85%	13.53	194.60	206.05	12.55	0.50	0.73	27.31
OC2	Or/Wa Cogen 2	$ 660	8.37%	$ 55.21	$ 29.69	-	$ 25.69	$ 80.90	85%	10.86	194.60	206.05	12.55	0.50	-	23.91
UC2	Utah Cogen 2	$ 786	8.37%	$ 65.81	$ 34.93	-	$ 34.93	$ 100.74	85%	13.53	194.60	206.05	12.55	0.50	0.73	27.31
GCC	Goshen Combined C CT	$ 736	8.37%	$ 61.63	$ 31.60	-	$ 31.60	$ 93.23	85%	12.52	194.60	206.05	12.75	0.51	0.74	26.53
OCC	Or/Wa Combined Cycle	$ 620	8.37%	$ 51.93	$ 26.86	-	$ 26.86	$ 78.79	85%	10.58	194.60	206.05	12.75	0.51	-	23.85
UCC	Utah Combined Cycle	$ 736	8.37%	$ 61.63	$ 31.60	-	$ 31.60	$ 93.23	85%	12.52	194.60	206.05	12.75	0.51	0.74	26.53
WCC	Wyo Combined Cycle	$ 792	8.37%	$ 66.28	$ 33.58	-	$ 33.58	$ 99.86	85%	13.41	194.60	206.05	12.75	0.51	0.74	27.42
OCT	Or/Wa Simple CycleCT	$ 520	8.59%	$ 44.70	$ 13.58	$ 15.20	$ 28.78	$ 73.48	15%	55.92	194.60	206.05	21.68	0.10	0.74	78.43
UCT	Utah Simple Cycle CT	$ 619	8.59%	$ 53.14	$ 15.98	$ 17.51	$ 33.49	$ 86.63	15%	65.93	194.60	206.05	21.68	0.10	2.00	89.71
WCT	Wyo Simple Cycle CT	$ 667	8.59%	$ 57.29	$ 16.98	$ 17.51	$ 34.49	$ 91.77	15%	69.84	194.60	206.05	21.68	0.10	2.00	93.62
UCY	Utah IGCC Hunter 4	$ 1,450	7.72%	$ 111.94	$ 41.16	-	$ 41.16	$ 153.10	85%	20.56	100.21	110.98	8.86	2.40	-	31.82
WCY	Wyo IGCC Wyodak 2	$ 2,044	7.72%	$ 157.83	$ 41.16	-	$ 41.16	$ 198.99	85%	26.72	44.25	46.03	3.67	2.40	-	32.80
UCZ	Utah IGCC CT	$ 1,598	7.72%	$ 123.33	$ 41.16	-	$ 41.16	$ 164.49	85%	22.09	116.49	129.01	10.30	2.40	-	34.79
WCZ	Wyo IGCC CT	$ 2,044	7.72%	$ 157.83	$ 41.16	-	$ 41.16	$ 198.99	85%	26.72	45.61	47.44	3.79	2.40	-	32.91
UG1	Utah PC Hunter 4 $20/Ton	$ 1,127	7.72%	$ 87.00	$ 43.46	-	$ 43.46	$ 130.46	85%	17.52	100.21	110.98	10.61	0.51	-	28.64
WG1	Wyo PC Wyodak 2	$ 1,912	7.72%	$ 147.64	$ 43.46	-	$ 43.46	$ 191.10	85%	25.66	44.25	46.03	4.40	0.51	-	30.58
UG2	Utah Coal $23.25/Ton	$ 1,466	7.72%	$ 113.14	$ 43.46	-	$ 43.46	$ 156.60	85%	21.03	116.49	129.01	12.33	0.51	-	33.87
WG2	Wyo Coal $6.70/Ton	$ 1,912	7.72%	$ 147.64	$ 43.46	-	$ 43.46	$ 191.10	85%	25.66	45.61	47.44	4.54	0.51	-	30.71
UG3	Utah Coal $27.00/Ton	$ 1,466	7.72%	$ 113.14	$ 43.46	-	$ 43.46	$ 156.60	85%	21.03	135.28	149.82	14.32	0.51	-	35.86
GET	Goshen Bridger Trans	$ 328	7.72%	$ 25.31	-	-	-	$ 25.31	100%	2.89	-	-	-	-	-	2.89
OET	Or/Wa Bridger Transm	$ 328	7.72%	$ 25.31	-	-	-	$ 25.31	100%	2.89	-	-	-	-	-	2.89
UET	Utah Wyo/Ut Tran L	$ 330	7.72%	$ 25.48	-	-	-	$ 25.48	100%	2.91	-	-	-	-	-	2.91
GEV	Goshen Hunter Transm	$ 328	7.72%	$ 25.31	-	-	-	$ 25.31	100%	2.89	-	-	-	-	-	2.89
OPS	Or/Wa Pump Storage	$ 886	7.52%	$ 66.60	$ 16.63	-	$ 16.63	$ 83.23	30%	31.67	-	-	-	-	-	31.67
UPS	Utah Pumped Storage	$ 886	7.52%	$ 66.60	$ 16.63	-	$ 16.63	$ 83.23	30%	31.67	-	-	-	-	-	31.67
OGT	Or/Wa Geothermal	$ 2,540	8.90%	$ 226.03	$ 18.88	-	$ 18.88	$ 244.91	90%	31.06	113.83	113.83	11.38	2.12	-	44.57
UGT	Utah Geothermal	$ 2,540	8.90%	$ 226.03	$ 18.88	-	$ 18.88	$ 244.91	90%	31.06	113.83	113.83	11.38	2.12	-	44.57
OW1	Or/Wa Wind	$ 1,191	9.32%	$ 111.02	$ 15.09	-	$ 15.09	$ 126.11	36%	40.55	-	-	-	-	-	40.55
WW1	Wyo Wind	$ 1,228	9.32%	$ 114.45	$ 15.09	-	$ 15.09	$ 129.54	36%	41.66	-	-	-	-	-	41.66
USR	Utah Solar	$ 5,004	9.32%	$ 466.37	$ 19.77	-	$ 19.77	$ 486.14	23%	242.07	-	-	-	3.50	-	245.57

PacifiCorp

Integrated Resource Planning

RAMPP-6

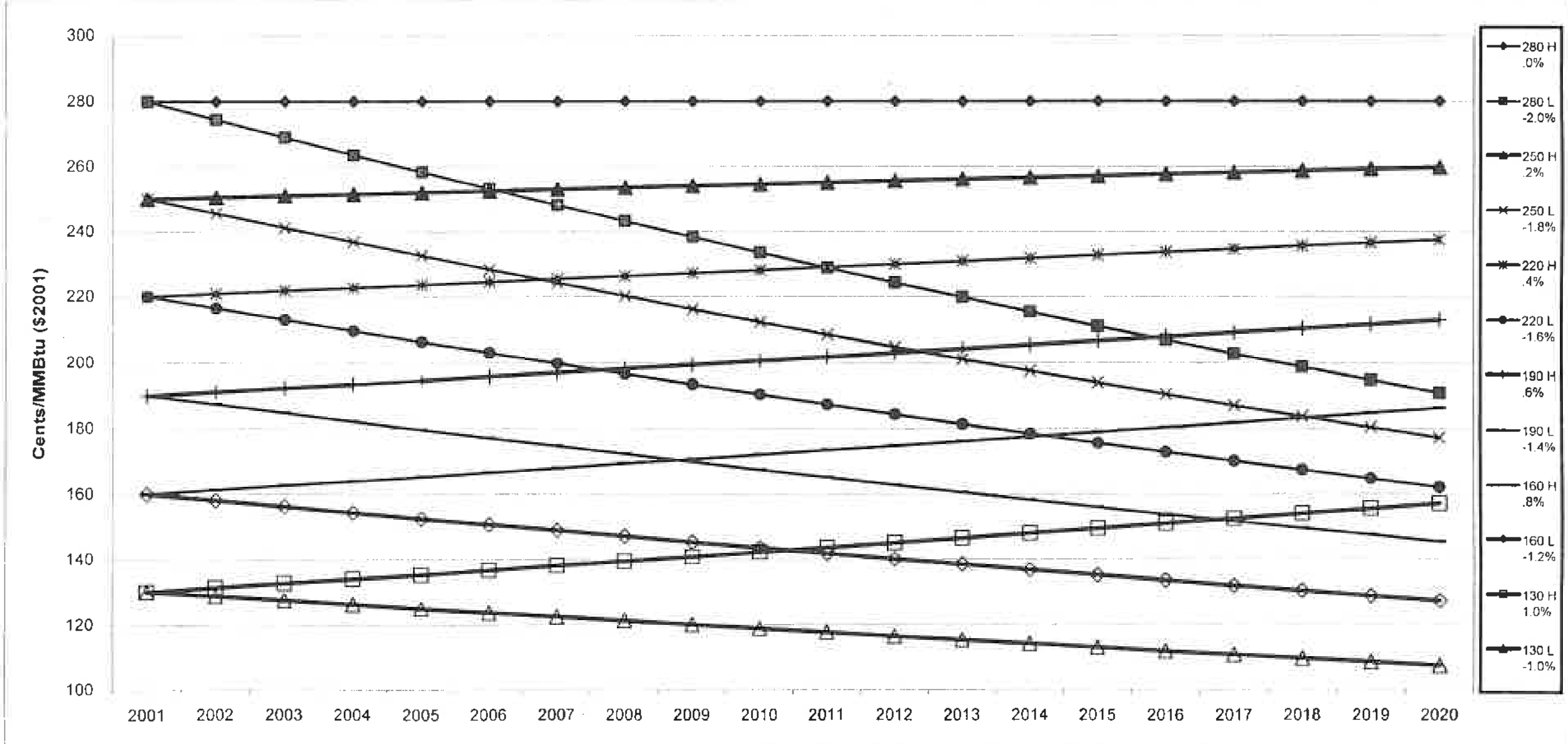
Natural Gas Prices

"Shotgun" Price Forecast

Tab 2

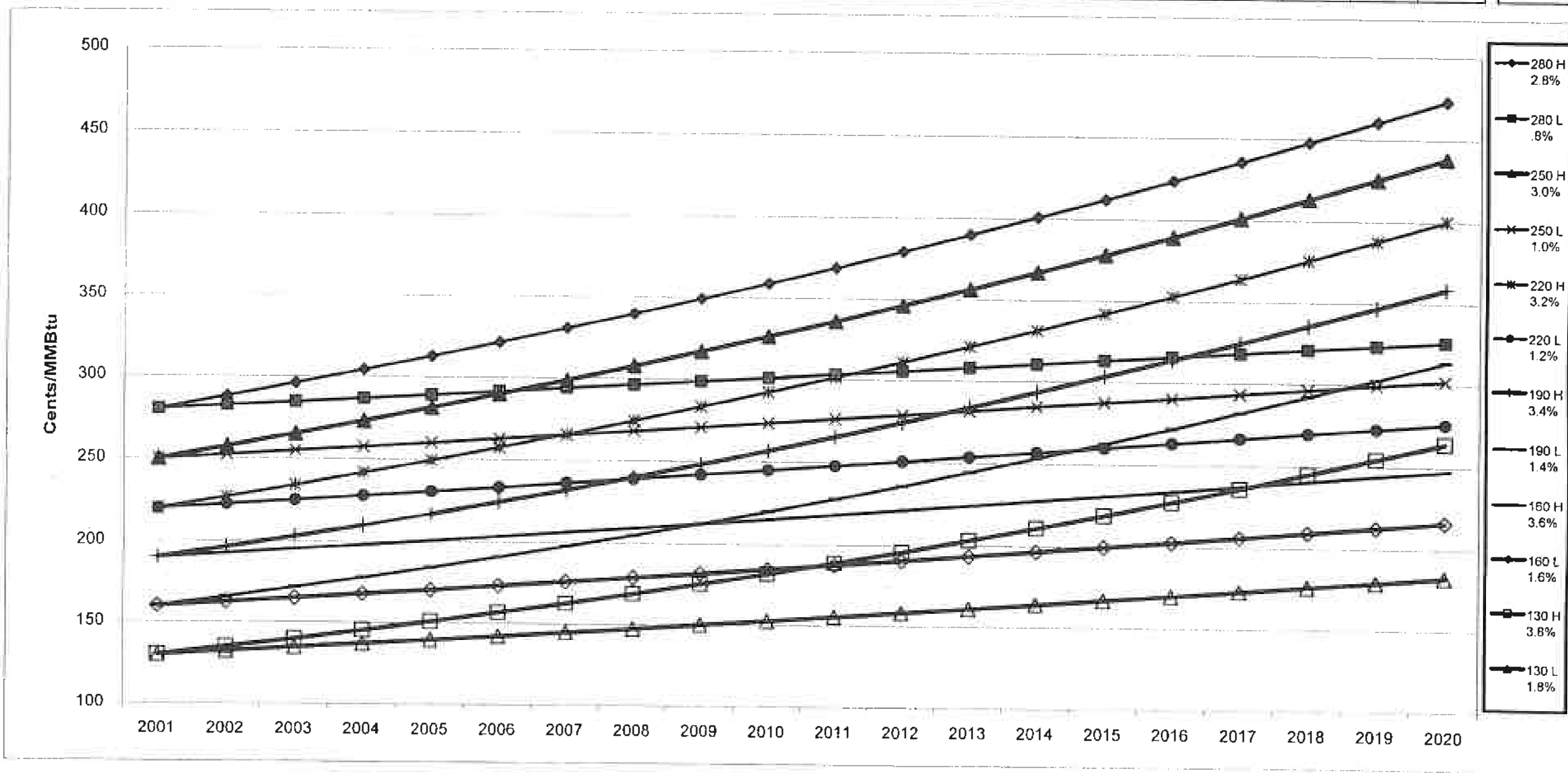
RAMPP-6
"Shotgun" Natural Gas Price Forecast
Cents/MMBtu ($2001)

Gas Case	Study Year 2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Real Escalation
280 H .0%	280	280	280	280	280	280	280	280	280	280	280	280	280	280	280	280	280	280	280	280	0.0%
280 L -2.0%	280	274	269	264	258	253	248	243	238	233	229	224	220	215	211	207	203	199	195	191	-2.0%
250 H .2%	250	251	251	252	252	253	253	254	254	255	255	256	256	257	257	258	258	259	259	260	0.2%
250 L -1.8%	250	246	241	237	232	228	224	220	216	212	208	205	201	197	194	190	187	184	180	177	-1.8%
220 H .4%	220	221	222	223	224	224	225	226	227	228	229	230	231	232	233	234	235	235	236	237	0.4%
220 L -1.6%	220	216	213	210	206	203	200	197	193	190	187	184	181	178	176	173	170	167	165	162	-1.6%
190 H .6%	**190**	**191**	**192**	**193**	**195**	**196**	**197**	**198**	**199**	**201**	**202**	**203**	**204**	**205**	**207**	**208**	**209**	**210**	**212**	**213**	**0.6%**
190 L -1.4%	190	187	185	182	180	177	175	172	170	167	165	163	160	158	156	154	152	150	147	145	-1.4%
160 H .8%	160	161	163	164	165	167	168	169	171	172	173	175	176	177	179	180	182	183	185	186	0.8%
160 L -1.2%	160	158	156	154	152	151	149	147	145	144	142	140	138	137	135	133	132	130	129	127	-1.2%
130 H 1.0%	130	131	133	134	135	137	138	139	141	142	144	145	146	148	149	151	152	154	155	157	1.0%
130 L -1.0%	130	129	127	126	125	124	122	121	120	119	118	116	115	114	113	112	111	110	108	107	-1.0%



RAMPP-6
"Shotgun" Natural Gas Price Forecast
Cents/MMBtu (Nominal Dollars)

Gas Case	Study Year 2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Nominal Escalation
280 H 2.8%	280	288	296	304	313	321	330	340	349	359	369	379	390	401	412	424	436	448	460	473	2.80%
280 L .8%	280	282	284	287	289	291	294	296	298	301	303	306	308	311	313	316	318	321	323	326	0.80%
250 H 3.0%	250	258	265	273	281	290	299	307	317	326	336	346	356	367	378	389	401	413	426	438	3.00%
250 L 1.0%	250	253	255	258	260	263	265	268	271	273	276	279	282	285	287	290	293	296	299	302	1.00%
220 H 3.2%	220	227	234	242	250	258	266	274	283	292	301	311	321	331	342	353	364	376	388	400	3.20%
220 L 1.2%	220	223	225	228	231	234	236	239	242	245	248	251	254	257	260	263	266	269	273	276	1.20%
190 H 3.4%	**190**	**196**	**203**	**210**	**217**	**225**	**232**	**240**	**248**	**257**	**265**	**274**	**284**	**293**	**303**	**314**	**324**	**335**	**347**	**359**	**3.40%**
190 L 1.4%	190	193	195	198	201	204	207	209	212	215	218	221	224	228	231	234	237	241	244	247	1.40%
160 H 3.6%	160	166	172	178	184	191	198	205	212	220	228	236	245	253	263	272	282	292	302	313	3.60%
160 L 1.6%	160	163	165	168	170	173	176	179	182	185	188	191	194	197	200	203	206	210	213	216	1.60%
130 H 3.8%	130	135	140	145	151	157	163	169	175	182	189	196	203	211	219	227	236	245	254	264	3.80%
130 L 1.8%	130	132	135	137	140	142	145	147	150	153	155	158	161	164	167	170	173	176	179	182	1.80%



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Integrated Resource Planning

RAMPP-6

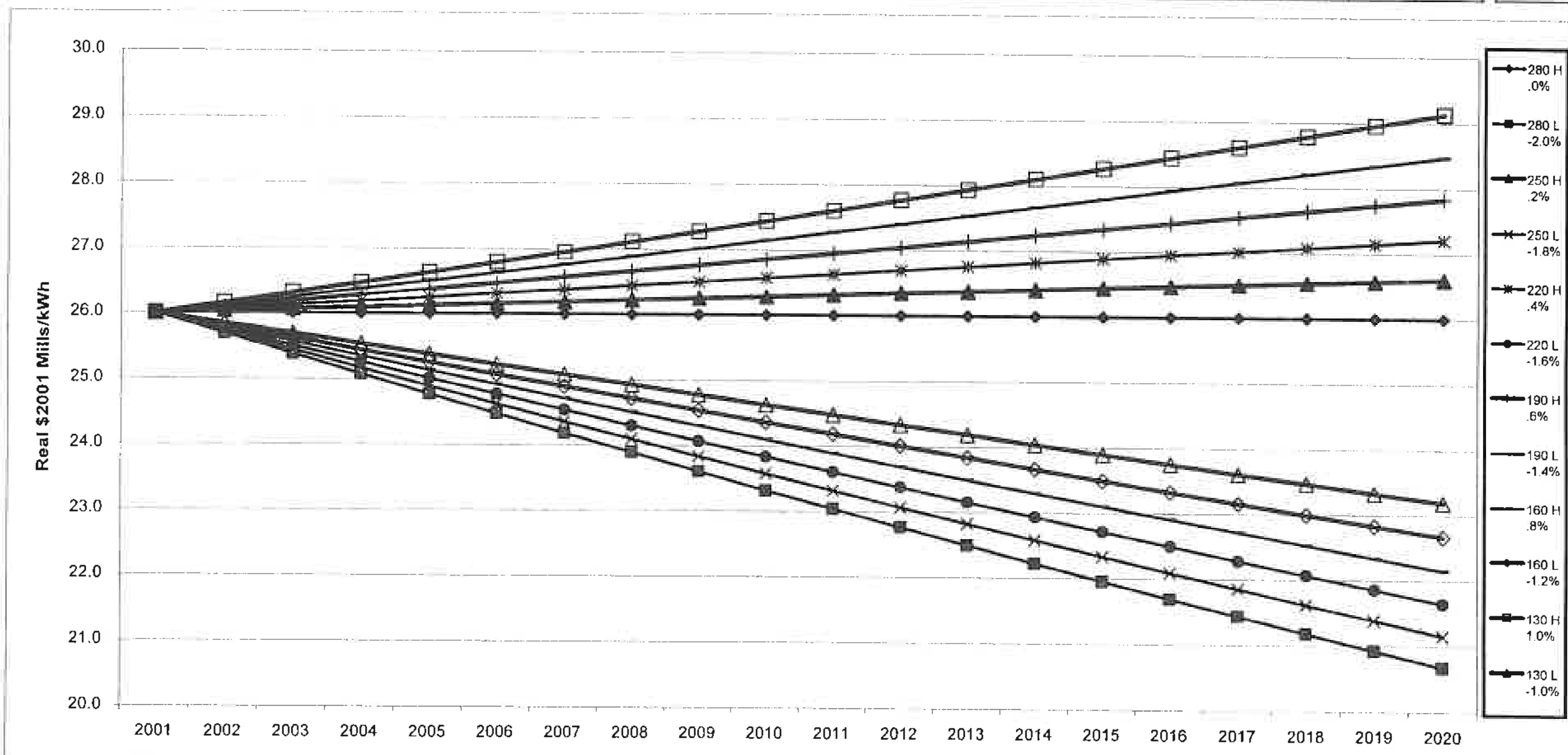
Wholesale Market Prices

"Shotgun" Price Forecast

Tab 3

RAMPP-6
"Shotgun" Short Term Wholesale Market Prices Assuming 26 Mills/kWh Starting Price
(Real 2001 Dollars)

Gas Case	Study Year 2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Real Escalation
280 H .0%	26.0	26.0	26.0	26.0	26.0	26.0	26.0	26.0	26.0	26.0	26.0	26.0	26.0	26.0	26.0	26.0	26.0	26.0	26.0	26.0	0.0%
280 L -2.0%	26.0	25.7	25.4	25.1	24.8	24.5	24.2	23.9	23.6	23.3	23.0	22.8	22.5	22.2	22.0	21.7	21.4	21.2	20.9	20.7	-1.2%
250 H .2%	26.0	26.0	26.1	26.1	26.1	26.2	26.2	26.2	26.3	26.3	26.3	26.3	26.4	26.4	26.4	26.5	26.5	26.5	26.6	26.6	0.1%
250 L -1.8%	26.0	25.7	25.4	25.2	24.9	24.6	24.4	24.1	23.8	23.6	23.3	23.1	22.8	22.6	22.3	22.1	21.9	21.6	21.4	21.2	-1.1%
220 H .4%	26.0	26.1	26.1	26.2	26.3	26.3	26.4	26.4	26.5	26.6	26.6	26.7	26.8	26.8	26.9	27.0	27.0	27.1	27.1	27.2	0.2%
220 L -1.6%	26.0	25.8	25.5	25.3	25.0	24.8	24.5	24.3	24.1	23.8	23.6	23.4	23.2	22.9	22.7	22.5	22.3	22.1	21.9	21.6	-1.0%
190 H .6%	**26.0**	**26.1**	**26.2**	**26.3**	**26.4**	**26.5**	**26.6**	**26.7**	**26.8**	**26.9**	**27.0**	**27.0**	**27.1**	**27.2**	**27.3**	**27.4**	**27.5**	**27.6**	**27.7**	**27.8**	**0.4%**
190 L -1.4%	26.0	25.8	25.6	25.4	25.1	24.9	24.7	24.5	24.3	24.1	23.9	23.7	23.5	23.3	23.1	22.9	22.7	22.5	22.3	22.1	-0.8%
160 H .8%	26.0	26.1	26.3	26.4	26.5	26.6	26.8	26.9	27.0	27.1	27.3	27.4	27.5	27.7	27.8	27.9	28.1	28.2	28.3	28.5	0.5%
160 L -1.2%	26.0	25.8	25.6	25.4	25.3	25.1	24.9	24.7	24.5	24.4	24.2	24.0	23.8	23.7	23.5	23.3	23.2	23.0	22.8	22.7	-0.7%
130 H 1.0%	26.0	26.2	26.3	26.5	[illegible]	26.8	27.0	27.1	27.3	27.4	27.6	27.8	27.9	28.1	28.3	28.4	28.6	28.8	29.0	29.1	0.6%
130 L -1.0%	26.0	25.8	25.7	25.5	25.4	25.2	25.1	24.9	24.8	24.6	24.5	24.3	24.2	24.0	23.9	23.8	23.6	23.5	23.3	23.2	-0.6%

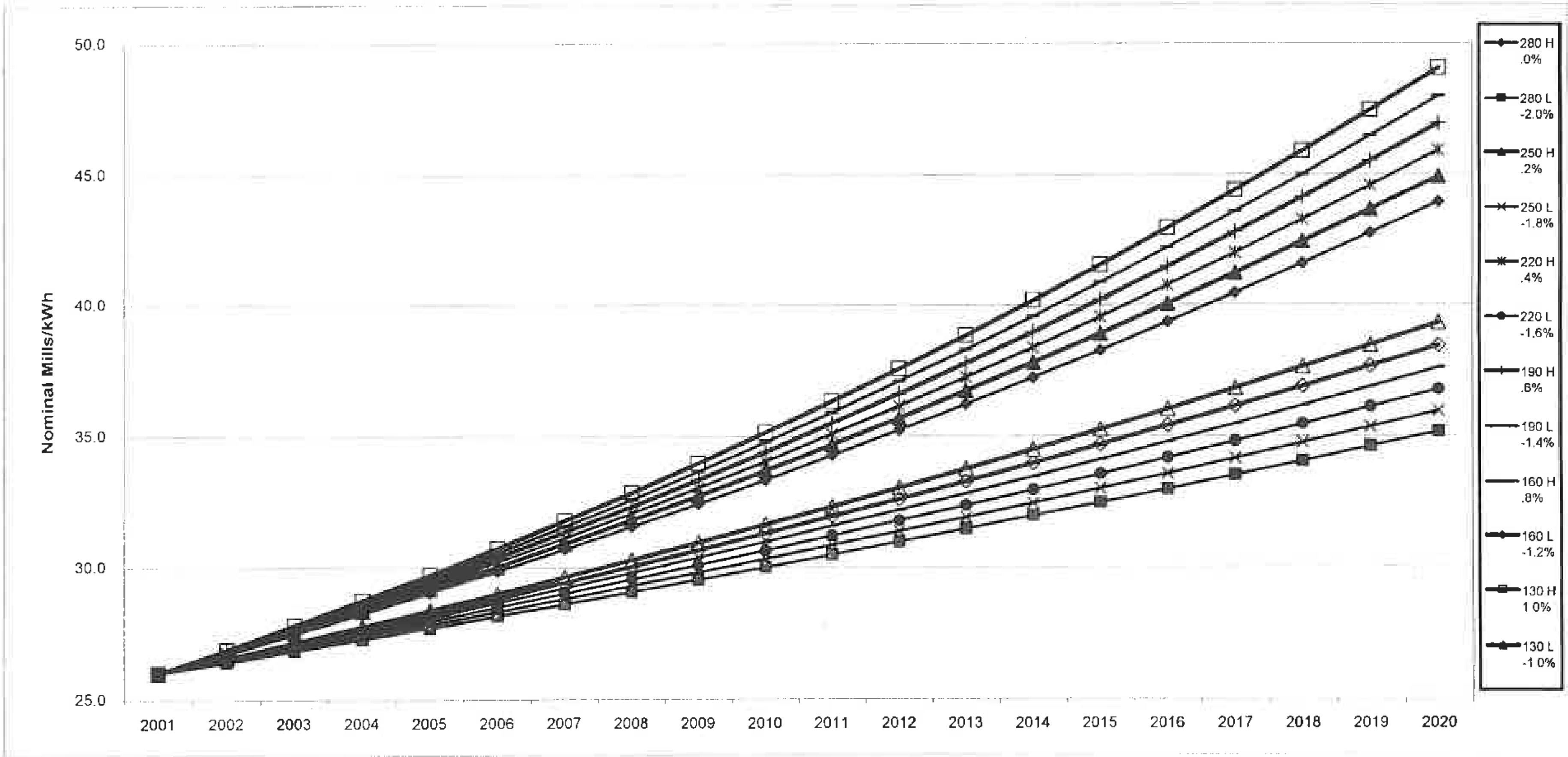


RAMPP-6

"Shotgun" Short Term Wholesale Market Prices Assuming 26 Mills/kWh Starting Price

(Nominal Dollars)

Gas Case	Study Year 2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Nominal Escalation
280 H .0%	26.0	26.7	27.5	28.2	29.0	29.8	30.7	31.5	32.4	33.3	34.3	35.2	36.2	37.2	38.3	39.3	40.4	41.6	42.7	43.9	2.80%
280 L -2.0%	26.0	26.4	26.8	27.3	27.7	28.1	28.6	29.1	29.5	30.0	30.5	31.0	31.5	32.0	32.5	33.0	33.5	34.1	34.6	35.2	1.60%
250 H .2%	26.0	26.8	27.5	28.3	29.2	30.0	30.9	31.8	32.7	33.7	34.7	35.7	36.7	37.8	38.9	40.0	41.2	42.4	43.6	44.9	2.92%
250 L -1.8%	26.0	26.4	26.9	27.4	27.8	28.3	28.8	29.3	29.8	30.3	30.8	31.4	31.9	32.5	33.0	33.6	34.2	34.7	35.3	35.9	1.72%
220 H .4%	26.0	26.8	27.6	28.4	29.3	30.2	31.1	32.1	33.0	34.0	35.1	36.1	37.2	38.4	39.5	40.7	42.0	43.3	44.6	45.9	3.04%
220 L -1.6%	26.0	26.5	27.0	27.5	28.0	28.5	29.0	29.5	30.1	30.6	31.2	31.8	32.4	33.0	33.6	34.2	34.8	35.4	36.1	36.8	1.84%
190 H .6%	**26.0**	**26.8**	**27.7**	**28.5**	**29.4**	**30.4**	**31.3**	**32.3**	**33.3**	**34.4**	**35.5**	**36.6**	**37.8**	**39.0**	**40.2**	**41.5**	**42.8**	**44.1**	**45.5**	**47.0**	**3.16%**
190 L -1.4%	26.0	26.5	27.0	27.6	28.1	28.6	29.2	29.8	30.4	31.0	31.6	32.2	32.8	33.5	34.1	34.8	35.5	36.2	36.9	37.6	1.96%
160 H .8%	26.0	26.9	27.7	28.6	29.6	30.6	31.6	32.6	33.7	34.8	35.9	37.1	38.3	39.6	40.9	42.2	43.6	45.0	46.5	48.0	3.28%
160 L -1.2%	26.0	26.5	27.1	27.7	28.2	28.8	29.4	30.0	30.7	31.3	31.9	32.6	33.3	34.0	34.7	35.4	36.1	36.9	37.7	38.4	2.08%
130 H 1.0%	26.0	26.9	27.8	28.7	29.7	30.7	31.8	32.9	34.0	35.1	36.3	37.6	38.8	40.2	41.5	42.9	44.4	45.9	47.5	49.1	3.40%
130 L -1.0%	26.0	26.6	27.2	27.8	28.4	29.0	29.6	30.3	30.9	31.6	32.3	33.0	33.8	34.5	35.3	36.0	36.8	37.6	38.5	39.3	2.20%



Short Term Wholesale Market Price
Mills/kWh in 2001

Assuming Annual Average Wholesale Price of 22.0 and $ 0/Ton of CO2 Environmental Adder Tax

	Long	On-Peak Mills/kWh				Off-Peak Mills/kWh			
No.	Name	Win	Spr	Sum	Fall	Win	Spr	Sum	Fall
	California/Oregon Border	20.9	20.5	26.2	34.2	16.4	13.8	14.0	27.8
	Palo Verde	23.3	24.0	35.8	32.6	12.7	13.4	16.3	18.9
1	COB HLH Purch 1	20.9	20.5	26.2	34.2				
2	COB HLH Purch 2	22.9	22.5	28.2	36.2				
3	COB LLH Purch 1					16.4	13.8	14.0	27.8
4	COB LLH Purch 2					18.4	15.8	16.0	29.8
5	Palo V HLH Purch 1	23.3	24.0	35.8	32.6				
6	Palo V HLH Purch 2	25.3	26.0	37.8	34.6				
7	Palo V LLH Purch 1					12.7	13.4	16.3	18.9
8	Palo V LLH Purch 2					14.7	15.4	18.3	20.9
9	Short Term Cap Purch	22.9	22.5	28.2	36.2	18.4	15.8	16.0	29.8
10	Short Term Market P	22.9	22.5	28.2	36.2	18.4	15.8	16.0	29.8
1	COB HLH Sale 1	20.9	20.5	26.2	34.2				
2	COB HLH Sale 2	18.9	18.5	24.2	32.2				
3	COB LLH Sale 1					16.4	13.8	14.0	27.8
4	COB LLH Sale 2					14.4	11.8	12.0	25.8
5	Palo V HLH Sale 1	23.3	24.0	35.8	32.6				
6	Palo V HLH Sale 2	21.3	22.0	33.8	30.6				
7	Palo V LLH Sale 1					12.7	13.4	16.3	18.9
8	Palo V LLH Sale 2					10.7	11.4	14.3	16.9
9	Calif HLH Sale 1	20.9	20.5	26.2	34.2				
10	Calif HLH Sale 2	18.9	18.5	24.2	32.2				
11	Calif LLH Sale 1					16.4	13.8	14.0	27.8
12	Calif LLH Sale 2					14.4	11.8	12.0	25.8

Annual Average Wholesale 22.0

Seasonal, Geographical and TOD Differentials

	West Seasonal Prices			PV Seasonal Prices		
	HLH	LLH	Flat	HLH	LLH	Flat
WIN	0.9481	0.7447	0.8577	0.9331	0.6071	0.7882
SPR	0.9312	0.6258	0.7984	0.9653	0.6364	0.8223
SUM	1.1887	0.6367	0.9487	1.4994	0.7689	1.1818
FAL	1.5547	1.2650	1.4263	1.3552	0.8884	1.1483
Average	1.1485	0.8104	1.0000	1.1998	0.7450	1.0000
		Palo Verde Premium		2.778	(0.645)	1.274

Select Environmental Adder

$ - /Ton of CO2

Enviromental Adder by CO2 ton

_Gas	_Coal	_None
-	-	-

Short Term Wholesale Market Price
Mills/kWh in 2001

Assuming Annual Average Wholesale Price of 26.0 and $ 0/Ton of CO2 Environmental Adder Tax

No.	Long Name	On-Peak Mills/kWh Win	Spr	Sum	Fall	Off-Peak Mills/kWh Win	Spr	Sum	Fall
	California/Oregon Border	24.7	24.2	30.9	40.4	19.4	16.3	16.6	32.9
	Palo Verde	27.0	27.9	41.8	38.0	15.1	15.9	19.3	22.5
1	COB HLH Purch 1	24.7	24.2	30.9	40.4				
2	COB HLH Purch 2	26.7	26.2	32.9	42.4				
3	COB LLH Purch 1					19.4	16.3	16.6	32.9
4	COB LLH Purch 2					21.4	18.3	18.6	34.9
5	Palo V HLH Purch 1	27.0	27.9	41.8	38.0				
6	Palo V HLH Purch 2	29.0	29.9	43.8	40.0				
7	Palo V LLH Purch 1					15.1	15.9	19.3	22.5
8	Palo V LLH Purch 2					17.1	17.9	21.3	24.5
9	Short Term Cap Purch	26.7	26.2	32.9	42.4	21.4	18.3	18.6	34.9
10	Short Term Market P	26.7	26.2	32.9	42.4	21.4	18.3	18.6	34.9
1	COB HLH Sale 1	24.7	24.2	30.9	40.4				
2	COB HLH Sale 2	22.7	22.2	28.9	38.4				
3	COB LLH Sale 1					19.4	16.3	16.6	32.9
4	COB LLH Sale 2					17.4	14.3	14.6	30.9
5	Palo V HLH Sale 1	27.0	27.9	41.8	38.0				
6	Palo V HLH Sale 2	25.0	25.9	39.8	36.0				
7	Palo V LLH Sale 1					15.1	15.9	19.3	22.5
8	Palo V LLH Sale 2					13.1	13.9	17.3	20.5
9	Calif HLH Sale 1	24.7	24.2	30.9	40.4				
10	Calif HLH Sale 2	22.7	22.2	28.9	38.4				
11	Calif LLH Sale 1					19.4	16.3	16.6	32.9
12	Calif LLH Sale 2					17.4	14.3	14.6	30.9

Annual Average Wholesale 26.0

Seasonal, Geographical and TOD Differentials

	West Seasonal Prices HLH	LLH	Flat	PV Seasonal Prices HLH	LLH	Flat
WIN	0.9481	0.7447	0.8577	0.9331	0.6071	0.7882
SPR	0.9312	0.6258	0.7984	0.9653	0.6364	0.8223
SUM	1.1887	0.6367	0.9487	1.4994	0.7689	1.1818
FAL	1.5547	1.2650	1.4263	1.3552	0.8884	1.1483
Average	1.1485	0.8104	1.0000	1.1998	0.7450	1.0000
			Palo Verde Premium	2.778	(0.645)	1.274

Select Environmental Adder

$ - /Ton of CO2

Enviromental Adder by CO2 ton

_Gas	_Coal	_None
-	-	-

Short Term Wholesale Market Price
Mills/kWh in 2001

Assuming Annual Average Wholesale Price of 30.0 and $ 0/Ton of CO2 Environmental Adder Tax

No.	Long Name	On-Peak Mills/kWh Win	Spr	Sum	Fall	Off-Peak Mills/kWh Win	Spr	Sum	Fall
	California/Oregon Border	28.4	27.9	35.7	46.6	22.3	18.8	19.1	38.0
	Palo Verde	30.8	31.7	47.8	43.4	17.6	18.4	22.4	26.0
1	COB HLH Purch 1	28.4	27.9	35.7	46.6				
2	COB HLH Purch 2	30.4	29.9	37.7	48.6				
3	COB LLH Purch 1					22.3	18.8	19.1	38.0
4	COB LLH Purch 2					24.3	20.8	21.1	40.0
5	Palo V HLH Purch 1	30.8	31.7	[illegible]	43.4				
6	Palo V HLH Purch 2	32.8	33.7	49.8	45.4				
7	Palo V LLH Purch 1					17.6	18.4	22.4	26.0
8	Palo V LLH Purch 2					19.6	20.4	24.4	28.0
9	Short Term Cap Purch	30.4	29.9	37.7	48.6	24.3	20.8	21.1	40.0
10	Short Term Market P	30.4	29.9	37.7	48.6	24.3	20.8	21.1	40.0
1	COB HLH Sale 1	28.4	27.9	35.7	46.6				
2	COB HLH Sale 2	26.4	25.9	33.7	44.6				
3	COB LLH Sale 1					22.3	18.8	19.1	38.0
4	COB LLH Sale 2					20.3	16.8	17.1	36.0
5	Palo V HLH Sale 1	30.8	31.7	47.8	43.4				
6	Palo V HLH Sale 2	28.8	29.7	45.8	41.4				
7	Palo V LLH Sale 1					17.6	18.4	22.4	26.0
8	Palo V LLH Sale 2					15.6	16.4	20.4	24.0
9	Calif HLH Sale 1	28.4	27.9	35.7	46.6				
10	Calif HLH Sale 2	26.4	25.9	33.7	44.6				
11	Calif LLH Sale 1					22.3	18.8	19.1	38.0
12	Calif LLH Sale 2					20.3	16.8	17.1	36.0

Annual Average Wholesale 30.0

Seasonal, Geographical and TOD Differentials

	West Seasonal Prices HLH	LLH	Flat	PV Seasonal Prices HLH	LLH	Flat
WIN	0.9481	0.7447	0.8577	0.9331	0.6071	0.7882
SPR	0.9312	0.6258	0.7984	0.9653	0.6364	0.8223
SUM	1.1887	0.6367	0.9487	1.4994	0.7689	1.1818
FAL	1.5547	1.2650	1.4263	1.3552	0.8884	1.1483
Average	1.1485	0.8104	1.0000	1.1998	0.7450	1.0000
			Palo Verde Premium	2.778	(0.645)	1.274

Select Environmental Adder

$ - /Ton of CO2

Enviromental Adder by CO2 ton

_Gas	_Coal	_None
-	-	-

Short Term Wholesale Market Price
Mills/kWh in 2001

Assuming Annual Average Wholesale Price of 34.0 and $ 0/Ton of CO2 Environmental Adder Tax

	Long	On-Peak Mills/kWh				Off-Peak Mills/kWh			
No.	Name	Win	Spr	Sum	Fall	Win	Spr	Sum	Fall
	California/Oregon Border	32.2	31.7	40.4	52.9	25.3	21.3	21.6	43.0
	Palo Verde	34.5	35.6	53.8	48.9	20.0	21.0	25.5	29.6
1	COB HLH Purch 1	32.2	31.7	40.4	52.9				
2	COB HLH Purch 2	34.2	33.7	42.4	54.9				
3	COB LLH Purch 1					25.3	21.3	21.6	43.0
4	COB LLH Purch 2					27.3	23.3	23.6	45.0
5	Palo V HLH Purch 1	34.5	35.6	53.8	48.9				
6	Palo V HLH Purch 2	36.5	37.6	55.8	50.9				
7	Palo V LLH Purch 1					20.0	21.0	25.5	29.6
8	Palo V LLH Purch 2					22.0	23.0	27.5	31.6
9	Short Term Cap Purch	34.2	33.7	42.4	54.9	27.3	23.3	23.6	45.0
10	Short Term Market P	34.2	33.7	42.4	54.9	27.3	23.3	23.6	45.0
1	COB HLH Sale 1	32.2	31.7	40.4	52.9				
2	COB HLH Sale 2	30.2	29.7	38.4	50.9				
3	COB LLH Sale 1					25.3	21.3	21.6	43.0
4	COB LLH Sale 2					23.3	19.3	19.6	41.0
5	Palo V HLH Sale 1	34.5	35.6	53.8	48.9				
6	Palo V HLH Sale 2	32.5	33.6	51.8	46.9				
7	Palo V LLH Sale 1					20.0	21.0	25.5	29.6
8	Palo V LLH Sale 2					18.0	19.0	23.5	27.6
9	Calif HLH Sale 1	32.2	31.7	40.4	52.9				
10	Calif HLH Sale 2	30.2	29.7	38.4	50.9				
11	Calif LLH Sale 1					25.3	21.3	21.6	43.0
12	Calif LLH Sale 2					23.3	19.3	19.6	41.0

Annual Average Wholesale 34.0

Seasonal, Geographical and TOD Differentials

	West Seasonal Prices			PV Seasonal Prices		
	HLH	LLH	Flat	HLH	LLH	Flat
WIN	0.9481	0.7447	0.8577	0.9331	0.6071	0.7882
SPR	0.9312	0.6258	0.7984	0.9653	0.6364	0.8223
SUM	1.1887	0.6367	0.9487	1.4994	0.7689	1.1818
FAL	1.5547	1.2650	1.4263	1.3552	0.8884	1.1483
Average	1.1485	0.8104	1.0000	1.1998	0.7450	1.0000
			Palo Verde Premium	2.778	(0.645)	1.274

Select Environmental Adder

$ - /Ton of CO2

Enviromental Adder by CO2 ton

_Gas	_Coal	_None
-	-	-

Short Term Wholesale Market Price
Mills/kWh in 2001

Assuming Annual Average Wholesale Price of 26.0 and $ 10/Ton of CO2 Environmental Adder Tax

No.	Long Name	On-Peak Mills/kWh Win	Spr	Sum	Fall	Off-Peak Mills/kWh Win	Spr	Sum	Fall
	California/Oregon Border	24.7	24.2	30.9	40.4	19.4	16.3	16.6	32.9
	Palo Verde	27.0	27.9	41.8	38.0	15.1	15.9	19.3	22.5
1	COB HLH Purch 1	28.6	28.1	34.8	44.3				
2	COB HLH Purch 2	30.6	30.1	36.8	46.3				
3	COB LLH Purch 1					23.3	20.2	20.5	36.8
4	COB LLH Purch 2					25.3	22.2	22.5	38.8
5	Palo V HLH Purch 1	31.0	31.8	45.7	41.9				
6	Palo V HLH Purch 2	33.0	33.8	47.7	43.9				
7	Palo V LLH Purch 1					19.1	19.8	23.3	26.4
8	Palo V LLH Purch 2					21.1	21.8	25.3	28.4
9	Short Term Cap Purch	30.6	30.1	36.8	46.3	25.3	22.2	22.5	38.8
10	Short Term Market P	30.6	30.1	36.8	46.3	25.3	22.2	22.5	38.8
1	COB HLH Sale 1	28.6	28.1	34.8	44.3				
2	COB HLH Sale 2	26.6	26.1	32.8	42.3				
3	COB LLH Sale 1					23.3	20.2	20.5	36.8
4	COB LLH Sale 2					21.3	18.2	18.5	34.8
5	Palo V HLH Sale 1	31.0	31.8	45.7	41.9				
6	Palo V HLH Sale 2	29.0	29.8	43.7	39.9				
7	Palo V LLH Sale 1					19.1	19.8	23.3	26.4
8	Palo V LLH Sale 2					17.1	17.8	21.3	24.4
9	Calif HLH Sale 1	28.6	28.1	34.8	44.3				
10	Calif HLH Sale 2	26.6	26.1	32.8	42.3				
11	Calif LLH Sale 1					23.3	20.2	20.5	36.8
12	Calif LLH Sale 2					21.3	18.2	18.5	34.8

Annual Average Wholesale 26.0

Seasonal, Geographical and TOD Differentials

	West Seasonal Prices HLH	LLH	Flat	PV Seasonal Prices HLH	LLH	Flat
WIN	0.9481	0.7447	0.8577	0.9331	0.6071	0.7882
SPR	0.9312	0.6258	0.7984	0.9653	0.6364	0.8223
SUM	1.1887	0.6367	0.9487	1.4994	0.7689	1.1818
FAL	1.5547	1.2650	1.4263	1.3552	0.8884	1.1483
Average	1.1485	0.8104	1.0000	1.1998	0.7450	1.0000
			Palo Verde Premium	2.778	(0.645)	1.274

Select Environmental Adder
$ 10.00 /Ton of CO2

Enviromental Adder by CO2 ton

_Gas	_Coal	_None
3.9	11.1	

Development of Season, Geographical and TOP
Short Term Wholesale Market Price Differentials

		Dec-98	Jan-99	Feb-99	Mar-99	Apr-99	May-99	Jun-99	Jul-99	Aug-99	Sep-99	Oct-99	Nov-99	Dec-99
Hours	HLH	416	400	384	432	416	400	416	416	416	400	416	400	416
	LLH	328	344	288	312	304	344	304	328	328	320	328	320	328
	FLAT	744	744	672	744	720	744	720	744	744	720	744	720	744
Market	HLH	$ 30.46	$ 19.50	$ 18.94	$ 17.20	$ 24.95	$ 26.33	$ 25.37	$ 29.53	$ 32.06	$ 33.70	$ 46.57	$ 33.12	$ 28.57
Price	LLH	$ 24.95	$ 15.10	$ 14.08	$ 12.64	$ 16.40	$ 16.63	$ 9.79	$ 16.76	$ 19.60	$ 27.58	$ 38.65	$ 26.12	$ 22.50
West	FLAT	$ 28.03	$ 17.47	$ 16.85	$ 15.29	$ 21.34	$ 21.84	$ 18.79	$ 23.90	$ 26.57	$ 30.98	$ 43.08	$ 30.01	$ 25.90
Market	HLH	$ 27.54	$ 23.19	$ 20.83	$ 20.77	$ 26.29	$ 27.50	$ 33.26	$ 40.06	$ 42.10	$ 33.23	$ 39.81	$ 31.09	$ 30.61
Price	LLH	$ 17.02	$ 15.21	$ 14.38	$ 13.83	$ 17.90	$ 17.21	$ 14.32	$ 20.45	$ 24.02	$ 21.87	$ 27.03	$ 19.38	$ 22.89
East	FLAT	$ 22.90	$ 19.50	$ 18.07	$ 17.86	$ 22.75	$ 22.74	$ 25.26	$ 31.42	$ 34.13	$ 28.18	$ 34.18	$ 25.89	$ 27.20

		West System			East System			System		
		HLH	LLH	FLAT	HLH	LLH	FLAT	HLH	LLH	FLAT
Winter	Dec-98, Jan-Feb 99	$ 23.12	$ 18.16	$ 20.92	$ 23.94	$ 15.58	$ 20.23	$ 23.53	$ 16.87	$ 20.57
Spring	Mar-May 99	$ 22.71	$ 15.26	$ 19.47	$ 24.77	$ 16.33	$ 21.10	$ 23.74	$ 15.79	$ 20.28
Summer	Jun-Aug 99	$ 28.99	$ 15.53	$ 23.13	$ 38.47	$ 19.73	$ 30.32	$ 33.73	$ 17.63	$ 26.73
Fall	Sep-Nov-99	$ 37.91	$ 30.85	$ 34.78	$ 34.78	$ 22.80	$ 29.47	$ 36.34	$ 26.82	$ 32.12
	Annual Average	$ 28.01	$ 19.76	$ 24.39	$ 30.79	$ 19.12	$ 25.66	$ 29.40	$ 19.44	$ 25.02

Seasonal, Geographical and TOD Differentials

	West Seasonal Prices			PV Seasonal Prices		
	HLH	LLH	Flat	HLH	LLH	Flat
WIN	0.9481	0.7447	0.8577	0.9331	0.6071	0.7882
SPR	0.9312	0.6258	0.7984	0.9653	0.6364	0.8223
SUM	1.1887	0.6367	0.9487	1.4994	0.7689	1.1818
FAL	1.5547	1.2650	1.4263	1.3552	0.8884	1.1483
Average	1.1485	0.8104	1.0000	1.1998	0.7450	1.0000
			Palo Verde Premium	$ 2.78	$ (0.65)	1.27

TOD 'HLH' Season 'WIN' Formula is
23.12 / 24.39 = .9481

TOD 'HLH' Palo Verde Premium Formula is
30.79 - 28.01 = 2.78

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Integrated Resource Planning
RAMPP-6

Supply Side Resources

Costs and Characteristics

Tab 4

RAMPP-6 Supply Side Resources

Generation Options	Size	$/KW (2001 $)	Average Heat Rate (Btu/kWh - HHV)	Fixed O&M & Ongoing Capital ($/kW-Yr)	Var. O&M ($/MWh)	Future Technology Year Available
Gas-Fired (OWC):						
Small Cogeneration (Max. of 50 MW/yr)	25 MW	$659	5,108	$25.69	$0.15	
Large Cogeneration (Max. of 289 MW/yr)	131.8 MW	$652	6,407	$29.69	$0.50	
Simple Cycle:						
Micro-Turbine	0.024 MW	$1,965	14,321	$433.25	$7.93	2002
Small - Mars 100S	10.7 MW	$1,130	12,827	$31.42	$0.36	
AeroDriv.-LM6000PC	44.1 MW	$697	9,939	$27.20	$0.09	
Medium - 501D5	109.4 MW	$462	12,161	$15.64	$0.12	
Large - 501F	186.1 MW	$433	11,070	$13.58	$0.10	
Combined Cycle:						
Medium - 107FA (1x1)	263 MW	$637	6,976	$32.72	$0.55	
Large - 207FA (2x1)	530 MW	$524	6,912	$26.86	$0.51	
Large- "H" (1x1)	400 MW	$533	6,516	$26.86	$0.51	2005
Repower Gadsby (107FA)	223 MW	$749	8,207	$32.72	$0.80	
Fuel Cells:						
Small	2 to 20 MW	$1,800	5,864	$45.71	$2.13	2005
Medium	100 MW	$1,700	5,675	$45.71	$2.13	2005
Coal Based (Wyoming except Hunter 4):						
Next Unit - Hunter 4 (PC/SCR)	400 MW	$1,127	10,062	$43.46	$0.51	
Greenfield Site (PC/SCR)	400 MW	$1,318	10,062	$43.46	$0.51	
IGCC (Hunter 4 or Greenfield)	262 MW	$1,450	8,400	$41.16	$2.40	
PFBC-Circulating (Greenfield)	350 MW	$1,519	9,061	$43.46	$1.01	2003
Renewables:						
Wind (Wyoming-Foote Creek):	25 MW	$1,228	N/A	$49.00	$0.00	
Wind (OWC):	200 MW	$1,000	N/A	$37.00	$0.00	
Solar (Utah Only):						
Thermal	200 MW	$5,028	N/A	$41.18	$0.20	
Thermal (Hybrid)	300 MW	$1,520	5,000	$17.56	$0.58	2002
Sterling Engine	25 kW	$5,400	N/A	$54.08	$0.20	2005
Photovoltaic	68 MW	$5,004	N/A	$19.77	$3.50	2005
Geothermal (OWC/Utah):	50 MW	$2,414	10,000	$18.88	$2.12	
Plantation Biomass (OWC):	56 MW	$1,238	9,376	$38.60	$0.50	2005
Storage:						
Pumped Hydro (OWC/Utah):	200 MW	$760	12,821	$16.63	$0.00	
CAES (Arizona):	150 MW	$884	12,700	$6.86	$0.00	
Batteries (All Areas):	10 MW	$998	12,641	$11.98	$0.00	
SMES (All Areas):	500 MW	$716	9,980	$9.16	$0.00	2005

RAMPP-6 Supply Side Resources

Generation Options	Real Capital Escalation	Real O&M Escalation	Comments
Gas-Fired (OWC):			
Small Cogeneration (Max. of 50 MW/yr)	-2.3%	-2.0%	Based on a James River Project adjusted for escalation
Large Cogeneration (Max. of 289 MW/yr)	-2.3%	-2.0%	Based on a 501D5A with steam flow (400,000 lb/hr, 600 psia, 800 F - Gas Turbine World (Steam Value = Electricity Value)
Simple Cycle:			
Micro-Turbine	-2.3%	-2.0%	Based on Capstone Technology
Small - Mars 100S	-2.3%	-2.0%	Based on Solar Technolgy & Gas Turbine World
AeroDriv.-LM6000PC	-2.3%	-2.0%	Based on GE Technology & Gas Turbine World
Medium - 501D5	-2.3%	-2.0%	Based on Westinghouse Data & Gas Turbine World
Large - 501F	-2.3%	-2.0%	Based on Westinghouse Data & Gas Turbine World
Combined Cycle:			
Medium - 107FA (1x1)	-2.3%	-1.0%	Based on GE Quotation & Gas Turbine World
Large - 207FA (2x1)	-2.3%	-1.0%	Based on GE Quotation & Gas Turbine World
Large- "H" (1x1)	-2.3%	-1.0%	Based on EPRI data and 60% LHV design efficiency
Repower Gadsby (107FA)	-2.3%	-1.0%	Based on GE Quotation & Gas Turbine World
Fuel Cells:			
Small	-5.0%	-2.0%	Based on RAMPP-5 not adjusted for escalation - SOFC (Westinghouse)
Medium	-5.0%	-2.0%	Based on RAMPP-5 not adjusted for escalation - SOFC (Westinghouse)
Coal Based (Wyoming except Hunter 4):			
Next Unit - Hunter 4 (PC/SCR)	-3.8%	0.0%	Based on RAMPP-5 adjusted for Market (10% reduction) and Escalation
Greenfield Site (PC/SCR)	-3.8%	0.0%	Based on RAMPP-5 adjusted for Market (10% reduction) and Escalation
IGCC (Hunter 4 or Greenfield)	-2.3%	0.0%	Based on RAMPP-5 adjusted for Market (5% addition) and Escalation
PFBC-Circulating (Greenfield)	-2.3%	0.0%	Based on RAMPP-5 adjusted for Market (10% reduction), heat rate (EPRI), and Escalation
Renewables:			
Wind (Wyoming-Foote Creek):	-2.8%	-2.8%	Based on a Capacity Factor or 37% - No Transmission Costs (150 MW Maximum)
Wind (OWC):	-2.8%	-2.8%	Based on a Capacity Factor or 37% - Based on Recent Vendor Contacts (200 MW Maximum)
Solar (Utah Only):			
Thermal	-5.0%	-3.0%	Based on RAMPP-5 not adjusted for escalation - 63% Capacity Factor System
Thermal (Hybrid)	-3.8%	-3.0%	Based on RAMPP-5 not adjusted for escalation - Natural Gas Based/Capacity Factor = 85%
Sterling Engine	-5.0%	-3.0%	Based on RAMPP-5 not adjusted for escalation - Solar Only - 100 Systems/Yr - 26% CF
Photovoltaic	-5.0%	-3.0%	Based on RAMPP-5 not adjusted for escalation - 25.1% Capacity Factor - APS Renewables Study
Geothermal (OWC/Utah):	-2.3%	-0.5%	Based on RAMPP-5 not adjusted for Market and Escalation - (Fuel @ $1.07/mmBtu) - follows coal escalation
Plantation Biomass (OWC):	-2.3%	-2.0%	Based on RAMPP-5 not adjusted for escalation - Gasification Technology (Fuel Cost = $16/wet ton, 4617 Btu/wet ton)
Storage:			
Pumped Hydro (OWC/Utah):	-2.8%	-1.0%	Based on RAMPP-5 adjusted for Market and Escalation
CAES (Arizona):	-2.8%	-1.0%	Based on RAMPP-5 adjusted for Market and Escalation
Batteries (All Areas):	-2.8%	-1.0%	Based on RAMPP-5 adjusted for escalation - Lead-acid Battery Technology
SMES (All Areas):	-5.0%	-1.0%	Based on RAMPP-5 adjusted for escalation - Superconducting Magnetic Energy Storage (Optimistic Projection)

RAMPP-6 Supply Side Resources

Costs in 1/1/01 Dollars
Real Escalation Values assume a general level of escalation of 2.8%
For Gas Turbine Based Options in Other Locations (except Gadsby) Adjust by Elevation Adjustment Factor:

Utah (4,500 feet average) =	0.85	adjustment factor
Wyoming (6,000 feet average) =	0.8	adjustment factor

Ongoing Capital is included in Fixed O&M for Coal Plants at	$7.00	per kw-yr
Ongoing Capital is included in Fixed O&M for Gas & Other Plants at	$2.00	per kw-yr for Base Load Plants only

Option Emission Levels equal to Data in RAMPP-3 and RAMPP-4
Adjustment Factor to Convert Design to Average Heat Rate for Gas Turbine Options were:

Simple Cycle (Peak Load)	0.91
Combined Cycle (Base Load)	0.97

Escalation Rate used to bring costs from 1998 dollars to year 2000 dollars were applicable = 3.00%

James River Assumptions
3,724,662 $ per year at James River in Steam Costs

$2.00 $/mmBtu (fuel only)
Displaced Boiler Maint. = $400,000/yr fixed and $50,000/yr variable

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Integrated Resource Planning

RAMPP-6

Retail Load Forecast

Tab 5

p7 96
UT bubble defined as UT, Sola + WW loads. however this is number is

Retail Load Forecast

by Transmission Bubble

Year	Oregon - Washington			UTAH			Wyoming			Goshen			TOTAL		
	Win	Sum	aMW	Win	Sum	aMW	Win	Sum	aMW	Win	Sum	aMW	Win	Sum	aMW
2001	3,612	2,925	2,435	3,086	3,846	2,384	1,104	975	748	100	241	110	7,902	7,987	5,677
2002	3,690	3,033	2,489	3,083	3,820	2,384	1,121	945	759	102	232	113	7,995	8,030	5,745
2003	3,776	3,097	2,548	3,155	3,909	2,447	1,138	960	771	104	237	116	8,172	8,202	5,881
2004	3,847	3,157	2,589	3,244	4,018	2,517	1,152	1,020	778	105	240	118	8,347	8,435	6,002
2005	3,909	3,210	2,647	3,330	4,113	2,560	1,174	1,041	796	106	244	120	8,519	8,608	6,123
2006	3,962	3,255	2,704	3,413	4,201	2,607	1,196	1,063	815	108	248	122	8,678	8,766	6,248
2007	4,008	3,294	2,767	3,497	4,306	2,666	1,216	1,085	835	110	252	124	8,830	8,936	6,392
2008	4,058	3,342	2,831	3,584	4,344	2,727	1,237	1,110	856	111	256	126	8,990	9,051	6,540
2009	4,116	3,389	2,897	3,674	4,490	2,789	1,259	1,128	878	113	260	128	9,161	9,267	6,691
2010	4,175	3,435	2,882	3,751	4,556	2,916	1,284	1,147	882	114	261	133	9,323	9,398	6,813
2011	4,243	3,494	2,867	3,841	4,760	3,044	1,308	1,152	886	116	270	138	9,507	9,675	6,935
2012	4,323	3,563	2,913	3,940	4,893	3,122	1,337	1,156	903	118	273	142	9,717	9,884	7,079
2013	4,410	3,632	2,981	4,033	4,998	3,212	1,367	1,161	926	120	281	146	9,929	10,071	7,265
2014	4,512	3,707	3,050	4,134	5,122	3,301	1,389	1,179	941	122	286	150	10,156	10,294	7,442
2015	4,624	3,801	3,127	4,228	5,240	3,383	1,414	1,201	958	124	293	154	10,389	10,535	7,622
2016	4,737	3,848	3,195	4,325	5,374	3,458	1,440	1,246	972	126	296	157	10,628	10,763	7,783
2017	4,859	3,996	3,288	4,431	5,492	3,561	1,465	1,290	992	129	305	162	10,883	11,083	8,003
2018	4,978	4,106	3,378	4,592	5,690	3,705	1,491	1,335	1,010	131	311	167	11,191	11,442	8,261
2019	5,100	4,208	3,463	4,712	5,840	3,813	1,517	1,373	1,028	133	317	172	11,462	11,738	8,476
2020	5,225	4,313	3,551	4,836	5,993	3,923	1,544	1,412	1,046	135	324	176	11,740	12,042	8,697

Year by Year Change

Year	Oregon - Washington			UTAH			Wyoming			Goshen			TOTAL		
	Win	Sum	aMW	Win	Sum	aMW	Win	Sum	aMW	Win	Sum	aMW	Win	Sum	aMW
2001															
2002	78	108	54	(4)	(26)	(1)	17	(30)	11	2	(9)	3	93	43	68
2003	86	64	58	72	89	63	17	15	12	2	5	3	177	172	137
2004	71	60	41	89	110	70	14	60	7	1	4	2	175	233	121
2005	62	53	58	87	95	43	22	21	18	2	4	2	172	173	121
2006	53	45	57	83	88	47	22	22	19	2	4	2	159	158	126
2007	46	39	63	84	105	59	20	22	20	2	4	2	152	170	144
2008	50	48	64	88	38	60	21	25	21	2	4	2	160	115	148
2009	58	48	66	90	146	62	22	18	21	2	4	2	171	216	151
2010	59	46	(15)	77	66	128	25	19	4	1	1	5	162	131	122
2011	68	59	(15)	90	204	128	24	5	4	2	9	5	184	277	122
2012	80	69	46	99	133	78	29	5	17	2	3	3	210	210	144
2013	87	69	69	93	105	91	30	5	23	2	8	4	212	187	186
2014	102	75	69	101	125	89	22	18	15	2	6	4	227	223	177
2015	112	94	77	94	118	82	25	22	17	2	7	4	233	241	180
2016	113	47	68	98	134	75	26	45	14	3	3	3	239	228	160
2017	122	148	93	106	119	103	25	45	19	3	10	5	255	321	220
2018	119	110	90	161	198	145	26	45	19	2	6	5	308	359	258
2019	122	102	85	121	150	107	26	38	18	2	6	5	271	296	215
2020	125	105	88	124	154	111	27	39	18	2	7	5	278	304	221

Year by Year Percent Change

Year	Oregon - Washington			UTAH			Wyoming			Goshen			TOTAL		
	Win	Sum	aMW	Win	Sum	aMW	Win	Sum	aMW	Win	Sum	aMW	Win	Sum	aMW
2001															
2002	2.2%	3.7%	2.2%	-0.1%	-0.7%	0.0%	1.5%	-3.1%	1.5%	1.5%	-3.7%	3.1%	1.2%	0.5%	1.2%
2003	2.3%	2.1%	2.3%	2.3%	2.3%	2.7%	1.5%	1.6%	1.5%	2.0%	1.9%	2.9%	2.2%	2.1%	2.4%
2004	1.9%	1.9%	1.6%	2.8%	2.8%	2.9%	1.2%	6.3%	1.0%	1.0%	1.5%	1.8%	2.1%	2.8%	2.0%
2005	1.6%	1.7%	2.2%	2.7%	2.4%	1.7%	1.9%	2.1%	2.3%	1.4%	1.7%	1.5%	2.1%	2.1%	2.0%
2006	1.4%	1.4%	2.2%	2.5%	2.1%	1.8%	1.9%	2.1%	2.4%	1.4%	1.4%	1.6%	1.9%	1.8%	2.1%
2007	1.2%	1.2%	2.3%	2.5%	2.5%	2.3%	1.7%	2.1%	2.5%	1.9%	1.6%	1.7%	1.8%	1.9%	2.3%
2008	1.2%	1.4%	2.3%	2.5%	0.9%	2.3%	1.7%	2.3%	2.5%	1.4%	1.7%	1.7%	1.8%	1.3%	2.3%
2009	1.4%	1.4%	2.3%	2.5%	3.4%	2.3%	1.8%	1.6%	2.5%	1.4%	1.7%	1.7%	1.9%	2.4%	2.3%
2010	1.4%	1.4%	-0.5%	2.1%	1.5%	4.6%	2.0%	1.7%	0.5%	0.9%	0.2%	3.9%	1.8%	1.4%	1.8%
2011	1.6%	1.7%	-0.5%	2.4%	4.5%	4.4%	1.9%	0.4%	0.5%	1.8%	3.5%	3.7%	2.0%	2.9%	1.8%
2012	1.9%	2.0%	1.6%	2.6%	2.8%	2.5%	2.2%	0.4%	1.9%	1.7%	1.1%	2.3%	2.2%	2.2%	2.1%
2013	2.0%	1.9%	2.4%	2.4%	2.1%	2.9%	2.2%	0.4%	2.5%	1.7%	2.9%	3.0%	2.2%	1.9%	2.6%
2014	2.3%	2.1%	2.3%	2.5%	2.5%	2.8%	1.6%	1.6%	1.6%	1.7%	2.0%	2.8%	2.3%	2.2%	2.4%
2015	2.5%	2.5%	2.5%	2.3%	2.3%	2.5%	1.8%	1.9%	1.8%	1.6%	2.4%	2.6%	2.3%	2.3%	2.4%
2016	2.4%	1.2%	2.2%	2.3%	2.5%	2.2%	1.8%	3.7%	1.5%	2.0%	0.9%	2.2%	2.3%	2.2%	2.1%
2017	2.6%	3.8%	2.9%	2.4%	2.2%	3.0%	1.7%	3.6%	2.0%	2.0%	3.2%	3.3%	2.4%	3.0%	2.8%
2018	2.4%	2.8%	2.7%	3.6%	3.6%	4.1%	1.8%	3.5%	1.9%	1.6%	2.0%	2.8%	2.8%	3.2%	3.2%
2019	2.5%	2.5%	2.5%	2.6%	2.6%	2.9%	1.8%	2.8%	1.8%	1.8%	2.1%	2.7%	2.4%	2.6%	2.6%
2020	2.5%	2.5%	2.5%	2.6%	2.6%	2.9%	1.8%	2.8%	1.8%	1.8%	2.1%	2.7%	2.4%	2.6%	2.6%

Something awry - this plus NF = LIT Bubble.

Retail Load Forecast

By State

Year	Month	Summer Coincident Peak (MW) Or	Wa	Utah	Idaho	Wyoming	Firm Total	Interruptible Utah	Idaho	System Total
2001	7	2,294	631	3,605	482	975	7,987	221	148	8,356
2002	7	2,380	653	3,588	464	945	8,030	221	146	8,397
2003	7	2,430	667	3,672	473	960	8,202	221	146	8,569
2004	7	2,475	682	3,778	480	1,020	8,435	221	146	8,802
2005	7	2,516	694	3,869	488	1,041	8,608	221	146	8,975
2006	7	2,549	706	3,953	495	1,063	8,766	221	146	9,133
2007	7	2,576	718	4,054	503	1,085	8,936	221	146	9,303
2008	7	2,611	731	4,088	512	1,110	9,051	221	156	9,427
2009	7	2,646	743	4,230	520	1,128	9,267	221	146	9,634
2010	7	2,684	751	4,295	521	1,147	9,398	221	146	9,765
2011	7	2,735	759	4,490	539	1,152	9,675	221	146	10,042
2012	7	2,790	773	4,620	545	1,156	9,884	221	148	10,254
2013	7	2,845	787	4,717	561	1,161	10,071	221	146	10,438
2014	7	2,904	803	4,836	572	1,179	10,294	221	146	10,661
2015	7	2,980	821	4,947	586	1,201	10,535	221	146	10,902
2016	7	3,021	827	5,078	591	1,246	10,763	221	148	11,132
2017	7	3,138	858	5,187	610	1,290	11,083	221	146	11,451
2018	7	3,228	878	5,379	622	1,335	11,442	221	146	11,809

Year	Month	Winter Coincident Peak (MW) Or	Wa	Utah	Idaho	Wyoming	Firm Total	Interruptible Utah	Idaho	System Total
2001	1	2,771	841	2,986	200	1,104	7,902	373	152	8,427
2002	1	2,833	857	2,981	203	1,121	7,995	384	152	8,531
2003	1	2,902	874	3,051	207	1,138	8,172	384	152	8,708
2004	1	2,954	893	3,139	209	1,152	8,347	373	152	8,872
2005	1	3,003	906	3,224	212	1,174	8,519	384	152	9,055
2006	1	3,043	919	3,305	215	1,196	8,678	384	152	9,214
2007	1	3,076	932	3,387	219	1,216	8,830	384	152	9,366
2008	1	3,113	945	3,473	222	1,237	8,990	384	152	9,526
2009	1	3,158	958	3,561	225	1,259	9,161	384	152	9,697
2010	1	3,204	971	3,637	227	1,284	9,323	395	151	9,869
2011	1	3,256	987	3,725	231	1,308	9,507	395	151	10,053
2012	1	3,318	1,005	3,822	235	1,337	9,717	373	151	10,241
2013	1	3,387	1,023	3,913	239	1,367	9,929	384	152	10,465
2014	1	3,468	1,044	4,012	243	1,389	10,156	384	152	10,692
2015	1	3,559	1,065	4,104	247	1,414	10,389	396	147	10,932
2016	1	3,650	1,087	4,199	252	1,440	10,628	384	152	11,164
2017	1	3,748	1,111	4,302	257	1,465	10,883	395	151	11,429
2018	1	3,844	1,134	4,461	261	1,491	11,191	373	151	11,715

Retail Load Forecast

By State

	Annual Energy (GWH)					Firm	Interruptible		System
Year	Or	Wa	Utah	Idaho	Wyoming	Total	Utah	Idaho	Total
2001	16,735	4,599	19,926	1,922	6,549	49,730	2,351	1,318	53,399
2002	17,112	4,693	19,889	1,981	6,649	50,324	2,351	1,318	53,993
2003	17,527	4,789	20,416	2,037	6,752	51,522	2,351	1,318	55,191
2004	17,792	4,885	21,010	2,074	6,816	52,578	2,351	1,318	56,246
2005	18,184	5,003	21,371	2,105	6,972	53,635	2,351	1,318	57,304
2006	18,566	5,123	21,768	2,139	7,140	54,735	2,351	1,318	58,404
2007	18,992	5,246	22,268	2,175	7,318	55,998	2,351	1,318	59,667
2008	19,429	5,371	22,778	2,212	7,501	57,292	2,351	1,318	60,961
2009	19,875	5,500	23,303	2,250	7,689	58,617	2,351	1,318	62,285
2010	19,770	5,474	24,379	2,337	7,725	59,685	2,351	1,318	63,354
2011	19,665	5,448	25,455	2,425	7,761	60,753	2,351	1,318	64,422
2012	19,980	5,536	26,107	2,480	7,910	62,012	2,351	1,318	65,681
2013	20,459	5,658	26,863	2,554	8,111	63,645	2,351	1,318	67,314
2014	20,945	5,776	27,604	2,627	8,241	65,193	2,351	1,318	68,862
2015	21,493	5,903	28,288	2,696	8,391	66,771	2,351	1,318	70,440
2016	21,981	6,010	28,912	2,756	8,517	68,177	2,351	1,318	71,846
2017	22,634	6,167	29,770	2,846	8,688	70,105	2,351	1,318	73,774
2018	23,271	6,319	30,996	2,925	8,851	72,362	2,351	1,318	76,031

	Annual Energy (aMW)					Firm	Interruptible		System
Year	Or	Wa	Utah	Idaho	Wyoming	Total	Utah	Idaho	Total
2001	1,910	525	2,275	219	748	5,677	268	150	6,096
2002	1,953	536	2,270	226	759	5,745	268	150	6,164
2003	2,001	547	2,331	233	771	5,881	268	150	6,300
2004	2,031	558	2,398	237	778	6,002	268	150	6,421
2005	2,076	571	2,440	240	796	6,123	268	150	6,542
2006	2,119	585	2,485	244	815	6,248	268	150	6,667
2007	2,168	599	2,542	248	835	6,392	268	150	6,811
2008	2,218	613	2,600	253	856	6,540	268	150	6,959
2009	2,269	628	2,660	257	878	6,691	268	150	7,110
2010	2,257	625	2,783	267	882	6,813	268	150	7,232
2011	2,245	622	2,906	277	886	6,935	268	150	7,354
2012	2,281	632	2,980	283	903	7,079	268	150	7,498
2013	2,336	646	3,067	292	926	7,265	268	150	7,684
2014	2,391	659	3,151	300	941	7,442	268	150	7,861
2015	2,453	674	3,229	308	958	7,622	268	150	8,041
2016	2,509	686	3,300	315	972	7,783	268	150	8,202
2017	2,584	704	3,398	325	992	8,003	268	150	8,422
2018	2,657	721	3,538	334	1,010	8,261	268	150	8,679

PacifiCorp

Integrated Resource Planning

RAMPP-6

Load Loss Assumptions

OR' 'UT' 'SYS', SB1149 Backup and Utah Big 4

Tab 6

Example of Retail Load Loss Assumption

by Transmission Bubble, Assuming Case OR.10

Case loads.or.10 Oregon SB1149 Load Loss 50% Load Loss in 2002

Year	Oregon - Washington			UTAH			Wyoming			Goshen			TOTAL		
	Win	Sum	aMW	Win	Sum	aMW	Win	Sum	aMW	Win	Sum	aMW	Win	Sum	aMW
2001	3,612	2,925	2,435	3,086	3,846	2,384	1,104	975	748	100	241	110	7,902	7,987	5,677
2002	2,272	1,845	1,513	3,083	3,820	2,384	1,121	945	759	102	232	113	6,577	6,842	4,769
2003	2,325	1,884	1,549	3,155	3,909	2,447	1,138	960	771	104	237	116	6,721	6,989	4,883
2004	2,369	1,920	1,574	3,244	4,018	2,517	1,152	1,020	778	105	240	118	6,869	7,198	4,987
2005	2,407	1,952	1,609	3,330	4,113	2,560	1,174	1,041	796	106	244	120	7,017	7,350	5,085
2006	2,440	1,980	1,644	3,413	4,201	2,607	1,196	1,063	815	108	248	122	7,156	7,491	5,188
2007	2,468	2,004	1,682	3,497	4,306	2,666	1,216	1,085	835	110	252	124	7,290	7,646	5,308
2008	2,499	2,032	1,721	3,584	4,344	2,727	1,237	1,110	856	111	256	126	7,431	7,742	5,430
2009	2,535	2,061	1,761	3,674	4,490	2,789	1,259	1,128	878	113	260	128	7,580	7,939	5,556
2010	2,571	2,089	1,752	3,751	4,556	2,916	1,284	1,147	882	114	261	133	7,719	8,052	5,683
2011	2,613	2,125	1,743	3,841	4,760	3,044	1,308	1,152	886	116	270	138	7,877	8,306	5,811
2012	2,662	2,167	1,771	3,940	4,893	3,122	1,337	1,156	903	118	273	142	8,056	8,489	5,937
2013	2,716	2,209	1,812	4,033	4,998	3,212	1,367	1,161	926	120	281	146	8,235	8,648	6,096
2014	2,778	2,255	1,854	4,134	5,122	3,301	1,389	1,179	941	122	286	150	8,422	8,842	6,246
2015	2,847	2,312	1,901	4,228	5,240	3,383	1,414	1,201	958	124	293	154	8,612	9,046	6,396
2016	2,917	2,341	1,942	4,325	5,374	3,458	1,440	1,246	972	126	296	157	8,808	9,255	6,530
2017	2,992	2,431	1,999	4,431	5,492	3,561	1,465	1,290	992	129	305	162	9,016	9,518	6,714
2018	3,065	2,497	2,053	4,592	5,690	3,705	1,491	1,335	1,010	131	311	167	9,278	9,833	6,936
2019	3,141	2,560	2,105	4,712	5,840	3,813	1,517	1,373	1,028	133	317	172	9,503	10,090	7,118
2020	3,218	2,623	2,159	4,836	5,993	3,923	1,544	1,412	1,046	135	324	176	9,733	10,352	7,304

Year by Year Change

Year	Oregon - Washington			UTAH			Wyoming			Goshen			TOTAL		
	Win	Sum	aMW	Win	Sum	aMW	Win	Sum	aMW	Win	Sum	aMW	Win	Sum	aMW
2001															
2002	(1,340)	(1,080)	(922)	(4)	(26)	(1)	17	(30)	11	2	(9)	3	(1,325)	(1,145)	(908)
2003	53	39	35	72	89	63	17	15	12	2	5	3	144	147	114
2004	44	36	25	89	110	70	14	60	7	1	4	2	148	209	104
2005	38	32	35	87	95	43	22	21	18	2	4	2	148	152	98
2006	33	27	35	83	88	47	22	22	19	2	4	2	139	140	103
2007	28	24	38	84	105	59	20	22	20	2	4	2	134	155	120
2008	31	29	39	88	38	60	21	25	21	2	4	2	141	96	122
2009	36	29	40	90	146	62	22	18	21	2	4	2	149	197	126
2010	36	28	(9)	77	66	128	25	19	4	1	1	5	139	113	128
2011	42	36	(9)	90	204	128	24	5	4	2	9	5	158	254	128
2012	49	42	28	99	133	78	29	5	17	2	3	3	179	183	126
2013	54	42	42	93	105	91	30	5	23	2	8	4	179	160	160
2014	63	46	42	101	125	89	22	18	15	2	6	4	188	194	150
2015	69	57	47	94	118	82	25	22	17	2	7	4	190	204	150
2016	70	29	41	98	134	75	26	45	14	3	3	3	196	209	134
2017	75	90	56	106	119	103	25	45	19	3	10	5	208	263	184
2018	73	67	55	161	198	145	26	45	19	2	6	5	262	316	222
2019	75	62	52	121	150	107	26	38	18	2	6	5	224	256	182
2020	77	64	53	124	154	111	27	39	18	2	7	5	230	263	187

Year by Year Percent Change

Year	Oregon - Washington			UTAH			Wyoming			Goshen			TOTAL		
	Win	Sum	aMW	Win	Sum	aMW	Win	Sum	aMW	Win	Sum	aMW	Win	Sum	aMW
2001															
2002	-37.1%	-36.9%	-37.9%	-0.1%	-0.7%	0.0%	1.5%	-3.1%	1.5%	1.5%	-3.7%	3.1%	-16.8%	-14.3%	-16.0%
2003	2.3%	2.1%	2.3%	2.3%	2.3%	2.7%	1.5%	1.6%	1.5%	2.0%	1.9%	2.9%	2.2%	2.1%	2.4%
2004	1.9%	1.9%	1.6%	2.8%	2.8%	2.9%	1.2%	6.3%	1.0%	1.0%	1.5%	1.8%	2.2%	3.0%	2.1%
2005	1.6%	1.7%	2.2%	2.7%	2.4%	1.7%	1.9%	2.1%	2.3%	1.4%	1.7%	1.5%	2.2%	2.1%	2.0%
2006	1.4%	1.4%	2.2%	2.5%	2.1%	1.8%	1.9%	2.1%	2.4%	1.4%	1.4%	1.6%	2.0%	1.9%	2.0%
2007	1.2%	1.2%	2.3%	2.5%	2.5%	2.3%	1.7%	2.1%	2.5%	1.9%	1.6%	1.7%	1.9%	2.1%	2.3%
2008	1.2%	1.4%	2.3%	2.5%	0.9%	2.3%	1.7%	2.3%	2.5%	1.4%	1.7%	1.7%	1.9%	1.3%	2.3%
2009	1.4%	1.4%	2.3%	2.5%	3.4%	2.3%	1.8%	1.6%	2.5%	1.4%	1.7%	1.7%	2.0%	2.5%	2.3%
2010	1.4%	1.4%	-0.5%	2.1%	1.5%	4.6%	2.0%	1.7%	0.5%	0.9%	0.2%	3.9%	1.8%	1.4%	2.3%
2011	1.6%	1.7%	-0.5%	2.4%	4.5%	4.4%	1.9%	0.4%	0.5%	1.8%	3.5%	3.7%	2.0%	3.1%	2.2%
2012	1.9%	2.0%	1.6%	2.6%	2.8%	2.5%	2.2%	0.4%	1.9%	1.7%	1.1%	2.3%	2.3%	2.2%	2.2%
2013	2.0%	1.9%	2.4%	2.4%	2.1%	2.9%	2.2%	0.4%	2.5%	1.7%	2.9%	3.0%	2.2%	1.9%	2.7%
2014	2.3%	2.1%	2.3%	2.5%	2.5%	2.8%	1.6%	1.6%	1.6%	1.7%	2.0%	2.8%	2.3%	2.2%	2.5%
2015	2.5%	2.5%	2.5%	2.3%	2.3%	2.5%	1.8%	1.9%	1.8%	1.6%	2.4%	2.6%	2.3%	2.3%	2.4%
2016	2.4%	1.2%	2.2%	2.3%	2.5%	2.2%	1.8%	3.7%	1.5%	2.0%	0.9%	2.2%	2.3%	2.3%	2.1%
2017	2.6%	3.8%	2.9%	2.4%	2.2%	3.0%	1.7%	3.6%	2.0%	2.0%	3.2%	3.3%	2.4%	2.8%	2.8%
2018	2.4%	2.8%	2.7%	3.6%	3.6%	4.1%	1.8%	3.5%	1.9%	1.6%	2.0%	2.8%	2.9%	3.3%	3.3%
2019	2.5%	2.5%	2.5%	2.6%	2.6%	2.9%	1.8%	2.8%	1.8%	1.8%	2.1%	2.7%	2.4%	2.6%	2.6%
2020	2.5%	2.5%	2.5%	2.6%	2.6%	2.9%	1.8%	2.8%	1.8%	1.8%	2.1%	2.7%	2.4%	2.6%	2.6%

Example of Retail Load Loss Assumption

by Transmission Bubble, Assuming Case UT.10

Case loads.ut.10 Utah Load Loss - Utah 'Big 4' 10% Load loss per year, Total Loss of 40%

Year	Oregon - Washington			UTAH			Wyoming			Goshen			TOTAL		
	Win	Sum	aMW	Win	Sum	aMW	Win	Sum	aMW	Win	Sum	aMW	Win	Sum	aMW
2001	3,612	2,925	2,435	2,787	3,486	2,157	1,104	975	748	100	241	110	7,603	7,627	5,450
2002	3,690	3,033	2,489	2,486	3,102	1,929	1,121	945	759	102	232	113	7,399	7,312	5,291
2003	3,776	3,097	2,548	2,239	2,807	1,748	1,138	960	771	104	237	116	7,257	7,100	5,182
2004	3,847	3,157	2,589	1,988	2,507	1,557	1,152	1,020	778	105	240	118	7,091	6,924	5,043
2005	3,909	3,210	2,647	2,040	2,565	1,584	1,174	1,041	796	106	244	120	7,229	7,060	5,147
2006	3,962	3,255	2,704	2,091	2,619	1,613	1,196	1,063	815	108	248	122	7,356	7,185	5,254
2007	4,008	3,294	2,767	2,142	2,684	1,649	1,216	1,085	835	110	252	124	7,475	7,314	5,376
2008	4,058	3,342	2,831	2,195	2,709	1,686	1,237	1,110	856	111	256	126	7,601	7,416	5,500
2009	4,116	3,389	2,897	2,249	2,798	1,724	1,259	1,128	878	113	260	128	7,737	7,575	5,627
2010	4,175	3,435	2,882	2,296	2,838	1,803	1,284	1,147	882	114	261	133	7,868	7,680	5,700
2011	4,243	3,494	2,867	2,351	2,964	1,882	1,308	1,152	886	116	270	138	8,017	7,879	5,773
2012	4,323	3,563	2,913	2,411	3,045	1,930	1,337	1,156	903	118	273	142	8,188	8,036	5,887
2013	4,410	3,632	2,981	2,467	3,111	1,986	1,367	1,161	926	120	281	146	8,364	8,184	6,039
2014	4,512	3,707	3,050	2,529	3,188	2,041	1,389	1,179	941	122	286	150	8,551	8,360	6,182
2015	4,624	3,801	3,127	2,586	3,261	2,091	1,414	1,201	958	124	293	154	8,747	8,556	6,331
2016	4,737	3,848	3,195	2,645	3,342	2,138	1,440	1,246	972	126	296	157	8,948	8,731	6,463
2017	4,859	3,996	3,288	2,710	3,417	2,201	1,465	1,290	992	129	305	162	9,162	9,009	6,644
2018	4,978	4,106	3,378	2,807	3,538	2,290	1,491	1,335	1,010	131	311	167	9,407	9,290	6,845
2019	5,100	4,208	3,463	2,881	3,631	2,356	1,517	1,373	1,028	133	317	172	9,631	9,529	7,019
2020	5,225	4,313	3,551	2,956	3,726	2,424	1,544	1,412	1,046	135	324	176	9,860	9,774	7,198

Year by Year Change

Year	Oregon - Washington			UTAH			Wyoming			Goshen			TOTAL		
	Win	Sum	aMW	Win	Sum	aMW	Win	Sum	aMW	Win	Sum	aMW	Win	Sum	aMW
2001															
2002	78	108	54	(301)	(383)	(227)	17	(30)	11	2	(9)	3	(205)	(314)	(159)
2003	86	64	58	(247)	(296)	(182)	17	15	12	2	5	3	(142)	(212)	(108)
2004	71	60	41	(251)	(300)	(190)	14	60	7	1	4	2	(165)	(177)	(140)
2005	62	53	58	53	59	26	22	21	18	2	4	2	138	137	104
2006	53	45	57	50	54	29	22	22	19	2	4	2	127	124	107
2007	46	39	63	51	65	36	20	22	20	2	4	2	119	130	121
2008	50	48	64	53	25	37	21	25	21	2	4	2	126	101	124
2009	58	48	66	54	89	38	22	18	21	2	4	2	136	159	127
2010	59	46	(15)	47	40	79	25	19	4	1	1	5	132	105	73
2011	68	59	(15)	55	126	79	24	5	4	2	9	5	149	199	73
2012	80	69	46	60	81	48	29	5	17	2	3	3	171	158	114
2013	87	69	69	57	66	56	30	5	23	2	8	4	176	148	152
2014	102	75	69	61	77	55	22	18	15	2	6	4	187	175	143
2015	112	94	77	57	74	51	25	22	17	2	7	4	196	197	149
2016	113	47	68	60	81	46	26	45	14	3	3	3	201	175	132
2017	122	148	93	64	75	64	25	45	19	3	10	5	214	277	181
2018	119	110	90	97	121	89	26	45	19	2	6	5	244	282	202
2019	122	102	85	73	92	66	26	38	18	2	6	5	224	239	174
2020	125	105	88	75	95	68	27	39	18	2	7	5	229	245	179

Year by Year Percent Change

Year	Oregon - Washington			UTAH			Wyoming			Goshen			TOTAL		
	Win	Sum	aMW	Win	Sum	aMW	Win	Sum	aMW	Win	Sum	aMW	Win	Sum	aMW
2001															
2002	2.2%	3.7%	2.2%	-10.8%	-11.0%	-10.5%	1.5%	-3.1%	1.5%	1.5%	-3.7%	3.1%	-2.7%	-4.1%	-2.9%
2003	2.3%	2.1%	2.3%	-9.9%	-9.5%	-9.4%	1.5%	1.6%	1.5%	2.0%	1.9%	2.9%	-1.9%	-2.9%	-2.0%
2004	1.9%	1.9%	1.6%	-11.2%	-10.7%	-10.9%	1.2%	6.3%	1.0%	1.0%	1.5%	1.8%	-2.3%	-2.5%	-2.7%
2005	1.6%	1.7%	2.2%	2.6%	2.3%	1.7%	1.9%	2.1%	2.3%	1.4%	1.7%	1.5%	1.9%	2.0%	2.1%
2006	1.4%	1.4%	2.2%	2.5%	2.1%	1.8%	1.9%	2.1%	2.4%	1.4%	1.4%	1.6%	1.8%	1.8%	2.1%
2007	1.2%	1.2%	2.3%	2.4%	2.5%	2.2%	1.7%	2.1%	2.5%	1.9%	1.6%	1.7%	1.6%	1.8%	2.3%
2008	1.2%	1.4%	2.3%	2.5%	0.9%	2.2%	1.7%	2.3%	2.5%	1.4%	1.7%	1.7%	1.7%	1.4%	2.3%
2009	1.4%	1.4%	2.3%	2.5%	3.3%	2.3%	1.8%	1.6%	2.5%	1.4%	1.7%	1.7%	1.8%	2.1%	2.3%
2010	1.4%	1.4%	-0.5%	2.1%	1.4%	4.6%	2.0%	1.7%	0.5%	0.9%	0.2%	3.9%	1.7%	1.4%	1.3%
2011	1.6%	1.7%	-0.5%	2.4%	4.4%	4.4%	1.9%	0.4%	0.5%	1.8%	3.5%	3.7%	1.9%	2.6%	1.3%
2012	1.9%	2.0%	1.6%	2.6%	2.7%	2.5%	2.2%	0.4%	1.9%	1.7%	1.1%	2.3%	2.1%	2.0%	2.0%
2013	2.0%	1.9%	2.4%	2.3%	2.2%	2.9%	2.2%	0.4%	2.5%	1.7%	2.9%	3.0%	2.1%	1.8%	2.6%
2014	2.3%	2.1%	2.3%	2.5%	2.5%	2.8%	1.6%	1.6%	1.6%	1.7%	2.0%	2.8%	2.2%	2.1%	2.4%
2015	2.5%	2.5%	2.5%	2.3%	2.3%	2.5%	1.8%	1.9%	1.8%	1.6%	2.4%	2.6%	2.3%	2.4%	2.4%
2016	2.4%	1.2%	2.2%	2.3%	2.5%	2.2%	1.8%	3.7%	1.5%	2.0%	0.9%	2.2%	2.3%	2.0%	2.1%
2017	2.6%	3.8%	2.9%	2.4%	2.2%	3.0%	1.7%	3.6%	2.0%	2.0%	3.2%	3.3%	2.4%	3.2%	2.8%
2018	2.4%	2.8%	2.7%	3.6%	3.5%	4.0%	1.8%	3.5%	1.9%	1.6%	2.0%	2.8%	2.7%	3.1%	3.0%
2019	2.5%	2.5%	2.5%	2.6%	2.6%	2.9%	1.8%	2.8%	1.8%	1.8%	2.1%	2.7%	2.4%	2.6%	2.5%
2020	2.5%	2.5%	2.5%	2.6%	2.6%	2.9%	1.8%	2.8%	1.8%	1.8%	2.1%	2.7%	2.4%	2.6%	2.5%

Example of Retail Load Loss Assumption

by Transmission Bubble, Assuming Case SYS.10

Case loads.sys.10 System Load Loss - Utah 'Big 4' 10%/Year, 40% Ttl Utah, 50% Oregon Loss in 2002

Year	Oregon - Washington			UTAH			Wyoming			Goshen			TOTAL		
	Win	Sum	aMW	Win	Sum	aMW	Win	Sum	aMW	Win	Sum	aMW	Win	Sum	aMW
2001	3,612	2,925	2,435	2,787	3,486	2,157	1,104	975	748	100	241	110	7,603	7,627	5,450
2002	2,272	1,845	1,513	2,486	3,102	1,929	1,121	945	759	102	232	113	5,981	6,124	4,315
2003	2,325	1,884	1,549	2,239	2,807	1,748	1,138	960	771	104	237	116	5,806	5,887	4,183
2004	2,369	1,920	1,574	1,988	2,507	1,557	1,152	1,020	778	105	240	118	5,613	5,687	4,028
2005	2,407	1,952	1,609	2,040	2,565	1,584	1,174	1,041	796	106	244	120	5,727	5,803	4,109
2006	2,440	1,980	1,644	2,091	2,619	1,613	1,196	1,063	815	108	248	122	5,834	5,910	4,194
2007	2,468	2,004	1,682	2,142	2,684	1,649	1,216	1,085	835	110	252	124	5,935	6,024	4,291
2008	2,499	2,032	1,721	2,195	2,709	1,686	1,237	1,110	856	111	256	126	6,042	6,107	4,390
2009	2,535	2,061	1,761	2,249	2,798	1,724	1,259	1,128	878	113	260	128	6,155	6,247	4,491
2010	2,571	2,089	1,752	2,296	2,838	1,803	1,284	1,147	882	114	261	133	6,264	6,334	4,570
2011	2,613	2,125	1,743	2,351	2,964	1,882	1,308	1,152	886	116	270	138	6,387	6,510	4,649
2012	2,662	2,167	1,771	2,411	3,045	1,930	1,337	1,156	903	118	273	142	6,527	6,641	4,745
2013	2,716	2,209	1,812	2,467	3,111	1,986	1,367	1,161	926	120	281	146	6,669	6,761	4,870
2014	2,778	2,255	1,854	2,529	3,188	2,041	1,389	1,179	941	122	286	150	6,818	6,907	4,986
2015	2,847	2,312	1,901	2,586	3,261	2,091	1,414	1,201	958	124	293	154	6,971	7,067	5,104
2016	2,917	2,341	1,942	2,645	3,342	2,138	1,440	1,246	972	126	296	157	7,128	7,224	5,210
2017	2,992	2,431	1,999	2,710	3,417	2,201	1,465	1,290	992	129	305	162	7,295	7,443	5,354
2018	3,065	2,497	2,053	2,807	3,538	2,290	1,491	1,335	1,010	131	311	167	7,494	7,682	5,521
2019	3,141	2,560	2,105	2,881	3,631	2,356	1,517	1,373	1,028	133	317	172	7,671	7,881	5,661
2020	3,218	2,623	2,159	2,956	3,726	2,424	1,544	1,412	1,046	135	324	176	7,852	8,085	5,805

Year by Year Change

Year	Oregon - Washington			UTAH			Wyoming			Goshen			TOTAL		
	Win	Sum	aMW	Win	Sum	aMW	Win	Sum	aMW	Win	Sum	aMW	Win	Sum	aMW
2001															
2002	(1,340)	(1,080)	(922)	(301)	(383)	(227)	17	(30)	11	2	(9)	3	(1,622)	(1,502)	(1,135)
2003	53	39	35	(247)	(296)	(182)	17	15	12	2	5	3	(175)	(237)	(131)
2004	44	36	25	(251)	(300)	(190)	14	60	7	1	4	2	(193)	(200)	(156)
2005	38	32	35	53	59	26	22	21	18	2	4	2	114	116	81
2006	33	27	35	50	54	29	22	22	19	2	4	2	106	107	85
2007	28	24	38	51	65	36	20	22	20	2	4	2	102	114	97
2008	31	29	39	53	25	37	21	25	21	2	4	2	106	83	99
2009	36	29	40	54	89	38	22	18	21	2	4	2	114	141	102
2010	36	28	(9)	47	40	79	25	19	4	1	1	5	109	87	79
2011	42	36	(9)	55	126	79	24	5	4	2	9	5	123	176	79
2012	49	42	28	60	81	48	29	5	17	2	3	3	140	131	96
2013	54	42	42	57	66	56	30	5	23	2	8	4	142	121	125
2014	63	46	42	61	77	55	22	18	15	2	6	4	148	146	116
2015	69	57	47	57	74	51	25	22	17	2	7	4	153	160	119
2016	70	29	41	60	81	46	26	45	14	3	3	3	158	157	105
2017	75	90	56	64	75	64	25	45	19	3	10	5	167	219	145
2018	73	67	55	97	121	89	26	45	19	2	6	5	199	239	166
2019	75	62	52	73	92	66	26	38	18	2	6	5	177	199	141
2020	77	64	53	75	95	68	27	39	18	2	7	5	181	204	144

Year by Year Percent Change

Year	Oregon - Washington			UTAH			Wyoming			Goshen			TOTAL		
	Win	Sum	aMW	Win	Sum	aMW	Win	Sum	aMW	Win	Sum	aMW	Win	Sum	aMW
2001															
2002	-37.1%	-36.9%	-37.9%	-10.8%	-11.0%	-10.5%	1.5%	-3.1%	1.5%	1.5%	-3.7%	3.1%	-21.3%	-19.7%	-20.8%
2003	2.3%	2.1%	2.3%	-9.9%	-9.5%	-9.4%	1.5%	1.6%	1.5%	2.0%	1.9%	2.9%	-2.9%	-3.9%	-3.0%
2004	1.9%	1.9%	1.6%	-11.2%	-10.7%	-10.9%	1.2%	6.3%	1.0%	1.0%	1.5%	1.8%	-3.3%	-3.4%	-3.7%
2005	1.6%	1.7%	2.2%	2.6%	2.3%	1.7%	1.9%	2.1%	2.3%	1.4%	1.7%	1.5%	2.0%	2.0%	2.0%
2006	1.4%	1.4%	2.2%	2.5%	2.1%	1.8%	1.9%	2.1%	2.4%	1.4%	1.4%	1.6%	1.9%	1.8%	2.1%
2007	1.2%	1.2%	2.3%	2.4%	2.5%	2.2%	1.7%	2.1%	2.5%	1.9%	1.6%	1.7%	1.7%	1.9%	2.3%
2008	1.2%	1.4%	2.3%	2.5%	0.9%	2.2%	1.7%	2.3%	2.5%	1.4%	1.7%	1.7%	1.8%	1.4%	2.3%
2009	1.4%	1.4%	2.3%	2.5%	3.3%	2.3%	1.8%	1.6%	2.5%	1.4%	1.7%	1.7%	1.9%	2.3%	2.3%
2010	1.4%	1.4%	-0.5%	2.1%	1.4%	4.6%	2.0%	1.7%	0.5%	0.9%	0.2%	3.9%	1.8%	1.4%	1.8%
2011	1.6%	1.7%	-0.5%	2.4%	4.4%	4.4%	1.9%	0.4%	0.5%	1.8%	3.5%	3.7%	2.0%	2.8%	1.7%
2012	1.9%	2.0%	1.6%	2.6%	2.7%	2.5%	2.2%	0.4%	1.9%	1.7%	1.1%	2.3%	2.2%	2.0%	2.1%
2013	2.0%	1.9%	2.4%	2.3%	2.2%	2.9%	2.2%	0.4%	2.5%	1.7%	2.9%	3.0%	2.2%	1.8%	2.6%
2014	2.3%	2.1%	2.3%	2.5%	2.5%	2.8%	1.6%	1.6%	1.6%	1.7%	2.0%	2.8%	2.2%	2.2%	2.4%
2015	2.5%	2.5%	2.5%	2.3%	2.3%	2.5%	1.8%	1.9%	1.8%	1.6%	2.4%	2.6%	2.2%	2.3%	2.4%
2016	2.4%	1.2%	2.2%	2.3%	2.5%	2.2%	1.8%	3.7%	1.5%	2.0%	0.9%	2.2%	2.3%	2.2%	2.1%
2017	2.6%	3.8%	2.9%	2.4%	2.2%	3.0%	1.7%	3.6%	2.0%	2.0%	3.2%	3.3%	2.3%	3.0%	2.8%
2018	2.4%	2.8%	2.7%	3.6%	3.5%	4.0%	1.8%	3.5%	1.9%	1.6%	2.0%	2.8%	2.7%	3.2%	3.1%
2019	2.5%	2.5%	2.5%	2.6%	2.6%	2.9%	1.8%	2.8%	1.8%	1.8%	2.1%	2.7%	2.4%	2.6%	2.5%
2020	2.5%	2.5%	2.5%	2.6%	2.6%	2.9%	1.8%	2.8%	1.8%	1.8%	2.1%	2.7%	2.4%	2.6%	2.5%

Estimated Load Loss as a result of SB 1149

CUMULATIVE

1998	OR MWH	% of OR MWH	Coincident Peak MW	% of Peak MW	
Tot OR Customers	14,608,629	100%	2,354	100.00%	
Tot OR Comm'l &Ind'l MWH	8,772,409	60%	1,291	55%	
Tot OR C&I G.T. 15 kW MWH	7,991,072	55%	1,152	49%	<-- **Maximum 50%**
Tot OR C&I GT.. 30 kW MWH (Est)	7,721,312	53%	1,107	47%	
Tot OR C&I GT.. 100 kW MWH	6,372,512	44%	880	37%	<-- **Minimum 32%**
Tot OR C&I GT.. 1,000 kW MWH	3,976,048	27%	522	22%	
Primary + Transmission Level	2,970,737	20%	370	16%	
Transmission Level	890,030	6%	109	5%	

INDIVIDUAL

	MWH	% of MWH	Coincident Peak MW	Coincident Peak %
Tot OR Custs	14,608,629	100%	2,354	100.00%
Resid	5,836,220	40%	1,063	45.15%
0-15 kW	781,337	5%	139	5.92%
16-30 kW (Est)	269,760	2%	45	1.92%
30-100 kW (Est)	1,348,800	9%	226	9.61%
101-1000 kW	2,396,464	16%	358	15.22%
Secondary	1,005,311	7%	151	6.44%
Primary	2,080,707	14%	261	11.09%
Trans	890,030	6%	109	4.64%

		General Service Sch 25 & 25			Large Power Sch 45T / 48T		
1998 Oregon MWH Total	Resid	0-15 kW	16-100 kW	101-1000	Secondary	Primary	Transmission
14,608,629	5,836,220	781,337	1,618,561	2,396,464	1,005,311	2,080,707	890,030
1998 Or Coincident MW							
2,354.2	1,062.9	139.4	271.6	358.4	151.5	261.2	109.3
1998 Oregon Average Customers Total							
480,068	401,082	61,145	14,987	2,634	138	79	3

Estimated Customer Split

70 30 kW to 100 kW
84 16 kW to 100 kW
83% 30 to 100 kW as % of 16 to 100 kW

RAMPP-6

Allocation of Large Industrial Customer Energy

Customer	Annual Energy MWH	Energy aMW 1999	Adj	10/1/01	1/1/02	3/1/02	Percent of Interruptible Energy Start	10/1/01	1/1/02	3/1/02	Expiration Date
Customer 1	449,160	51.3	46.7	46.7	46.7		11.16%	11.16%	11.16%		3/1/02
Customer 2	528,360	60.3	55.0	55.0	55.0		13.13%	13.13%	13.13%		3/1/02
Customer 3	752,719	85.9	78.3	78.3			18.70%	18.70%			1/1/02
Customer 4	810,578	92.5	84.3				20.14%				10/1/01
Customer 5	1,398,800	159.7	145.5	145.5	145.5	145.5	34.75%	34.75%	34.75%	34.75%	Renewed
Customer 6	85,800	9.8	8.9	8.9	8.9	8.9	2.13%	2.13%	2.13%	2.13%	None
	4,025,417	459.5	418.8	334.5	256.2	154.5	100.00%	79.86%	61.16%	36.88%	

Based on 1999 Actual

Energy ratioed to match 418.8 aMW in R-6

Allocation of Large Industrial Customer Coincident Load

Customer	Annual Billing Peak MW	Summer Coincident Load					Summer Percent of Interruptible Load				Expiration Date
		1999	Adj	10/1/01	1/1/02	3/1/02	Start	10/1/01	1/1/02	3/1/02	
Customer 1	117.1	61.5	56.2	56.2	56.2		15.29%	15.29%	15.29%		3/1/02
Customer 2	96.4	71.9	65.7	65.7	65.7		17.88%	17.88%	17.88%		3/1/02
Customer 3	102.9	83.8	76.6	76.6			20.86%	20.86%			1/1/02
Customer 4	256.3	8.3	7.6				2.06%				10/1/01
Customer 5	187.5	167.2	152.8	152.8	152.8	152.8	41.59%	41.59%	41.59%	41.59%	Renewed
Customer 6	10.9	9.3	8.5	8.5	8.5	8.5	2.32%	2.32%	2.32%	2.32%	None
	771.0	402.0	367.3	359.7	283.1	161.3	100.00%	97.94%	77.08%	43.91%	

Customer	Annual Billing Peak MW	Winter Coincident Load					Winter Percent of Interruptible Load				Expiration Date
		1999	Adj	10/1/01	1/1/02	3/1/02	Start	10/1/01	1/1/02	3/1/02	
Customer 1	117.1	50.4	55.5	55.5	55.5		10.36%	10.36%	10.36%		3/1/02
Customer 2	96.4	61.5	67.8	67.8	67.8		12.66%	12.66%	12.66%		3/1/02
Customer 3	102.9	80.5	88.8	88.8			16.57%	16.57%			1/1/02
Customer 4	256.3	151.6	167.1				31.18%				10/1/01
Customer 5	187.5	132.2	145.8	145.8	145.8	145.8	27.21%	27.21%	27.21%	27.21%	Renewed
Customer 6	10.9	9.8	10.8	10.8	10.8	10.8	2.02%	2.02%	2.02%	2.02%	None
	771.0	486.0	535.8	368.7	279.9	156.6	100.00%	68.82%	52.25%	29.22%	

Based on 1999 Actual

Summer is July 1999 - Adjusted to 367.3 MW listed in R-6

Winter is February 1999 - Adjusted to 535.8 Mw listed in R-6

PacifiCorp

Integrated Resource Planning

RAMPP-6

Utah Loads Assuming

50% Faster Growth

Tab 7

RAMPP-6 Forecast

by Transmission Bubble

Assuming Utah Grows 50% faster than Forecast

Year	Oregon - Washington			UTAH			Wyoming			Goshen			TOTAL		
	Win	Sum	aMW	Win	Sum	aMW	Win	Sum	aMW	Win	Sum	aMW	Win	Sum	aMW
2001	3,612	2,925	2,435	3,086	3,846	2,384	1,104	975	748	100	241	110	7,902	7,987	5,677
2002	3,690	3,033	2,489	3,187	3,956	2,465	1,121	945	759	102	232	113	8,100	8,166	5,827
2003	3,776	3,097	2,548	3,292	4,068	2,549	1,138	960	771	104	237	116	8,310	8,362	5,984
2004	3,847	3,157	2,589	3,400	4,184	2,636	1,152	1,020	778	105	240	118	8,504	8,601	6,121
2005	3,909	3,210	2,647	3,512	4,303	2,725	1,174	1,041	796	106	244	120	8,701	8,798	6,288
2006	3,962	3,255	2,704	3,627	4,426	2,818	1,196	1,063	815	108	248	122	8,893	8,991	6,459
2007	4,008	3,294	2,767	3,747	4,552	2,913	1,216	1,085	835	110	252	124	9,080	9,182	6,640
2008	4,058	3,342	2,831	3,870	4,682	3,012	1,237	1,110	856	111	256	126	9,276	9,389	6,826
2009	4,116	3,389	2,897	3,997	4,815	3,114	1,259	1,128	878	113	260	128	9,484	9,592	7,017
2010	4,175	3,435	2,882	4,128	4,952	3,220	1,284	1,147	882	114	261	133	9,701	9,795	7,117
2011	4,243	3,494	2,867	4,288	5,159	3,365	1,308	1,152	886	116	270	138	9,954	10,074	7,257
2012	4,323	3,563	2,913	4,453	5,374	3,517	1,337	1,156	903	118	273	142	10,231	10,366	7,475
2013	4,410	3,632	2,981	4,625	5,598	3,676	1,367	1,161	926	120	281	146	10,522	10,672	7,729
2014	4,512	3,707	3,050	4,804	5,832	3,842	1,389	1,179	941	122	286	150	10,826	11,004	7,983
2015	4,624	3,801	3,127	4,990	6,075	4,016	1,414	1,201	958	124	293	154	11,151	11,370	8,255
2016	4,737	3,848	3,195	5,182	6,328	4,197	1,440	1,246	972	126	296	157	11,485	11,717	8,522
2017	4,859	3,996	3,288	5,382	6,592	4,386	1,465	1,290	992	129	305	162	11,835	12,184	8,829
2018	4,978	4,106	3,378	5,590	6,867	4,585	1,491	1,335	1,010	131	311	167	12,190	12,619	9,140
2019	5,100	4,208	3,463	5,806	7,154	4,792	1,517	1,373	1,028	133	317	172	12,556	13,052	9,454
2020	5,225	4,313	3,551	6,031	7,452	5,008	1,544	1,412	1,046	135	324	176	12,935	13,501	9,781

	UTAH		
	Win	Sum	aMW
2001	3,086	3,846	2,384
2010	3,751	4,556	2,916
Total Change	21.53%	18.45%	22.31%
Annual Growth Rate	2.19%	1.90%	2.26%
50% Growth Rate	3.29%	2.85%	3.39%
Adjusted 2010	4,128	4,952	3,220

	UTAH		
	Win	Sum	aMW
2010	3,751	4,556	2,916
2020	4,836	5,993	3,923
Total Change	28.95%	31.56%	34.52%
Annual Growth Rate	2.58%	2.78%	3.01%
25% Growth Rate	3.86%	4.17%	4.52%
Adjusted 2020 Load	5,275	6,581	4,340

not same as

Case Utah.grow Utah grows 50% faster to 2010

Load Forcase as Revised

with Non Firm

Year	As Revised UTAH Win	As Revised UTAH Sum	As Revised UTAH aMW	As Originally Filed UTAH Win	As Originally Filed UTAH Sum	As Originally Filed UTAH aMW	Difference UTAH Win	Difference UTAH Sum	Difference UTAH aMW
2001	3,086	3,846	2,384	3,086	3,846	2,384	-	-	-
2002	3,187	3,956	2,465	3,083	3,820	2,384	105	136	82
2003	3,292	4,068	2,549	3,155	3,909	2,447	138	160	102
2004	3,400	4,184	2,636	3,244	4,018	2,517	157	166	119
2005	3,512	4,303	2,725	3,330	4,113	2,560	182	190	165
2006	3,627	4,426	2,818	3,413	4,201	2,607	215	225	210
2007	3,747	4,552	2,913	3,497	4,306	2,666	250	246	247
2008	3,870	4,682	3,012	3,584	4,344	2,727	286	338	286
2009	3,997	4,815	3,114	3,674	4,490	2,789	323	325	326
2010	4,128	4,952	3,220	3,751	4,556	2,916	378	397	304
2011	4,288	5,159	3,365	3,841	4,760	3,044	447	399	321
2012	4,453	5,374	3,517	3,940	4,893	3,122	514	481	396
2013	4,625	5,598	3,676	4,033	4,998	3,212	593	601	464
2014	4,804	5,832	3,842	4,134	5,122	3,301	670	710	541
2015	4,990	6,075	4,016	4,228	5,240	3,383	762	835	633
2016	5,182	6,328	4,197	4,325	5,374	3,458	857	955	739
2017	5,382	6,592	4,386	4,431	5,492	3,561	952	1,100	826
2018	5,590	6,867	4,585	4,592	5,690	3,705	999	1,177	879
2019	5,806	7,154	4,792	4,712	5,840	3,813	1,094	1,314	979
2020	6,031	7,452	5,008	4,836	5,993	3,923	1,194	1,459	1,085

PacifiCorp

Integrated Resource Planning

RAMPP-6

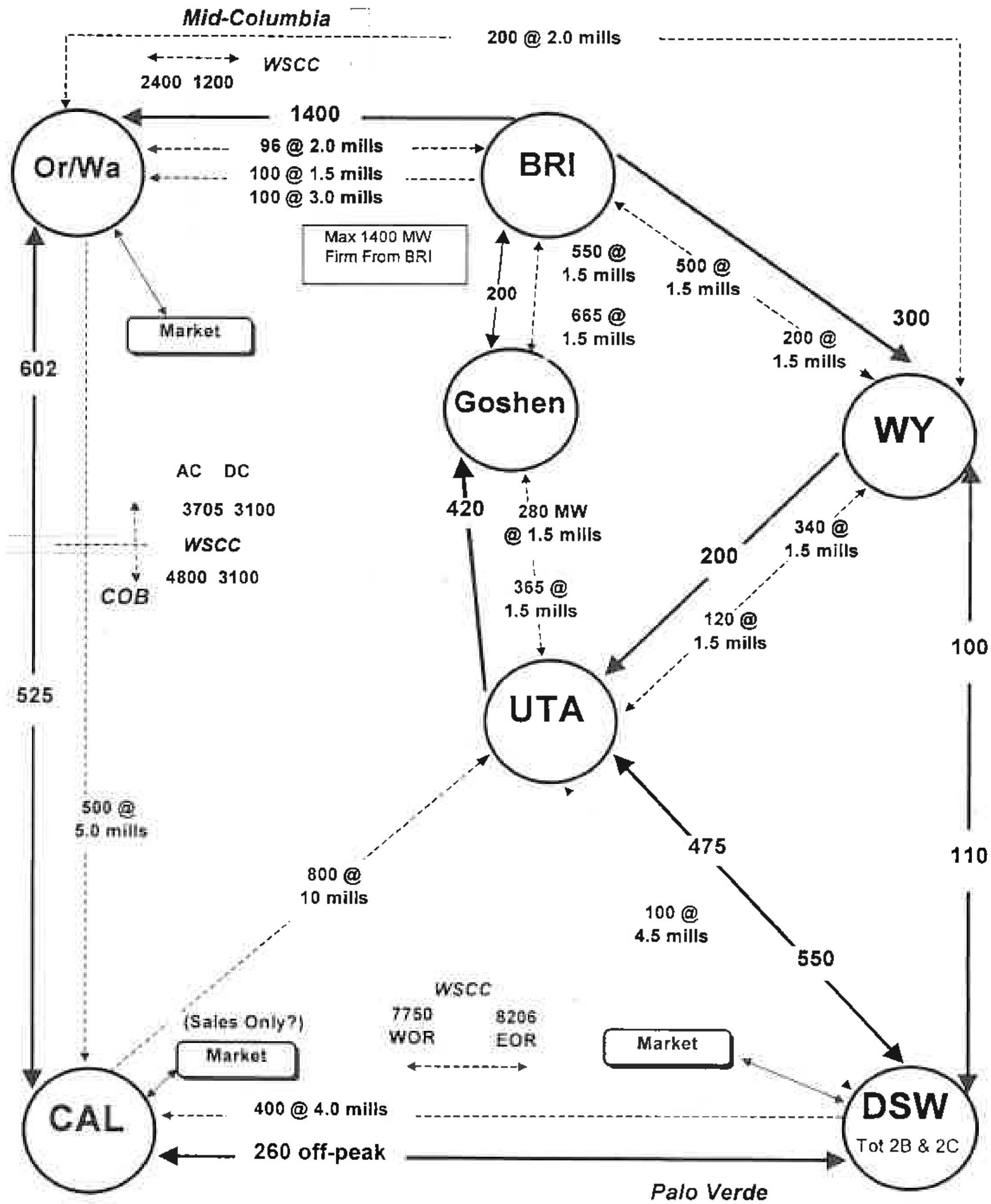
Transmission

Capabilities and Costs

Tab 8

Map 4-1

Geographic Regions and Transfer Capabilities



	Project	Project Size (KW)	Miles New Line	Regional Service (Costs to serve loads) (within the region) ($)	($/KW)	Inter-Regional Service (Incremental costs to serve) (loads in other Regions) ($)	($/KW)
	Specific Sites					**Small Incremental Increase**	
O	Co-Gen #1				**$0**	$7,500,000	**$ 164**
R	**Generic Estimates**					for 50 MW	
	Co-Gen #2	200,000	10	$12,000,000	**$ 66**	**Larger Incremental Increase**	
W	Simple Cycle	200,000	15	$16,000,000	**$ 87**	$30,000,000	**$ 328**
A	Combined Cycle	200,000	15	$16,000,000	**$ 87**	for 100 MW	
	Geothermal	200,000	25	$23,000,000	**$ 126**		
	Pumped Storage	200,000	25	$23,000,000	**$ 126**		
	Specific Sites						
U	Co-Gen #1				**$ -**	**Small Incremental Increase**	
T	Hunter #4 Pulv Coal	440,000	0	$0	**$ -**	$7,500,000	**$ 164**
A	Hunter #5, 6, 7, 8...	440,000	35	$59,400,000	**$ 148**	for 50 MW	
H	Hunter #4, IGCC	240,000	0	$0	**$ -**	**Larger Incremental Increase**	
	Other Utah IGCC	240,000	35	$32,400,000	**$ 148**	$30,000,000	**$ 328**
						for 100 MW	
	Generic Estimates					**Large New 500KV AC**	
	Utah Photovoltaic Solar				**$ -**	$1,005,650,000	**$ 1,099**
	Co-Gen #2	200,000	15	$16,000,000	**$ 87**	for 1000 MW	
	Simple Cycle	200,000	20	$20,000,000	**$ 109**		
	Combined Cycle	200,000	20	$20,000,000	**$ 109**	**Large New 500KV DC**	
	Geothermal	200,000	25	$23,000,000	**$ 126**	$1,325,650,000	**$ 724**
	Pumped Storage	200,000	25	$23,000,000	**$ 126**	for 2000 MW	
	Wind Complex	200,000	40	$35,000,000	**$ 191**		
	Specific Sites * RAMPP 5 Estimates						
W	Wyodak #2, Pulv Coal	260,000	300	$141,440,000	**$ 594**	$78,520,000	**$ 330**
Y	Wyodak #2, IGCC	260,000	300	$141,440,000	**$ 594**	for 200 miles	
O	Other Wyo Pulv Coal	260,000	300	$141,440,000	**$ 594**	for 260mw	
M	Other Wyo IGCC	260,000	300	$141,440,000	**$ 594**	Wyo to Utah	
I	**Generic Estimates**						
N	Simple Cycle CT	200,000	25	$23,000,000	**$ 126**		
G	Combined Cycle CT	200,000	25	$23,000,000	**$ 126**		
	Wind Complex	200,000	40	$35,000,000	**$ 191**		

Notes

1) All costs adjusted to 2001 dollars using 3% escalation
2) Genaric costs from EES/Estimating Block Study - Catalog
3) Unit costs assuming 200MW size (per RAMPP 5)

Unit Price Table (with overheads) for Smaller Size Generic Projects

Notes	Distance in Miles	Switch Yard (4)	Transm Line	Transm Sub (5)	Total	Actual $/kw	Use $/kw
1)	1	$1,611	$754	$1,007	$3,372	$17	**$20**
2)	5	$2,618	$3,770	$1,007	$7,395	$37	**$40**
3)	10	$2,618	$7,540	$1,007	$11,165	$56	**$60**
	15	$2,618	$11,310	$1,007	$14,935	$75	**$80**
	20	$2,618	$15,080	$1,007	$18,705	$94	**$100**
	25	$2,618	$18,850	$1,007	$22,475	$112	**$115**
	30	$2,618	$22,620	$1,007	$26,245	$131	**$135**
	40	$2,618	$30,160	$1,007	$33,785	$169	**$175**
	50	$2,618	$37,700	$1,007	$41,325	$207	**$210**

1) All From PacifiCorp Block Study - Catalog Index Pages 140000
2) Unit prices are based on a 200MW resource size
3) Unit prices do not include unit step-up transformers
4) Assume two Low Side Breakers, and Land in all cases. If line is over one mile, assume high side breaker
5) Assume One 230 kV breaker and reconfigure existing substation to a ring bus.

Co-Gen

Co-Gen #1 50,000 **$0**

Presumption is that these are of smaller size where we are currently providing service and new arrangements would be such that an equal amount of power might flow into our system therefore new transmission is not necessary.

Co-Gen #2 Use 10 mile in OWC **$60**
and 15 mile generic estimates **$80**

Specific Projects

	Project Size (KW)	Project Direct Costs ($)	Project Direct Costs ($/kw)		RAMPP-6 Input Data
Major East to West Transmission					
Camp Williams to McNary - AC (Assume 550 Miles, inc $80 M for sub.stations)	1,000,000	$1,005,650,000	$1,005.7		**$1,006**
Camp Williams to McNary - DC (inc $400 M for converter stations)	2,000,000	$1,325,650,000	$662.8		**$663**
then increase transfer capabilities					
With AC Project	UTA to OWC	0 to 1000	OWC to Utah	0 to 1000	
With DC Project	UTA to OWC	0 to 2000	OWC to Utah	0 to 2000	
Small Incremental (50MW) transfer capability increase					**$150**
Larger Incremental (100MW) transfer capability increase					**$300**

Utah Region

Pulverized Coal

Hunter #4		440,000	$15,741,366	$35.8	$53.7	**$54**
					$23,612,049	
Hunter #5,6,7,8...		880,000	$85,797,537	$97.5	$146.2	**$150**
					$128,696,305	

Notes
1) Average unit #5 and #6 costs, presume pattern is repetitive
2) These estimates serve Utah region only and not on to OWC other than what can be served over existing transmission

Integrated Gassification (IGCC)

Hunter #4	240,000	Presume same costs as pulverized coal	**$54**
Other IGCC	240,000	but less output	**$150**

Gadsby Repowering		*370,000*	*Why not 1 Mile connection price?*		***$20***
Path C Upgrade	*South*	*300,000*	*30,000,000*	*100.0*	**$100**
Ut-Goshen-Id	*North*	*100,000*			

Wyoming Region

Pulverized Coal

Wyodak #2

Wyodak to Wyo	260000	41,027,125	157.8	236.7	**$237**
Wyo to SW Wyo	260000	53,218,988	204.7	307.0	**$307**
SW Wyo to Utah	260000	52,306,401	201.2	301.8	**$302**
	260000	146,552,514	563.7	845.5	**$846**

Notes
1) SW Wyo to Utah is 260/400 * $80,471,000 = $52,306,401
2) Must make two runs
   a) @ 544 $/kw for base runs
   b) @ an additional 302 $/kw or 846 $/kw to get out of Wyoming

then increase capabilities	WYO to UTA	330 to 590
by 260 mw	UTA to WYO	330 to 590

Other Wyoming coal — Use same estimates

Integrated Gassification (IGCC) — Use same estimates except less output

PacifiCorp

Integrated Resource Planning

RAMPP-6

Selection of Weights for
Weighted Average Reference Case

45% Gas, 45% Load Loss, 10% Enviro, 0% Misc

Tab 9

Weighted Reference Case - Selection of Weights

Background - Gas Fired Resources
As we determined in R-5, natural gas and wholesale prices must be selected carefully to produce reasonable and sustainable results. When we selected the very wide fuel and wholesale ranges, we knew that many of the scenarios would not be sustainable in the long run and would need to be removed.

Unsustainable results will occur when:
(1) Gas prices are high and wholesale prices low.
The model will select short-term market purchases and will not build resources. Assuming other utilities face a similar environment, utilities will attempt to purchase resources and will not be willing to build resources. Competition for wholesale energy will push wholesale prices higher. Therefore, the high gas/ low wholesale price assumption is not sustainable in the long run.
(2) Gas prices are low and wholesale prices high.
The model will build gas-fired resources and sell the excess energy on the wholesale market. Assuming other utilities also face this environment, then they will also want to sell and no one will want to buy forcing the high prices down. Likewise, additional demand on gas supplies will force gas prices up. Therefore, the low gas/ high wholesale price assumption is not sustainable in the long run.

Analysis - Gas Fired Resources
The R6 - Wtd Decision Support (9.15.2000).xls spreadsheet shows the decision process for removing non-sustainable gas/price combinations.

In the spreadsheet titled "Wholesale", we sorted the gas scenarios by average net wholesale sales. Low average net sales are characteristic of the high gas/ low wholesale price assumption and high average net sales are characteristic of the low gas/ high wholesale price assumption. We looked for natural break points in the scenarios and removed those cases with unreasonably high or unreasonable low new wholesale sales.

As a check for the reasonableness of the scenario removal, we developed a second spreadsheet titled "Margin" where we took reserve margin and subtracted 10% to produce a measure of resources built to make wholesale sales. A second column was added with a rough estimate of the gas/price mismatch. The second sheet verified that scenarios with high excess reserve margin or with a gas/price mismatch should be removed.

Load Loss Studies
The state of Oregon has passed Senate Bill 1149 which mandates deregulation of portions of Oregon's load. In Utah there has been growing pressure to deregulate large customers. Given these realities, we propose to increase the likelihood that both an Oregon and Utah load loss event will occur and lower the likelihood that a Utah only load loss event will occur.

Weighted Reference Case - Selection of Weights

Sensitivities Analysis Cases
We prepared eleven sensitivities to study the impact of various events or to search for break points. For example, we studied the rate of price decline necessary to make solar a price competitive resource (Case 127). Since these sensitivities are not intended to model likely events, we have excluded them from the weighted case.

Reserve Margins
In reviewing the Weighted Average Case you will notice that the case shows reserve margins above the 10% reserve margin which we consider resource balance. This indicates that the weighted average case is conservative, i.e. in many of the cases used in the weightings the Company's resource needs are further into the future than indicated in the Weighted Average Case. The Company believes that this is useful as a means to evaluate the risk of the potential futures.

Reserve Margin less 10%
Sorted by Total Reserve Margin

Description	#	Year 2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020	Total Reserve Margin	Gas / Price Mismatch
Fuel.280H.22	22	-	-	-	-	-	-	-	-	-	-	-	-	-	(8.8)
Fuel.280L.22	16	-	-	-	-	-	-	-	-	-	-	-	-	-	(7.1)
Fuel.250H.22	21	-	-	-	-	-	-	-	-	-	-	-	-	-	(6.8)
Fuel.250L.22	15	-	-	-	-	-	-	-	-	-	-	-	-	-	(5.3)
Fuel.280H.26	34	-	-	-	-	-	-	-	-	-	-	-	-	-	(4.8)
Fuel.220H.22	20	-	-	-	-	-	-	-	-	-	-	-	-	-	(4.8)
Fuel.220L.22	14	-	-	-	-	-	-	-	-	-	-	-	-	-	(3.4)
Fuel.280L.26	28	-	-	-	-	-	-	-	-	-	-	-	-	-	(3.1)
Fuel.250H.26	33	-	-	-	-	-	-	-	-	-	-	-	-	-	(2.8)
Fuel.190H.22	19	-	-	-	-	-	-	-	-	-	-	-	-	-	(2.7)
Fuel.190L.22	13	-	-	-	-	-	-	-	-	-	-	-	-	-	(1.6)
Fuel.250L.26	27	-	-	-	-	-	-	-	-	-	-	-	-	-	(1.3)
Fuel.280H.30	46	-	-	-	-	-	-	-	-	-	-	-	-	-	(0.8)
Fuel.220H.26	32	-	-	-	-	-	-	-	-	-	-	-	-	-	(0.8)
Fuel.160H.22	18	-	-	-	-	-	-	-	-	-	-	-	-	-	(0.7)
Fuel.160L.22	12	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2
Fuel.220L.26	26	-	-	-	-	-	-	-	-	-	-	-	-	-	0.6
Fuel.280L.30	40	-	-	-	-	-	-	-	-	-	-	-	-	-	0.9
Fuel.190L.26	25	-	-	-	0.1	1.9	-	0.7	-	-	-	-	-	2.7	2.4
Fuel.250L.30	39	-	-	-	-	1.9	-	0.8	-	-	-	-	-	2.7	2.8
Fuel.250H.30	45	-	-	-	-	1.8	-	0.9	0.2	-	-	-	-	2.9	1.2
Fuel.190H.26	**31**	-	-	-	**0.1**	**2.0**	-	**0.9**	-	-	-	-	-	**3.0**	**1.3**
Fuel.130L.22	11	-	-	-	0.3	2.4	-	0.8	-	-	-	-	-	3.5	2.1
Fuel.130H.22	17	-	-	-	0.7	2.5	-	1.6	0.5	-	-	-	-	5.3	1.3
Fuel.280H.34	58	-	-	-	1.7	2.8	1.2	2.3	1.5	0.8	-	-	-	10.3	3.2
Fuel.280L.34	52	-	-	-	2.6	3.0	1.0	2.0	1.3	0.5	-	-	-	10.4	4.9
Fuel.220L.30	38	-	-	-	2.9	3.2	1.3	2.2	1.3	0.5	-	-	-	11.4	4.6
Fuel.220H.30	44	-	-	-	2.8	3.4	1.3	2.3	1.5	0.8	-	-	-	12.1	3.2
Fuel.160L.26	24	-	-	-	3.4	3.3	1.7	2.5	1.6	1.0	-	-	-	13.5	4.2
Fuel.160H.26	30	-	-	-	3.5	3.6	2.0	2.7	1.9	1.0	-	-	-	14.7	3.3
Fuel.250H.34	57	-	-	-	3.6	4.3	2.1	3.4	3.0	2.2	-	-	-	18.6	5.2
Fuel.250L.34	51	-	-	-	3.9	4.2	2.1	3.4	3.0	2.0	-	-	-	18.6	6.8
Fuel.190L.30	37	-	-	-	4.2	4.6	2.5	3.5	2.8	2.1	-	-	-	19.7	6.4
Fuel.190H.30	43	-	-	-	4.5	4.6	2.6	3.7	3.4	2.4	-	-	-	21.2	5.3
Fuel.130L.26	23	-	-	-	5.0	5.3	3.1	4.1	3.4	2.8	-	-	-	23.7	6.1
Fuel.220L.34	50	-	-	-	4.8	5.2	3.2	4.1	3.8	2.8	-	-	-	23.9	8.6
Fuel.220H.34	56	-	-	-	4.8	5.4	3.4	4.2	3.9	2.8	-	-	-	24.5	7.2
Fuel.130H.26	29	-	-	-	5.2	5.5	3.3	4.2	4.0	2.8	-	-	-	25.0	5.3
Fuel.160L.30	36	-	-	-	5.5	5.7	3.9	4.6	4.1	2.8	-	-	-	26.6	8.2
Fuel.160H.30	42	-	-	-	5.5	5.9	4.2	4.5	4.1	2.8	-	-	-	27.0	7.3
Fuel.190H.34	55	-	-	-	5.7	6.1	4.6	4.8	4.3	2.9	0.1	0.1	-	28.6	9.3
Fuel.190L.34	49	-	-	-	5.9	6.1	4.6	4.8	4.3	2.8	-	0.1	-	28.6	10.4
Fuel.130L.30	35	-	-	-	6.4	6.9	5.4	5.3	5.0	2.9	0.1	0.1	-	32.1	10.1
Fuel.130H.30	41	-	-	-	6.4	7.0	5.5	5.5	5.4	3.4	0.6	0.3	-	34.1	9.3
Fuel.160L.34	48	-	-	-	6.6	7.0	5.5	5.4	5.5	3.5	0.7	0.2	-	34.4	12.2
Fuel.160H.34	54	-	-	-	6.6	7.4	5.3	5.5	5.6	3.9	1.1	0.3	-	35.7	11.3
Fuel.130L.34	47	-	-	-	7.1	7.9	6.0	6.3	5.9	4.5	1.7	0.3	-	39.7	14.1
Fuel.130H.34	53	-	-	-	7.1	7.9	5.9	6.3	5.9	4.9	2.1	0.3	-	40.4	13.3

Net Short Term Wholesale Transactions (aMW) by Sensitivity

Description	#	Year 2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020	Average Net Sale	Gas / Price Mismatch
Fuel.280H.22	22	1,357	1,354	1,248	1,306	1,300	1,315	1,205	1,332	1,304	1,260	1,179	1,255	1,284.5	(8.8)
Fuel.280L.22	16	1,356	1,349	1,238	1,300	1,296	1,311	1,188	1,344	1,338	1,343	1,383	1,457	1,325.2	(7.1)
Fuel.250H.22	21	1,357	1,353	1,247	1,341	1,456	1,380	1,371	1,456	1,454	1,455	1,622	1,671	1,430.2	(6.8)
Fuel.250L.22	15	1,356	1,349	1,238	1,383	1,487	1,375	1,457	1,467	1,472	1,488	1,667	1,627	1,447.1	(5.3)
Fuel.220H.22	20	1,356	1,352	1,245	1,637	1,609	1,678	1,713	1,749	1,720	1,545	1,834	1,853	1,607.5	(4.8)
Fuel.220L.22	14	1,355	1,348	1,236	1,656	1,624	1,689	1,740	1,794	1,777	1,585	1,916	1,842	1,630.1	(3.4)
Fuel.280L.26	28	1,399	1,382	1,268	1,640	1,635	1,712	1,733	1,761	1,730	1,549	1,920	1,855	1,632.0	(3.1)
Fuel.280H.26	34	1,400	1,386	1,275	1,682	1,657	1,732	1,731	1,755	1,719	1,539	1,860	1,923	1,638.2	(4.8)
Fuel.190H.22	19	1,356	1,352	1,245	1,688	1,657	1,763	1,769	1,830	1,800	1,621	2,101	2,137	1,693.3	(2.7)
Fuel.190L.22	13	1,355	1,348	1,235	1,685	1,648	1,746	1,756	1,827	1,805	1,616	2,189	2,151	1,696.8	(1.6)
Fuel.250H.26	33	1,399	1,386	1,274	1,719	1,681	1,773	1,791	1,843	1,800	1,610	2,026	2,071	1,697.6	(2.8)
Fuel.250L.26	27	1,398	1,384	1,267	1,718	1,678	1,767	1,791	1,840	1,806	1,628	2,143	2,097	1,709.8	(1.3)
Fuel.160L.22	12	1,355	1,349	1,235	1,688	1,658	1,760	1,774	1,848	1,893	1,731	2,273	2,255	1,734.8	0.2
Fuel.160H.22	18	1,355	1,351	1,242	1,698	1,668	1,782	1,794	1,870	1,921	1,758	2,275	2,276	1,749.1	(0.7)
Fuel.220H.26	32	1,399	1,386	1,273	1,732	1,692	1,797	1,808	1,858	1,919	1,752	2,242	2,219	1,756.4	(0.8)
Fuel.220L.26	26	1,398	1,383	1,268	1,730	1,694	1,796	1,813	1,869	1,920	1,757	2,268	2,237	1,761.0	0.6
Fuel.280L.30	40	1,419	1,396	1,286	1,731	1,710	1,805	1,816	1,854	1,920	1,752	2,261	2,220	1,764.2	0.9
Fuel.280H.30	46	1,420	1,401	1,294	1,747	1,715	1,817	1,822	1,860	1,914	1,737	2,194	2,256	1,764.7	(0.8)
Fuel.130L.22	11	1,354	1,345	1,231	1,723	1,861	1,767	1,850	1,852	1,902	1,740	2,295	2,299	1,768.1	2.1
Fuel.190L.26	25	1,397	1,382	1,268	1,739	1,877	1,808	1,887	1,894	1,955	1,769	2,325	2,305	1,800.6	2.4
Fuel.130H.22	17	1,355	1,350	1,242	1,768	1,897	1,785	1,939	1,919	1,940	1,759	2,334	2,342	1,802.3	1.3
Fuel.250L.30	39	1,419	1,396	1,285	1,741	1,888	1,822	1,908	1,898	1,961	1,776	2,312	2,290	1,807.9	2.8
Fuel.190H.26	**31**	**1,399**	**1,386**	**1,272**	**1,745**	**1,897**	**1,816**	**1,913**	**1,901**	**1,962**	**1,777**	**2,312**	**2,320**	**1,808.3**	**1.3**
Fuel.250H.30	45	1,420	1,404	1,293	1,751	1,892	1,840	1,926	1,895	1,948	1,783	2,276	2,305	1,810.9	1.2
Fuel.280H.34	58	1,439	1,431	1,326	1,926	1,986	1,962	2,049	2,023	2,027	1,861	2,293	2,369	1,890.9	3.2
Fuel.220L.30	38	1,418	1,395	1,287	2,032	2,000	1,956	2,036	2,023	2,019	1,860	2,346	2,330	1,891.9	4.6
Fuel.280L.34	52	1,438	1,429	1,323	2,003	2,004	1,950	2,032	2,022	2,010	1,857	2,346	2,327	1,894.9	4.9
Fuel.160L.26	24	1,397	1,382	1,268	2,057	2,008	1,981	2,049	2,034	2,036	1,862	2,347	2,349	1,897.6	4.2
Fuel.220H.30	44	1,419	1,404	1,292	2,027	2,036	1,967	2,061	2,040	2,033	1,918	2,328	2,352	1,906.3	3.2
Fuel.160H.26	30	1,398	1,384	1,270	2,075	2,039	2,013	2,076	2,076	2,058	1,937	2,350	2,360	1,919.5	3.3
Fuel.190L.30	37	1,418	1,395	1,286	2,148	2,135	2,061	2,157	2,154	2,154	2,000	2,358	2,367	1,969.2	6.4
Fuel.250L.34	51	1,437	1,428	1,322	2,139	2,111	2,047	2,165	2,169	2,145	2,000	2,358	2,359	1,973.1	6.8
Fuel.250H.34	57	1,438	1,432	1,325	2,113	2,119	2,053	2,167	2,178	2,164	2,012	2,345	2,380	1,977.2	5.2
Fuel.130L.26	23	1,396	1,379	1,263	2,188	2,160	2,098	2,183	2,176	2,186	2,032	2,359	2,368	1,982.3	6.1
Fuel.190H.30	43	1,419	1,405	1,291	2,168	2,140	2,088	2,188	2,200	2,181	2,037	2,365	2,383	1,988.7	5.3
Fuel.130H.26	29	1,397	1,384	1,269	2,206	2,179	2,115	2,205	2,232	2,200	2,045	2,362	2,383	1,998.1	5.3
Fuel.220L.34	50	1,437	1,427	1,320	2,220	2,207	2,154	2,227	2,241	2,214	2,054	2,366	2,372	2,019.9	8.6
Fuel.160L.30	36	1,418	1,394	1,286	2,245	2,216	2,195	2,243	2,253	2,211	2,048	2,364	2,378	2,020.9	8.2
Fuel.220H.34	56	1,438	1,432	1,324	2,218	2,217	2,179	2,231	2,248	2,215	2,056	2,364	2,386	2,025.5	7.2
Fuel.160H.30	42	1,418	1,404	1,288	2,253	2,244	2,236	2,255	2,266	2,227	2,054	2,373	2,386	2,033.8	7.3
Fuel.190L.34	49	1,437	1,427	1,320	2,289	2,277	2,277	2,278	2,280	2,230	2,055	2,374	2,381	2,052.0	10.4
Fuel.130L.30	35	1,416	1,391	1,282	2,315	2,303	2,310	2,285	2,327	2,233	2,067	2,375	2,382	2,057.3	10.1
Fuel.190H.34	55	1,438	1,431	1,323	2,292	2,280	2,290	2,280	2,287	2,238	2,068	2,388	2,388	2,058.6	9.3
Fuel.130H.30	41	1,418	1,404	1,292	2,318	2,307	2,320	2,301	2,356	2,262	2,108	2,389	2,387	2,071.7	9.3
Fuel.160L.34	48	1,436	1,426	1,319	2,346	2,336	2,339	2,311	2,364	2,275	2,118	2,385	2,385	2,086.6	12.2
Fuel.160H.34	54	1,437	1,429	1,321	2,350	2,346	2,341	2,331	2,375	2,305	2,170	2,390	2,387	2,098.4	11.3
Fuel.130L.34	47	1,435	1,424	1,314	2,359	2,366	2,364	2,376	2,389	2,357	2,229	2,389	2,386	2,115.6	14.1
Fuel.130H.34	53	1,437	1,429	1,320	2,359	2,368	2,364	2,379	2,387	2,376	2,256	2,391	2,388	2,121.1	13.3

Case List with Proposed Weighted Average Case Weights

Run Name	Case Number	Title #1	Title #2	Weighting	
				Case	Group
base.case	1	R-6 Reference	Equal to Case 190H.26		
wtd.case	2	R-6 Weighted Average Case	45% Gas, 45% Load Loss, 10% Enviro, 0% Misc		
fuel.130L.22	11	Case 130L.22 Gas Price 130 c/MMBTU with -1.0% Real Esc	Wholesale Price 22 Mills/kWh with -0.6% Real Esc	1.80	45.00
fuel.160L.22	12	Case 160L.22 Gas Price 160 c/MMBTU with -1.2% Real Esc	Wholesale Price 22 Mills/kWh with -0.7% Real Esc	1.80	
fuel.190L.22	13	Case 190L.22 Gas Price 190 c/MMBTU with -1.4% Real Esc	Wholesale Price 22 Mills/kWh with -0.8% Real Esc	1.80	
fuel.220L.22	14	Case 220L.22 Gas Price 220 c/MMBTU with -1.6% Real Esc	Wholesale Price 22 Mills/kWh with -1.0% Real Esc		
fuel.250L.22	15	Case 250L.22 Gas Price 250 c/MMBTU with -1.8% Real Esc	Wholesale Price 22 Mills/kWh with -1.1% Real Esc		
fuel.280L.22	16	Case 280L.22 Gas Price 280 c/MMBTU with -2.0% Real Esc	Wholesale Price 22 Mills/kWh with -1.2% Real Esc		
fuel.130H.22	17	Case 130H.22 Gas Price 130 c/MMBTU with +1.0% Real Esc	Wholesale Price 22 Mills/kWh with +0.6% Real Esc	1.80	
fuel.160H.22	18	Case 160H.22 Gas Price 160 c/MMBTU with +0.8% Real Esc	Wholesale Price 22 Mills/kWh with +0.5% Real Esc	1.80	
fuel.190H.22	19	Case 190H.22 Gas Price 190 c/MMBTU with +0.6% Real Esc	Wholesale Price 22 Mills/kWh with +0.4% Real Esc	1.80	
fuel.220H.22	20	Case 220H.22 Gas Price 220 c/MMBTU with +0.4% Real Esc	Wholesale Price 22 Mills/kWh with +0.2% Real Esc		
fuel.250H.22	21	Case 250H.22 Gas Price 250 c/MMBTU with +0.2% Real Esc	Wholesale Price 22 Mills/kWh with +0.1% Real Esc		
fuel.280H.22	22	Case 280H.22 Gas Price 280 c/MMBTU with +0.0% Real Esc	Wholesale Price 22 Mills/kWh with +0.0% Real Esc		
fuel.130L.26	23	Case 130L.26 Gas Price 130 c/MMBTU with -1.0% Real Esc	Wholesale Price 26 Mills/kWh with -0.6% Real Esc		
fuel.160L.26	24	Case 160L.26 Gas Price 160 c/MMBTU with -1.2% Real Esc	Wholesale Price 26 Mills/kWh with -0.7% Real Esc	1.80	
fuel.190L.26	25	Case 190L.26 Gas Price 190 c/MMBTU with -1.4% Real Esc	Wholesale Price 26 Mills/kWh with -0.8% Real Esc	1.80	
fuel.220L.26	26	Case 220L.26 Gas Price 220 c/MMBTU with -1.6% Real Esc	Wholesale Price 26 Mills/kWh with -1.0% Real Esc	1.80	
fuel.250L.26	27	Case 250L.26 Gas Price 250 c/MMBTU with -1.8% Real Esc	Wholesale Price 26 Mills/kWh with -1.1% Real Esc	1.80	
fuel.280L.26	28	Case 280L.26 Gas Price 280 c/MMBTU with -2.0% Real Esc	Wholesale Price 26 Mills/kWh with -1.2% Real Esc		
fuel.130H.26	29	Case 130H.26 Gas Price 130 c/MMBTU with +1.0% Real Esc	Wholesale Price 26 Mills/kWh with +0.6% Real Esc		
fuel.160H.26	30	Case 160H.26 Gas Price 160 c/MMBTU with +0.8% Real Esc	Wholesale Price 26 Mills/kWh with +0.5% Real Esc		
fuel.190H.26	31	Case 190H.26 Gas Price 190 c/MMBTU with +0.6% Real Esc	Wholesale Price 26 Mills/kWh with +0.4% Real Esc	1.80	
fuel.220H.26	32	Case 220H.26 Gas Price 220 c/MMBTU with +0.4% Real Esc	Wholesale Price 26 Mills/kWh with +0.2% Real Esc	1.80	
fuel.250H.26	33	Case 250H.26 Gas Price 250 c/MMBTU with +0.2% Real Esc	Wholesale Price 26 Mills/kWh with +0.1% Real Esc	1.80	
fuel.280H.26	34	Case 280H.26 Gas Price 280 c/MMBTU with +0.0% Real Esc	Wholesale Price 26 Mills/kWh with +0.0% Real Esc	1.80	
fuel.130L.30	35	Case 130L.30 Gas Price 130 c/MMBTU with -1.0% Real Esc	Wholesale Price 30 Mills/kWh with -0.6% Real Esc		
fuel.160L.30	36	Case 160L.30 Gas Price 160 c/MMBTU with -1.2% Real Esc	Wholesale Price 30 Mills/kWh with -0.7% Real Esc		
fuel.190L.30	37	Case 190L.30 Gas Price 190 c/MMBTU with -1.4% Real Esc	Wholesale Price 30 Mills/kWh with -0.8% Real Esc	1.80	
fuel.220L.30	38	Case 220L.30 Gas Price 220 c/MMBTU with -1.6% Real Esc	Wholesale Price 30 Mills/kWh with -1.0% Real Esc	1.80	
fuel.250L.30	39	Case 250L.30 Gas Price 250 c/MMBTU with -1.8% Real Esc	Wholesale Price 30 Mills/kWh with -1.1% Real Esc	1.80	
fuel.280L.30	40	Case 280L.30 Gas Price 280 c/MMBTU with -2.0% Real Esc	Wholesale Price 30 Mills/kWh with -1.2% Real Esc	1.80	
fuel.130H.30	41	Case 130H.30 Gas Price 130 c/MMBTU with +1.0% Real Esc	Wholesale Price 30 Mills/kWh with +0.6% Real Esc		
fuel.160H.30	42	Case 160H.30 Gas Price 160 c/MMBTU with +0.8% Real Esc	Wholesale Price 30 Mills/kWh with +0.5% Real Esc		
fuel.190H.30	43	Case 190H.30 Gas Price 190 c/MMBTU with +0.6% Real Esc	Wholesale Price 30 Mills/kWh with +0.4% Real Esc		
fuel.220H.30	44	Case 220H.30 Gas Price 220 c/MMBTU with +0.4% Real Esc	Wholesale Price 30 Mills/kWh with +0.2% Real Esc	1.80	
fuel.250H.30	45	Case 250H.30 Gas Price 250 c/MMBTU with +0.2% Real Esc	Wholesale Price 30 Mills/kWh with +0.1% Real Esc	1.80	
fuel.280H.30	46	Case 280H.30 Gas Price 280 c/MMBTU with +0.0% Real Esc	Wholesale Price 30 Mills/kWh with +0.0% Real Esc	1.80	
fuel.130L.34	47	Case 130L.34 Gas Price 130 c/MMBTU with -1.0% Real Esc	Wholesale Price 34 Mills/kWh with -0.6% Real Esc		
fuel.160L.34	48	Case 160L.34 Gas Price 160 c/MMBTU with -1.2% Real Esc	Wholesale Price 34 Mills/kWh with -0.7% Real Esc		
fuel.190L.34	49	Case 190L.34 Gas Price 190 c/MMBTU with -1.4% Real Esc	Wholesale Price 34 Mills/kWh with -0.8% Real Esc		
fuel.220L.34	50	Case 220L.34 Gas Price 220 c/MMBTU with -1.6% Real Esc	Wholesale Price 34 Mills/kWh with -1.0% Real Esc		
fuel.250L.34	51	Case 250L.34 Gas Price 250 c/MMBTU with -1.8% Real Esc	Wholesale Price 34 Mills/kWh with -1.1% Real Esc	1.80	
fuel.280L.34	52	Case 280L.34 Gas Price 280 c/MMBTU with -2.0% Real Esc	Wholesale Price 34 Mills/kWh with -1.2% Real Esc	1.80	
fuel.130H.34	53	Case 130H.34 Gas Price 130 c/MMBTU with +1.0% Real Esc	Wholesale Price 34 Mills/kWh with +0.6% Real Esc		
fuel.160H.34	54	Case 160H.34 Gas Price 160 c/MMBTU with +0.8% Real Esc	Wholesale Price 34 Mills/kWh with +0.5% Real Esc		
fuel.190H.34	55	Case 190H.34 Gas Price 190 c/MMBTU with +0.6% Real Esc	Wholesale Price 34 Mills/kWh with +0.4% Real Esc		
fuel.220H.34	56	Case 220H.34 Gas Price 220 c/MMBTU with +0.4% Real Esc	Wholesale Price 34 Mills/kWh with +0.2% Real Esc		
fuel.250H.34	57	Case 250H.34 Gas Price 250 c/MMBTU with +0.2% Real Esc	Wholesale Price 34 Mills/kWh with +0.1% Real Esc	1.80	
fuel.280H.34	58	Case 280H.34 Gas Price 280 c/MMBTU with +0.0% Real Esc	Wholesale Price 34 Mills/kWh with +0.0% Real Esc	1.80	

Case List with Proposed Weighted Average Case Weights

Run Name	Case Number	Title #1	Title #2	Weighting Case	Weighting Group
loads.sys.1	71	Case loads.sys.1 System Load Loss - Utah 'Big 4'	1%/Year, 4% Ttl Utah, 32% Oregon Loss in 2002	3.00	30.00
loads.sys.2	72	Case loads.sys.2 System Load Loss - Utah 'Big 4'	2%/Year, 8% Ttl Utah, 34% Oregon Loss in 2002	3.00	
loads.sys.3	73	Case loads.sys.3 System Load Loss - Utah 'Big 4'	3%/Year, 12% Ttl Utah, 36% Oregon Loss in 2002	3.00	
loads.sys.4	74	Case loads.sys.4 System Load Loss - Utah 'Big 4'	4%/Year, 16% Ttl Utah, 38% Oregon Loss in 2002	3.00	
loads.sys.5	75	Case loads.sys.5 System Load Loss - Utah 'Big 4'	5%/Year, 20% Ttl Utah, 40% Oregon Loss in 2002	3.00	
loads.sys.6	76	Case loads.sys.6 System Load Loss - Utah 'Big 4'	6%/Year, 24% Ttl Utah, 42% Oregon Loss in 2002	3.00	
loads.sys.7	77	Case loads.sys.7 System Load Loss - Utah 'Big 4'	7%/Year, 28% Ttl Utah, 44% Oregon Loss in 2002	3.00	
loads.sys.8	78	Case loads.sys.8 System Load Loss - Utah 'Big 4'	8%/Year, 32% Ttl Utah, 46% Oregon Loss in 2002	3.00	
loads.sys.9	79	Case loads.sys.9 System Load Loss - Utah 'Big 4'	9%/Year, 36% Ttl Utah, 48% Oregon Loss in 2002	3.00	
loads.sys.10	80	Case loads.sys.10 System Load Loss - Utah 'Big 4'	10%/Year, 40% Ttl Utah, 50% Oregon Loss in 2002	3.00	
loads.or.1	81	Case loads.or.1 Oregon SB1149 Load Loss	32% Load Loss in 2002	1.00	10.00
loads.or.2	82	Case loads.or.2 Oregon SB1149 Load Loss	34% Load Loss in 2002	1.00	
loads.or.3	83	Case loads.or.3 Oregon SB1149 Load Loss	36% Load Loss in 2002	1.00	
loads.or.4	84	Case loads.or.4 Oregon SB1149 Load Loss	38% Load Loss in 2002	1.00	
loads.or.5	85	Case loads.or.5 Oregon SB1149 Load Loss	40% Load Loss in 2002	1.00	
loads.or.6	86	Case loads.or.6 Oregon SB1149 Load Loss	42% Load Loss in 2002	1.00	
loads.or.7	87	Case loads.or.7 Oregon SB1149 Load Loss	44% Load Loss in 2002	1.00	
loads.or.8	88	Case loads.or.8 Oregon SB1149 Load Loss	46% Load Loss in 2002	1.00	
loads.or.9	89	Case loads.or.9 Oregon SB1149 Load Loss	48% Load Loss in 2002	1.00	
loads.or.10	90	Case loads.or.10 Oregon SB1149 Load Loss	50% Load Loss in 2002	1.00	
loads.ut.1	91	Case loads.ut.1 Utah Load Loss - Utah 'Big 4'	1% Load loss per year, Total Loss of 4%	0.50	5.00
loads.ut.2	92	Case loads.ut.2 Utah Load Loss - Utah 'Big 4'	2% Load loss per year, Total Loss of 8%	0.50	
loads.ut.3	93	Case loads.ut.3 Utah Load Loss - Utah 'Big 4'	3% Load loss per year, Total Loss of 12%	0.50	
loads.ut.4	94	Case loads.ut.4 Utah Load Loss - Utah 'Big 4'	4% Load loss per year, Total Loss of 16%	0.50	
loads.ut.5	95	Case loads.ut.5 Utah Load Loss - Utah 'Big 4'	5% Load loss per year, Total Loss of 20%	0.50	
loads.ut.6	96	Case loads.ut.6 Utah Load Loss - Utah 'Big 4'	6% Load loss per year, Total Loss of 24%	0.50	
loads.ut.7	97	Case loads.ut.7 Utah Load Loss - Utah 'Big 4'	7% Load loss per year, Total Loss of 28%	0.50	
loads.ut.8	98	Case loads.ut.8 Utah Load Loss - Utah 'Big 4'	8% Load loss per year, Total Loss of 32%	0.50	
loads.ut.9	99	Case loads.ut.9 Utah Load Loss - Utah 'Big 4'	9% Load loss per year, Total Loss of 36%	0.50	
loads.ut.10	100	Case loads.ut.10 Utah Load Loss - Utah 'Big 4'	10% Load loss per year, Total Loss of 40%	0.50	
enviro.1	101	Case enviro.1 Environmental Adder Case	CO2 at $1, TSP at $100, NOx at $125/Ton	5.00	10.00
enviro.2	102	Case enviro.2 Environmental Adder Case	CO2 at $2, TSP at $200, NOx at $250/Ton	2.50	
enviro.3	103	Case enviro.3 Environmental Adder Case	CO2 at $3, TSP at $300, NOx at $375/Ton	1.25	
enviro.4	104	Case enviro.4 Environmental Adder Case	CO2 at $4, TSP at $400, NOx at $500/Ton	0.63	
enviro.5	105	Case enviro.5 Environmental Adder Case	CO2 at $5, TSP at $500, NOx at $625/Ton	0.31	
enviro.6	106	Case enviro.6 Environmental Adder Case	CO2 at $6, TSP at $600, NOx at $750/Ton	0.16	
enviro.7	107	Case enviro.7 Environmental Adder Case	CO2 at $7, TSP at $700, NOx at $875/Ton	0.08	
enviro.8	108	Case enviro.8 Environmental Adder Case	CO2 at $8, TSP at $800, NOx at $1000/Ton	0.04	
enviro.9	109	Case enviro.9 Environmental Adder Case	CO2 at $9, TSP at $900, NOx at $1125/Ton	0.02	
enviro.10	110	Case enviro.10 Environmental Adder Case	CO2 at $10, TSP at $1000, NOx at $1250/Ton	0.01	
enviro.25	111	Case enviro.25 Environmental Adder Case	CO2 at $25, TSP at $2500, NOx at $3125/Ton	0.00	
enviro.40	112	Case enviro.40 Environmental Adder Case	CO2 at $40, TSP at $4000, NOx at $5000/Ton	0.00	
capcost.down	121	Case capcost.down Capital Cost Sensitivity	20% Decrease in Real Levelized Carrying Charge	-	-
capcost.up	122	Case capcost.up Capital Cost Sensitivity	20% Increase in Real Levelized Carrying Charge	-	
gas.low	123	Case gas.low Gas Fired Resource Sensitivity	High Gas Resource Capital Cost	-	
gas.high	124	Case gas.high Gas Fired Resource Sensitivity	Low Gas Resource Capital Cost	-	
trans.zero	125	Case trans.zero No Transmission Cost	for Gas Fired Resources	-	
renew.geotherm	126	Case renew.geotherm Renewable Cost Sensitivity	Escalation rate needed to bring Geothermal on by 2010	-	
renew.solar	127	Case renew.solar Renewable Cost Sensitivity	Escalation rate needed to bring Solar on by 2010	-	
renew.wind	128	Case renew.wind Renewable Cost Sensitivity	Escalation rate needed to bring Wind on by 2010	-	
utah.grow	129	Case utah.grow Utah grows 50% faster to 2010	then 25% faster to 2020	-	
loads.big4	130	Case loads.big4 Loss of Utah 'Big 4' Interruptible Customers	at end of Current Contracts	-	
firm.ind	131	Case firm.ind Large Customers Modeled as	Firm Retail Customers	-	
			Total Weight	100.00	100.00

PacifiCorp

Integrated Resource Planning

RAMPP-6

Loads and Resources

Assuming Reference Case

Tab 10

Reference Case 190H.26 Gas 190 c/MMBtu Esc 0.6% Market 26 mills/kWh
Summer Capacity (MW)

By Resource Type Listing

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
Thermal Plants												
Carbon 1,2	175	175	175	175	175	175	175	175	175	175	-	-
Cholla 4	380	380	380	380	380	380	380	380	380	380	380	380
Colstrip 3,4	144	144	144	144	144	144	144	144	144	144	144	144
Craig 1,2	165	165	165	165	165	165	165	165	165	165	165	165
Dave Johnstn 1,2,3,4	772	772	772	772	772	772	772	772	772	772	772	772
Gadsby 1,2,3	235	235	235	235	235	235	235	-	-	-	-	-
Hayden 1,2	78	78	78	78	78	78	78	78	78	78	78	78
Hermiston	454	454	454	454	454	454	454	454	454	454	454	454
Hunter 1,2,3	1,122	1,122	1,122	1,122	1,122	1,122	1,122	1,122	1,122	1,122	1,122	1,122
Huntington 1,2	895	895	895	895	895	895	895	895	895	895	895	-
James River	52	52	52	52	52	52	52	52	52	52	52	-
Jim Bridger 1,2,3,4	1,413	1,413	1,413	1,413	1,413	1,413	1,413	1,413	1,413	1,413	1,413	1,413
Naughton 1,2,3	700	700	700	700	700	700	700	700	700	700	-	-
Wyodak	268	268	268	268	249	249	249	249	249	249	249	-
Total Thermal	6,853	6,853	6,853	6,853	6,834	6,834	6,834	6,599	6,599	6,599	5,724	4,528
Renewables												
Blundell Geothermal	23	23	23	23	23	23	23	23	23	23	23	23
BPA Peaking	925	925	750	575	575	575	575	575	575	575	575	575
BPA Supp Capacity	9	8	-	-	-	-	-	-	-	-	-	-
Hydro Goshen	3	3	3	3	3	3	3	3	3	3	3	3
Hydro Pacific	869	869	869	869	869	869	869	869	869	869	869	869
Hydro Utah	52	52	52	52	52	52	52	52	52	52	52	52
Mid-Columbia	422	422	422	422	422	297	297	297	297	118	55	55
T&D Eff PPL	5	10	12	15	17	20	23	26	29	32	38	38
T&D Eff UPL	2	4	6	8	10	11	12	13	14	15	17	17
Wind Foote Creek	16	16	16	16	16	16	16	16	16	16	16	16
Total Renewables	2,326	2,332	2,154	1,983	1,987	1,866	1,870	1,874	1,878	1,703	1,648	1,648
Existing Generation	9,179	9,185	9,007	8,836	8,821	8,700	8,704	8,473	8,477	8,302	7,372	6,176
Purchases												
APS Sea Ex (P)	-	-	-	-	-	-	-	-	-	-	-	-
APS Sea Ex (S)	(480)	(480)	(480)	(480)	(480)	(480)	(480)	(480)	(480)	(480)	(480)	(480)
APS Supplemental	-	-	-	-	-	-	-	-	-	-	-	-
Black Hills Capacity	68	68	68	68	68	68	68	68	68	68	-	-
BPA Spring Ex (P)	-	-	-	-	-	-	-	-	-	-	-	-
BPA Spring Ex (S)	-	-	-	-	-	-	-	-	-	-	-	-
BPA Summer Ex (P)	-	-	-	-	-	-	-	-	-	-	-	-
BPA Summer Ex (S)	-	-	-	-	-	-	-	-	-	-	-	-
Colockum (P)	103	103	-	-	-	-	-	-	-	-	-	-
Colockum (S)	-	-	-	-	-	-	-	-	-	-	-	-
CSPE	18	16	-	-	-	-	-	-	-	-	-	-
Deseret Annual	104	-	-	-	-	-	-	-	-	-	-	-
Deseret Expansion	-	-	-	-	-	-	-	-	-	-	-	-
Deseret NF	-	-	-	-	-	-	-	-	-	-	-	-
Gem State	22	22	22	22	22	22	22	22	22	22	22	22
Grant County	14	14	14	14	14	14	14	14	14	14	14	14
GSLM	-	-	-	-	-	-	-	-	-	-	-	-
Idaho Load Control	150	150	150	150	150	150	150	150	150	150	150	150
Interruptible (P)	161	161	161	161	161	161	161	161	161	161	161	161
IPC	-	-	-	-	-	-	-	-	-	-	-	-
PGE Cove	2	2	2	2	2	2	2	2	2	2	2	2
QF Goshen	9	9	9	9	9	9	9	9	9	9	9	9
QF Or/Wa	67	67	67	67	67	67	67	67	67	67	67	67
QF Utah	60	60	60	60	60	60	60	60	60	60	60	60
QF Wyoming	3	3	3	3	3	3	3	3	3	3	3	3
Redding (P)	22	22	22	22	22	22	22	22	22	22	22	-
Redding (S)	-	-	-	-	-	-	-	-	-	-	-	-
SCE Winter	-	-	-	-	-	-	-	-	-	-	-	-

Reference Case 190H.26 Gas 190 c/MMBtu Esc 0.6% Market 26 mills/kWh
Summer Capacity (MW)

By Resource Type Listing

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
So Idaho Ex (P)	-	-	-	-	-	-	-	-	-	-	-	-
So Idaho Ex (S)	-	-	-	-	-	-	-	-	-	-	-	-
TransAlta	300	400	400	400	400	400	-	-	-	-	-	-
Tri-State Basic	50	50	50	50	50	50	50	50	50	50	50	50
Tri-State Ex (P)	-	-	-	-	-	-	-	-	-	-	-	-
Tri-State Ex (S)	(50)	(50)	(50)	(50)	(50)	(50)	-	-	-	-	-	-
WWP Seasonal Ex (P)	50	50	50	50	50	50	50	50	-	-	-	-
WWP Seasonal Ex (S)	-	-	-	-	-	-	-	-	-	-	-	-
WWP Summer Purchase	150	150	150	-	-	-	-	-	-	-	-	-
Purchased Power	1,351	1,345	1,226	1,076	1,076	1,076	676	676	626	626	558	537
Total Resources	10,530	10,530	10,233	9,912	9,897	9,776	9,380	9,149	9,103	8,928	7,930	6,712

Sales

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
APPA	35	15	25	-	-	-	-	-	-	-	-	-
Black Hills 1996	30	30	-	-	-	-	-	-	-	-	-	-
Black Hills Load	65	60	55	50	50	50	50	50	50	50	50	50
BPA Wind Sale	6	6	6	6	6	6	6	6	6	6	6	6
Canadian Entitlement	5	4	-	-	-	-	-	-	-	-	-	-
CDWR	100	100	100	100	-	-	-	-	-	-	-	-
C[illegible]ns Power	80	80	-	-	-	-	-	-	-	-	-	-
Cl[illegible] County PUD	100	-	-	-	-	-	-	-	-	-	-	-
Clark-WT	10	10	-	-	-	-	-	-	-	-	-	-
Cowlitz-BHP	10	-	-	-	-	-	-	-	-	-	-	-
Deseret Supplemental	-	-	-	-	-	-	-	-	-	-	-	-
Green Mountain												
Hurricane Net Sale	3	3	3	3	3	3	3	-	-	-	-	-
Large Industrials	367	367	367	367	367	367	367	367	367	367	367	367
Montana Sell Back	70	70	70	70	70	70	-	-	-	-	-	-
Okanogan	5	-	-	-	-	-	-	-	-	-	-	-
PNGC	-	-	-	-	-	-	-	-	-	-	-	-
PSCol	176	176	176	176	176	176	176	176	176	176	176	176
Puget 2	200	200	200	-	-	-	-	-	-	-	-	-
SCE OWC	100	100	100	100	100	100	-	-	-	-	-	-
SCE Utah	100	100	100	100	100	100	-	-	-	-	-	-
Sierra 2	75	75	75	75	75	75	75	75	75	-	-	-
SMUD	100	100	100	100	100	100	100	100	100	100	-	-
Springfield	45	45	45	45	45	45	45	45	45	45	45	-
Springfield II	-	-	-	-	-	-	-	-	-	-	-	-
UMPA 1	8	8	8	8	-	-	-	-	-	-	-	-
UMPA 2	21	25	25	25	25	25	25	25	25	25	25	25
WAPA 1	60	60	60	60	-	-	-	-	-	-	-	-
WAPA 2	75	75	75	75	-	-	-	-	-	-	-	-
Total Sales	2,377	2,239	2,120	1,890	1,647	1,647	1,327	1,324	1,324	1,249	1,149	1,104

Total Summer System

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
Native Load	7,987	8,030	8,203	8,435	8,608	8,767	8,937	9,052	9,267	9,399	10,535	12,042
Long Term Sales	2,377	2,239	2,120	1,890	1,647	1,647	1,327	1,324	1,324	1,249	1,149	1,104
DSM Programs	(24)	(47)	(69)	(93)	(116)	(139)	(163)	(186)	(208)	(232)	(317)	(454)
Total Requirements	10,340	10,223	10,254	10,233	10,139	10,275	10,102	10,190	10,383	10,416	11,367	12,692
Existing Generation	9,179	9,185	9,007	8,836	8,821	8,700	8,704	8,473	8,477	8,302	7,372	6,176
Long Term Purchases	1,351	1,345	1,226	1,076	1,076	1,076	676	676	626	626	558	536
Short Term Market P	806	714	875	814	571	571	651	648	698	623	591	568
Short Term Cap Purch	40	1	171	-	-	-	-	-	-	287	-	428
New Resources	1	1	1	540	893	957	1,176	1,414	1,621	1,621	3,988	6,258
Total Resources	11,377	11,246	11,280	11,266	11,360	11,304	11,207	11,210	11,422	11,459	12,509	13,966

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
Reserves	1,037	1,023	1,026	1,033	1,221	1,028	1,105	1,020	1,039	1,043	1,142	1,274
Reserve %	10.0%	10.0%	10.0%	10.1%	12.0%	10.0%	10.9%	10.0%	10.0%	10.0%	10.0%	10.0%

Reference Case 190H.26 Gas 190 c/MMBtu Esc 0.6% Market 26 mills/kWh
Winter Capacity (MW)

By Resource Type Listing

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
Thermal Plants												
Carbon 1,2	175	175	175	175	175	175	175	175	175	175	-	-
Cholla 4	380	380	380	380	380	380	380	380	380	380	380	380
Colstrip 3,4	144	144	144	144	144	144	144	144	144	144	144	144
Craig 1,2	165	165	165	165	165	165	165	165	165	165	165	165
Dave Johnstn 1,2,3,4	772	772	772	772	772	772	772	772	772	772	772	772
Gadsby 1,2,3	235	235	235	235	235	235	235	-	-	-	-	-
Hayden 1,2	78	78	78	78	78	78	78	78	78	78	78	78
Hermiston	492	492	492	492	492	492	492	492	492	492	492	492
Hunter 1,2,3	1,122	1,122	1,122	1,122	1,122	1,122	1,122	1,122	1,122	1,122	1,122	1,122
Huntington 1,2	895	895	895	895	895	895	895	895	895	895	895	-
James River	52	52	52	52	52	52	52	52	52	52	52	-
Jim Bridger 1,2,3,4	1,413	1,413	1,413	1,413	1,413	1,413	1,413	1,413	1,413	1,413	1,413	1,413
Naughton 1,2,3	700	700	700	700	700	700	700	700	700	700	-	-
Wyodak	268	268	268	268	249	249	249	249	249	249	249	-
Total Thermal	6,891	6,891	6,891	6,891	6,872	6,872	6,872	6,637	6,637	6,637	5,762	4,566
Renewables												
Blundell Geothermal	23	23	23	23	23	23	23	23	23	23	23	23
BPA Peaking	925	925	925	750	575	575	575	575	575	575	575	575
BPA Supp Capacity	9	9	8	-	-	-	-	-	-	-	-	-
Hydro Goshen	2	2	2	2	2	2	2	2	2	2	2	2
Hydro Pacific	902	902	902	902	902	902	902	902	902	902	902	902
Hydro Utah	28	28	28	28	28	28	28	28	28	28	28	28
Mid-Columbia	422	422	422	422	422	297	297	297	297	118	55	55
T&D Eff PPL	5	10	12	15	17	20	23	26	29	32	38	38
T&D Eff UPL	2	4	6	8	10	11	12	13	14	15	17	17
Wind Foote Creek	28	28	28	28	28	28	28	28	28	28	28	28
Total Renewables	2,346	2,353	2,356	2,177	2,006	1,885	1,889	1,893	1,897	1,722	1,667	1,667
Existing Generation	9,237	9,244	9,247	9,068	8,878	8,757	8,761	8,530	8,534	8,359	7,429	6,233
Purchases												
APS Sea Ex (P)	480	480	480	480	480	480	480	480	480	480	480	480
APS Sea Ex (S)	-	-	-	-	-	-	-	-	-	-	-	-
APS Supplemental	-	-	-	-	-	-	-	-	-	-	-	-
Black Hills Capacity	100	100	100	100	100	100	100	100	100	100	-	-
BPA Spring Ex (P)	-	-	-	-	-	-	-	-	-	-	-	-
BPA Spring Ex (S)	-	-	-	-	-	-	-	-	-	-	-	-
BPA Summer Ex (P)	-	-	-	-	-	-	-	-	-	-	-	-
BPA Summer Ex (S)	-	-	-	-	-	-	-	-	-	-	-	-
Colockum (P)	103	103	103	-	-	-	-	-	-	-	-	-
Colockum (S)	-	-	-	-	-	-	-	-	-	-	-	-
CSPE	18	18	16	-	-	-	-	-	-	-	-	-
Deseret Annual	104	-	-	-	-	-	-	-	-	-	-	-
Deseret Expansion	-	-	-	-	-	-	-	-	-	-	-	-
Deseret NF	-	-	-	-	-	-	-	-	-	-	-	-
Gem State	-	-	-	-	-	-	-	-	-	-	-	-
Grant County	14	14	14	14	14	14	14	14	14	14	14	14
GSLM	15	15	15	15	15	15	15	15	15	15	15	15
Idaho Load Control	-	-	-	-	-	-	-	-	-	-	-	-
Interruptible (P)	157	157	157	157	157	157	157	157	157	157	157	157
IPC	-	-	-	-	-	-	-	-	-	-	-	-
PGE Cove	2	2	2	2	2	2	2	2	2	2	2	2
QF Goshen	6	6	6	6	6	6	6	6	6	6	6	6
QF Or/Wa	76	76	76	76	76	76	76	76	76	76	76	76
QF Utah	59	59	59	59	59	59	59	59	59	59	59	59
QF Wyoming	0	0	0	0	0	0	0	0	0	0	0	0
Redding (P)	22	22	22	22	22	22	22	22	22	22	22	-
Redding (S)	-	-	-	-	-	-	-	-	-	-	-	-
SCE Winter	422	422	422	-	-	-	-	-	-	-	-	-

Reference Case 190H.26 Gas 190 c/MMBtu Esc 0.6% Market 26 mills/kWh
Winter Capacity (MW)

By Resource Type Listing

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
So Idaho Ex (P)	-	-	-	-	-	-	-	-	-	-	-	-
So Idaho Ex (S)	-	-	-	-	-	-	-	-	-	-	-	-
TransAlta	200	300	400	400	400	400	400	-	-	-	-	-
Tri-State Basic	50	50	50	50	50	50	50	50	50	50	50	50
Tri-State Ex (P)	50	50	50	50	50	50	-	-	-	-	-	-
Tri-State Ex (S)	-	-	-	-	-	-	-	-	-	-	-	-
WWP Seasonal Ex (P)	-	-	-	-	-	-	-	-	-	-	-	-
WWP Seasonal Ex (S)	(50)	(50)	(50)	(50)	(50)	(50)	(50)	(50)	(50)	-	-	-
WWP Summer Purchase	-	-	-	-	-	-	-	-	-	-	-	-
Purchased Power	1,877	1,872	1,970	1,430	1,430	1,430	1,380	980	980	980	880	858
Total Resources	11,113	11,116	11,217	10,497	10,307	10,187	10,141	9,510	9,514	9,339	8,309	7,091

Sales

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
APPA	-	-	-	-	-	-	-	-	-	-	-	-
Black Hills 1996	15	15	-	-	-	-	-	-	-	-	-	-
Black Hills Load	65	60	55	50	50	50	50	50	50	50	50	50
BPA Wind Sale	6	6	6	6	6	6	6	6	6	6	6	6
Canadian Entitlement	5	5	4	-	-	-	-	-	-	-	-	-
CDWR	100	100	100	100	-	-	-	-	-	-	-	-
Citizens Power	85	85	-	-	-	-	-	-	-	-	-	-
Clark County PUD	325	-	-	-	-	-	-	-	-	-	-	-
Clark-WT	10	10	-	-	-	-	-	-	-	-	-	-
Cowlitz-BHP	10	22	-	-	-	-	-	-	-	-	-	-
Deseret Supplemental	-	-	-	-	-	-	-	-	-	-	-	-
Green Mountain												
Hurricane Net Sale	3	3	3	3	3	3	3	-	-	-	-	-
Large Industrials	536	536	536	536	536	536	536	536	536	536	536	536
Montana Sell Back	70	70	70	70	70	70	-	-	-	-	-	-
Okanogan	7	-	-	-	-	-	-	-	-	-	-	-
PNGC	60	-	-	-	-	-	-	-	-	-	-	-
PSCol	176	176	176	176	176	176	176	176	176	176	176	176
Puget 2	200	200	200	-	-	-	-	-	-	-	-	-
SCE OWC	100	100	100	100	100	100	-	-	-	-	-	-
SCE Utah	100	100	100	100	100	100	-	-	-	-	-	-
Sierra 2	75	75	75	75	75	75	75	75	75	-	-	-
SMUD	100	100	100	100	100	100	100	100	100	100	-	-
Springfield	30	30	30	30	30	30	30	30	30	30	30	-
Springfield II	50	50	-	-	-	-	-	-	-	-	-	-
UMPA 1	8	8	8	8	8	-	-	-	-	-	-	-
UMPA 2	19	21	25	25	25	25	25	25	25	25	25	25
WAPA 1	60	60	60	60	-	-	-	-	-	-	-	-
WAPA 2	75	75	75	75	-	-	-	-	-	-	-	-
Total Sales	2,340	1,957	1,773	1,564	1,329	1,321	1,051	1,048	1,048	923	823	793

Total Winter System

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
Native Load	7,902	7,996	8,173	8,348	8,519	8,679	8,831	8,990	9,162	9,324	10,390	11,740
Long Term Sales	2,340	1,957	1,773	1,564	1,329	1,321	1,051	1,048	1,048	923	823	793
DSM Programs	(30)	(59)	(89)	(120)	(150)	(180)	(211)	(241)	(271)	(301)	(410)	(585)
Total Requirements	10,212	9,894	9,856	9,792	9,697	9,819	9,670	9,796	9,939	9,946	10,802	11,948
Existing Generation	9,237	9,244	9,247	9,068	8,878	8,757	8,761	8,530	8,534	8,359	7,429	6,233
Long Term Purchases	1,876	1,872	1,970	1,429	1,429	1,429	1,379	979	979	979	879	858
Short Term Market P	80	-	-	135	-	-	-	69	69	-	-	-
Short Term Cap Purch	40	-	-	-	-	-	-	-	-	-	-	-
New Resources	1	1	1	575	949	1,017	1,250	1,503	1,724	1,724	4,241	6,663
Total Resources	11,234	11,117	11,218	11,207	11,256	11,203	11,390	11,081	11,306	11,062	12,550	13,754
Reserves	1,022	1,223	1,362	1,415	1,559	1,384	1,720	1,285	1,367	1,117	1,748	1,806
Reserve %	10.0%	12.4%	13.8%	14.5%	16.1%	14.1%	17.8%	13.1%	13.8%	11.2%	16.2%	15.1%

Reference Case 190H.26 Gas 190 c/MMBtu Esc 0.6% Market 26 mills/kWh
Annual Average Generation (aMW)

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
Thermal Plants												
Carbon 1,2	170	168	156	162	170	164	164	164	164	164	-	-
Cholla 4	376	376	376	354	376	369	369	369	369	369	369	369
Colstrip 3,4	130	133	130	130	130	130	130	130	130	130	130	130
Craig 1,2	159	162	159	159	162	159	159	159	159	159	159	159
Dave Johnstn 1,2,3,4	715	701	716	715	698	709	709	709	709	709	709	709
Gadsby 1,2,3	111	111	111	111	111	112	113	-	-	-	-	-
Hayden 1,2	72	71	72	68	70	71	71	71	71	71	71	71
Hermiston	427	415	415	427	422	422	422	422	422	422	414	414
Hunter 1,2,3	1,040	1,038	1,070	1,070	1,040	1,056	1,056	1,056	1,056	1,056	1,056	1,056
Huntington 1,2	827	828	828	848	832	831	831	831	831	831	831	-
James River	48	51	49	48	45	44	49	49	49	50	50	-
Jim Bridger 1,2,3,4	1,307	1,308	1,308	1,308	1,307	1,308	1,308	1,308	1,308	1,308	1,308	1,308
Naughton 1,2,3	651	661	636	667	651	654	654	654	652	654	-	-
Wyodak	261	261	261	261	224	238	238	238	238	238	238	-
Total Thermal	6,294	6,283	6,286	6,328	6,237	6,267	6,273	6,161	6,159	6,162	5,336	4,216
Renewables												
Blundell Geothermal	13	14	14	13	12	14	13	13	12	14	8	7
BPA Peaking	275	275	223	223	223	223	223	223	223	223	223	223
BPA Supp Capacity	2	2	2	-	-	-	-	-	-	-	-	-
Hydro Goshen	2	2	2	2	2	2	2	2	2	2	2	2
Hydro Pacific	499	499	499	499	499	499	499	499	499	499	499	499
Hydro Utah	43	43	43	43	43	43	43	43	43	43	43	43
Mid-Columbia	236	236	236	236	236	166	166	166	166	66	31	31
T&D Eff PPL	3	7	8	10	12	14	16	18	20	22	26	26
T&D Eff UPL	1	3	4	5	7	7	8	9	9	10	12	12
Wind Foote Creek	12	12	12	12	12	12	12	12	12	12	12	12
Total Renewables	1,086	1,092	1,044	1,044	1,045	980	982	984	987	891	855	854
Existing Generation	7,380	7,375	7,330	7,372	7,283	7,247	7,255	7,145	7,145	7,053	6,190	5,070
Purchases												
APS Sea Ex (P)	64	64	64	64	64	64	64	64	64	64	64	64
APS Sea Ex (S)	(64)	(64)	(64)	(64)	(64)	(64)	(64)	(64)	(64)	(64)	(64)	(64)
APS Supplemental	-	-	-	-	-	-	-	-	-	-	-	-
Black Hills Capacity	-	-	-	-	-	-	-	-	-	-	-	-
BPA Spring Ex (P)	6	6	6	6	6	6	6	6	6	6	-	-
BPA Spring Ex (S)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	-	-
BPA Summer Ex (P)	14	14	14	14	14	14	14	14	14	14	-	-
BPA Summer Ex (S)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	-	-
Colockum (P)	-	-	-	-	-	-	-	-	-	-	-	-
Colockum (S)	(18)	(18)	(5)	-	-	-	-	-	-	-	-	-
CSPE	9	9	2	-	-	-	-	-	-	-	-	-
Deseret Annual	53	-	-	-	-	-	-	-	-	-	-	-
Deseret Expansion	12	-	-	-	-	-	-	-	-	-	-	-
Deseret NF	12	-	-	-	-	-	-	-	-	-	-	-
Gem State	6	6	6	6	6	6	6	6	6	6	6	6
Grant County	10	10	10	10	10	10	10	10	10	10	10	10
GSLM	5	5	5	5	5	5	5	5	5	5	5	5
Idaho Load Control	0	0	0	0	0	0	0	0	0	0	0	0
Interruptible (P)	2	2	2	2	2	2	2	2	2	2	2	2
IPC	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)
PGE Cove	1	1	1	1	1	1	1	1	1	1	1	1
QF Goshen	8	8	8	8	8	8	8	8	8	8	8	8
QF Or/Wa	61	61	61	61	61	61	61	61	61	61	61	61
QF Utah	46	46	46	46	46	46	46	46	46	46	46	46
QF Wyoming	1	1	1	1	1	1	1	1	1	1	1	1
Redding (P)	7	7	7	7	7	7	7	7	7	7	7	-
Redding (S)	-	-	-	-	-	-	-	-	-	-	-	-
SCE Winter	1	1	1	-	-	-	-	-	-	-	-	-

Reference Case 190H.26 Gas 190 c/MMBtu Esc 0.6% Market 26 mills/kWh
Annual Average Generation (aMW)

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
So Idaho Ex (P)	72	72	72	72	72	72	72	72	72	72	-	-
So Idaho Ex (S)	(42)	(42)	(42)	(42)	(42)	(42)	(42)	(42)	(42)	(42)	-	-
TransAlta	246	333	380	380	380	380	189	-	-	-	-	-
Tri-State Basic	33	33	33	33	33	33	33	33	33	33	33	33
Tri-State Ex (P)	19	19	19	19	19	19	-	-	-	-	-	-
Tri-State Ex (S)	(19)	(19)	(19)	(19)	(19)	(19)	-	-	-	-	-	-
WWP Seasonal Ex (P)	3	3	3	3	3	3	3	3	3	-	-	-
WWP Seasonal Ex (S)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	-	-	-
WWP Summer Purchase	9	9	9	-	-	-	-	-	-	-	-	-
Purchased Power	700.0	709.9	749.7	737.0	737.0	737.0	527.7	338.2	338.2	335.0	243.1	235.7
Total Resources	8,080	8,085	8,080	8,109	8,020	7,984	7,782	7,483	7,484	7,388	6,433	5,305
Sales												
APPA	4	2	3	-	-	-	-	-	-	-	-	-
Black Hills 1996	-	-	-	-	-	-	-	-	-	-	-	-
Black Hills Load	36	33	30	27	27	27	27	27	27	27	27	27
BPA Wind Sale	6	6	6	6	6	6	6	6	6	6	6	6
Canadian Entitlement	2	2	0	-	-	-	-	-	-	-	-	-
CDWR	70	70	70	70	-	-	-	-	-	-	-	-
Citizens Power	15	10	-	-	-	-	-	-	-	-	-	-
Clark County PUD	76	-	-	-	-	-	-	-	-	-	-	-
Clark-WT	10	9	-	-	-	-	-	-	-	-	-	-
Cowlitz-BHP	7	5	-	-	-	-	-	-	-	-	-	-
Deseret Supplemental	20	-	-	-	-	-	-	-	-	-	-	-
Green Mountain												
Hurricane Net Sale	3	3	3	3	3	3	3	-	-	-	-	-
Large Industrials	419	419	419	419	419	419	419	419	419	41[illegible]	419	419
Montana Sell Back	70	70	70	70	70	53	-	-	-	-	-	-
Okanogan	3	-	-	-	-	-	-	-	-	-	-	-
PNGC	12	-	-	-	-	-	-	-	-	-	-	-
PSCol	132	132	132	132	132	132	132	132	132	132	132	132
Puget 2	120	120	99	-	-	-	-	-	-	-	-	-
SCE OWC	55	55	55	55	55	41	-	-	-	-	-	-
SCE Utah	55	55	55	55	55	41	-	-	-	-	-	-
Sierra 2	53	53	53	53	53	53	53	53	13	-	-	-
SMUD	40	40	40	40	40	40	40	40	40	40	-	-
Springfield	24	24	24	24	24	24	24	24	24	24	24	-
Springfield II	17	8	-	-	-	-	-	-	-	-	-	-
UMPA 1	4	4	4	4	2	-	-	-	-	-	-	-
UMPA 2	8	9	-	10	10	10	10	10	10	10	10	10
WAPA 1	47	47		47	-	-	-	-	-	-	-	-
WAPA 2	67	67		67	-	-	-	-	-	-	-	-
Total Sales	1,550	1,418	1[illegible]	1,239	1,054	1,006	853	850	810	794	692	668
Total System												
Native Load	5,677	5,745	5[illegible]	[illegible],002	6,123	6,248	6,393	6,540	6,691	6,814	7,622	8,697
Long Term Sales	1,550	1,418	1,[illegible]	[illegible]240	1,054	1,006	853	850	811	794	692	668
Short Term Sales	1,503	1,481	1,378	1,822	1,977	1,912	1,983	1,998	2,034	1,873	2,313	2,322
Pumped Storage	277	277	225	223	223	223	223	223	223	223	223	223
DSM Programs	(17)	(33)	(49)	(65)	(82)	(98)	(115)	(131)	(147)	(164)	(225)	(325)
Total Requirements	8,991	8,888	8,786	9,222	9,295	9,292	9,337	9,481	9,612	9,540	10,626	11,586
Existing Generation	7,380	7,375	7,330	7,372	7,283	7,247	7,255	7,145	7,146	7,053	6,190	5,071
Long Term Purchases	700	710	750	737	737	737	528	338	338	335	243	242
Short Term Market P	806	708	600	503	317	269	325	512	472	459	449	426
Short Term Purchases	105	95	106	77	80	96	70	97	72	96	1	2
New Resources	-	-	-	533	879	943	1,160	1,388	1,585	1,597	3,742	5,845
Total Resources	8,991	8,888	8,786	9,222	9,295	9,292	9,337	9,481	9,612	9,540	10,626	11,586

Reference Case 190H.26 Gas 190 c/MMBtu Esc 0.6% Market 26 mills/kWh
Summer Capacity (MW)

Traditional Listing

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
Owned Resources												
Blundell Geothermal	23	23	23	23	23	23	23	23	23	23	23	23
Hydro Goshen	3	3	3	3	3	3	3	3	3	3	3	3
Hydro Pacific	869	869	869	869	869	869	869	869	869	869	869	869
Hydro Utah	52	52	52	52	52	52	52	52	52	52	52	52
Wind Foote Creek	16	16	16	16	16	16	16	16	16	16	16	16
Carbon 1,2	175	175	175	175	175	175	175	175	175	175	-	-
Cholla 4	380	380	380	380	380	380	380	380	380	380	380	380
Colstrip 3,4	144	144	144	144	144	144	144	144	144	144	144	144
Craig 1,2	165	165	165	165	165	165	165	165	165	165	165	165
Dave Johnstn 1,2,3,4	772	772	772	772	772	772	772	772	772	772	772	772
Gadsby 1,2,3	235	235	235	235	235	235	235	-	-	-	-	-
Hayden 1,2	78	78	78	78	78	78	78	78	78	78	78	78
Hermiston	227	227	227	227	227	227	227	227	227	227	227	227
Hunter 1,2,3	1,122	1,122	1,122	1,122	1,122	1,122	1,122	1,122	1,122	1,122	1,122	1,122
Huntington 1,2	895	895	895	895	895	895	895	895	895	895	895	-
Jim Bridger 1,2,3,4	1,413	1,413	1,413	1,413	1,413	1,413	1,413	1,413	1,413	1,413	1,413	1,413
Naughton 1,2,3	700	700	700	700	700	700	700	700	700	700	-	-
Wyodak	268	268	268	268	249	249	249	249	249	249	249	-
Owned Resources	7,537	7,537	7,537	7,537	7,519	7,519	7,519	7,284	7,284	7,284	6,409	5,264
Purchases												
APS Sea Ex (P)	-	-	-	-	-	-	-	-	-	-	-	-
APS Sea Ex (S)	(480)	(480)	(480)	(480)	(480)	(480)	(480)	(480)	(480)	(480)	(480)	(480)
APS Supplemental	-	-	-	-	-	-	-	-	-	-	-	-
Black Hills Capacity	68	68	68	68	68	68	68	68	68	68	-	-
BPA Peaking	925	925	750	575	575	575	575	575	575	575	575	575
BPA Supp Capacity	9	8	-	-	-	-	-	-	-	-	-	-
BPA Spring Ex (P)	-	-	-	-	-	-	-	-	-	-	-	-
BPA Spring Ex (S)	-	-	-	-	-	-	-	-	-	-	-	-
BPA Summer Ex (P)	-	-	-	-	-	-	-	-	-	-	-	-
BPA Summer Ex (S)	-	-	-	-	-	-	-	-	-	-	-	-
Canadian Entitlement	5	4	-	-	-	-	-	-	-	-	-	-
Colockum (P)	103	103	-	-	-	-	-	-	-	-	-	-
Colockum (S)	-	-	-	-	-	-	-	-	-	-	-	-
CSPE	18	16	-	-	-	-	-	-	-	-	-	-
Deseret Annual	104	-	-	-	-	-	-	-	-	-	-	-
Deseret Expansion	-	-	-	-	-	-	-	-	-	-	-	-
Deseret NF	-	-	-	-	-	-	-	-	-	-	-	-
Gem State	22	22	22	22	22	22	22	22	22	22	22	22
Grant County	14	14	14	14	14	14	14	14	14	14	14	14
GSLM	-	-	-	-	-	-	-	-	-	-	-	-
Hermiston Contract	227	227	227	227	227	227	227	227	227	227	227	227
Idaho Load Control	150	150	150	150	150	150	150	150	150	150	150	150
Interruptible (P)	161	161	161	161	161	161	161	161	161	161	161	161
IPC	-	-	-	-	-	-	-	-	-	-	-	-
James River	52	52	52	52	52	52	52	52	52	52	52	-
Mid-Columbia	422	422	422	422	422	297	297	297	297	118	55	55
PGE Cove	2	2	2	2	2	2	2	2	2	2	2	2
QF Goshen	9	9	9	9	9	9	9	9	9	9	9	9
QF Or/Wa	67	67	67	67	67	67	67	67	67	67	67	67
QF Utah	60	60	60	60	60	60	60	60	60	60	60	60
QF Wyoming	3	3	3	3	3	3	3	3	3	3	3	3
Redding (P)	22	22	22	22	22	22	22	22	22	22	22	-
Redding (S)	-	-	-	-	-	-	-	-	-	-	-	-
SCE Winter	-	-	-	-	-	-	-	-	-	-	-	-
So Idaho Ex (P)	-	-	-	-	-	-	-	-	-	-	-	-
So Idaho Ex (S)	-	-	-	-	-	-	-	-	-	-	-	-

Reference Case 190H.26 Gas 190 c/MMBtu Esc 0.6% Market 26 mills/kWh
Summer Capacity (MW)

Traditional Listing

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
T&D Eff PPL	5	10	12	15	17	20	23	26	29	32	38	38
T&D Eff UPL	2	4	6	8	10	11	12	13	14	15	17	17
TransAlta	300	400	400	400	400	400	-	-	-	-	-	-
Tri-State Basic	50	50	50	50	50	50	50	50	50	50	50	50
Tri-State Ex (P)	-	-	-	-	-	-	-	-	-	-	-	-
Tri-State Ex (S)	(50)	(50)	(50)	(50)	(50)	(50)	-	-	-	-	-	-
WWP Seasonal Ex (P)	50	50	50	50	50	50	50	50	-	-	-	-
WWP Seasonal Ex (S)	-	-	-	-	-	-	-	-	-	-	-	-
WWP Summer Purchase	150	150	150	-	-	-	-	-	-	-	-	-
Purchased Power	2,468	2,467	2,165	1,844	1,848	1,727	1,381	1,385	1,339	1,164	1,041	968

Sales

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
APPA	35	15	25	-	-	-	-	-	-	-	-	-
Black Hills 1996	30	30	-	-	-	-	-	-	-	-	-	-
Black Hills Load	65	60	55	50	50	50	50	50	50	50	50	50
BPA Wind Sale	6	6	6	6	6	6	6	6	6	6	6	6
CDWR	100	100	100	100	-	-	-	-	-	-	-	-
Citizens Power	80	80	-	-	-	-	-	-	-	-	-	-
Clark County PUD	100	-	-	-	-	-	-	-	-	-	-	-
Clark-WT	10	10	-	-	-	-	-	-	-	-	-	-
Cowlitz-BHP	10	-	-	-	-	-	-	-	-	-	-	-
Deseret Supplemental	-	-	-	-	-	-	-	-	-	-	-	-
Green Mountain												
Hurricane Net Sale	3	3	3	3	3	3	3	-	-	-	-	-
Large Industrials	367	367	367	367	367	367	367	367	367	367	367	367
Montana Sell Back	70	70	70	70	70	70	-	-	-	-	-	-
Okanogan	5	-	-	-	-	-	-	-	-	-	-	-
PNGC	-	-	-	-	-	-	-	-	-	-	-	-
PSCol	176	176	176	176	176	176	176	176	176	176	176	176
Puget 2	200	200	200	-	-	-	-	-	-	-	-	-
SCE OWC	100	100	100	100	100	100	-	-	-	-	-	-
SCE Utah	100	100	100	100	100	100	-	-	-	-	-	-
Sierra 2	75	75	75	75	75	75	75	75	75	-	-	-
SMUD	100	100	100	100	100	100	100	100	100	100	-	-
Springfield	45	45	45	45	45	45	45	45	45	45	45	-
Springfield II	-	-	-	-	-	-	-	-	-	-	-	-
UMPA 1	8	8	8	8	-	-	-	-	-	-	-	-
UMPA 2	21	25	25	25	25	25	25	25	25	25	25	25
WAPA 1	60	60	60	60	-	-	-	-	-	-	-	-
WAPA 2	75	75	75	75	-	-	-	-	-	-	-	-
Total Sales	1,842	1,705	1,590	1,360	1,117	1,117	847	844	844	769	669	624

Total Summer System

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
Native Load	7,987	8,030	8,203	8,435	8,608	8,767	8,937	9,052	9,267	9,399	10,535	12,042
Long Term Sales	1,842	1,705	1,590	1,360	1,117	1,117	847	844	844	769	669	624
DSM Programs	(24)	(47)	(69)	(93)	(116)	(139)	(163)	(186)	(208)	(232)	(317)	(454)
Total Requirements	9,805	9,688	9,724	9,702	9,609	9,745	9,621	9,710	9,903	9,936	10,887	12,212
Owned Resources	7,537	7,537	7,537	7,537	7,519	7,519	7,519	7,284	7,284	7,284	6,409	5,264
Purchased Power	2,468	2,467	2,165	1,844	1,848	1,727	1,381	1,385	1,339	1,164	1,041	968
Short Term Market P	806	714	875	814	571	571	651	648	698	623	591	568
Short Term Cap Purch	40	1	171	-	-	-	-	-	-	287	-	428
New Resources	1	1	1	540	893	957	1,176	1,414	1,621	1,621	3,988	6,258
Total Resources	10,852	10,720	10,750	10,736	10,831	10,774	10,727	10,731	10,942	10,979	12,029	13,486
Reserves	1,047	1,032	1,026	1,033	1,222	1,029	1,106	1,021	1,039	1,043	1,141	1,274
Reserve %	10.7%	10.7%	10.6%	10.7%	12.7%	10.6%	11.5%	10.5%	10.5%	10.5%	10.5%	10.4%

Reference Case 190H.26 Gas 190 c/MMBtu Esc 0.6% Market 26 mills/kWh
Winter Capacity (MW)

Traditional Listing

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
Owned Resources												
Blundell Geothermal	23	23	23	23	23	23	23	23	23	23	23	23
Hydro Goshen	2	2	2	2	2	2	2	2	2	2	2	2
Hydro Pacific	902	902	902	902	902	902	902	902	902	902	902	902
Hydro Utah	28	28	28	28	28	28	28	28	28	28	28	28
Wind Foote Creek	28	28	28	28	28	28	28	28	28	28	28	28
Carbon 1,2	175	175	175	175	175	175	175	175	175	175	-	-
Cholla 4	380	380	380	380	380	380	380	380	380	380	380	380
Colstrip 3,4	144	144	144	144	144	144	144	144	144	144	144	144
Craig 1,2	165	165	165	165	165	165	165	165	165	165	165	165
Dave Johnstn 1,2,3,4	772	772	772	772	772	772	772	772	772	772	772	772
Gadsby 1,2,3	235	235	235	235	235	235	235	-	-	-	-	-
Hayden 1,2	78	78	78	78	78	78	78	78	78	78	78	78
Hermiston	246	246	246	246	246	246	246	246	246	246	246	246
Hunter 1,2,3	1,122	1,122	1,122	1,122	1,122	1,122	1,122	1,122	1,122	1,122	1,122	1,122
Huntington 1,2	895	895	895	895	895	895	895	895	895	895	895	-
Jim Bridger 1,2,3,4	1,413	1,413	1,413	1,413	1,413	1,413	1,413	1,413	1,413	1,413	1,413	1,413
Naughton 1,2,3	700	700	700	700	700	700	700	700	700	700	-	-
Wyodak	268	268	268	268	249	249	249	249	249	249	249	-
Owned Resources	7,576	7,576	7,576	7,576	7,557	7,557	7,557	7,322	7,322	7,322	6,447	5,303
Purchases												
APS Sea Ex (P)	480	480	480	480	480	480	480	480	480	480	480	480
APS Sea Ex (S)	-	-	-	-	-	-	-	-	-	-	-	-
APS Supplemental	-	-	-	-	-	-	-	-	-	-	-	-
Black Hills Capacity	100	100	100	100	100	100	100	100	100	100	-	-
BPA Peaking	925	925	925	750	575	575	575	575	575	575	575	575
BPA Supp Capacity	9	9	8	-	-	-	-	-	-	-	-	-
BPA Spring Ex (P)	-	-	-	-	-	-	-	-	-	-	-	-
BPA Spring Ex (S)	-	-	-	-	-	-	-	-	-	-	-	-
BPA Summer Ex (P)	-	-	-	-	-	-	-	-	-	-	-	-
BPA Summer Ex (S)	-	-	-	-	-	-	-	-	-	-	-	-
Canadian Entitlement	5	5	4	-	-	-	-	-	-	-	-	-
Colockum (P)	103	103	103	-	-	-	-	-	-	-	-	-
Colockum (S)	-	-	-	-	-	-	-	-	-	-	-	-
CSPE	18	18	16	-	-	-	-	-	-	-	-	-
Deseret Annual	104	-	-	-	-	-	-	-	-	-	-	-
Deseret Expansion	-	-	-	-	-	-	-	-	-	-	-	-
Deseret NF	-	-	-	-	-	-	-	-	-	-	-	-
Gem State	-	-	-	-	-	-	-	-	-	-	-	-
Grant County	14	14	14	14	14	14	14	14	14	14	14	14
GSLM	15	15	15	15	15	15	15	15	15	15	15	15
Hermiston Contract	246	246	246	246	246	246	246	246	246	246	246	246
Idaho Load Control	-	-	-	-	-	-	-	-	-	-	-	-
Interruptible (P)	157	157	157	157	157	157	157	157	157	157	157	157
IPC	-	-	-	-	-	-	-	-	-	-	-	-
James River	52	52	52	52	52	52	52	52	52	52	52	-
Mid-Columbia	422	422	422	422	422	297	297	297	297	118	55	55
PGE Cove	2	2	2	2	2	2	2	2	2	2	2	2
QF Goshen	6	6	6	6	6	6	6	6	6	6	6	6
QF Or/Wa	76	76	76	76	76	76	76	76	76	76	76	76
QF Utah	59	59	59	59	59	59	59	59	59	59	59	59
QF Wyoming	0	0	0	0	0	0	0	0	0	0	0	0
Redding (P)	22	22	22	22	22	22	22	22	22	22	22	-
Redding (S)	-	-	-	-	-	-	-	-	-	-	-	-
SCE Winter	422	422	422	-	-	-	-	-	-	-	-	-
So Idaho Ex (P)	-	-	-	-	-	-	-	-	-	-	-	-
So Idaho Ex (S)	-	-	-	-	-	-	-	-	-	-	-	-

Reference Case 190H.26 Gas 190 c/MMBtu Esc 0.6% Market 26 mills/kWh
Winter Capacity (MW)

Traditional Listing

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
T&D Eff PPL	5	10	12	15	17	20	23	26	29	32	38	38
T&D Eff UPL	2	4	6	8	10	11	12	13	14	15	17	17
TransAlta	200	300	400	400	400	400	400	-	-	-	-	-
Tri-State Basic	50	50	50	50	50	50	50	50	50	50	50	50
Tri-State Ex (P)	50	50	50	50	50	50	-	-	-	-	-	-
Tri-State Ex (S)	-	-	-	-	-	-	-	-	-	-	-	-
WWP Seasonal Ex (P)	-	-	-	-	-	-	-	-	-	-	-	-
WWP Seasonal Ex (S)	(50)	(50)	(50)	(50)	(50)	(50)	(50)	(50)	(50)	-	-	-
WWP Summer Purchase	-	-	-	-	-	-	-	-	-	-	-	-
Purchased Power	3,492	3,495	3,596	2,872	2,701	2,580	2,534	2,138	2,142	2,017	1,862	1,788
Sales												
APPA	-	-	-	-	-	-	-	-	-	-	-	-
Black Hills 1996	15	15	-	-	-	-	-	-	-	-	-	-
Black Hills Load	65	60	55	50	50	50	50	50	50	50	50	50
BPA Wind Sale	6	6	6	6	6	6	6	6	6	6	6	6
CDWR	100	100	100	100	-	-	-	-	-	-	-	-
Citizens Power	85	85	-	-	-	-	-	-	-	-	-	-
Clark County PUD	325	-	-	-	-	-	-	-	-	-	-	-
Clark-WT	10	10	-	-	-	-	-	-	-	-	-	-
Cowlitz-BHP	10	22	-	-	-	-	-	-	-	-	-	-
Deseret Supplemental	-	-	-	-	-	-	-	-	-	-	-	-
Green Mountain												
Hurricane Net Sale	3	3	3	3	3	3	3	-	-	-	-	-
Large Industrials	536	536	536	536	536	536	536	536	536	536	536	536
Montana Sell Back	70	70	70	70	70	70	-	-	-	-	-	-
Okanogan	7	-	-	-	-	-	-	-	-	-	-	-
PNGC	60	-	-	-	-	-	-	-	-	-	-	-
PSCol	176	176	176	176	176	176	176	176	176	176	176	176
Puget 2	200	200	200	-	-	-	-	-	-	-	-	-
SCE OWC	100	100	100	100	100	100	-	-	-	-	-	-
SCE Utah	100	100	100	100	100	100	-	-	-	-	-	-
Sierra 2	75	75	75	75	75	75	75	75	75	-	-	-
SMUD	100	100	100	100	100	100	100	100	100	100	-	-
Springfield	30	30	30	30	30	30	30	30	30	30	30	-
Springfield II	50	50	-	-	-	-	-	-	-	-	-	-
UMPA 1	8	8	8	8	8	-	-	-	-	-	-	-
UMPA 2	19	21	25	25	25	25	25	25	25	25	25	25
WAPA 1	60	60	60	60	-	-	-	-	-	-	-	-
WAPA 2	75	75	75	75	-	-	-	-	-	-	-	-
Total Sales	2,285	1,902	1,719	1,514	1,279	1,271	1,001	998	998	923	823	793
Total Winter System												
Native Load	7,902	7,996	8,173	8,348	8,519	8,679	8,831	8,990	9,162	9,324	10,390	11,740
Long Term Sales	2,285	1,902	1,719	1,514	1,279	1,271	1,001	998	998	923	823	793
DSM Programs	(30)	(59)	(89)	(120)	(150)	(180)	(211)	(241)	(271)	(301)	(410)	(585)
Total Requirements	10,157	9,839	9,803	9,742	9,648	9,770	9,621	9,747	9,889	9,946	10,803	11,948
Owned Resources	7,576	7,576	[illegible]	7,576	7,557	7,557	7,557	7,322	7,322	7,322	6,447	5,303
Purchased Power	3,492	3,495	3,596	2,872	2,701	2,580	2,534	2,138	2,142	2,017	1,862	1,788
Short Term Market P	80	-	-	135	-	-	-	69	69	-	-	-
Short Term Cap Purch	40	-	-	-	-	-	-	-	-	-	-	-
New Resources	1	1	1	575	949	1,017	1,250	1,503	1,724	1,724	4,241	6,663
Total Resources	11,189	11,072	11,172	11,157	11,206	11,154	11,341	11,032	11,257	11,063	12,550	13,754
Reserves	1,032	1,233	1,370	1,416	1,559	1,384	1,720	1,285	1,368	1,117	1,747	1,806
Reserve %	10.2%	12.5%	14.0%	14.5%	16.2%	14.2%	17.9%	13.2%	13.8%	11.2%	16.2%	15.1%

Reference Case 190H.26 Gas 190 c/MMBtu Esc 0.6% Market 26 mills/kWh
Annual Average Generation (aMW)

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
Owned Resources												
Blundell Geothermal	13	14	14	13	12	14	13	13	12	14	8	7
Hydro Goshen	2	2	2	2	2	2	2	2	2	2	2	2
Hydro Pacific	499	499	499	499	499	499	499	499	499	499	499	499
Hydro Utah	43	43	43	43	43	43	43	43	43	43	43	43
Wind Foote Creek	12	12	12	12	12	12	12	12	12	12	12	12
Carbon 1,2	170	168	156	162	170	164	164	164	164	164	-	-
Cholla 4	376	376	376	354	376	369	369	369	369	369	369	369
Colstrip 3,4	130	133	130	130	130	130	130	130	130	130	130	130
Craig 1,2	159	162	159	159	162	159	159	159	159	159	159	159
Dave Johnstn 1,2,3,4	715	701	716	715	698	709	709	709	709	709	709	709
Gadsby 1,2,3	111	111	111	111	111	112	113	-	-	-	-	-
Hayden 1,2	72	71	72	68	70	71	71	71	71	71	71	71
Hermiston	214	207	207	214	211	211	211	211	211	211	207	207
Hunter 1,2,3	1,040	1,038	1,070	1,070	1,040	1,056	1,056	1,056	1,056	1,056	1,056	1,056
Huntington 1,2	827	828	828	848	832	831	831	831	831	831	831	-
Jim Bridger 1,2,3,4	1,307	1,308	1,308	1,308	1,307	1,308	1,308	1,308	1,308	1,308	1,308	1,308
Naughton 1,2,3	651	661	636	667	651	654	654	654	652	654	-	-
Wyodak	261	261	261	261	224	238	238	238	238	238	238	-
Owned Resources	6,600	6,593	6,599	6,636	6,549	6,581	6,582	6,469	6,466	6,470	5,641	4,571
Purchases												
APS Sea Ex (P)	64	64	64	64	64	64	64	64	64	64	64	64
APS Sea Ex (S)	(64)	(64)	(64)	(64)	(64)	(64)	(64)	(64)	(64)	(64)	(64)	(64)
APS Supplemental	-	-	-	-	-	-	-	-	-	-	-	-
Black Hills Capacity	-	-	-	-	-	-	-	-	-	-	-	-
BPA Peaking	275	275	223	223	223	223	223	223	223	223	223	223
BPA Supp Capacity	2	2	2	-	-	-	-	-	-	-	-	-
BPA Spring Ex (P)	6	6	6	6	6	6	6	6	6	6	-	-
BPA Spring Ex (S)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	-	-
BPA Summer Ex (P)	14	14	14	14	14	14	14	14	14	14	-	-
BPA Summer Ex (S)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(14)	-	-
Canadian Entitlement	2	2	0	-	-	-	-	-	-	-	-	-
Colockum (P)	-	-	-	-	-	-	-	-	-	-	-	-
Colockum (S)	(18)	(18)	(5)	-	-	-	-	-	-	-	-	-
CSPE	9	9	2	-	-	-	-	-	-	-	-	-
Deseret Annual	53	-	-	-	-	-	-	-	-	-	-	-
Deseret Expansion	12	-	-	-	-	-	-	-	-	-	-	-
Deseret NF	12	-	-	-	-	-	-	-	-	-	-	-
Gem State	6	6	6	6	6	6	6	6	6	6	6	6
Grant County	10	10	10	10	10	10	10	10	10	10	10	10
GSLM	5	5	5	5	5	5	5	5	5	5	5	5
Hermiston Contract	214	207	207	214	211	211	211	211	211	211	207	207
Idaho Load Control	0	0	0	0	0	0	0	0	0	0	0	0
Interruptible (P)	2	2	2	2	2	2	2	2	2	2	2	2
IPC	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)
James River	48	51	49	48	45	44	49	49	49	50	50	-
Mid-Columbia	236	236	236	236	236	166	166	166	166	66	31	31
PGE Cove	1	1	1	1	1	1	1	1	1	1	1	1
QF Goshen	8	8	8	8	8	8	8	8	8	8	8	8
QF Or/Wa	61	61	61	61	61	61	61	61	61	61	61	61
QF Utah	46	46	46	46	46	46	46	46	46	46	46	46
QF Wyoming	1	1	1	1	1	1	1	1	1	1	1	1
Redding (P)	7	7	7	7	7	7	7	7	7	7	7	-
Redding (S)	-	-	-	-	-	-	-	-	-	-	-	-
SCE Winter	1	1	1	-	-	-	-	-	-	-	-	-
So Idaho Ex (P)	72	72	72	72	72	72	72	72	72	72	-	-
So Idaho Ex (S)	(42)	(42)	(42)	(42)	(42)	(42)	(42)	(42)	(42)	(42)	-	-

Reference Case 190H.26 Gas 190 c/MMBtu Esc 0.6% Market 26 mills/kWh
Annual Average Generation (aMW)

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
T&D Eff PPL	3	7	8	10	12	14	16	18	20	22	26	26
T&D Eff UPL	1	3	4	5	7	7	8	9	9	10	12	12
TransAlta	246	333	380	380	380	380	189	-	-	-	-	-
Tri-State Basic	33	33	33	33	33	33	33	33	33	33	33	33
Tri-State Ex (P)	19	19	19	19	19	19	-	-	-	-	-	-
Tri-State Ex (S)	(19)	(19)	(19)	(19)	(19)	(19)	-	-	-	-	-	-
WWP Seasonal Ex (P)	3	3	3	3	3	3	3	3	3	-	-	-
WWP Seasonal Ex (S)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	-	-	-
WWP Summer Purchase	9	9	9	-	-	-	-	-	-	-	-	-
Purchased Power	1,306.2	1,317.7	1,318.1	1,315.7	1,312.9	1,245.2	1,061.7	875.7	878.5	782.0	718.2	660.4

Sales

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
APPA	4	2	3	-	-	-	-	-	-	-	-	-
Black Hills 1996	-	-	-	-	-	-	-	-	-	-	-	-
Black Hills Load	36	33	30	27	27	27	27	27	27	27	27	27
BPA Wind Sale	6	6	6	6	6	6	6	6	6	6	6	6
CDWR	70	70	70	70	-	-	-	-	-	-	-	-
Citizens Power	15	10	-	-	-	-	-	-	-	-	-	-
Clark County PUD	76	-	-	-	-	-	-	-	-	-	-	-
Clark-WT	10	9	-	-	-	-	-	-	-	-	-	-
Cowlitz-BHP	7	5	-	-	-	-	-	-	-	-	-	-
Deseret Supplemental	20	-	-	-	-	-	-	-	-	-	-	-
Green Mountain												
Hurricane Net Sale	3	3	3	3	3	3	3	-	-	-	-	-
Large Industrials	419	419	419	419	419	419	419	419	419	419	419	419
Montana Sell Back	70	70	70	70	70	53	-	-	-	-	-	-
Okanogan	3	-	-	-	-	-	-	-	-	-	-	-
PNGC	12	-	-	-	-	-	-	-	-	-	-	-
PSCol	132	132	132	132	132	132	132	132	132	132	132	132
Puget 2	120	120	99	-	-	-	-	-	-	-	-	-
SCE OWC	55	55	55	55	55	41	-	-	-	-	-	-
SCE Utah	55	55	55	55	55	41	-	-	-	-	-	-
Sierra 2	53	53	53	53	53	53	53	53	13	-	-	-
SMUD	40	40	40	40	40	40	40	40	40	40	-	-
Springfield	24	24	24	24	24	24	24	24	24	24	24	-
Springfield II	17	8	-	-	-	-	-	-	-	-	-	-
UMPA 1	4	4	4	4	2	-	-	-	-	-	-	-
UMPA 2	8	9	10	10	10	10	10	10	10	10	10	10
WAPA 1	47	47	47	47	-	-	-	-	-	-	-	-
WAPA 2	67	67	67	67	-	-	-	-	-	-	-	-
Total Sales	1,372	1,240	1,187	1,082	896	849	714	711	671	658	618	594

Total System

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
Native Load	5,677	5,745	5,882	6,002	6,123	6,248	6,393	6,540	6,691	6,814	7,622	8,697
Long Term Sales	1,372	1,240	1,187	1,082	896	849	714	711	671	658	618	594
Short Term Sales	1,503	1,481	1,378	1,822	1,977	1,912	1,983	1,998	2,034	1,873	2,313	2,322
Pumped Storage	277	277	225	223	223	223	223	223	223	223	223	223
DSM Programs	(17)	(33)	(49)	(65)	(82)	(98)	(115)	(131)	(147)	(164)	(225)	(325)
Total Requirements	8,813	8,710	8,623	9,064	9,137	9,134	9,198	9,342	9,473	9,404	10,552	11,512
Owned Resources	6,600	6,593	6,599	6,636	6,549	6,581	6,582	6,469	6,466	6,470	5,641	4,571
Purchased Power	1,306	1,318	1,318	1,316	1,313	1,245	1,062	876	878	782	718	660
Short Term Market P	806	708	600	503	317	269	325	512	472	459	449	426
Short Term Purchases	105	95	106	77	80	96	70	97	72	96	1	2
New Resources	-	-	-	533	879	943	1,160	1,388	1,585	1,597	3,742	5,845
Total Resources	8,817	8,714	8,624	9,064	9,137	9,134	9,198	9,342	9,473	9,404	10,552	11,505

PacifiCorp

Integrated Resource Planning

RAMPP-6

Wholesale Balancing Adjustment

Tab 11

Wholesale Balancing Adjustment

Capacity is the lessor of Net Long Term Wholesale Transactions or Purchase to make 10% Reserve Margin

Energy is the lessor of Net Long Term Wholesale Transactions or Peak Capacity

Annual Summer Peak Capacity (MW)

		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
S	Native Load	7,987	8,030	8,203	8,435	8,608	8,767	8,937	9,052	9,267	9,399	10,535	12,042
Y	Long Term Sales	2,377	2,239	2,120	1,890	1,647	1,647	1,327	1,324	1,324	1,249	1,149	1,104
S	DSM Programs	(24)	(48)	(71)	(95)	(120)	(143)	(168)	(192)	(215)	(239)	(328)	(471)
T	**Total Requirements**	10,340	10,221	10,252	10,230	10,135	10,271	10,096	10,184	10,376	10,409	11,356	12,675
E													
M	Existing Generation	9,179	9,185	9,007	8,836	8,821	8,700	8,704	8,473	8,477	8,302	7,372	6,176
	Long Term Purchases	1,351	1,344	1,226	1,076	1,076	1,076	676	676	626	626	558	536
L	Short Term Market	806	714	875	814	571	571	651	648	698	623	591	568
&	Short Term Cap Purch	39	-	169	-	-	-	-	-	-	286	-	425
R	New Resources	1	1	1	536	885	952	1,171	1,407	1,614	1,614	3,976	6,242
	Total Resources	11,376	11,244	11,278	11,262	11,353	11,299	11,202	[illegible]	11,415	11,451	12,497	13,947
	Reserves	1,037	1,023	1,026	1,031	1,218	1,028	1,106	1,019	1,039	1,042	1,141	1,272
	Reserve Margin (%)	10.0	10.0	10.0	10.1	12.0	10.0	10.9	10.0	10.0	10.0	10.0	10.0
	Purchase up to 10% Reserve	**806**	**714**	**876**	1,341	1,252	1,522	1,726	2,053	2,311	2,236	4,561	6,805
	Net Long Term Transactions	1,026	895	894	**814**	**571**	**571**	**651**	**648**	**698**	**623**	**591**	**568**
	Summer Short Term Market	806	714	876	814	571	571	651	648	698	623	591	568

Annual Winter Peak Capacity (MW)

		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
S	Native Load	7,902	7,996	8,173	8,348	8,519	8,679	8,831	8,990	9,162	9,324	10,390	11,740
Y	Long Term Sales	2,340	1,957	1,773	1,564	1,329	1,321	1,051	1,048	1,048	923	823	793
S	DSM Programs	(31)	(61)	(91)	(123)	(154)	(185)	(217)	(248)	(278)	(309)	(423)	(603)
T	**Total Requirements**	10,211	9,892	9,855	9,789	9,694	9,815	9,665	9,790	9,932	9,938	10,790	11,930
E													
M	Existing Generation	9,237	9,244	9,247	9,068	8,878	8,757	8,761	8,530	8,534	8,359	7,429	6,233
	Long Term Purchases	1,877	1,872	1,970	1,429	1,429	1,429	1,379	979	979	979	879	858
L	Short Term Market	80	-	-	135	-	-	-	69	69	-	-	-
&	Short Term Cap Purch	39	-	169	-	-	-	-	-	-	286	-	425
R	New Resources	1	1	1	570	941	1,011	1,245	1,496	1,716	1,716	4,228	6,647
	Total Resources	11,234	11,117	11,387	11,202	11,248	11,197	11,385	11,074	11,298	11,340	12,536	14,163
	Reserves	1,022	1,224	1,533	1,413	1,555	1,383	1,720	1,284	1,367	1,403	1,747	2,234
	Reserve Margin (%)	10.0	12.4	15.6	14.4	16.0	14.1	17.8	13.1	13.8	14.1	16.2	18.7
	Purchase up to 10% Reserve	**80**	(235)	(546)	271	356	611	492	1,260	1,412	1,308	3,561	5,607
	Net Long Term Transactions	463	85	(197)	**135**	(100)	(108)	(328)	**69**	**69**	(56)	(56)	(65)
	Winter Short Term Market	80	-	-	135	-	-	-	69	69	-	-	-

Annual Energy (aMW)

		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
S	Native Load	5,677	5,745	5,882	6,002	6,123	6,248	6,393	6,540	6,691	6,814	7,622	8,697
Y	Pump Storage/Peak Return	277	277	225	223	223	223	223	223	223	223	223	223
S	Long Term Sales	1,550	1,418	1,350	1,240	1,054	1,006	853	850	811	794	692	668
T	Short Term Sales	1,504	1,482	1,380	1,822	1,974	1,912	1,983	1,998	2,034	1,873	2,313	2,323
E	DSM Programs	(17)	(34)	(51)	(68)	(85)	(102)	(119)	(137)	(154)	(171)	(236)	(341)
M	Total Requirements	8,991	8,888	8,786	9,219	9,288	9,288	9,332	9,475	9,605	9,533	10,615	11,570
	Existing Generation	7,380	7,375	7,330	7,374	7,283	7,247	7,255	7,145	7,146	7,053	6,190	5,071
L	Long Term Purchases	700	710	750	737	737	737	528	338	338	335	243	242
&	Short Term Market	806	708	600	503	317	269	325	512	472	459	449	426
R	Short Term Purchases	105	95	106	78	80	96	70	97	72	96	1	2
	New Resources	-	-	-	528	871	938	1,155	1,382	1,577	1,590	3,731	5,829
	Total Resources	8,991	8,888	8,786	9,219	9,288	9,288	9,332	9,475	9,605	9,533	10,615	11,570

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
Summer	**806**	714	876	814	571	571	651	648	698	623	591	568
Winter	80	-	-	135	-	-	-	69	69	-	-	-
Energy	850	**708**	**600**	**503**	**317**	**269**	**325**	**512**	**472**	**459**	**449**	**426**
Actual Energy	806	708	600	503	317	269	325	512	472	459	449	426
	Summer	Energy	Energy	Energy	Energy	Energy	Energy	Energy	Energy	Energy	Energy	Energy

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Power Plant Remaining Life

Tab 12

Power Supply Estimated Plant Lives

Plant	PacifiCorp Share Net Rating (MW)	Commercial Date	Current Age of Unit	Weighted Average Age of Plant	Power Supply Recommendation Year Ending Life	Years Remaining from 2000	Comment
Carbon-1	70	1954	46				
Carbon-2	105	1957	43	44.2	**2010**	10	54 Year Life
Centralia-1	318	1972	28				
Centralia-2	318	1973	27	27.5	**2027**	27	54 Year Life
Dave Johnston-1	106	1959	41				
Dave Johnston-2	106	1960	40				
Dave Johnston-3	230	1964	36				
Dave Johnston-4	330	1972	28	33.8	**2020**	20	54 Year Life
Gadsby-1	60	1951	49				
Gadsby-2	75	1952	48				
Gadsby-3	100	1955	45	47.0	**2007**	7	54 Year Life
Hunter-1	389	1978	22				
Hunter-2	259	1980	20				
Hunter-3	460	1983	17	19.5	**2025**	25	
Huntington-1	440	1977	23				
Huntington-2	455	1974	26	24.5	**2019**	19	
Jim Bridger-1	353	1974	26				
Jim Bridger-2	353	1975	25				
Jim Bridger-3	353	1976	24				
Jim Bridger-4	347	1979	21	24.0	**2020**	20	
Naughton-1	160	1963	37				
Naughton-2	210	1968	32				
Naughton-3	330	1971	29	31.7	**2012**	12	
Wyodak-1	268	1978	22	22.0	**2022**	22	
Hermiston 1	119	1996	4	4.0	**2031**	31	35 Year Plant Life
Hermiston 2	119	1996	4	4.0	**2031**	31	36 Year Plant Life
Little Mountain	14	1971	29	29.0	**2001**	1	Current Contract Life
Cholla-4	380	1981	19	19.0	**2025**	25	Cholla 1-3 (APS) = 39 Yr Plant Life
Blundell	23	1984	16	16.0	**2021**	21	30 Years from 1991
Craig-1	83	1980	20				
Craig-2	83	1979	21	20.5	**2024**	24	Tri-State = 32.25 Yr Plant Life
Hayden-1	45	1965	35				
Hayden-2	33	1976	24	30.3	**2024**	24	54 Year Life
James River	52	1996	4	4.0	**2016**	16	20 Year Contract
Colstrip-3	72	1984	16				
Colstrip-4	72	1986	14	15.0	**2029**	29	Montana Power = 39 Yr Plant Life
	7,290						

Power Supply Assumptions:

Design Plant life: 44 years

Plant life is equal to design life except for Gadsby, Dave Johnston, Carbon, and Hayden are assumed to be 54 years.

Foote Creek Life assumed to be equal to the Contract period of 300 months or 25 years.

Blundell Life equal to the steam purchase life of 30 years from 1991.

Hermiston Life assumed to be equal to 35 years.

Centralia projected life is made in light of the decision to install FGD equipment.

Life estimates do not include the potential influence of carbon emissions limitations.

Weighted Average Age of All Plants = 25.3 years

Reference Year 2000

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Hydro Resources

List of Hydro Plants

Tab 13

PACIFICORP
HYDRO RESOURCES

	Hydro Plant	River	State	Nameplate Rating,kW	No. of Units	Initial Service
1	Copco #1	Klamath	CA	20,000	2	1918
2	Copco #2	Klamath	CA	27,000	2	1925
3	Fall Creek	Fall Creek	CA	2,200	3	1903
4	Iron Gate	Klamath	CA	18,000	1	1962
5	Ashton	N. Fork Snake	ID	6,850	3	1910
6	Cove	Bear	ID	7,500	1	1917
7	Grace	Bear	ID	33,000	3	1908
8	Last Chance	Last Chance	ID	1,734	3	1984
9	Oneida	Bear	ID	30,000	3	1915
10	Paris	Paris Creek	ID	715	1	1910
11	Soda	Bear	ID	14,000	2	1924
12	St. Anthony	Henry's Fork Snake	ID	500	1	1915
13	Big Fork	Swan	MT	4,150	3	1910
14	Bend	Deschutes	OR	1,110	3	1913
15	Clearwater #1	Clearwater	OR	15,000	1	1953
16	Clearwater #2	Clearwater	OR	26,000	1	1953
17	Cline Falls	Deschutes	OR	1,000	1	1943
18	Eagle Point	S. Fork Big Butte	OR	2,813	1	1957
19	East Side	Link	OR	3,200	1	1924
20	Fish Creek	Fish Creek	OR	11,000	1	1952
21	John C. Boyle	Klamath	OR	79,990	2	1958
22	Lemolo #1	N. Umpqua	OR	29,000	1	1955
23	Lemolo #2	N. Umpqua	OR	33,000	1	1956
24	Powerdale	Hood	OR	6,000	1	1923
25	Prospect #1	N. Fork Rogue	OR	3,760	1	1912
26	Prospect #2	N. Fork Rogue	OR	32,000	2	1928
27	Prospect #3	N. Fork Rogue	OR	7,200	1	1932
28	Prospect #4	N. Fork Rogue	OR	1,000	1	1944
29	Slide Creek	N. Umpqua	OR	18,000	1	1951
30	Soda Springs	N. Umpqua	OR	11,000	1	1952
31	Toketee	N. Umpqua	OR	42,501	3	1949
32	Wallowa Falls	E. Fork Wallowa	OR	1,100	1	1921
33	West Side	Link	OR	600	1	1908
34	American Fork	American Fork	UT	950	1	1907
35	Cutler	Bear	UT	30,000	2	1927
36	Fountain Green	Big Springs	UT	160	1	1922
37	Granite	Big Cottonwood	UT	2,000	1	1896
38	Gunlock	Santa Clara	UT	750	1	1917
39	Pioneer	Ogden	UT	5,000	2	1897
40	Sand Cove	Santa Clara	UT	800	1	1926
41	Snake Creek	Snake Creek	UT	1,180	2	1910
42	Stairs	Big Cottonwood	UT	1,000	1	1895
43	Upper Beaver	Beaver	UT	2,530	2	1907
44	Veyo	Santa Clara	UT	500	1	1920
45	Weber	Weber	UT	3,850	1	1911
46	Condit	White Salmon	WA	9,600	2	1913
47	Drop	Naches	WA	1,400	1	1914
48	Merwin	Lewis	WA	136,000	4	1931
49	Naches	Naches	WA	6,370	2	1909
50	Skookumchuck	Skookumchuck	WA	1,000	1	1990
51	Swift #1	Lewis	WA	240,000	3	1958
52	Yale	Lewis	WA	134,000	2	1953
53	Viva Naughton	Hams Fork-Snake	WY	742	2	1986
		Total Owned Hydro		**1,068,755**	**87**	
	PROJECTS OPERATED BY PACIFICORP - OWNED BY OTHERS					
54	Olmsted	Provo	UT	10,300	3	1904
55	Swift II	Lewis	WA	70,000	2	1958
	TOTAL HYDRO OPERATED BY PACIFICORP			**1,149,055**	**92**	

PACIFICORP
HYDRO RESOURCES

	Hydro Plant	River	State	Nameplate Rating Goshen	Utah	Total
1	Ashton	N. Fork Snake	ID	6,850		
2	Cove	Bear	ID		7,500	
3	Grace	Bear	ID		33,000	
4	Last Chance	Last Chance	ID	1,734		
5	Oneida	Bear	ID		30,000	
6	Paris	Paris Creek	ID		715	
7	Soda	Bear	ID		14,000	
8	St. Anthony	Henry's Fork Snake	ID	500		
9	American Fork	American Fork	UT		950	
10	Cutler	Bear	UT		30,000	
11	Fountain Green	Big Springs	UT		160	
12	Granite	Big Cottonwood	UT		2,000	
13	Gunlock	Santa Clara	UT		750	
14	Pioneer	Ogden	UT		5,000	
15	Sand Cove	Santa Clara	UT		800	
16	Snake Creek	Snake Creek	UT		1,180	
17	Stairs	Big Cottonwood	UT		1,000	
18	Upper Beaver	Beaver	UT		2,530	
19	Veyo	Santa Clara	UT		500	
20	Weber	Weber	UT		3,850	
21	Viva Naughton	Hams Fork-Snake	WY		742	
22	Olmsted	Provo	UT		10,300	
	Total Hydro Operated By PacifiCorp			**9,084**	**144,977**	**154,061**
		Hydro Split by bubble.		**5.90%**	**94.10%**	**100.00%**
		Summer Coincident Generation		**3.2**	**51.8**	**55.0**
		Winter Coincident Generation		**1.8**	**28.2**	**30.0**

PacifiCorp

Integrated Resource Planning

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Case List

Tab 14

Case List

Case Name	Case Number	Title #1	Title #2	Weighting Case	Weighting Group
base.case	1	R-6 Reference	Equal to Case 190H.26		
wtd.case	2	R-6 Weighted Average Case	45% Gas, 45% Load Loss, 10% Enviro, 0% Misc		
fuel.130L.22	11	Case 130L.22 Gas Price 130 c/MMBTU with -1.0% Real Esc	Wholesale Price 22 Mills/kWh with -0.6% Real Esc	1.80	45.00
fuel.160L.22	12	Case 160L.22 Gas Price 160 c/MMBTU with -1.2% Real Esc	Wholesale Price 22 Mills/kWh with -0.7% Real Esc	1.80	
fuel.190L.22	13	Case 190L.22 Gas Price 190 c/MMBTU with -1.4% Real Esc	Wholesale Price 22 Mills/kWh with -0.8% Real Esc	1.80	
fuel.220L.22	14	Case 220L.22 Gas Price 220 c/MMBTU with -1.6% Real Esc	Wholesale Price 22 Mills/kWh with -1.0% Real Esc		
fuel.250L.22	15	Case 250L.22 Gas Price 250 c/MMBTU with -1.8% Real Esc	Wholesale Price 22 Mills/kWh with -1.1% Real Esc		
fuel.280L.22	16	Case 280L.22 Gas Price 280 c/MMBTU with -2.0% Real Esc	Wholesale Price 22 Mills/kWh with -1.2% Real Esc		
fuel.130H.22	17	Case 130H.22 Gas Price 130 c/MMBTU with +1.0% Real Esc	Wholesale Price 22 Mills/kWh with +0.6% Real Esc	1.80	
fuel.160H.22	18	Case 160H.22 Gas Price 160 c/MMBTU with +0.8% Real Esc	Wholesale Price 22 Mills/kWh with +0.5% Real Esc	1.80	
fuel.190H.22	19	Case 190H.22 Gas Price 190 c/MMBTU with +0.6% Real Esc	Wholesale Price 22 Mills/kWh with +0.4% Real Esc	1.80	
fuel.220H.22	20	Case 220H.22 Gas Price 220 c/MMBTU with +0.4% Real Esc	Wholesale Price 22 Mills/kWh with +0.2% Real Esc		
fuel.250H.22	21	Case 250H.22 Gas Price 250 c/MMBTU with +0.2% Real Esc	Wholesale Price 22 Mills/kWh with +0.1% Real Esc		
fuel.280H.22	22	Case 280H.22 Gas Price 280 c/MMBTU with +0.0% Real Esc	Wholesale Price 22 Mills/kWh with +0.0% Real Esc		
fuel.130L.26	23	Case 130L.26 Gas Price 130 c/MMBTU with -1.0% Real Esc	Wholesale Price 26 Mills/kWh with -0.6% Real Esc		
fuel.160L.26	24	Case 160L.26 Gas Price 160 c/MMBTU with -1.2% Real Esc	Wholesale Price 26 Mills/kWh with -0.7% Real Esc	1.80	
fuel.190L.26	25	Case 190L.26 Gas Price 190 c/MMBTU with -1.4% Real Esc	Wholesale Price 26 Mills/kWh with -0.8% Real Esc	1.80	
fuel.220L.26	26	Case 220L.26 Gas Price 220 c/MMBTU with -1.6% Real Esc	Wholesale Price 26 Mills/kWh with -1.0% Real Esc	1.80	
fuel.250L.26	27	Case 250L.26 Gas Price 250 c/MMBTU with -1.8% Real Esc	Wholesale Price 26 Mills/kWh with -1.1% Real Esc	1.80	
fuel.280L.26	28	Case 280L.26 Gas Price 280 c/MMBTU with -2.0% Real Esc	Wholesale Price 26 Mills/kWh with -1.2% Real Esc		
fuel.130H.26	29	Case 130H.26 Gas Price 130 c/MMBTU with +1.0% Real Esc	Wholesale Price 26 Mills/kWh with +0.6% Real Esc		
fuel.160H.26	30	Case 160H.26 Gas Price 160 c/MMBTU with +0.8% Real Esc	Wholesale Price 26 Mills/kWh with +0.5% Real Esc	1.80	
fuel.190H.26	31	Case 190H.26 Gas Price 190 c/MMBTU with +0.6% Real Esc	Wholesale Price 26 Mills/kWh with +0.4% Real Esc	1.80	
fuel.220H.26	32	Case 220H.26 Gas Price 220 c/MMBTU with +0.4% Real Esc	Wholesale Price 26 Mills/kWh with +0.2% Real Esc	1.80	
fuel.250H.26	33	Case 250H.26 Gas Price 250 c/MMBTU with +0.2% Real Esc	Wholesale Price 26 Mills/kWh with +0.1% Real Esc	1.80	
fuel.280H.26	34	Case 280H.26 Gas Price 280 c/MMBTU with +0.0% Real Esc	Wholesale Price 26 Mills/kWh with +0.0% Real Esc		
fuel.130L.30	35	Case 130L.30 Gas Price 130 c/MMBTU with -1.0% Real Esc	Wholesale Price 30 Mills/kWh with -0.6% Real Esc		
fuel.160L.30	36	Case 160L.30 Gas Price 160 c/MMBTU with -1.2% Real Esc	Wholesale Price 30 Mills/kWh with -0.7% Real Esc		
fuel.190L.30	37	Case 190L.30 Gas Price 190 c/MMBTU with -1.4% Real Esc	Wholesale Price 30 Mills/kWh with -0.8% Real Esc	1.80	
fuel.220L.30	38	Case 220L.30 Gas Price 220 c/MMBTU with -1.6% Real Esc	Wholesale Price 30 Mills/kWh with -1.0% Real Esc	1.80	
fuel.250L.30	39	Case 250L.30 Gas Price 250 c/MMBTU with -1.8% Real Esc	Wholesale Price 30 Mills/kWh with -1.1% Real Esc	1.80	
fuel.280L.30	40	Case 280L.30 Gas Price 280 c/MMBTU with -2.0% Real Esc	Wholesale Price 30 Mills/kWh with -1.2% Real Esc	1.80	
fuel.130H.30	41	Case 130H.30 Gas Price 130 c/MMBTU with +1.0% Real Esc	Wholesale Price 30 Mills/kWh with +0.6% Real Esc		
fuel.160H.30	42	Case 160H.30 Gas Price 160 c/MMBTU with +0.8% Real Esc	Wholesale Price 30 Mills/kWh with +0.5% Real Esc		
fuel.190H.30	43	Case 190H.30 Gas Price 190 c/MMBTU with +0.6% Real Esc	Wholesale Price 30 Mills/kWh with +0.4% Real Esc		
fuel.220H.30	44	Case 220H.30 Gas Price 220 c/MMBTU with +0.4% Real Esc	Wholesale Price 30 Mills/kWh with +0.2% Real Esc	1.80	
fuel.250H.30	45	Case 250H.30 Gas Price 250 c/MMBTU with +0.2% Real Esc	Wholesale Price 30 Mills/kWh with +0.1% Real Esc	1.80	
fuel.280H.30	46	Case 280H.30 Gas Price 280 c/MMBTU with +0.0% Real Esc	Wholesale Price 30 Mills/kWh with +0.0% Real Esc	1.80	
fuel.130L.34	47	Case 130L.34 Gas Price 130 c/MMBTU with -1.0% Real Esc	Wholesale Price 34 Mills/kWh with -0.6% Real Esc		
fuel.160L.34	48	Case 160L.34 Gas Price 160 c/MMBTU with -1.2% Real Esc	Wholesale Price 34 Mills/kWh with -0.7% Real Esc		
fuel.190L.34	49	Case 190L.34 Gas Price 190 c/MMBTU with -1.4% Real Esc	Wholesale Price 34 Mills/kWh with -0.8% Real Esc		
fuel.220L.34	50	Case 220L.34 Gas Price 220 c/MMBTU with -1.6% Real Esc	Wholesale Price 34 Mills/kWh with -1.0% Real Esc		
fuel.250L.34	51	Case 250L.34 Gas Price 250 c/MMBTU with -1.8% Real Esc	Wholesale Price 34 Mills/kWh with -1.1% Real Esc	1.80	
fuel.280L.34	52	Case 280L.34 Gas Price 280 c/MMBTU with -2.0% Real Esc	Wholesale Price 34 Mills/kWh with -1.2% Real Esc	1.80	
fuel.130H.34	53	Case 130H.34 Gas Price 130 c/MMBTU with +1.0% Real Esc	Wholesale Price 34 Mills/kWh with +0.6% Real Esc		
fuel.160H.34	54	Case 160H.34 Gas Price 160 c/MMBTU with +0.8% Real Esc	Wholesale Price 34 Mills/kWh with +0.5% Real Esc		
fuel.190H.34	55	Case 190H.34 Gas Price 190 c/MMBTU with +0.6% Real Esc	Wholesale Price 34 Mills/kWh with +0.4% Real Esc		
fuel.220H.34	56	Case 220H.34 Gas Price 220 c/MMBTU with +0.4% Real Esc	Wholesale Price 34 Mills/kWh with +0.2% Real Esc		
fuel.250H.34	57	Case 250H.34 Gas Price 250 c/MMBTU with +0.2% Real Esc	Wholesale Price 34 Mills/kWh with +0.1% Real Esc	1.80	
fuel.280H.34	58	Case 280H.34 Gas Price 280 c/MMBTU with +0.0% Real Esc	Wholesale Price 34 Mills/kWh with +0.0% Real Esc	1.80	

Case List

Case Name	Case Number	Title #1	Title #2	Weighting Case	Weighting Group
loads.sys.1	71	Case loads.sys.1 System Load Loss - Utah 'Big 4'	1%/Year, 4% Ttl Utah, 32% Oregon Loss in 2002	3.00	30.00
loads.sys.2	72	Case loads.sys.2 System Load Loss - Utah 'Big 4'	2%/Year, 8% Ttl Utah, 34% Oregon Loss in 2002	3.00	
loads.sys.3	73	Case loads.sys.3 System Load Loss - Utah 'Big 4'	3%/Year, 12% Ttl Utah, 36% Oregon Loss in 2002	3.00	
loads.sys.4	74	Case loads.sys.4 System Load Loss - Utah 'Big 4'	4%/Year, 16% Ttl Utah, 38% Oregon Loss in 2002	3.00	
loads.sys.5	75	Case loads.sys.5 System Load Loss - Utah 'Big 4'	5%/Year, 20% Ttl Utah, 40% Oregon Loss in 2002	3.00	
loads.sys.6	76	Case loads.sys.6 System Load Loss - Utah 'Big 4'	6%/Year, 24% Ttl Utah, 42% Oregon Loss in 2002	3.00	
loads.sys.7	77	Case loads.sys.7 System Load Loss - Utah 'Big 4'	7%/Year, 28% Ttl Utah, 44% Oregon Loss in 2002	3.00	
loads.sys.8	78	Case loads.sys.8 System Load Loss - Utah 'Big 4'	8%/Year, 32% Ttl Utah, 46% Oregon Loss in 2002	3.00	
loads.sys.9	79	Case loads.sys.9 System Load Loss - Utah 'Big 4'	9%/Year, 36% Ttl Utah, 48% Oregon Loss in 2002	3.00	
loads.sys.10	80	Case loads.sys.10 System Load Loss - Utah 'Big 4'	10%/Year, 40% Ttl Utah, 50% Oregon Loss in 2002	3.00	
loads.or.1	81	Case loads.or.1 Oregon SB1149 Load Loss	[illegible] Load Loss in 2002	1.00	10.00
loads.or.2	82	Case loads.or.2 Oregon SB1149 Load Loss	[illegible] Load Loss in 2002	1.00	
loads.or.3	83	Case loads.or.3 Oregon SB1149 Load Loss	[illegible] Load Loss in 2002	1.00	
loads.or.4	84	Case loads.or.4 Oregon SB1149 Load Loss	38% Load Loss in 2002	1.00	
loads.or.5	85	Case loads.or.5 Oregon SB1149 Load Loss	40% Load Loss in 2002	1.00	
loads.or.6	86	Case loads.or.6 Oregon SB1149 Load Loss	42% Load Loss in 2002	1.00	
loads.or.7	87	Case loads.or.7 Oregon SB114[illegible] Loss	44% Load Loss in 2002	1.00	
loads.or.8	88	Case loads.or.8 Oregon SB114[illegible] Loss	46% Load Loss in 2002	1.00	
loads.or.9	89	Case loads.or.9 Oregon SB1149 Load Loss	48% Load Loss in 2002	1.00	
loads.or.10	90	Case loads.or.10 Oregon SB1149 Load Loss	50% Load Loss in 2002	1.00	
loads.ut.1	91	Case loads.ut.1 Utah Load Loss - Utah 'Big 4'	1% Load loss per year, Total Loss of 4%	0.50	5.00
loads.ut.2	92	Case loads.ut.2 Utah Load Loss - Utah 'Big 4'	2% Load loss per year, Total Loss of 8%	0.50	
loads.ut.3	93	Case loads.ut.3 Utah Load Loss - Utah 'Big 4'	3% Load loss per year, Total Loss of 12%	0.50	
loads.ut.4	94	Case loads.ut.4 Utah Load Loss - Utah 'Big 4'	4% Load loss per year, Total Loss of 16%	0.50	
loads.ut.5	95	Case loads.ut.5 Utah Load Loss - Utah 'Big 4'	5% Load loss per year, Total Loss of 20%	0.50	
loads.ut.6	96	Case loads.ut.6 Utah Load Loss - Utah 'Big 4'	6% Load loss per year, Total Loss of 24%	0.50	
loads.ut.7	97	Case loads.ut.7 Utah Load Loss - Utah 'Big 4'	7% Load loss per year, Total Loss of 28%	0.50	
loads.ut.8	98	Case loads.ut.8 Utah Load Loss - Utah 'Big 4'	8% Load loss per year, Total Loss of 32%	0.50	
loads.ut.9	99	Case loads.ut.9 Utah Load Loss - Utah 'Big 4'	9% Load loss per year, Total Loss of 36%	0.50	
loads.ut.10	100	Case loads.ut.10 Utah Load Loss - Utah 'Big 4'	10% Load loss per year, Total Loss of 40%	0.50	
enviro.1	101	Case enviro.1 Environmental Adder Case	CO2 at $1, TSP at $100, NOx at $125/Ton	5.00	10.00
enviro.2	102	Case enviro.2 Environmental Adder Case	CO2 at $2, TSP at $200, NOx at $250/Ton	2.50	
enviro.3	103	Case enviro.3 Environmental Adder Case	CO2 at $3, TSP at $300, NOx at $375/Ton	1.25	
enviro.4	104	Case enviro.4 Environmental Adder Case	CO2 at $4, TSP at $400, NOx at $500/Ton	0.63	
enviro.5	105	Case enviro.5 Environmental Adder Case	CO2 at $5, TSP at $500, NOx at $625/Ton	0.31	
enviro.6	106	Case enviro.6 Environmental Adder Case	CO2 at $6, TSP at $600, NOx at $750/Ton	0.16	
enviro.7	107	Case enviro.7 Environmental Adder Case	CO2 at $7, TSP at $700, NOx at $875/Ton	0.08	
enviro.8	108	Case enviro.8 Environmental Adder Case	CO2 at $8, TSP at $800, NOx at $1000/Ton	0.04	
enviro.9	109	Case enviro.9 Environmental Adder Case	CO2 at $9, TSP at $900, NOx at $1125/Ton	0.02	
enviro.10	110	Case enviro.10 Environmental Adder Case	CO2 at $10, TSP at $1000, NOx at $1250/Ton	0.01	
enviro.25	111	Case enviro.25 Environmental Adder Case	CO2 at $25, TSP at $2500, NOx at $3125/Ton	0.00	
enviro.40	112	Case enviro.40 Environmental Adder Case	CO2 at $40, TSP at $4000, NOx at $5000/Ton	0.00	
capcost.down	121	Case capcost.down Capital Cost Sensitivity	20% Decrease in Real Levelized Carrying Charge	-	-
capcost.up	122	Case capcost.up Capital Cost Sensitivity	20% Increase in Real Levelized Carrying Charge	-	
gas.low	123	Case gas.low Gas Fired Resource Sensitivity	Low Gas Resource Capital Cost	-	
gas.high	124	Case gas.high Gas Fired Resource Sensitivity	High Gas Resource Capital Cost	-	
trans.zero	125	Case trans.zero No Transmission Cost	for Gas Fired Resources	-	
renew.geotherm	126	Case renew.geotherm Renewable Cost Sensitivity	Escalation rate needed to bring Geothermal on by 2010	-	
renew.solar	127	Case renew.solar Renewable Cost Sensitivity	Escalation rate needed to bring Solar on by 2010	-	
renew.wind	128	Case renew.wind Renewable Cost Sensitivity	Escalation rate needed to bring Wind on by 2010	-	
utah.grow	129	Case utah.grow Utah grows 50% faster to 2010	then 25% faster to 2020	-	
loads.big4	130	Case loads.big4 Loss of Utah 'Big 4' Interruptible Customers	at end of Current Contracts	-	
firm.ind	131	Case firm.ind Large Customers Modeled as	Firm Retail Customers	-	
critical.wtr	132	Case critical.wtr Hydro Resources	Modeled at Critical Water Levels	-	
			Total Weight	100.00	100.00

PacifiCorp

Integrated Resource Planning

RAMPP-6

Reference Case

Case 1 / Case 31

Tab 15

RAMPP-6 Reference Case (Case 1)
Equal to Case 190H.26
Incremental Summer Capacity (MW) of Resource Additions

		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
	Short Term Cap Purch	40.2	1.3	171.0	-	-	-	-	-	-	286.9	-	427.8
	DSM Programs	6.8	6.7	7.2	7.2	7.1	7.3	7.3	7.2	7.1	7.2	26.6	42.9
	Or/Wa Wind	-	-	-	-	-	-	-	-	-	-	-	72.0
O	Or/Wa Geothermal	-	-	-	-	-	-	-	-	-	-	-	-
R	Or/Wa Cogen 1	-	-	-	94.0	94.0	14.1	-	-	-	-	-	-
/	Or/Wa Cogen 2	-	-	-	382.9	171.6	37.0	206.3	51.9	-	-	456.9	-
W	Or/Wa Combined Cycle	-	-	-	-	-	-	-	-	207.8	-	101.1	266.6
A	Or/Wa Bridger Transm	-	-	-	-	-	-	-	-	-	-	-	-
	Or/Wa Simple CycleCT	-	-	-	-	-	-	-	-	-	-	-	-
	Or/Wa Pump Storage	-	-	-	-	-	-	-	-	-	-	-	-
	Total	**6.8**	**6.7**	**7.2**	**484.1**	**272.7**	**58.4**	**213.6**	**59.1**	**214.9**	**7.2**	**584.6**	**381.5**
G	DSM Programs	0.6	0.6	0.7	0.6	0.7	0.6	0.7	0.7	0.6	0.7	2.4	3.2
O	Goshen Cogen 1	-	-	-	-	-	-	-	-	-	-	28.2	-
S	Goshen Cogen 2	-	-	-	-	-	-	-	-	-	-	-	-
H	Goshen Combined C CT	-	-	-	-	-	-	-	-	-	-	-	-
E	Goshen Bridger Trans	-	-	-	-	-	-	-	-	-	-	-	-
N	Goshen Hunter Transm	-	-	-	-	-	-	-	-	-	-	-	-
	Total	**0.6**	**0.6**	**0.7**	**0.6**	**0.7**	**0.6**	**0.7**	**0.7**	**0.6**	**0.7**	**30.6**	**3.2**
	DSM Programs	13.9	13.4	12.5	13.1	13.2	12.6	13.2	12.7	12.4	12.9	47.3	75.2
	Utah Geothermal	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Solar	-	-	-	-	-	-	-	-	-	-	-	-
U	Utah Cogen 1	-	-	-	14.1	-	-	-	-	-	-	-	-
T	Utah Cogen 2	-	-	-	-	-	-	-	-	-	-	1,208.4	464.8
A	Utah Combined Cycle	-	-	-	48.3	68.3	12.7	12.9	185.8	-	-	568.0	294.3
H	Utah IGCC Hunter 4	-	-	-	-	-	-	-	-	-	-	-	-
	Utah IGCC CT	-	-	-	-	-	-	-	-	-	-	-	-
	Utah PC Hunter 4	-	-	-	-	-	-	-	-	-	-	-	400.0
	Utah Coal $23.25/Ton	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Coal $27.00/Ton	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Simple Cycle CT	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Pumped Storage	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Wyo/Ut Tran L	-	-	-	-	18.8	-	-	-	-	-	-	246.5
	Total	**13.9**	**13.4**	**12.5**	**75.5**	**100.3**	**25.3**	**26.1**	**198.5**	**12.4**	**12.9**	**1,823.7**	**1,480.8**
	DSM Programs	2.3	2.3	2.4	2.4	2.4	2.4	2.5	2.5	2.5	2.5	9.3	15.7
W	Wyo Wind	-	-	-	-	-	-	-	-	-	-	-	54.0
Y	Wyo Combined Cycle	-	-	-	-	-	-	-	-	-	-	-	-
O	Wyo IGCC Wyodak 2	-	-	-	-	-	-	-	-	-	-	-	-
M	Wyo IGCC CT	-	-	-	-	-	-	-	-	-	-	-	-
I	Wyo PC Wyodak 2	-	-	-	-	-	-	-	-	-	-	-	325.0
N	Wyo Coal $6.70/Ton	-	-	-	-	-	-	-	-	-	-	-	146.6
G	Wyo Simple Cycle CT	-	-	-	-	-	-	-	-	-	-	-	-
	Total	**2.3**	**2.3**	**2.4**	**2.4**	**2.4**	**2.4**	**2.5**	**2.5**	**2.5**	**2.5**	**9.3**	**541.3**
T	DSM Programs	23.6	23.0	22.8	23.3	23.4	22.9	23.7	23.1	22.6	23.3	85.6	137.0
O	Short Term Cap Purch	40.2	1.3	171.0	-	-	-	-	-	-	286.9	-	427.8
T	Cogeneration	-	-	-	491.0	265.6	51.1	206.3	51.9	-	-	1,693.5	464.8
A	Combined Cycle CT	-	-	-	48.3	68.3	12.7	12.9	185.8	207.8	-	669.1	560.9
L	Coal	-	-	-	-	-	-	-	-	-	-	-	871.6
	All Others	-	-	-	-	18.8	-	-	-	-	-	-	372.5
	Total	**63.8**	**24.3**	**193.8**	**562.6**	**376.1**	**86.7**	**242.9**	**260.8**	**230.4**	**310.2**	**2,448.2**	**2,834.6**

Annual Summer Peak Capacity (MW)

		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
S	Native Load	7,987.0	8,030.0	8,203.0	8,435.0	8,608.0	8,767.0	8,937.0	9,052.0	9,267.0	9,399.0	10,535.0	12,042.0
Y	Long Term Sales	2,377.0	2,239.0	2,120.0	1,890.0	1,647.0	1,647.0	1,327.0	1,324.0	1,324.0	1,249.0	1,149.0	1,104.0
S	DSM Programs	(24.0)	(47.0)	(69.0)	(93.0)	(116.0)	(139.0)	(163.0)	(186.0)	(208.0)	(232.0)	(317.0)	(454.0)
T	**Total Requirements**	**10,340.0**	**10,222.0**	**10,254.0**	**10,232.0**	**10,139.0**	**10,275.0**	**10,101.0**	**10,190.0**	**10,383.0**	**10,416.0**	**11,367.0**	**12,692.0**
E													
M	Existing Generation	9,179.0	9,185.0	9,007.0	8,836.0	8,821.0	8,700.0	8,704.0	8,473.0	8,477.0	8,302.0	7,372.0	6,176.0
	Long Term Purchases	1,351.1	1,345.1	1,225.6	1,076.0	1,076.0	1,076.0	676.0	676.0	626.0	626.1	558.3	536.3
L	Short Term Market	805.7	713.6	875.4	814.0	571.0	571.0	651.0	648.0	698.0	623.0	590.7	567.9
&	Short Term Cap Purch	40.2	1.3	171.0	-	-	-	-	-	-	286.9	-	427.8
R	New Resources	1.0	1.0	1.0	540.0	893.0	957.0	1,176.0	1,414.0	1,621.0	1,621.0	3,988.0	6,258.0
	Total Resources	**11,377.0**	**11,246.0**	**11,280.0**	**11,266.0**	**11,361.0**	**11,304.0**	**11,207.0**	**11,211.0**	**11,422.0**	**11,459.0**	**12,509.0**	**13,966.0**

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
Reserves	1,037.0	1,023.0	1,026.0	1,033.0	1,221.0	1,028.0	1,105.0	1,020.0	1,039.0	1,043.0	1,142.0	1,274.0
Reserve Margin (%)	10.0	10.0	10.0	10.1	12.0	10.0	10.9	10.0	10.0	10.0	10.0	10.0

RAMPP-6 Reference Case (Case 1)
Equal to Case 190H.26
Incremental Winter Capacity (MW) of Resource Additions

		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
	Short Term Cap Purch	40.2	-	-	-	-	-	-	-	-	-	-	-
	DSM Programs	12.8	12.4	13.9	14.0	14.0	14.1	14.2	13.9	13.7	13.9	49.9	79.1
	Or/Wa Wind	-	-	-	-	-	-	-	-	-	-	-	121.6
O	Or/Wa Geothermal	-	-	-	-	-	-	-	-	-	-	-	-
R	Or/Wa Cogen 1	-	-	-	100.0	100.0	15.0	-	-	-	-	-	-
/	Or/Wa Cogen 2	-	-	-	407.3	182.6	39.4	219.5	55.2	-	-	486.0	-
W	Or/Wa Combined Cycle	-	-	-	-	-	-	-	-	221.0	-	107.7	283.5
A	Or/Wa Bridger Transm	-	-	-	-	-	-	-	-	-	-	-	-
	Or/Wa Simple CycleCT	-	-	-	-	-	-	-	-	-	-	-	-
	Or/Wa Pump Storage	-	-	-	-	-	-	-	-	-	-	-	-
	Total	**12.8**	**12.4**	**13.9**	**521.3**	**296.6**	**68.5**	**233.7**	**69.1**	**234.7**	**13.9**	**643.6**	**484.2**
G	DSM Programs	0.5	0.6	0.6	0.5	0.6	0.6	0.6	0.6	0.6	0.6	2.0	2.8
O	Goshen Cogen 1	-	-	-	-	-	-	-	-	-	-	30.0	-
S	Goshen Cogen 2	-	-	-	-	-	-	-	-	-	-	-	-
H	Goshen Combined C CT	-	-	-	-	-	-	-	-	-	-	-	-
E	Goshen Bridger Trans	-	-	-	-	-	-	-	-	-	-	-	-
N	Goshen Hunter Transm	-	-	-	-	-	-	-	-	-	-	-	-
	Total	**0.5**	**0.6**	**0.6**	**0.5**	**0.6**	**0.6**	**0.6**	**0.6**	**0.6**	**0.6**	**32.0**	**2.8**
	DSM Programs	14.4	13.8	12.8	13.3	13.6	12.7	13.4	12.9	12.5	13.2	47.8	75.6
	Utah Geothermal	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Solar	-	-	-	-	-	-	-	-	-	-	-	-
U	Utah Cogen 1	-	-	-	15.0	-	-	-	-	-	-	-	-
T	Utah Cogen 2	-	-	-	-	-	-	-	-	-	-	1,285.5	494.5
A	Utah Combined Cycle	-	-	-	51.4	72.6	13.5	13.8	197.6	-	-	604.3	313.1
H	Utah IGCC Hunter 4	-	-	-	-	-	-	-	-	-	-	-	-
	Utah IGCC CT	-	-	-	-	-	-	-	-	-	-	-	-
	Utah PC Hunter 4	-	-	-	-	-	-	-	-	-	-	-	400.0
	Utah Coal $23.25/Ton	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Coal $27.00/Ton	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Simple Cycle CT	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Pumped Storage	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Wyo/Ut Tran L	-	-	-	-	18.8	-	-	-	-	-	-	246.5
	Total	**14.4**	**13.8**	**12.8**	**79.7**	**105.0**	**26.2**	**27.2**	**210.5**	**12.5**	**13.2**	**1,937.6**	**1,529.7**
	DSM Programs	2.4	2.4	2.6	2.6	2.5	2.6	2.6	2.7	2.6	2.7	9.8	16.6
W	Wyo Wind	-	-	-	-	-	-	-	-	-	-	-	91.2
Y	Wyo Combined Cycle	-	-	-	-	-	-	-	-	-	-	-	-
O	Wyo IGCC Wyodak 2	-	-	-	-	-	-	-	-	-	-	-	-
M	Wyo IGCC CT	-	-	-	-	-	-	-	-	-	-	-	-
I	Wyo PC Wyodak 2	-	-	-	-	-	-	-	-	-	-	-	325.0
N	Wyo Coal $6.70/Ton	-	-	-	-	-	-	-	-	-	-	-	146.6
G	Wyo Simple Cycle CT	-	-	-	-	-	-	-	-	-	-	-	-
	Total	**2.4**	**2.4**	**2.6**	**2.6**	**2.5**	**2.6**	**2.6**	**2.7**	**2.6**	**2.7**	**9.8**	**579.4**
T	DSM Programs	30.1	29.2	29.9	30.4	30.7	30.0	30.8	30.1	29.4	30.4	109.5	174.1
O	Short Term Cap Purch	40.2	-	-	-	-	-	-	-	-	-	-	-
T	Cogeneration	-	-	-	522.3	282.6	54.4	219.5	55.2	-	-	1,801.5	494.5
A	Combined Cycle CT	-	-	-	51.4	72.6	13.5	13.8	197.6	221.0	-	712.0	596.6
L	Coal	-	-	-	-	-	-	-	-	-	-	-	871.6
	All Others	-	-	-	-	18.8	-	-	-	-	-	-	459.3
	Total	**70.3**	**29.2**	**29.9**	**604.1**	**404.7**	**97.9**	**264.1**	**282.9**	**250.4**	**30.4**	**2,623.0**	**2,596.1**

Annual Winter Peak Capacity (MW)

		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
S	Native Load	7,902.0	7,996.0	8,173.0	8,348.0	8,519.0	8,679.0	8,831.0	8,990.0	9,162.0	9,324.0	10,390.0	11,740.0
Y	Long Term Sales	2,340.0	1,957.0	1,773.0	1,564.0	1,329.0	1,321.0	1,051.0	1,048.0	1,048.0	923.0	823.0	793.0
S	DSM Programs	(30.0)	(59.0)	(89.0)	(120.0)	(150.0)	(180.0)	(211.0)	(241.0)	(271.0)	(301.0)	(410.0)	(585.0)
T	**Total Requirements**	**10,212.0**	**9,894.0**	**9,857.0**	**9,792.0**	**9,698.0**	**9,820.0**	**9,671.0**	**9,797.0**	**9,939.0**	**9,946.0**	**10,803.0**	**11,948.0**
E													
M	Existing Generation	9,237.0	9,244.0	9,247.0	9,068.0	8,878.0	8,757.0	8,761.0	8,530.0	8,534.0	8,359.0	7,429.0	6,233.0
	Long Term Purchases	1,876.2	1,872.0	1,970.0	1,429.0	1,429.0	1,429.0	1,379.0	979.0	979.0	979.0	879.0	858.0
L	Short Term Market	79.6	-	-	135.0	-	-	-	69.0	69.0	-	-	-
&	Short Term Cap Purch	40.2	-	-	-	-	-	-	-	-	-	-	-
R	New Resources	1.0	1.0	1.0	575.0	949.0	1,017.0	1,250.0	1,503.0	1,724.0	1,724.0	4,241.0	6,663.0
	Total Resources	**11,234.0**	**11,117.0**	**11,218.0**	**11,207.0**	**11,256.0**	**11,203.0**	**11,390.0**	**11,081.0**	**11,306.0**	**11,062.0**	**12,549.0**	**13,754.0**
	Reserves	1,022.0	1,223.0	1,362.0	1,415.0	1,559.0	1,384.0	1,720.0	1,285.0	1,367.0	1,117.0	1,748.0	1,806.0
	Reserve Margin (%)	10.0	12.4	13.8	14.5	16.1	14.1	17.8	13.1	13.8	11.2	16.2	15.1

RAMPP-6 Reference Case (Case 1)
Equal to Case 190H.26
Cumulative Annual Energy (aMW)

		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
	DSM Programs	5.2	10.4	15.9	21.5	27.1	32.8	38.5	44.1	49.7	55.4	76.3	110.0
	Or/Wa Wind	-	-	-	-	-	-	-	-	-	-	-	80.5
O	Or/Wa Geothermal	-	-	-	-	-	-	-	-	-	-	-	-
R	Or/Wa Cogen 1	-	-	-	93.1	186.2	200.1	200.1	200.1	200.1	200.1	200.1	200.1
/	Or/Wa Cogen 2	-	-	-	379.0	548.8	585.5	789.7	841.1	841.1	841.1	1,293.3	1,293.3
W	Or/Wa Combined Cycle	-	-	-	-	-	-	-	-	202.7	205.7	284.0	520.2
A	Or/Wa Bridger Transm	-	-	-	-	-	-	-	-	-	-	-	-
	Or/Wa Simple CycleCT	-	-	-	-	-	-	-	-	-	-	-	-
	Or/Wa Pump Storage	-	-	-	-	-	-	-	-	-	-	-	-
	Total	**5.2**	**10.4**	**15.9**	**493.6**	**762.2**	**818.5**	**1,028.4**	**1,085.4**	**1,293.6**	**1,302.3**	**1,853.7**	**2,204.2**
G	DSM Programs	0.5	0.9	1.4	1.9	2.4	2.9	3.4	3.9	4.4	4.9	6.7	9.4
O	Goshen Cogen 1	-	-	-	-	-	-	-	-	-	-	27.9	27.9
S	Goshen Cogen 2	-	-	-	-	-	-	-	-	-	-	-	-
H	Goshen Combined C CT	-	-	-	-	-	-	-	-	-	-	-	-
E	Goshen Bridger Trans	-	-	-	-	-	-	-	-	-	-	-	-
N	Goshen Hunter Transm	-	-	-	-	-	-	-	-	-	-	-	-
	Total	**0.5**	**0.9**	**1.4**	**1.9**	**2.4**	**2.9**	**3.4**	**3.9**	**4.4**	**4.9**	**34.6**	**37.3**
	DSM Programs	9.1	17.7	25.8	34.3	42.9	51.0	59.5	67.8	75.8	84.2	115.3	165.5
	Utah Geothermal	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Solar	-	-	-	-	-	-	-	-	-	-	-	-
U	Utah Cogen 1	-	-	-	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0
T	Utah Cogen 2	-	-	-	-	-	-	-	-	-	-	1,179.0	1,639.9
A	Utah Combined Cycle	-	-	-	46.9	113.2	125.5	138.0	315.2	308.8	318.3	725.9	957.6
H	Utah IGCC Hunter 4	-	-	-	-	-	-	-	-	-	-	-	-
	Utah IGCC CT	-	-	-	-	-	-	-	-	-	-	-	-
	Utah PC Hunter 4	-	-	-	-	-	-	-	-	-	-	-	366.6
	Utah Coal $23.25/Ton	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Coal $27.00/Ton	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Simple Cycle CT	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Pumped Storage	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Wyo/Ut Tran L	-	-	-	-	16.8	17.8	17.8	17.8	17.8	17.8	17.8	252.2
	Total	**9.1**	**17.7**	**25.8**	**95.1**	**186.8**	**208.2**	**229.3**	**414.7**	**416.4**	**434.3**	**2,052.1**	**3,395.8**
	DSM Programs	1.8	3.6	5.5	7.3	9.3	11.2	13.1	15.1	17.1	19.1	26.7	39.5
W	Wyo Wind	-	-	-	-	-	-	-	-	-	-	-	60.4
Y	Wyo Combined Cycle	-	-	-	-	-	-	-	-	-	-	-	-
O	Wyo IGCC Wyodak 2	-	-	-	-	-	-	-	-	-	-	-	-
M	Wyo IGCC CT	-	-	-	-	-	-	-	-	-	-	-	-
I	Wyo PC Wyodak 2	-	-	-	-	-	-	-	-	-	-	-	297.8
N	Wyo Coal $6.70/Ton	-	-	-	-	-	-	-	-	-	-	-	134.4
G	Wyo Simple Cycle CT	-	-	-	-	-	-	-	-	-	-	-	-
	Total	**1.8**	**3.6**	**5.5**	**7.3**	**9.3**	**11.2**	**13.1**	**15.1**	**17.1**	**19.1**	**26.7**	**532.2**
	DSM Programs	16.5	32.6	48.6	65.1	81.6	97.8	114.5	130.9	147.0	163.7	225.0	324.5
	Short Term Cap Purch	-	-	-	-	-	-	-	-	-	-	-	6.4
T	Cogeneration	-	-	-	486.0	749.0	799.6	1,003.8	1,055.2	1,055.2	1,055.2	2,714.4	3,175.3
O	Combined Cycle CT	-	-	-	46.9	113.2	125.5	138.0	315.2	511.5	523.9	1,009.9	1,477.8
T	Coal	-	-	-	-	-	-	-	-	-	-	-	798.8
A	Transmission	-	-	-	-	16.8	17.8	17.8	17.8	17.8	17.8	17.8	252.2
L	Simple Cycle	-	-	-	-	-	-	-	-	-	-	-	-
	All Others	-	-	-	-	-	-	-	-	-	-	-	140.9
	Total	**16.5**	**32.6**	**48.6**	**598.0**	**960.6**	**1,040.8**	**1,274.2**	**1,519.1**	**1,731.5**	**1,760.6**	**3,967.1**	**6,175.8**
		-	-	-	-	-	-	-	-	-	-	-	-
S	**Native Load**	5,677.0	5,744.6	5,881.5	6,002.1	6,122.6	6,248.3	6,392.6	6,540.1	6,691.4	6,813.5	7,622.3	8,696.7
Y	**Pump Storage/Peak Retu**	276.9	276.9	225.1	223.2	223.2	223.2	223.2	223.2	223.2	223.2	223.2	223.2
S	**Long Term Sales**	1,549.9	1,418.1	1,350.1	1,239.5	1,053.7	1,006.4	852.6	850.0	810.5	794.3	692.3	668.3
T	**Short Term Sales**	1,503.4	1,480.9	1,378.2	1,822.0	1,976.8	1,912.1	1,982.9	1,998.3	2,034.3	1,872.6	2,312.8	2,322.3
E	**DSM Programs**	(16.5)	(32.6)	(48.6)	(65.0)	(81.6)	(97.8)	(114.5)	(130.9)	(147.0)	(163.7)	(225.0)	(324.5)
M	**Total Requirements**	8,990.6	[illegible]	8,786.3	9,221.7	9,294.6	9,292.1	9,336.7	9,480.7	9,612.4	9,539.9	10,625.6	11,586.0
		-	-	-	-	-	-	-	-	-	-	-	-
	Existing Generation	7,380.1	7,374.9	7,330.0	7,372.1	7,282.6	7,247.0	7,254.6	7,145.1	7,145.5	7,052.7	6,190.1	5,070.7
L	**Long Term Purchases**	700.0	709.9	749.7	737.0	737.0	737.0	527.6	338.2	338.2	335.0	243.1	242.0
&	**Short Term Market**	805.7	708.2	600.4	502.5	316.7	269.4	325.0	511.8	[illegible]	459.3	449.2	426.3
R	**Short Term Purchases**	104.8	95.1	106.3	77.2	79.5	95.9	69.8	97.4	72.0	96.0	1.1	2.0
	New Resources	-	-	-	532.9	879.0	942.9	1,159.7	1,388.2	1,584.5	1,596.9	3,742.1	5,845.0
	Total Resources	8,990.6	8,888.0	8,786.3	9,221.7	9,294.7	9,292.1	9,336.7	9,480.7	9,612.4	9,539.9	10,625.6	11,586.0

NPV of 'RAMPP-6 Reference Case (Case 1)
Equal to Case 190H.26'
Total System Production Cost in Millions of $2001

Year		Total System Production Cost (A)	Adder (B)		TSPC less Adder (C) (A)+(B)	Net PV Factor at 4.88% (D)		Net Present Value (E) (C)*(D)	
2001	$	1,010		$	1,010	1.0000	$	1,010	*
2002	$	939		$	939	0.9534	$	895	*
2003	$	943		$	943	0.9090	$	857	*
2004	$	876		$	876	0.8667	$	760	*
2005	$	828		$	828	0.8264	$	684	*
2006	$	841		$	841	0.7879	$	663	*
2007	$	883		$	883	0.7512	$	664	*
2008	$	943		$	943	0.7162	$	675	*
2009	$	957		$	957	0.6829	$	653	*
2010	$	1,006		$	1,006	0.6511	$	655	*
2011	$	1,043		$	1,043	0.6208	$	647	
2012	$	1,080		$	1,080	0.5919	$	639	
2013	$	1,116		$	1,116	0.5643	$	630	
2014	$	1,153		$	1,153	0.5380	$	620	
2015	$	1,190		$	1,190	0.5130	$	610	*
2016	$	1,244		$	1,244	0.4891	$	609	
2017	$	1,298		$	1,298	0.4663	$	605	
2018	$	1,353		$	1,353	0.4446	$	601	
2019	$	1,407		$	1,407	0.4239	$	596	
2020	$	1,461		$	1,461	0.4042	$	590	*
2021	$	1,452		$	1,452	0.3854	$	560	
2022	$	1,444		$	1,444	0.3674	$	530	
2023	$	1,435		$	1,435	0.3503	$	503	
2024	$	1,427		$	1,427	0.3340	$	477	
2025	$	1,418		$	1,418	0.3185	$	452	
2026	$	1,410		$	1,410	0.3036	$	428	
2027	$	1,401		$	1,401	0.2895	$	406	
2028	$	1,392		$	1,392	0.2760	$	384	
2029	$	1,384		$	1,384	0.2632	$	364	
2030	$	1,375		$	1,375	0.2509	$	345	*
2031	$	1,375		$	1,375	0.2392	$	329	
2032	$	1,375		$	1,375	0.2281	$	314	
2033	$	1,375		$	1,375	0.2175	$	299	
2034	$	1,375		$	1,375	0.2073	$	285	
2035	$	1,375		$	1,375	0.1977	$	272	
2036	$	1,375		$	1,375	0.1885	$	259	
2037	$	1,375		$	1,375	0.1797	$	247	
2038	$	1,375		$	1,375	0.1713	$	236	
2039	$	1,375		$	1,375	0.1634	$	225	
2040	$	1,375		$	1,375	0.1558	$	214	
						40 Year Net Present Value	**$**	**20,793**	

RAMPP-6 Reference Case (Case 1)
Equal to Case 190H.26

Net System Projected Emissions

Annual Growth Rate		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
	System Energy												
	GWh	52,011	52,464	53,068	53,963	54,874	55,833	56,951	58,099	59,284	60,208	66,755	75,296
	aMW	5,937	5,989	6,058	6,160	6,264	6,374	6,501	6,632	6,768	6,873	7,620	8,595
	Total Annual Emissions (1000 Tons)												
0.07%	CO2	58,293	58,426	59,189	59,665	59,457	60,276	59,481	58,491	58,927	59,613	56,624	59,044
-1.46%	NOx	130.4	130.2	130.6	131.4	129.9	130.7	129.9	128.1	128.1	128.2	111.4	98.6
-1.11%	TSP	12.5	12.5	12.6	12.6	12.5	12.6	12.5	12.4	12.4	12.4	10.7	10.1
	Annual System Emission Rates (Pounds/MWh)												
-1.86%	CO2	2,242	2,227	2,231	2,211	2,167	2,159	2,089	2,013	1,988	1,980	1,696	1,568
-3.36%	NOx	5.0	5.0	4.9	4.9	4.7	4.7	4.6	4.4	4.3	4.3	3.3	2.6
-3.01%	TSP	0.5	0.5	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.3	0.3
	Emission Rates as Percent of 2001 Base												
	CO2	100.0	99.4	99.5	98.7	96.7	96.3	93.2	89.8	88.7	88.3	75.7	70.0
	NOx	100.0	99.0	98.2	97.1	94.4	93.4	91.0	88.0	86.2	85.0	66.6	52.2
	TSP	100.0	99.1	98.3	97.2	94.6	93.6	91.0	88.4	86.7	85.5	66.3	55.9

20 Year Average Emissions	(1000 Tons)	(Pounds/MWh
CO2	58,579	1,933
NOx	121.1	4.0
TSP	11.7	0.4

Reference Case 190H.26 Gas 190 c/MMBtu Esc 0.6% Market 26 mills/kWh
Detail supporting the Total System Production Costs in $1,000

Total System Production Cost in $1,000

Totals	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020	2030
Long Term Purchases	450,879	391,791	368,827	298,802	228,551	219,539	233,813	279,621	267,895	278,264	260,357	276,610	279,298
Short Term Purchases	17,261	15,953	19,351	13,679	13,858	15,945	12,948	16,282	12,522	22,114	268	582	273
Existing Resource O&M	391,155	391,824	391,541	391,268	389,737	386,687	387,216	381,353	381,263	377,075	318,498	260,486	260,384
Potential Resource O&M	-	-	-	17,500	28,649	30,788	37,895	47,723	54,504	54,621	154,552	244,656	244,828
Fuel Existing	523,398	508,116	504,058	501,133	496,180	499,046	500,334	471,474	472,349	473,687	397,848	333,573	333,573
Fuel Potential	-	-	-	55,615	91,311	98,563	123,138	149,633	172,865	175,321	429,766	629,032	629,873
Short Term Sales	(373,422)	(370,206)	(342,669)	(433,744)	(471,433)	(463,214)	(476,285)	(479,434)	(489,712)	(458,902)	(561,476)	(573,097)	(597,066)
Total Operating Exp	1,009,271	937,479	941,108	844,253	776,852	787,353	819,059	866,652	871,686	922,179	999,813	1,171,842	1,151,162
Total Annual CC	-	-	-	29,988	48,002	50,308	60,425	71,964	79,825	77,984	182,157	276,892	211,331
Total Annual DSM	537	1,068	1,614	2,160	2,721	3,286	3,866	4,455	5,053	5,661	8,072	12,202	12,854
Total Real Costs	1,009,808	938,546	942,722	876,401	827,576	840,948	883,350	943,070	956,564	1,005,824	1,190,042	1,460,936	1,375,347
	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Real $2001 Costs	**1,009,808**	**938,546**	**942,722**	**876,401**	**827,576**	**840,948**	**883,350**	**943,070**	**956,564**	**1,005,824**	**1,190,042**	**1,460,936**	**1,375,347**

Annual Capital Cost

Coal	-	-	-	-	413	397	382	368	354	340	280	53,377	36,233
Nuclear	-	-	-	-	-	-	-	-	-	-	-	-	-
Oil/Gas	-	-	-	-	-	-	-	-	-	-	-	-	-
Combustion Turbi	-	-	-	-	-	-	-	-	-	-	-	-	-
Combined Cycle	-	-	-	2,952	6,962	7,542	8,105	18,262	27,364	26,735	54,709	70,551	56,031
Hydro	-	-	-	-	-	-	-	-	-	-	-	-	-
Cogen	-	-	-	27,036	40,627	42,368	51,937	53,334	52,107	50,909	127,168	134,107	106,267
Purchase	-	-	-	-	-	-	-	-	-	-	-	-	-
Renewable	-	-	-	-	-	-	-	-	-	-	-	18,857	12,800
Storage	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Annual CC	-	-	-	29,988	48,002	50,308	60,425	71,964	79,825	77,984	182,157	276,892	211,331

DSM PROGRAM

Total Annual DSM	537	1,068	1,614	2,160	2,721	3,286	3,866	4,455	5,053	5,661	8,072	12,202	12,854

Fuel Cost $	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020	2030
Fuel Existing	523,398	508,116	504,058	501,133	496,180	499,046	500,334	471,474	472,349	473,687	397,848	333,573	333,573
Fuel Potential	-	-	-	55,615	91,311	98,563	123,138	149,633	172,865	175,321	429,766	629,032	629,873

PacifiCorp

Integrated Resource Planning

RAMPP-6

Weighted Average Reference Case

Case 2

Tab 16

RAMPP-6 Weighted Average Reference Case (Case 2)
45% Gas, 45% Load Loss, 10% Enviro
Incremental Summer Capacity (MW) of Resource Additions

		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
	Short Term Cap Purch	27.3	1.1	94.5	-	-	-	-	-	7.8	157.7	8.8	294.4
	DSM Programs	6.3	6.2	6.7	6.7	6.6	6.8	6.8	6.7	6.7	6.7	24.9	40.4
	Or/Wa Wind	-	-	0.0	-	-	-	-	-	-	-	6.7	53.6
O	Or/Wa Geothermal	-	-	-	-	-	-	-	-	-	-	-	0.0
R	Or/Wa Cogen 1	-	-	-	60.9	66.5	17.5	10.9	6.8	0.0	-	39.3	-
/	Or/Wa Cogen 2	-	-	-	213.6	61.5	50.2	113.9	49.0	41.1	0.2	443.5	143.3
W	Or/Wa Combined Cycle	-	-	-	30.3	0.0	-	2.1	6.9	64.9	4.3	50.5	185.4
A	Or/Wa Bridger Transm	-	-	-	-	-	-	-	-	-	-	-	28.1
	Or/Wa Simple CycleCT	-	-	-	-	-	-	-	-	-	-	-	-
	Or/Wa Pump Storage	-	-	-	-	-	-	-	-	-	-	-	-
	Total	**6.3**	**6.2**	**6.7**	**311.5**	**134.7**	**74.5**	**133.7**	**69.5**	**112.6**	**11.2**	**565.0**	**450.8**
G	DSM Programs	0.6	0.6	0.6	0.6	0.6	0.6	0.7	0.6	0.7	0.7	2.3	3.2
O	Goshen Cogen 1	-	-	-	5.1	0.4	-	-	-	-	-	22.7	-
S	Goshen Cogen 2	-	-	-	0.0	-	-	-	-	-	-	-	-
H	Goshen Combined C CT	-	-	-	-	-	-	-	-	-	-	-	-
E	Goshen Bridger Trans	-	-	-	-	-	-	-	-	-	-	-	-
N	Goshen Hunter Transm	-	-	-	-	-	-	-	-	-	-	-	-
	Total	**0.6**	**0.6**	**0.6**	**5.8**	**1.0**	**0.6**	**0.7**	**0.6**	**0.7**	**0.7**	**25.0**	**3.2**
	DSM Programs	13.6	13.0	12.3	12.9	13.1	12.4	13.1	12.7	12.4	12.9	47.2	75.1
	Utah Geothermal	-	-	0.0	-	-	-	-	-	-	-	-	0.0
	Utah Solar	-	-	-	-	-	-	-	-	-	-	-	-
U	Utah Cogen 1	-	-	-	9.2	0.1	-	0.4	0.6	-	-	3.9	-
T	Utah Cogen 2	-	-	-	0.0	0.0	0.0	0.0	0.0	-	-	1,016.7	631.7
A	Utah Combined Cycle	-	-	-	43.4	16.7	10.7	9.6	123.1	1.4	-	367.3	491.5
H	Utah IGCC Hunter 4	-	-	-	-	-	-	-	-	-	-	3.5	5.9
	Utah IGCC CT	-	-	-	-	-	-	-	-	-	-	-	-
	Utah PC Hunter 4	-	-	-	-	-	3.9	-	-	-	-	46.5	81.9
	Utah Coal $23.25/Ton	-	-	-	-	-	-	-	-	-	-	-	19.4
	Utah Coal $27.00/Ton	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Simple Cycle CT	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Pumped Storage	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Wyo/Ut Tran L	-	-	-	-	19.6	-	-	-	-	-	17.8	166.8
	Total	**13.6**	**13.0**	**12.3**	**65.5**	**49.5**	**27.0**	**23.2**	**136.3**	**13.8**	**12.9**	**1,502.8**	**1,472.3**
	DSM Programs	2.2	2.2	2.3	2.4	2.4	2.4	2.4	2.5	2.5	2.5	9.1	15.5
W	Wyo Wind	-	-	0.0	-	-	-	-	-	-	-	4.9	38.2
Y	Wyo Combined Cycle	-	-	-	0.0	0.0	-	-	-	-	-	0.0	0.0
O	Wyo IGCC Wyodak 2	-	-	-	-	-	-	-	-	-	-	-	-
M	Wyo IGCC CT	-	-	-	-	-	-	-	-	-	-	-	-
I	Wyo PC Wyodak 2	-	-	-	-	-	-	-	-	-	-	29.2	199.5
N	Wyo Coal $6.70/Ton	-	-	-	-	-	-	-	-	-	-	6.9	107.8
G	Wyo Simple Cycle CT	-	-	-	-	-	-	-	-	-	-	-	-
	Total	**2.2**	**2.2**	**2.4**	**2.4**	**2.4**	**2.4**	**2.4**	**2.5**	**2.5**	**2.5**	**50.3**	**360.9**
T	DSM Programs	22.7	22.1	21.9	22.6	22.7	22.2	23.0	22.5	22.2	22.8	83.5	134.2
O	Short Term Cap Purch	27.3	1.1	94.5	-	-	-	-	-	7.8	157.7	8.8	294.4
T	Cogeneration	-	-	-	288.9	128.5	67.7	125.2	56.5	41.1	0.2	1,526.1	774.9
A	Combined Cycle CT	-	-	-	73.7	16.7	10.7	11.7	130.0	66.3	4.3	417.9	676.9
L	Coal	-	-	-	-	-	3.9	-	-	-	-	86.2	414.5
	All Others	-	-	0.0	-	19.6	-	-	-	-	-	29.4	286.7
	Total	**50.0**	**23.2**	**116.4**	**385.2**	**187.6**	**104.6**	**159.9**	**209.0**	**137.3**	**184.9**	**2,152.0**	**2,581.6**

Annual Summer Peak Capacity (MW)

		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
S	Native Load	7,918	7,502	7,593	7,738	7,898	8,044	8,201	8,308	8,506	8,627	9,666	11,051
Y	Long Term Sales	2,377	2,167	2,048	1,818	1,575	1,575	1,255	1,252	1,252	1,177	1,077	1,032
S	DSM Programs	(23)	(45)	(67)	(89)	(112)	(134)	(157)	(180)	(202)	(225)	(308)	(442)
T	**Total Requirements**	**10,272**	**9,624**	**9,574**	**9,467**	**9,361**	**9,485**	**9,299**	**9,380**	**9,556**	**9,579**	**10,434**	**11,641**
E													
M	Existing Generation	9,179	9,185	9,007	8,836	8,820	8,699	8,703	8,472	8,476	8,301	7,353	6,209
	Long Term Purchases	1,351	1,345	1,226	1,076	1,076	1,076	676	676	626	626	558	536
L	Short Term Market	806	714	875	814	571	571	651	648	698	623	591	568
&	Short Term Cap Purch	27	1	95	-	-	-	-	-	8	158	9	294
R	New Resources	1	1	1	364	528	611	748	934	1,042	1,046	3,110	5,263
	Total Resources	**11,364**	**11,245**	**11,204**	**11,090**	**10,995**	**10,957**	**10,778**	**10,730**	**10,849**	**10,754**	**11,620**	**12,871**
	Reserves	1,092	1,621	1,629	1,622	1,635	1,472	1,478	1,350	1,293	1,174	1,186	1,230
	Reserve Margin (%)	10.6	17.6	17.9	18.2	18.5	16.4	16.8	15.2	14.2	12.8	11.6	10.7

RAMPP-6 Weighted Average Reference Case (Case 2)

45% Gas, 45% Load Loss, 10% Enviro

Incremental Winter Capacity (MW) of Resource Additions

		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
	Short Term Cap Purch	27.3	-	-	-	-	-	-	-	-	-	-	-
	DSM Programs	11.4	11.0	12.2	12.4	12.3	12.5	12.5	12.3	12.1	12.3	44.2	71.0
	Or/Wa Wind	-	-	0.0	-	-	-	-	-	-	-	11.3	90.6
O	Or/Wa Geothermal	-	-	-	-	-	-	-	-	-	-	-	0.0
R	Or/Wa Cogen 1	-	-	-	64.8	70.8	18.6	11.6	7.3	0.0	-	41.9	-
/	Or/Wa Cogen 2	-	-	-	227.2	65.4	53.4	121.1	52.2	43.7	0.2	471.8	152.4
W	Or/Wa Combined Cycle	-	-	-	32.2	0.0	-	2.2	7.3	69.0	4.5	53.8	197.3
A	Or/Wa Bridger Transm	-	-	-	-	-	-	-	-	-	-	-	28.1
	Or/Wa Simple CycleCT	-	-	-	-	-	-	-	-	-	-	-	-
	Or/Wa Pump Storage	-	-	-	-	-	-	-	-	-	-	-	-
	Total	**11.4**	**11.0**	**12.3**	**336.7**	**148.5**	**84.5**	**147.5**	**79.1**	**124.8**	**17.0**	**623.0**	**539.4**
G	DSM Programs	0.5	0.5	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	2.0	2.7
O	Goshen Cogen 1	-	-	-	5.4	0.4	-	-	-	-	-	24.1	-
S	Goshen Cogen 2	-	-	-	0.0	-	-	-	-	-	-	-	-
H	Goshen Combined C CT	-	-	-	-	-	-	-	-	-	-	-	-
E	Goshen Bridger Trans	-	-	-	-	-	-	-	-	-	-	-	-
N	Goshen Hunter Transm	-	-	-	-	-	-	-	-	-	-	-	-
	Total	**0.5**	**0.5**	**0.6**	**6.0**	**1.0**	**0.6**	**0.6**	**0.6**	**0.6**	**0.6**	**26.1**	**2.7**
	DSM Programs	14.1	13.5	12.4	13.1	13.5	12.5	13.4	12.9	12.5	13.2	47.9	75.8
	Utah Geothermal	-	-	0.0	-	-	-	-	-	-	-	-	0.0
	Utah Solar	-	-	-	-	-	-	-	-	-	-	-	-
U	Utah Cogen 1	-	-	-	9.8	0.1	-	0.4	0.6	-	-	4.1	-
T	Utah Cogen 2	-	-	-	0.0	0.0	0.0	0.0	0.0	-	-	1,081.5	672.0
A	Utah Combined Cycle	-	-	-	46.2	17.8	11.4	10.2	130.9	1.5	-	390.8	522.8
H	Utah IGCC Hunter 4	-	-	-	-	-	-	-	-	-	-	3.5	5.9
	Utah IGCC CT	-	-	-	-	-	-	-	-	-	-	-	-
	Utah PC Hunter 4	-	-	-	-	-	3.9	-	-	-	-	46.5	81.9
	Utah Coal $23.25/Ton	-	-	-	-	-	-	-	-	-	-	-	19.4
	Utah Coal $27.00/Ton	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Simple Cycle CT	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Pumped Storage	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Wyo/Ut Tran L	-	-	-	-	19.6	-	-	-	-	-	17.8	166.8
	Total	**14.1**	**13.5**	**12.4**	**69.1**	**51.0**	**27.9**	**24.1**	**144.4**	**14.0**	**13.2**	**1,592.1**	**1,544.7**
	DSM Programs	2.3	2.4	2.5	2.6	2.5	2.6	2.6	2.6	2.6	2.6	9.7	16.3
W	Wyo Wind	-	-	0.0	-	-	-	-	-	-	-	8.3	64.5
Y	Wyo Combined Cycle	-	-	-	0.0	0.0	-	-	-	-	-	0.0	0.0
O	Wyo IGCC Wyodak 2	-	-	-	-	-	-	-	-	-	-	-	-
M	Wyo IGCC CT	-	-	-	-	-	-	-	-	-	-	-	-
I	Wyo PC Wyodak 2	-	-	-	-	-	-	-	-	-	-	29.2	199.5
N	Wyo Coal $6.70/Ton	-	-	-	-	-	-	-	-	-	-	6.9	107.8
G	Wyo Simple Cycle CT	-	-	-	-	-	-	-	-	-	-	-	-
	Total	**2.3**	**2.4**	**2.5**	**2.6**	**2.5**	**2.6**	**2.6**	**2.6**	**2.6**	**2.6**	**54.2**	**388.1**
T	DSM Programs	28.3	27.4	27.8	28.6	28.9	28.1	29.1	28.4	27.8	28.7	103.7	165.9
O	Short Term Cap Purch	27.3	-	-	-	-	-	-	-	-	-	-	-
T	Cogeneration	-	-	-	307.3	136.7	72.1	133.2	60.1	43.7	0.2	1,623.5	824.4
A	Combined Cycle CT	-	-	-	78.5	17.8	11.4	12.5	138.3	70.5	4.5	444.5	720.1
L	Coal	-	-	-	-	-	3.9	-	-	-	-	86.2	414.5
	All Others	-	-	0.0	-	19.6	-	-	-	-	-	37.4	349.9
	Total	**55.6**	**27.4**	**27.8**	**414.4**	**203.0**	**115.5**	**174.8**	**226.8**	**142.0**	**33.4**	**2,295.4**	**2,474.9**

Annual Winter Peak Capacity (MW)

		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
S	Native Load	7,844	7,416	7,521	7,621	7,778	7,925	8,065	8,211	8,369	8,518	9,491	10,720
Y	Long Term Sales	2,340	1,867	1,640	1,431	1,196	1,188	918	915	915	790	690	660
S	DSM Programs	(28)	(56)	(83)	(112)	(141)	(169)	(198)	(227)	(254)	(283)	(387)	(553)
T	**Total Requirements**	**10,156**	**9,228**	**9,077**	**8,940**	**8,833**	**8,944**	**8,785**	**8,900**	**9,030**	**9,024**	**9,794**	**10,827**
E													
M	Existing Generation	9,237	9,244	9,247	9,068	8,877	8,756	8,760	8,529	8,533	8,358	7,410	6,266
	Long Term Purchases	1,876	1,872	1,970	1,429	1,429	1,429	1,379	979	979	979	879	858
L	Short Term Market	80	-	-	135	-	-	-	69	69	-	-	-
&	Short Term Cap Purch	27	-	-	-	-	-	-	-	-	-	-	-
R	New Resources	1	1	1	387	561	648	794	992	1,106	1,111	3,307	5,616
	Total Resources	**11,221**	**11,117**	**11,218**	**11,019**	**10,867**	**10,833**	**10,933**	**10,570**	**10,688**	**10,448**	**11,596**	**12,740**
	Reserves	1,065	1,889	2,142	2,079	2,034	1,890	2,149	1,670	1,659	1,424	1,802	1,913
	Reserve Margin (%)	10.5	21.5	25.1	24.7	24.5	22.5	25.8	19.9	19.4	16.8	18.9	18.3

RAMPP-6 Weighted Average Reference Case (Case 2)
45% Gas, 45% Load Loss, 10% Enviro
Cumulative Annual Energy (aMW)

		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
	DSM Programs	4.8	9.5	14.5	19.6	24.7	29.8	35.0	40.1	45.2	50.4	69.5	100.8
	Or/Wa Wind	-	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.5	67.5
O	Or/Wa Geothermal	-	-	-	-	-	-	-	-	-	-	-	0.0
R	Or/Wa Cogen 1	-	-	-	60.3	126.2	143.6	154.4	161.2	161.2	161.2	200.1	200.1
/	Or/Wa Cogen 2	-	-	-	211.1	271.4	320.8	434.0	482.3	522.4	523.6	961.3	1,096.4
W	Or/Wa Combined Cycle	-	-	-	29.9	29.6	30.0	32.0	38.6	101.9	107.1	146.8	324.8
A	Or/Wa Bridger Transm	-	-	-	-	-	-	-	-	-	-	-	26.0
	Or/Wa Simple CycleCT	-	-	-	-	-	-	-	-	-	-	-	-
	Or/Wa Pump Storage	-	-	-	-	-	-	-	-	-	-	-	-
	Total	**4.8**	**9.5**	**14.5**	**320.9**	**451.9**	**524.2**	**655.4**	**722.2**	**830.7**	**842.3**	**1,385.2**	**1,815.5**
G	DSM Programs	0.4	0.9	1.4	1.8	2.3	2.8	3.3	3.8	4.3	4.8	6.5	9.2
O	Goshen Cogen 1	-	-	-	5.0	5.4	5.4	5.4	5.4	5.4	5.4	27.9	27.9
S	Goshen Cogen 2	-	-	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
H	Goshen Combined C CT	-	-	-	-	-	-	-	-	-	-	-	-
E	Goshen Bridger Trans	-	-	-	-	-	-	-	-	-	-	-	-
N	Goshen Hunter Transm	-	-	-	-	-	-	-	-	-	-	-	-
	Total	**0.4**	**0.9**	**1.4**	**6.8**	**7.7**	**8.3**	**8.7**	**9.2**	**9.7**	**10.2**	**34.5**	**37.1**
	DSM Programs	8.8	17.3	25.2	33.6	42.1	50.1	58.6	66.9	74.9	83.4	114.5	164.8
	Utah Geothermal	-	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Utah Solar	-	-	-	-	-	-	-	-	-	-	-	-
U	Utah Cogen 1	-	-	-	9.0	9.1	9.1	9.5	10.1	10.1	10.1	14.0	14.0
T	Utah Cogen 2	-	-	-	0.0	0.1	0.1	0.1	0.1	0.1	0.1	976.7	1,599.3
A	Utah Combined Cycle	-	-	-	40.8	56.4	66.8	75.9	189.6	189.6	195.8	488.2	899.6
H	Utah IGCC Hunter 4	-	-	-	-	-	-	-	-	-	-	3.2	8.6
	Utah IGCC CT	-	-	-	-	-	-	-	-	-	-	-	-
	Utah PC Hunter 4	-	-	-	-	-	3.5	3.5	3.5	3.5	3.5	46.2	121.2
	Utah Coal $23.25/Ton	-	-	-	-	-	-	-	-	-	-	-	17.8
	Utah Coal $27.00/Ton	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Simple Cycle CT	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Pumped Storage	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Wyo/Ut Tran L	-	-	-	-	17.6	18.6	18.6	18.6	18.6	18.6	35.6	193.9
	Total	**8.8**	**17.3**	**25.3**	**83.4**	**125.3**	**148.3**	**166.4**	**288.9**	**296.9**	**311.6**	**1,678.2**	**3,019.1**
	DSM Programs	1.7	3.5	5.3	7.2	9.1	11.0	12.9	14.8	16.8	18.8	26.2	38.8
W	Wyo Wind	-	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.5	48.2
Y	Wyo Combined Cycle	-	-	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
O	Wyo IGCC Wyodak 2	-	-	-	-	-	-	-	-	-	-	-	-
M	Wyo IGCC CT	-	-	-	-	-	-	-	-	-	-	-	-
I	Wyo PC Wyodak 2	-	-	-	-	-	-	-	-	-	-	26.8	209.6
N	Wyo Coal $6.70/Ton	-	-	-	-	-	-	-	-	-	-	6.3	105.1
G	Wyo Simple Cycle CT	-	-	-	-	-	-	-	-	-	-	-	-
	Total	**1.7**	**3.5**	**5.3**	**7.2**	**9.1**	**11.0**	**12.9**	**14.9**	**16.8**	**18.8**	**64.9**	**401.9**
	DSM Programs	15.8	31.2	46.4	62.2	78.1	93.7	109.8	125.6	141.2	157.3	216.8	313.6
	Short Term Cap Purch	0.0	-	0.0	-	-	-	-	-	-	-	0.0	4.2
T	Cogeneration	-	-	-	285.5	412.2	479.0	603.4	659.1	699.2	700.5	2,180.0	2,937.6
O	Combined Cycle CT	-	-	-	70.7	86.1	96.8	108.0	228.3	291.5	302.9	635.0	1,224.4
T	Coal	-	-	-	-	-	3.5	3.5	3.5	3.5	3.5	82.5	462.3
A	Transmission	-	-	-	-	17.6	18.6	18.6	18.6	18.6	18.6	35.6	219.9
L	Simple Cycle	-	-	-	-	-	-	-	-	-	-	-	-
	All Others	-	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.0	115.7
	Total	**15.8**	**31.2**	**46.4**	**418.4**	**594.0**	**691.8**	**843.4**	**1,035.2**	**1,154.2**	**1,182.9**	**3,162.9**	**5,277.7**
S	**Native Load**	5,633	5,337	5,419	5,484	5,594	5,709	5,841	5,976	6,114	6,229	6,971	7,951
Y	**Pump Storage/Peak Retu**	277	270	224	222	222	219	222	223	223	223	223	223
S	**Long Term Sales**	1,543	1,334	1,258	1,147	961	914	760	757	718	702	600	576
T	**Short Term Sales**	1,546	1,832	1,769	2,072	2,092	2,072	2,106	2,100	2,085	1,953	2,260	2,298
E	**DSM Programs**	(16)	(31)	(46)	(62)	(78)	(94)	(110)	(126)	(141)	(157)	(217)	(314)
M	**Total Requirements**	8,983	8,742	8,623	8,863	8,791	8,820	8,820	8,931	8,999	8,949	9,838	10,735
	Existing Generation	7,376	7,267	7,211	7,217	7,161	7,150	7,174	7,095	7,106	7,029	6,166	5,095
L	**Long Term Purchases**	700	709	749	737	736	737	527	338	338	336	243	240
&	**Short Term Market**	806	708	600	503	317	269	325	512	472	459	449	426
R	**Short Term Purchases**	101	58	62	51	62	66	59	77	70	99	33	14
	New Resources	-	-	0	356	516	598	734	910	1,013	1,026	2,946	4,960
	Total Resources	8,983	8,742	8,623	8,863	8,791	8,820	8,820	8,931	8,999	8,949	9,838	10,735

RAMPP-6 Weighted Average Reference Case
Component - 100% Gas, 0% Load Loss, 0% Enviro
Incremental Summer Capacity (MW) of Resource Additions

		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
	Short Term Cap Purch	41.5	2.2	172.2	-	-	-	-	-	17.2	249.8	19.7	503.9
	DSM Programs	6.5	6.4	6.9	6.8	6.8	6.9	6.9	6.8	6.8	6.9	25.4	41.0
	Or/Wa Wind	-	-	-	-	-	-	-	-	-	-	14.4	31.7
O	Or/Wa Geothermal	-	-	-	-	-	-	-	-	-	-	-	-
R	Or/Wa Cogen 1	-	-	-	94.0	94.0	14.1	-	-	-	-	-	-
/	Or/Wa Cogen 2	-	-	-	381.6	84.6	106.4	170.6	73.7	43.5	0.3	445.7	-
W	Or/Wa Combined Cycle	-	-	-	67.2	-	-	4.7	15.3	117.5	9.3	52.8	292.0
A	Or/Wa Bridger Transm	-	-	-	-	-	-	-	-	-	-	-	62.3
	Or/Wa Simple CycleCT	-	-	-	-	-	-	-	-	-	-	-	-
	Or/Wa Pump Storage	-	-	-	-	-	-	-	-	-	-	-	-
	Total	**6.5**	**6.4**	**6.9**	**549.6**	**185.4**	**127.5**	**182.1**	**95.9**	**167.8**	**16.5**	**538.3**	**427.1**
G	DSM Programs	0.6	0.6	0.6	0.6	0.7	0.6	0.7	0.7	0.7	0.7	2.3	3.2
O	Goshen Cogen 1	-	-	-	10.8	0.4	-	-	-	-	-	17.0	-
S	Goshen Cogen 2	-	-	-	-	-	-	-	-	-	-	-	-
H	Goshen Combined C CT	-	-	-	-	-	-	-	-	-	-	-	-
E	Goshen Bridger Trans	-	-	-	-	-	-	-	-	-	-	-	-
N	Goshen Hunter Transm	-	-	-	-	-	-	-	-	-	-	-	-
	Total	**0.6**	**0.6**	**0.6**	**11.4**	**1.1**	**0.6**	**0.7**	**0.7**	**0.7**	**0.7**	**19.3**	**3.2**
	DSM Programs	13.9	13.4	12.6	13.1	13.3	12.6	13.2	12.7	12.4	13.0	47.5	75.5
	Utah Geothermal	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Solar	-	-	-	-	-	-	-	-	-	-	-	-
U	Utah Cogen 1	-	-	-	14.1	-	-	-	-	-	-	-	-
T	Utah Cogen 2	-	-	-	-	-	-	-	-	-	-	814.5	858.7
A	Utah Combined Cycle	-	-	-	85.9	18.0	22.2	8.5	196.7	0.7	-	761.0	401.4
H	Utah IGCC Hunter 4	-	-	-	-	-	-	-	-	-	-	7.8	13.2
	Utah IGCC CT	-	-	-	-	-	-	-	-	-	-	-	-
	Utah PC Hunter 4	-	-	-	-	-	8.6	-	-	-	-	103.4	32.0
	Utah Coal $23.25/Ton	-	-	-	-	-	-	-	-	-	-	-	43.2
	Utah Coal $27.00/Ton	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Simple Cycle CT	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Pumped Storage	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Wyo/Ut Tran L	-	-	-	-	20.6	-	-	-	-	-	38.0	80.3
	Total	**13.9**	**13.4**	**12.6**	**113.1**	**51.9**	**43.3**	**21.8**	**209.4**	**13.1**	**13.0**	**1,772.2**	**1,504.3**
	DSM Programs	2.2	2.3	2.4	2.4	2.4	2.4	2.4	2.5	2.4	2.5	9.1	15.4
W	Wyo Wind	-	-	-	-	-	-	-	-	-	-	10.8	19.0
Y	Wyo Combined Cycle	-	-	-	-	-	-	-	-	-	-	-	-
O	Wyo IGCC Wyodak 2	-	-	-	-	-	-	-	-	-	-	-	-
M	Wyo IGCC CT	-	-	-	-	-	-	-	-	-	-	-	-
I	Wyo PC Wyodak 2	-	-	-	-	-	-	-	-	-	-	65.0	73.2
N	Wyo Coal $6.70/Ton	-	-	-	-	-	-	-	-	-	-	15.4	203.5
G	Wyo Simple Cycle CT	-	-	-	-	-	-	-	-	-	-	-	-
	Total	**2.2**	**2.3**	**2.4**	**2.4**	**2.4**	**2.4**	**2.4**	**2.5**	**2.4**	**2.5**	**100.3**	**311.2**
T	DSM Programs	23.3	22.6	22.4	22.9	23.1	22.5	23.3	22.7	22.3	23.0	84.3	135.1
O	Short Term Cap Purch	41.5	2.2	172.2	-	-	-	-	-	17.2	249.8	19.7	503.9
T	Cogeneration	-	-	-	500.5	179.1	120.5	170.6	73.7	43.5	0.3	1,277.2	858.7
A	Combined Cycle CT	-	-	-	153.0	18.0	22.2	13.2	212.0	118.2	9.3	813.8	693.4
L	Coal	-	-	-	-	-	8.6	-	-	-	-	191.6	365.1
	All Others	-	-	-	-	20.6	-	-	-	-	-	63.2	193.4
	Total	**64.7**	**24.8**	**194.6**	**676.5**	**240.8**	**173.8**	**207.0**	**308.5**	**201.3**	**282.5**	**2,449.7**	**2,749.5**

Annual Summer Peak Capacity (MW)

		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
S	Native Load	7,987	8,030	8,203	8,435	8,608	8,767	8,937	9,052	9,267	9,399	10,535	12,042
Y	Long Term Sales	2,377	2,239	2,120	1,890	1,647	1,647	1,327	1,324	1,324	1,249	1,149	1,104
S	DSM Programs	(23)	(46)	(68)	(91)	(114)	(137)	(160)	(183)	(205)	(228)	(312)	(447)
T	**Total Requirements**	**10,341**	**10,223**	**10,255**	**10,234**	**10,141**	**10,277**	**10,104**	**10,193**	**10,386**	**10,420**	**11,372**	**12,699**
E													
M	Existing Generation	9,179	9,185	9,007	8,836	8,819	8,698	8,702	8,471	8,475	8,300	7,332	6,240
	Long Term Purchases	1,351	1,345	1,226	1,076	1,076	1,076	676	676	626	626	558	536
L	Short Term Market	806	714	875	814	571	571	651	648	698	623	591	568
&	Short Term Cap Purch	41	2	172	-	-	-	-	-	17	250	20	504
R	New Resources	1	1	1	655	872	1,024	1,207	1,493	1,655	1,664	4,014	6,125
	Total Resources	**11,378**	**11,247**	**11,282**	**11,381**	**11,338**	**11,369**	**11,236**	**11,288**	**11,471**	**11,463**	**12,514**	**13,973**

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
Reserves	1,038	1,023	1,026	1,146	1,197	1,091	1,132	1,095	1,085	1,043	1,142	1,275
Reserve Margin (%)	10.0	10.0	10.0	11.2	11.8	10.6	11.2	10.7	10.4	10.0	10.0	10.0

RAMPP-6 Weighted Average Reference Case
Component - 100% Gas, 0% Load Loss, 0% Enviro
Incremental Winter Capacity (MW) of Resource Additions

		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
	Short Term Cap Purch	41.5	-	-	-	-	-	-	-	-	-	-	-
	DSM Programs	11.7	11.3	12.7	12.8	12.7	12.8	12.9	12.7	12.4	12.7	45.5	72.9
	Or/Wa Wind	-	-	-	-	-	-	-	-	-	-	24.3	53.5
O	Or/Wa Geothermal	-	-	-	-	-	-	-	-	-	-	-	-
R	Or/Wa Cogen 1	-	-	-	100.0	100.0	15.0	-	-	-	-	-	-
/	Or/Wa Cogen 2	-	-	-	406.0	90.0	113.2	181.4	78.4	46.3	0.4	474.2	-
W	Or/Wa Combined Cycle	-	-	-	71.5	-	-	5.0	16.3	125.0	9.9	56.2	310.6
A	Or/Wa Bridger Transm	-	-	-	-	-	-	-	-	-	-	-	62.3
	Or/Wa Simple CycleCT	-	-	-	-	-	-	-	-	-	-	-	-
	Or/Wa Pump Storage	-	-	-	-	-	-	-	-	-	-	-	-
	Total	**11.7**	**11.3**	**12.7**	**590.2**	**202.7**	**141.1**	**199.3**	**107.4**	**183.7**	**23.0**	**600.1**	**499.4**
G	DSM Programs	0.5	0.5	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	2.0	2.8
O	Goshen Cogen 1	-	-	-	11.5	0.5	-	-	-	-	-	18.1	-
S	Goshen Cogen 2	-	-	-	-	-	-	-	-	-	-	-	-
H	Goshen Combined C CT	-	-	-	-	-	-	-	-	-	-	-	-
E	Goshen Bridger Trans	-	-	-	-	-	-	-	-	-	-	-	-
N	Goshen Hunter Transm	-	-	-	-	-	-	-	-	-	-	-	-
	Total	**0.5**	**0.5**	**0.6**	**12.0**	**1.1**	**0.6**	**0.6**	**0.6**	**0.6**	**0.6**	**20.0**	**2.8**
	DSM Programs	14.4	13.8	12.7	13.3	13.6	12.7	13.5	12.9	12.5	13.2	48.1	76.0
	Utah Geothermal	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Solar	-	-	-	-	-	-	-	-	-	-	-	-
U	Utah Cogen 1	-	-	-	15.0	-	-	-	-	-	-	-	-
T	Utah Cogen 2	-	-	-	-	-	-	-	-	-	-	866.5	913.5
A	Utah Combined Cycle	-	-	-	91.3	19.1	23.6	9.1	209.3	0.7	-	809.6	427.1
H	Utah IGCC Hunter 4	-	-	-	-	-	-	-	-	-	-	7.8	13.2
	Utah IGCC CT	-	-	-	-	-	-	-	-	-	-	-	-
	Utah PC Hunter 4	-	-	-	-	-	8.6	-	-	-	-	103.4	32.0
	Utah Coal $23.25/Ton	-	-	-	-	-	-	-	-	-	-	-	43.2
	Utah Coal $27.00/Ton	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Simple Cycle CT	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Pumped Storage	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Wyo/Ut Tran L	-	-	-	-	20.6	-	-	-	-	-	38.0	80.3
	Total	**14.4**	**13.8**	**12.7**	**119.7**	**53.4**	**44.9**	**22.6**	**222.2**	**13.3**	**13.2**	**1,873.4**	**1,585.2**
	DSM Programs	2.4	2.4	2.5	2.6	2.5	2.6	2.6	2.6	2.6	2.6	9.6	16.3
W	Wyo Wind	-	-	-	-	-	-	-	-	-	-	18.2	32.2
Y	Wyo Combined Cycle	-	-	-	-	-	-	-	-	-	-	-	-
O	Wyo IGCC Wyodak 2	-	-	-	-	-	-	-	-	-	-	-	-
M	Wyo IGCC CT	-	-	-	-	-	-	-	-	-	-	-	-
I	Wyo PC Wyodak 2	-	-	-	-	-	-	-	-	-	-	65.0	73.2
N	Wyo Coal $6.70/Ton	-	-	-	-	-	-	-	-	-	-	15.4	203.5
G	Wyo Simple Cycle CT	-	-	-	-	-	-	-	-	-	-	-	-
	Total	**2.4**	**2.4**	**2.5**	**2.6**	**2.5**	**2.6**	**2.6**	**2.6**	**2.6**	**2.6**	**108.3**	**325.2**
T	DSM Programs	29.0	28.1	28.5	29.3	29.4	28.7	29.6	28.8	28.2	29.2	105.2	168.0
O	Short Term Cap Purch	41.5	-	-	-	-	-	-	-	-	-	-	-
T	Cogeneration	-	-	-	532.5	190.5	128.2	181.4	78.4	46.3	0.4	1,358.8	913.5
A	Combined Cycle CT	-	-	-	162.8	19.1	23.6	14.0	225.6	125.7	9.9	865.7	737.7
L	Coal	-	-	-	-	-	8.6	-	-	-	-	191.6	365.1
	All Others	-	-	-	-	20.6	-	-	-	-	-	80.6	228.3
	Total	**70.5**	**28.1**	**28.5**	**724.5**	**259.7**	**189.1**	**225.1**	**332.8**	**200.2**	**39.4**	**2,601.8**	**2,412.6**

Annual Winter Peak Capacity (MW)

		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
S	Native Load	7,902	7,996	8,173	8,348	8,519	8,679	8,831	8,990	9,162	9,324	10,390	11,740
Y	Long Term Sales	2,340	1,957	1,773	1,564	1,329	1,321	1,051	1,048	1,048	923	823	793
S	DSM Programs	(29)	(57)	(86)	(115)	(144)	(173)	(202)	(231)	(260)	(289)	(394)	(562)
T	**Total Requirements**	**10,213**	**9,896**	**9,860**	**9,797**	**9,704**	**9,827**	**9,680**	**9,807**	**9,950**	**9,958**	**10,819**	**11,971**
E													
M	Existing Generation	9,237	9,244	9,247	9,068	8,876	8,755	8,759	8,528	8,532	8,357	7,389	6,298
	Long Term Purchases	1,877	1,872	1,970	1,429	1,429	1,429	1,379	979	979	979	879	858
L	Short Term Market	80	-	-	135	-	-	-	69	69	-	-	-
&	Short Term Cap Purch	41	-	-	-	-	-	-	-	-	-	-	-
R	New Resources	1	1	1	696	927	1,087	1,282	1,586	1,758	1,769	4,269	6,514
	Total Resources	**11,236**	**11,117**	**11,218**	**11,328**	**11,232**	**11,271**	**11,421**	**11,163**	**11,339**	**11,105**	**12,537**	**13,670**
	Reserves	1,022	1,221	1,359	1,532	1,529	1,445	1,742	1,357	1,389	1,148	1,719	1,699
	Reserve Margin (%)	10.0	12.3	13.8	15.6	15.8	14.7	18.0	13.8	14.0	11.5	15.9	14.2

RAMPP-6 Weighted Average Reference Case
Component - 100% Gas, 0% Load Loss, 0% Enviro
Cumulative Annual Energy (aMW)

		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
	DSM Programs	4.9	9.7	14.9	20.1	25.3	30.6	35.9	41.1	46.4	51.7	71.2	103.1
	Or/Wa Wind	-	-	-	-	-	-	-	-	-	-	16.1	51.5
O	Or/Wa Geothermal	-	-	-	-	-	-	-	-	-	-	-	-
R	Or/Wa Cogen 1	-	-	-	93.1	186.2	200.1	200.1	200.1	200.1	200.1	200.1	200.1
/	Or/Wa Cogen 2	-	-	-	377.0	459.5	564.3	734.1	806.5	848.5	851.2	1,289.4	1,280.9
W	Or/Wa Combined Cycle	-	-	-	66.3	65.6	66.5	71.0	85.7	200.2	211.3	246.1	527.7
A	Or/Wa Bridger Transm	-	-	-	-	-	-	-	-	-	-	-	57.7
	Or/Wa Simple CycleCT	-	-	-	-	-	-	-	-	-	-	-	-
	Or/Wa Pump Storage	-	-	-	-	-	-	-	-	-	-	-	-
	Total	**4.9**	**9.7**	**14.9**	**556.6**	**736.6**	**861.5**	**1,041.2**	**1,133.5**	**1,295.1**	**1,314.3**	**1,822.9**	**2,221.1**
G	DSM Programs	0.4	0.9	1.4	1.9	2.3	2.8	3.3	3.8	4.3	4.8	6.6	9.3
O	Goshen Cogen 1	-	-	-	10.5	11.0	11.1	11.0	11.0	11.0	11.0	27.9	27.9
S	Goshen Cogen 2	-	-	-	-	-	-	-	-	-	-	-	-
H	Goshen Combined C CT	-	-	-	-	-	-	-	-	-	-	-	-
E	Goshen Bridger Trans	-	-	-	-	-	-	-	-	-	-	-	-
N	Goshen Hunter Transm	-	-	-	-	-	-	-	-	-	-	-	-
	Total	**0.4**	**0.9**	**1.4**	**12.3**	**13.3**	**13.9**	**14.3**	**14.8**	**15.3**	**15.8**	**34.5**	**37.1**
	DSM Programs	9.1	17.8	25.9	34.4	43.0	51.2	59.8	68.1	76.2	84.7	116.1	166.7
	Utah Geothermal	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Solar	-	-	-	-	-	-	-	-	-	-	-	-
U	Utah Cogen 1	-	-	-	13.9	13.9	13.9	13.9	13.9	13.9	14.0	14.0	14.0
T	Utah Cogen 2	-	-	-	-	-	-	-	-	-	-	779.2	1,634.1
A	Utah Combined Cycle	-	-	-	80.2	96.3	117.6	125.4	303.7	301.7	314.8	941.8	1,285.1
H	Utah IGCC Hunter 4	-	-	-	-	-	-	-	-	-	-	7.0	19.0
	Utah IGCC CT	-	-	-	-	-	-	-	-	-	-	-	-
	Utah PC Hunter 4	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Coal $23.25/Ton	-	-	-	-	-	7.9	7.9	7.9	7.9	7.9	102.6	132.0
	Utah Coal $27.00/Ton	-	-	-	-	-	-	-	-	-	-	-	39.6
	Utah Simple Cycle CT	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Pumped Storage	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Wyo/Ut Tran L	-	-	-	-	18.5	19.6	19.6	19.6	19.6	19.6	55.7	132.1
	Total	**9.1**	**17.8**	**25.9**	**128.5**	**171.7**	**210.2**	**226.7**	**413.2**	**419.4**	**441.0**	**2,016.5**	**3,422.5**
	DSM Programs	1.7	3.5	5.4	7.2	9.1	11.0	12.9	14.8	16.8	18.7	26.1	38.7
W	Wyo Wind	-	-	-	-	-	-	-	-	-	-	12.1	33.4
Y	Wyo Combined Cycle	-	-	-	-	-	-	-	-	-	-	-	-
O	Wyo IGCC Wyodak 2	-	-	-	-	-	-	-	-	-	-	-	-
M	Wyo IGCC CT	-	-	-	-	-	-	-	-	-	-	-	-
I	Wyo PC Wyodak 2	-	-	-	-	-	-	-	-	-	-	-	-
N	Wyo Coal $6.70/Ton	-	-	-	-	-	-	-	-	-	-	59.6	126.7
G	Wyo Simple Cycle CT	-	-	-	-	-	-	-	-	-	-	14.1	200.6
	Total	**1.7**	**3.5**	**5.4**	**7.2**	**9.1**	**11.0**	**12.9**	**14.8**	**16.8**	**18.7**	**111.9**	**399.4**
	DSM Programs	16.2	31.9	47.5	63.6	79.8	95.6	111.9	127.9	143.7	159.9	220.0	317.8
	Short Term Cap Purch	-	-	-	-	-	-	-	-	-	-	0.0	7.0
T	Cogeneration	-	-	-	494.5	670.5	789.4	959.2	1,031.5	1,073.5	1,076.2	2,310.7	3,157.1
O	Combined Cycle CT	-	-	-	146.6	161.9	184.1	196.5	389.4	501.9	526.2	1,187.9	[illegible]
T	Coal	-	-	-	-	-	7.9	7.9	7.9	7.9	7.9	183.3	[illegible]
A	Transmission	-	-	-	-	18.5	19.6	19.6	19.6	19.6	19.6	55.7	189.8
L	Simple Cycle	-	-	-	-	-	-	-	-	-	-	-	-
	All Others	-	-	-	-	-	-	-	-	-	-	28.2	84.9
	Total	**16.2**	**31.9**	**47.5**	**704.6**	**930.6**	**1,096.6**	**1,295.0**	**1,576.3**	**1,746.6**	**1,789.8**	**3,985.9**	**6,087.2**
S	**Native Load**	5,677	5,745	5,882	6,002	6,123	6,248	6,393	6,540	6,691	6,814	7,622	8,697
Y	**Pump Storage/Peak Retu**	277	277	225	223	223	223	223	223	223	223	223	223
S	**Long Term Sales**	1,550	1,418	1,350	1,240	1,054	1,006	853	850	811	794	692	668
T	**Short Term Sales**	1,516	1,489	1,383	1,928	1,964	1,968	2,019	2,049	2,059	1,920	2,293	2,295
E	**DSM Programs**	(16)	(32)	(48)	(64)	(80)	(96)	(112)	(128)	(144)	(160)	(220)	(318)
M	**Total Requirements**	9,004	8,897	8,792	9,329	9,284	9,350	9,376	9,534	9,641	9,591	10,611	11,566
	Existing Generation	7,382	7,377	7,335	7,365	7,277	7,240	7,247	7,130	7,129	7,041	6,135	5,118
L	**Long Term Purchases**	700	710	750	737	737	737	528	338	338	335	243	243
&	**Short Term Market**	806	708	600	503	317	269	325	512	472	459	449	426
R	**Short Term Purchases**	116	102	107	83	102	102	93	106	99	125	17	16
	New Resources	-	-	-	641	851	1,001	1,183	1,448	1,603	1,630	3,766	5,762
	Total Resources	9,004	8,897	8,792	9,329	9,284	9,350	9,376	9,534	9,641	9,591	10,611	11,566

RAMPP-6 Weighted Average Reference Case
Component - 0% Gas, 100% Load Loss, 0% Enviro
Incremental Summer Capacity (MW) of Resource Additions

		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
	Short Term Cap Purch	10.2	-	-	-	-	-	-	-	-	37.6	-	38.8
	DSM Programs	6.0	5.9	6.3	6.4	6.3	6.6	6.5	6.5	6.5	6.5	24.1	39.2
	Or/Wa Wind	-	-	-	-	-	-	-	-	-	-	-	72.0
O	Or/Wa Geothermal	-	-	-	-	-	-	-	-	-	-	-	-
R	Or/Wa Cogen 1	-	-	-	20.5	32.9	21.7	24.3	15.2	0.0	-	87.4	-
/	Or/Wa Cogen 2	-	-	-	7.4	12.9	0.4	30.2	22.7	30.1	-	461.5	318.4
W	Or/Wa Combined Cycle	-	-	-	-	-	-	-	-	5.0	0.2	16.1	42.6
A	Or/Wa Bridger Transm	-	-	-	-	-	-	-	-	-	-	-	-
	Or/Wa Simple CycleCT	-	-	-	-	-	-	-	-	-	-	-	-
	Or/Wa Pump Storage	-	-	-	-	-	-	-	-	-	-	-	-
	Total	**6.0**	**5.9**	**6.3**	**34.3**	**52.2**	**28.6**	**60.9**	**44.5**	**41.6**	**6.7**	**589.1**	**472.2**
G	DSM Programs	0.6	0.6	0.6	0.7	0.6	0.7	0.7	0.6	0.7	0.7	2.3	3.2
O	Goshen Cogen 1	-	-	-	-	-	-	-	-	-	-	28.2	-
S	Goshen Cogen 2	-	-	-	-	-	-	-	-	-	-	-	-
H	Goshen Combined C CT	-	-	-	-	-	-	-	-	-	-	-	-
E	Goshen Bridger Trans	-	-	-	-	-	-	-	-	-	-	-	-
N	Goshen Hunter Transm	-	-	-	-	-	-	-	-	-	-	-	-
	Total	**0.6**	**0.6**	**0.6**	**0.7**	**0.6**	**0.7**	**0.7**	**0.6**	**0.7**	**0.7**	**30.5**	**3.2**
	DSM Programs	13.1	12.6	11.9	12.6	12.9	12.2	13.0	12.7	12.3	12.9	46.8	74.7
	Utah Geothermal	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Solar	-	-	-	-	-	-	-	-	-	-	-	-
U	Utah Cogen 1	-	-	-	3.1	0.2	-	0.9	1.3	-	-	8.6	-
T	Utah Cogen 2	-	-	-	-	-	-	-	-	-	-	1,073.2	545.0
A	Utah Combined Cycle	-	-	-	-	0.7	-	8.5	37.8	2.4	-	30.5	408.0
H	Utah IGCC Hunter 4	-	-	-	-	-	-	-	-	-	-	-	-
	Utah IGCC CT	-	-	-	-	-	-	-	-	-	-	-	-
	Utah PC Hunter 4	-	-	-	-	-	-	-	-	-	-	-	149.9
	Utah Coal $23.25/Ton	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Coal $27.00/Ton	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Simple Cycle CT	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Pumped Storage	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Wyo/Ut Tran L	-	-	-	-	22.7	-	-	-	-	-	1.5	241.1
	Total	**13.1**	**12.6**	**11.9**	**15.7**	**36.4**	**12.2**	**22.4**	**51.7**	**14.7**	**12.9**	**1,160.6**	**1,418.7**
	DSM Programs	2.2	2.2	2.3	2.3	2.4	2.4	2.4	2.4	2.5	2.5	9.1	15.4
W	Wyo Wind	-	-	-	-	-	-	-	-	-	-	-	54.0
Y	Wyo Combined Cycle	-	-	-	-	-	-	-	-	-	-	-	-
O	Wyo IGCC Wyodak 2	-	-	-	-	-	-	-	-	-	-	-	-
M	Wyo IGCC CT	-	-	-	-	-	-	-	-	-	-	-	-
I	Wyo PC Wyodak 2	-	-	-	-	-	-	-	-	-	-	-	325.0
N	Wyo Coal $6.70/Ton	-	-	-	-	-	-	-	-	-	-	-	36.0
G	Wyo Simple Cycle CT	-	-	-	-	-	-	-	-	-	-	-	-
	Total	**2.2**	**2.2**	**2.3**	**2.3**	**2.4**	**2.4**	**2.4**	**2.4**	**2.5**	**2.5**	**9.1**	**430.4**
T	DSM Programs	21.9	21.3	21.1	22.0	22.2	21.8	22.6	22.2	21.9	22.5	82.2	132.5
O	Short Term Cap Purch	10.2	-	-	-	-	-	-	-	-	37.6	-	38.8
T	Cogeneration	-	-	-	31.0	46.0	22.1	55.3	39.2	30.2	-	1,658.9	863.4
A	Combined Cycle CT	-	-	-	-	0.7	-	8.5	37.8	7.4	0.2	46.6	450.6
L	Coal	-	-	-	-	-	-	-	-	-	-	-	510.9
	All Others	-	-	-	-	22.7	-	-	-	-	-	1.5	367.1
	Total	**32.2**	**21.3**	**21.1**	**53.0**	**91.5**	**43.9**	**86.5**	**99.2**	**59.5**	**60.3**	**1,789.3**	**2,363.3**

Annual Summer Peak Capacity (MW)

		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
S	Native Load	7,833	6,857	6,847	6,887	7,029	7,161	7,302	7,398	7,575	7,683	8,603	9,840
Y	Long Term Sales	2,377	2,079	1,960	1,730	1,487	1,487	1,167	1,164	1,164	1,089	989	944
S	DSM Programs	(22)	(43)	(64)	(86)	(109)	(130)	(153)	(175)	(197)	(220)	(302)	(434)
T	**Total Requirements**	**10,188**	**8,892**	**8,742**	**8,531**	**8,407**	**8,517**	**8,316**	**8,387**	**8,542**	**8,552**	**9,290**	**10,350**
E													
M	Existing Generation	9,179	9,185	9,007	8,836	8,817	8,696	8,700	8,469	8,473	8,298	7,366	6,176
	Long Term Purchases	1,350	1,344	1,226	1,076	1,076	1,076	676	676	626	626	558	536
L	Short Term Market	806	714	875	814	571	571	651	648	698	623	591	568
&	Short Term Cap Purch	10	-	-	-	-	-	-	-	-	38	-	39
R	New Resources	1	1	1	32	101	123	187	264	302	302	2,013	4,205
	Total Resources	**11,346**	**11,244**	**11,109**	**10,758**	**10,565**	**10,466**	**10,214**	**10,057**	**10,099**	**9,887**	**10,529**	**11,524**
	Reserves	1,159	2,352	2,367	2,227	2,158	1,949	1,898	1,671	1,556	1,334	1,238	1,174
	Reserve Margin (%)	11.4	26.8	27.6	26.9	26.5	23.7	23.6	20.6	18.9	16.2	13.6	11.5

RAMPP-6 Weighted Average Reference Case

Component - 0% Gas, 100% Load Loss, 0% Enviro

Incremental Winter Capacity (MW) of Resource Additions

		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
	Short Term Cap Purch	10.2	-	-	-	-	-	-	-	-	-	-	-
	DSM Programs	10.7	10.4	11.5	11.7	11.6	11.7	11.8	11.6	11.3	11.6	41.7	67.3
	Or/Wa Wind	-	-	-	-	-	-	-	-	-	-	-	121.6
O	Or/Wa Geothermal	-	-	-	-	-	-	-	-	-	-	-	-
R	Or/Wa Cogen 1	-	-	-	21.8	35.0	23.1	25.8	16.2	0.0	-	93.0	-
/	Or/Wa Cogen 2	-	-	-	7.8	13.7	0.4	32.1	24.2	32.1	-	490.9	338.7
W	Or/Wa Combined Cycle	-	-	-	-	-	-	-	-	5.3	0.2	17.1	45.3
A	Or/Wa Bridger Transm	-	-	-	-	-	-	-	-	-	-	-	-
	Or/Wa Simple CycleCT	-	-	-	-	-	-	-	-	-	-	-	-
	Or/Wa Pump Storage	-	-	-	-	-	-	-	-	-	-	-	-
	Total	**10.7**	**10.4**	**11.5**	**41.4**	**60.4**	**35.2**	**69.6**	**52.0**	**48.7**	**11.8**	**642.7**	**572.9**
G	DSM Programs	0.5	0.5	0.6	0.6	0.5	0.6	0.6	0.6	0.6	0.5	1.9	2.6
O	Goshen Cogen 1	-	-	-	-	-	-	-	-	-	-	30.0	-
S	Goshen Cogen 2	-	-	-	-	-	-	-	-	-	-	-	-
H	Goshen Combined C CT	-	-	-	-	-	-	-	-	-	-	-	-
E	Goshen Bridger Trans	-	-	-	-	-	-	-	-	-	-	-	-
N	Goshen Hunter Transm	-	-	-	-	-	-	-	-	-	-	-	-
	Total	**0.5**	**0.5**	**0.6**	**0.6**	**0.5**	**0.6**	**0.6**	**0.6**	**0.6**	**0.5**	**31.9**	**2.6**
	DSM Programs	13.6	13.0	12.0	12.8	13.3	12.3	13.3	12.9	12.5	13.1	47.6	75.5
	Utah Geothermal	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Solar	-	-	-	-	-	-	-	-	-	-	-	-
U	Utah Cogen 1	-	-	-	3.3	0.2	-	1.0	1.3	-	-	9.2	-
T	Utah Cogen 2	-	-	-	-	-	-	-	-	-	-	1,141.6	579.8
A	Utah Combined Cycle	-	-	-	-	0.7	-	9.0	40.2	2.6	-	32.5	434.1
H	Utah IGCC Hunter 4	-	-	-	-	-	-	-	-	-	-	-	-
	Utah IGCC CT	-	-	-	-	-	-	-	-	-	-	-	-
	Utah PC Hunter 4	-	-	-	-	-	-	-	-	-	-	-	149.9
	Utah Coal $23.25/Ton	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Coal $27.00/Ton	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Simple Cycle CT	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Pumped Storage	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Wyo/Ut Tran L	-	-	-	-	22.7	-	-	-	-	-	1.5	241.1
	Total	**13.6**	**13.0**	**12.0**	**16.2**	**36.8**	**12.3**	**23.4**	**54.4**	**15.1**	**13.1**	**1,232.4**	**1,480.4**
	DSM Programs	2.3	2.4	2.5	2.5	2.5	2.5	2.6	2.6	2.6	2.6	9.6	16.3
W	Wyo Wind	-	-	-	-	-	-	-	-	-	-	-	91.2
Y	Wyo Combined Cycle	-	-	-	-	-	-	-	-	-	-	-	-
O	Wyo IGCC Wyodak 2	-	-	-	-	-	-	-	-	-	-	-	-
M	Wyo IGCC CT	-	-	-	-	-	-	-	-	-	-	-	-
I	Wyo PC Wyodak 2	-	-	-	-	-	-	-	-	-	-	-	325.0
N	Wyo Coal $6.70/Ton	-	-	-	-	-	-	-	-	-	-	-	36.0
G	Wyo Simple Cycle CT	-	-	-	-	-	-	-	-	-	-	-	-
	Total	**2.3**	**2.4**	**2.5**	**2.5**	**2.5**	**2.5**	**2.6**	**2.6**	**2.6**	**2.6**	**9.6**	**468.5**
T	DSM Programs	27.1	26.3	26.6	27.6	27.9	27.2	28.2	27.7	27.0	27.8	100.8	161.8
O	Short Term Cap Purch	10.2	-	-	-	-	-	-	-	-	-	-	-
T	Cogeneration	-	-	-	33.0	48.9	23.5	58.9	41.7	32.1	-	1,764.8	918.5
A	Combined Cycle CT	-	-	-	-	0.7	-	9.0	40.2	7.9	0.2	49.6	479.4
L	Coal	-	-	-	-	-	-	-	-	-	-	-	510.9
	All Others	-	-	-	-	22.7	-	-	-	-	-	1.5	453.9
	Total	**37.4**	**26.3**	**26.6**	**60.6**	**100.2**	**50.7**	**96.1**	**109.6**	**67.0**	**28.0**	**1,916.7**	**2,524.5**

Annual Winter Peak Capacity (MW)

		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
S	Native Load	7,774	6,707	6,723	6,733	6,872	7,004	7,129	7,259	7,400	7,532	8,392	9,473
Y	Long Term Sales	2,340	1,758	1,477	1,268	1,033	1,025	755	752	752	627	527	497
S	DSM Programs	(27)	(54)	(80)	(108)	(136)	(163)	(191)	(218)	(245)	(273)	(374)	(536)
T	**Total Requirements**	**10,087**	**8,412**	**8,121**	**7,894**	**7,770**	**7,866**	**7,693**	**7,793**	**7,907**	**7,886**	**8,546**	**9,434**
E													
M	Existing Generation	9,237	9,244	9,247	9,068	8,874	8,753	8,757	8,526	8,530	8,355	7,424	6,233
	Long Term Purchases	1,876	1,872	1,970	1,429	1,429	1,429	1,379	979	979	979	879	858
L	Short Term Market	80	-	-	135	-	-	-	69	69	-	-	-
&	Short Term Cap Purch	10	-	-	-	-	-	-	-	-	-	-	-
R	New Resources	1	1	1	34	106	130	198	280	320	320	2,140	4,503
	Total Resources	**11,204**	**11,117**	**11,218**	**10,666**	**10,409**	**10,312**	**10,334**	**9,854**	**9,898**	**9,654**	**10,442**	**11,594**
	Reserves	1,117	2,705	3,098	2,772	2,639	2,446	2,641	2,061	1,991	1,768	1,897	2,159
	Reserve Margin (%)	11.1	32.6	38.9	36.1	35.0	32.1	35.3	27.3	26.0	23.3	22.6	23.2

RAMPP-6 Weighted Average Reference Case
Component - 0% Gas, 100% Load Loss, 0% Enviro
Cumulative Annual Energy (aMW)

		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
	DSM Programs	4.5	9.0	13.8	18.6	23.4	28.4	33.3	38.2	43.1	48.0	66.3	96.4
	Or/Wa Wind	-	-	-	-	-	-	-	-	-	-	-	80.5
O	Or/Wa Geothermal	-	-	-	-	-	-	-	-	-	-	-	-
R	Or/Wa Cogen 1	-	-	-	20.3	52.9	74.4	98.5	113.5	113.5	113.5	200.1	200.1
/	Or/Wa Cogen 2	-	-	-	7.3	20.1	20.5	50.3	72.8	102.7	102.7	559.4	868.0
W	Or/Wa Combined Cycle	-	-	-	-	-	-	-	-	4.9	5.1	20.3	58.7
A	Or/Wa Bridger Transm	-	-	-	-	-	-	-	-	-	-	-	-
	Or/Wa Simple CycleCT	-	-	-	-	-	-	-	-	-	-	-	-
	Or/Wa Pump Storage	-	-	-	-	-	-	-	-	-	-	-	-
	Total	**4.5**	**9.0**	**13.8**	**46.2**	**96.5**	**123.3**	**182.1**	**224.6**	**264.2**	**269.3**	**846.1**	**1,303.8**
G	DSM Programs	0.4	0.9	1.3	1.8	2.3	2.8	3.2	3.7	4.2	4.7	6.4	9.0
O	Goshen Cogen 1	-	-	-	-	-	-	-	-	-	-	27.9	27.9
S	Goshen Cogen 2	-	-	-	-	-	-	-	-	-	-	-	-
H	Goshen Combined C CT	-	-	-	-	-	-	-	-	-	-	-	-
E	Goshen Bridger Trans	-	-	-	-	-	-	-	-	-	-	-	-
N	Goshen Hunter Transm	-	-	-	-	-	-	-	-	-	-	-	-
	Total	**0.4**	**0.9**	**1.3**	**1.8**	**2.3**	**2.8**	**3.2**	**3.7**	**4.2**	**4.7**	**34.4**	**37.0**
	DSM Programs	8.5	16.7	24.4	32.5	40.9	48.8	57.2	65.4	73.4	81.8	112.6	162.5
	Utah Geothermal	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Solar	-	-	-	-	-	-	-	-	-	-	-	-
U	Utah Cogen 1	-	-	-	3.1	3.3	3.3	4.2	5.4	5.4	5.4	14.0	14.0
T	Utah Cogen 2	-	-	-	-	-	-	-	-	-	-	1,035.8	1,552.2
A	Utah Combined Cycle	-	-	-	-	0.6	0.6	8.9	45.4	48.0	48.0	67.3	385.0
H	Utah IGCC Hunter 4	-	-	-	-	-	-	-	-	-	-	-	-
	Utah IGCC CT	-	-	-	-	-	-	-	-	-	-	-	-
	Utah PC Hunter 4	-	-	-	-	-	-	-	-	-	-	-	137.4
	Utah Coal $23.25/Ton	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Coal $27.00/Ton	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Simple Cycle CT	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Pumped Storage	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Wyo/Ut Tran L	-	-	-	-	20.4	21.6	21.6	21.6	21.6	21.6	23.0	252.2
	Total	**8.5**	**16.7**	**24.4**	**35.6**	**65.1**	**74.2**	**91.8**	**137.7**	**148.3**	**156.7**	**1,252.6**	**2,503.3**
	DSM Programs	1.7	3.5	5.3	7.1	9.0	10.9	12.8	14.7	16.7	18.7	26.1	38.7
W	Wyo Wind	-	-	-	-	-	-	-	-	-	-	-	60.4
Y	Wyo Combined Cycle	-	-	-	-	-	-	-	-	-	-	-	-
O	Wyo IGCC Wyodak 2	-	-	-	-	-	-	-	-	-	-	-	-
M	Wyo IGCC CT	-	-	-	-	-	-	-	-	-	-	-	-
I	Wyo PC Wyodak 2	-	-	-	-	-	-	-	-	-	-	-	297.8
N	Wyo Coal $6.70/Ton	-	-	-	-	-	-	-	-	-	-	-	33.0
G	Wyo Simple Cycle CT	-	-	-	-	-	-	-	-	-	-	-	-
	Total	**1.7**	**3.5**	**5.3**	**7.1**	**9.0**	**10.9**	**12.8**	**14.7**	**16.7**	**18.7**	**26.1**	**429.9**
	DSM Programs	15.2	30.1	44.8	60.0	75.6	90.8	106.5	122.0	137.4	153.1	211.4	306.6
	Short Term Cap Purch	-	-	-	-	-	-	-	-	-	-	-	0.6
T	Cogeneration	-	-	-	30.7	76.3	98.2	153.0	191.8	221.6	221.6	1,837.2	2,662.2
O	Combined Cycle CT	-	-	-	-	0.6	0.6	8.9	45.4	52.9	53.1	87.6	443.7
T	Coal	-	-	-	-	-	-	-	-	-	-	-	468.2
A	Transmission	-	-	-	-	20.4	21.6	21.6	21.6	21.6	21.6	23.0	252.2
L	Simple Cycle	-	-	-	-	-	-	-	-	-	-	-	-
	All Others	-	-	-	-	-	-	-	-	-	-	-	140.9
	Total	**15.2**	**30.1**	**44.8**	**90.8**	**172.9**	**211.1**	**289.9**	**380.8**	**433.5**	**449.4**	**2,159.1**	**4,274.5**
S	**Native Load**	5,580	4,839	4,854	4,852	4,949	5,050	5,167	5,286	5,408	5,514	6,176	7,041
Y	**Pump Storage/Peak Retu**	277	261	222	221	221	215	220	222	223	223	223	223
S	**Long Term Sales**	1,534	1,232	1,144	1,034	848	801	647	644	605	589	487	463
T	**Short Term Sales**	1,586	2,255	2,243	2,273	2,245	2,213	2,219	2,173	2,126	2,005	2,216	2,297
E	**DSM Programs**	(15)	(30)	(45)	(60)	(76)	(91)	(106)	(122)	(137)	(153)	(211)	(307)
M	**Total Requirements**	8,960	8,558	8,420	8,320	8,187	8,188	8,147	8,204	8,224	8,177	8,890	9,717
	Existing Generation	7,376	7,137	7,065	7,040	7,021	7,039	7,087	7,052	7,078	7,013	6,194	5,073
L	**Long Term Purchases**	700	709	749	736	736	736	527	338	338	336	243	236
&	**Short Term Market**	806	708	600	503	317	269	325	512	472	459	449	426
R	**Short Term Purchases**	79	4	5	10	16	23	24	44	40	72	56	15
	New Resources	-	-	-	31	97	120	183	259	296	296	1,948	3,967
	Total Resources	8,960	8,558	8,420	8,320	8,187	8,188	8,147	8,204	8,224	8,177	8,890	9,717

RAMPP-6 Weighted Average Reference Case
Component - 0% Gas, 0% Load Loss, 100% Enviro
Incremental Summer Capacity (MW) of Resource Additions

		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
	Short Term Cap Purch	40.1	1.2	170.7	-	-	-	-	-	-	282.9	-	502.5
	DSM Programs	6.8	6.7	7.2	7.2	7.1	7.3	7.3	7.2	7.1	7.2	26.7	43.0
	Or/Wa Wind	-	-	0.0	-	-	-	-	-	-	-	2.2	69.8
O	Or/Wa Geothermal	-	-	-	-	-	-	-	-	-	-	-	-
R	Or/Wa Cogen 1	-	-	-	94.0	94.0	14.1	-	-	-	-	-	-
/	Or/Wa Cogen 2	-	-	-	385.6	176.0	21.0	235.5	56.4	79.4	-	352.7	-
W	Or/Wa Combined Cycle	-	-	-	0.4	0.0	-	-	-	97.3	-	195.5	348.8
A	Or/Wa Bridger Transm	-	-	-	-	-	-	-	-	-	-	-	-
	Or/Wa Simple CycleCT	-	-	-	-	-	-	-	-	-	-	-	-
	Or/Wa Pump Storage	-	-	-	-	-	-	-	-	-	-	-	-
	Total	**6.8**	**6.7**	**7.3**	**487.2**	**277.2**	**42.5**	**242.8**	**63.6**	**183.8**	**7.2**	**577.1**	**461.6**
G	DSM Programs	0.6	0.6	0.7	0.6	0.7	0.6	0.7	0.7	0.6	0.7	2.4	3.2
O	Goshen Cogen 1	-	-	-	2.6	2.0	-	-	-	-	-	23.6	-
S	Goshen Cogen 2	-	-	-	0.1	-	-	-	-	-	-	-	-
H	Goshen Combined C CT	-	-	-	-	-	-	-	-	-	-	-	-
E	Goshen Bridger Trans	-	-	-	-	-	-	-	-	-	-	-	-
N	Goshen Hunter Transm	-	-	-	-	-	-	-	-	-	-	-	-
	Total	**0.6**	**0.6**	**0.7**	**3.3**	**2.7**	**0.6**	**0.7**	**0.7**	**0.6**	**0.7**	**26.0**	**3.2**
	DSM Programs	13.9	13.4	12.5	13.1	13.3	12.6	13.2	12.8	12.4	13.0	47.5	75.6
	Utah Geothermal	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Solar	-	-	-	-	-	-	-	-	-	-	-	-
U	Utah Cogen 1	-	-	-	14.1	-	-	-	-	-	-	-	-
T	Utah Cogen 2	-	-	-	0.2	0.2	0.2	0.2	0.1	-	-	1,672.3	-
A	Utah Combined Cycle	-	-	-	47.6	83.1	7.6	19.5	175.3	-	-	111.1	1,272.4
H	Utah IGCC Hunter 4	-	-	-	-	-	-	-	-	-	-	-	-
	Utah IGCC CT	-	-	-	-	-	-	-	-	-	-	-	-
	Utah PC Hunter 4	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Coal $23.25/Ton	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Coal $27.00/Ton	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Simple Cycle CT	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Pumped Storage	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Wyo/Ut Tran L	-	-	-	-	1.1	-	-	-	-	-	-	221.9
	Total	**13.9**	**13.4**	**12.5**	**75.1**	**97.6**	**20.4**	**32.9**	**188.1**	**12.4**	**13.0**	**1,830.9**	**1,569.8**
	DSM Programs	2.3	2.3	2.4	2.4	2.5	2.5	2.5	2.6	2.5	2.5	9.4	15.8
W	Wyo Wind	-	-	0.0	-	-	-	-	-	-	-	0.8	53.2
Y	Wyo Combined Cycle	-	-	-	0.3	-	-	-	-	-	-	-	0.1
O	Wyo IGCC Wyodak 2	-	-	-	-	-	-	-	-	-	-	-	-
M	Wyo IGCC CT	-	-	-	-	-	-	-	-	-	-	-	-
I	Wyo PC Wyodak 2	-	-	-	-	-	-	-	-	-	-	-	203.0
N	Wyo Coal $6.70/Ton	-	-	-	-	-	-	-	-	-	-	-	-
G	Wyo Simple Cycle CT	-	-	-	-	-	-	-	-	-	-	-	-
	Total	**2.3**	**2.3**	**2.4**	**2.7**	**2.5**	**2.5**	**2.5**	**2.6**	**2.5**	**2.5**	**10.2**	**272.0**
T	DSM Programs	23.7	23.1	22.9	23.4	23.5	23.0	23.7	23.2	22.7	23.4	86.0	137.6
O	Short Term Cap Purch	40.1	1.2	170.7	-	-	-	-	-	-	282.9	-	502.5
T	Cogeneration	-	-	-	496.6	272.2	35.3	235.7	56.5	79.4	-	2,048.6	-
A	Combined Cycle CT	-	-	-	48.3	83.1	7.6	19.5	175.3	97.3	-	306.6	1,621.3
L	Coal	-	-	-	-	-	-	-	-	-	-	-	203.0
	All Others	-	-	0.1	-	1.1	-	-	-	-	-	3.0	344.8
	Total	**63.7**	**24.2**	**193.6**	**568.3**	**380.0**	**65.9**	**278.9**	**254.9**	**199.4**	**306.2**	**2,444.2**	**2,809.1**

Annual Summer Peak Capacity (MW)

		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
S	Native Load	7,987	8,030	8,203	8,435	8,608	8,767	8,937	9,052	9,267	9,399	10,535	12,042
Y	Long Term Sales	2,377	2,239	2,120	1,890	1,647	1,647	1,327	1,324	1,324	1,249	1,149	1,104
S	DSM Programs	(24)	(47)	(69)	(93)	(116)	(139)	(163)	(187)	(209)	(233)	(318)	(456)
T	**Total Requirements**	**10,340**	**10,222**	**10,254**	**10,232**	**10,139**	**10,275**	**10,101**	**10,189**	**10,382**	**10,415**	**11,366**	**12,690**
E													
M	Existing Generation	9,179	9,185	9,007	8,836	8,839	8,718	8,722	8,491	8,495	8,320	7,390	6,218
	Long Term Purchases	1,351	1,345	1,226	1,076	1,076	1,076	676	676	626	626	558	537
L	Short Term Market	806	714	875	814	571	571	651	648	698	623	591	568
&	Short Term Cap Purch	40	1	171	-	-	-	-	-	-	283	-	502
R	New Resources	1	1	1	546	902	945	1,200	1,432	1,609	1,609	3,971	6,140
	Total Resources	**11,377**	**11,246**	**11,280**	**11,272**	**11,388**	**11,310**	**11,249**	**11,247**	**11,428**	**11,461**	**12,510**	**13,965**
	Reserves	1,037	1,023	1,026	1,039	1,249	1,035	1,148	1,057	1,045	1,045	1,144	1,275
	Reserve Margin (%)	10.0	10.0	10.0	10.2	12.3	10.1	11.4	10.4	10.1	10.0	10.0	10.0

RAMPP-6 Weighted Average Reference Case
Component - 0% Gas, 0% Load Loss, 100% Enviro
Incremental Winter Capacity (MW) of Resource Additions

		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
	Short Term Cap Purch	40.1	-	-	-	-	-	-	-	-	-	-	-
	DSM Programs	12.8	12.4	13.9	14.0	14.0	14.1	14.2	13.9	13.7	13.9	50.0	79.2
	Or/Wa Wind	-	-	0.1	-	-	-	-	-	-	-	3.7	117.8
O	Or/Wa Geothermal	-	-	-	-	-	-	-	-	-	-	-	-
R	Or/Wa Cogen 1	-	-	-	100.0	100.0	15.0	-	-	-	-	-	-
/	Or/Wa Cogen 2	-	-	-	410.2	187.3	22.3	250.6	60.0	84.4	-	375.2	-
W	Or/Wa Combined Cycle	-	-	-	0.4	0.0	-	-	-	103.5	-	208.0	371.1
A	Or/Wa Bridger Transm	-	-	-	-	-	-	-	-	-	-	-	-
	Or/Wa Simple CycleCT	-	-	-	-	-	-	-	-	-	-	-	-
	Or/Wa Pump Storage	-	-	-	-	-	-	-	-	-	-	-	-
	Total	**12.8**	**12.4**	**14.0**	**524.6**	**301.3**	**51.5**	**264.8**	**73.9**	**201.7**	**13.9**	**636.9**	**568.1**
G	DSM Programs	0.5	0.6	0.6	0.5	0.6	0.6	0.6	0.6	0.6	0.6	2.0	2.8
O	Goshen Cogen 1	-	-	-	2.8	2.1	-	-	-	-	-	25.1	-
S	Goshen Cogen 2	-	-	-	0.1	-	-	-	-	-	-	-	-
H	Goshen Combined C CT	-	-	-	-	-	-	-	-	-	-	-	-
E	Goshen Bridger Trans	-	-	-	-	-	-	-	-	-	-	-	-
N	Goshen Hunter Transm	-	-	-	-	-	-	-	-	-	-	-	-
	Total	**0.5**	**0.6**	**0.6**	**3.4**	**2.7**	**0.6**	**0.6**	**0.6**	**0.6**	**0.6**	**27.1**	**2.8**
	DSM Programs	14.5	13.8	12.8	13.4	13.7	12.8	13.5	13.0	12.6	13.3	48.1	76.1
	Utah Geothermal	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Solar	-	-	-	-	-	-	-	-	-	-	-	-
U	Utah Cogen 1	-	-	-	15.0	-	-	-	-	-	-	-	-
T	Utah Cogen 2	-	-	-	0.2	0.2	0.2	0.2	0.1	-	-	1,779.1	-
A	Utah Combined Cycle	-	-	-	50.7	88.4	8.1	20.7	186.5	-	-	118.2	1,353.6
H	Utah IGCC Hunter 4	-	-	-	-	-	-	-	-	-	-	-	-
	Utah IGCC CT	-	-	-	-	-	-	-	-	-	-	-	-
	Utah PC Hunter 4	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Coal $23.25/Ton	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Coal $27.00/Ton	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Simple Cycle CT	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Pumped Storage	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Wyo/Ut Tran L	-	-	-	-	1.1	-	-	-	-	-	-	221.9
	Total	**14.5**	**13.8**	**12.8**	**79.2**	**103.4**	**21.1**	**34.3**	**199.5**	**12.6**	**13.3**	**1,945.4**	**1,651.5**
	DSM Programs	2.4	2.5	2.6	2.7	2.6	2.6	2.7	2.7	2.7	2.7	10.0	16.9
W	Wyo Wind	-	-	0.0	-	-	-	-	-	-	-	1.4	89.8
Y	Wyo Combined Cycle	-	-	-	0.3	-	-	-	-	-	-	-	0.1
O	Wyo IGCC Wyodak 2	-	-	-	-	-	-	-	-	-	-	-	-
M	Wyo IGCC CT	-	-	-	-	-	-	-	-	-	-	-	-
I	Wyo PC Wyodak 2	-	-	-	-	-	-	-	-	-	-	-	203.0
N	Wyo Coal $6.70/Ton	-	-	-	-	-	-	-	-	-	-	-	-
G	Wyo Simple Cycle CT	-	-	-	-	-	-	-	-	-	-	-	-
	Total	**2.4**	**2.5**	**2.7**	**3.0**	**2.6**	**2.6**	**2.7**	**2.7**	**2.7**	**2.7**	**11.4**	**309.7**
T	DSM Programs	30.2	29.3	30.0	30.5	30.9	30.1	31.0	30.2	29.6	30.5	110.1	175.0
O	Short Term Cap Purch	40.1	-	-	-	-	-	-	-	-	-	-	-
T	Cogeneration	-	-	-	528.3	289.6	37.6	250.7	60.1	84.4	-	2,179.4	-
A	Combined Cycle CT	-	-	-	51.4	88.4	8.1	20.7	186.5	103.5	-	326.2	1,724.7
L	Coal	-	-	-	-	-	-	-	-	-	-	-	203.0
	All Others	-	-	0.1	-	1.1	-	-	-	-	-	5.1	429.5
	Total	**70.3**	**29.3**	**30.1**	**610.3**	**409.9**	**75.8**	**302.4**	**276.7**	**217.5**	**30.5**	**2,620.8**	**2,532.1**

Annual Winter Peak Capacity (MW)

		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
S	Native Load	7,902	7,996	8,173	8,348	8,519	8,679	8,831	8,990	9,162	9,324	10,390	11,740
Y	Long Term Sales	2,340	1,957	1,773	1,564	1,329	1,321	1,051	1,048	1,048	923	823	793
S	DSM Programs	(30)	(59)	(89)	(120)	(151)	(181)	(212)	(242)	(272)	(302)	(412)	(587)
T	**Total Requirements**	10,212	9,894	9,857	9,792	9,697	9,819	9,670	9,796	9,938	9,945	10,801	11,946
E													
M	Existing Generation	9,237	9,244	9,247	9,068	8,896	8,775	8,779	8,548	8,552	8,377	7,447	6,276
	Long Term Purchases	1,876	1,872	1,970	1,429	1,429	1,429	1,379	979	979	979	879	858
L	Short Term Market	80	-	-	135	-	-	-	69	69	-	-	-
&	Short Term Cap Purch	40	-	-	-	-	-	-	-	-	-	-	-
R	New Resources	1	1	1	581	960	1,005	1,277	1,524	1,711	1,711	4,226	6,583
	Total Resources	11,234	11,117	11,218	11,213	11,285	11,209	11,435	11,120	11,311	11,067	12,552	13,717
	Reserves	1,022	1,223	1,362	1,422	1,589	1,391	1,766	1,325	1,374	1,124	1,752	1,772
	Reserve Margin (%)	10.0	12.4	13.8	14.5	16.4	14.2	18.2	13.5	13.9	11.3	16.2	14.8

RAMPP-6 Weighted Average Reference Case
Component - 0% Gas, 0% Load Loss, 100% Enviro
Cumulative Annual Energy (aMW)

		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
	DSM Programs	5.2	10.4	16.0	21.6	27.2	32.9	38.6	44.3	49.9	55.6	76.6	110.4
	Or/Wa Wind	-	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	80.5
O	Or/Wa Geothermal	-	-	-	-	-	-	-	-	-	-	-	-
R	Or/Wa Cogen 1	-	-	-	93.1	186.2	200.1	200.1	200.1	200.1	200.1	200.1	200.1
/	Or/Wa Cogen 2	-	-	-	381.7	555.9	576.7	809.9	865.6	944.2	944.2	1,293.3	1,293.3
W	Or/Wa Combined Cycle	-	-	-	0.4	0.4	0.4	0.4	0.4	95.4	96.7	269.1	609.0
A	Or/Wa Bridger Transm	-	-	-	-	-	-	-	-	-	-	-	-
	Or/Wa Simple CycleCT	-	-	-	-	-	-	-	-	-	-	-	-
	Or/Wa Pump Storage	-	-	-	-	-	-	-	-	-	-	-	-
	Total	**5.2**	**10.4**	**16.0**	**496.8**	**769.7**	**810.2**	**1,049.1**	**1,110.5**	**1,289.7**	**1,296.7**	**1,841.7**	**2,293.4**
G	DSM Programs	0.5	0.9	1.4	1.9	2.4	2.9	3.4	3.9	4.4	4.9	6.7	9.4
O	Goshen Cogen 1	-	-	-	2.6	4.5	4.5	4.5	4.5	4.5	4.5	27.9	27.9
S	Goshen Cogen 2	-	-	-	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
H	Goshen Combined C CT	-	-	-	-	-	-	-	-	-	-	-	-
E	Goshen Bridger Trans	-	-	-	-	-	-	-	-	-	-	-	-
N	Goshen Hunter Transm	-	-	-	-	-	-	-	-	-	-	-	-
	Total	**0.5**	**0.9**	**1.4**	**4.6**	**7.0**	**7.5**	**8.0**	**8.5**	**9.1**	**9.6**	**34.8**	**37.4**
	DSM Programs	9.1	17.8	26.0	34.4	43.1	51.2	59.8	68.1	76.2	84.7	116.0	166.6
	Utah Geothermal	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Solar	-	-	-	-	-	-	-	-	-	-	-	-
U	Utah Cogen 1	-	-	-	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0
T	Utah Cogen 2	-	-	-	0.2	0.4	0.6	0.8	0.9	0.9	0.9	1,599.3	1,653.9
A	Utah Combined Cycle	-	-	-	46.7	128.1	135.5	154.6	324.9	322.0	324.8	340.5	1,480.3
H	Utah IGCC Hunter 4	-	-	-	-	-	-	-	-	-	-	-	-
	Utah IGCC CT	-	-	-	-	-	-	-	-	-	-	-	-
	Utah PC Hunter 4	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Coal $23.25/Ton	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Coal $27.00/Ton	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Simple Cycle CT	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Pumped Storage	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Wyo/Ut Tran L	-	-	-	-	1.0	1.0	1.0	1.0	1.0	1.0	1.0	209.5
	Total	**9.1**	**17.8**	**26.0**	**95.3**	**186.5**	**202.3**	**230.1**	**408.8**	**414.1**	**425.4**	**2,070.8**	**3,524.3**
	DSM Programs	1.8	3.6	5.5	7.4	9.3	11.3	13.3	15.3	17.3	19.3	27.0	40.0
W	Wyo Wind	-	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	60.4
Y	Wyo Combined Cycle	-	-	-	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4
O	Wyo IGCC Wyodak 2	-	-	-	-	-	-	-	-	-	-	-	-
M	Wyo IGCC CT	-	-	-	-	-	-	-	-	-	-	-	-
I	Wyo PC Wyodak 2	-	-	-	-	-	-	-	-	-	-	-	186.0
N	Wyo Coal $6.70/Ton	-	-	-	-	-	-	-	-	-	-	-	-
G	Wyo Simple Cycle CT	-	-	-	-	-	-	-	-	-	-	-	-
	Total	**1.8**	**3.6**	**5.5**	**7.7**	**9.7**	**11.6**	**13.6**	**15.6**	**17.6**	**19.6**	**28.2**	**286.7**
	DSM Programs	16.6	32.8	48.8	65.3	82.0	98.3	115.1	131.5	147.8	164.5	226.3	326.4
	Short Term Cap Purch	0.0	-	0.0	-	-	-	-	-	-	-	-	7.5
T	Cogeneration	-	-	-	491.6	761.1	796.1	1,029.4	1,085.2	1,163.8	1,163.8	3,134.7	3,189.4
O	Combined Cycle CT	-	-	-	47.4	128.8	136.2	155.3	325.6	417.7	421.8	609.9	2,089.6
T	Coal	-	-	-	-	-	-	-	-	-	-	-	186.0
A	Transmission	-	-	-	-	1.0	1.0	1.0	1.0	1.0	1.0	1.0	209.5
L	Simple Cycle	-	-	-	-	-	-	-	-	-	-	-	-
	All Others	-	-	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	3.5	140.9
	Total	**16.6**	**32.8**	**48.9**	**604.4**	**973.0**	**1,031.7**	**1,300.8**	**1,543.5**	**1,730.4**	**1,751.3**	**3,975.4**	**6,149.3**
S	**Native Load**	5,677	5,745	5,882	6,002	6,123	6,248	6,393	6,540	6,691	6,814	7,622	8,697
Y	**Pump Storage/Peak Retu**	277	277	225	223	223	223	223	223	223	223	223	223
S	**Long Term Sales**	1,550	1,418	1,350	1,240	1,054	1,006	853	850	811	794	692	668
T	**Short Term Sales**	1,503	1,472	1,369	1,810	1,976	1,902	1,993	2,006	2,021	1,863	2,311	2,315
E	**DSM Programs**	(17)	(33)	(49)	(65)	(82)	(98)	(115)	(132)	(148)	(165)	(226)	(326)
M	**Total Requirements**	8,990	8,879	8,776	9,209	9,293	9,282	9,347	9,487	9,598	9,530	10,623	11,577
	Existing Generation	7,353	7,356	7,312	7,347	7,267	7,243	7,241	7,127	7,129	7,049	6,179	5,090
L	**Long Term Purchases**	700	710	750	737	737	737	528	338	338	335	243	243
&	**Short Term Market**	806	708	600	503	317	269	325	512	472	459	449	426
R	**Short Term Purchases**	131	105	115	83	81	99	67	98	76	99	2	2
	New Resources	-	-	0	539	891	933	1,186	1,412	1,583	1,587	3,749	5,815
	Total Resources	8,990	8,879	8,776	9,209	9,293	9,282	9,347	9,487	9,598	9,530	10,623	11,577

RAMPP-6 Weighted Average Reference Case (Case 2)
Less RAMPP-6 Reference Case (Case 1)
Incremental Summer Capacity (MW) of Resource Additions

		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
	Short Term Cap Purch	(12.9)	-	(76.5)	-	-	-	-	-	7.8	(129.2)	8.8	(133.4)
	DSM Programs	-	-	-	-	-	-	-	-	-	-	(1.7)	(2.5)
	Or/Wa Wind	-	-	-	-	-	-	-	-	-	-	6.7	(18.4)
O	Or/Wa Geothermal	-	-	-	-	-	-	-	-	-	-	-	-
R	Or/Wa Cogen 1	-	-	-	(33.1)	(27.5)	3.4	10.9	6.8	-	-	39.3	-
/	Or/Wa Cogen 2	-	-	-	(169.3)	(110.1)	13.2	(92.4)	(2.9)	41.1	-	(13.4)	143.3
W	Or/Wa Combined Cycle	-	-	-	30.3	-	-	2.1	6.9	(142.9)	4.3	(50.6)	(81.2)
A	Or/Wa Bridger Transm	-	-	-	-	-	-	-	-	-	-	-	28.1
	Or/Wa Simple CycleCT	-	-	-	-	-	-	-	-	-	-	-	-
	Or/Wa Pump Storage	-	-	-	-	-	-	-	-	-	-	-	-
	Total	-	-	-	**(172.6)**	**(138.0)**	**16.1**	**(79.9)**	**10.4**	**(102.3)**	**4.0**	**(19.6)**	**69.3**
G	DSM Programs	-	-	-	-	-	-	-	-	-	-	-	-
O	Goshen Cogen 1	-	-	-	5.1	-	-	-	-	-	-	(5.5)	-
S	Goshen Cogen 2	-	-	-	-	-	-	-	-	-	-	-	-
H	Goshen Combined C CT	-	-	-	-	-	-	-	-	-	-	-	-
E	Goshen Bridger Trans	-	-	-	-	-	-	-	-	-	-	-	-
N	Goshen Hunter Transm	-	-	-	-	-	-	-	-	-	-	-	-
	Total	-	-	-	**5.2**	-	-	-	-	-	-	**(5.6)**	-
	DSM Programs	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Geothermal	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Solar	-	-	-	-	-	-	-	-	-	-	-	-
U	Utah Cogen 1	-	-	-	(4.9)	-	-	-	-	-	-	3.9	-
T	Utah Cogen 2	-	-	-	-	-	-	-	-	-	-	(191.7)	166.9
A	Utah Combined Cycle	-	-	-	(4.9)	(51.6)	(2.0)	(3.3)	(62.7)	1.4	-	(200.7)	197.2
H	Utah IGCC Hunter 4	-	-	-	-	-	-	-	-	-	-	3.5	5.9
	Utah IGCC CT	-	-	-	-	-	-	-	-	-	-	-	-
	Utah PC Hunter 4	-	-	-	-	-	3.9	-	-	-	-	46.5	(318.1)
	Utah Coal $23.25/Ton	-	-	-	-	-	-	-	-	-	-	-	19.4
	Utah Coal $27.00/Ton	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Simple Cycle CT	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Pumped Storage	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Wyo/Ut Tran L	-	-	-	-	-	-	-	-	-	-	17.8	(79.7)
	Total	-	-	-	**(10.0)**	**(50.8)**	**1.7**	**(2.9)**	**(62.2)**	**1.4**	-	**(320.9)**	**(8.5)**
	DSM Programs	-	-	-	-	-	-	-	-	-	-	-	-
W	Wyo Wind	-	-	-	-	-	-	-	-	-	-	4.9	(15.8)
Y	Wyo Combined Cycle	-	-	-	-	-	-	-	-	-	-	-	-
O	Wyo IGCC Wyodak 2	-	-	-	-	-	-	-	-	-	-	-	-
M	Wyo IGCC CT	-	-	-	-	-	-	-	-	-	-	-	-
I	Wyo PC Wyodak 2	-	-	-	-	-	-	-	-	-	-	29.2	(125.5)
N	Wyo Coal $6.70/Ton	-	-	-	-	-	-	-	-	-	-	6.9	(38.8)
G	Wyo Simple Cycle CT	-	-	-	-	-	-	-	-	-	-	-	-
	Total	-	-	-	-	-	-	-	-	-	-	**41.0**	**(180.4)**
T	DSM Programs	-	-	-	-	-	-	-	-	-	-	(2.1)	(2.8)
O	Short Term Cap Purch	(12.9)	-	(76.5)	-	-	-	-	-	7.8	(129.2)	8.8	(133.4)
T	Cogeneration	-	-	-	(202.1)	(137.1)	16.6	(81.1)	4.6	41.1	-	(167.4)	310.1
A	Combined Cycle CT	-	-	-	25.4	(51.6)	(2.0)	(1.2)	(55.8)	(141.5)	4.3	(251.2)	116.0
L	Coal	-	-	-	-	-	3.9	-	-	-	-	86.2	(457.1)
	All Others	-	-	-	-	-	-	-	-	-	-	29.4	(85.8)
	Total	**(13.8)**	**(1.1)**	**(77.4)**	**(177.4)**	**(188.5)**	**17.9**	**(83.0)**	**(51.8)**	**(93.1)**	**(125.3)**	**(296.2)**	**(253.0)**

Annual Summer Peak Capacity (MW)

		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
S	Native Load	(69)	(528)	(610)	(697)	(710)	(723)	(736)	(744)	(761)	(772)	(869)	(991)
Y	Long Term Sales	-	(72)	(72)	(72)	(72)	(72)	(72)	(72)	(72)	(72)	(72)	(72)
S	DSM Programs	1	2	2	4	4	5	6	6	6	7	9	12
T	**Total Requirements**	**(68)**	**(598)**	**(680)**	**(765)**	**(778)**	**(790)**	**(802)**	**(810)**	**(827)**	**(837)**	**(933)**	**(1,051)**
E													
M	Existing Generation	-	-	-	-	-	-	-	-	-	-	(19)	33
	Long Term Purchases	-	-	-	-	-	-	-	-	-	-	-	-
L	Short Term Market	-	-	-	-	-	-	-	-	-	-	-	-
&	Short Term Cap Purch	(13)	-	(76)	-	-	-	-	-	8	(129)	9	(133)
R	New Resources	-	-	-	(176)	(365)	(346)	(428)	(480)	(579)	(575)	(878)	(995)
	Total Resources	**(13)**	-	**(76)**	**(176)**	**(366)**	**(347)**	**(429)**	**(481)**	**(573)**	**(705)**	**(889)**	**(1,095)**
	Reserves	55	598	603	589	414	444	373	330	254	131	44	(44)
	Reserve Margin (%)	0.6	7.6	7.9	8.1	6.5	6.4	5.9	5.2	4.2	2.8	1.6	0.7

RAMPP-6 Weighted Average Reference Case (Case 2)
Less RAMPP-6 Reference Case (Case 1)
Incremental Winter Capacity (MW) of Resource Additions

		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
	Short Term Cap Purch	(12.9)	-	-	-	-	-	-	-	-	-	-	-
	DSM Programs	(1.4)	(1.4)	(1.7)	(1.6)	(1.7)	(1.6)	(1.7)	(1.6)	(1.6)	(1.6)	(5.7)	(8.1)
	Or/Wa Wind	-	-	-	-	-	-	-	-	-	-	11.3	(31.0)
O	Or/Wa Geothermal	-	-	-	-	-	-	-	-	-	-	-	-
R	Or/Wa Cogen 1	-	-	-	(35.2)	(29.2)	3.6	11.6	7.3	-	-	41.9	-
/	Or/Wa Cogen 2	-	-	-	(180.1)	(117.2)	14.0	(98.4)	(3.0)	43.7	-	(14.2)	152.4
W	Or/Wa Combined Cycle	-	-	-	32.2	-	-	2.2	7.3	(152.0)	4.5	(53.9)	(86.2)
A	Or/Wa Bridger Transm	-	-	-	-	-	-	-	-	-	-	-	28.1
	Or/Wa Simple CycleCT	-	-	-	-	-	-	-	-	-	-	-	-
	Or/Wa Pump Storage	-	-	-	-	-	-	-	-	-	-	-	-
	Total	**(1.4)**	**(1.4)**	**(1.6)**	**(184.6)**	**(148.1)**	**16.0**	**(86.2)**	**10.0**	**(109.9)**	**3.1**	**(20.6)**	**55.2**
G	DSM Programs	-	-	-	-	-	-	-	-	-	-	-	-
O	Goshen Cogen 1	-	-	-	5.4	-	-	-	-	-	-	(5.9)	-
S	Goshen Cogen 2	-	-	-	-	-	-	-	-	-	-	-	-
H	Goshen Combined C CT	-	-	-	-	-	-	-	-	-	-	-	-
E	Goshen Bridger Trans	-	-	-	-	-	-	-	-	-	-	-	-
N	Goshen Hunter Transm	-	-	-	-	-	-	-	-	-	-	-	-
	Total	-	-	-	**5.5**	-	-	-	-	-	-	**(5.9)**	-
	DSM Programs	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Geothermal	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Solar	-	-	-	-	-	-	-	-	-	-	-	-
U	Utah Cogen 1	-	-	-	(5.2)	-	-	-	-	-	-	4.1	-
T	Utah Cogen 2	-	-	-	-	-	-	-	-	-	-	(204.0)	177.5
A	Utah Combined Cycle	-	-	-	(5.2)	(54.8)	(2.1)	(3.6)	(66.7)	1.5	-	(213.5)	209.7
H	Utah IGCC Hunter 4	-	-	-	-	-	-	-	-	-	-	3.5	5.9
	Utah IGCC CT	-	-	-	-	-	-	-	-	-	-	-	-
	Utah PC Hunter 4	-	-	-	-	-	3.9	-	-	-	-	46.5	(318.1)
	Utah Coal $23.25/Ton	-	-	-	-	-	-	-	-	-	-	-	19.4
	Utah Coal $27.00/Ton	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Simple Cycle CT	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Pumped Storage	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Wyo/Ut Tran L	-	-	-	-	-	-	-	-	-	-	17.8	(79.7)
	Total	-	-	-	**(10.6)**	**(54.0)**	**1.7**	**(3.1)**	**(66.1)**	**1.5**	-	**(345.5)**	**15.0**
	DSM Programs	-	-	-	-	-	-	-	-	-	-	-	-
W	Wyo Wind	-	-	-	-	-	-	-	-	-	-	8.3	(26.7)
Y	Wyo Combined Cycle	-	-	-	-	-	-	-	-	-	-	-	-
O	Wyo IGCC Wyodak 2	-	-	-	-	-	-	-	-	-	-	-	-
M	Wyo IGCC CT	-	-	-	-	-	-	-	-	-	-	-	-
I	Wyo PC Wyodak 2	-	-	-	-	-	-	-	-	-	-	29.2	(125.5)
N	Wyo Coal $6.70/Ton	-	-	-	-	-	-	-	-	-	-	6.9	(38.8)
G	Wyo Simple Cycle CT	-	-	-	-	-	-	-	-	-	-	-	-
	Total	-	-	-	-	-	-	-	-	-	-	**44.4**	**(191.3)**
T	DSM Programs	(1.8)	(1.8)	(2.1)	(1.8)	(1.8)	(1.9)	(1.7)	(1.7)	(1.6)	(1.7)	(5.8)	(8.2)
O	Short Term Cap Purch	(12.9)	-	-	-	-	-	-	-	-	-	-	-
T	Cogeneration	-	-	-	(215.0)	(145.9)	17.7	(86.3)	4.9	43.7	-	(178.0)	329.9
A	Combined Cycle CT	-	-	-	27.1	(54.8)	(2.1)	(1.3)	(59.3)	(150.5)	4.5	(267.5)	123.5
L	Coal	-	-	-	-	-	3.9	-	-	-	-	86.2	(457.1)
	All Others	-	-	-	-	-	-	-	-	-	-	37.4	(109.4)
	Total	**(14.7)**	**(1.8)**	**(2.1)**	**(189.7)**	**(201.7)**	**17.6**	**(89.3)**	**(56.1)**	**(108.4)**	**3.0**	**(327.6)**	**(121.2)**

Annual Winter Peak Capacity (MW)

		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
S	Native Load	(58)	(580)	(652)	(727)	(741)	(754)	(766)	(779)	(793)	(806)	(899)	(1,020)
Y	Long Term Sales	-	(90)	(133)	(133)	(133)	(133)	(133)	(133)	(133)	(133)	(133)	(133)
S	DSM Programs	2	3	6	8	9	11	13	14	17	18	23	32
T	**Total Requirements**	**(56)**	**(666)**	**(780)**	**(852)**	**(865)**	**(876)**	**(886)**	**(897)**	**(909)**	**(922)**	**(1,009)**	**(1,121)**
E													
M	Existing Generation	-	-	-	-	-	-	-	-	-	-	(19)	33
	Long Term Purchases	-	-	-	-	-	-	-	-	-	-	-	-
L	Short Term Market	-	-	-	-	-	-	-	-	-	-	-	-
&	Short Term Cap Purch	(13)	-	-	-	-	-	-	-	-	-	-	-
R	New Resources	-	-	-	(188)	(388)	(369)	(456)	(511)	(618)	(613)	(934)	(1,047)
	Total Resources	**(13)**	-	-	**(188)**	**(389)**	**(370)**	**(457)**	**(511)**	**(618)**	**(614)**	**(953)**	**(1,014)**

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
Reserves	43	666	780	664	475	506	429	385	292	307	54	107
Reserve Margin (%)	0.5	9.1	11.3	10.2	8.4	8.4	8.0	6.8	5.6	5.6	2.7	3.2

RAMPP-6 Weighted Average Reference Case (Case 2)
Less RAMPP-6 Reference Case (Case 1)
Cumulative Annual Energy (aMW)

		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
	DSM Programs	-	-	(1.4)	(2.0)	(2.5)	(3.0)	(3.5)	(4.0)	(4.5)	(5.0)	(6.8)	(9.2)
	Or/Wa Wind	-	-	-	-	-	-	-	-	-	-	7.5	(13.0)
O	Or/Wa Geothermal	-	-	-	-	-	-	-	-	-	-	-	-
R	Or/Wa Cogen 1	-	-	-	(32.7)	(60.0)	(56.6)	(45.8)	(39.0)	(39.0)	(39.0)	-	-
/	Or/Wa Cogen 2	-	-	-	(167.9)	(277.4)	(264.7)	(355.7)	(358.8)	(318.7)	(317.4)	(332.0)	(197.0)
W	Or/Wa Combined Cycle	-	-	-	29.9	29.6	30.0	32.0	38.6	(100.8)	(98.6)	(137.1)	(195.4)
A	Or/Wa Bridger Transm	-	-	-	-	-	-	-	-	-	-	-	26.0
	Or/Wa Simple CycleCT	-	-	-	-	-	-	-	-	-	-	-	-
	Or/Wa Pump Storage	-	-	-	-	-	-	-	-	-	-	-	-
	Total	-	-	**(1.4)**	**(172.7)**	**(310.3)**	**(294.3)**	**(373.0)**	**(363.2)**	**(462.9)**	**(460.0)**	**(468.5)**	**(388.6)**
G	DSM Programs	-	-	-	-	-	-	-	-	-	-	-	-
O	Goshen Cogen 1	-	-	-	5.0	5.4	5.4	5.4	5.4	5.4	5.4	-	-
S	Goshen Cogen 2	-	-	-	-	-	-	-	-	-	-	-	-
H	Goshen Combined C CT	-	-	-	-	-	-	-	-	-	-	-	-
E	Goshen Bridger Trans	-	-	-	-	-	-	-	-	-	-	-	-
N	Goshen Hunter Transm	-	-	-	-	-	-	-	-	-	-	-	-
	Total	-	-	-	**4.9**	**5.3**	**5.4**	**5.3**	**5.3**	**5.3**	**5.3**	-	-
	DSM Programs	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Geothermal	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Solar	-	-	-	-	-	-	-	-	-	-	-	-
U	Utah Cogen 1	-	-	-	(4.9)	(4.9)	(4.8)	(4.4)	(3.9)	(3.8)	(3.8)	-	-
T	Utah Cogen 2	-	-	-	-	-	-	-	-	-	-	(202.3)	(40.7)
A	Utah Combined Cycle	-	-	-	(6.1)	(56.7)	(58.7)	(62.1)	(125.6)	(119.2)	(122.5)	(237.8)	(58.0)
H	Utah IGCC Hunter 4	-	-	-	-	-	-	-	-	-	-	3.2	8.6
	Utah IGCC CT	-	-	-	-	-	-	-	-	-	-	-	-
	Utah PC Hunter 4	-	-	-	-	-	3.5	3.5	3.5	3.5	3.5	46.2	(245.3)
	Utah Coal $23.25/Ton	-	-	-	-	-	-	-	-	-	-	-	17.8
	Utah Coal $27.00/Ton	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Simple Cycle CT	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Pumped Storage	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Wyo/Ut Tran L	-	-	-	-	-	-	-	-	-	-	17.7	(58.3)
	Total	-	-	-	**(11.7)**	**(61.5)**	**(59.9)**	**(62.9)**	**(125.9)**	**(119.4)**	**(122.7)**	**(373.9)**	**(376.7)**
	DSM Programs	-	-	-	-	-	-	-	-	-	-	-	-
W	Wyo Wind	-	-	-	-	-	-	-	-	-	-	5.5	(12.2)
Y	Wyo Combined Cycle	-	-	-	-	-	-	-	-	-	-	-	-
O	Wyo IGCC Wyodak 2	-	-	-	-	-	-	-	-	-	-	-	-
M	Wyo IGCC CT	-	-	-	-	-	-	-	-	-	-	-	-
I	Wyo PC Wyodak 2	-	-	-	-	-	-	-	-	-	-	26.8	(88.2)
N	Wyo Coal $6.70/Ton	-	-	-	-	-	-	-	-	-	-	6.3	(29.3)
G	Wyo Simple Cycle CT	-	-	-	-	-	-	-	-	-	-	-	-
	Total	-	-	-	-	-	-	-	-	-	-	**38.2**	**(130.3)**
	DSM Programs	-	(1.5)	(2.2)	(2.9)	(3.5)	(4.1)	(4.7)	(5.3)	(5.8)	(6.3)	(8.3)	(10.8)
	Short Term Cap Purch	-	-	-	-	-	-	-	-	-	-	-	(2.2)
T	Cogeneration	-	-	-	(200.5)	(336.8)	(320.6)	(400.4)	(396.1)	(355.9)	(354.7)	(534.4)	(237.6)
O	Combined Cycle CT	-	-	-	23.9	(27.1)	(28.6)	(30.0)	(86.9)	(220.0)	(221.0)	(374.9)	(253.3)
T	Coal	-	-	-	-	-	3.5	3.5	3.5	3.5	3.5	82.5	(336.5)
A	Transmission	-	-	-	-	-	-	-	-	-	-	17.7	(32.4)
L	Simple Cycle	-	-	-	-	-	-	-	-	-	-	-	-
	All Others	-	-	-	-	-	-	-	-	-	-	13.0	(25.2)
	Total	-	**(1.5)**	**(2.2)**	**(179.5)**	**(366.6)**	**(349.0)**	**(430.8)**	**(483.9)**	**(577.3)**	**(577.7)**	**(804.2)**	**(898.1)**
S	**Native Load**	(44)	(408)	(462)	(518)	(528)	(539)	(552)	(564)	(577)	(585)	(651)	(745)
Y	**Pump Storage/Peak Retu**	-	(7)	(1)	-	-	(4)	(1)	-	-	-	-	-
S	**Long Term Sales**	(7)	(84)	(93)	(93)	(93)	(93)	(93)	(93)	(93)	(93)	(93)	(93)
T	**Short Term Sales**	43	351	390	250	115	159	124	102	51	80	(53)	(24)
E	**DSM Programs**	-	1	2	3	3	4	5	5	6	6	8	11
M	**Total Requirements**	(8)	(146)	(163)	(359)	(503)	(472)	(517)	(550)	(613)	(591)	(788)	(851)
	Existing Generation	(4)	(108)	(119)	(155)	(122)	(97)	(80)	(51)	(40)	(23)	(24)	24
L	**Long Term Purchases**	-	-	-	-	-	-	-	-	-	-	-	(2)
&	**Short Term Market**	-	-	-	-	-	-	-	-	-	-	-	-
R	**Short Term Purchases**	(4)	(37)	(44)	(27)	(18)	(29)	(10)	(20)	(2)	3	32	12
	New Resources	-	-	-	(177)	(363)	(345)	(426)	(479)	(572)	(571)	(796)	(885)
	Total Resources	(8)	(146)	(163)	(359)	(503)	(472)	(517)	(550)	(613)	(591)	(788)	(851)

PacifiCorp

Integrated Resource Planning

RAMPP-6

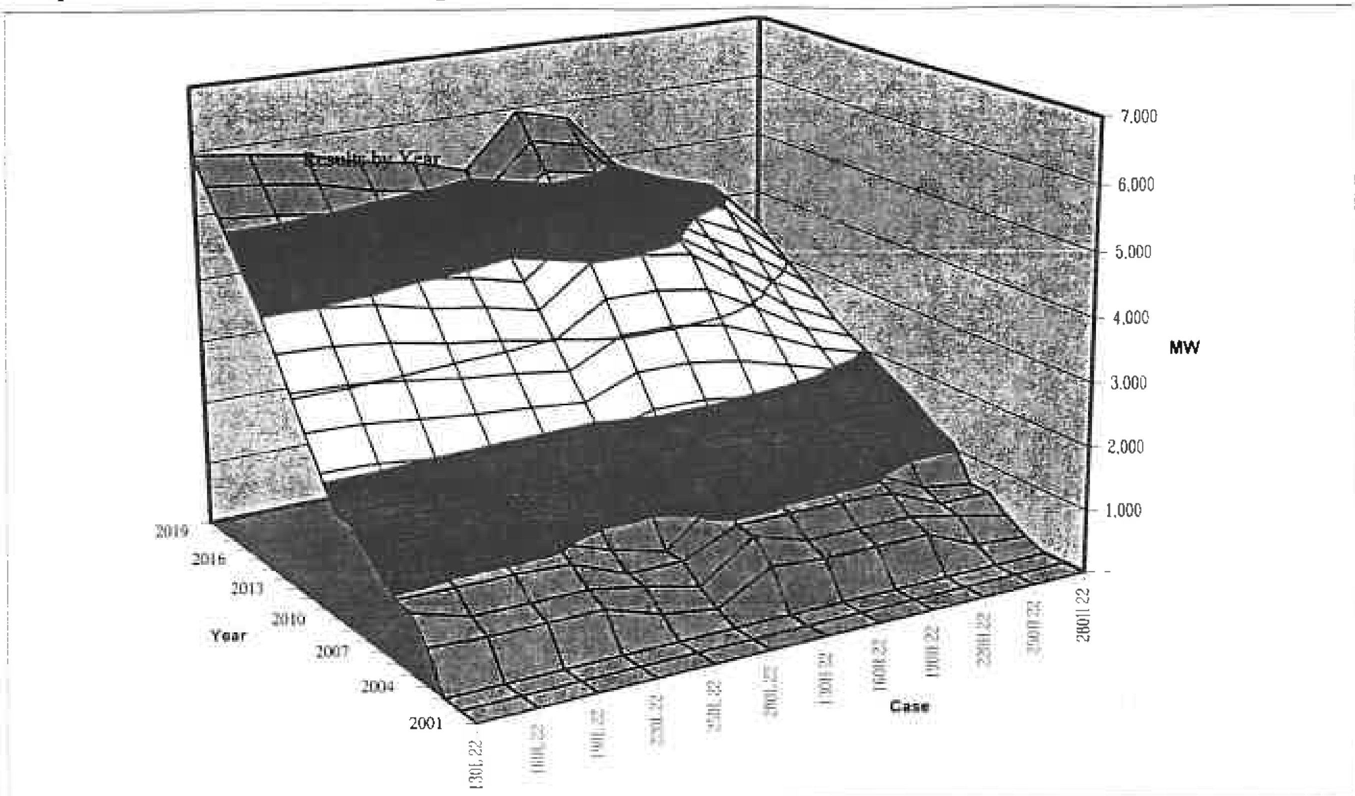
Results by Year

Graphs and Tables

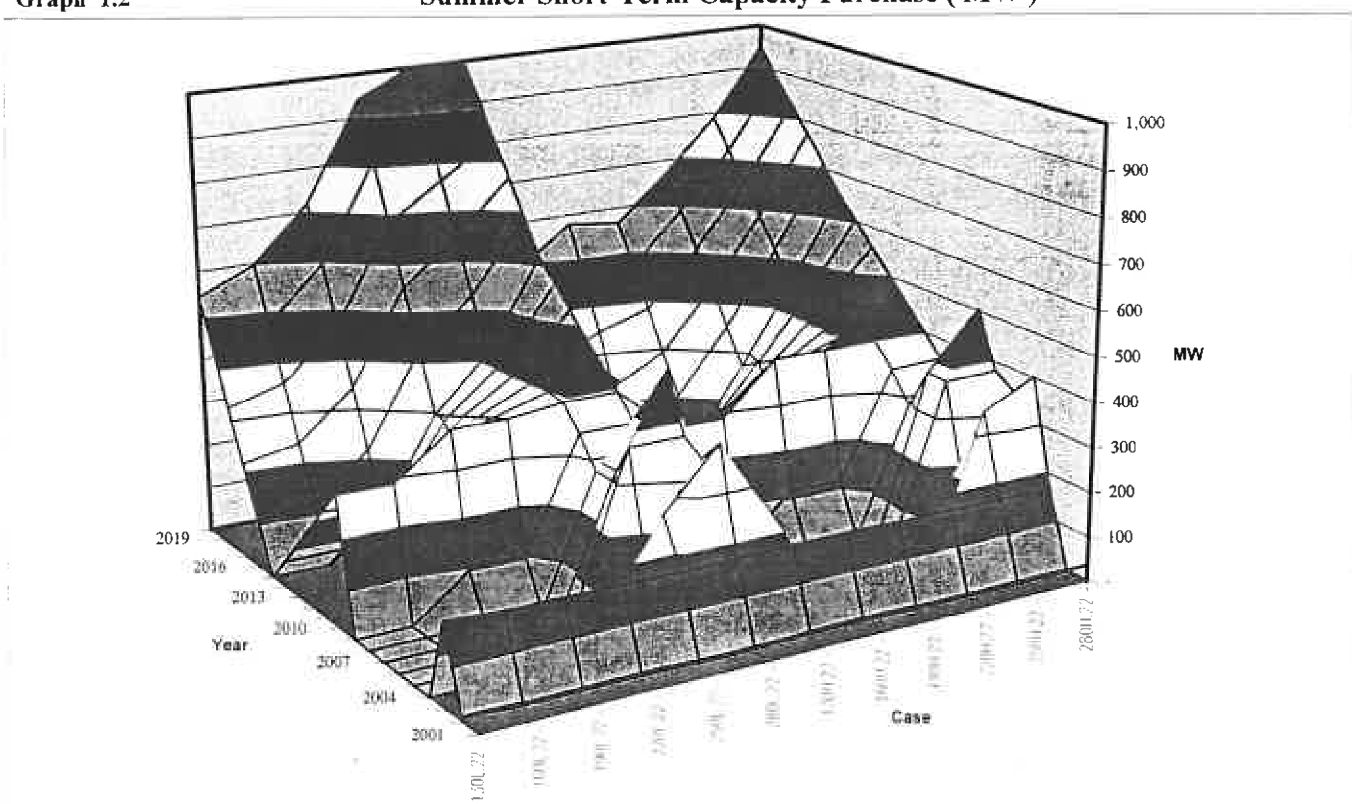
Tab 17

22/MWH Wholesale Market Price, Gas Price 130 to 280 C/MMBtu, Esc Low or High

Graph 1.1 Summer Cogeneration & Combined Cycle Resources Selected (MW)

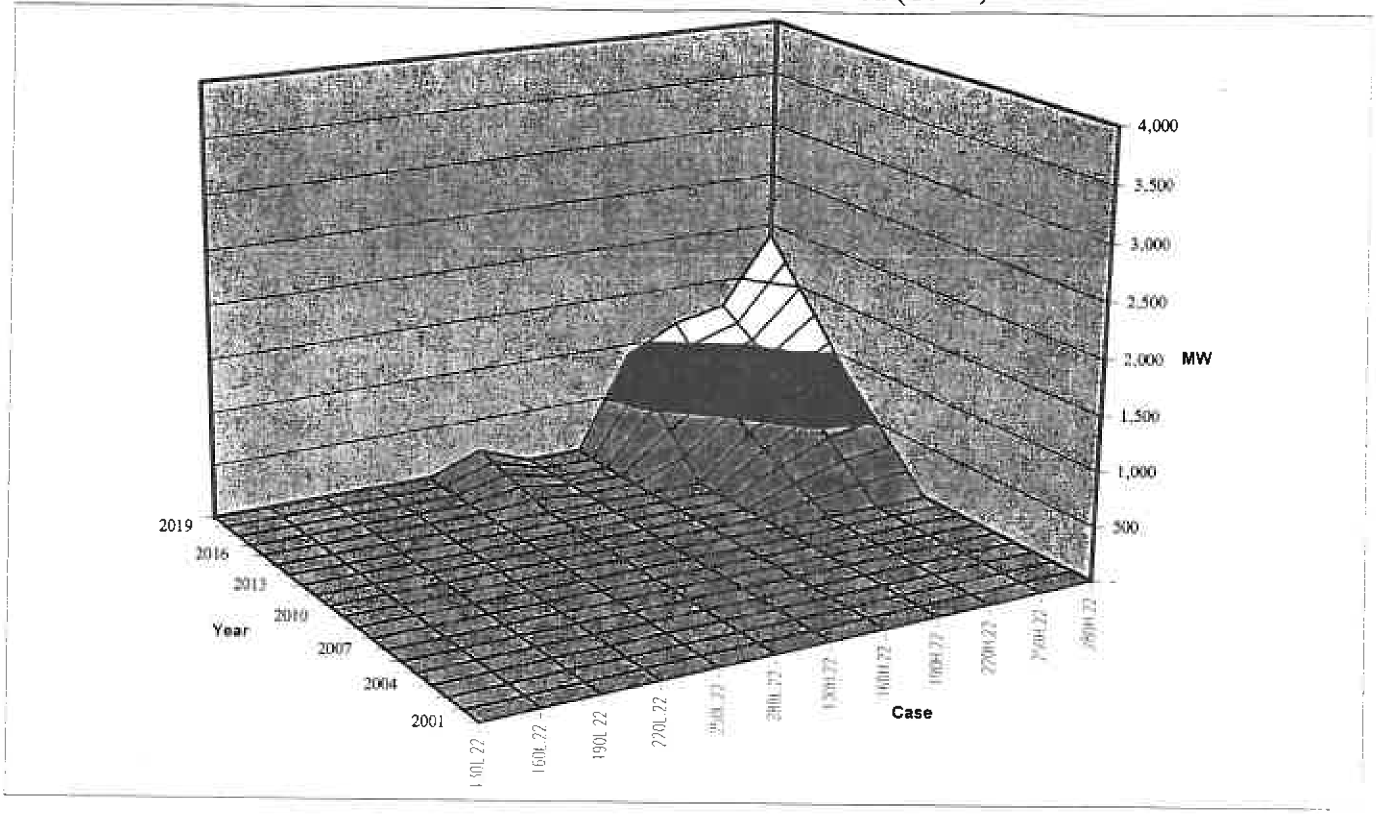


Graph 1.2 Summer Short-Term Capacity Purchase (MW)

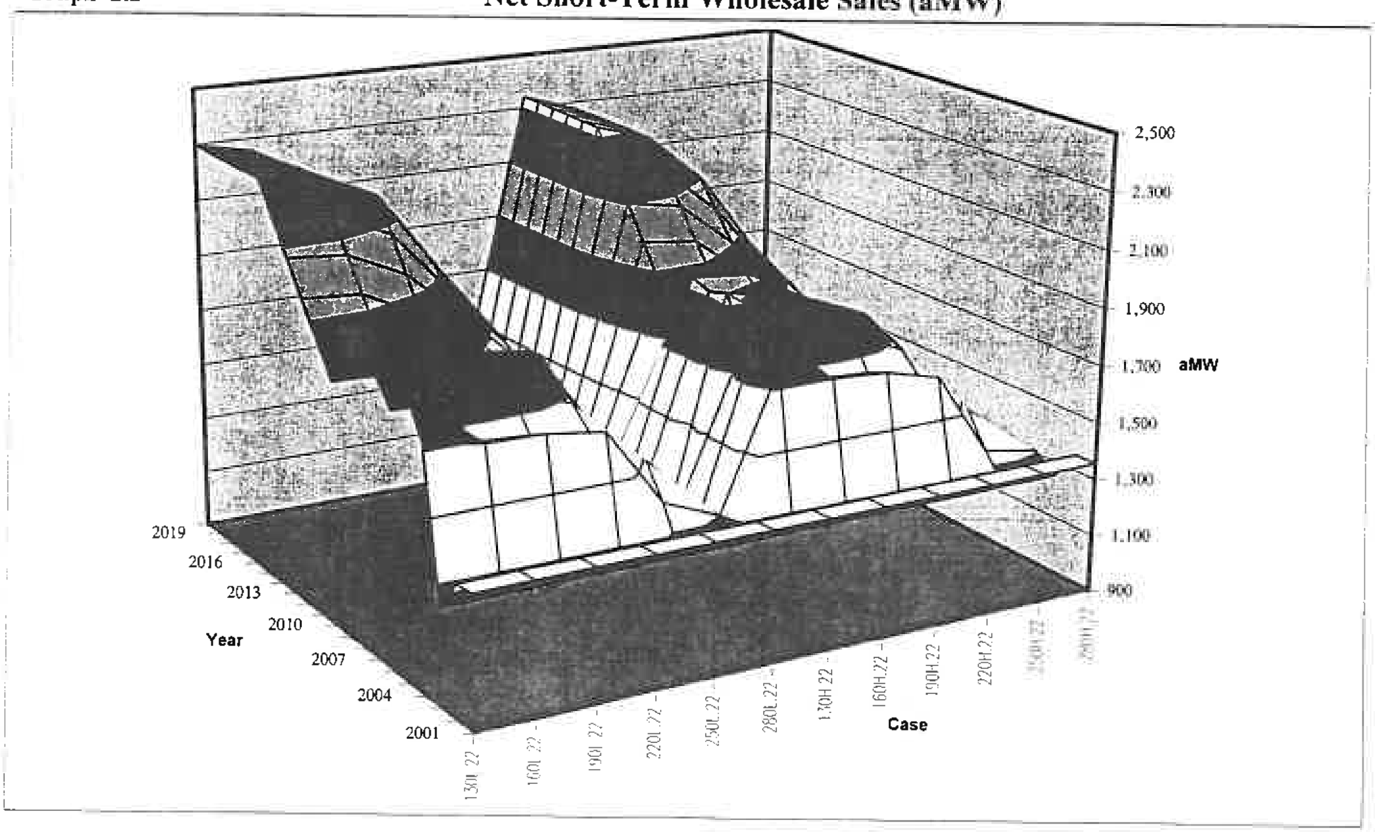


22/MWH Wholesale Market Price, Gas Price 130 to 280 C/MMBtu, Esc Low or High

Graph 2.1 Coal Fired Resources Selected (MW)

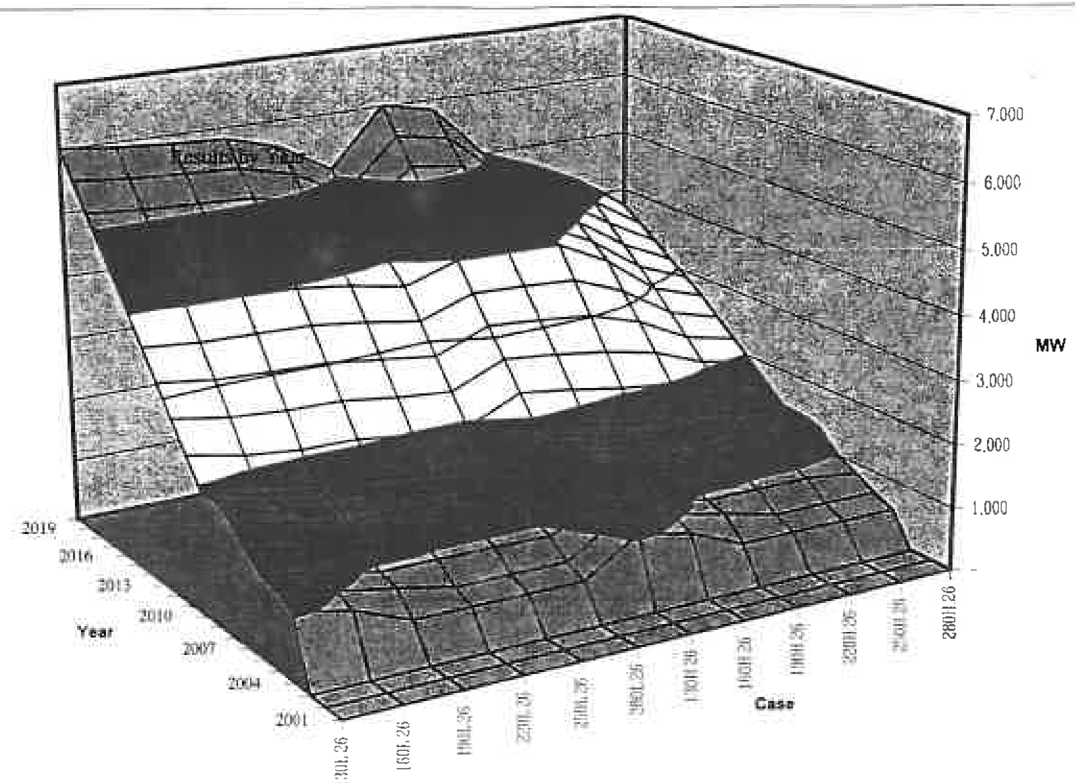


Graph 2.2 Net Short-Term Wholesale Sales (aMW)

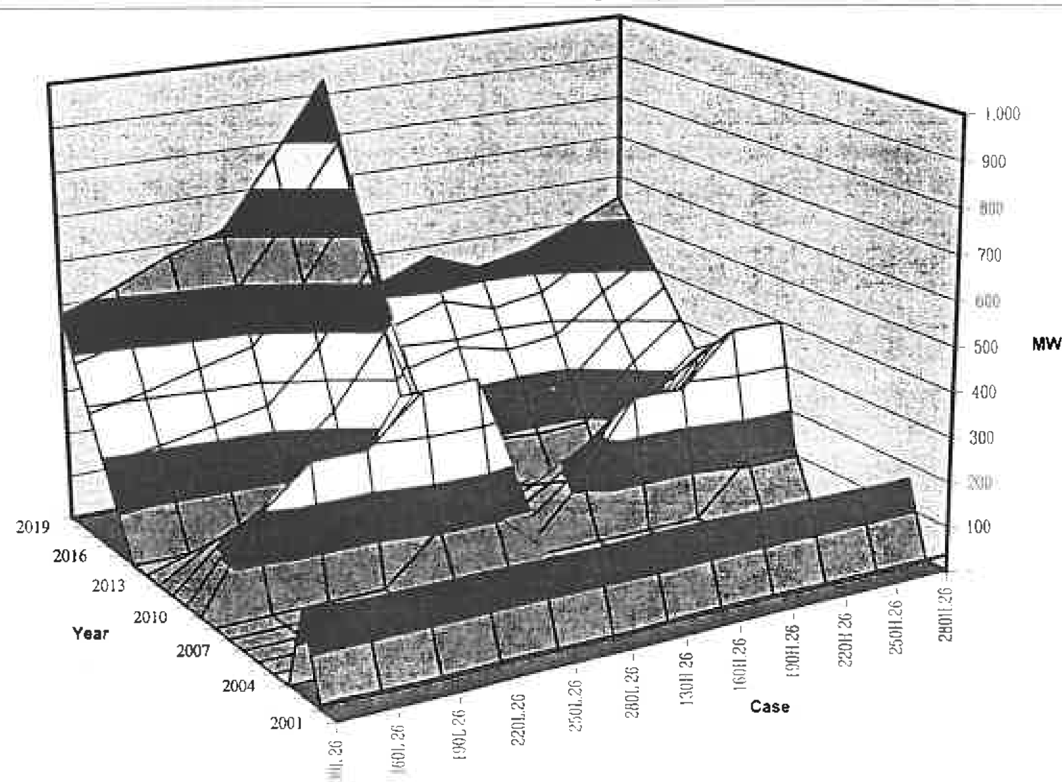


26/MWH Wholesale Market Price, Gas Price 130 to 280 C/MMBtu, Esc Low or High

Graph 3.1 Summer Cogeneration & Combined Cycle Resources Selected (MW)

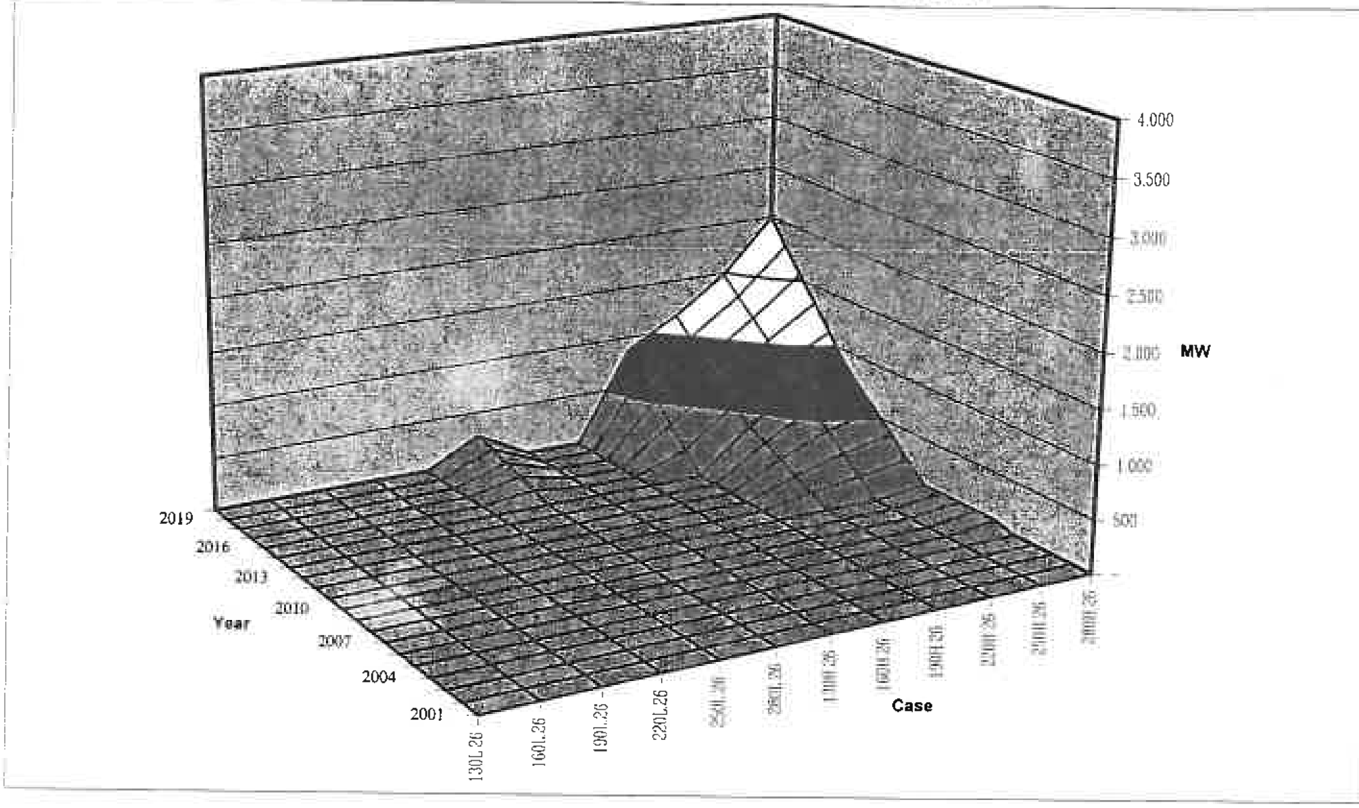


Graph 3.2 Summer Short-Term Capacity Purchase (MW)

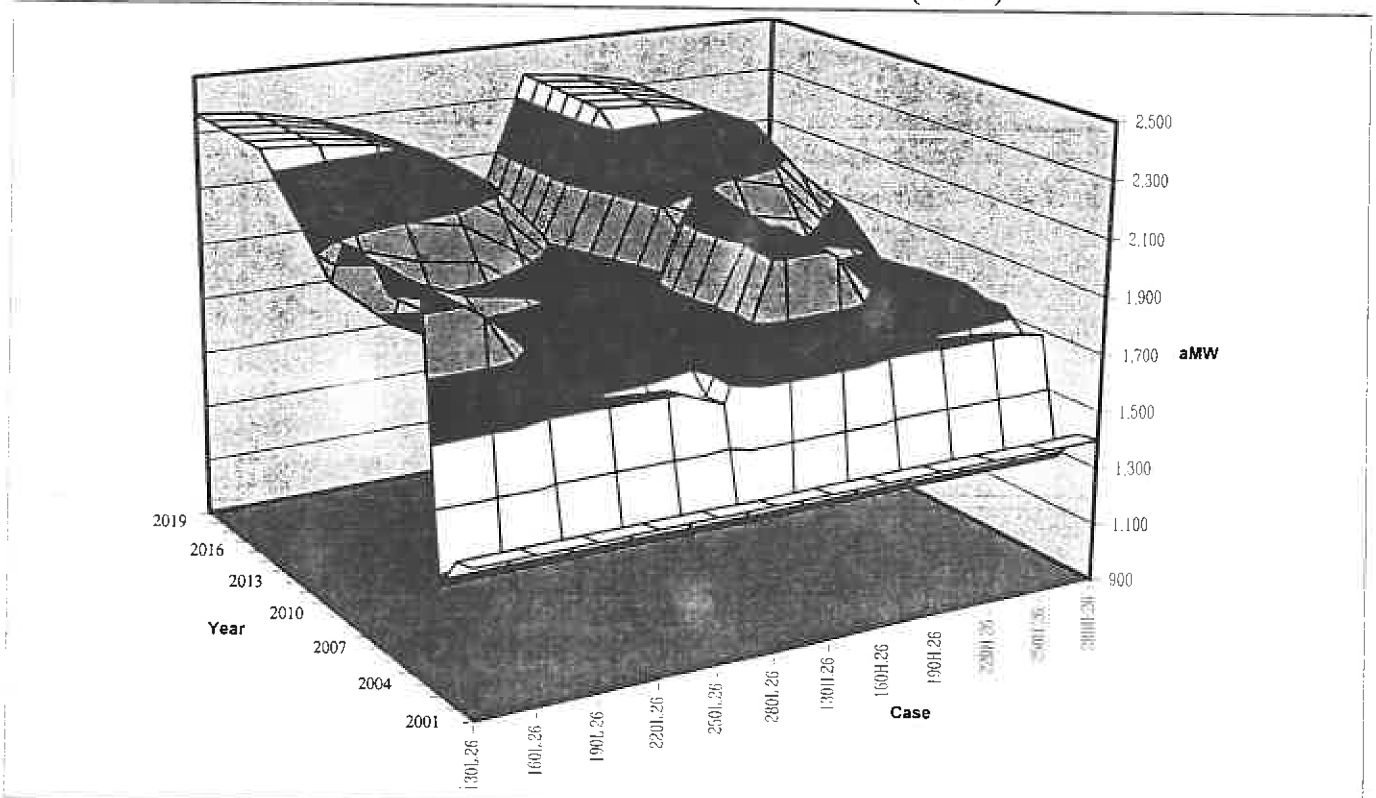


26/MWH Wholesale Market Price, Gas Price 130 to 280 C/MMBtu, Esc Low or High

Graph 4.1 Coal Fired Resources Selected (MW)

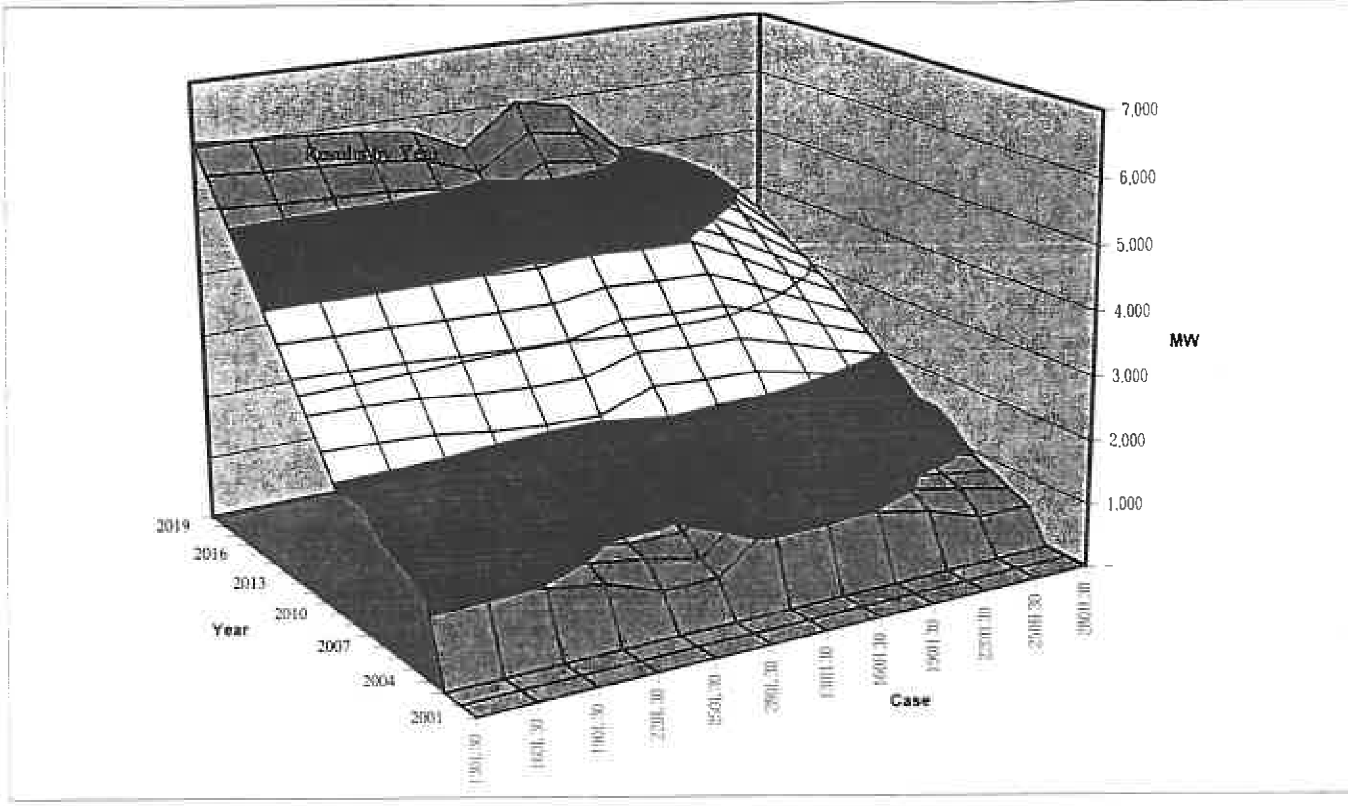


Graph 4.2 Net Short-Term Wholesale Sales (aMW)

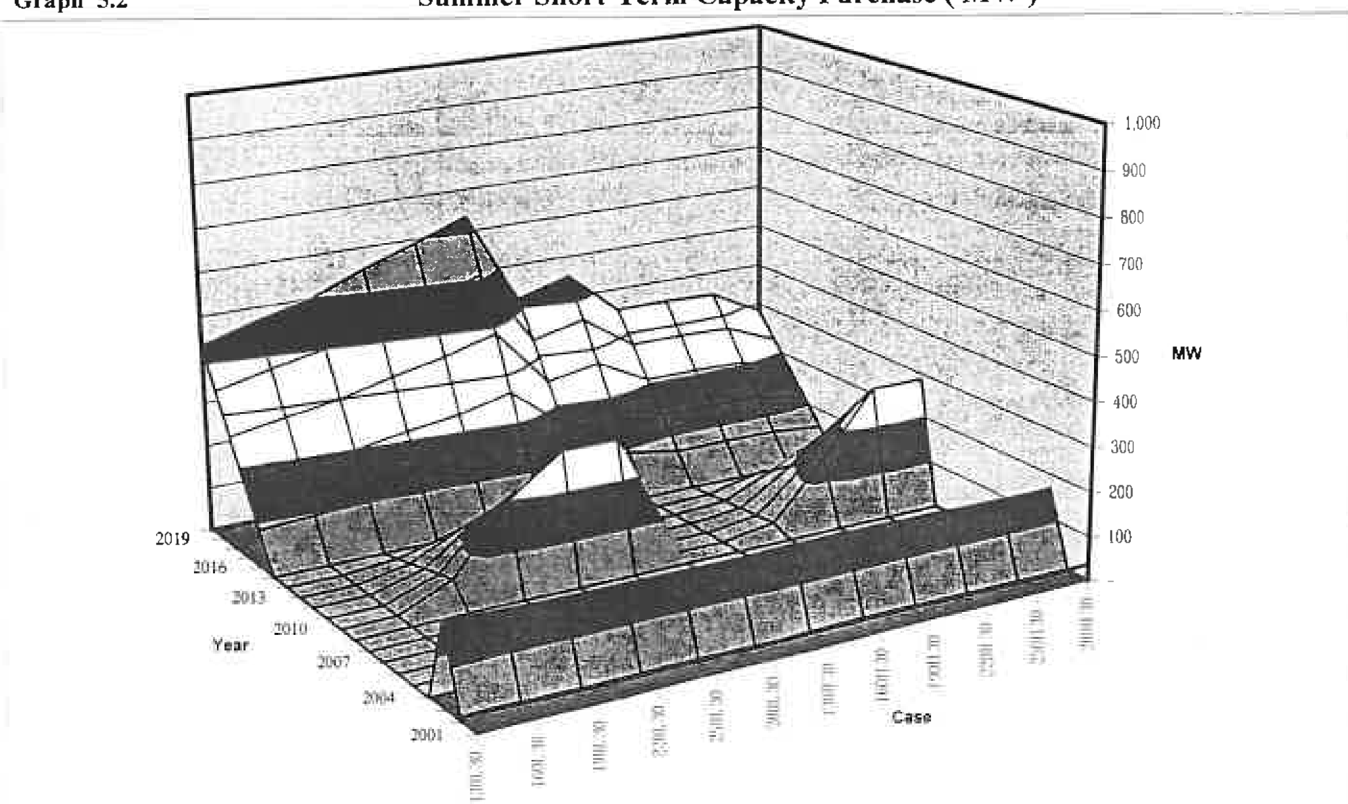


30/MWH Wholesale Market Price, Gas Price 130 to 280 C/MMBtu, Esc Low or High

Graph 5.1 **Summer Cogeneration & Combined Cycle Resources Selected (MW)**



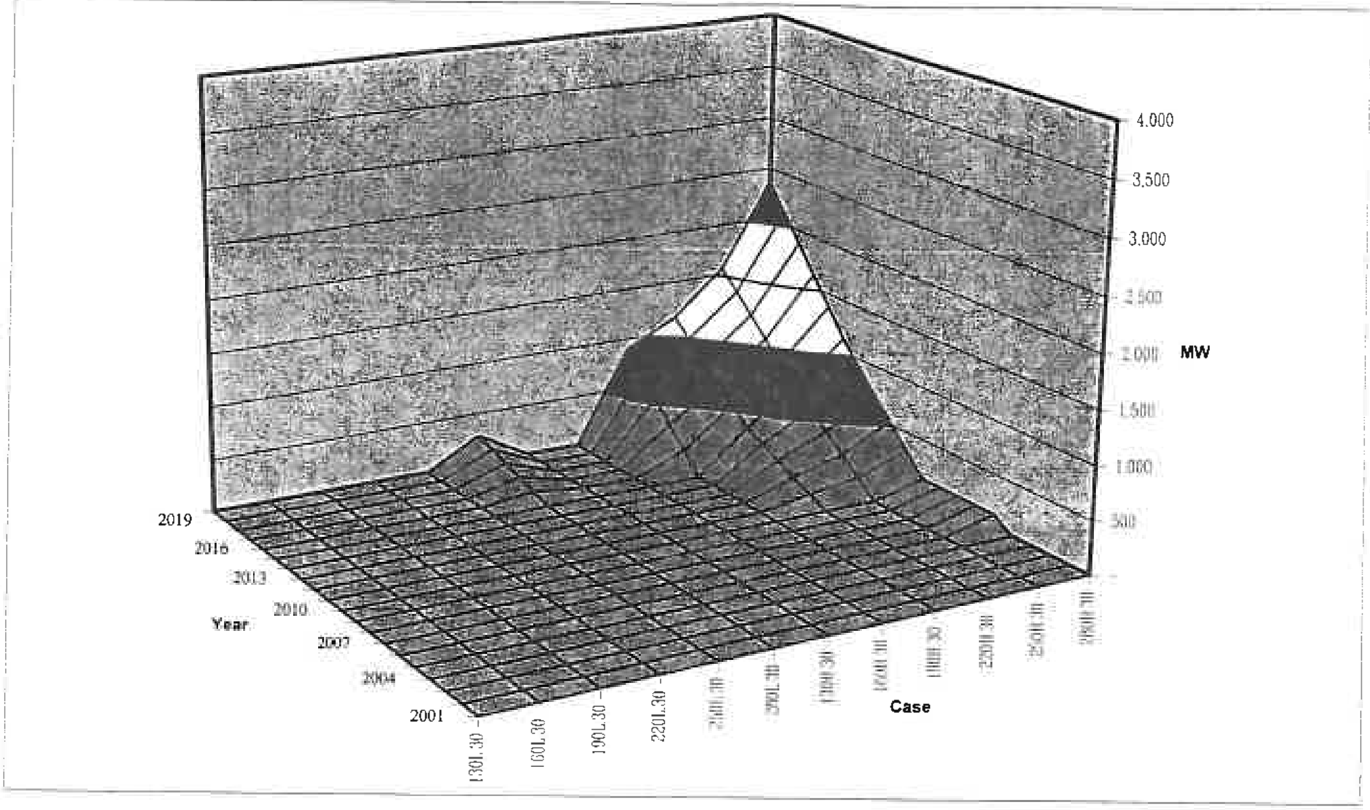
Graph 5.2 **Summer Short-Term Capacity Purchase (MW)**



30/MWH Wholesale Market Price, Gas Price 130 to 280 C/MMBtu, Esc Low or High

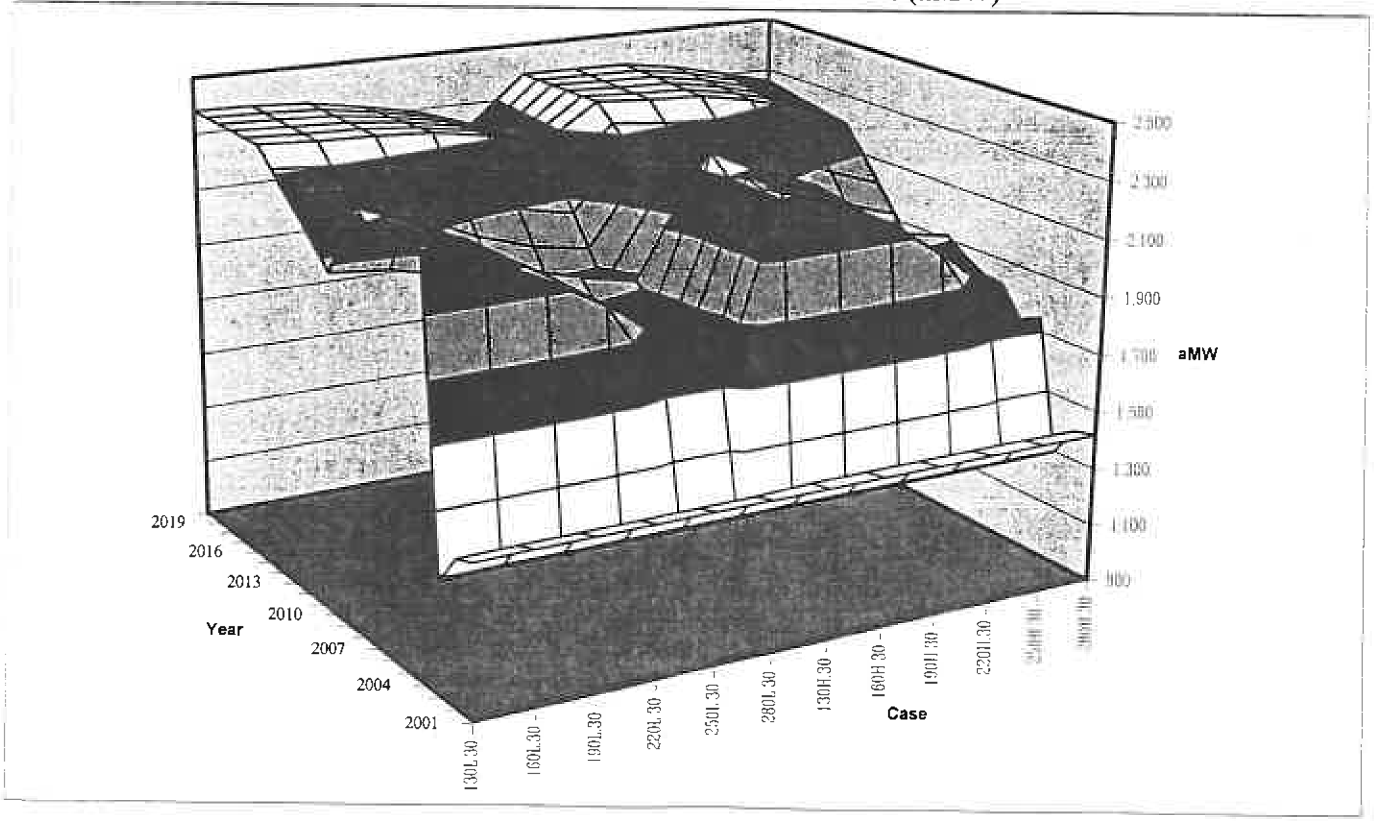
Graph 6.1

Coal Fired Resources Selected (MW)



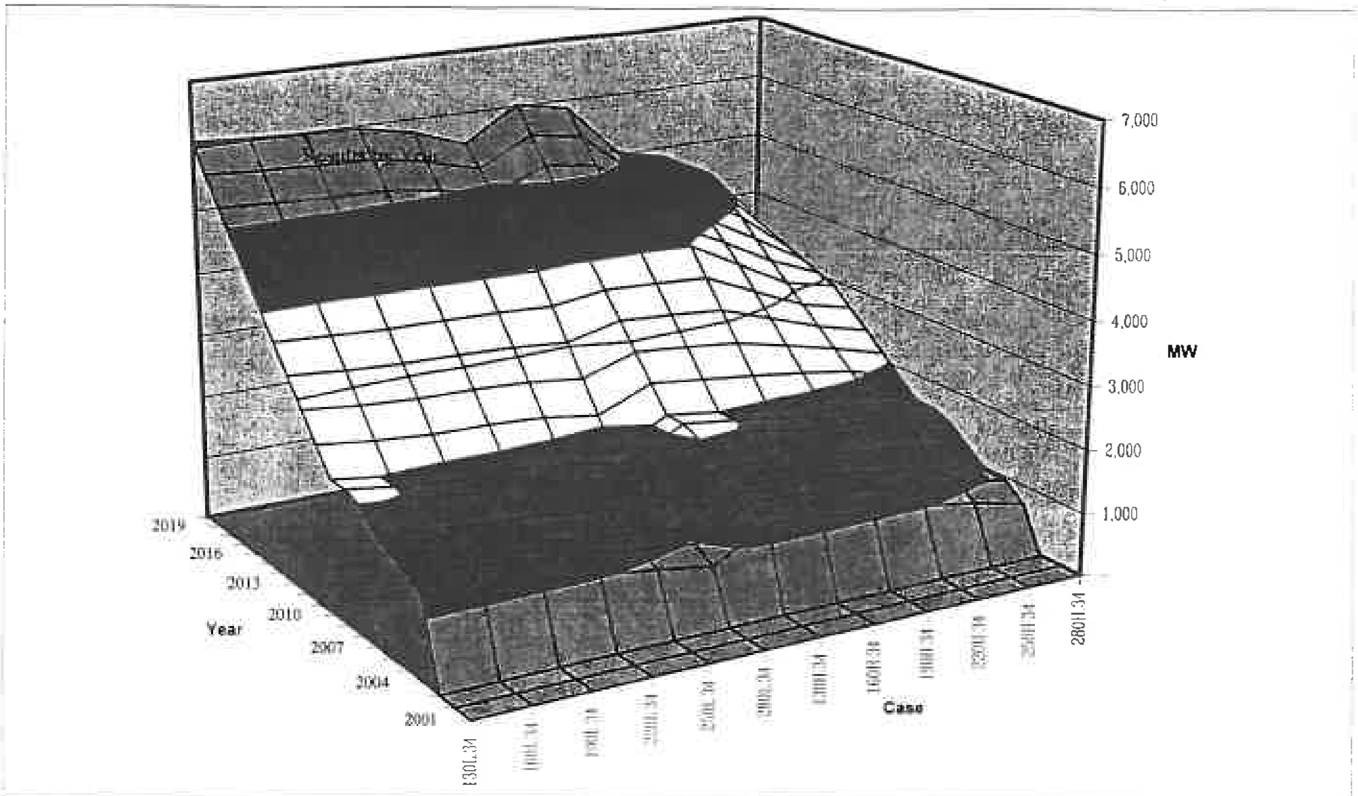
Graph 6.2

Net Short-Term Wholesale Sales (aMW)

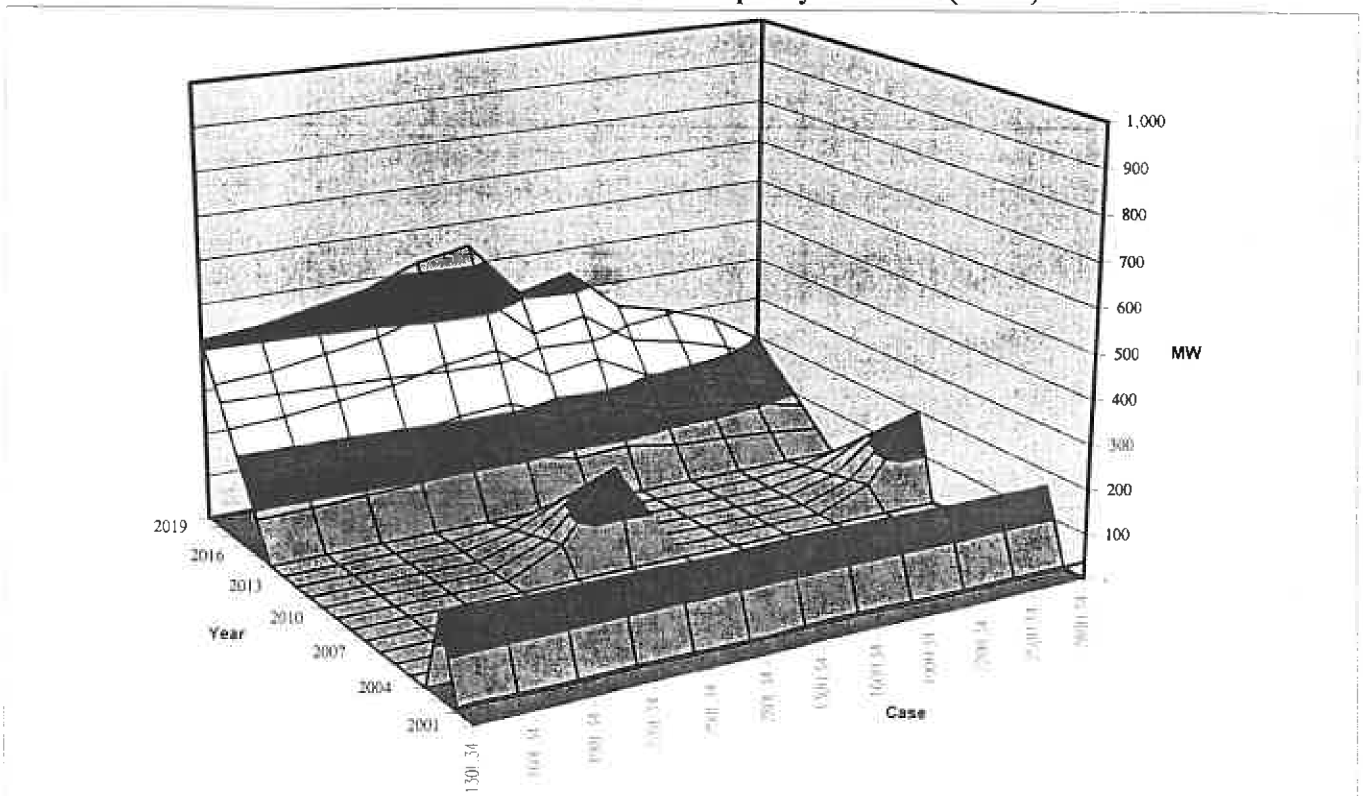


34/MWH Wholesale Market Price, Gas Price 130 to 280 C/MMBtu, Esc Low or High

Graph 7.1 **Summer Cogeneration & Combined Cycle Resources Selected (MW)**

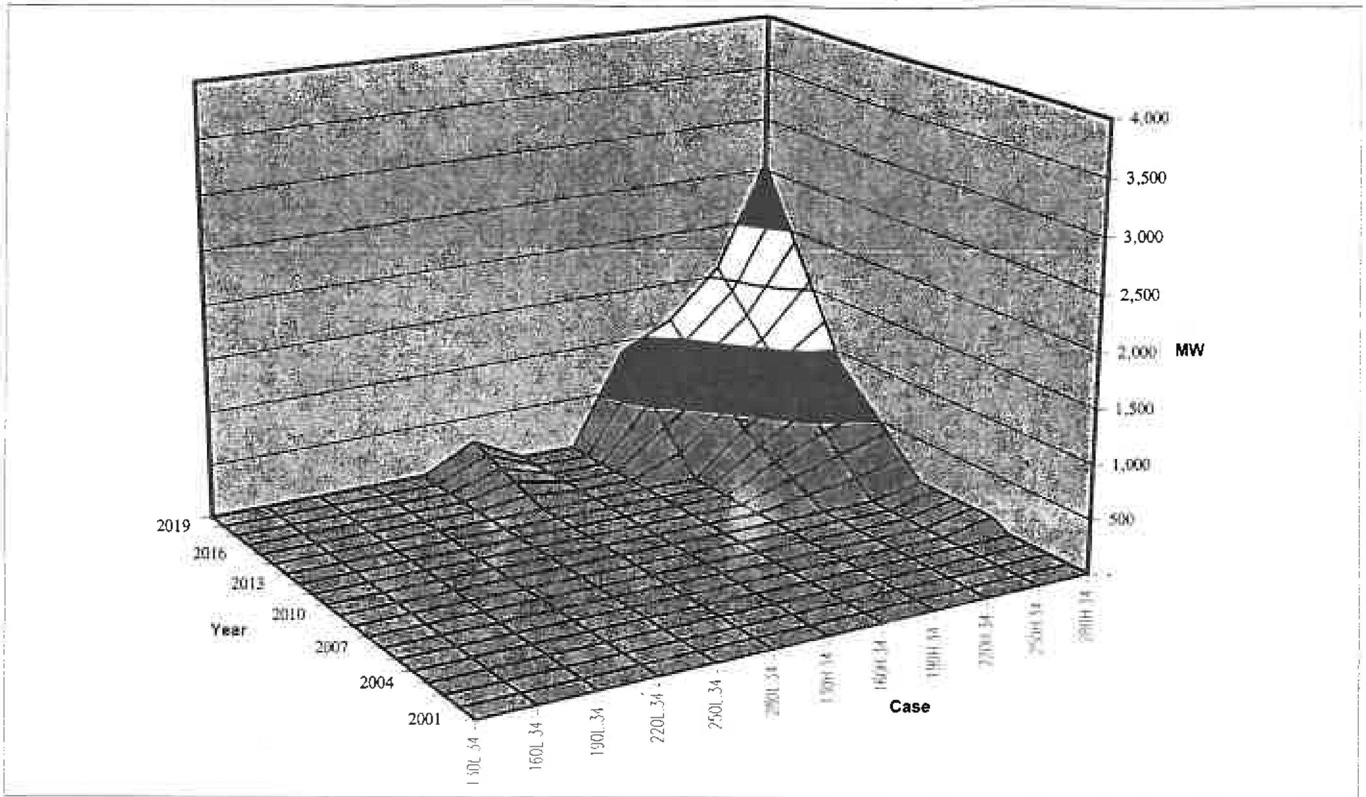


Graph 7.2 **Summer Short-Term Capacity Purchase (MW)**

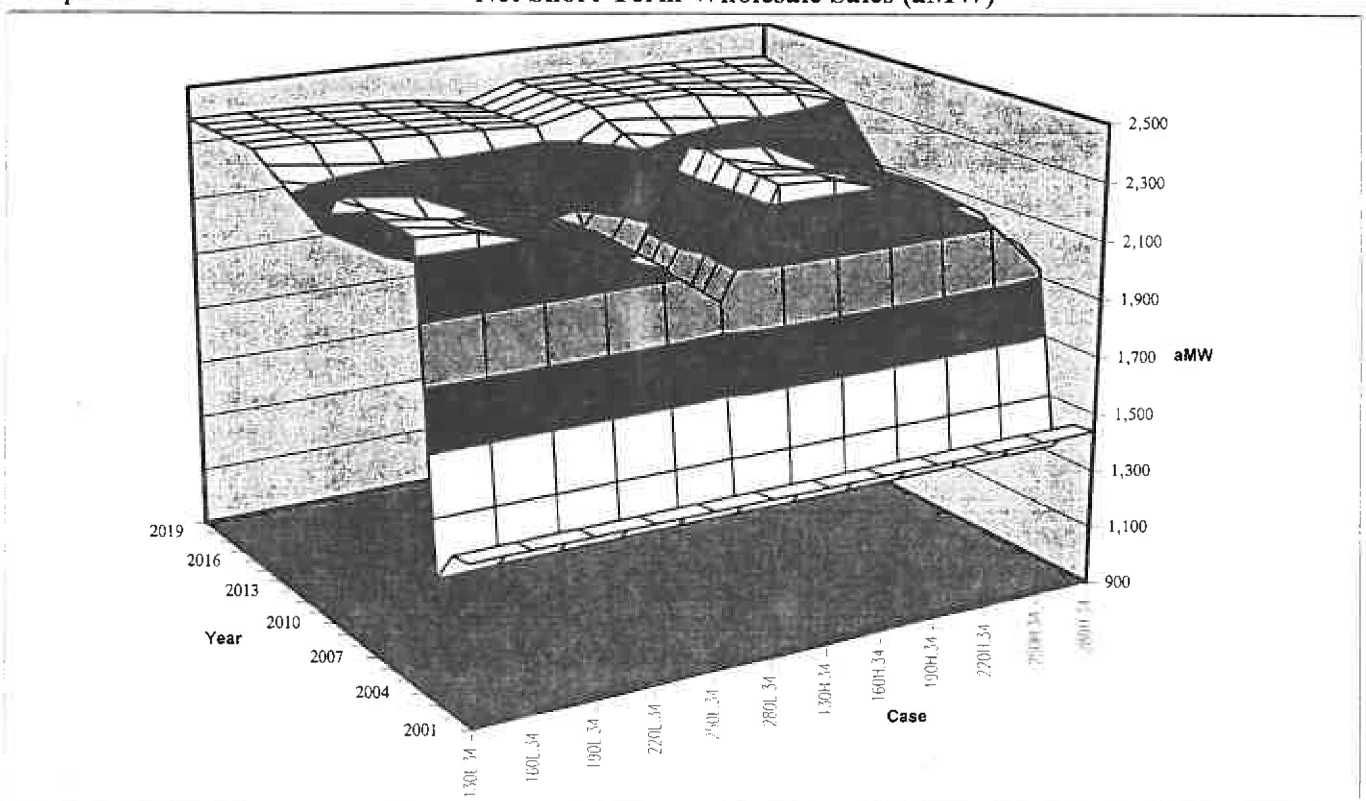


34/MWH Wholesale Market Price, Gas Price 130 to 280 C/MMBtu, Esc Low or High

Graph 8.1 **Coal Fired Resources Selected (MW)**

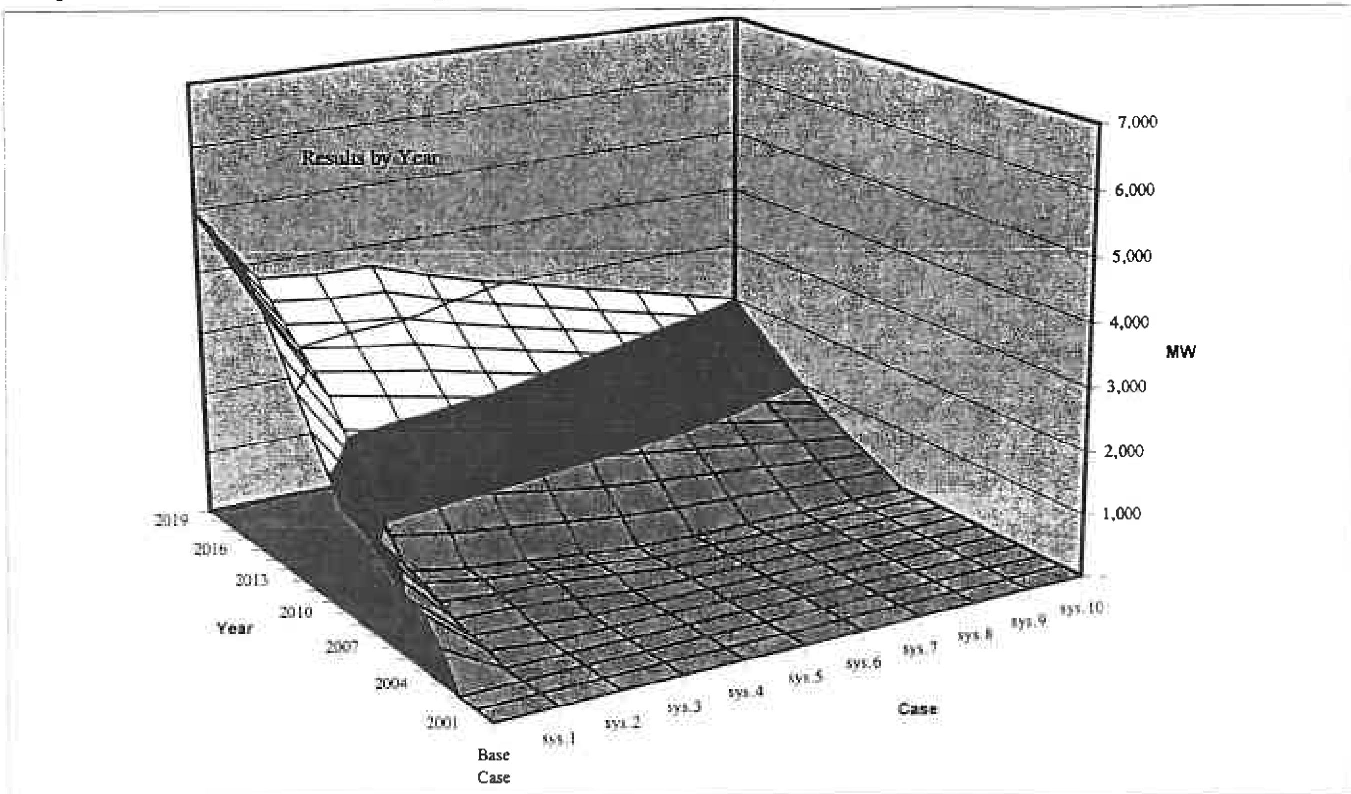


Graph 8.2 **Net Short-Term Wholesale Sales (aMW)**

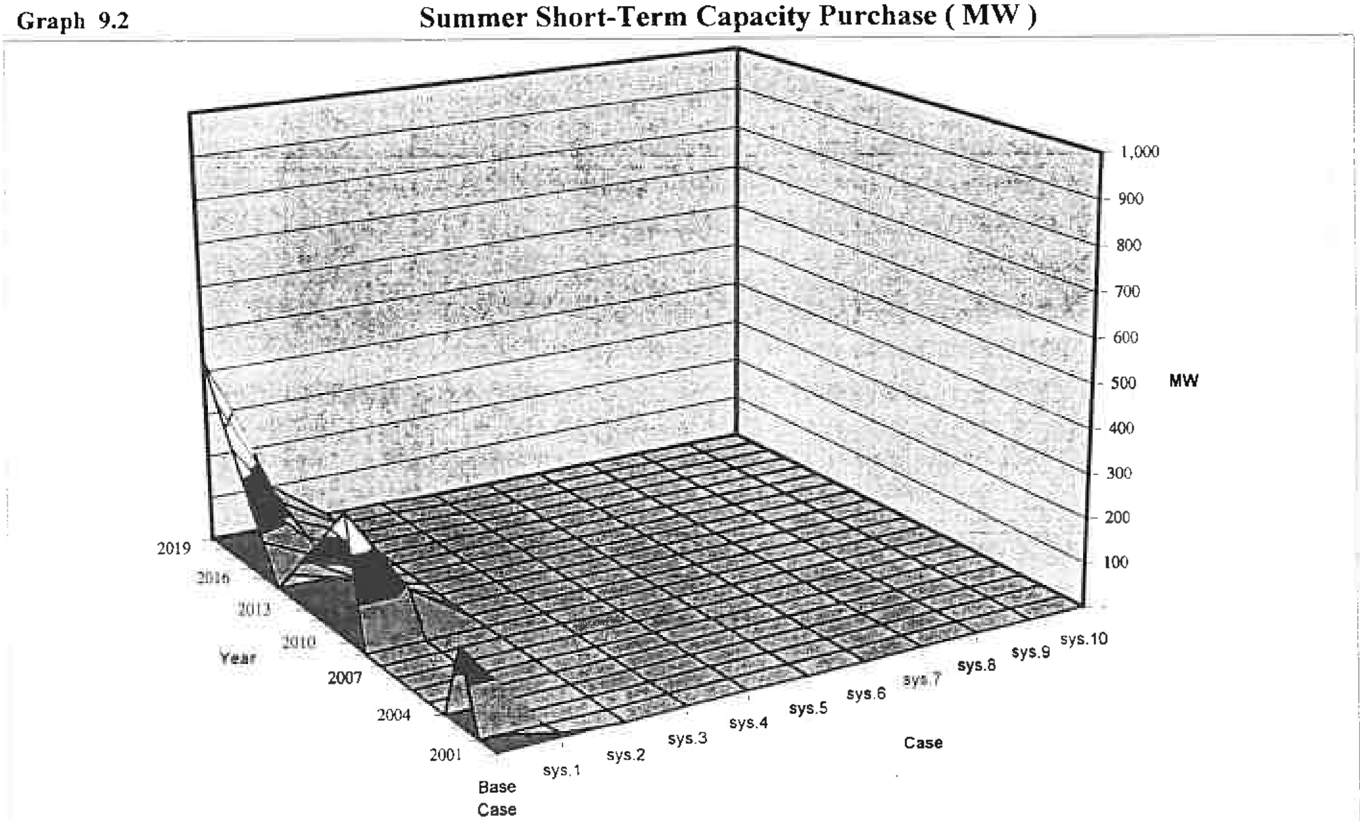


System Load Loss - Utah Big 4 plus 4-40% of Load, Oregon 32-50% of Load in 2002

Graph 9.1 **Summer Cogeneration & Combined Cycle Resources Selected (MW)**

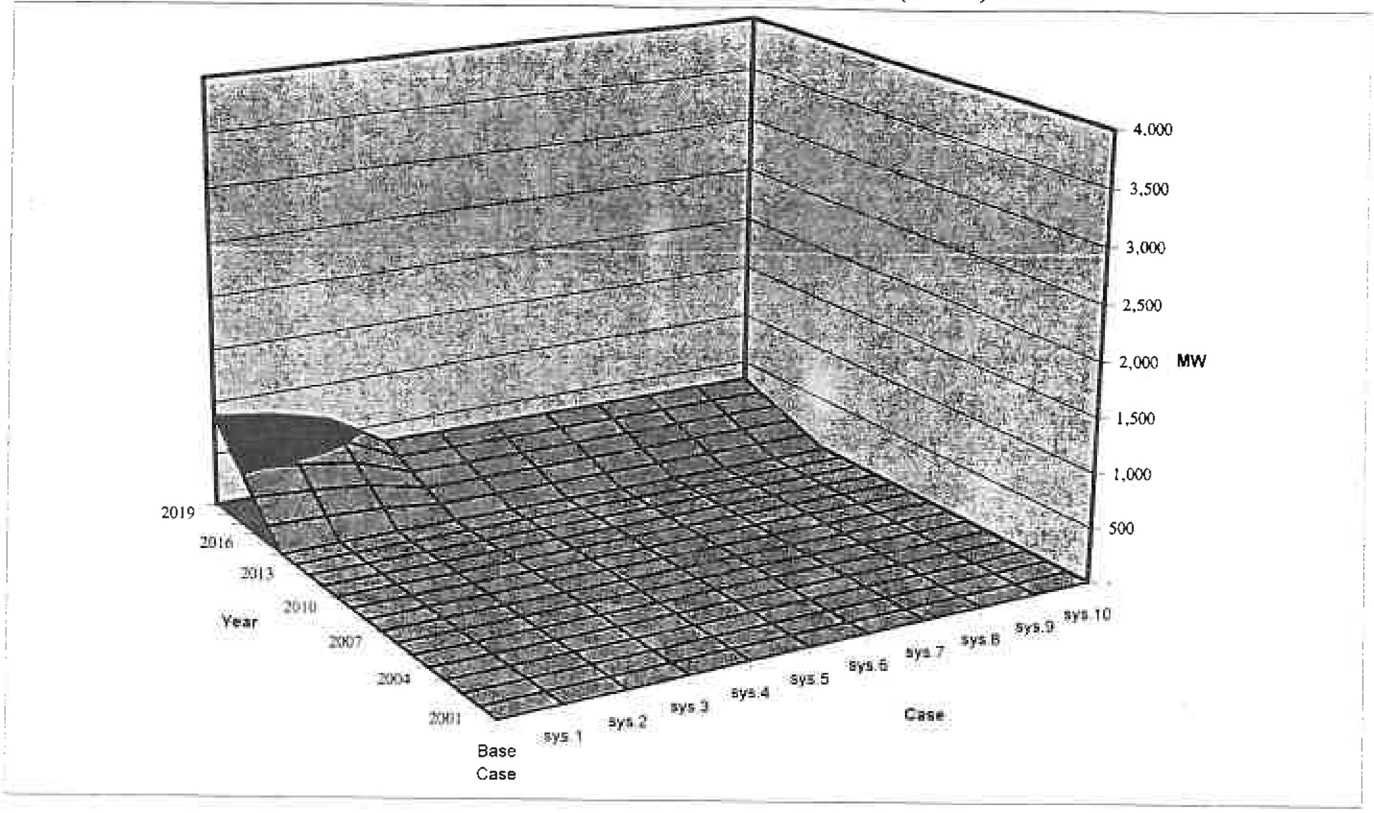


Graph 9.2 **Summer Short-Term Capacity Purchase (MW)**

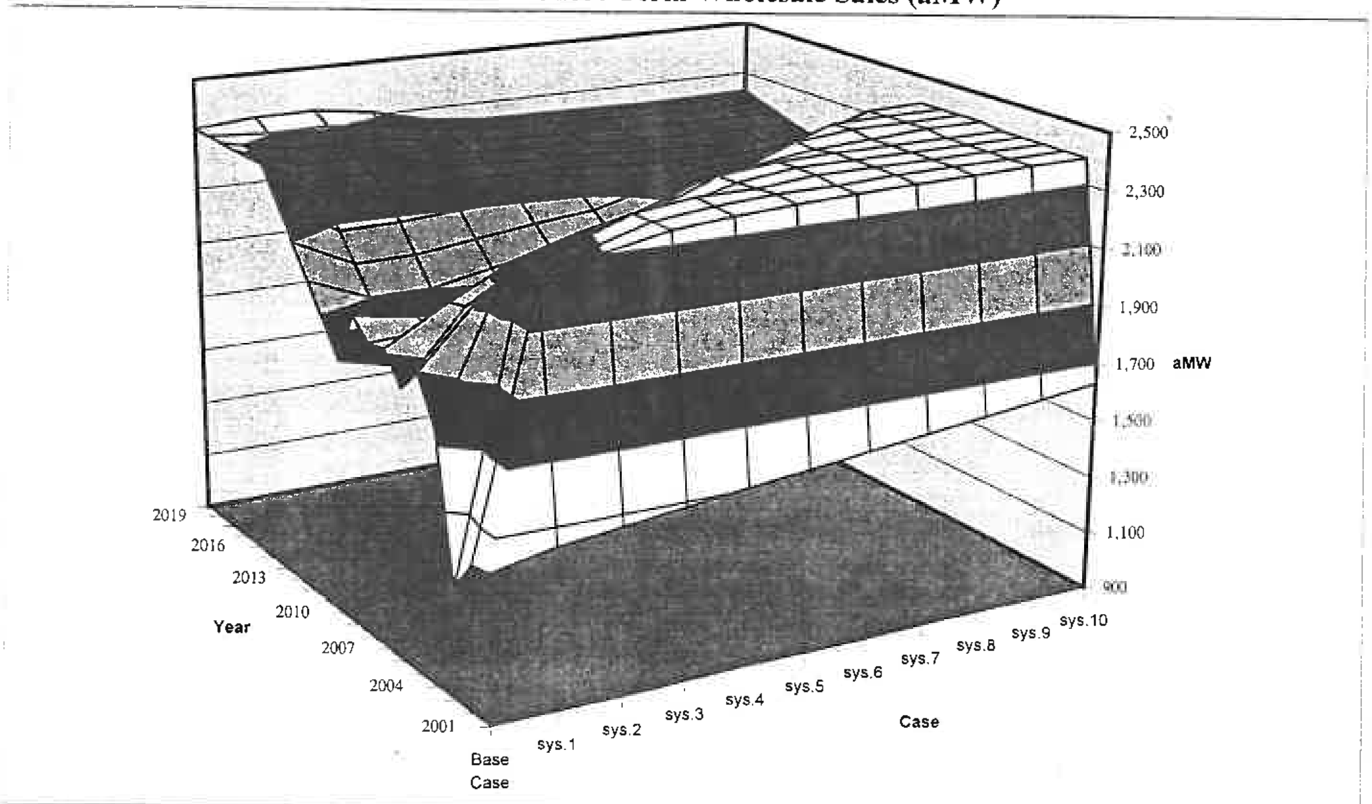


System Load Loss - Utah Big 4 plus 4-40% of Load, Oregon 32-50% of Load in 2002

Graph 10.1 Coal Fired Resources Selected (MW)

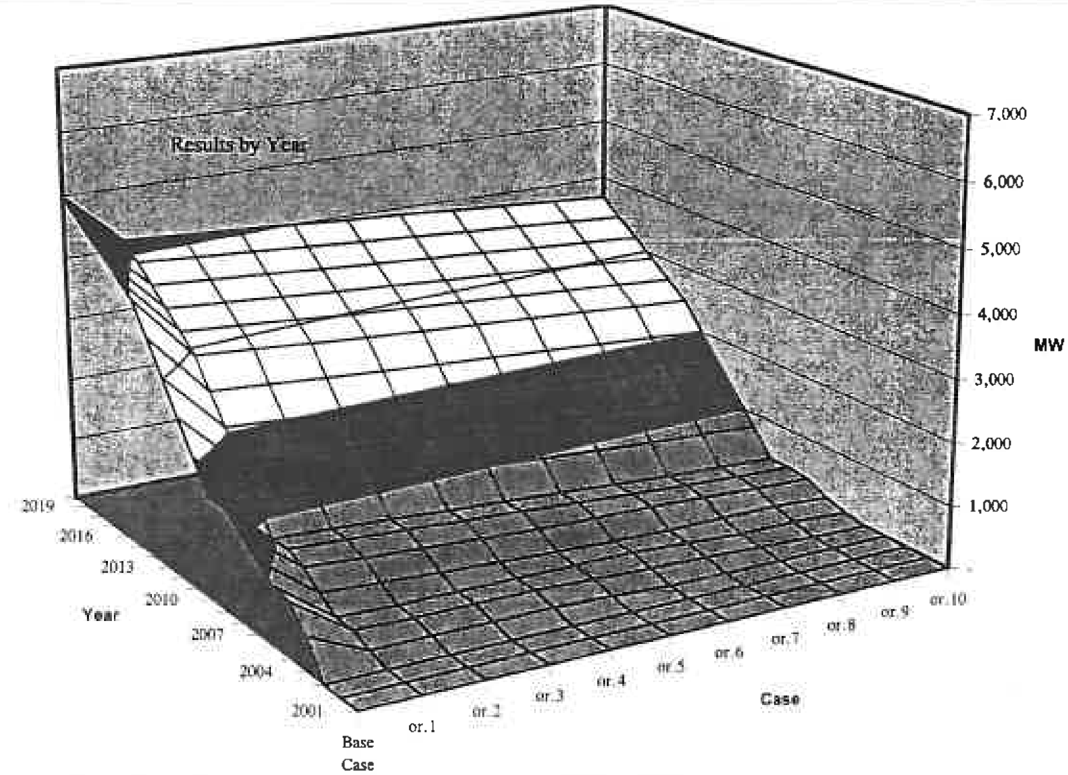


Graph 10.2 Net Short-Term Wholesale Sales (aMW)

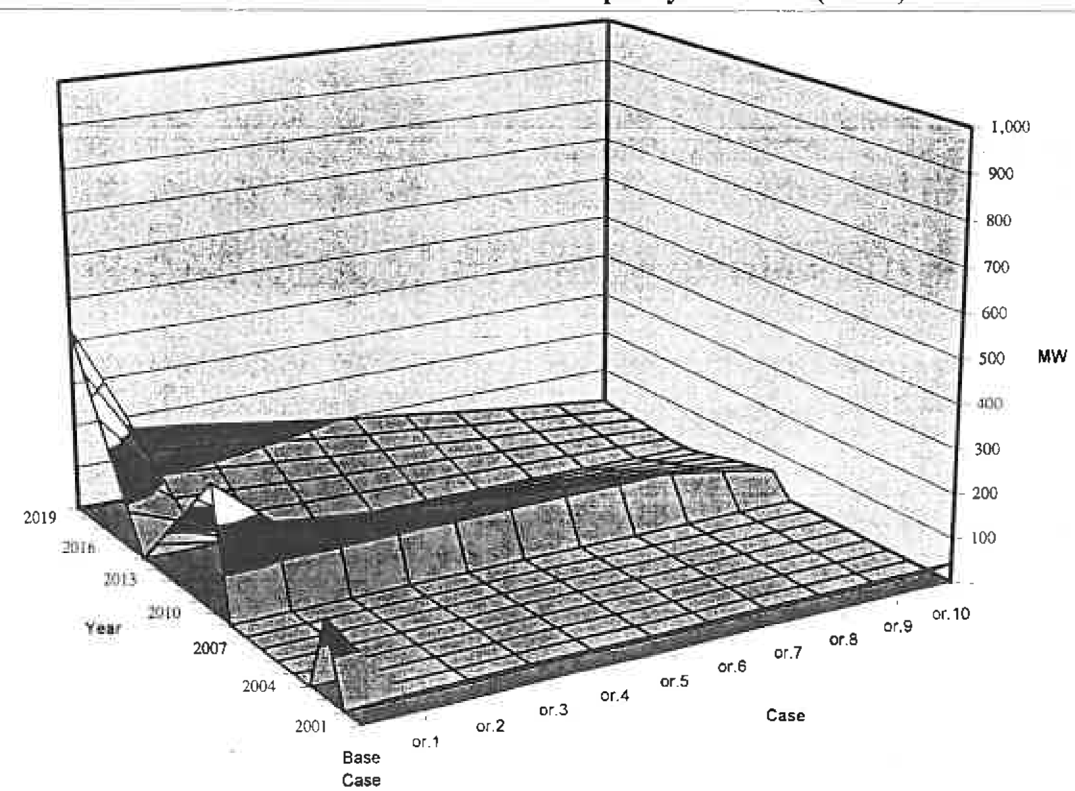


Oregon Load Loss Sweep - 32% to 50% of Load Lost in 2002

Graph 11.1 Summer Cogeneration & Combined Cycle Resources Selected (MW)

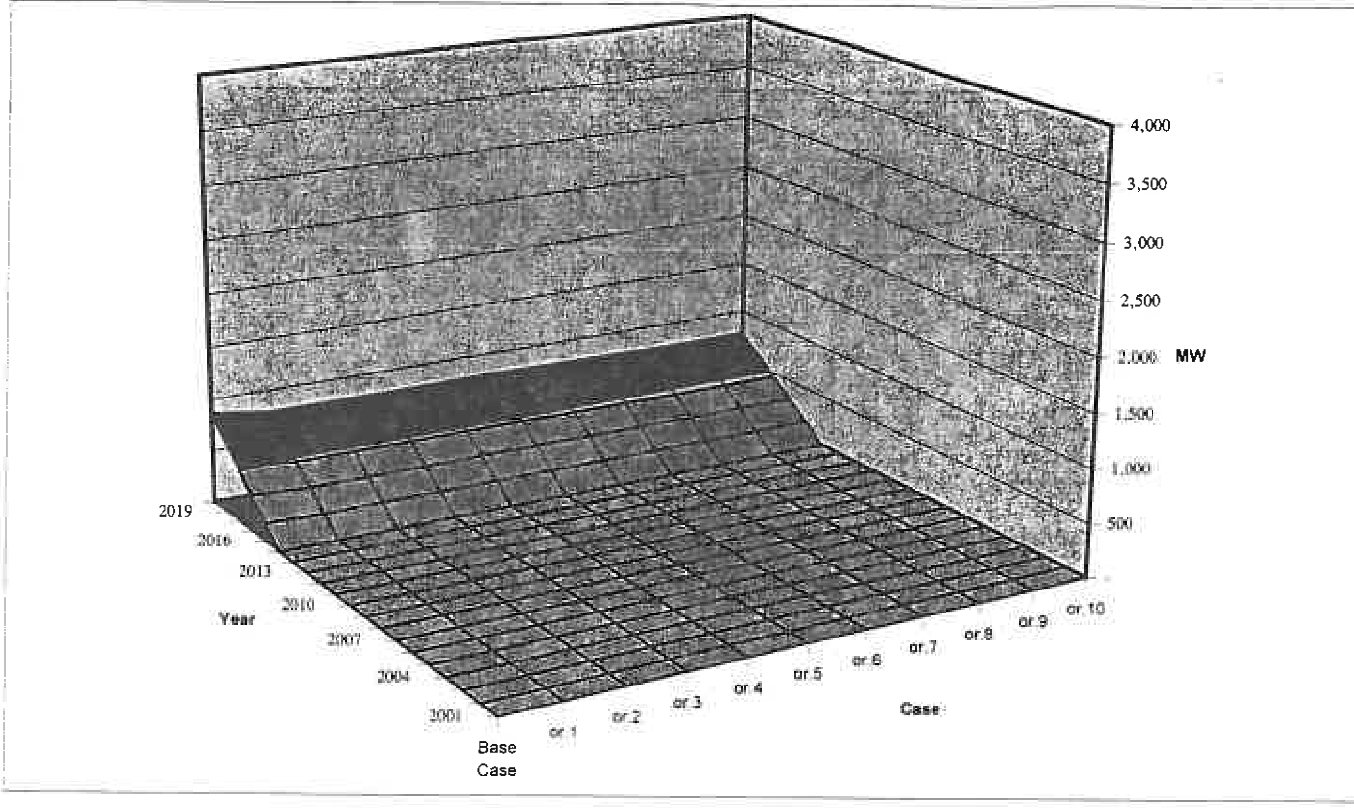


Graph 11.2 Summer Short-Term Capacity Purchase (MW)

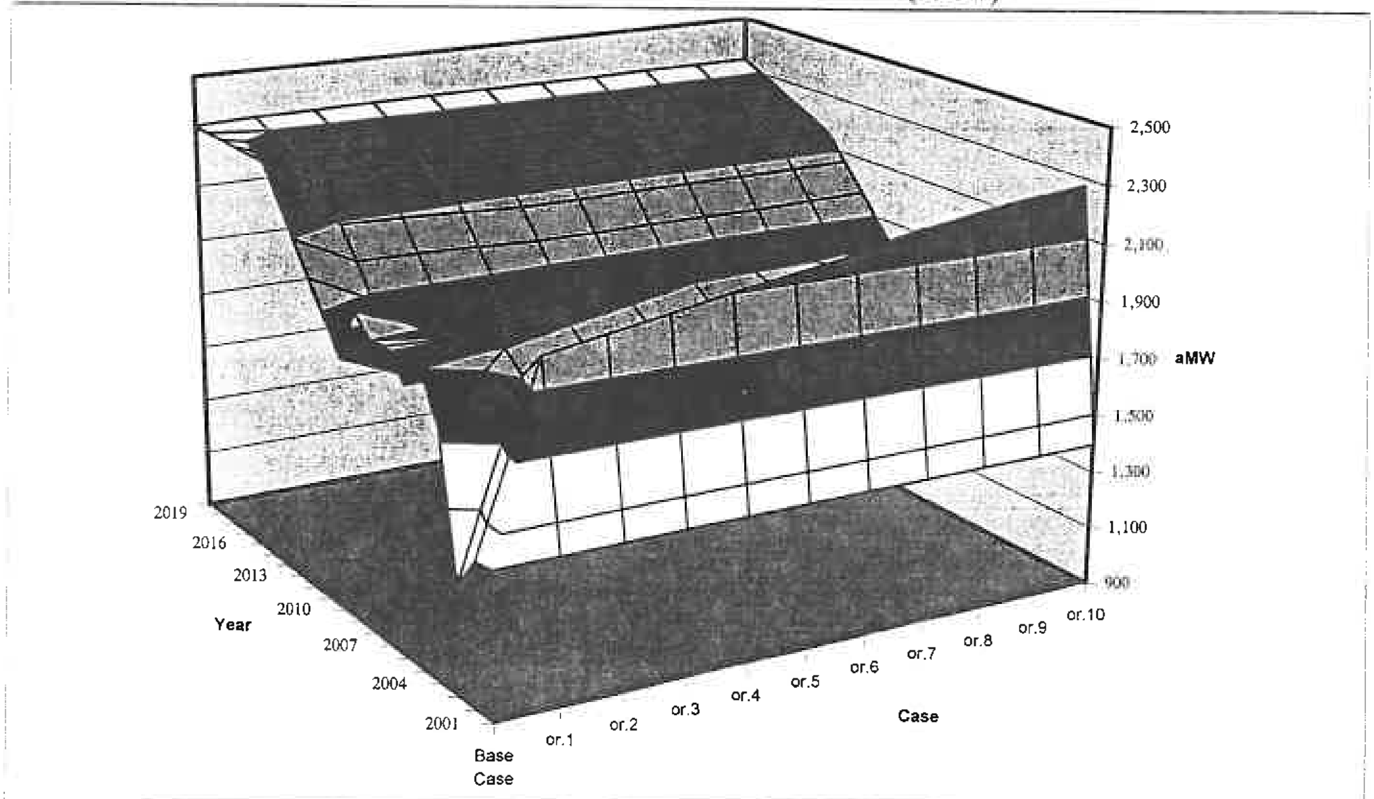


Oregon Load Loss Sweep - 32% to 50% of Load Lost in 2002

Graph 12.1 Coal Fired Resources Selected (MW)

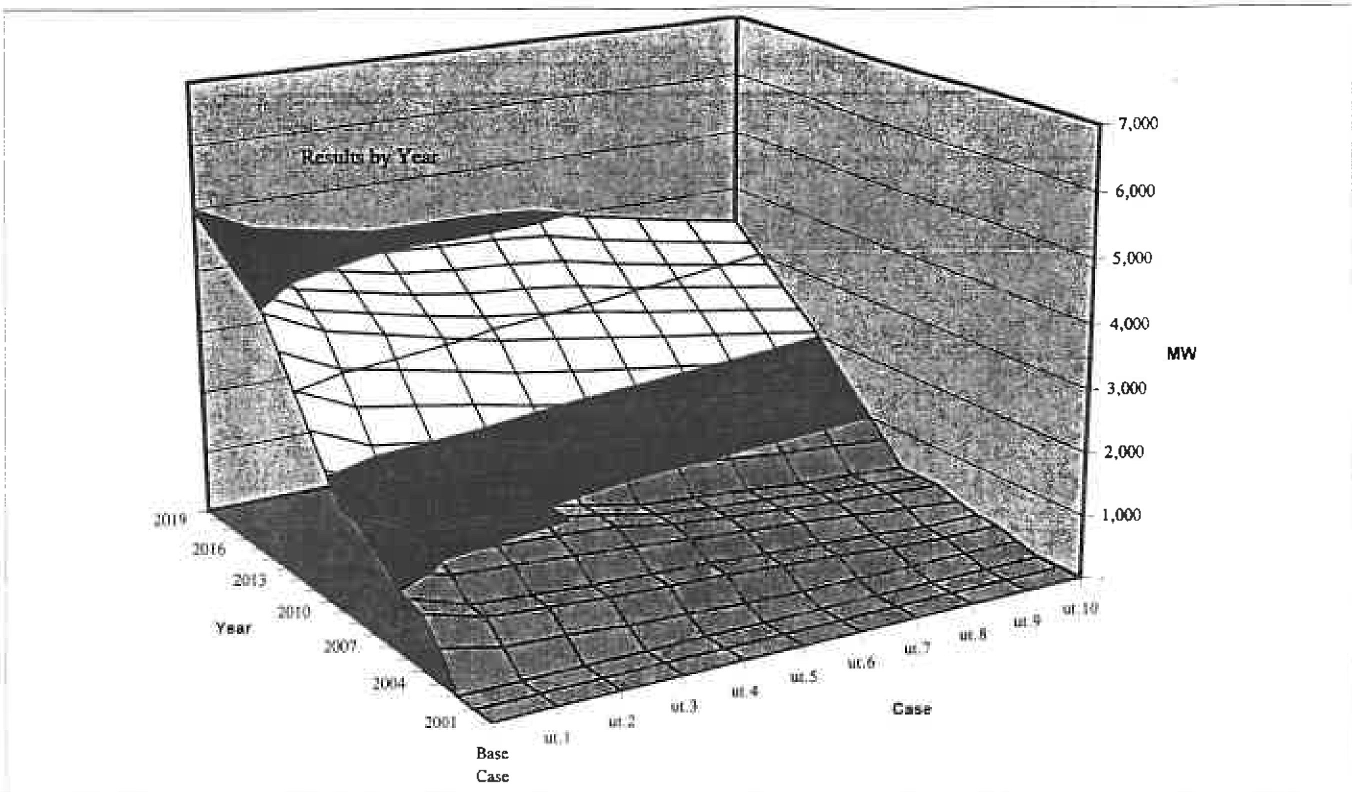


Graph 12.2 Net Short-Term Wholesale Sales (aMW)

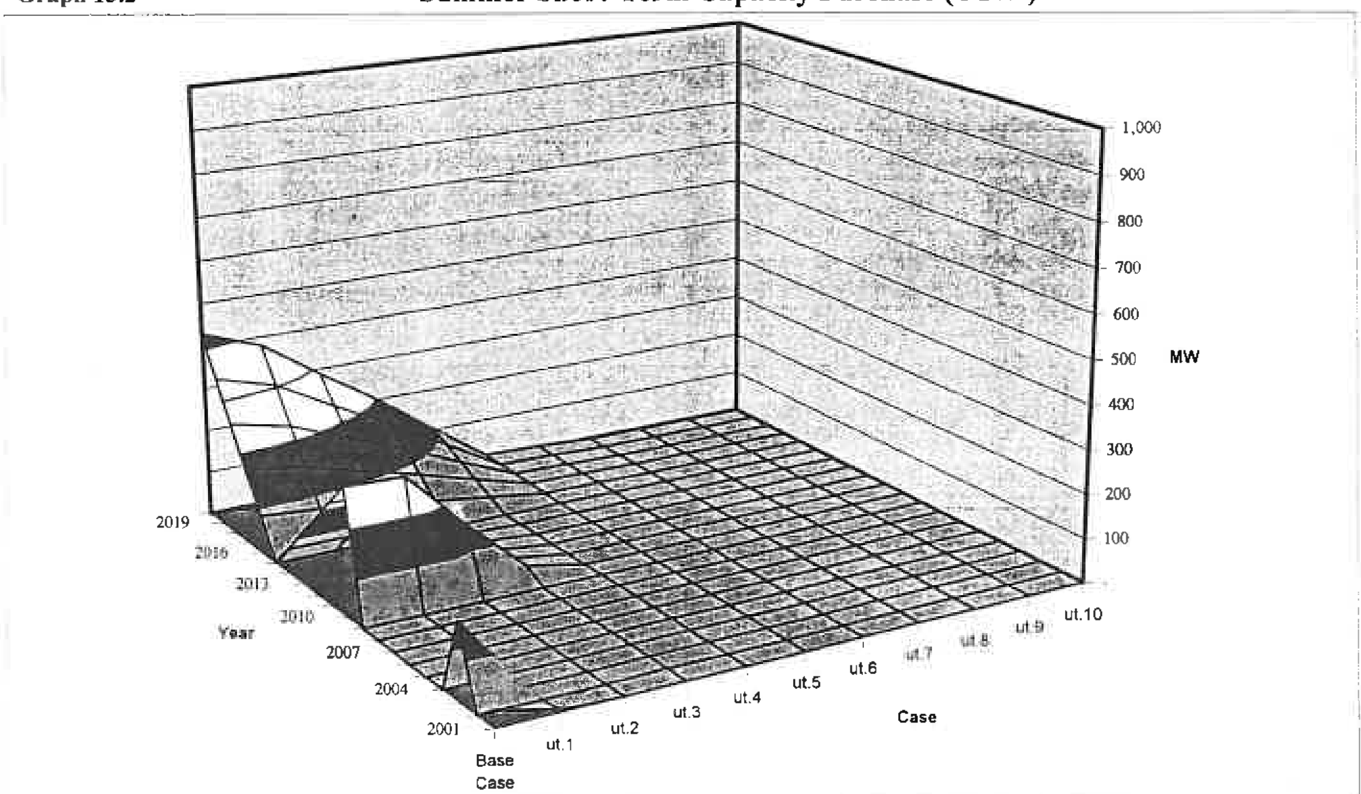


Utah Load Loss - Utah Big 4 Interruptible Customers plus 4% to 40% of Load

Graph 13.1 **Summer Cogeneration & Combined Cycle Resources Selected (MW)**



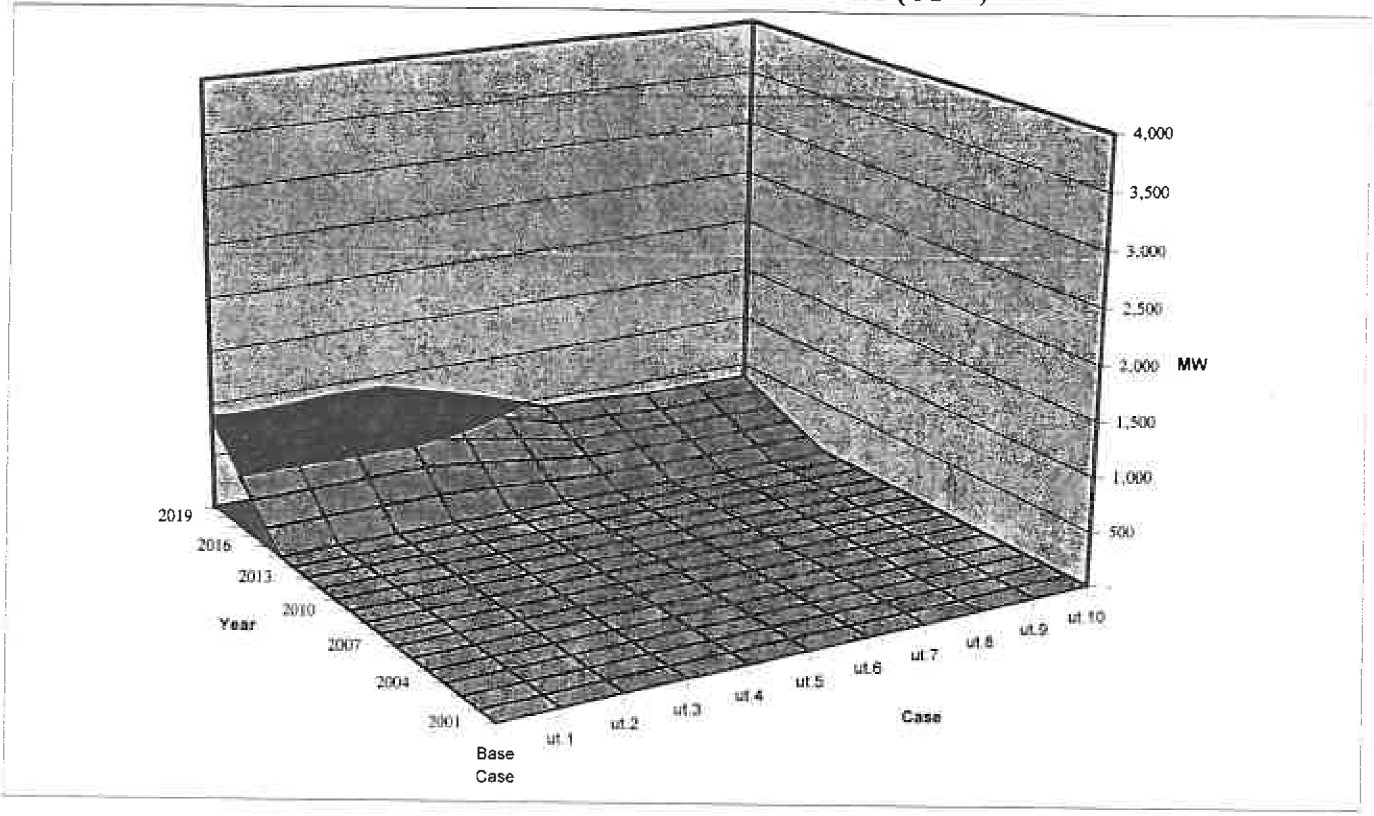
Graph 13.2 **Summer Short-Term Capacity Purchase (MW)**



Utah Load Loss - Utah Big 4 Interruptible Customers plus 4% to 40% of Load

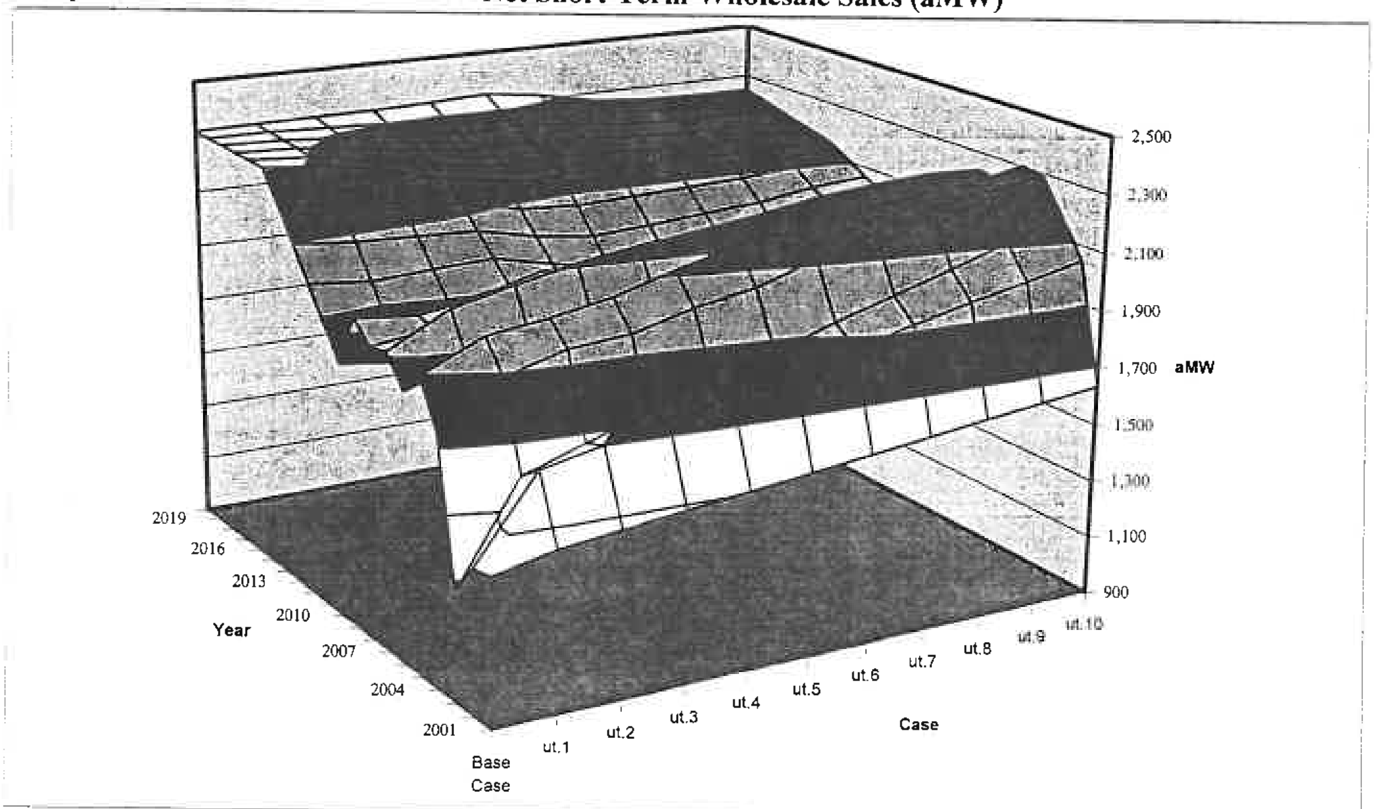
Graph 14.1

Coal Fired Resources Selected (MW)



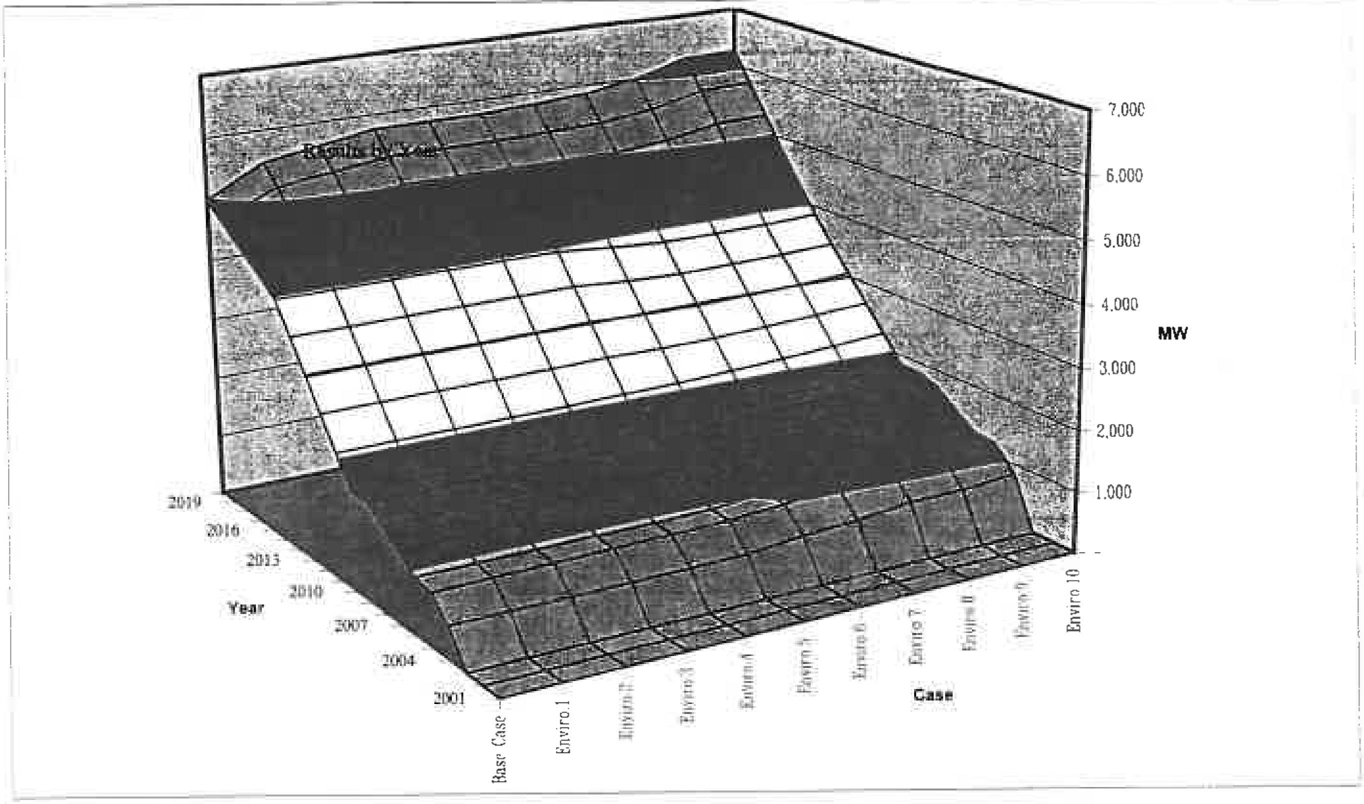
Graph 14.2

Net Short-Term Wholesale Sales (aMW)

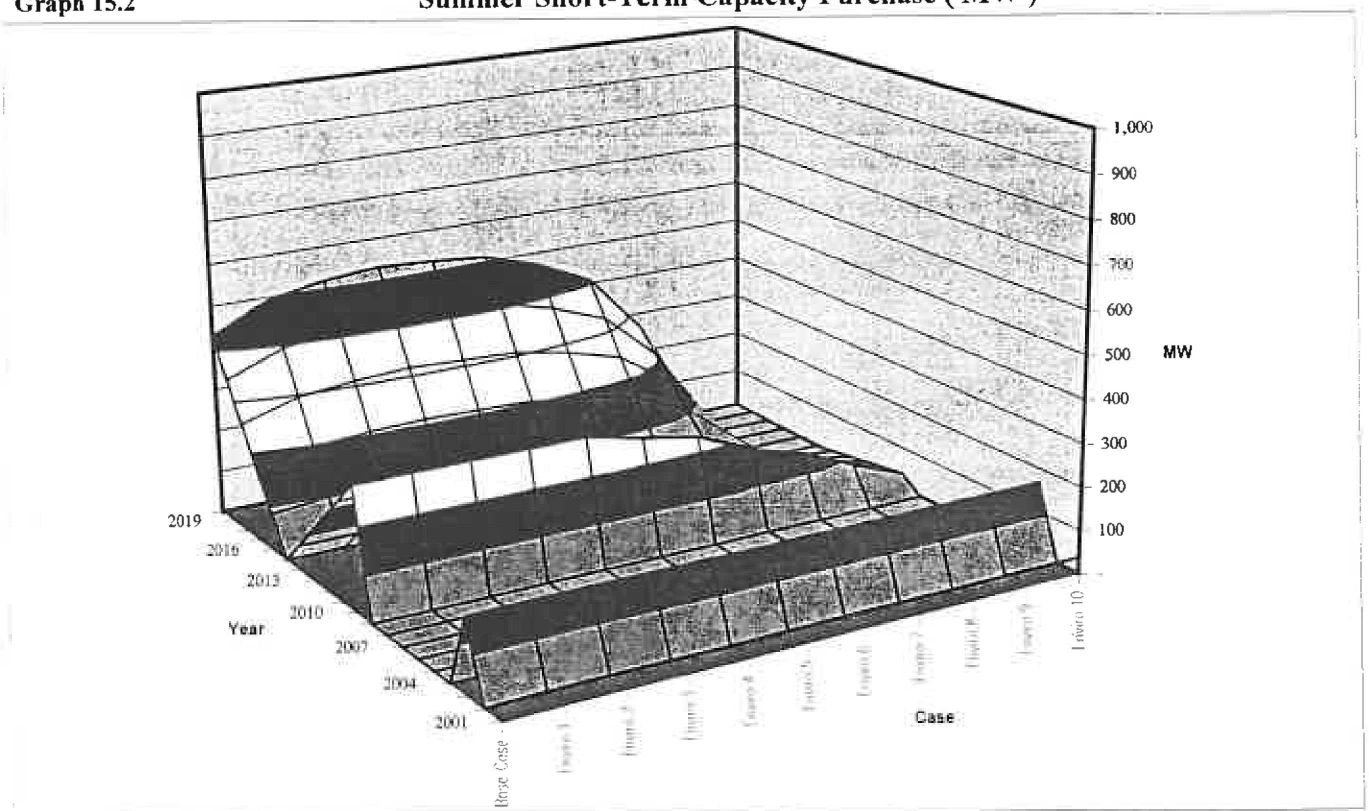


Environmental Sweep (Carbon Tax $1 to $10 per Ton)

Graph 15.1 **Summer Cogeneration & Combined Cycle Resources Selected (MW)**

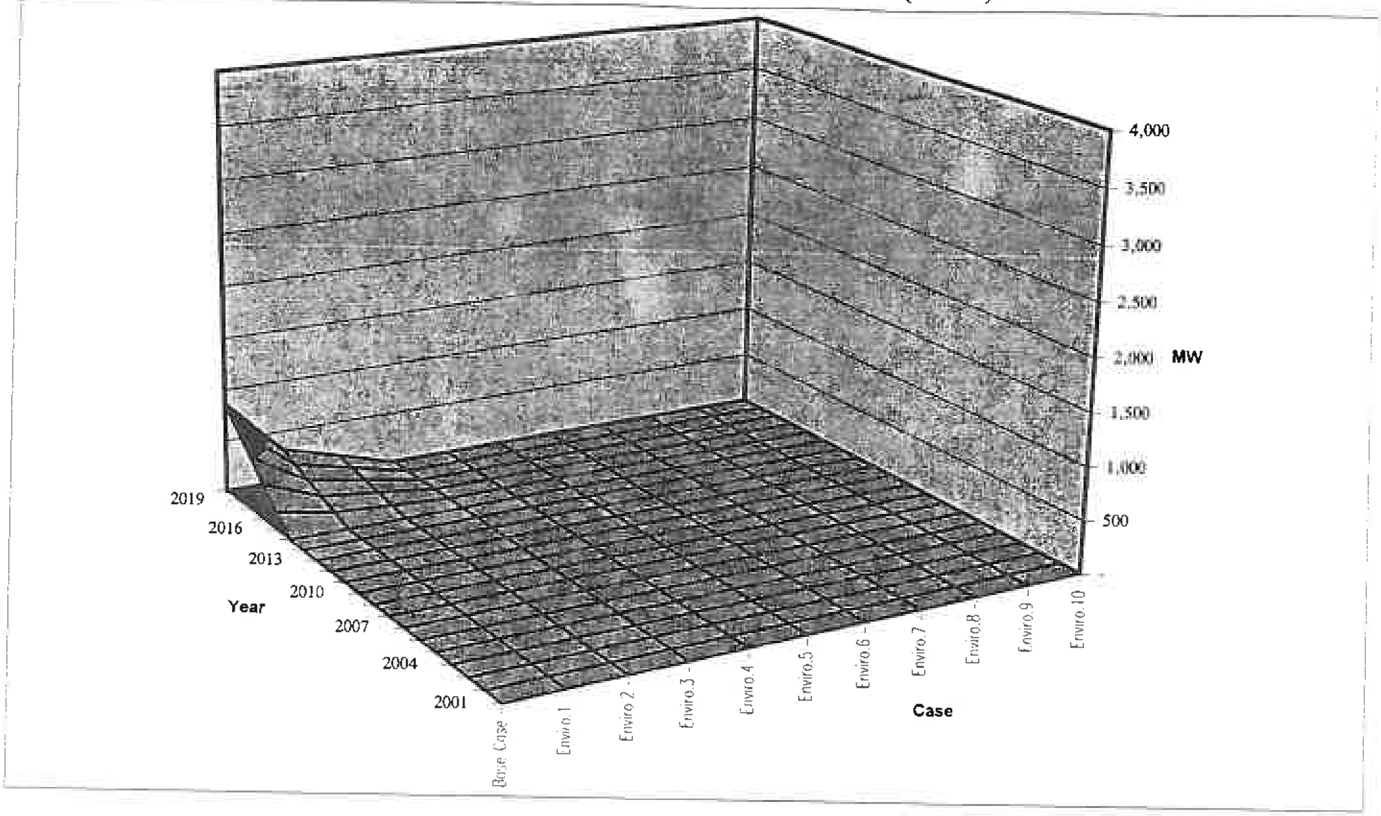


Graph 15.2 **Summer Short-Term Capacity Purchase (MW)**

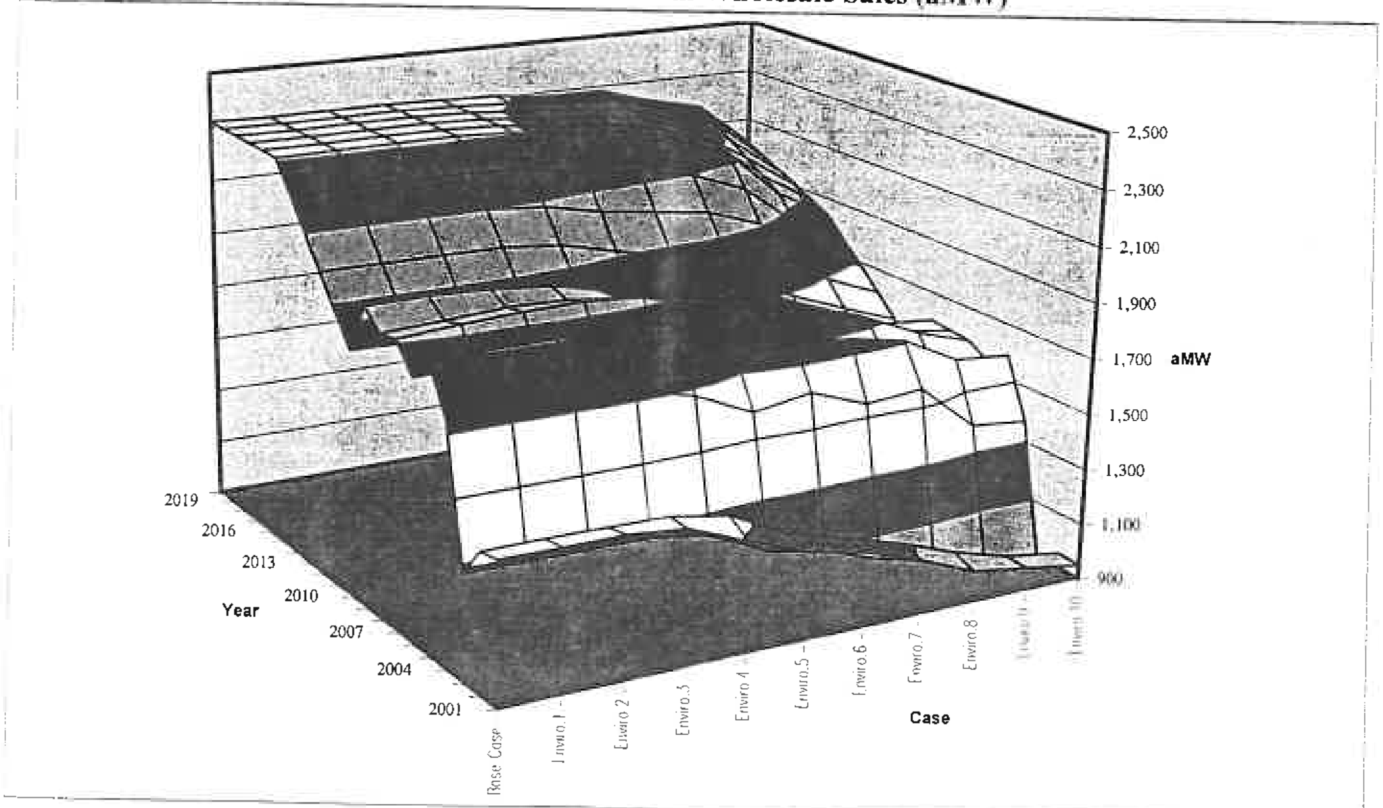


Environmental Sweep (Carbon Tax $1 to $10 per Ton)

Graph 16.1 Coal Fired Resources Selected (MW)



Graph 16.2 Net Short-Term Wholesale Sales (aMW)



Gas Fired Resources Selected (Summer MW) by Sensitivity

Description	#	Wtd	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
Reference Case	1		-	-	-	539	873	937	1,156	1,394	1,602	1,602	3,964	4,990
Wtd Case	2		-	-	-	363	508	586	723	910	1,017	1,021	2,965	4,417
Fuel.130L.22	11	1.80	-	-	-	579	929	961	1,169	1,426	1,637	1,637	4,019	5,950
Fuel.160L.22	12	1.80	-	-	-	536	674	945	1,072	1,405	1,614	1,614	3,983	5,845
Fuel.190L.22	13	1.80	-	-	-	535	672	944	1,070	1,404	1,518	1,518	3,888	5,718
Fuel.220L.22	14	-	-	-	-	534	671	904	1,068	1,401	1,515	1,515	3,681	5,488
Fuel.250L.22	15	-	-	-	-	260	525	564	781	1,114	1,258	1,495	3,553	5,358
Fuel.280L.22	16	-	-	-	-	133	324	564	564	1,113	1,258	1,495	3,351	5,103
Fuel.130H.22	17	1.80	-	-	-	607	926	945	1,234	1,450	1,613	1,613	3,981	5,948
Fuel.160H.22	18	1.80	-	-	-	534	671	942	1,068	1,401	1,609	1,609	3,976	5,727
Fuel.190H.22	19	1.80	-	-	-	530	667	937	1,062	1,394	1,488	1,488	3,849	4,826
Fuel.220H.22	20	-	-	-	-	530	666	905	1,061	1,393	1,487	1,487	3,290	4,485
Fuel.250H.22	21	-	-	-	-	181	495	555	676	1,101	1,243	1,478	2,685	4,241
Fuel.280H.22	22	-	-	-	-	123	311	549	549	1,093	1,234	1,468	2,303	3,421
Fuel.130L.26	23	-	-	-	-	1,062	1,221	1,283	1,508	1,769	1,928	1,928	4,019	6,015
Fuel.160L.26	24	1.80	-	-	-	885	1,011	1,124	1,320	1,564	1,716	1,716	3,984	5,922
Fuel.190L.26	25	1.80	-	-	-	540	859	944	1,143	1,404	1,613	1,613	3,981	5,862
Fuel.220L.26	26	1.80	-	-	-	534	671	942	1,068	1,401	1,610	1,610	3,964	5,817
Fuel.250L.26	27	1.80	-	-	-	531	667	938	1,063	1,395	1,495	1,495	3,863	5,574
Fuel.280L.26	28	-	-	-	-	530	666	918	1,062	1,394	1,488	1,488	3,697	5,091
Fuel.130H.26	29	-	-	-	-	1,069	1,224	1,278	1,498	1,807	1,901	1,901	3,981	6,012
Fuel.160H.26	30	1.80	-	-	-	893	1,034	1,145	1,338	1,591	1,711	1,776	3,977	5,830
Fuel.190H.26	31	1.80	-	-	-	539	873	937	1,156	1,394	1,602	1,602	3,964	4,990
Fuel.220H.26	32	1.80	-	-	-	529	665	934	1,059	1,390	1,598	1,598	3,558	4,688
Fuel.250H.26	33	1.80	-	-	-	527	662	932	1,056	1,387	1,478	1,478	2,953	4,291
Fuel.280H.26	34	-	-	-	-	525	660	837	996	1,326	1,420	1,420	2,695	3,726
Fuel.130L.30	35	-	-	-	-	1,199	1,387	1,521	1,625	1,940	1,940	1,940	4,022	6,061
Fuel.160L.30	36	-	-	-	-	1,096	1,251	1,344	1,540	1,824	1,908	1,908	3,991	5,984
Fuel.190L.30	37	1.80	-	-	-	967	1,143	1,196	1,425	1,687	1,832	1,848	3,981	5,939
Fuel.220L.30	38	1.80	-	-	-	833	990	1,080	1,290	1,529	1,665	1,697	3,977	5,882
Fuel.250L.30	39	1.80	-	-	-	532	861	939	1,144	1,397	1,605	1,605	3,970	5,759
Fuel.280L.30	40	1.80	-	-	-	530	666	937	1,062	1,394	1,602	1,602	3,948	5,374
Fuel.130H.30	41	-	-	-	-	1,193	1,377	1,506	1,622	1,953	1,963	1,963	4,015	6,022
Fuel.160H.30	42	-	-	-	-	1,097	1,265	1,376	1,527	1,823	1,898	1,898	3,977	5,853
Fuel.190H.30	43	-	-	-	-	985	1,131	1,205	1,438	1,735	1,848	1,870	3,964	5,043
Fuel.220H.30	44	1.80	-	-	-	814	1,010	1,071	1,290	1,538	1,676	1,740	3,558	4,794
Fuel.250H.30	45	1.80	-	-	-	527	847	933	1,143	1,405	1,595	1,595	3,103	4,373
Fuel.280H.30	46	1.80	-	-	-	525	661	807	930	1,261	1,467	1,467	2,698	3,614
Fuel.130L.34	47	-	-	-	-	1,272	1,485	1,579	1,731	2,024	2,107	2,107	4,046	6,076
Fuel.160L.34	48	-	-	-	-	1,215	1,382	1,509	1,623	1,965	1,979	1,979	4,014	6,024
Fuel.190L.34	49	-	-	-	-	1,135	1,289	1,413	1,555	1,843	1,901	1,901	3,985	5,985
Fuel.220L.34	50	-	-	-	-	1,027	1,200	1,270	1,483	1,789	1,898	1,898	3,977	5,955
Fuel.250L.34	51	1.80	-	-	-	930	1,095	1,151	1,408	1,697	1,812	1,835	3,970	5,784
Fuel.280L.34	52	1.80	-	-	-	793	975	1,043	1,265	1,521	1,649	1,682	3,965	5,494
Fuel.130H.34	53	-	-	-	-	1,258	1,472	1,555	1,709	2,000	2,118	2,118	4,014	6,028
Fuel.160H.34	54	-	-	-	-	1,211	1,416	1,489	1,620	1,970	2,010	2,010	4,003	5,866
Fuel.190H.34	55	-	-	-	-	1,111	1,282	1,413	1,542	1,836	1,900	1,900	3,976	5,050
Fuel.220H.34	56	-	-	-	-	1,017	1,211	1,281	1,478	1,783	1,885	1,885	3,536	4,843
Fuel.250H.34	57	1.80	-	-	-	893	1,093	1,146	1,400	1,696	1,825	1,833	3,103	4,425
Fuel.280H.34	58	1.80	-	-	-	698	946	960	1,191	1,442	1,586	1,586	2,917	3,508

Gas Fired Resources Selected (Summer MW) by Sensitivity

Difference From Reference Case

Description	#	Wtd	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
Reference Case	1		-	-	-	-	-	-	-	-	-	-	-	-
Wtd Case	2		-	-	-	(177)	(365)	(351)	(433)	(484)	(585)	(580)	(999)	(573)
Fuel.130L.22	11	1.80	-	-	-	40	56	24	13	32	36	36	55	960
Fuel.160L.22	12	1.80	-	-	-	(4)	(200)	8	(84)	11	13	13	19	855
Fuel.190L.22	13	1.80	-	-	-	(5)	(201)	7	(86)	10	(84)	(84)	(77)	728
Fuel.220L.22	14	-	-	-	-	(6)	(202)	(34)	(88)	7	(87)	(87)	(283)	498
Fuel.250L.22	15	-	-	-	-	(279)	(348)	(373)	(375)	(280)	(344)	(107)	(412)	368
Fuel.280L.22	16	-	-	-	-	(406)	(550)	(373)	(592)	(281)	(344)	(107)	(613)	113
Fuel.130H.22	17	1.80	-	-	-	67	52	8	78	56	11	11	17	958
Fuel.160H.22	18	1.80	-	-	-	(6)	(202)	5	(88)	7	8	8	12	737
Fuel.190H.22	19	1.80	-	-	-	(9)	(207)	(0)	(94)	(0)	(114)	(114)	(115)	(164)
Fuel.220H.22	20	-	-	-	-	(10)	(207)	(32)	(95)	(1)	(115)	(115)	(675)	(505)
Fuel.250H.22	21	-	-	-	-	(359)	(378)	(382)	(480)	(293)	(359)	(124)	(1,279)	(749)
Fuel.280H.22	22	-	-	-	-	(416)	(562)	(388)	(607)	(301)	(367)	(133)	(1,661)	(1,569)
Fuel.130L.26	23	-	-	-	-	522	348	346	352	375	326	326	55	1,025
Fuel.160L.26	24	1.80	-	-	-	346	138	187	164	170	114	114	20	932
Fuel.190L.26	25	1.80	-	-	-	0	(14)	7	(13)	10	11	11	17	872
Fuel.220L.26	26	1.80	-	-	-	(6)	(202)	5	(88)	7	8	8	(0)	827
Fuel.250L.26	27	1.80	-	-	-	(9)	(206)	1	(93)	1	(107)	(107)	(101)	584
Fuel.280L.26	28	-	-	-	-	(9)	(207)	(20)	(94)	(0)	(114)	(114)	(267)	101
Fuel.130H.26	29	-	-	-	-	530	351	341	342	413	299	299	17	1,022
Fuel.160H.26	30	1.80	-	-	-	353	161	208	181	197	110	175	12	840
Fuel.190H.26	31	1.80	-	-	-	-	-	-	-	-	-	-	-	-
Fuel.220H.26	32	1.80	-	-	-	(11)	(209)	(3)	(97)	(4)	(4)	(4)	(406)	(302)
Fuel.250H.26	33	1.80	-	-	-	(13)	(211)	(5)	(100)	(7)	(123)	(123)	(1,012)	(699)
Fuel.280H.26	34	-	-	-	-	(14)	(213)	(100)	(160)	(68)	(182)	(182)	(1,269)	(1,264)
Fuel.130L.30	35	-	-	-	-	660	514	584	469	546	338	338	58	1,071
Fuel.160L.30	36	-	-	-	-	557	378	407	384	430	306	306	27	994
Fuel.190L.30	37	1.80	-	-	-	428	270	259	269	293	230	246	17	949
Fuel.220L.30	38	1.80	-	-	-	294	116	143	133	135	63	95	12	892
Fuel.250L.30	39	1.80	-	-	-	(8)	(12)	2	(13)	3	4	4	6	769
Fuel.280L.30	40	1.80	-	-	-	(9)	(207)	(0)	(94)	(0)	(0)	(0)	(16)	384
Fuel.130H.30	41	-	-	-	-	654	504	569	466	559	362	362	51	1,032
Fuel.160H.30	42	-	-	-	-	557	392	439	371	429	296	296	12	863
Fuel.190H.30	43	-	-	-	-	446	258	268	281	342	246	268	-	53
Fuel.220H.30	44	1.80	-	-	-	275	136	134	134	144	74	138	(406)	(196)
Fuel.250H.30	45	1.80	-	-	-	(13)	(26)	(4)	(14)	11	(7)	(7)	(862)	(618)
Fuel.280H.30	46	1.80	-	-	-	(14)	(213)	(130)	(226)	(133)	(135)	(135)	(1,266)	(1,376)
Fuel.130L.34	47	-	-	-	-	733	612	642	574	630	505	505	81	1,086
Fuel.160L.34	48	-	-	-	-	676	509	572	467	571	377	377	50	1,034
Fuel.190L.34	49	-	-	-	-	595	416	476	399	449	299	299	21	995
Fuel.220L.34	50	-	-	-	-	487	327	333	326	395	296	296	13	965
Fuel.250L.34	51	1.80	-	-	-	391	221	214	252	303	211	233	6	794
Fuel.280L.34	52	1.80	-	-	-	254	101	106	109	127	47	80	0	504
Fuel.130H.34	53	-	-	-	-	718	599	618	553	606	517	517	50	1,038
Fuel.160H.34	54	-	-	-	-	672	543	552	464	576	408	408	38	876
Fuel.190H.34	55	-	-	-	-	572	408	476	386	443	299	299	11	60
Fuel.220H.34	56	-	-	-	-	478	338	344	322	389	284	284	(428)	(147)
Fuel.250H.34	57	1.80	-	-	-	353	219	209	244	302	223	232	(862)	(565)
Fuel.280H.34	58	1.80	-	-	-	159	73	23	35	48	(16)	(16)	(1,047)	(1,482)

Coal Fired Resources Selected (MW) by Sensitivity

Description	#	Wtd	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
Reference Case	1		-	-	-	-	-	-	-	-	-	-	-	872
Wtd Case	2		-	-	-	-	-	4	4	4	4	4	90	505
Fuel.130L.22	11	1.80	-	-	-	-	-	-	-	-	-	-	-	-
Fuel.160L.22	12	1.80	-	-	-	-	-	-	-	-	-	-	-	-
Fuel.190L.22	13	1.80	-	-	-	-	-	-	-	-	-	-	-	-
Fuel.220L.22	14	-	-	-	-	-	-	-	-	-	-	-	-	-
Fuel.250L.22	15	-	-	-	-	-	-	-	-	-	-	-	-	-
Fuel.280L.22	16	-	-	-	-	-	-	-	-	-	-	-	-	188
Fuel.130H.22	17	1.80	-	-	-	-	-	-	-	-	-	-	-	-
Fuel.160H.22	18	1.80	-	-	-	-	-	-	-	-	-	-	-	-
Fuel.190H.22	19	1.80	-	-	-	-	-	-	-	-	-	-	-	901
Fuel.220H.22	20	-	-	-	-	-	-	-	-	-	-	-	400	1,135
Fuel.250H.22	21	-	-	-	-	-	-	-	-	-	-	-	725	1,242
Fuel.280H.22	22	-	-	-	-	-	-	-	-	-	-	-	865	1,894
Fuel.130L.26	23	-	-	-	-	-	-	-	-	-	-	-	-	-
Fuel.160L.26	24	1.80	-	-	-	-	-	-	-	-	-	-	-	-
Fuel.190L.26	25	1.80	-	-	-	-	-	-	-	-	-	-	-	-
Fuel.220L.26	26	1.80	-	-	-	-	-	-	-	-	-	-	-	-
Fuel.250L.26	27	1.80	-	-	-	-	-	-	-	-	-	-	-	-
Fuel.280L.26	28	-	-	-	-	-	-	-	-	-	-	-	-	265
Fuel.130H.26	29	-	-	-	-	-	-	-	-	-	-	-	-	-
Fuel.160H.26	30	1.80	-	-	-	-	-	-	-	-	-	-	-	-
Fuel.190H.26	31	1.80	-	-	-	-	-	-	-	-	-	-	-	872
Fuel.220H.26	32	1.80	-	-	-	-	-	-	-	-	-	-	400	1,140
Fuel.250H.26	33	1.80	-	-	-	-	-	-	-	-	-	-	725	1,483
Fuel.280H.26	34	-	-	-	-	-	-	57	57	57	57	57	881	1,991
Fuel.130L.30	35	-	-	-	-	-	-	-	-	-	-	-	-	-
Fuel.160L.30	36	-	-	-	-	-	-	-	-	-	-	-	-	-
Fuel.190L.30	37	1.80	-	-	-	-	-	-	-	-	-	-	-	-
Fuel.220L.30	38	1.80	-	-	-	-	-	-	-	-	-	-	-	-
Fuel.250L.30	39	1.80	-	-	-	-	-	-	-	-	-	-	-	-
Fuel.280L.30	40	1.80	-	-	-	-	-	-	-	-	-	-	-	280
Fuel.130H.30	41	-	-	-	-	-	-	-	-	-	-	-	-	-
Fuel.160H.30	42	-	-	-	-	-	-	-	-	-	-	-	-	-
Fuel.190H.30	43	-	-	-	-	-	-	-	-	-	-	-	-	899
Fuel.220H.30	44	1.80	-	-	-	-	-	-	-	-	-	-	400	1,138
Fuel.250H.30	45	1.80	-	-	-	-	-	-	-	-	-	-	725	1,556
Fuel.280H.30	46	1.80	-	-	-	-	-	123	123	123	123	123	1,124	2,367
Fuel.130L.34	47	-	-	-	-	-	-	-	-	-	-	-	-	-
Fuel.160L.34	48	-	-	-	-	-	-	-	-	-	-	-	-	-
Fuel.190L.34	49	-	-	-	-	-	-	-	-	-	-	-	-	-
Fuel.220L.34	50	-	-	-	-	-	-	-	-	-	-	-	-	-
Fuel.250L.34	51	1.80	-	-	-	-	-	-	-	-	-	-	-	-
Fuel.280L.34	52	1.80	-	-	-	-	-	-	-	-	-	-	-	251
Fuel.130H.34	53	-	-	-	-	-	-	-	-	-	-	-	-	-
Fuel.160H.34	54	-	-	-	-	-	-	-	-	-	-	-	-	-
Fuel.190H.34	55	-	-	-	-	-	-	-	-	-	-	-	-	902
Fuel.220H.34	56	-	-	-	-	-	-	-	-	-	-	-	400	1,129
Fuel.250H.34	57	1.80	-	-	-	-	-	-	-	-	-	-	725	1,582
Fuel.280H.34	58	1.80	-	-	-	-	-	91	91	91	91	91	905	2,561

Coal Fired Resources Selected (MW) by Sensitivity

Difference From Reference Case

Description	#	Wtd	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
Reference Case	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Wtd Case	2	-	-	-	-	-	-	4	4	4	4	4	90	(367)
Fuel.130L.22	11	1.80	-	-	-	-	-	-	-	-	-	-	-	(872)
Fuel.160L.22	12	1.80	-	-	-	-	-	-	-	-	-	-	-	(872)
Fuel.190L.22	13	1.80	-	-	-	-	-	-	-	-	-	-	-	(872)
Fuel.220L.22	14	-	-	-	-	-	-	-	-	-	-	-	-	(872)
Fuel.250L.22	15	-	-	-	-	-	-	-	-	-	-	-	-	(872)
Fuel.280L.22	16	-	-	-	-	-	-	-	-	-	-	-	-	(684)
Fuel.130H.22	17	1.80	-	-	-	-	-	-	-	-	-	-	-	(872)
Fuel.160H.22	18	1.80	-	-	-	-	-	-	-	-	-	-	-	(872)
Fuel.190H.22	19	1.80	-	-	-	-	-	-	-	-	-	-	-	29
Fuel.220H.22	20	-	-	-	-	-	-	-	-	-	-	-	400	264
Fuel.250H.22	21	-	-	-	-	-	-	-	-	-	-	-	725	371
Fuel.280H.22	22	-	-	-	-	-	-	-	-	-	-	-	865	1,022
Fuel.130L.26	23	-	-	-	-	-	-	-	-	-	-	-	-	(872)
Fuel.160L.26	24	1.80	-	-	-	-	-	-	-	-	-	-	-	(872)
Fuel.190L.26	25	1.80	-	-	-	-	-	-	-	-	-	-	-	(872)
Fuel.220L.26	26	1.80	-	-	-	-	-	-	-	-	-	-	-	(872)
Fuel.250L.26	27	1.80	-	-	-	-	-	-	-	-	-	-	-	(872)
Fuel.280L.26	28	-	-	-	-	-	-	-	-	-	-	-	-	(607)
Fuel.130H.26	29	-	-	-	-	-	-	-	-	-	-	-	-	(872)
Fuel.160H.26	30	1.80	-	-	-	-	-	-	-	-	-	-	-	(872)
Fuel.190H.26	31	1.80	-	-	-	-	-	-	-	-	-	-	-	-
Fuel.220H.26	32	1.80	-	-	-	-	-	-	-	-	-	-	400	268
Fuel.250H.26	33	1.80	-	-	-	-	-	-	-	-	-	-	725	612
Fuel.280H.26	34	-	-	-	-	-	-	57	57	57	57	57	881	1,120
Fuel.130L.30	35	-	-	-	-	-	-	-	-	-	-	-	-	(872)
Fuel.160L.30	36	-	-	-	-	-	-	-	-	-	-	-	-	(872)
Fuel.190L.30	37	1.80	-	-	-	-	-	-	-	-	-	-	-	(872)
Fuel.220L.30	38	1.80	-	-	-	-	-	-	-	-	-	-	-	(872)
Fuel.250L.30	39	1.80	-	-	-	-	-	-	-	-	-	-	-	(872)
Fuel.280L.30	40	1.80	-	-	-	-	-	-	-	-	-	-	-	(592)
Fuel.130H.30	41	-	-	-	-	-	-	-	-	-	-	-	-	(872)
Fuel.160H.30	42	-	-	-	-	-	-	-	-	-	-	-	-	(872)
Fuel.190H.30	43	-	-	-	-	-	-	-	-	-	-	-	-	27
Fuel.220H.30	44	1.80	-	-	-	-	-	-	-	-	-	-	400	266
Fuel.250H.30	45	1.80	-	-	-	-	-	-	-	-	-	-	725	685
Fuel.280H.30	46	1.80	-	-	-	-	-	123	123	123	123	123	1,124	1,496
Fuel.130L.34	47	-	-	-	-	-	-	-	-	-	-	-	-	(872)
Fuel.160L.34	48	-	-	-	-	-	-	-	-	-	-	-	-	(872)
Fuel.190L.34	49	-	-	-	-	-	-	-	-	-	-	-	-	(872)
Fuel.220L.34	50	-	-	-	-	-	-	-	-	-	-	-	-	(872)
Fuel.250L.34	51	1.80	-	-	-	-	-	-	-	-	-	-	-	(872)
Fuel.280L.34	52	1.80	-	-	-	-	-	-	-	-	-	-	-	(620)
Fuel.130H.34	53	-	-	-	-	-	-	-	-	-	-	-	-	(872)
Fuel.160H.34	54	-	-	-	-	-	-	-	-	-	-	-	-	(872)
Fuel.190H.34	55	-	-	-	-	-	-	-	-	-	-	-	-	30
Fuel.220H.34	56	-	-	-	-	-	-	-	-	-	-	-	400	258
Fuel.250H.34	57	1.80	-	-	-	-	-	-	-	-	-	-	725	711
Fuel.280H.34	58	1.80	-	-	-	-	-	91	91	91	91	91	905	1,689

Transmission Resources Selected (MW) by Sensitivity

Description	#	Wtd	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
Reference Case	1		-	-	-	-	19	19	19	19	19	19	19	265
Wtd Case	2		-	-	-	-	20	20	20	20	20	20	37	232
Fuel.130L.22	11	1.80	-	-	-	-	-	-	-	-	-	-	-	9
Fuel.160L.22	12	1.80	-	-	-	-	-	-	-	-	-	-	-	-
Fuel.190L.22	13	1.80	-	-	-	-	-	-	-	-	-	-	-	-
Fuel.220L.22	14	-	-	-	-	-	-	-	-	-	-	-	-	-
Fuel.250L.22	15	-	-	-	-	-	-	-	-	-	-	-	-	36
Fuel.280L.22	16	-	-	-	-	-	-	-	-	-	-	-	11	265
Fuel.130H.22	17	1.80	-	-	-	-	-	-	-	-	-	-	-	48
Fuel.160H.22	18	1.80	-	-	-	-	-	-	-	-	-	-	-	88
Fuel.190H.22	19	1.80	-	-	-	-	-	-	-	-	-	-	-	265
Fuel.220H.22	20	-	-	-	-	-	-	-	-	-	-	-	-	265
Fuel.250H.22	21	-	-	-	-	-	-	-	-	-	-	-	265	360
Fuel.280H.22	22	-	-	-	-	-	-	-	-	-	-	-	265	555
Fuel.130L.26	23	-	-	-	-	-	-	-	-	-	-	-	-	21
Fuel.160L.26	24	1.80	-	-	-	-	-	-	-	-	-	-	-	36
Fuel.190L.26	25	1.80	-	-	-	-	-	-	-	-	-	-	-	27
Fuel.220L.26	26	1.80	-	-	-	-	-	-	-	-	-	-	-	-
Fuel.250L.26	27	1.80	-	-	-	-	-	-	-	-	-	-	-	17
Fuel.280L.26	28	-	-	-	-	-	-	-	-	-	-	-	-	265
Fuel.130H.26	29	-	-	-	-	-	-	-	-	-	-	-	-	56
Fuel.160H.26	30	1.80	-	-	-	-	18	18	18	18	18	18	18	115
Fuel.190H.26	31	1.80	-	-	-	-	19	19	19	19	19	19	19	265
Fuel.220H.26	32	1.80	-	-	-	-	6	6	6	6	6	6	6	265
Fuel.250H.26	33	1.80	-	-	-	-	19	19	19	19	19	19	265	488
Fuel.280H.26	34	-	-	-	-	-	-	-	-	-	-	-	265	610
Fuel.130L.30	35	-	-	-	-	-	-	-	-	-	-	-	-	47
Fuel.160L.30	36	-	-	-	-	-	-	-	-	-	-	-	-	45
Fuel.190L.30	37	1.80	-	-	-	-	-	-	-	-	-	-	-	51
Fuel.220L.30	38	1.80	-	-	-	-	2	2	2	2	2	2	2	51
Fuel.250L.30	39	1.80	-	-	-	-	10	10	10	10	10	10	10	27
Fuel.280L.30	40	1.80	-	-	-	-	-	-	-	-	-	-	-	265
Fuel.130H.30	41	-	-	-	-	-	-	-	-	-	-	-	-	50
Fuel.160H.30	42	-	-	-	-	-	16	16	16	16	16	16	16	133
Fuel.190H.30	43	-	-	-	-	-	16	16	16	16	16	16	16	265
Fuel.220H.30	44	1.80	-	-	-	-	46	46	46	46	46	46	46	279
Fuel.250H.30	45	1.80	-	-	-	-	109	109	109	109	109	109	246	565
Fuel.280H.30	46	1.80	-	-	-	-	56	56	56	56	56	56	265	580
Fuel.130L.34	47	-	-	-	-	-	-	-	-	-	-	-	-	42
Fuel.160L.34	48	-	-	-	-	-	-	-	-	-	-	-	-	52
Fuel.190L.34	49	-	-	-	-	-	-	-	-	-	-	-	-	60
Fuel.220L.34	50	-	-	-	-	-	5	5	5	5	5	5	5	55
Fuel.250L.34	51	1.80	-	-	-	-	18	18	18	18	18	18	18	88
Fuel.280L.34	52	1.80	-	-	-	-	41	41	41	41	41	41	41	265
Fuel.130H.34	53	-	-	-	-	-	-	-	-	-	-	-	-	55
Fuel.160H.34	54	-	-	-	-	-	20	20	20	20	20	20	20	126
Fuel.190H.34	55	-	-	-	-	-	36	36	36	36	36	36	36	265
Fuel.220H.34	56	-	-	-	-	-	37	37	37	37	37	37	37	271
Fuel.250H.34	57	1.80	-	-	-	-	76	76	76	76	76	76	265	588
Fuel.280H.34	58	1.80	-	-	-	-	96	96	96	96	96	96	265	649

Transmission Resources Selected (MW) by Sensitivity
Difference From Reference Case

Description	#	Wtd	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
Reference Case	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Wtd Case	2	-	-	-	-	-	1	1	1	1	1	1	19	(33)
Fuel.130L.22	11	1.80	-	-	-	-	(19)	(19)	(19)	(19)	(19)	(19)	(19)	(256)
Fuel.160L.22	12	1.80	-	-	-	-	(19)	(19)	(19)	(19)	(19)	(19)	(19)	(265)
Fuel.190L.22	13	1.80	-	-	-	-	(19)	(19)	(19)	(19)	(19)	(19)	(19)	(265)
Fuel.220L.22	14	-	-	-	-	-	(19)	(19)	(19)	(19)	(19)	(19)	(19)	(265)
Fuel.250L.22	15	-	-	-	-	-	(19)	(19)	(19)	(19)	(19)	(19)	(19)	(229)
Fuel.280L.22	16	-	-	-	-	-	(19)	(19)	(19)	(19)	(19)	(19)	(8)	-
Fuel.130H.22	17	1.80	-	-	-	-	(19)	(19)	(19)	(19)	(19)	(19)	(19)	(218)
Fuel.160H.22	18	1.80	-	-	-	-	(19)	(19)	(19)	(19)	(19)	(19)	(19)	(177)
Fuel.190H.22	19	1.80	-	-	-	-	(19)	(19)	(19)	(19)	(19)	(19)	(19)	-
Fuel.220H.22	20	-	-	-	-	-	(19)	(19)	(19)	(19)	(19)	(19)	(19)	-
Fuel.250H.22	21	-	-	-	-	-	(19)	(19)	(19)	(19)	(19)	(19)	247	94
Fuel.280H.22	22	-	-	-	-	-	(19)	(19)	(19)	(19)	(19)	(19)	247	289
Fuel.130L.26	23	-	-	-	-	-	(19)	(19)	(19)	(19)	(19)	(19)	(19)	(244)
Fuel.160L.26	24	1.80	-	-	-	-	(19)	(19)	(19)	(19)	(19)	(19)	(19)	(230)
Fuel.190L.26	25	1.80	-	-	-	-	(19)	(19)	(19)	(19)	(19)	(19)	(19)	(238)
Fuel.220L.26	26	1.80	-	-	-	-	(19)	(19)	(19)	(19)	(19)	(19)	(19)	(265)
Fuel.250L.26	27	1.80	-	-	-	-	(19)	(19)	(19)	(19)	(19)	(19)	(19)	(249)
Fuel.280L.26	28	-	-	-	-	-	(19)	(19)	(19)	(19)	(19)	(19)	(19)	-
Fuel.130H.26	29	-	-	-	-	-	(19)	(19)	(19)	(19)	(19)	(19)	(19)	(209)
Fuel.160H.26	30	1.80	-	-	-	-	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(150)
Fuel.190H.26	31	1.80	-	-	-	-	-	-	-	-	-	-	-	-
Fuel.220H.26	32	1.80	-	-	-	-	(13)	(13)	(13)	(13)	(13)	(13)	(13)	-
Fuel.250H.26	33	1.80	-	-	-	-	1	1	1	1	1	1	246	223
Fuel.280H.26	34	-	-	-	-	-	(19)	(19)	(19)	(19)	(19)	(19)	247	345
Fuel.130L.30	35	-	-	-	-	-	(19)	(19)	(19)	(19)	(19)	(19)	(19)	(219)
Fuel.160L.30	36	-	-	-	-	-	(19)	(19)	(19)	(19)	(19)	(19)	(19)	(220)
Fuel.190L.30	37	1.80	-	-	-	-	(19)	(19)	(19)	(19)	(19)	(19)	(19)	(215)
Fuel.220L.30	38	1.80	-	-	-	-	(17)	(17)	(17)	(17)	(17)	(17)	(17)	(215)
Fuel.250L.30	39	1.80	-	-	-	-	(9)	(9)	(9)	(9)	(9)	(9)	(9)	(239)
Fuel.280L.30	40	1.80	-	-	-	-	(19)	(19)	(19)	(19)	(19)	(19)	(19)	-
Fuel.130H.30	41	-	-	-	-	-	(19)	(19)	(19)	(19)	(19)	(19)	(19)	(216)
Fuel.160H.30	42	-	-	-	-	-	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(132)
Fuel.190H.30	43	-	-	-	-	-	(3)	(3)	(3)	(3)	(3)	(3)	(3)	-
Fuel.220H.30	44	1.80	-	-	-	-	27	27	27	27	27	27	27	14
Fuel.250H.30	45	1.80	-	-	-	-	90	90	90	90	90	90	227	300
Fuel.280H.30	46	1.80	-	-	-	-	38	38	38	38	38	38	247	315
Fuel.130L.34	47	-	-	-	-	-	(19)	(19)	(19)	(19)	(19)	(19)	(19)	(224)
Fuel.160L.34	48	-	-	-	-	-	(19)	(19)	(19)	(19)	(19)	(19)	(19)	(213)
Fuel.190L.34	49	-	-	-	-	-	(19)	(19)	(19)	(19)	(19)	(19)	(19)	(205)
Fuel.220L.34	50	-	-	-	-	-	(14)	(14)	(14)	(14)	(14)	(14)	(14)	(210)
Fuel.250L.34	51	1.80	-	-	-	-	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(177)
Fuel.280L.34	52	1.80	-	-	-	-	22	22	22	22	22	22	22	-
Fuel.130H.34	53	-	-	-	-	-	(19)	(19)	(19)	(19)	(19)	(19)	(19)	(210)
Fuel.160H.34	54	-	-	-	-	-	1	1	1	1	1	1	1	(139)
Fuel.190H.34	55	-	-	-	-	-	18	18	18	18	18	18	18	-
Fuel.220H.34	56	-	-	-	-	-	19	19	19	19	19	19	19	6
Fuel.250H.34	57	1.80	-	-	-	-	57	57	57	57	57	57	247	323
Fuel.280H.34	58	1.80	-	-	-	-	77	77	77	77	77	77	247	384

Net Short-Term Wholesale Transactions (aMW) by Sensitivity

Description	#	Wtd	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
Reference Case	1		1,399	1,386	1,272	1,745	1,897	1,816	1,913	1,901	1,962	1,777	2,312	2,320
Wtd Case	2		1,445	1,774	1,707	2,021	2,030	2,005	2,047	2,023	2,015	1,854	2,227	2,284
Fuel.130L.22	11	1.80	1,354	1,345	1,231	1,723	1,861	1,767	1,850	1,852	1,902	1,740	2,295	2,299
Fuel.160L.22	12	1.80	1,355	1,349	1,235	1,688	1,658	1,760	1,774	1,848	1,893	1,731	2,273	2,255
Fuel.190L.22	13	1.80	1,355	1,348	1,235	1,685	1,648	1,746	1,756	1,827	1,805	1,616	2,189	2,151
Fuel.220L.22	14	-	1,355	1,348	1,236	1,656	1,624	1,689	1,740	1,794	1,777	1,585	1,916	1,842
Fuel.250L.22	15	-	1,356	1,349	1,238	1,383	1,487	1,375	1,457	1,467	1,472	1,488	1,667	1,627
Fuel.280L.22	16	-	1,356	1,349	1,238	1,300	1,296	1,311	1,188	1,344	1,338	1,343	1,383	1,457
Fuel.130H.22	17	1.80	1,355	1,350	1,242	1,768	1,897	1,785	1,939	1,919	1,940	1,759	2,334	2,342
Fuel.160H.22	18	1.80	1,355	1,351	1,242	1,698	1,668	1,782	1,794	1,870	1,921	1,758	2,275	2,276
Fuel.190H.22	19	1.80	1,356	1,352	1,245	1,688	1,657	1,763	1,769	1,830	1,800	1,621	2,101	2,137
Fuel.220H.22	20	-	1,356	1,352	1,245	1,637	1,609	1,678	1,713	1,749	1,720	1,545	1,834	1,853
Fuel.250H.22	21	-	1,357	1,353	1,247	1,341	1,456	1,380	1,371	1,456	1,454	1,455	1,622	1,671
Fuel.280H.22	22	-	1,357	1,354	1,248	1,306	1,300	1,315	1,205	1,332	1,304	1,260	1,179	1,255
Fuel.130L.26	23	-	1,396	1,379	1,263	2,188	2,160	2,098	2,183	2,176	2,186	2,032	2,359	2,368
Fuel.160L.26	24	1.80	1,397	1,382	1,268	2,057	2,008	1,981	2,049	2,034	2,036	1,862	2,347	2,349
Fuel.190L.26	25	1.80	1,397	1,382	1,268	1,739	1,877	1,808	1,887	1,894	1,955	1,769	2,325	2,305
Fuel.220L.26	26	1.80	1,398	1,383	1,268	1,730	1,694	1,796	1,813	1,869	1,920	1,757	2,268	2,237
Fuel.250L.26	27	1.80	1,398	1,384	1,267	1,718	1,678	1,767	1,791	1,840	1,806	1,628	2,143	2,097
Fuel.280L.26	28	-	1,399	1,382	1,268	1,640	1,635	1,712	1,733	1,761	1,730	1,549	1,920	1,855
Fuel.130H.26	29	-	1,397	1,384	1,269	2,206	2,179	2,115	2,205	2,232	2,200	2,045	2,362	2,383
Fuel.160H.26	30	1.80	1,398	1,384	1,270	2,075	2,039	2,013	2,076	2,076	2,058	1,937	2,350	2,360
Fuel.190H.26	31	1.80	1,399	1,386	1,272	1,745	1,897	1,816	1,913	1,901	1,962	1,777	2,312	2,320
Fuel.220H.26	32	1.80	1,399	1,386	1,273	1,732	1,692	1,797	1,808	1,858	1,919	1,752	2,242	2,219
Fuel.250H.26	33	1.80	1,399	1,386	1,274	1,719	1,681	1,773	1,791	1,843	1,800	1,610	2,026	2,071
Fuel.280H.26	34	-	1,400	1,386	1,275	1,682	1,657	1,732	1,731	1,755	1,719	1,539	1,860	1,923
Fuel.130L.30	35	-	1,416	1,391	1,282	2,315	2,303	2,310	2,285	2,327	2,233	2,067	2,375	2,382
Fuel.160L.30	36	-	1,418	1,394	1,286	2,245	2,216	2,195	2,243	2,253	2,211	2,048	2,364	2,378
Fuel.190L.30	37	1.80	1,418	1,395	1,286	2,148	2,135	2,061	2,157	2,154	2,154	2,000	2,358	2,367
Fuel.220L.30	38	1.80	1,418	1,395	1,287	2,032	2,000	1,956	2,036	2,023	2,019	1,860	2,346	2,330
Fuel.250L.30	39	1.80	1,419	1,396	1,285	1,741	1,888	1,822	1,908	1,898	1,961	1,776	2,312	2,290
Fuel.280L.30	40	1.80	1,419	1,396	1,286	1,731	1,710	1,805	1,816	1,854	1,920	1,752	2,261	2,220
Fuel.130H.30	41	-	1,418	1,404	1,292	2,318	2,307	2,320	2,301	2,356	2,262	2,108	2,389	2,387
Fuel.160H.30	42	-	1,418	1,404	1,288	2,253	2,244	2,236	2,255	2,266	2,227	2,054	2,373	2,386
Fuel.190H.30	43	-	1,419	1,405	1,291	2,168	2,140	2,088	2,188	2,200	2,181	2,037	2,365	2,383
Fuel.220H.30	44	1.80	1,419	1,404	1,292	2,027	2,036	1,967	2,061	2,040	2,033	1,918	2,328	2,352
Fuel.250H.30	45	1.80	1,420	1,404	1,293	1,751	1,892	1,840	1,926	1,895	1,948	1,783	2,276	2,305
Fuel.280H.30	46	1.80	1,420	1,401	1,294	1,747	1,715	1,817	1,822	1,860	1,914	1,737	2,194	2,256
Fuel.130L.34	47	-	1,435	1,424	1,314	2,359	2,366	2,364	2,376	2,389	2,357	2,229	2,389	2,386
Fuel.160L.34	48	-	1,436	1,426	1,319	2,346	2,336	2,339	2,311	2,364	2,275	2,118	2,385	2,385
Fuel.190L.34	49	-	1,437	1,427	1,320	2,289	2,277	2,277	2,278	2,280	2,230	2,055	2,374	2,381
Fuel.220L.34	50	-	1,437	1,427	1,320	2,220	2,207	2,154	2,227	2,241	2,214	2,054	2,366	2,372
Fuel.250L.34	51	1.80	1,437	1,428	1,322	2,139	2,111	2,047	2,165	2,169	2,145	2,000	2,358	2,359
Fuel.280L.34	52	1.80	1,438	1,429	1,323	2,003	2,004	1,950	2,032	2,022	2,010	1,857	2,346	2,327
Fuel.130H.34	53	-	1,437	1,429	1,320	2,359	2,368	2,364	2,379	2,387	2,376	2,256	2,391	2,388
Fuel.160H.34	54	-	1,437	1,429	1,321	2,350	2,346	2,341	2,331	2,375	2,305	2,170	2,390	2,387
Fuel.190H.34	55	-	1,438	1,431	1,323	2,292	2,280	2,290	2,280	2,287	2,238	2,068	2,388	2,388
Fuel.220H.34	56	-	1,438	1,432	1,324	2,218	2,217	2,179	2,231	2,248	2,215	2,056	2,364	2,386
Fuel.250H.34	57	1.80	1,438	1,432	1,325	2,113	2,119	2,053	2,167	2,178	2,164	2,012	2,345	2,380
Fuel.280H.34	58	1.80	1,439	1,431	1,326	1,926	1,986	1,962	2,049	2,023	2,027	1,861	2,293	2,369

Net Short-Term Wholesale Transactions (aMW) by Sensitivity

Difference From Reference Case

Description	#	Wtd	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
Reference Case	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Wtd Case	2	-	46	388	435	276	133	189	134	122	53	77	(85)	(36)
Fuel.130L.22	11	1.80	(45)	(41)	(41)	(22)	(36)	(50)	(63)	(49)	(61)	(37)	(17)	(22)
Fuel.160L.22	12	1.80	(44)	(37)	(37)	(56)	(239)	(56)	(139)	(53)	(69)	(46)	(39)	(66)
Fuel.190L.22	13	1.80	(44)	(38)	(37)	(60)	(250)	(71)	(157)	(74)	(157)	(160)	(122)	(170)
Fuel.220L.22	14	-	(43)	(38)	(36)	(89)	(273)	(128)	(173)	(107)	(185)	(192)	(396)	(478)
Fuel.250L.22	15	-	(43)	(37)	(34)	(362)	(410)	(441)	(456)	(434)	(490)	(289)	(645)	(693)
Fuel.280L.22	16	-	(43)	(37)	(34)	(445)	(601)	(505)	(725)	(557)	(624)	(434)	(928)	(864)
Fuel.130H.22	17	1.80	(44)	(36)	(30)	23	(1)	(32)	25	18	(22)	(18)	22	22
Fuel.160H.22	18	1.80	(43)	(35)	(30)	(47)	(229)	(34)	(120)	(31)	(41)	(19)	(37)	(45)
Fuel.190H.22	19	1.80	(43)	(34)	(27)	(57)	(240)	(53)	(145)	(71)	(163)	(156)	(211)	(183)
Fuel.220H.22	20	-	(43)	(34)	(27)	(107)	(288)	(138)	(201)	(152)	(243)	(232)	(478)	(468)
Fuel.250H.22	21	-	(42)	(33)	(25)	(404)	(442)	(437)	(542)	(445)	(509)	(322)	(690)	(649)
Fuel.280H.22	22	-	(42)	(32)	(24)	(439)	(597)	(501)	(709)	(569)	(659)	(516)	(1,133)	(1,065)
Fuel.130L.26	23	-	(3)	(7)	(9)	444	262	282	270	275	224	255	47	48
Fuel.160L.26	24	1.80	(1)	(4)	(4)	312	111	165	136	133	74	85	35	29
Fuel.190L.26	25	1.80	(1)	(4)	(4)	(5)	(20)	(8)	(26)	(7)	(8)	(8)	13	(15)
Fuel.220L.26	26	1.80	(1)	(3)	(4)	(15)	(203)	(20)	(101)	(32)	(42)	(19)	(44)	(83)
Fuel.250L.26	27	1.80	(0)	(2)	(5)	(27)	(220)	(49)	(122)	(61)	(157)	(149)	(169)	(223)
Fuel.280L.26	28	-	-	(4)	(4)	(104)	(263)	(104)	(180)	(140)	(232)	(228)	(392)	(465)
Fuel.130H.26	29	-	(1)	(2)	(3)	462	281	299	292	331	238	269	50	63
Fuel.160H.26	30	1.80	(1)	(1)	(2)	330	141	196	163	175	95	161	38	40
Fuel.190H.26	31	1.80	-	-	-	-	-	-	-	-	-	-	-	-
Fuel.220H.26	32	1.80	0	0	1	(13)	(205)	(19)	(105)	(43)	(43)	(24)	(70)	(102)
Fuel.250H.26	33	1.80	1	(0)	2	(26)	(216)	(44)	(122)	(58)	(162)	(167)	(286)	(250)
Fuel.280H.26	34	-	1	0	3	(63)	(240)	(84)	(183)	(146)	(244)	(237)	(452)	(397)
Fuel.130L.30	35	-	18	6	10	571	406	494	372	426	271	290	64	62
Fuel.160L.30	36	-	19	8	14	500	319	379	330	352	249	272	53	58
Fuel.190L.30	37	1.80	19	9	14	403	238	245	243	253	192	223	46	47
Fuel.220L.30	38	1.80	20	9	15	288	103	140	123	122	56	83	34	10
Fuel.250L.30	39	1.80	20	10	13	(4)	(9)	6	(6)	(3)	(2)	(1)	0	(31)
Fuel.280L.30	40	1.80	20	10	14	(14)	(187)	(11)	(97)	(47)	(43)	(24)	(51)	(101)
Fuel.130H.30	41	-	19	18	20	573	410	504	388	455	300	331	77	67
Fuel.160H.30	42	-	20	18	16	508	347	420	342	366	265	278	62	66
Fuel.190H.30	43	-	20	19	19	424	243	272	275	299	218	260	53	63
Fuel.220H.30	44	1.80	21	18	20	282	138	151	148	139	71	142	16	32
Fuel.250H.30	45	1.80	21	19	21	6	(6)	24	13	(6)	(15)	6	(36)	(16)
Fuel.280H.30	46	1.80	21	15	22	2	(182)	0	(92)	(41)	(49)	(40)	(117)	(65)
Fuel.130L.34	47	-	36	38	42	614	469	548	463	488	394	452	77	66
Fuel.160L.34	48	-	38	40	47	601	439	523	398	463	313	341	73	65
Fuel.190L.34	49	-	38	41	48	545	379	460	365	379	267	279	62	61
Fuel.220L.34	50	-	38	41	49	475	310	338	314	340	252	278	54	51
Fuel.250L.34	51	1.80	39	42	50	394	214	231	252	268	183	223	46	38
Fuel.280L.34	52	1.80	39	43	51	258	107	133	119	121	48	81	34	6
Fuel.130H.34	53	-	38	43	48	615	471	548	466	486	414	479	79	68
Fuel.160H.34	54	-	38	43	49	605	449	525	418	474	342	393	79	67
Fuel.190H.34	55	-	39	45	51	547	383	474	367	386	276	292	77	67
Fuel.220H.34	56	-	39	46	52	473	319	363	318	347	253	279	52	65
Fuel.250H.34	57	1.80	40	46	53	368	222	237	254	277	202	236	33	60
Fuel.280H.34	58	1.80	40	45	54	181	89	145	136	122	64	85	(19)	49

Short-Term Capacity Purchase (MW) by Sensitivity

Description	#	Wtd	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
Reference Case	1		40	1	171	-	-	-	-	-	-	287	-	428
Wtd Case	2		27	1	95	-	-	-	-	-	8	158	9	294
Fuel.130L.22	11	1.80	47	10	183	-	-	-	-	-	-	291	-	542
Fuel.160L.22	12	1.80	43	4	175	-	-	-	-	-	-	288	1	597
Fuel.190L.22	13	1.80	43	4	175	-	-	-	-	-	94	383	94	720
Fuel.220L.22	14	-	43	3	174	-	-	39	-	-	95	382	295	942
Fuel.250L.22	15	-	41	2	171	271	142	373	282	281	345	395	414	1,000
Fuel.280L.22	16	-	41	1	171	397	343	373	498	281	344	394	614	1,000
Fuel.130H.22	17	1.80	43	4	175	-	-	-	-	-	-	288	-	490
Fuel.160H.22	18	1.80	43	3	174	-	-	-	-	-	-	288	-	578
Fuel.190H.22	19	1.80	40	1	171	-	-	-	-	-	114	401	115	562
Fuel.220H.22	20	-	40	1	171	-	-	31	-	-	113	400	273	668
Fuel.250H.22	21	-	39	-	168	346	167	377	380	286	350	401	453	788
Fuel.280H.22	22	-	38	-	167	401	348	379	503	289	354	405	651	946
Fuel.130L.26	23	-	47	10	183	-	-	-	-	-	-	-	-	477
Fuel.160L.26	24	1.80	43	4	175	-	-	-	-	-	-	187	-	520
Fuel.190L.26	25	1.80	43	4	175	-	-	-	-	-	-	288	-	576
Fuel.220L.26	26	1.80	43	3	174	-	-	-	-	-	-	288	13	614
Fuel.250L.26	27	1.80	41	2	171	-	-	-	-	-	108	395	103	770
Fuel.280L.26	28	-	40	1	171	-	-	19	-	-	114	401	267	934
Fuel.130H.26	29	-	43	4	175	-	-	-	-	-	-	-	-	426
Fuel.160H.26	30	1.80	43	3	174	-	-	-	-	-	-	121	-	475
Fuel.190H.26	31	1.80	40	1	171	-	-	-	-	-	-	287	-	428
Fuel.220H.26	32	1.80	40	1	170	-	-	-	-	-	-	286	-	453
Fuel.250H.26	33	1.80	39	-	168	-	-	-	-	-	115	401	150	497
Fuel.280H.26	34	-	39	-	167	-	-	35	-	-	113	398	245	547
Fuel.130L.30	35	-	47	10	183	-	-	-	-	-	-	-	-	432
Fuel.160L.30	36	-	44	5	177	-	-	-	-	-	-	-	-	469
Fuel.190L.30	37	1.80	43	4	175	-	-	-	-	-	-	53	-	499
Fuel.220L.30	38	1.80	43	3	174	-	-	-	-	-	-	201	-	549
Fuel.250L.30	39	1.80	41	2	172	-	-	-	-	-	-	287	-	590
Fuel.280L.30	40	1.80	40	1	171	-	-	-	-	-	-	287	16	635
Fuel.130H.30	41	-	43	4	175	-	-	-	-	-	-	-	-	416
Fuel.160H.30	42	-	43	3	174	-	-	-	-	-	-	-	-	452
Fuel.190H.30	43	-	40	1	171	-	-	-	-	-	-	19	-	348
Fuel.220H.30	44	1.80	40	1	170	-	-	-	-	-	-	145	-	349
Fuel.250H.30	45	1.80	39	-	168	-	-	-	-	-	-	286	-	344
Fuel.280H.30	46	1.80	39	-	167	-	-	-	-	-	-	286	-	283
Fuel.130L.34	47	-	47	10	183	-	-	-	-	-	-	-	-	417
Fuel.160L.34	48	-	44	5	177	-	-	-	-	-	-	-	-	428
Fuel.190L.34	49	-	43	4	175	-	-	-	-	-	-	-	-	453
Fuel.220L.34	50	-	43	3	174	-	-	-	-	-	-	-	-	476
Fuel.250L.34	51	1.80	41	2	172	-	-	-	-	-	-	58	-	522
Fuel.280L.34	52	1.80	40	1	171	-	-	-	-	-	-	207	-	544
Fuel.130H.34	53	-	43	4	175	-	-	-	-	-	-	-	-	410
Fuel.160H.34	54	-	43	3	174	-	-	-	-	-	-	-	-	439
Fuel.190H.34	55	-	40	1	171	-	-	-	-	-	-	-	-	338
Fuel.220H.34	56	-	40	1	170	-	-	-	-	-	-	-	-	309
Fuel.250H.34	57	1.80	39	-	168	-	-	-	-	-	-	47	-	266
Fuel.280H.34	58	1.80	39	-	167	-	-	-	-	-	-	199	-	196

Short-Term Capacity Purchase (MW) by Sensitivity
Difference From Reference Case

Description	#	Wtd	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
Reference Case	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Wtd Case	2	-	(13)	(0)	(76)	-	-	-	-	-	8	(129)	9	(133)
Fuel.130L.22	11	1.80	6	8	12	-	-	-	-	-	-	4	-	114
Fuel.160L.22	12	1.80	3	3	4	-	-	-	-	-	-	2	1	169
Fuel.190L.22	13	1.80	3	2	4	-	-	-	-	-	94	96	94	292
Fuel.220L.22	14	-	3	2	3	-	-	39	-	-	95	95	295	514
Fuel.250L.22	15	-	1	0	0	271	142	373	282	281	345	108	414	572
Fuel.280L.22	16	-	1	0	0	397	343	373	498	281	344	107	614	572
Fuel.130H.22	17	1.80	3	2	4	-	-	-	-	-	-	1	-	62
Fuel.160H.22	18	1.80	3	2	3	-	-	-	-	-	-	1	-	150
Fuel.190H.22	19	1.80	-	-	-	-	-	-	-	-	114	114	115	134
Fuel.220H.22	20	-	(0)	(0)	(0)	-	-	31	-	-	113	113	273	240
Fuel.250H.22	21	-	(1)	(1)	(3)	346	167	377	380	286	350	114	453	360
Fuel.280H.22	22	-	(2)	(1)	(4)	401	348	379	503	289	354	118	651	518
Fuel.130L.26	23	-	6	8	12	-	-	-	-	-	-	(287)	-	50
Fuel.160L.26	24	1.80	3	3	4	-	-	-	-	-	-	(100)	-	92
Fuel.190L.26	25	1.80	3	2	4	-	-	-	-	-	-	1	-	148
Fuel.220L.26	26	1.80	3	2	3	-	-	-	-	-	-	1	13	186
Fuel.250L.26	27	1.80	1	0	0	-	-	-	-	-	108	108	103	342
Fuel.280L.26	28	-	-	-	-	-	-	19	-	-	114	114	267	506
Fuel.130H.26	29	-	3	2	4	-	-	-	-	-	-	(287)	-	(2)
Fuel.160H.26	30	1.80	3	2	3	-	-	-	-	-	-	(166)	-	47
Fuel.190H.26	31	1.80	-	-	-	-	-	-	-	-	-	-	-	-
Fuel.220H.26	32	1.80	(0)	(1)	(1)	-	-	-	-	-	-	(1)	-	25
Fuel.250H.26	33	1.80	(1)	(1)	(3)	-	-	-	-	-	115	114	150	69
Fuel.280H.26	34	-	(1)	(1)	(4)	-	-	35	-	-	113	111	245	119
Fuel.130L.30	35	-	6	8	12	-	-	-	-	-	-	(287)	-	4
Fuel.160L.30	36	-	3	4	6	-	-	-	-	-	-	(287)	-	41
Fuel.190L.30	37	1.80	3	2	4	-	-	-	-	-	-	(234)	-	72
Fuel.220L.30	38	1.80	3	2	3	-	-	-	-	-	-	(86)	-	121
Fuel.250L.30	39	1.80	1	1	1	-	-	-	-	-	-	0	-	162
Fuel.280L.30	40	1.80	-	-	-	-	-	-	-	-	-	-	16	208
Fuel.130H.30	41	-	3	2	4	-	-	-	-	-	-	(287)	-	(12)
Fuel.160H.30	42	-	3	2	3	-	-	-	-	-	-	(287)	-	24
Fuel.190H.30	43	-	-	-	-	-	-	-	-	-	-	(268)	-	(80)
Fuel.220H.30	44	1.80	(0)	(1)	(1)	-	-	-	-	-	-	(142)	-	(79)
Fuel.250H.30	45	1.80	(1)	(1)	(3)	-	-	-	-	-	-	(1)	-	(84)
Fuel.280H.30	46	1.80	(1)	(1)	(4)	-	-	-	-	-	-	(1)	-	(145)
Fuel.130L.34	47	-	6	8	12	-	-	-	-	-	-	(287)	-	(11)
Fuel.160L.34	48	-	3	4	6	-	-	-	-	-	-	(287)	-	1
Fuel.190L.34	49	-	3	2	4	-	-	-	-	-	-	(287)	-	25
Fuel.220L.34	50	-	3	2	3	-	-	-	-	-	-	(287)	-	48
Fuel.250L.34	51	1.80	1	1	1	-	-	-	-	-	-	(229)	-	94
Fuel.280L.34	52	1.80	-	-	-	-	-	-	-	-	-	(80)	-	116
Fuel.130H.34	53	-	3	2	4	-	-	-	-	-	-	(287)	-	(18)
Fuel.160H.34	54	-	3	2	3	-	-	-	-	-	-	(287)	-	12
Fuel.190H.34	55	-	-	-	-	-	-	-	-	-	-	(287)	-	(90)
Fuel.220H.34	56	-	(0)	(1)	(1)	-	-	-	-	-	-	(287)	-	(119)
Fuel.250H.34	57	1.80	(1)	(1)	(3)	-	-	-	-	-	-	(240)	-	(162)
Fuel.280H.34	58	1.80	(1)	(1)	(4)	-	-	-	-	-	-	(88)	-	(232)

Summer Reserve Margin (Percent of System Load)

Description	#	Wtd	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
Reference Case	1		10.0	10.0	10.0	10.1	12.0	10.0	10.9	10.0	10.0	10.0	10.0	10.0
Wtd Case	2		10.6	17.6	17.9	18.2	18.5	16.4	16.8	15.2	14.2	12.8	11.6	10.7
Fuel.130L.22	11	1.80	10.0	10.0	10.0	10.3	12.4	10.0	10.8	10.0	10.0	10.0	10.0	10.0
Fuel.160L.22	12	1.80	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Fuel.190L.22	13	1.80	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Fuel.220L.22	14	-	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Fuel.250L.22	15	-	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Fuel.280L.22	16	-	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Fuel.130H.22	17	1.80	10.0	10.0	10.0	10.7	12.5	10.0	11.6	10.5	10.0	10.0	10.0	10.0
Fuel.160H.22	18	1.80	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Fuel.190H.22	19	1.80	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Fuel.220H.22	20	-	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Fuel.250H.22	21	-	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Fuel.280H.22	22	-	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Fuel.130L.26	23	-	10.0	10.0	10.0	15.0	15.3	13.1	14.1	13.4	12.8	10.0	10.0	10.0
Fuel.160L.26	24	1.80	10.0	10.0	10.0	13.4	13.3	11.7	12.5	11.6	11.0	10.0	10.0	10.0
Fuel.190L.26	25	1.80	10.0	10.0	10.0	10.1	11.9	10.0	10.7	10.0	10.0	10.0	10.0	10.0
Fuel.220L.26	26	1.80	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Fuel.250L.26	27	1.80	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Fuel.280L.26	28	-	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Fuel.130H.26	29	-	10.0	10.0	10.0	15.2	15.5	13.3	14.2	14.0	12.8	10.0	10.0	10.0
Fuel.160H.26	30	1.80	10.0	10.0	10.0	13.5	13.6	12.0	12.7	11.9	11.0	10.0	10.0	10.0
Fuel.190H.26	31	1.80	10.0	10.0	10.0	10.1	12.0	10.0	10.9	10.0	10.0	10.0	10.0	10.0
Fuel.220H.26	32	1.80	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Fuel.250H.26	33	1.80	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Fuel.280H.26	34	-	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Fuel.130L.30	35	-	10.0	10.0	10.0	16.4	16.9	15.4	15.3	15.0	12.9	10.1	10.1	10.0
Fuel.160L.30	36	-	10.0	10.0	10.0	15.5	15.7	13.9	14.6	14.1	12.8	10.0	10.0	10.0
Fuel.190L.30	37	1.80	10.0	10.0	10.0	14.2	14.6	12.5	13.5	12.8	12.1	10.0	10.0	10.0
Fuel.220L.30	38	1.80	10.0	10.0	10.0	12.9	13.2	11.3	12.2	11.3	10.5	10.0	10.0	10.0
Fuel.250L.30	39	1.80	10.0	10.0	10.0	10.0	11.9	10.0	10.8	10.0	10.0	10.0	10.0	10.0
Fuel.280L.30	40	1.80	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Fuel.130H.30	41	-	10.0	10.0	10.0	16.4	17.0	15.5	15.5	15.4	13.4	10.6	10.3	10.0
Fuel.160H.30	42	-	10.0	10.0	10.0	15.5	15.9	14.2	14.5	14.1	12.8	10.0	10.0	10.0
Fuel.190H.30	43	-	10.0	10.0	10.0	14.5	14.6	12.6	13.7	13.4	12.4	10.0	10.0	10.0
Fuel.220H.30	44	1.80	10.0	10.0	10.0	12.8	13.4	11.3	12.3	11.5	10.8	10.0	10.0	10.0
Fuel.250H.30	45	1.80	10.0	10.0	10.0	10.0	11.8	10.0	10.9	10.2	10.0	10.0	10.0	10.0
Fuel.280H.30	46	1.80	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Fuel.130L.34	47	-	10.0	10.0	10.0	17.1	17.9	16.0	16.3	15.9	14.5	11.7	10.3	10.0
Fuel.160L.34	48	-	10.0	10.0	10.0	16.6	17.0	15.5	15.4	15.5	13.5	10.7	10.2	10.0
Fuel.190L.34	49	-	10.0	10.0	10.0	15.9	16.1	14.6	14.8	14.3	12.8	10.0	10.1	10.0
Fuel.220L.34	50	-	10.0	10.0	10.0	14.8	15.2	13.2	14.1	13.8	12.8	10.0	10.0	10.0
Fuel.250L.34	51	1.80	10.0	10.0	10.0	13.9	14.2	12.1	13.4	13.0	12.0	10.0	10.0	10.0
Fuel.280L.34	52	1.80	10.0	10.0	10.0	12.6	13.0	11.0	12.0	11.3	10.5	10.0	10.0	10.0
Fuel.130H.34	53	-	10.0	10.0	10.0	17.1	17.9	15.9	16.3	15.9	14.9	12.1	10.3	10.0
Fuel.160H.34	54	-	10.0	10.0	10.0	16.6	17.4	15.3	15.5	15.6	13.9	11.1	10.3	10.0
Fuel.190H.34	55	-	10.0	10.0	10.0	15.7	16.1	14.6	14.8	14.3	12.9	10.1	10.1	10.0
Fuel.220H.34	56	-	10.0	10.0	10.0	14.8	15.4	13.4	14.2	13.9	12.8	10.0	10.0	10.0
Fuel.250H.34	57	1.80	10.0	10.0	10.0	13.6	14.3	12.1	13.4	13.0	12.2	10.0	10.0	10.0
Fuel.280H.34	58	1.80	10.0	10.0	10.0	11.7	12.8	11.2	12.3	11.5	10.8	10.0	10.0	10.0

Summer Reserve Margin (Percent of System Load)
Difference From Reference Case

Description	#	Wtd	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
Reference Case	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Wtd Case	2	-	0.6	7.6	7.9	8.1	6.5	6.4	5.9	5.2	4.2	2.8	1.6	0.7
Fuel.130L.22	11	1.80	-	-	-	0.2	0.4	-	(0.1)	-	-	-	-	-
Fuel.160L.22	12	1.80	-	-	-	(0.1)	(2.0)	-	(0.9)	-	-	-	-	-
Fuel.190L.22	13	1.80	-	-	-	(0.1)	(2.0)	-	(0.9)	-	-	-	-	-
Fuel.220L.22	14	-	-	-	-	(0.1)	(2.0)	-	(0.9)	-	-	-	-	-
Fuel.250L.22	15	-	-	-	-	(0.1)	(2.0)	-	(0.9)	-	-	-	-	-
Fuel.280L.22	16	-	-	-	-	(0.1)	(2.0)	-	(0.9)	-	-	-	-	-
Fuel.130H.22	17	1.80	-	-	-	0.6	0.5	-	0.7	0.5	-	-	-	-
Fuel.160H.22	18	1.80	-	-	-	(0.1)	(2.0)	-	(0.9)	-	-	-	-	-
Fuel.190H.22	19	1.80	-	-	-	(0.1)	(2.0)	-	(0.9)	-	-	-	-	-
Fuel.220H.22	20	-	-	-	-	(0.1)	(2.0)	-	(0.9)	-	-	-	-	-
Fuel.250H.22	21	-	-	-	-	(0.1)	(2.0)	-	(0.9)	-	-	-	-	-
Fuel.280H.22	22	-	-	-	-	(0.1)	(2.0)	-	(0.9)	-	-	-	-	-
Fuel.130L.26	23	-	-	-	-	4.9	3.3	3.1	3.2	3.4	2.8	-	-	-
Fuel.160L.26	24	1.80	-	-	-	3.3	1.3	1.7	1.6	1.6	1.0	-	-	-
Fuel.190L.26	25	1.80	-	-	-	-	(0.1)	-	(0.2)	-	-	-	-	-
Fuel.220L.26	26	1.80	-	-	-	(0.1)	(2.0)	-	(0.9)	-	-	-	-	-
Fuel.250L.26	27	1.80	-	-	-	(0.1)	(2.0)	-	(0.9)	-	-	-	-	-
Fuel.280L.26	28	-	-	-	-	(0.1)	(2.0)	-	(0.9)	-	-	-	-	-
Fuel.130H.26	29	-	-	-	-	5.1	3.5	3.3	3.3	4.0	2.8	-	-	-
Fuel.160H.26	30	1.80	-	-	-	3.4	1.6	2.0	1.8	1.9	1.0	-	-	-
Fuel.190H.26	31	1.80	-	-	-	-	-	-	-	-	-	-	-	-
Fuel.220H.26	32	1.80	-	-	-	(0.1)	(2.0)	-	(0.9)	-	-	-	-	-
Fuel.250H.26	33	1.80	-	-	-	(0.1)	(2.0)	-	(0.9)	-	-	-	-	-
Fuel.280H.26	34	-	-	-	-	(0.1)	(2.0)	-	(0.9)	-	-	-	-	-
Fuel.130L.30	35	-	-	-	-	6.3	4.9	5.4	4.4	5.0	2.9	0.1	0.1	-
Fuel.160L.30	36	-	-	-	-	5.4	3.7	3.9	3.7	4.1	2.8	-	-	-
Fuel.190L.30	37	1.80	-	-	-	4.1	2.6	2.5	2.6	2.8	2.1	-	-	-
Fuel.220L.30	38	1.80	-	-	-	2.8	1.2	1.3	1.3	1.3	0.5	-	-	-
Fuel.250L.30	39	1.80	-	-	-	(0.1)	(0.1)	-	(0.1)	-	-	-	-	-
Fuel.280L.30	40	1.80	-	-	-	(0.1)	(2.0)	-	(0.9)	-	-	-	-	-
Fuel.130H.30	41	-	-	-	-	6.3	5.0	5.5	4.6	5.4	3.4	0.6	0.3	-
Fuel.160H.30	42	-	-	-	-	5.4	3.9	4.2	3.6	4.1	2.8	-	-	-
Fuel.190H.30	43	-	-	-	-	4.4	2.6	2.6	2.8	3.4	2.4	-	-	-
Fuel.220H.30	44	1.80	-	-	-	2.7	1.4	1.3	1.4	1.5	0.8	-	-	-
Fuel.250H.30	45	1.80	-	-	-	(0.1)	(0.2)	-	-	0.2	-	-	-	-
Fuel.280H.30	46	1.80	-	-	-	(0.1)	(2.0)	-	(0.9)	-	-	-	-	-
Fuel.130L.34	47	-	-	-	-	7.0	5.9	6.0	5.4	5.9	4.5	1.7	0.3	-
Fuel.160L.34	48	-	-	-	-	6.5	5.0	5.5	4.5	5.5	3.5	0.7	0.2	-
Fuel.190L.34	49	-	-	-	-	5.8	4.1	4.6	3.9	4.3	2.8	-	0.1	-
Fuel.220L.34	50	-	-	-	-	4.7	3.2	3.2	3.2	3.8	2.8	-	-	-
Fuel.250L.34	51	1.80	-	-	-	3.8	2.2	2.1	2.5	3.0	2.0	-	-	-
Fuel.280L.34	52	1.80	-	-	-	2.5	1.0	1.0	1.1	1.3	0.5	-	-	-
Fuel.130H.34	53	-	-	-	-	7.0	5.9	5.9	5.4	5.9	4.9	2.1	0.3	-
Fuel.160H.34	54	-	-	-	-	6.5	5.4	5.3	4.6	5.6	3.9	1.1	0.3	-
Fuel.190H.34	55	-	-	-	-	5.6	4.1	4.6	3.9	4.3	2.9	0.1	0.1	-
Fuel.220H.34	56	-	-	-	-	4.7	3.4	3.4	3.3	3.9	2.8	-	-	-
Fuel.250H.34	57	1.80	-	-	-	3.5	2.3	2.1	2.5	3.0	2.2	-	-	-
Fuel.280H.34	58	1.80	-	-	-	1.6	0.8	1.2	1.4	1.5	0.8	-	-	-

Gas Fired Resources Selected (Summer MW) by Sensitivity

Description	#	Wtd	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
Reference Case	1		-	-	-	539	873	937	1,156	1,394	1,602	1,602	3,964	4,990
Wtd Case	2		-	-	-	363	508	586	723	910	1,017	1,021	2,965	4,417
loads.sys.1	71	3.00	-	-	-	-	94	144	216	317	445	445	2,487	3,741
loads.sys.2	72	3.00	-	-	-	-	-	90	184	216	286	286	2,301	3,657
loads.sys.3	73	3.00	-	-	-	-	-	9	103	197	198	198	2,114	3,654
loads.sys.4	74	3.00	-	-	-	-	-	-	8	102	102	102	1,926	3,343
loads.sys.5	75	3.00	-	-	-	-	-	-	-	6	6	6	1,737	3,096
loads.sys.6	76	3.00	-	-	-	-	-	-	-	-	-	-	1,538	2,879
loads.sys.7	77	3.00	-	-	-	-	-	-	-	-	-	-	1,347	2,657
loads.sys.8	78	3.00	-	-	-	-	-	-	-	-	-	-	1,159	2,443
loads.sys.9	79	3.00	-	-	-	-	-	-	-	-	-	-	970	2,227
loads.sys.10	80	3.00	-	-	-	-	-	-	-	-	-	-	782	2,016
loads.or.1	81	1.00	-	-	-	108	232	246	443	665	776	776	2,929	4,154
loads.or.2	82	1.00	-	-	-	108	202	216	395	609	731	731	2,863	4,100
loads.or.3	83	1.00	-	-	-	108	202	216	346	561	686	686	2,798	4,046
loads.or.4	84	1.00	-	-	-	108	202	216	302	512	636	636	2,732	3,989
loads.or.5	85	1.00	-	-	-	72	166	216	262	463	589	589	2,678	3,932
loads.or.6	86	1.00	-	-	-	34	128	216	236	447	539	539	2,628	3,877
loads.or.7	87	1.00	-	-	-	14	108	171	216	433	486	486	2,578	3,830
loads.or.8	88	1.00	-	-	-	14	71	122	216	398	440	440	2,524	3,777
loads.or.9	89	1.00	-	-	-	14	29	121	215	357	401	401	2,472	3,718
loads.or.10	90	1.00	-	-	-	14	14	73	167	331	365	365	2,420	3,660
loads.ut.1	91	0.50	-	-	-	328	607	622	902	1,040	1,190	1,190	3,520	4,563
loads.ut.2	92	0.50	-	-	-	288	535	549	848	982	1,119	1,134	3,302	4,385
loads.ut.3	93	0.50	-	-	-	209	475	489	787	934	1,069	1,069	3,085	4,217
loads.ut.4	94	0.50	-	-	-	175	441	455	720	877	905	905	2,872	4,209
loads.ut.5	95	0.50	-	-	-	128	406	420	642	717	717	717	2,739	4,209
loads.ut.6	96	0.50	-	-	-	100	348	362	573	634	634	634	2,601	4,143
loads.ut.7	97	0.50	-	-	-	94	304	318	519	570	570	570	2,458	3,916
loads.ut.8	98	0.50	-	-	-	94	228	271	435	491	491	491	2,327	3,747
loads.ut.9	99	0.50	-	-	-	94	188	206	361	450	450	450	2,194	3,577
loads.ut.10	100	0.50	-	-	-	94	188	202	273	390	390	390	2,056	3,419
enviro.1	101	5.00	-	-	-	538	886	937	1,178	1,407	1,602	1,602	3,964	5,471
enviro.2	102	2.50	-	-	-	538	892	937	1,191	1,430	1,601	1,601	3,964	5,610
enviro.3	103	1.25	-	-	-	538	907	937	1,206	1,445	1,601	1,601	3,964	5,759
enviro.4	104	0.63	-	-	-	546	918	935	1,237	1,458	1,598	1,598	3,959	5,758
enviro.5	105	0.31	-	-	-	557	934	948	1,270	1,489	1,624	1,624	3,954	5,761
enviro.6	106	0.16	-	-	-	633	985	1,015	1,290	1,507	1,647	1,647	3,880	5,799
enviro.7	107	0.08	-	-	-	678	1,050	1,064	1,334	1,570	1,699	1,699	3,821	5,854
enviro.8	108	0.04	-	-	-	771	1,103	1,118	1,388	1,621	1,736	1,736	3,821	6,000
enviro.9	109	0.02	-	-	-	771	1,154	1,168	1,438	1,667	1,790	1,790	3,820	6,252
enviro.10	110	0.01	-	-	-	837	1,218	1,232	1,473	1,718	1,841	1,841	3,851	6,254
enviro.25	111	0.00	-	-	-	3,264	5,006	5,737	6,073	6,073	6,073	6,073	8,000	9,402
enviro.40	112	0.00	-	-	-	3,264	5,238	6,311	6,670	6,718	6,718	6,718	8,106	9,114
capcost.down	121	-	-	-	-	779	1,007	1,117	1,329	1,574	1,720	1,853	3,852	4,923
capcost.up	122	-	-	-	-	530	666	936	1,061	1,393	1,539	1,539	3,938	5,456
gas.low	123	-	-	-	-	788	957	1,050	1,266	1,529	1,676	1,761	3,965	5,507
gas.high	124	-	-	-	-	541	871	937	1,169	1,418	1,602	1,602	3,964	5,371
trans.zero	125	-	-	-	-	794	960	1,037	1,262	1,530	1,680	1,719	3,966	5,540
renew.geotherm	126	-	-	-	-	539	875	937	1,156	1,294	1,402	1,402	3,364	4,457
renew.solar	127	-	-	-	-	539	870	937	1,156	1,394	1,483	1,483	3,417	4,995
renew.wind	128	-	-	-	-	539	868	937	1,152	1,308	1,476	1,476	3,839	4,990
utah.grow	129	-	-	-	-	713	1,037	1,185	1,416	1,766	1,959	1,959	4,650	6,207
loads.big4	130	-	-	-	-	383	679	710	946	1,167	1,375	1,375	3,738	4,732
firm.ind	131	-	-	-	-	691	888	1,098	1,223	1,555	1,763	1,763	4,020	5,044
critical.wtr	132	-	-	-	-	697	1,019	1,059	1,285	1,544	1,724	1,724	4,051	4,976

Gas Fired Resources Selected (Summer MW) by Sensitivity

Difference From Reference Case

Description	#	Wtd	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
Reference Case	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Wtd Case	2	-	-	-	-	(177)	(365)	(351)	(433)	(484)	(585)	(580)	(999)	(573)
loads.sys.1	71	3.00	-	-	-	(539)	(779)	(794)	(940)	(1,077)	(1,157)	(1,157)	(1,477)	(1,249)
loads.sys.2	72	3.00	-	-	-	(539)	(873)	(847)	(972)	(1,178)	(1,316)	(1,316)	(1,664)	(1,333)
loads.sys.3	73	3.00	-	-	-	(539)	(873)	(928)	(1,053)	(1,197)	(1,404)	(1,404)	(1,850)	(1,336)
loads.sys.4	74	3.00	-	-	-	(539)	(873)	(937)	(1,148)	(1,292)	(1,500)	(1,500)	(2,038)	(1,648)
loads.sys.5	75	3.00	-	-	-	(539)	(873)	(937)	(1,156)	(1,388)	(1,596)	(1,596)	(2,228)	(1,894)
loads.sys.6	76	3.00	-	-	-	(539)	(873)	(937)	(1,156)	(1,394)	(1,602)	(1,602)	(2,427)	(2,111)
loads.sys.7	77	3.00	-	-	-	(539)	(873)	(937)	(1,156)	(1,394)	(1,602)	(1,602)	(2,618)	(2,333)
loads.sys.8	78	3.00	-	-	-	(539)	(873)	(937)	(1,156)	(1,394)	(1,602)	(1,602)	(2,805)	(2,547)
loads.sys.9	79	3.00	-	-	-	(539)	(873)	(937)	(1,156)	(1,394)	(1,602)	(1,602)	(2,995)	(2,763)
loads.sys.10	80	3.00	-	-	-	(539)	(873)	(937)	(1,156)	(1,394)	(1,602)	(1,602)	(3,182)	(2,975)
loads.or.1	81	1.00	-	-	-	(431)	(642)	(691)	(713)	(729)	(826)	(826)	(1,036)	(836)
loads.or.2	82	1.00	-	-	-	(431)	(671)	(721)	(761)	(785)	(871)	(871)	(1,101)	(891)
loads.or.3	83	1.00	-	-	-	(431)	(671)	(721)	(811)	(833)	(916)	(916)	(1,166)	(944)
loads.or.4	84	1.00	-	-	-	(431)	(671)	(721)	(855)	(882)	(966)	(966)	(1,232)	(1,001)
loads.or.5	85	1.00	-	-	-	(467)	(707)	(721)	(894)	(931)	(1,012)	(1,012)	(1,286)	(1,059)
loads.or.6	86	1.00	-	-	-	(505)	(745)	(721)	(921)	(947)	(1,063)	(1,063)	(1,336)	(1,113)
loads.or.7	87	1.00	-	-	-	(525)	(765)	(766)	(940)	(961)	(1,116)	(1,116)	(1,386)	(1,160)
loads.or.8	88	1.00	-	-	-	(525)	(802)	(815)	(940)	(996)	(1,162)	(1,162)	(1,440)	(1,213)
loads.or.9	89	1.00	-	-	-	(525)	(844)	(816)	(941)	(1,037)	(1,201)	(1,201)	(1,493)	(1,272)
loads.or.10	90	1.00	-	-	-	(525)	(859)	(864)	(989)	(1,063)	(1,236)	(1,236)	(1,544)	(1,330)
loads.ut.1	91	0.50	-	-	-	(211)	(266)	(316)	(254)	(354)	(411)	(411)	(444)	(427)
loads.ut.2	92	0.50	-	-	-	(251)	(338)	(388)	(308)	(412)	(483)	(468)	(662)	(606)
loads.ut.3	93	0.50	-	-	-	(330)	(398)	(448)	(369)	(460)	(533)	(533)	(880)	(773)
loads.ut.4	94	0.50	-	-	-	(364)	(432)	(482)	(437)	(517)	(696)	(696)	(1,092)	(781)
loads.ut.5	95	0.50	-	-	-	(412)	(467)	(517)	(514)	(677)	(885)	(885)	(1,225)	(782)
loads.ut.6	96	0.50	-	-	-	(439)	(525)	(575)	(583)	(760)	(968)	(968)	(1,364)	(847)
loads.ut.7	97	0.50	-	-	-	(445)	(569)	(619)	(637)	(824)	(1,031)	(1,031)	(1,506)	(1,074)
loads.ut.8	98	0.50	-	-	-	(445)	(645)	(666)	(721)	(903)	(1,111)	(1,111)	(1,637)	(1,243)
loads.ut.9	99	0.50	-	-	-	(445)	(685)	(731)	(795)	(944)	(1,152)	(1,152)	(1,771)	(1,414)
loads.ut.10	100	0.50	-	-	-	(445)	(685)	(735)	(883)	(1,004)	(1,211)	(1,211)	(1,909)	(1,571)
enviro.1	101	5.00	-	-	-	(1)	13	(0)	22	13	(0)	(0)	(0)	481
enviro.2	102	2.50	-	-	-	(1)	18	(0)	34	36	(0)	(0)	(0)	620
enviro.3	103	1.25	-	-	-	(1)	34	(0)	50	51	(0)	(0)	(0)	769
enviro.4	104	0.63	-	-	-	6	45	(2)	81	64	(4)	(4)	(6)	768
enviro.5	105	0.31	-	-	-	18	61	11	114	95	22	22	(11)	771
enviro.6	106	0.16	-	-	-	93	112	78	133	113	45	45	(84)	809
enviro.7	107	0.08	-	-	-	139	177	127	178	176	98	98	(143)	864
enviro.8	108	0.04	-	-	-	232	230	181	232	227	134	134	(143)	1,010
enviro.9	109	0.02	-	-	-	232	281	231	282	273	189	189	(144)	1,262
enviro.10	110	0.01	-	-	-	297	344	295	317	324	239	239	(113)	1,264
enviro.25	111	0.00	-	-	-	2,724	4,132	4,800	4,917	4,679	4,471	4,471	4,035	4,412
enviro.40	112	0.00	-	-	-	2,724	4,364	5,374	5,513	5,324	5,116	5,116	4,142	4,124
capcost.down	121	-	-	-	-	240	134	180	173	180	118	251	(113)	(67)
capcost.up	122	-	-	-	-	(10)	(207)	(1)	(95)	(1)	(62)	(62)	(27)	466
gas.low	123	-	-	-	-	249	83	113	110	135	75	159	0	517
gas.high	124	-	-	-	-	1	(2)	0	13	24	0	0	0	381
trans.zero	125	-	-	-	-	255	87	100	106	136	78	117	2	550
renew.geotherm	126	-	-	-	-	-	2	-	0	(100)	(200)	(200)	(600)	(533)
renew.solar	127	-	-	-	-	0	(4)	0	-	0	(119)	(119)	(547)	5
renew.wind	128	-	-	-	-	-	(6)	0	(4)	(86)	(126)	(126)	(126)	-
utah.grow	129	-	-	-	-	173	164	248	260	372	358	358	685	1,217
loads.big4	130	-	-	-	-	(156)	(195)	(227)	(210)	(227)	(227)	(227)	(227)	(258)
firm.ind	131	-	-	-	-	152	15	161	67	161	161	161	56	54
critical.wtr	132	-	-	-	-	158	146	122	129	150	122	122	86	(14)

Coal Fired Resources Selected (MW) by Sensitivity

Description	#	Wtd	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
Reference Case	1		-	-	-	-	-	-	-	-	-	-	-	872
Wtd Case	2		-	-	-	-	-	4	4	4	4	4	90	505
loads.sys.1	71	3.00	-	-	-	-	-	-	-	-	-	-	-	795
loads.sys.2	72	3.00	-	-	-	-	-	-	-	-	-	-	-	654
loads.sys.3	73	3.00	-	-	-	-	-	-	-	-	-	-	-	333
loads.sys.4	74	3.00	-	-	-	-	-	-	-	-	-	-	-	325
loads.sys.5	75	3.00	-	-	-	-	-	-	-	-	-	-	-	325
loads.sys.6	76	3.00	-	-	-	-	-	-	-	-	-	-	-	325
loads.sys.7	77	3.00	-	-	-	-	-	-	-	-	-	-	-	325
loads.sys.8	78	3.00	-	-	-	-	-	-	-	-	-	-	-	325
loads.sys.9	79	3.00	-	-	-	-	-	-	-	-	-	-	-	325
loads.sys.10	80	3.00	-	-	-	-	-	-	-	-	-	-	-	325
loads.or.1	81	1.00	-	-	-	-	-	-	-	-	-	-	-	794
loads.or.2	82	1.00	-	-	-	-	-	-	-	-	-	-	-	790
loads.or.3	83	1.00	-	-	-	-	-	-	-	-	-	-	-	790
loads.or.4	84	1.00	-	-	-	-	-	-	-	-	-	-	-	792
loads.or.5	85	1.00	-	-	-	-	-	-	-	-	-	-	-	794
loads.or.6	86	1.00	-	-	-	-	-	-	-	-	-	-	-	789
loads.or.7	87	1.00	-	-	-	-	-	-	-	-	-	-	-	779
loads.or.8	88	1.00	-	-	-	-	-	-	-	-	-	-	-	773
loads.or.9	89	1.00	-	-	-	-	-	-	-	-	-	-	-	771
loads.or.10	90	1.00	-	-	-	-	-	-	-	-	-	-	-	769
loads.ut.1	91	0.50	-	-	-	-	-	-	-	-	-	-	-	872
loads.ut.2	92	0.50	-	-	-	-	-	-	-	-	-	-	-	893
loads.ut.3	93	0.50	-	-	-	-	-	-	-	-	-	-	-	898
loads.ut.4	94	0.50	-	-	-	-	-	-	-	-	-	-	-	752
loads.ut.5	95	0.50	-	-	-	-	-	-	-	-	-	-	-	597
loads.ut.6	96	0.50	-	-	-	-	-	-	-	-	-	-	-	422
loads.ut.7	97	0.50	-	-	-	-	-	-	-	-	-	-	-	407
loads.ut.8	98	0.50	-	-	-	-	-	-	-	-	-	-	-	366
loads.ut.9	99	0.50	-	-	-	-	-	-	-	-	-	-	-	375
loads.ut.10	100	0.50	-	-	-	-	-	-	-	-	-	-	-	376
enviro.1	101	5.00	-	-	-	-	-	-	-	-	-	-	-	325
enviro.2	102	2.50	-	-	-	-	-	-	-	-	-	-	-	162
enviro.3	103	1.25	-	-	-	-	-	-	-	-	-	-	-	-
enviro.4	104	0.63	-	-	-	-	-	-	-	-	-	-	-	-
enviro.5	105	0.31	-	-	-	-	-	-	-	-	-	-	-	-
enviro.6	106	0.16	-	-	-	-	-	-	-	-	-	-	-	-
enviro.7	107	0.08	-	-	-	-	-	-	-	-	-	-	-	-
enviro.8	108	0.04	-	-	-	-	-	-	-	-	-	-	-	-
enviro.9	109	0.02	-	-	-	-	-	-	-	-	-	-	-	-
enviro.10	110	0.01	-	-	-	-	-	-	-	-	-	-	-	-
enviro.25	111	0.00	-	-	-	-	-	-	-	-	-	-	-	-
enviro.40	112	0.00	-	-	-	-	-	-	-	-	-	-	-	-
capcost.down	121	-	-	-	-	-	-	-	-	-	-	-	-	1,078
capcost.up	122	-	-	-	-	-	-	-	-	-	-	-	-	331
gas.low	123	-	-	-	-	-	-	-	-	-	-	-	-	359
gas.high	124	-	-	-	-	-	-	-	-	-	-	-	-	469
trans.zero	125	-	-	-	-	-	-	-	-	-	-	-	-	342
renew.geotherm	126	-	-	-	-	-	-	-	-	-	-	-	-	864
renew.solar	127	-	-	-	-	-	-	-	-	-	-	-	-	419
renew.wind	128	-	-	-	-	-	-	-	-	-	-	-	-	872
utah.grow	129	-	-	-	-	-	-	-	-	-	-	-	-	866
loads.big4	130	-	-	-	-	-	-	-	-	-	-	-	-	872
firm.ind	131	-	-	-	-	-	-	-	-	-	-	-	-	868
critical.wtr	132	-	-	-	-	-	-	-	-	-	-	-	-	965

Coal Fired Resources Selected (MW) by Sensitivity

Difference From Reference Case

Description	#	Wtd	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
Reference Case	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Wtd Case	2	-	-	-	-	-	-	4	4	4	4	4	90	(367)
loads.sys.1	71	3.00	-	-	-	-	-	-	-	-	-	-	-	(76)
loads.sys.2	72	3.00	-	-	-	-	-	-	-	-	-	-	-	(217)
loads.sys.3	73	3.00	-	-	-	-	-	-	-	-	-	-	-	(539)
loads.sys.4	74	3.00	-	-	-	-	-	-	-	-	-	-	-	(547)
loads.sys.5	75	3.00	-	-	-	-	-	-	-	-	-	-	-	(547)
loads.sys.6	76	3.00	-	-	-	-	-	-	-	-	-	-	-	(547)
loads.sys.7	77	3.00	-	-	-	-	-	-	-	-	-	-	-	(547)
loads.sys.8	78	3.00	-	-	-	-	-	-	-	-	-	-	-	(547)
loads.sys.9	79	3.00	-	-	-	-	-	-	-	-	-	-	-	(547)
loads.sys.10	80	3.00	-	-	-	-	-	-	-	-	-	-	-	(547)
loads.or.1	81	1.00	-	-	-	-	-	-	-	-	-	-	-	(78)
loads.or.2	82	1.00	-	-	-	-	-	-	-	-	-	-	-	(82)
loads.or.3	83	1.00	-	-	-	-	-	-	-	-	-	-	-	(81)
loads.or.4	84	1.00	-	-	-	-	-	-	-	-	-	-	-	(79)
loads.or.5	85	1.00	-	-	-	-	-	-	-	-	-	-	-	(78)
loads.or.6	86	1.00	-	-	-	-	-	-	-	-	-	-	-	(83)
loads.or.7	87	1.00	-	-	-	-	-	-	-	-	-	-	-	(93)
loads.or.8	88	1.00	-	-	-	-	-	-	-	-	-	-	-	(99)
loads.or.9	89	1.00	-	-	-	-	-	-	-	-	-	-	-	(101)
loads.or.10	90	1.00	-	-	-	-	-	-	-	-	-	-	-	(102)
loads.ut.1	91	0.50	-	-	-	-	-	-	-	-	-	-	-	-
loads.ut.2	92	0.50	-	-	-	-	-	-	-	-	-	-	-	22
loads.ut.3	93	0.50	-	-	-	-	-	-	-	-	-	-	-	27
loads.ut.4	94	0.50	-	-	-	-	-	-	-	-	-	-	-	(120)
loads.ut.5	95	0.50	-	-	-	-	-	-	-	-	-	-	-	(275)
loads.ut.6	96	0.50	-	-	-	-	-	-	-	-	-	-	-	(449)
loads.ut.7	97	0.50	-	-	-	-	-	-	-	-	-	-	-	(465)
loads.ut.8	98	0.50	-	-	-	-	-	-	-	-	-	-	-	(506)
loads.ut.9	99	0.50	-	-	-	-	-	-	-	-	-	-	-	(497)
loads.ut.10	100	0.50	-	-	-	-	-	-	-	-	-	-	-	(495)
enviro.1	101	5.00	-	-	-	-	-	-	-	-	-	-	-	(547)
enviro.2	102	2.50	-	-	-	-	-	-	-	-	-	-	-	(710)
enviro.3	103	1.25	-	-	-	-	-	-	-	-	-	-	-	(872)
enviro.4	104	0.63	-	-	-	-	-	-	-	-	-	-	-	(872)
enviro.5	105	0.31	-	-	-	-	-	-	-	-	-	-	-	(872)
enviro.6	106	0.16	-	-	-	-	-	-	-	-	-	-	-	(872)
enviro.7	107	0.08	-	-	-	-	-	-	-	-	-	-	-	(872)
enviro.8	108	0.04	-	-	-	-	-	-	-	-	-	-	-	(872)
enviro.9	109	0.02	-	-	-	-	-	-	-	-	-	-	-	(872)
enviro.10	110	0.01	-	-	-	-	-	-	-	-	-	-	-	(872)
enviro.25	111	0.00	-	-	-	-	-	-	-	-	-	-	-	(872)
enviro.40	112	0.00	-	-	-	-	-	-	-	-	-	-	-	(872)
capcost.down	121	-	-	-	-	-	-	-	-	-	-	-	-	[illegible]
capcost.up	122	-	-	-	-	-	-	-	-	-	-	-	-	[illegible]
gas.low	123	-	-	-	-	-	-	-	-	-	-	-	-	(403)
gas.high	124	-	-	-	-	-	-	-	-	-	-	-	-	(529)
trans.zero	125	-	-	-	-	-	-	-	-	-	-	-	-	(529)
renew.geotherm	126	-	-	-	-	-	-	-	-	-	-	-	-	(8)
renew.solar	127	-	-	-	-	-	-	-	-	-	-	-	-	(453)
renew.wind	128	-	-	-	-	-	-	-	-	-	-	-	-	-
utah.grow	129	-	-	-	-	-	-	-	-	-	-	-	-	(6)
loads.big4	130	-	-	-	-	-	-	-	-	-	-	-	-	-
firm.ind	131	-	-	-	-	-	-	-	-	-	-	-	-	(3)
critical.wtr	132	-	-	-	-	-	-	-	-	-	-	-	-	93

Transmission Resources Selected (MW) by Sensitivity

Description	#	Wtd	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
Reference Case	1		-	-	-	-	19	19	19	19	19	19	19	265
Wtd Case	2		-	-	-	-	20	20	20	20	20	20	37	232
loads.sys.1	71	3.00	-	-	-	-	-	-	-	-	-	-	6	265
loads.sys.2	72	3.00	-	-	-	-	-	-	-	-	-	-	4	265
loads.sys.3	73	3.00	-	-	-	-	-	-	-	-	-	-	-	265
loads.sys.4	74	3.00	-	-	-	-	-	-	-	-	-	-	-	265
loads.sys.5	75	3.00	-	-	-	-	-	-	-	-	-	-	6	265
loads.sys.6	76	3.00	-	-	-	-	-	-	-	-	-	-	-	265
loads.sys.7	77	3.00	-	-	-	-	-	-	-	-	-	-	7	265
loads.sys.8	78	3.00	-	-	-	-	-	-	-	-	-	-	-	265
loads.sys.9	79	3.00	-	-	-	-	-	-	-	-	-	-	-	265
loads.sys.10	80	3.00	-	-	-	-	-	-	-	-	-	-	-	265
loads.or.1	81	1.00	-	-	-	-	76	76	76	76	76	76	76	265
loads.or.2	82	1.00	-	-	-	-	92	92	92	92	92	92	92	265
loads.or.3	83	1.00	-	-	-	-	89	89	89	89	89	89	89	265
loads.or.4	84	1.00	-	-	-	-	92	92	92	92	92	92	92	265
loads.or.5	85	1.00	-	-	-	-	93	93	93	93	93	93	93	265
loads.or.6	86	1.00	-	-	-	-	104	104	104	104	104	104	104	265
loads.or.7	87	1.00	-	-	-	-	108	108	108	108	108	108	108	265
loads.or.8	88	1.00	-	-	-	-	111	111	111	111	111	111	111	265
loads.or.9	89	1.00	-	-	-	-	126	126	126	126	126	126	126	265
loads.or.10	90	1.00	-	-	-	-	131	131	131	131	131	131	131	265
loads.ut.1	91	0.50	-	-	-	-	-	-	-	-	-	-	-	265
loads.ut.2	92	0.50	-	-	-	-	-	-	-	-	-	-	-	265
loads.ut.3	93	0.50	-	-	-	-	-	-	-	-	-	-	-	265
loads.ut.4	94	0.50	-	-	-	-	-	-	-	-	-	-	-	265
loads.ut.5	95	0.50	-	-	-	-	-	-	-	-	-	-	-	265
loads.ut.6	96	0.50	-	-	-	-	-	-	-	-	-	-	-	265
loads.ut.7	97	0.50	-	-	-	-	-	-	-	-	-	-	-	265
loads.ut.8	98	0.50	-	-	-	-	-	-	-	-	-	-	-	265
loads.ut.9	99	0.50	-	-	-	-	-	-	-	-	-	-	-	265
loads.ut.10	100	0.50	-	-	-	-	-	-	-	-	-	-	-	265
enviro.1	101	5.00	-	-	-	-	2	2	2	2	2	2	2	265
enviro.2	102	2.50	-	-	-	-	-	-	-	-	-	-	-	257
enviro.3	103	1.25	-	-	-	-	-	-	-	-	-	-	-	101
enviro.4	104	0.63	-	-	-	-	-	-	-	-	-	-	-	100
enviro.5	105	0.31	-	-	-	-	-	-	-	-	-	-	-	97
enviro.6	106	0.16	-	-	-	-	-	-	-	-	-	-	-	120
enviro.7	107	0.08	-	-	-	-	-	-	-	-	-	-	-	171
enviro.8	108	0.04	-	-	-	-	-	-	-	-	-	-	-	161
enviro.9	109	0.02	-	-	-	-	-	-	-	-	-	-	-	132
enviro.10	110	0.01	-	-	-	-	-	-	-	-	-	-	-	97
enviro.25	111	0.00	-	-	-	-	-	-	-	-	-	-	-	-
enviro.40	112	0.00	-	-	-	-	-	-	-	-	-	-	-	-
capcost.down	121	-	-	-	-	-	133	133	133	133	133	133	133	299
capcost.up	122	-	-	-	-	-	-	-	-	-	-	-	-	265
gas.low	123	-	-	-	-	-	-	-	-	-	-	-	-	265
gas.high	124	-	-	-	-	-	29	29	29	29	29	29	29	265
trans.zero	125	-	-	-	-	-	-	-	-	-	-	-	-	265
renew.geotherm	126	-	-	-	-	-	16	16	16	16	16	16	16	265
renew.solar	127	-	-	-	-	-	26	26	26	26	26	26	26	265
renew.wind	128	-	-	-	-	-	51	51	51	51	51	51	51	265
utah.grow	129	-	-	-	-	-	41	41	41	41	41	41	41	265
loads.big4	130	-	-	-	-	-	-	-	-	-	-	-	-	265
firm.ind	131	-	-	-	-	-	20	20	20	20	20	20	20	265
critical.wtr	132	-	-	-	-	-	-	-	-	-	-	-	-	265

Transmission Resources Selected (MW) by Sensitivity
Difference From Reference Case

Description	#	Wtd	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
Reference Case	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Wtd Case	2	-	-	-	-	-	1	1	1	1	1	1	19	(33)
loads.sys.1	71	3.00	-	-	-	-	(19)	(19)	(19)	(19)	(19)	(19)	(13)	-
loads.sys.2	72	3.00	-	-	-	-	(19)	(19)	(19)	(19)	(19)	(19)	(15)	-
loads.sys.3	73	3.00	-	-	-	-	(19)	(19)	(19)	(19)	(19)	(19)	(19)	-
loads.sys.4	74	3.00	-	-	-	-	(19)	(19)	(19)	(19)	(19)	(19)	(19)	-
loads.sys.5	75	3.00	-	-	-	-	(19)	(19)	(19)	(19)	(19)	(19)	(13)	-
loads.sys.6	76	3.00	-	-	-	-	(19)	(19)	(19)	(19)	(19)	(19)	(19)	-
loads.sys.7	77	3.00	-	-	-	-	(19)	(19)	(19)	(19)	(19)	(19)	(11)	-
loads.sys.8	78	3.00	-	-	-	-	(19)	(19)	(19)	(19)	(19)	(19)	(19)	-
loads.sys.9	79	3.00	-	-	-	-	(19)	(19)	(19)	(19)	(19)	(19)	(19)	-
loads.sys.10	80	3.00	-	-	-	-	(19)	(19)	(19)	(19)	(19)	(19)	(19)	-
loads.or.1	81	1.00	-	-	-	-	57	57	57	57	57	57	57	-
loads.or.2	82	1.00	-	-	-	-	73	73	73	73	73	73	73	-
loads.or.3	83	1.00	-	-	-	-	70	70	70	70	70	70	70	-
loads.or.4	84	1.00	-	-	-	-	73	73	73	73	73	73	73	-
loads.or.5	85	1.00	-	-	-	-	74	74	74	74	74	74	74	-
loads.or.6	86	1.00	-	-	-	-	85	85	85	85	85	85	85	-
loads.or.7	87	1.00	-	-	-	-	90	90	90	90	90	90	90	-
loads.or.8	88	1.00	-	-	-	-	92	92	92	92	92	92	92	-
loads.or.9	89	1.00	-	-	-	-	107	107	107	107	107	107	107	-
loads.or.10	90	1.00	-	-	-	-	112	112	112	112	112	112	112	-
loads.ut.1	91	0.50	-	-	-	-	(19)	(19)	(19)	(19)	(19)	(19)	(19)	-
loads.ut.2	92	0.50	-	-	-	-	(19)	(19)	(19)	(19)	(19)	(19)	(19)	-
loads.ut.3	93	0.50	-	-	-	-	(19)	(19)	(19)	(19)	(19)	(19)	(19)	-
loads.ut.4	94	0.50	-	-	-	-	(19)	(19)	(19)	(19)	(19)	(19)	(19)	-
loads.ut.5	95	0.50	-	-	-	-	(19)	(19)	(19)	(19)	(19)	(19)	(19)	-
loads.ut.6	96	0.50	-	-	-	-	(19)	(19)	(19)	(19)	(19)	(19)	(19)	-
loads.ut.7	97	0.50	-	-	-	-	(19)	(19)	(19)	(19)	(19)	(19)	(19)	-
loads.ut.8	98	0.50	-	-	-	-	(19)	(19)	(19)	(19)	(19)	(19)	(19)	-
loads.ut.9	99	0.50	-	-	-	-	(19)	(19)	(19)	(19)	(19)	(19)	(19)	-
loads.ut.10	100	0.50	-	-	-	-	(19)	(19)	(19)	(19)	(19)	(19)	(19)	-
enviro.1	101	5.00	-	-	-	-	(17)	(17)	(17)	(17)	(17)	(17)	(17)	-
enviro.2	102	2.50	-	-	-	-	(19)	(19)	(19)	(19)	(19)	(19)	(19)	(9)
enviro.3	103	1.25	-	-	-	-	(19)	(19)	(19)	(19)	(19)	(19)	(19)	(164)
enviro.4	104	0.63	-	-	-	-	(19)	(19)	(19)	(19)	(19)	(19)	(19)	(166)
enviro.5	105	0.31	-	-	-	-	(19)	(19)	(19)	(19)	(19)	(19)	(19)	(169)
enviro.6	106	0.16	-	-	-	-	(19)	(19)	(19)	(19)	(19)	(19)	(19)	(146)
enviro.7	107	0.08	-	-	-	-	(19)	(19)	(19)	(19)	(19)	(19)	(19)	(94)
enviro.8	108	0.04	-	-	-	-	(19)	(19)	(19)	(19)	(19)	(19)	(19)	(105)
enviro.9	109	0.02	-	-	-	-	(19)	(19)	(19)	(19)	(19)	(19)	(19)	(134)
enviro.10	110	0.01	-	-	-	-	(19)	(19)	(19)	(19)	(19)	(19)	(19)	(168)
enviro.25	111	0.00	-	-	-	-	(19)	(19)	(19)	(19)	(19)	(19)	(19)	(265)
enviro.40	112	0.00	-	-	-	-	(19)	(19)	(19)	(19)	(19)	(19)	(19)	(265)
capcost.down	121	-	-	-	-	-	114	114	114	114	114	114	114	34
capcost.up	122	-	-	-	-	-	(19)	(19)	(19)	(19)	(19)	(19)	(19)	-
gas.low	123	-	-	-	-	-	10	10	10	10	10	10	10	-
gas.high	124	-	-	-	-	-	(19)	(19)	(19)	(19)	(19)	(19)	(19)	-
trans.zero	125	-	-	-	-	-	(19)	(19)	(19)	(19)	(19)	(19)	(19)	-
renew.geotherm	126	-	-	-	-	-	(3)	(3)	(3)	(3)	(3)	(3)	(3)	-
renew.solar	127	-	-	-	-	-	7	7	7	7	7	7	7	-
renew.wind	128	-	-	-	-	-	32	32	32	32	32	32	32	-
utah.grow	129	-	-	-	-	-	22	22	22	22	22	22	22	-
loads.big4	130	-	-	-	-	-	(19)	(19)	(19)	(19)	(19)	(19)	(19)	-
firm.ind	131	-	-	-	-	-	1	1	1	1	1	1	1	-
critical.wtr	132	-	-	-	-	-	(19)	(19)	(19)	(19)	(19)	(19)	(19)	-

Net Short-Term Wholesale Transactions (aMW) by Sensitivity

Description	#	Wtd	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
Reference Case	1		1,399	1,386	1,272	1,745	1,897	1,816	1,913	1,901	1,962	1,777	2,312	2,320
Wtd Case	2		1,445	1,774	1,707	2,021	2,030	2,005	2,047	2,023	2,015	1,854	2,227	2,284
loads.sys.1	71	3.00	1,440	2,230	2,196	2,190	2,123	2,049	2,034	1,913	1,926	1,728	2,167	2,338
loads.sys.2	72	3.00	1,462	2,308	2,289	2,275	2,155	2,129	2,140	1,960	1,919	1,722	2,172	2,340
loads.sys.3	73	3.00	1,484	2,347	2,347	2,346	2,241	2,191	2,203	2,087	1,984	1,790	2,172	2,312
loads.sys.4	74	3.00	1,506	2,362	2,368	2,372	2,310	2,286	2,247	2,140	2,044	1,854	2,173	2,260
loads.sys.5	75	3.00	1,527	2,372	2,380	2,372	2,367	2,364	2,319	2,186	2,091	1,912	2,169	2,236
loads.sys.6	76	3.00	1,549	2,378	2,379	2,390	2,390	2,384	2,352	2,307	2,223	2,059	2,156	2,235
loads.sys.7	77	3.00	1,569	2,383	2,388	2,390	2,390	2,390	2,378	2,380	2,329	2,202	2,143	2,229
loads.sys.8	78	3.00	1,592	2,384	2,390	2,390	2,390	2,390	2,388	2,399	2,395	2,314	2,139	2,226
loads.sys.9	79	3.00	1,612	2,389	2,390	2,390	2,390	2,390	2,400	2,399	2,399	2,395	2,126	2,226
loads.sys.10	80	3.00	1,634	2,389	2,390	2,390	2,390	2,390	2,400	2,400	2,400	2,400	2,120	2,230
loads.or.1	81	1.00	1,398	2,002	1,907	1,963	1,923	1,817	1,901	1,889	1,884	1,683	2,192	2,329
loads.or.2	82	1.00	1,398	2,035	1,946	2,003	1,933	1,831	1,897	1,881	1,886	1,685	2,186	2,330
loads.or.3	83	1.00	1,398	2,066	1,986	2,037	1,974	1,869	1,892	1,878	1,887	1,686	2,173	2,333
loads.or.4	84	1.00	1,398	2,101	2,025	2,075	2,012	1,911	1,892	1,874	1,883	1,682	2,160	2,334
loads.or.5	85	1.00	1,398	2,130	2,059	2,081	2,016	1,953	1,900	1,870	1,882	1,679	2,159	2,334
loads.or.6	86	1.00	1,398	2,160	2,094	2,084	2,019	1,992	1,921	1,899	1,878	1,675	2,162	2,334
loads.or.7	87	1.00	1,398	2,187	2,124	2,103	2,037	1,991	1,943	1,928	1,872	1,670	2,164	2,334
loads.or.8	88	1.00	1,398	2,226	2,151	2,138	2,041	1,987	1,982	1,938	1,872	1,670	2,161	2,335
loads.or.9	89	1.00	1,398	2,259	2,183	2,168	2,040	2,025	2,024	1,944	1,879	1,679	2,161	2,335
loads.or.10	90	1.00	1,398	2,276	2,212	2,191	2,065	2,021	2,020	1,964	1,891	1,690	2,161	2,336
loads.ut.1	91	0.50	1,441	1,660	1,603	1,892	1,992	1,868	2,022	1,923	1,938	1,749	2,294	2,323
loads.ut.2	92	0.50	1,463	1,702	1,672	1,948	2,018	1,895	2,069	1,968	1,973	1,802	2,246	2,326
loads.ut.3	93	0.50	1,485	1,746	1,737	1,962	2,055	1,931	2,110	2,024	2,030	1,846	2,198	2,326
loads.ut.4	94	0.50	1,507	1,789	1,807	2,016	2,114	1,985	2,140	2,070	1,977	1,795	2,153	2,331
loads.ut.5	95	0.50	1,528	1,832	1,867	2,053	2,164	2,042	2,163	2,009	1,894	1,721	2,154	2,340
loads.ut.6	96	0.50	1,550	1,877	1,932	2,116	2,197	2,079	2,190	2,031	1,914	1,750	2,154	2,314
loads.ut.7	97	0.50	1,571	1,922	1,991	2,179	2,238	2,128	2,222	2,068	1,960	1,794	2,151	2,271
loads.ut.8	98	0.50	1,594	1,965	2,049	2,238	2,243	2,169	2,239	2,086	1,980	1,824	2,154	2,250
loads.ut.9	99	0.50	1,615	2,004	2,111	2,264	2,265	2,190	2,251	2,145	2,037	1,894	2,156	2,247
loads.ut.10	100	0.50	1,636	2,046	2,173	2,291	2,302	2,220	2,240	2,181	2,077	1,936	2,152	2,244
enviro.1	101	5.00	1,396	1,385	1,269	1,744	1,909	1,817	1,929	1,911	1,966	1,776	2,314	2,315
enviro.2	102	2.50	1,396	1,383	1,269	1,742	1,909	1,814	1,940	1,925	1,957	1,773	2,316	2,317
enviro.3	103	1.25	1,376	1,377	1,267	1,729	1,896	1,804	1,943	1,919	1,939	1,771	2,316	2,317
enviro.4	104	0.63	1,291	1,339	1,232	1,681	1,870	1,766	1,927	1,893	1,890	1,744	2,307	2,312
enviro.5	105	0.31	1,210	1,237	1,136	1,587	1,749	1,702	1,866	1,841	1,837	1,680	2,275	2,306
enviro.6	106	0.16	1,168	1,179	1,092	1,622	1,767	1,688	1,823	1,792	1,797	1,625	2,265	2,283
enviro.7	107	0.08	1,098	1,117	1,020	1,545	1,747	1,668	1,767	1,765	1,779	1,630	2,214	2,282
enviro.8	108	0.04	1,013	1,042	972	1,564	1,706	1,625	1,729	1,717	1,694	1,579	2,128	2,222
enviro.9	109	0.02	982	985	870	1,394	1,605	1,532	1,640	1,615	1,612	1,525	1,946	2,175
enviro.10	110	0.01	949	955	840	1,373	1,586	1,530	1,578	1,586	1,594	1,460	1,838	2,004
enviro.25	111	0.00	(602)	(524)	(517)	449	1,064	1,329	1,499	1,461	1,388	1,273	1,962	2,133
enviro.40	112	0.00	(900)	(900)	(900)	(740)	518	1,295	1,645	1,643	1,545	1,359	1,901	2,069
capcost.down	121	-	1,398	1,384	1,270	1,965	2,012	1,988	2,067	2,055	2,056	1,999	2,321	2,336
capcost.up	122	-	1,399	1,386	1,272	1,737	1,702	1,817	1,826	1,904	1,914	1,718	2,298	2,288
gas.low	123	-	1,399	1,386	1,272	1,975	1,968	1,924	2,013	2,020	2,023	1,924	2,301	2,324
gas.high	124	-	1,399	1,386	1,272	1,747	1,895	1,817	1,925	1,920	1,964	1,777	2,308	2,317
trans.zero	125	-	1,398	1,385	1,271	1,979	1,969	1,909	2,009	2,016	2,023	1,885	2,306	2,324
renew.geotherm	126	-	1,399	1,386	1,272	1,745	1,899	1,816	1,913	1,902	1,960	1,859	2,296	2,330
renew.solar	127	-	1,399	1,386	1,272	1,745	1,894	1,817	1,914	1,906	1,892	1,728	2,142	2,262
renew.wind	128	-	1,399	1,386	1,272	1,745	1,892	1,820	1,910	1,925	1,987	1,795	2,318	2,320
utah.grow	129	-	1,399	1,305	1,177	1,796	1,894	1,847	1,919	1,965	1,978	1,823	2,322	2,302
loads.big4	130	-	1,419	1,622	1,535	1,852	1,967	1,854	1,965	1,938	2,001	1,818	2,326	2,322
firm.ind	131	-	1,394	1,384	1,272	1,880	1,908	1,967	1,966	2,034	2,077	1,918	2,326	2,317
critical.wtr	132	-	1,225	1,213	1,102	1,726	1,874	1,780	1,885	1,890	1,933	1,765	2,307	2,293

Net Short-Term Wholesale Transactions (aMW) by Sensitivity

Difference From Reference Case

Description	#	Wtd	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
Reference Case	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Wtd Case	2	-	46	388	435	276	133	189	134	122	53	77	(85)	(36)
loads.sys.1	71	3.00	41	844	924	445	225	233	121	12	(36)	(49)	(145)	18
loads.sys.2	72	3.00	64	922	1,017	530	257	313	227	60	(43)	(55)	(140)	20
loads.sys.3	73	3.00	86	961	1,075	602	343	374	290	186	22	13	(140)	(9)
loads.sys.4	74	3.00	108	976	1,096	627	413	470	334	239	82	78	(139)	(61)
loads.sys.5	75	3.00	128	986	1,108	628	469	547	406	285	128	135	(143)	(84)
loads.sys.6	76	3.00	150	992	1,107	645	493	568	439	406	260	282	(156)	(85)
loads.sys.7	77	3.00	170	997	1,116	645	493	573	465	479	366	425	(169)	(91)
loads.sys.8	78	3.00	193	998	1,118	645	493	574	475	498	433	537	(173)	(94)
loads.sys.9	79	3.00	213	1,003	1,118	645	493	574	487	499	437	618	(185)	(95)
loads.sys.10	80	3.00	235	1,004	1,118	645	493	574	487	499	438	623	(191)	(90)
loads.or.1	81	1.00	(1)	616	635	218	26	1	(12)	(12)	(78)	(94)	(119)	8
loads.or.2	82	1.00	(1)	649	674	258	35	15	(16)	(20)	(76)	(92)	(126)	9
loads.or.3	83	1.00	(1)	680	714	292	76	53	(22)	(23)	(76)	(91)	(139)	12
loads.or.4	84	1.00	(1)	715	753	330	114	95	(21)	(27)	(79)	(94)	(151)	14
loads.or.5	85	1.00	(1)	744	787	336	119	137	(13)	(31)	(80)	(97)	(152)	14
loads.or.6	86	1.00	(1)	774	822	339	122	176	7	(2)	(84)	(101)	(150)	14
loads.or.7	87	1.00	(1)	801	853	358	140	175	30	27	(90)	(106)	(148)	14
loads.or.8	88	1.00	(1)	840	879	393	143	171	69	37	(90)	(107)	(151)	15
loads.or.9	89	1.00	(1)	874	911	423	143	209	111	43	(83)	(98)	(151)	15
loads.or.10	90	1.00	(1)	890	940	447	168	205	107	63	(71)	(87)	(151)	15
loads.ut.1	91	0.50	42	274	332	147	95	51	109	22	(24)	(27)	(18)	3
loads.ut.2	92	0.50	64	316	400	203	121	78	156	67	10	25	(66)	5
loads.ut.3	93	0.50	87	360	466	217	157	115	197	123	68	70	(113)	6
loads.ut.4	94	0.50	108	403	535	271	217	168	226	169	15	18	(158)	11
loads.ut.5	95	0.50	129	446	595	308	267	226	250	108	(68)	(55)	(157)	20
loads.ut.6	96	0.50	151	491	660	372	300	262	277	130	(49)	(27)	(158)	(6)
loads.ut.7	97	0.50	173	536	719	434	340	312	309	167	(2)	17	(161)	(49)
loads.ut.8	98	0.50	196	579	777	493	346	352	326	185	18	47	(158)	(70)
loads.ut.9	99	0.50	217	619	839	519	368	374	338	244	75	117	(156)	(73)
loads.ut.10	100	0.50	238	660	901	547	405	404	326	280	115	159	(160)	(76)
enviro.1	101	5.00	(2)	(0)	(3)	(1)	12	1	16	11	3	(1)	2	(5)
enviro.2	102	2.50	(2)	(3)	(3)	(3)	12	(2)	27	24	(6)	(3)	4	(4)
enviro.3	103	1.25	(22)	(9)	(5)	(15)	(1)	(12)	30	18	(24)	(5)	4	(3)
enviro.4	104	0.63	(107)	(47)	(40)	(64)	(28)	(50)	14	(8)	(72)	(32)	(5)	(9)
enviro.5	105	0.31	(189)	(149)	(136)	(157)	(149)	(114)	(47)	(60)	(125)	(97)	(37)	(14)
enviro.6	106	0.16	(231)	(206)	(180)	(123)	(131)	(129)	(90)	(109)	(165)	(151)	(47)	(37)
enviro.7	107	0.08	(301)	(269)	(252)	(200)	(150)	(148)	(146)	(136)	(184)	(146)	(98)	(38)
enviro.8	108	0.04	(386)	(344)	(300)	(181)	(191)	(192)	(184)	(184)	(268)	(197)	(184)	(99)
enviro.9	109	0.02	(417)	(400)	(402)	(351)	(293)	(284)	(273)	(286)	(350)	(252)	(365)	(145)
enviro.10	110	0.01	(449)	(431)	(432)	(372)	(311)	(286)	(335)	(315)	(369)	(316)	(474)	(316)
enviro.25	111	0.00	(2,000)	(1,910)	(1,789)	(1,296)	(834)	(487)	(414)	(440)	(574)	(504)	(350)	(187)
enviro.40	112	0.00	(2,299)	(2,286)	(2,172)	(2,485)	(1,379)	(521)	(269)	(258)	(418)	(418)	(411)	(251)
capcost.down	121	-	(1)	(1)	(2)	220	115	172	154	154	94	223	9	15
capcost.up	122	-	-	0	0	(8)	(195)	1	(88)	3	(48)	(59)	(13)	(33)
gas.low	123	-	-	-	-	2	(2)	0	12	19	2	0	(4)	(4)
gas.high	124	-	(0)	(0)	(1)	234	72	93	96	116	61	108	(6)	4
trans.zero	125	-	(0)	(0)	(1)	234	72	93	96	116	61	108	(6)	4
renew.geotherm	126	-	-	-	-	-	2	(0)	(0)	1	(2)	83	(16)	9
renew.solar	127	-	-	-	0	-	(3)	1	1	5	(71)	(49)	(170)	(58)
renew.wind	128	-	-	-	-	-	(6)	4	(3)	24	25	18	6	-
utah.grow	129	-	-	(81)	(95)	51	(4)	31	6	64	16	47	10	(18)
loads.big4	130	-	20	236	263	107	69	38	52	37	39	42	14	2
firm.ind	131	-	(4)	(2)	(0)	135	11	151	53	133	115	141	14	(4)
critical.wtr	132	-	(173)	(173)	(170)	(19)	(23)	(36)	(28)	(11)	(29)	(11)	(4)	(28)

Short-Term Capacity Purchase (MW) by Sensitivity

Description	#	Wtd	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
Reference Case	1		40	1	171	-	-	-	-	-	-	287	-	428
Wtd Case	2		27	1	95	-	-	-	-	-	8	158	9	294
loads.sys.1	71	3.00	10	-	-	-	-	-	-	-	-	90	-	105
loads.sys.2	72	3.00	-	-	-	-	-	-	-	-	-	-	-	6
loads.sys.3	73	3.00	-	-	-	-	-	-	-	-	-	-	-	6
loads.sys.4	74	3.00	-	-	-	-	-	-	-	-	-	-	-	-
loads.sys.5	75	3.00	-	-	-	-	-	-	-	-	-	-	-	-
loads.sys.6	76	3.00	-	-	-	-	-	-	-	-	-	-	-	-
loads.sys.7	77	3.00	-	-	-	-	-	-	-	-	-	-	-	-
loads.sys.8	78	3.00	-	-	-	-	-	-	-	-	-	-	-	-
loads.sys.9	79	3.00	-	-	-	-	-	-	-	-	-	-	-	-
loads.sys.10	80	3.00	-	-	-	-	-	-	-	-	-	-	-	-
loads.or.1	81	1.00	43	-	-	-	-	-	-	-	-	175	-	168
loads.or.2	82	1.00	43	-	-	-	-	-	-	-	-	161	-	153
loads.or.3	83	1.00	43	-	-	-	-	-	-	-	-	146	-	132
loads.or.4	84	1.00	43	-	-	-	-	-	-	-	-	137	-	112
loads.or.5	85	1.00	43	-	-	-	-	-	-	-	-	124	-	94
loads.or.6	86	1.00	43	-	-	-	-	-	-	-	-	117	-	80
loads.or.7	87	1.00	43	-	-	-	-	-	-	-	-	110	-	61
loads.or.8	88	1.00	43	-	-	-	-	-	-	-	-	97	-	46
loads.or.9	89	1.00	43	-	-	-	-	-	-	-	-	77	-	33
loads.or.10	90	1.00	43	-	-	-	-	-	-	-	-	53	-	18
loads.ut.1	91	0.50	7	-	-	-	-	-	-	-	-	282	-	380
loads.ut.2	92	0.50	-	-	-	-	-	-	-	-	-	149	-	287
loads.ut.3	93	0.50	-	-	-	-	-	-	-	-	-	25	-	200
loads.ut.4	94	0.50	-	-	-	-	-	-	-	-	-	-	-	105
loads.ut.5	95	0.50	-	-	-	-	-	-	-	-	-	-	-	11
loads.ut.6	96	0.50	-	-	-	-	-	-	-	-	-	-	-	7
loads.ut.7	97	0.50	-	-	-	-	-	-	-	-	-	-	-	-
loads.ut.8	98	0.50	-	-	-	-	-	-	-	-	-	-	-	-
loads.ut.9	99	0.50	-	-	-	-	-	-	-	-	-	-	-	-
loads.ut.10	100	0.50	-	-	-	-	-	-	-	-	-	-	-	-
enviro.1	101	5.00	40	1	171	-	-	-	-	-	-	287	-	494
enviro.2	102	2.50	40	1	171	-	-	-	-	-	-	287	-	517
enviro.3	103	1.25	40	1	171	-	-	-	-	-	-	287	-	529
enviro.4	104	0.63	40	1	170	-	-	-	-	-	-	287	-	521
enviro.5	105	0.31	40	-	169	-	-	-	-	-	-	257	-	511
enviro.6	106	0.16	39	-	169	-	-	-	-	-	-	233	-	471
enviro.7	107	0.08	39	-	168	-	-	-	-	-	-	177	-	409
enviro.8	108	0.04	39	-	168	-	-	-	-	-	-	141	-	263
enviro.9	109	0.02	39	-	168	-	-	-	-	-	-	86	-	8
enviro.10	110	0.01	39	-	168	-	-	-	-	-	-	36	-	8
enviro.25	111	0.00	37	-	38	-	-	-	-	-	-	-	-	-
enviro.40	112	0.00	36	-	-	-	-	-	-	-	-	-	-	-
capcost.down	121	-	43	3	174	-	-	-	-	-	-	46	-	306
capcost.up	122	-	40	1	171	-	-	-	-	-	61	348	25	555
gas.low	123	-	40	1	171	-	-	-	-	-	-	128	-	424
gas.high	124	-	40	1	171	-	-	-	-	-	-	287	-	449
trans.zero	125	-	41	2	171	-	-	-	-	-	-	171	-	410
renew.geotherm	126	-	40	1	171	-	-	-	-	-	-	187	-	369
renew.solar	127	-	40	1	171	-	-	-	-	-	-	168	-	-
renew.wind	128	-	40	1	171	-	-	-	-	-	-	287	-	428
utah.grow	129	-	40	151	346	-	-	-	-	-	-	365	234	822
loads.big4	130	-	40	-	-	-	-	-	-	-	-	287	-	460
firm.ind	131	-	200	162	332	-	-	-	-	-	-	287	105	539
critical.wtr	132	-	176	136	306	-	-	-	-	-	-	269	12	447

Short-Term Capacity Purchase (MW) by Sensitivity

Difference From Reference Case

Description	#	Wtd	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
Reference Case	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Wtd Case	2	-	(13)	(0)	(76)	-	-	-	-	-	8	(129)	9	(133)
loads.sys.1	71	3.00	(30)	(1)	(171)	-	-	-	-	-	-	(197)	-	(323)
loads.sys.2	72	3.00	(40)	(1)	(171)	-	-	-	-	-	-	(287)	-	(421)
loads.sys.3	73	3.00	(40)	(1)	(171)	-	-	-	-	-	-	(287)	-	(421)
loads.sys.4	74	3.00	(40)	(1)	(171)	-	-	-	-	-	-	(287)	-	(428)
loads.sys.5	75	3.00	(40)	(1)	(171)	-	-	-	-	-	-	(287)	-	(428)
loads.sys.6	76	3.00	(40)	(1)	(171)	-	-	-	-	-	-	(287)	-	(428)
loads.sys.7	77	3.00	(40)	(1)	(171)	-	-	-	-	-	-	(287)	-	(428)
loads.sys.8	78	3.00	(40)	(1)	(171)	-	-	-	-	-	-	(287)	-	(428)
loads.sys.9	79	3.00	(40)	(1)	(171)	-	-	-	-	-	-	(287)	-	(428)
loads.sys.10	80	3.00	(40)	(1)	(171)	-	-	-	-	-	-	(287)	-	(428)
loads.or.1	81	1.00	3	(1)	(171)	-	-	-	-	-	-	(112)	-	(260)
loads.or.2	82	1.00	3	(1)	(171)	-	-	-	-	-	-	(126)	-	(275)
loads.or.3	83	1.00	3	(1)	(171)	-	-	-	-	-	-	(141)	-	(296)
loads.or.4	84	1.00	3	(1)	(171)	-	-	-	-	-	-	(150)	-	(316)
loads.or.5	85	1.00	3	(1)	(171)	-	-	-	-	-	-	(163)	-	(334)
loads.or.6	86	1.00	3	(1)	(171)	-	-	-	-	-	-	(170)	-	(348)
loads.or.7	87	1.00	3	(1)	(171)	-	-	-	-	-	-	(177)	-	(366)
loads.or.8	88	1.00	3	(1)	(171)	-	-	-	-	-	-	(190)	-	(382)
loads.or.9	89	1.00	3	(1)	(171)	-	-	-	-	-	-	(210)	-	(395)
loads.or.10	90	1.00	3	(1)	(171)	-	-	-	-	-	-	(234)	-	(410)
loads.ut.1	91	0.50	(33)	(1)	(171)	-	-	-	-	-	-	(5)	-	(48)
loads.ut.2	92	0.50	(40)	(1)	(171)	-	-	-	-	-	-	(138)	-	(141)
loads.ut.3	93	0.50	(40)	(1)	(171)	-	-	-	-	-	-	(262)	-	(228)
loads.ut.4	94	0.50	(40)	(1)	(171)	-	-	-	-	-	-	(287)	-	(323)
loads.ut.5	95	0.50	(40)	(1)	(171)	-	-	-	-	-	-	(287)	-	(417)
loads.ut.6	96	0.50	(40)	(1)	(171)	-	-	-	-	-	-	(287)	-	(421)
loads.ut.7	97	0.50	(40)	(1)	(171)	-	-	-	-	-	-	(287)	-	(428)
loads.ut.8	98	0.50	(40)	(1)	(171)	-	-	-	-	-	-	(287)	-	(428)
loads.ut.9	99	0.50	(40)	(1)	(171)	-	-	-	-	-	-	(287)	-	(428)
loads.ut.10	100	0.50	(40)	(1)	(171)	-	-	-	-	-	-	(287)	-	(428)
enviro.1	101	5.00	-	-	-	-	-	-	-	-	-	-	-	66
enviro.2	102	2.50	(0)	-	(0)	-	-	-	-	-	-	-	-	89
enviro.3	103	1.25	(0)	-	(0)	-	-	-	-	-	-	-	-	101
enviro.4	104	0.63	(1)	(1)	(1)	-	-	-	-	-	-	(0)	-	93
enviro.5	105	0.31	(1)	(1)	(2)	-	-	-	-	-	-	(30)	-	83
enviro.6	106	0.16	(1)	(1)	(2)	-	-	-	-	-	-	(54)	-	43
enviro.7	107	0.08	(1)	(1)	(3)	-	-	-	-	-	-	(110)	-	(19)
enviro.8	108	0.04	(1)	(1)	(3)	-	-	-	-	-	-	(146)	-	(165)
enviro.9	109	0.02	(1)	(1)	(4)	-	-	-	-	-	-	(201)	-	(419)
enviro.10	110	0.01	(1)	(1)	(3)	-	-	-	-	-	-	(251)	-	(420)
enviro.25	111	0.00	(3)	(1)	(133)	-	-	-	-	-	-	(287)	-	(428)
enviro.40	112	0.00	(4)	(1)	(171)	-	-	-	-	-	-	(287)	-	(428)
capcost.down	121	-	3	2	3	-	-	-	-	-	-	(241)	-	(122)
capcost.up	122	-	(0)	(0)	(0)	-	-	-	-	-	61	61	25	127
gas.low	123	-	-	-	-	-	-	-	-	-	-	-	-	22
gas.high	124	-	1	0	0	-	-	-	-	-	-	(116)	-	(18)
trans.zero	125	-	1	0	0	-	-	-	-	-	-	(116)	-	(18)
renew.geotherm	126	-	-	-	-	-	-	-	-	-	-	(100)	-	(59)
renew.solar	127	-	(0)	0	0	-	-	-	-	-	-	(119)	-	(428)
renew.wind	128	-	-	-	-	-	-	-	-	-	-	-	-	-
utah.grow	129	-	-	150	175	-	-	-	-	-	-	78	234	394
loads.big4	130	-	-	(1)	(171)	-	-	-	-	-	-	-	-	32
firm.ind	131	-	159	161	161	-	-	-	-	-	-	-	105	112
critical.wtr	132	-	135	135	135	-	-	-	-	-	-	(18)	12	19

Summer Reserve Margin (Percent of System Load)

Description	#	Wtd	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
Reference Case	1		10.0	10.0	10.0	10.1	12.0	10.0	10.9	10.0	10.0	10.0	10.0	10.0
Wtd Case	2		10.6	17.6	17.9	18.2	18.5	16.4	16.8	15.2	14.2	12.8	11.6	10.7
loads.sys.1	71	3.00	10.1	22.4	21.2	18.0	17.9	15.5	15.2	12.7	12.0	10.0	10.1	10.0
loads.sys.2	72	3.00	10.4	24.0	23.4	20.7	19.6	17.6	17.7	14.4	13.0	10.0	11.1	10.0
loads.sys.3	73	3.00	10.8	25.7	25.6	23.5	22.4	19.5	19.7	17.0	14.9	11.8	12.1	10.0
loads.sys.4	74	3.00	11.2	27.4	27.9	26.4	25.4	22.4	21.6	18.9	16.8	13.7	13.2	10.0
loads.sys.5	75	3.00	11.6	29.1	30.3	29.5	28.6	25.5	24.7	20.9	18.7	15.6	14.3	10.8
loads.sys.6	76	3.00	12.0	30.9	32.7	32.7	31.9	28.7	28.1	24.1	21.9	18.7	15.4	11.9
loads.sys.7	77	3.00	12.3	32.7	35.2	35.9	35.2	32.0	31.6	27.4	25.2	22.1	16.5	12.9
loads.sys.8	78	3.00	12.7	34.6	37.8	39.4	38.8	35.6	35.3	31.0	28.8	25.6	17.8	14.1
loads.sys.9	79	3.00	13.1	36.5	40.5	43.1	42.6	39.2	39.2	34.8	32.6	29.3	19.1	15.4
loads.sys.10	80	3.00	13.5	38.5	43.4	47.0	46.7	43.2	43.3	38.8	36.6	33.3	20.6	16.8
loads.or.1	81	1.00	10.0	18.8	17.2	14.7	14.8	12.1	13.1	12.0	11.1	10.0	10.0	10.0
loads.or.2	82	1.00	10.0	19.4	17.8	15.3	15.1	12.4	13.2	12.0	11.2	10.0	10.0	10.0
loads.or.3	83	1.00	10.0	20.0	18.4	15.9	15.7	13.0	13.3	12.1	11.4	10.0	10.0	10.0
loads.or.4	84	1.00	10.0	20.6	19.0	16.6	16.3	13.7	13.4	12.2	11.5	10.0	10.0	10.0
loads.or.5	85	1.00	10.0	21.3	19.6	16.8	16.6	14.3	13.6	12.4	11.6	10.0	10.2	10.0
loads.or.6	86	1.00	10.0	21.9	20.3	17.0	16.8	14.9	14.0	12.8	11.7	10.0	10.3	10.0
loads.or.7	87	1.00	10.0	22.5	20.9	17.4	17.2	15.1	14.4	13.3	11.8	10.0	10.5	10.0
loads.or.8	88	1.00	10.0	23.1	21.5	18.1	17.5	15.2	15.1	13.6	11.9	10.0	10.6	10.0
loads.or.9	89	1.00	10.0	23.8	22.2	18.7	17.7	15.8	15.7	13.8	12.1	10.0	10.7	10.0
loads.or.10	90	1.00	10.0	24.4	22.8	19.4	18.2	15.9	15.9	14.2	12.4	10.0	10.9	10.0
loads.ut.1	91	0.50	10.1	13.1	11.8	11.9	13.5	10.9	12.5	10.6	10.0	10.0	10.0	10.0
loads.ut.2	92	0.50	10.4	13.9	13.0	13.3	14.5	11.9	13.9	11.8	11.2	10.0	10.0	10.0
loads.ut.3	93	0.50	10.8	14.7	14.3	14.2	15.8	13.1	15.2	13.2	12.6	10.0	10.0	10.0
loads.ut.4	94	0.50	11.2	15.6	15.6	15.7	17.3	14.7	16.5	14.6	12.9	10.0	10.1	10.0
loads.ut.5	95	0.50	11.6	16.4	17.0	17.1	18.9	16.3	17.7	14.9	12.9	10.0	10.9	10.0
loads.ut.6	96	0.50	12.0	17.3	18.3	18.7	20.3	17.6	19.0	16.0	14.1	11.1	11.7	10.0
loads.ut.7	97	0.50	12.4	18.2	19.8	20.6	21.9	19.2	20.6	17.5	15.5	12.6	12.5	10.0
loads.ut.8	98	0.50	12.8	19.1	21.2	22.7	23.2	20.8	21.9	18.8	16.8	13.8	13.5	10.4
loads.ut.9	99	0.50	13.2	20.0	22.7	24.8	25.0	22.3	23.4	20.6	18.7	15.6	14.4	11.3
loads.ut.10	100	0.50	13.6	20.9	24.2	27.0	27.3	24.5	24.7	22.2	20.3	17.2	15.3	12.1
enviro.1	101	5.00	10.0	10.0	10.0	10.1	12.2	10.0	11.2	10.1	10.0	10.0	10.0	10.0
enviro.2	102	2.50	10.0	10.0	10.0	10.1	12.2	10.0	11.3	10.4	10.0	10.0	10.0	10.0
enviro.3	103	1.25	10.0	10.0	10.0	10.1	12.4	10.0	11.4	10.5	10.0	10.0	10.0	10.0
enviro.4	104	0.63	10.0	10.0	10.0	10.2	12.5	10.0	11.8	10.7	10.0	10.0	10.0	10.0
enviro.5	105	0.31	10.0	10.0	10.0	10.3	12.7	10.2	12.1	11.0	10.3	10.0	10.0	10.0
enviro.6	106	0.16	10.0	10.0	10.0	11.0	13.2	10.8	12.3	11.2	10.5	10.0	10.0	10.0
enviro.7	107	0.08	10.0	10.0	10.0	11.5	13.8	11.3	12.8	11.8	11.1	10.0	10.0	10.0
enviro.8	108	0.04	10.0	10.0	10.0	12.4	14.4	11.8	13.3	12.3	11.4	10.0	10.0	10.0
enviro.9	109	0.02	10.0	10.0	10.0	12.4	14.9	12.3	13.8	12.8	11.9	10.0	10.0	10.0
enviro.10	110	0.01	10.0	10.0	10.0	13.0	15.5	12.9	14.2	13.3	12.4	10.0	10.3	10.0
enviro.25	111	0.00	10.0	10.0	10.0	38.1	54.2	58.2	61.1	57.4	54.6	51.7	47.1	35.1
enviro.40	112	0.00	10.0	10.1	10.6	39.1	57.6	64.8	68.1	64.9	61.9	59.0	49.0	36.4
capcost.down	121	-	10.0	10.0	10.0	12.4	13.3	11.7	12.6	11.7	11.1	10.0	10.0	10.0
capcost.up	122	-	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
gas.low	123	-	10.0	10.0	10.0	12.5	12.9	11.1	12.0	11.3	10.7	10.0	10.0	10.0
gas.high	124	-	10.0	10.0	10.0	10.1	12.0	10.0	11.1	10.2	10.0	10.0	10.0	10.0
trans.zero	125	-	10.0	10.0	10.0	12.6	12.9	11.0	12.0	11.3	10.8	10.0	10.0	10.0
renew.geotherm	126	-	10.0	10.0	10.0	10.1	12.1	10.0	10.9	10.0	10.0	10.0	10.0	10.0
renew.solar	127	-	10.0	10.0	10.0	10.1	12.0	10.0	10.9	10.0	10.0	10.0	12.6	10.0
renew.wind	128	-	10.0	10.0	10.0	10.1	12.0	10.0	10.9	10.1	10.0	10.0	10.0	10.0
utah.grow	129	-	10.0	10.0	10.0	10.0	11.6	10.0	10.8	10.0	10.0	10.0	10.0	10.0
loads.big4	130	-	10.0	12.3	10.6	10.8	12.4	10.0	11.1	10.0	10.0	10.0	10.0	10.0
firm.ind	131	-	10.0	10.0	10.0	10.0	10.6	10.0	10.0	10.0	10.0	10.0	10.0	10.0
critical.wtr	132	-	10.0	10.0	10.0	10.3	12.2	10.0	11.0	10.3	10.0	10.0	10.0	10.0

Summer Reserve Margin (Percent of System Load)

Difference From Reference Case

Description	#	Wtd	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
Reference Case	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Wtd Case	2	-	0.6	7.6	7.9	8.1	6.5	6.4	5.9	5.2	4.2	2.8	1.6	0.7
loads.sys.1	71	3.00	0.1	12.4	11.2	7.9	5.9	5.5	4.3	2.7	2.0	-	0.1	-
loads.sys.2	72	3.00	0.4	14.0	13.4	10.6	7.6	7.6	6.8	4.4	3.0	-	1.1	-
loads.sys.3	73	3.00	0.8	15.7	15.6	13.4	10.4	9.5	8.8	7.0	4.9	1.8	2.1	-
loads.sys.4	74	3.00	1.2	17.4	17.9	16.3	13.4	12.4	10.7	8.9	6.8	3.7	3.2	-
loads.sys.5	75	3.00	1.6	19.1	20.3	19.4	16.6	15.5	13.8	10.9	8.7	5.6	4.3	0.8
loads.sys.6	76	3.00	2.0	20.9	22.7	22.6	19.9	18.7	17.2	14.1	11.9	8.7	5.4	1.9
loads.sys.7	77	3.00	2.3	22.7	25.2	25.8	23.2	22.0	20.7	17.4	15.2	12.1	6.5	2.9
loads.sys.8	78	3.00	2.7	24.6	27.8	29.3	26.8	25.6	24.4	21.0	18.8	15.6	7.8	4.1
loads.sys.9	79	3.00	3.1	26.5	30.5	33.0	30.6	29.2	28.3	24.8	22.6	19.3	9.1	5.4
loads.sys.10	80	3.00	3.5	28.5	33.4	36.9	34.7	33.2	32.4	28.8	26.6	23.3	10.6	6.8
loads.or.1	81	1.00	-	8.8	7.2	4.6	2.8	2.1	2.2	2.0	1.1	-	-	-
loads.or.2	82	1.00	-	9.4	7.8	5.2	3.1	2.4	2.3	2.0	1.2	-	-	-
loads.or.3	83	1.00	-	10.0	8.4	5.8	3.7	3.0	2.4	2.1	1.4	-	-	-
loads.or.4	84	1.00	-	10.6	9.0	6.5	4.3	3.7	2.5	2.2	1.5	-	-	-
loads.or.5	85	1.00	-	11.3	9.6	6.7	4.6	4.3	2.7	2.4	1.6	-	0.2	-
loads.or.6	86	1.00	-	11.9	10.3	6.9	4.8	4.9	3.1	2.8	1.7	-	0.3	-
loads.or.7	87	1.00	-	12.5	10.9	7.3	5.2	5.1	3.5	3.3	1.8	-	0.5	-
loads.or.8	88	1.00	-	13.1	11.5	8.0	5.5	5.2	4.2	3.6	1.9	-	0.6	-
loads.or.9	89	1.00	-	13.8	12.2	8.6	5.7	5.8	4.8	3.8	2.1	-	0.7	-
loads.or.10	90	1.00	-	14.4	12.8	9.3	6.2	5.9	5.0	4.2	2.4	-	0.9	-
loads.ut.1	91	0.50	0.1	3.1	1.8	1.8	1.5	0.9	1.6	0.6	-	-	-	-
loads.ut.2	92	0.50	0.4	3.9	3.0	3.2	2.5	1.9	3.0	1.8	1.2	-	-	-
loads.ut.3	93	0.50	0.8	4.7	4.3	4.1	3.8	3.1	4.3	3.2	2.6	-	-	-
loads.ut.4	94	0.50	1.2	5.6	5.6	5.6	5.3	4.7	5.6	4.6	2.9	-	-	-
loads.ut.5	95	0.50	1.6	6.4	7.0	7.0	6.9	6.3	6.8	4.9	2.9	-	0.1	-
loads.ut.6	96	0.50	2.0	7.3	8.3	8.6	8.3	7.6	8.1	6.0	4.1	-	0.9	-
loads.ut.7	97	0.50	2.4	8.2	9.8	10.5	9.9	9.2	9.7	7.5	5.5	1.1	1.7	-
loads.ut.8	98	0.50	2.8	9.1	11.2	12.6	11.2	10.8	11.0	8.8	6.8	2.6	2.5	-
loads.ut.9	99	0.50	3.2	10.0	12.7	14.7	13.0	12.3	12.5	10.6	8.7	3.8	3.5	0.4
loads.ut.10	100	0.50	3.6	10.9	14.2	16.9	15.3	14.5	13.8	12.2	10.3	5.6	4.4	1.3
enviro.1	101	5.00	-	-	-	-	0.2	-	0.3	0.1	-	7.2	5.3	2.1
enviro.2	102	2.50	-	-	-	-	0.2	-	0.4	0.4	-	-	-	-
enviro.3	103	1.25	-	-	-	-	0.4	-	0.5	0.5	-	-	-	-
enviro.4	104	0.63	-	-	-	0.1	0.5	-	0.9	0.7	-	-	-	-
enviro.5	105	0.31	-	-	-	0.2	0.7	0.2	1.2	1.0	0.3	-	-	-
enviro.6	106	0.16	-	-	-	0.9	1.2	0.8	1.4	1.2	0.5	-	-	-
enviro.7	107	0.08	-	-	-	1.4	1.8	1.3	1.9	1.8	1.1	-	-	-
enviro.8	108	0.04	-	-	-	2.3	2.4	1.8	2.4	2.3	1.4	-	-	-
enviro.9	109	0.02	-	-	-	2.3	2.9	2.3	2.9	2.8	1.9	-	-	-
enviro.10	110	0.01	-	-	-	2.9	3.5	2.9	3.3	3.3	2.4	-	0.3	-
enviro.25	111	0.00	-	-	-	28.0	42.2	48.2	50.2	47.4	44.6	41.7	37.1	25.1
enviro.40	112	0.00	-	0.1	0.6	29.0	45.6	54.8	57.2	54.9	51.9	49.0	39.0	26.4
capcost.down	121	-	-	-	-	2.3	1.3	1.7	1.7	1.7	1.1	-	-	-
capcost.up	122	-	-	-	-	(0.1)	(2.0)	-	(0.9)	-	-	-	-	-
gas.low	123	-	-	-	-	-	-	-	0.2	0.2	-	-	-	-
gas.high	124	-	-	-	-	2.5	0.9	1.0	1.1	1.3	0.8	-	-	-
trans.zero	125	-	-	-	-	2.5	0.9	1.0	1.1	1.3	0.8	-	-	-
renew.geotherm	126	-	-	-	-	-	0.1	-	-	-	-	-	-	-
renew.solar	127	-	-	-	-	-	-	-	-	-	-	-	2.6	-
renew.wind	128	-	-	-	-	-	-	-	-	0.1	-	-	-	-
utah.grow	129	-	-	-	-	(0.1)	(0.4)	-	(0.1)	-	-	-	-	-
loads.big4	130	-	-	2.3	0.6	0.7	0.4	-	0.2	-	-	-	-	-
firm.ind	131	-	-	-	-	(0.1)	(1.4)	-	(0.9)	-	-	-	-	-
critical.wtr	132	-	-	-	-	0.2	0.2	-	0.1	0.3	-	-	-	-

PacifiCorp

Integrated Resource Planning

RAMPP-6

Loads and Resources in Year 2010

Summary Tables

Tab 18

Wholesale Market Price 22 Mills/kWh, Gas Price 130 to 280 C/MMBtu

	Reference	130L.22	160L.22	190L.22	220L.22	250L.22	280L.22	130H.22	160H.22	190H.22	220H.22	250H.22	280H.22
Case #	1	11	12	13	14	15	16	17	18	19	20	21	22
Summer Peak Capacity in Year 2010 (MW)													
1 Native Load	9,399	9,399	9,399	9,399	9,399	9,399	9,399	9,399	9,399	9,399	9,399	9,399	9,399
2 Long Term Sales	1,249	1,249	1,249	1,249	1,249	1,249	1,249	1,249	1,249	1,249	1,249	1,249	1,249
3 less DSM	(232)	(196)	(219)	(221)	(223)	(230)	(231)	(221)	(224)	(232)	(233)	(240)	(245)
4 **Total Requirements**	**10,416**	**10,452**	**10,429**	**10,427**	**10,425**	**10,418**	**10,417**	**10,427**	**10,424**	**10,416**	**10,415**	**10,408**	**10,403**
5 Existing Generation	8,302	8,321	8,321	8,321	8,321	8,321	8,321	8,321	8,321	8,321	8,321	8,321	8,321
6 Long Term Purchase	626	626	626	627	626	626	626	626	626	626	626	626	626
7 New Resources													
8 Short Term Market	623	623	623	623	623	623	623	623	623	623	623	623	623
9 Renewable	-	-	-	-	-	-	-	-	-	-	-	-	-
10 Cogeneration	1,066	949	959	914	995	1,080	677	945	963	1,108	1,011	1,053	244
11 Combined Cycle CT	536	689	656	604	520	415	818	668	647	380	476	425	1,224
12 Coal	-	-	-	-	-	-	-	-	-	-	-	-	-
13 Transmission	19	-	-	-	-	-	-	-	-	-	-	-	-
14 Peaking Resources	287	291	288	383	382	395	394	288	288	401	400	401	405
15 **Total Resources**	**11,459**	**11,499**	**11,473**	**11,472**	**11,468**	**11,461**	**11,460**	**11,472**	**11,468**	**11,460**	**11,458**	**11,450**	**11,444**
16 Reserves	1,043	1,046	1,044	1,044	1,044	1,043	1,043	1,044	1,043	1,043	1,043	1,042	1,041
17 Reserve Margin (%)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Annual Energy in Year 2010 (aMW)													
18 Native Load	6,814	6,814	6,814	6,814	6,814	6,814	6,814	6,814	6,814	6,814	6,814	6,814	6,814
19 Pump Storage/Peak Return	223	223	223	223	223	223	223	223	223	223	223	223	223
20 Long Term Sales	794	794	794	794	794	794	794	794	794	794	794	794	794
21 Short Term Sales	1,873	1,880	1,840	1,734	1,699	1,638	1,543	1,890	1,886	1,774	1,692	1,626	1,506
22 less DSM	(164)	(136)	(151)	(152)	(155)	(161)	(161)	(152)	(155)	(164)	(164)	(172)	(176)
23 **Total Requirements**	**9,540**	**9,575**	**9,520**	**9,412**	**9,375**	**9,308**	**9,213**	**9,569**	**9,562**	**9,441**	**9,359**	**9,285**	**9,161**
24 Existing Generation	7,053	7,020	7,019	7,023	7,030	7,032	7,039	7,047	7,052	7,061	7,064	7,063	7,062
25 Long Term Purchases	335	335	335	335	335	335	335	335	335	335	335	335	335
26 Short Term Purchases	96	141	109	117	114	149	200	132	129	153	148	171	245
27 New Resources													
28 Short Term Market	459	459	459	459	459	459	459	459	459	459	459	459	459
28 Renewable	468	375	460	467	467	467	469	467	467	468	469	491	503
29 Cogeneration	1,055	939	949	905	983	1,022	627	935	953	1,092	977	963	237
30 Combined Cycle CT	524	682	649	573	453	310	553	661	634	340	377	294	823
31 Coal	-	-	-	-	-	-	-	-	-	-	-	-	-
32 Transmission	18	-	-	-	-	-	-	-	-	-	-	-	-
33 Peaking Resources	-	-	-	-	-	-	-	-	-	-	-	-	-
34 **Total Resources**	**9,540**	**9,575**	**9,520**	**9,412**	**9,375**	**9,308**	**9,213**	**9,569**	**9,562**	**9,441**	**9,359**	**9,285**	**9,161**

Difference between Case and Reference Case
Wholesale Market Price 22 Mills/kWh, Gas Price 130 to 280 C/MMBtu

	Reference	130L.22	160L.22	190L.22	220L.22	250L.22	280L.22	130H.22	160H.22	190H.22	220H.22	250H.22	280H.22
Case #	1	11	12	13	14	15	16	17	18	19	20	21	22
Summer Peak Capacity in Year 2010 (MW)													
1 Native Load	-	-	-	-	-	-	-	-	-	-	-	-	-
2 Long Term Sales	-	-	-	-	-	-	-	-	-	-	-	-	-
3 less DSM	-	36	13	11	9	2	1	11	8	-	(1)	(8)	(13)
4 **Total Requirements**	-	**36**	**13**	**11**	**9**	**2**	**1**	**11**	**8**	**-**	**(1)**	**(8)**	**(13)**
5 Existing Generation	-	19	19	19	19	19	19	19	19	19	19	19	19
6 Long Term Purchase	-	-	(1)	0	(0)	-	(0)	(0)	0	0	(0)	(0)	(0)
7 New Resources													
8 Short Term Market	-	-	-	-	-	-	-	-	-	-	-	-	-
9 Renewable	-	-	-	-	-	-	-	-	-	-	-	-	-
10 Cogeneration	-	(117)	(107)	(152)	(71)	14	(389)	(121)	(103)	42	(55)	(13)	(822)
11 Combined Cycle CT	-	153	120	68	(16)	(121)	282	132	111	(156)	(60)	(111)	688
12 Coal	-	-	-	-	-	-	-	-	-	-	-	-	-
13 Transmission	-	(19)	(19)	(19)	(19)	(19)	(19)	(19)	(19)	(19)	(19)	(19)	(19)
14 Peaking Resources	-	4	2	96	95	108	107	1	1	114	113	114	118
15 **Total Resources**	-	**40**	**14**	**13**	**9**	**2**	**1**	**13**	**9**	**1**	**(1)**	**(9)**	**(15)**
16 Reserves	-	3	1	1	1	-	-	1	-	-	-	(1)	(2)
17 Reserve Margin (%)	-	-	-	-	-	-	-	-	-	-	-	-	-
Annual Energy in Year 2010 (aMW)													
18 Native Load	-	-	-	-	-	-	-	-	-	-	-	-	-
19 Pump Storage/Peak Return	-	-	-	-	-	-	-	-	-	-	-	-	-
20 Long Term Sales	-	-	-	-	-	-	-	-	-	-	-	-	-
21 Short Term Sales	-	7	(33)	(139)	(174)	(235)	(330)	18	14	(99)	(180)	(247)	(367)
22 less DSM	-	28	13	11	9	3	3	11	8	-	(0)	(8)	(12)
23 **Total Requirements**	-	**36**	**(20)**	**(128)**	**(165)**	**(232)**	**(327)**	**29**	**22**	**(99)**	**(181)**	**(255)**	**(379)**
24 Existing Generation	-	(33)	(34)	(30)	(23)	(20)	(14)	(6)	(1)	9	11	10	9
25 Long Term Purchases	-	-	-	-	-	-	-	-	-	-	-	-	-
26 Short Term Purchases	-	45	13	21	18	53	104	36	33	57	52	75	149
27 New Resources													
28 Short Term Market	-	-	-	-	-	-	-	-	-	-	-	-	-
28 Renewable	-	(93)	(8)	(1)	(1)	(1)	1	(1)	(1)	-	1	22	35
29 Cogeneration	-	(116)	(106)	(150)	(72)	(33)	(429)	(120)	(102)	37	(79)	(92)	(819)
30 Combined Cycle CT	-	158	125	49	(71)	(214)	29	137	110	(184)	(147)	(230)	299
31 Coal	-	-	-	-	-	-	-	-	-	-	-	-	-
32 Transmission	-	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)
33 Peaking Resources	-	-	-	-	-	-	-	-	-	-	-	-	-
34 **Total Resources**	-	**36**	**(20)**	**(128)**	**(165)**	**(232)**	**(327)**	**29**	**22**	**(99)**	**(181)**	**(255)**	**(379)**

Wholesale Market Price 26 Mills/kWh, Gas Price 130 to 280 C/MMBtu

	Reference	130L.26	160L.26	190L.26	220L.26	250L.26	280L.26	130H.26	160H.26	190H.26	220H.26	250H.26	280H.26
Case #	1	23	24	25	26	27	28	29	30	31	32	33	34
Summer Peak Capacity in Year 2010 (M													
1 Native Load	9,399	9,399	9,399	9,399	9,399	9,399	9,399	9,399	9,399	9,399	9,399	9,399	9,399
2 Long Term Sales	1,249	1,249	1,249	1,249	1,249	1,249	1,249	1,249	1,249	1,249	1,249	1,249	1,249
3 less DSM	(232)	(196)	(219)	(221)	(223)	(230)	(232)	(221)	(224)	(232)	(236)	(240)	(244)
4 **Total Requirements**	**10,416**	**10,452**	**10,429**	**10,427**	**10,425**	**10,418**	**10,416**	**10,427**	**10,424**	**10,416**	**10,412**	**10,408**	**10,404**
5 Existing Generation	8,302	8,321	8,321	8,321	8,321	8,321	8,321	8,321	8,303	8,302	8,315	8,301	8,321
6 Long Term Purchase	626	626	626	626	626	626	626	626	626	626	626	626	626
7 New Resources													
8 Short Term Market	623	623	623	623	623	623	623	623	623	623	623	623	623
9 Renewable	-	-	-	-	-	-	-	-	-	-	-	-	-
10 Cogeneration	1,066	1,034	980	958	1,090	1,108	982	1,054	1,038	1,066	1,062	1,156	1,147
11 Combined Cycle CT	536	894	736	654	520	387	505	847	738	536	536	322	273
12 Coal	-	-	-	-	-	-	-	-	-	-	-	-	57
13 Transmission	19	-	-	-	-	-	-	-	18	19	6	19	-
14 Peaking Resources	287	-	187	288	288	395	401	-	121	287	286	401	398
15 **Total Resources**	**11,459**	**11,499**	**11,474**	**11,472**	**11,469**	**11,461**	**11,460**	**11,472**	**11,468**	**11,459**	**11,455**	**11,450**	**11,446**
16 Reserves	1,043	1,046	1,044	1,044	1,044	1,043	1,043	1,044	1,043	1,043	1,042	1,042	1,041
17 Reserve Margin (%)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Annual Energy in Year 2010 (aMW)													
18 Native Load	6,814	6,814	6,814	6,814	6,814	6,814	6,814	6,814	6,814	6,814	6,814	6,814	6,814
19 Pump Storage/Peak Return	223	223	223	223	223	223	223	223	223	223	223	223	223
20 Long Term Sales	794	794	794	794	794	794	794	794	794	794	794	794	794
21 Short Term Sales	1,873	2,080	1,969	1,902	1,893	1,789	1,719	2,088	1,999	1,873	1,839	1,720	1,672
22 less DSM	(164)	(136)	(151)	(152)	(155)	(161)	(164)	(152)	(155)	(164)	(167)	(172)	(174)
23 **Total Requirements**	**9,540**	**9,775**	**9,649**	**9,581**	**9,569**	**9,460**	**9,386**	**9,766**	**9,674**	**9,540**	**9,502**	**9,379**	**9,328**
24 Existing Generation	7,053	7,025	7,049	7,063	7,059	7,066	7,066	7,048	7,052	7,053	7,064	7,052	7,070
25 Long Term Purchases	335	335	335	335	335	335	335	335	335	335	335	337	337
26 Short Term Purchases	96	48	107	134	136	161	170	43	62	96	86	110	133
27 New Resources													
28 Short Term Market	459	459	459	459	459	459	459	459	459	459	459	459	459
28 Renewable	468	375	460	467	467	467	468	467	467	468	486	491	503
29 Cogeneration	1,055	1,024	970	949	1,079	1,093	954	1,043	1,027	1,055	1,051	1,138	1,073
30 Combined Cycle CT	524	885	729	641	501	345	402	839	723	524	501	264	205
31 Coal	-	-	-	-	-	-	-	-	-	-	-	-	52
32 Transmission	18	-	-	-	-	-	-	-	17	18	6	18	-
33 Peaking Resources	-	-	-	-	-	-	-	-	-	-	-	-	-
34 **Total Resources**	**9,540**	**9,775**	**9,649**	**9,581**	**9,569**	**9,460**	**9,386**	**9,766**	**9,674**	**9,540**	**9,502**	**9,379**	**9,328**

Difference between Case and Reference Case

Wholesale Market Price 26 Mills/kWh, Gas Price 130 to 280 C/MMBtu

		Reference	130L.26	160L.26	190L.26	220L.26	250L.26	280L.26	130H.26	160H.26	190H.26	220H.26	250H.26	280H.26
	Case #	1	23	24	25	26	27	28	29	30	31	32	33	34
Summer Peak Capacity in Year 2010 (M														
1	Native Load	-	-	-	-	-	-	-	-	-	-	-	-	-
2	Long Term Sales	-	-	-	-	-	-	-	-	-	-	-	-	-
3	less DSM	-	36	13	11	9	2	-	11	8	-	(4)	(8)	(12)
4	**Total Requirements**	-	36	13	11	9	2	-	11	8	-	(4)	(8)	(12)
5	Existing Generation	-	19	19	19	19	19	19	19	1	-	13	(1)	19
6	Long Term Purchase	-	(0)	0	(0)	0	0	0	(0)	(0)	-	(1)	(0)	(0)
7	New Resources													
8	Short Term Market	-	-	-	-	-	-	-	-	-	-	-	-	-
9	Renewable	-	-	-	-	-	-	-	-	-	-	-	-	-
10	Cogeneration	-	(32)	(86)	(108)	24	43	(84)	(12)	(28)	-	(4)	90	82
11	Combined Cycle CT	-	358	201	118	(16)	(149)	(30)	311	203	-	0	(213)	(263)
12	Coal	-	-	-	-	-	-	-	-	-	-	-	-	57
13	Transmission	-	(19)	(19)	(19)	(19)	(19)	(19)	(19)	(1)	-	(13)	1	(19)
14	Peaking Resources	-	(287)	(100)	1	1	108	114	(287)	(166)	-	(1)	114	111
15	**Total Resources**	-	40	15	13	10	2	1	13	9	-	(4)	(9)	(13)
16	Reserves	-	3	1	1	1	-	-	1	-	-	(1)	(1)	(2)
17	Reserve Margin (%)	-	-	-	-	-	-	-	-	-	-	-	-	-
Annual Energy in Year 2010 (aMW)														
18	Native Load	-	-	-	-	-	-	-	-	-	-	-	-	-
19	Pump Storage/Peak Return	-	-	-	-	-	-	-	-	-	-	-	-	-
20	Long Term Sales	-	-	-	-	-	-	-	-	-	-	-	-	-
21	Short Term Sales	-	207	96	30	20	(83)	(154)	215	126	-	(34)	(153)	(201)
22	less DSM	-	28	13	11	9	3	-	11	8	-	(3)	(8)	(11)
23	**Total Requirements**	-	235	109	41	29	(80)	(154)	226	134	-	(38)	(161)	(212)
24	Existing Generation	-	(28)	(4)	10	7	13	14	(5)	(1)	-	11	(1)	17
25	Long Term Purchases	-	-	-	-	-	-	-	-	-	-	-	2	2
26	Short Term Purchases	-	(49)	11	38	40	65	74	(54)	(34)	-	(10)	14	37
27	New Resources													
28	Short Term Market	-	-	-	-	-	-	-	-	-	-	-	-	-
28	Renewable	-	(93)	(8)	(1)	(1)	(1)	-	(1)	(1)	-	18	22	35
29	Cogeneration	-	(31)	(85)	(106)	24	38	(102)	(12)	(28)	-	(4)	83	17
30	Combined Cycle CT	-	361	205	117	(23)	(179)	(122)	315	199	-	(23)	(260)	(319)
31	Coal	-	-	-	-	-	-	-	-	-	-	-	-	52
32	Transmission	-	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(1)	-	(12)	1	(18)
33	Peaking Resources	-	-	-	-	-	-	-	-	-	-	-	-	-
34	**Total Resources**	-	235	109	41	29	(80)	(154)	226	134	-	(38)	(161)	(212)

Wholesale Market Price 30 Mills/kWh, Gas Price 130 to 280 C/MMBtu

		Reference	130L.30	160L.30	190L.30	220L.30	250L.30	280L.30	130H.30	160H.30	190H.30	220H.30	250H.30	280H.30
	Case #	1	35	36	37	38	39	40	41	42	43	44	45	46
	Summer Peak Capacity in Year 2010 (M													
1	Native Load	9,399	9,399	9,399	9,399	9,399	9,399	9,399	9,399	9,399	9,399	9,399	9,399	9,399
2	Long Term Sales	1,249	1,249	1,249	1,249	1,249	1,249	1,249	1,249	1,249	1,249	1,249	1,249	1,249
3	less DSM	(232)	(196)	(214)	(221)	(223)	(228)	(232)	(221)	(224)	(232)	(236)	(240)	(244)
4	**Total Requirements**	**10,416**	**10,452**	**10,434**	**10,427**	**10,425**	**10,420**	**10,416**	**10,427**	**10,424**	**10,416**	**10,412**	**10,408**	**10,404**
5	Existing Generation	8,302	8,321	8,321	8,321	8,319	8,311	8,321	8,321	8,304	8,304	8,274	8,210	8,264
6	Long Term Purchase	626	626	626	626	626	626	626	626	626	626	626	626	626
7	New Resources													
8	Short Term Market	623	623	623	623	623	623	623	623	623	623	623	623	623
9	Renewable	-	-	-	-	-	-	-	-	-	-	-	-	-
10	Cogeneration	1,066	1,027	1,039	1,041	1,063	1,072	1,064	1,066	1,071	1,077	1,134	1,328	1,279
11	Combined Cycle CT	536	913	869	807	634	533	538	897	826	792	606	266	189
12	Coal	-	-	-	-	-	-	-	-	-	-	-	-	123
13	Transmission	19	-	-	-	2	10	-	-	16	16	46	109	56
14	Peaking Resources	287	-	-	53	201	287	287	-	-	19	145	286	286
15	**Total Resources**	**11,459**	**11,511**	**11,479**	**11,472**	**11,469**	**11,463**	**11,459**	**11,534**	**11,467**	**11,459**	**11,455**	**11,450**	**11,445**
16	Reserves	1,043	1,058	1,044	1,044	1,044	1,043	1,043	1,106	1,043	1,043	1,042	1,042	1,041
17	Reserve Margin (%)	10.0	10.1	10.0	10.0	10.0	10.0	10.0	10.6	10.0	10.0	10.0	10.0	10.0

Annual Energy in Year 2010 (aMW)

		Reference	130L.30	160L.30	190L.30	220L.30	250L.30	280L.30	130H.30	160H.30	190H.30	220H.30	250H.30	280H.30
18	Native Load	6,814	6,814	6,814	6,814	6,814	6,814	6,814	6,814	6,814	6,814	6,814	6,814	6,814
19	Pump Storage/Peak Return	223	223	223	223	223	223	223	223	223	223	223	223	223
20	Long Term Sales	794	794	794	794	794	794	794	794	794	794	794	794	794
21	Short Term Sales	1,873	2,108	2,118	2,096	1,986	1,938	1,918	2,144	2,129	2,118	2,031	1,936	1,896
22	less DSM	(164)	(136)	(148)	(152)	(155)	(159)	(164)	(152)	(155)	(164)	(168)	(172)	(174)
23	**Total Requirements**	**9,540**	**9,803**	**9,801**	**9,774**	**9,662**	**9,610**	**9,586**	**9,822**	**9,804**	**9,785**	**9,694**	**9,595**	**9,553**
24	Existing Generation	7,053	7,048	7,048	7,064	7,067	7,061	7,070	7,049	7,053	7,054	7,029	6,972	7,019
25	Long Term Purchases	335	335	335	335	335	336	335	335	335	335	335	337	337
26	Short Term Purchases	96	41	70	96	126	162	166	36	74	81	113	153	159
27	New Resources													
28	Short Term Market	459	459	459	459	459	459	459	459	459	459	459	459	459
28	Renewable	468	375	446	467	467	467	468	467	467	468	488	491	503
29	Cogeneration	1,055	1,016	1,029	1,030	1,053	1,061	1,052	1,055	1,061	1,066	1,122	1,314	1,256
30	Combined Cycle CT	524	904	860	789	620	521	503	888	807	774	592	256	156
31	Coal	-	-	-	-	-	-	-	-	-	-	-	-	113
32	Transmission	18	-	-	-	2	9	-	-	15	15	44	104	54
33	Peaking Resources	-	-	-	-	-	-	-	-	-	-	-	-	-
34	**Total Resources**	**9,540**	**9,803**	**9,801**	**9,774**	**9,662**	**9,610**	**9,586**	**9,822**	**9,804**	**9,785**	**9,694**	**9,595**	**9,553**

Difference between Case and Reference Case

Wholesale Market Price 30 Mills/kWh, Gas Price 130 to 280 C/MMBtu

	Reference	130L.30	160L.30	190L.30	220L.30	250L.30	280L.30	130H.30	160H.30	190H.30	220H.30	250H.30	280H.30
Case #	**1**	**35**	**36**	**37**	**38**	**39**	**40**	**41**	**42**	**43**	**44**	**45**	**46**
Summer Peak Capacity in Year 2010 (M													
1 Native Load	-	-	-	-	-	-	-	-	-	-	-	-	-
2 Long Term Sales	-	-	-	-	-	-	-	-	-	-	-	-	-
3 less DSM	-	36	18	11	9	4	-	11	8	-	(4)	(8)	(12)
4 **Total Requirements**	-	**36**	**18**	**11**	**9**	**4**	-	**11**	**8**	-	**(4)**	**(8)**	**(12)**
5 Existing Generation	-	19	19	19	17	9	19	19	2	2	(28)	(92)	(38)
6 Long Term Purchase	-	(0)	(0)	(0)	0	(0)	-	(0)	(0)	-	0	-	(1)
7 New Resources													
8 Short Term Market	-	-	-	-	-	-	-	-	-	-	-	-	-
9 Renewable	-	-	-	-	-	-	-	-	-	-	-	-	-
10 Cogeneration	-	(39)	(27)	(25)	(3)	6	(2)	0	5	11	68	262	213
11 Combined Cycle CT	-	377	333	271	98	(3)	2	361	290	257	70	(270)	(347)
12 Coal	-	-	-	-	-	-	-	-	-	-	-	-	123
13 Transmission	-	(19)	(19)	(19)	(17)	(9)	(19)	(19)	(3)	(3)	27	90	38
14 Peaking Resources	-	(287)	(287)	(234)	(86)	0	-	(287)	(287)	(268)	(142)	(1)	(1)
15 **Total Resources**	-	**52**	**20**	**13**	**10**	**4**	-	**75**	**8**	-	**(4)**	**(9)**	**(14)**
16 Reserves	-	15	1	1	1	-	-	63	-	-	(1)	(1)	(2)
17 Reserve Margin (%)	-	0.1	-	-	-	-	-	0.6	-	-	-	-	-
Annual Energy in Year 2010 (aMW)													
18 Native Load	-	-	-	-	-	-	-	-	-	-	-	-	-
19 Pump Storage/Peak Return	-	-	-	-	-	-	-	-	-	-	-	-	-
20 Long Term Sales	-	-	-	-	-	-	-	-	-	-	-	-	-
21 Short Term Sales	-	235	245	223	113	65	46	271	256	245	158	63	24
22 less DSM	-	28	16	11	9	5	-	11	8	-	(4)	(8)	(11)
23 **Total Requirements**	-	**263**	**261**	**234**	**122**	**70**	**46**	**282**	**264**	**245**	**154**	**55**	**13**
24 Existing Generation	-	(5)	(5)	12	14	8	17	(4)	0	2	(24)	(81)	(33)
25 Long Term Purchases	-	-	-	-	-	1	-	(0)	-	-	-	2	2
26 Short Term Purchases	-	(55)	(27)	-	30	66	70	(60)	(22)	(15)	17	57	63
27 New Resources													
28 Short Term Market	-	-	-	-	-	-	-	-	-	-	-	-	-
28 Renewable	-	(93)	(22)	(1)	(1)	(1)	-	(1)	(1)	-	20	22	35
29 Cogeneration	-	(39)	(26)	(25)	(2)	6	(3)	0	5	11	67	259	201
30 Combined Cycle CT	-	380	336	265	96	(3)	(21)	364	283	250	68	(268)	(368)
31 Coal	-	-	-	-	-	-	-	-	-	-	-	-	113
32 Transmission	-	(18)	(18)	(18)	(16)	(9)	(18)	(18)	(3)	(3)	26	86	36
33 Peaking Resources	-	-	-	-	-	-	-	-	-	-	-	-	-
34 **Total Resources**	-	**263**	**261**	**234**	**122**	**70**	**46**	**282**	**264**	**245**	**154**	**55**	**13**

Wholesale Market Price 34 Mills/kWh, Gas Price 130 to 280 C/MMBtu

	Reference	130L.34	160L.34	190L.34	220L.34	250L.34	280L.34	130H.34	160H.34	190H.34	220H.34	250H.34	280H.34
Case #	1	47	48	49	50	51	52	53	54	55	56	57	58
Summer Peak Capacity in Year 2010 (M													
1 Native Load	9,399	9,399	9,399	9,399	9,399	9,399	9,399	9,399	9,399	9,399	9,399	9,399	9,399
2 Long Term Sales	1,249	1,249	1,249	1,249	1,249	1,249	1,249	1,249	1,249	1,249	1,249	1,249	1,249
3 less DSM	(232)	(196)	(214)	(221)	(223)	(228)	(232)	(221)	(224)	(232)	(235)	(240)	(244)
4 **Total Requirements**	**10,416**	**10,452**	**10,434**	**10,427**	**10,425**	**10,420**	**10,416**	**10,427**	**10,424**	**10,416**	**10,413**	**10,408**	**10,404**
5 Existing Generation	8,302	8,321	8,321	8,321	8,316	8,302	8,279	8,321	8,300	8,284	8,283	8,244	8,224
6 Long Term Purchase	626	626	626	626	626	626	626	626	626	626	626	626	626
7 New Resources													
8 Short Term Market	623	623	623	623	623	623	623	623	623	623	623	623	623
9 Renewable	-	-	-	-	-	-	-	-	-	-	-	-	-
10 Cogeneration	1,066	1,135	1,064	1,066	1,085	1,116	1,145	1,172	1,137	1,100	1,158	1,335	1,336
11 Combined Cycle CT	536	972	915	835	813	719	537	947	873	801	727	499	250
12 Coal	-	-	-	-	-	-	-	-	-	-	-	-	91
13 Transmission	19	-	-	-	5	18	41	-	20	36	37	76	96
14 Peaking Resources	287	-	-	-	-	58	207	-	-	-	-	47	199
15 **Total Resources**	**11,459**	**11,678**	**11,550**	**11,472**	**11,469**	**11,463**	**11,458**	**11,689**	**11,580**	**11,471**	**11,456**	**11,450**	**11,446**
16 Reserves	1,043	1,225	1,116	1,044	1,044	1,043	1,043	1,261	1,156	1,054	1,042	1,042	1,041
17 Reserve Margin (%)	10.0	11.7	10.7	10.0	10.0	10.0	10.0	12.1	11.1	10.1	10.0	10.0	10.0
Annual Energy in Year 2010 (aMW)													
18 Native Load	6,814	6,814	6,814	6,814	6,814	6,814	6,814	6,814	6,814	6,814	6,814	6,814	6,814
19 Pump Storage/Peak Return	223	223	223	223	223	223	223	223	223	223	223	223	223
20 Long Term Sales	794	794	794	794	794	794	794	794	794	794	794	794	794
21 Short Term Sales	1,873	2,245	2,152	2,131	2,132	2,096	1,987	2,269	2,217	2,152	2,145	2,120	2,008
22 less DSM	(164)	(136)	(148)	(152)	(155)	(159)	(164)	(152)	(155)	(164)	(167)	(172)	(174)
23 **Total Requirements**	**9,540**	**9,941**	**9,834**	**9,810**	**9,808**	**9,767**	**9,654**	**9,947**	**9,892**	**9,819**	**9,809**	**9,779**	**9,664**
24 Existing Generation	7,053	7,045	7,048	7,069	7,064	7,053	7,034	7,045	7,052	7,038	7,037	7,003	6,985
25 Long Term Purchases	335	335	335	335	335	335	335	335	335	335	335	335	336
26 Short Term Purchases	96	17	34	76	77	96	129	13	47	84	89	108	147
27 New Resources													
28 Short Term Market	459	459	459	459	459	459	459	459	459	459	459	459	459
28 Renewable	468	375	446	467	467	467	468	467	467	468	487	491	503
29 Cogeneration	1,055	1,123	1,054	1,055	1,074	1,105	1,134	1,160	1,125	1,089	1,146	1,321	1,322
30 Combined Cycle CT	524	962	905	816	793	702	524	935	855	781	707	482	241
31 Coal	-	-	-	-	-	-	-	-	-	-	-	-	84
32 Transmission	18	-	-	-	5	17	39	-	19	35	36	72	91
33 Peaking Resources	-	-	-	-	-	-	-	-	-	-	-	-	-
34 **Total Resources**	**9,540**	**9,941**	**9,834**	**9,810**	**9,808**	**9,767**	**9,654**	**9,947**	**9,892**	**9,819**	**9,809**	**9,779**	**9,664**

Difference between Case and Reference Case

Wholesale Market Price 34 Mills/kWh, Gas Price 130 to 280 C/MMBtu

	Reference	130L.34	160L.34	190L.34	220L.34	250L.34	280L.34	130H.34	160H.34	190H.34	220H.34	250H.34	280H.34
Case #	**1**	**47**	**48**	**49**	**50**	**51**	**52**	**53**	**54**	**55**	**56**	**57**	**58**
Summer Peak Capacity in Year 2010 (M													
1 Native Load	-	-	-	-	-	-	-	-	-	-	-	-	-
2 Long Term Sales	-	-	-	-	-	-	-	-	-	-	-	-	-
3 less DSM	-	36	18	11	9	4	-	11	8	-	(3)	(8)	(12)
4 **Total Requirements**	-	**36**	**18**	**11**	**9**	**4**	-	**11**	**8**	-	**(3)**	**(8)**	**(12)**
5 Existing Generation	-	19	19	19	14	-	(23)	19	(2)	(18)	(19)	(58)	(78)
6 Long Term Purchase	-	(0)	(0)	(0)	(0)	0	(0)	(0)	(0)	(0)	(0)	0	(0)
7 New Resources													
8 Short Term Market	-	-	-	-	-	-	-	-	-	-	-	-	-
9 Renewable	-	-	-	-	-	-	-	-	-	-	-	-	-
10 Cogeneration	-	69	(2)	-	19	51	79	106	71	34	92	269	270
11 Combined Cycle CT	-	436	379	299	277	183	1	411	337	265	191	(37)	(286)
12 Coal	-	-	-	-	-	-	-	-	-	-	-	-	91
13 Transmission	-	(19)	(19)	(19)	(14)	(1)	22	(19)	1	18	19	57	77
14 Peaking Resources	-	(287)	(287)	(287)	(287)	(229)	(80)	(287)	(287)	(287)	(287)	(240)	(88)
15 **Total Resources**	-	**219**	**91**	**13**	**10**	**4**	**(1)**	**230**	**121**	**12**	**(3)**	**(9)**	**(13)**
16 Reserves	-	182	73	1	1	-	-	218	113	11	(1)	(1)	(2)
17 Reserve Margin (%)	-	1.7	0.7	-	-	-	-	2.1	1.1	0.1	-	-	-
Annual Energy in Year 2010 (aMW)													
18 Native Load	-	-	-	-	-	-	-	-	-	-	-	-	-
19 Pump Storage/Peak Return	-	-	-	-	-	-	-	-	-	-	-	-	-
20 Long Term Sales	-	-	-	-	-	-	-	-	-	-	-	-	-
21 Short Term Sales	-	373	279	259	259	223	114	396	344	279	272	247	135
22 less DSM	-	28	16	11	9	5	-	11	8	-	(4)	(8)	(11)
23 **Total Requirements**	-	**401**	**294**	**270**	**268**	**228**	**114**	**407**	**352**	**279**	**269**	**239**	**124**
24 Existing Generation	-	(8)	(5)	16	12	1	(19)	(8)	(1)	(15)	(16)	(50)	(67)
25 Long Term Purchases	-	(0)	(0)	-	-	-	-	(0)	(0)	(0)	(0)	-	1
26 Short Term Purchases	-	(79)	(63)	(20)	(19)	-	33	(83)	(49)	(12)	(7)	12	51
27 New Resources													
28 Short Term Market	-	-	-	-	-	-	-	-	-	-	-	-	-
28 Renewable	-	(93)	(22)	(1)	(1)	(1)	-	(1)	(1)	-	19	22	35
29 Cogeneration	-	68	(2)	(0)	18	50	78	105	70	33	91	266	267
30 Combined Cycle CT	-	438	381	292	269	178	0	411	331	257	183	(42)	(283)
31 Coal	-	-	-	-	-	-	-	-	-	-	-	-	84
32 Transmission	-	(18)	(18)	(18)	(13)	(0)	21	(18)	1	17	18	54	74
33 Peaking Resources	-	-	-	-	-	-	-	-	-	-	-	-	-
34 **Total Resources**	-	**401**	**294**	**270**	**268**	**228**	**114**	**407**	**352**	**279**	**269**	**239**	**124**

System Load Loss - Loss Utah Big 4 Interruptible, 4% to 40% Utah, 32% to 50% Oregon in 2002

		Reference	sys.1	sys.2	sys.3	sys.4	sys.5	sys.6	sys.7	sys.8	sys.9	sys.10
	Case #	1	71	72	73	74	75	76	77	78	79	80
	Summer Peak Capacity in Year 2010 (M											
1	Native Load	9,399	8,366	8,140	7,914	7,688	7,463	7,238	7,012	6,786	6,560	6,335
2	Long Term Sales	1,249	1,043	1,043	1,043	1,043	1,043	1,043	1,043	1,043	1,043	1,043
3	less DSM	(232)	(224)	(224)	(224)	(225)	(224)	(221)	(214)	(209)	(202)	(198)
4	**Total Requirements**	**10,416**	**9,185**	**8,959**	**8,733**	**8,506**	**8,282**	**8,060**	**7,841**	**7,620**	**7,401**	**7,180**
5	Existing Generation	8,302	8,321	8,321	8,321	8,321	8,321	8,321	8,321	8,321	8,321	8,321
6	Long Term Purchase	626	626	626	626	626	626	626	626	626	626	626
7	New Resources											
8	Short Term Market	623	623	623	623	623	623	623	623	623	623	623
9	Renewable	-	-	-	-	-	-	-	-	-	-	-
10	Cogeneration	1,066	445	286	198	102	6	-	-	-	-	-
11	Combined Cycle CT	536	-	-	-	-	-	-	-	-	-	-
12	Coal	-	-	-	-	-	-	-	-	-	-	-
13	Transmission	19	-	-	-	-	-	-	-	-	-	-
14	Peaking Resources	287	90	-	-	-	-	-	-	-	-	-
15	**Total Resources**	**11,459**	**10,106**	**9,857**	**9,769**	**9,673**	**9,577**	**9,571**	**9,571**	**9,571**	**9,571**	**9,571**
16	Reserves	1,043	920	897	1,035	1,166	1,294	1,511	1,729	1,951	2,170	2,390
17	Reserve Margin (%)	10.0	10.0	10.0	11.8	13.7	15.6	18.7	22.1	25.6	29.3	33.3
	Annual Energy in Year 2010 (aMW)											
18	Native Load	6,814	5,979	5,822	5,666	5,509	5,353	5,196	5,040	4,883	4,727	4,570
19	Pump Storage/Peak Return	223	223	223	223	223	223	223	223	223	223	220
20	Long Term Sales	794	530	530	530	530	530	530	530	530	530	530
21	Short Term Sales	1,873	1,843	1,810	1,858	1,914	1,968	2,105	2,232	2,314	2,395	2,400
22	less DSM	(164)	(155)	(155)	(155)	(158)	(155)	(154)	(149)	(146)	(142)	(139)
23	**Total Requirements**	**9,540**	**8,420**	**8,230**	**8,122**	**8,018**	**7,918**	**7,901**	**7,876**	**7,804**	**7,733**	**7,581**
24	Existing Generation	7,053	7,067	7,065	7,064	7,063	7,063	7,061	7,052	7,011	6,940	6,788
25	Long Term Purchases	335	337	335	335	335	335	334	334	334	334	334
26	Short Term Purchases	96	116	88	68	59	56	46	31	-	-	-
27	New Resources											
28	Short Term Market	459	459	459	459	459	459	459	459	459	459	459
28	Renewable	468	467	467	467	467	467	460	421	410	393	387
29	Cogeneration	1,055	440	283	196	101	6	-	-	-	-	-
30	Combined Cycle CT	524	-	-	-	-	-	-	-	-	-	-
31	Coal	-	-	-	-	-	-	-	-	-	-	-
32	Transmission	18	-	-	-	-	-	-	-	-	-	-
33	Peaking Resources	-	-	-	-	-	-	-	-	-	-	-
34	**Total Resources**	**9,540**	**8,420**	**8,230**	**8,122**	**8,018**	**7,918**	**7,901**	**7,876**	**7,804**	**7,733**	**7,581**

Difference between Case and Reference Case

System Load Loss - Loss Utah Big 4 Interruptible, 4% to 40% Utah, 32% to 50% Oregon in 2002

		Reference	sys.1	sys.2	sys.3	sys.4	sys.5	sys.6	sys.7	sys.8	sys.9	sys.10
	Case #	1	71	72	73	74	75	76	77	78	79	80
	Summer Peak Capacity in Year 2010 (M											
1	Native Load	-	(1,033)	(1,259)	(1,485)	(1,711)	(1,936)	(2,161)	(2,387)	(2,613)	(2,839)	(3,064)
2	Long Term Sales	-	(206)	(206)	(206)	(206)	(206)	(206)	(206)	(206)	(206)	(206)
3	less DSM	-	8	8	8	7	8	11	18	23	30	34
4	**Total Requirements**	-	**(1,231)**	**(1,457)**	**(1,683)**	**(1,910)**	**(2,134)**	**(2,356)**	**(2,575)**	**(2,796)**	**(3,015)**	**(3,236)**
5	Existing Generation	-	19	19	19	19	19	19	19	19	19	19
6	Long Term Purchase	-	0	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
7	New Resources											
8	Short Term Market	-	-	-	-	-	-	-	-	-	-	-
9	Renewable	-	-	-	-	-	-	-	-	-	-	-
10	Cogeneration	-	(621)	(780)	(868)	(964)	(1,060)	(1,066)	(1,066)	(1,066)	(1,066)	(1,066)
11	Combined Cycle CT	-	(536)	(536)	(536)	(536)	(536)	(536)	(536)	(536)	(536)	(536)
12	Coal	-	-	-	-	-	-	-	-	-	-	-
13	Transmission	-	(19)	(19)	(19)	(19)	(19)	(19)	(19)	(19)	(19)	(19)
14	Peaking Resources	-	(197)	(287)	(287)	(287)	(287)	(287)	(287)	(287)	(287)	(287)
15	**Total Resources**	-	**(1,353)**	**(1,602)**	**(1,690)**	**(1,786)**	**(1,882)**	**(1,888)**	**(1,888)**	**(1,888)**	**(1,888)**	**(1,888)**
16	Reserves	-	(123)	(146)	(8)	123	251	468	686	908	1,127	1,347
17	Reserve Margin (%)	-	-	-	1.8	3.7	5.6	8.7	12.1	15.6	19.3	23.3

		Reference	sys.1	sys.2	sys.3	sys.4	sys.5	sys.6	sys.7	sys.8	sys.9	sys.10
	Annual Energy in Year 2010 (aMW)											
18	Native Load	-	(835)	(991)	(1,148)	(1,304)	(1,461)	(1,617)	(1,774)	(1,930)	(2,087)	(2,243)
19	Pump Storage/Peak Return	-	-	-	-	-	-	-	-	-	-	(4)
20	Long Term Sales	-	(264)	(264)	(264)	(264)	(264)	(264)	(264)	(264)	(264)	(264)
21	Short Term Sales	-	(30)	(63)	(15)	41	95	233	360	441	522	527
22	less DSM	-	8	8	8	6	8	10	15	18	22	25
23	**Total Requirements**	-	**(1,120)**	**(1,310)**	**(1,418)**	**(1,522)**	**(1,622)**	**(1,639)**	**(1,664)**	**(1,736)**	**(1,807)**	**(1,959)**
24	Existing Generation	-	15	12	11	11	10	8	(1)	(42)	(112)	(265)
25	Long Term Purchases	-	2	-	-	(0)	(0)	(1)	(1)	(1)	(2)	(2)
26	Short Term Purchases	-	20	(8)	(28)	(37)	(40)	(50)	(65)	(96)	(96)	(96)
27	New Resources											
28	Short Term Market	-	-	-	-	-	-	-	-	-	-	-
28	Renewable	-	(1)	(1)	(1)	(1)	(1)	(8)	(47)	(58)	(75)	(81)
29	Cogeneration	-	(615)	(772)	(860)	(954)	(1,050)	(1,055)	(1,055)	(1,055)	(1,055)	(1,055)
30	Combined Cycle CT	-	(524)	(524)	(524)	(524)	(524)	(524)	(524)	(524)	(524)	(524)
31	Coal	-	-	-	-	-	-	-	-	-	-	-
32	Transmission	-	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)
33	Peaking Resources	-	-	-	-	-	-	-	-	-	-	-
34	**Total Resources**	-	**(1,120)**	**(1,310)**	**(1,418)**	**(1,522)**	**(1,622)**	**(1,639)**	**(1,664)**	**(1,736)**	**(1,807)**	**(1,959)**

Oregon Load Loss - 32% to 50% of Oregon Load in 2002 due to Senate Bill 1149

		Reference	or.1	or.2	or.3	or.4	or.5	or.6	or.7	or.8	or.9	or.10
	Case #	1	81	82	83	84	85	86	87	88	89	90
	Summer Peak Capacity in Year 2010 (M											
1	Native Load	9,399	8,538	8,484	8,430	8,376	8,322	8,269	8,215	8,161	8,107	8,053
2	Long Term Sales	1,249	1,249	1,249	1,249	1,249	1,249	1,249	1,249	1,249	1,249	1,249
3	less DSM	(232)	(224)	(224)	(224)	(224)	(224)	(224)	(224)	(224)	(224)	(224)
4	**Total Requirements**	**10,416**	**9,563**	**9,509**	**9,455**	**9,401**	**9,347**	**9,294**	**9,240**	**9,186**	**9,132**	**9,078**
5	Existing Generation	8,302	8,244	8,228	8,231	8,228	8,227	8,216	8,211	8,208	8,194	8,188
6	Long Term Purchase	626	626	626	626	626	626	626	626	626	626	626
7	New Resources											
8	Short Term Market	623	623	623	623	623	623	623	623	623	623	623
9	Renewable	-	-	-	-	-	-	-	-	-	-	-
10	Cogeneration	1,066	519	487	441	394	347	308	270	226	216	216
11	Combined Cycle CT	536	257	243	245	243	242	231	216	213	184	149
12	Coal	-	-	-	-	-	-	-	-	-	-	-
13	Transmission	19	76	92	89	92	93	104	108	111	126	131
14	Peaking Resources	287	175	161	146	137	124	117	110	97	77	53
15	**Total Resources**	**11,459**	**10,521**	**10,461**	**10,402**	**10,343**	**10,283**	**10,225**	**10,165**	**10,106**	**10,047**	**9,988**
16	Reserves	1,043	957	952	947	941	936	930	925	920	914	909
17	Reserve Margin (%)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
	Annual Energy in Year 2010 (aMW)											
18	Native Load	6,814	6,090	6,045	6,000	5,955	5,910	5,864	5,819	5,774	5,729	5,684
19	Pump Storage/Peak Return	223	223	223	223	223	223	223	223	223	223	223
20	Long Term Sales	794	794	794	794	794	794	794	794	794	794	794
21	Short Term Sales	1,873	1,841	1,842	1,840	1,838	1,837	1,835	1,830	1,829	1,838	1,847
22	less DSM	(164)	(155)	(155)	(155)	(155)	(155)	(155)	(155)	(155)	(155)	(155)
23	**Total Requirements**	**9,540**	**8,794**	**8,749**	**8,702**	**8,655**	**8,608**	**8,562**	**8,512**	**8,465**	**8,429**	**8,393**
24	Existing Generation	7,053	7,001	6,987	6,989	6,987	6,986	6,976	6,972	6,969	6,956	6,951
25	Long Term Purchases	335	340	341	341	341	339	340	341	341	342	342
26	Short Term Purchases	96	158	157	154	156	158	160	160	159	159	157
27	New Resources											
28	Short Term Market	459	459	459	459	459	459	459	459	459	459	459
28	Renewable	468	467	467	467	467	467	467	467	467	467	467
29	Cogeneration	1,055	514	482	437	390	344	305	267	224	214	214
30	Combined Cycle CT	524	250	236	238	235	235	224	210	207	179	145
31	Coal	-	-	-	-	-	-	-	-	-	-	-
32	Transmission	18	72	87	84	87	88	99	103	106	119	125
33	Peaking Resources	-	-	-	-	-	-	-	-	-	-	-
34	**Total Resources**	**9,540**	**8,794**	**8,749**	**8,702**	**8,655**	**8,608**	**8,562**	**8,512**	**8,465**	**8,429**	**8,393**

Difference between Case and Reference Case

Oregon Load Loss - 32% to 50% of Oregon Load in 2002 due to Senate Bill 1149

		Reference	or.1	or.2	or.3	or.4	or.5	or.6	or.7	or.8	or.9	or.10
	Case #	1	81	82	83	84	85	86	87	88	89	90
	Summer Peak Capacity in Year 2010 (M											
1	Native Load	-	(861)	(915)	(969)	(1,023)	(1,077)	(1,130)	(1,184)	(1,238)	(1,292)	(1,346)
2	Long Term Sales	-	-	-	-	-	-	-	-	-	-	-
3	less DSM	-	8	8	8	8	8	8	8	8	8	8
4	**Total Requirements**	-	**(853)**	**(907)**	**(961)**	**(1,015)**	**(1,069)**	**(1,122)**	**(1,176)**	**(1,230)**	**(1,284)**	**(1,338)**
5	Existing Generation	-	(58)	(74)	(71)	(74)	(75)	(86)	(91)	(94)	(108)	(114)
6	Long Term Purchase	-	-	(0)	(1)	0	(0)	0	-	0	0	0
7	New Resources											
8	Short Term Market	-	-	-	-	-	-	-	-	-	-	-
9	Renewable	-	-	-	-	-	-	-	-	-	-	-
10	Cogeneration	-	(547)	(579)	(625)	(672)	(719)	(758)	(796)	(840)	(850)	(850)
11	Combined Cycle CT	-	(279)	(293)	(291)	(293)	(294)	(305)	(319)	(322)	(352)	(387)
12	Coal	-	-	-	-	-	-	-	-	-	-	-
13	Transmission	-	57	73	70	73	74	85	90	92	107	112
14	Peaking Resources	-	(112)	(126)	(141)	(150)	(163)	(170)	(177)	(190)	(210)	(234)
15	**Total Resources**	-	**(938)**	**(998)**	**(1,057)**	**(1,116)**	**(1,176)**	**(1,234)**	**(1,294)**	**(1,353)**	**(1,412)**	**(1,471)**
16	Reserves	-	(86)	(91)	(96)	(102)	(107)	(113)	(118)	(123)	(129)	(134)
17	Reserve Margin (%)	-	-	-	-	-	-	-	-	-	-	-
	Annual Energy in Year 2010 (aMW)											
18	Native Load	-	(723)	(768)	(814)	(859)	(904)	(949)	(995)	(1,040)	(1,085)	(1,130)
19	Pump Storage/Peak Return	-	-	-	-	-	-	-	-	-	-	-
20	Long Term Sales	-	-	-	-	-	-	-	-	-	-	-
21	Short Term Sales	-	(31)	(31)	(33)	(35)	(36)	(38)	(42)	(44)	(34)	(26)
22	less DSM	-	8	8	8	8	8	8	8	8	8	8
23	**Total Requirements**	-	**(746)**	**(791)**	**(838)**	**(885)**	**(932)**	**(978)**	**(1,028)**	**(1,075)**	**(1,111)**	**(1,147)**
24	Existing Generation	-	(52)	(66)	(64)	(66)	(67)	(77)	(81)	(84)	(97)	(102)
25	Long Term Purchases	-	5	6	6	6	4	5	6	6	7	7
26	Short Term Purchases	-	62	61	58	60	62	64	64	63	63	61
27	New Resources											
28	Short Term Market	-	-	-	-	-	-	-	-	-	-	-
28	Renewable	-	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
29	Cogeneration	-	(541)	(573)	(619)	(665)	(712)	(751)	(788)	(831)	(841)	(841)
30	Combined Cycle CT	-	(274)	(288)	(286)	(289)	(289)	(300)	(314)	(317)	(345)	(379)
31	Coal	-	-	-	-	-	-	-	-	-	-	-
32	Transmission	-	55	69	67	69	70	81	85	88	102	107
33	Peaking Resources	-	-	-	-	-	-	-	-	-	-	-
34	**Total Resources**	-	**(746)**	**(791)**	**(838)**	**(885)**	**(932)**	**(978)**	**(1,028)**	**(1,075)**	**(1,111)**	**(1,147)**

Utah Load Loss - Loss Utah Big 4 Interruptible, 1% to 10% per Year for a Total of 4% to 40%

	Reference	ut.1	ut.2	ut.3	ut.4	ut.5	ut.6	ut.7	ut.8	ut.9	ut.10
Case #	1	91	92	93	94	95	96	97	98	99	100
Summer Peak Capacity in Year 2010 (M											
1 Native Load	9,399	9,227	9,055	8,883	8,711	8,540	8,368	8,196	8,024	7,852	7,681
2 Long Term Sales	1,249	1,043	1,043	1,043	1,043	1,043	1,043	1,043	1,043	1,043	1,043
3 less DSM	(232)	(232)	(232)	(232)	(231)	(231)	(229)	(229)	(229)	(229)	(225)
4 **Total Requirements**	**10,416**	**10,038**	**9,866**	**9,694**	**9,523**	**9,352**	**9,182**	**9,010**	**8,838**	**8,666**	**8,499**
5 Existing Generation	8,302	8,321	8,321	8,321	8,321	8,321	8,321	8,321	8,321	8,321	8,321
6 Long Term Purchase	626	626	626	626	626	626	626	626	626	626	626
7 New Resources											
8 Short Term Market	623	623	623	623	623	623	623	623	623	623	623
9 Renewable	-	-	-	-	-	-	-	-	-	-	-
10 Cogeneration	1,066	1,040	982	934	877	717	634	570	491	450	390
11 Combined Cycle CT	536	150	152	135	28	-	-	-	-	-	-
12 Coal	-	-	-	-	-	-	-	-	-	-	-
13 Transmission	19	-	-	-	-	-	-	-	-	-	-
14 Peaking Resources	287	282	149	25	-	-	-	-	-	-	-
15 **Total Resources**	**11,459**	**11,043**	**10,854**	**10,665**	**10,476**	**10,288**	**10,205**	**10,141**	**10,062**	**10,021**	**9,961**
16 Reserves	1,043	1,005	988	971	953	936	1,022	1,131	1,224	1,355	1,462
17 Reserve Margin (%)	10.0	10.0	10.0	10.0	10.0	10.0	11.1	12.6	13.8	15.6	17.2
Annual Energy in Year 2010 (aMW)											
18 Native Load	6,814	6,702	6,591	6,480	6,368	6,257	6,146	6,034	5,923	5,812	5,700
19 Pump Storage/Peak Return	223	223	223	223	223	223	223	223	223	223	223
20 Long Term Sales	794	530	530	530	530	530	530	530	530	530	530
21 Short Term Sales	1,873	1,851	1,886	1,911	1,855	1,799	1,816	1,856	1,864	1,913	1,941
22 less DSM	(164)	(164)	(164)	(164)	(163)	(163)	(162)	(162)	(162)	(162)	(159)
23 **Total Requirements**	**9,540**	**9,143**	**9,066**	**8,980**	**8,812**	**8,646**	**8,552**	**8,481**	**8,377**	**8,315**	**8,235**
24 Existing Generation	7,053	7,067	7,065	7,063	7,063	7,064	7,066	7,060	7,057	7,058	7,050
25 Long Term Purchases	335	336	335	335	335	335	334	334	334	334	334
26 Short Term Purchases	96	102	84	65	60	78	66	63	40	19	5
27 New Resources											
28 Short Term Market	459	459	459	459	459	459	459	459	459	459	459
28 Renewable	468	467	467	467	467	467	467	469	469	469	454
29 Cogeneration	1,055	1,030	972	925	868	710	627	565	486	445	386
30 Combined Cycle CT	524	149	150	133	28	-	-	-	-	-	-
31 Coal	-	-	-	-	-	-	-	-	-	-	-
32 Transmission	18	-	-	-	-	-	-	-	-	-	-
33 Peaking Resources	-	-	-	-	-	-	-	-	-	-	-
34 **Total Resources**	**9,540**	**9,143**	**9,066**	**8,980**	**8,812**	**8,646**	**8,552**	**8,481**	**8,377**	**8,315**	**8,235**

Difference between Case and Reference Case

Utah Load Loss - Loss Utah Big 4 Interruptible, 1% to 10% per Year for a Total of 4% to 40%

		Reference	ut.1	ut.2	ut.3	ut.4	ut.5	ut.6	ut.7	ut.8	ut.9	ut.10
	Case #	1	91	92	93	94	95	96	97	98	99	100
	Summer Peak Capacity in Year 2010 (M											
1	Native Load	-	(172)	(344)	(516)	(688)	(859)	(1,031)	(1,203)	(1,375)	(1,547)	(1,718)
2	Long Term Sales	-	(206)	(206)	(206)	(206)	(206)	(206)	(206)	(206)	(206)	(206)
3	less DSM	-	-	-	-	1	1	3	3	3	3	7
4	**Total Requirements**	-	**(378)**	**(550)**	**(722)**	**(893)**	**(1,064)**	**(1,234)**	**(1,406)**	**(1,578)**	**(1,750)**	**(1,917)**
5	Existing Generation	-	19	19	19	19	19	19	19	19	19	19
6	Long Term Purchase	-	(1)	(0)	(1)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
7	New Resources											
8	Short Term Market	-	-	-	-	-	-	-	-	-	-	-
9	Renewable	-	-	-	-	-	-	-	-	-	-	-
10	Cogeneration	-	(26)	(84)	(132)	(189)	(349)	(432)	(496)	(575)	(616)	(676)
11	Combined Cycle CT	-	(386)	(384)	(401)	(508)	(536)	(536)	(536)	(536)	(536)	(536)
12	Coal	-	-	-	-	-	-	-	-	-	-	-
13	Transmission	-	(19)	(19)	(19)	(19)	(19)	(19)	(19)	(19)	(19)	(19)
14	Peaking Resources	-	(5)	(138)	(262)	(287)	(287)	(287)	(287)	(287)	(287)	(287)
15	**Total Resources**	-	**(416)**	**(605)**	**(794)**	**(983)**	**(1,171)**	**(1,254)**	**(1,318)**	**(1,397)**	**(1,438)**	**(1,498)**
16	Reserves	-	(38)	(55)	(72)	(90)	(107)	(21)	88	181	312	419
17	Reserve Margin (%)	-	-	-	-	-	-	1.1	2.6	3.8	5.6	7.2
	Annual Energy in Year 2010 (aMW)											
18	Native Load	-	(112)	(223)	(334)	(445)	(557)	(668)	(779)	(891)	(1,002)	(1,113)
19	Pump Storage/Peak Return	-	-	-	-	-	-	-	-	-	-	-
20	Long Term Sales	-	(264)	(264)	(264)	(264)	(264)	(264)	(264)	(264)	(264)	(264)
21	Short Term Sales	-	(21)	13	38	(18)	(73)	(57)	(17)	(9)	40	68
22	less DSM	-	0	0	0	0	0	2	1	1	2	4
23	**Total Requirements**	-	**(397)**	**(474)**	**(560)**	**(728)**	**(894)**	**(988)**	**(1,059)**	**(1,163)**	**(1,225)**	**(1,305)**
24	Existing Generation	-	14	12	10	10	11	13	8	5	5	(2)
25	Long Term Purchases	-	1	-	(0)	(0)	(0)	(1)	(1)	(1)	(1)	(2)
26	Short Term Purchases	-	6	(12)	(31)	(37)	(18)	(30)	(34)	(56)	(78)	(91)
27	New Resources											
28	Short Term Market	-	-	-	-	-	-	-	-	-	-	-
28	Renewable	-	(1)	(1)	(1)	(1)	(1)	(1)	1	1	1	(14)
29	Cogeneration	-	(26)	(83)	(130)	(187)	(345)	(428)	(491)	(569)	(610)	(669)
30	Combined Cycle CT	-	(375)	(373)	(391)	(496)	(524)	(524)	(524)	(524)	(524)	(524)
31	Coal	-	-	-	-	-	-	-	-	-	-	-
32	Transmission	-	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)
33	Peaking Resources	-	-	-	-	-	-	-	-	-	-	-
34	**Total Resources**	-	**(397)**	**(474)**	**(560)**	**(728)**	**(894)**	**(988)**	**(1,059)**	**(1,163)**	**(1,225)**	**(1,305)**

Enviromental Tax Sweep - CO2 Tax from $1 to $40/Ton, TSP $100 to $4000/Ton, NOx $125 to $5000/Ton

	Reference	enviro.1	enviro.2	enviro.3	enviro.4	enviro.5	enviro.6	enviro.7	enviro.8	enviro.9	enviro.10	enviro.25	enviro.40
Case #	1	101	102	103	104	105	106	107	108	109	110	111	112
Summer Peak Capacity in Year 2010 (M													
1 Native Load	9,399	9,399	9,399	9,399	9,399	9,399	9,399	9,399	9,399	9,399	9,399	9,399	9,399
2 Long Term Sales	1,249	1,249	1,249	1,249	1,249	1,249	1,249	1,249	1,249	1,249	1,249	1,249	1,249
3 less DSM	(232)	(232)	(232)	(232)	(235)	(238)	(239)	(242)	(242)	(243)	(242)	(254)	(262)
4 **Total Requirements**	**10,416**	**10,416**	**10,416**	**10,416**	**10,413**	**10,410**	**10,409**	**10,406**	**10,406**	**10,405**	**10,406**	**10,394**	**10,386**
5 Existing Generation	8,302	8,319	8,321	8,321	8,321	8,321	8,321	8,321	8,321	8,321	8,321	8,321	8,321
6 Long Term Purchase	626	626	626	626	626	626	626	626	626	626	626	626	626
7 New Resources													
8 Short Term Market	623	623	623	623	623	623	623	623	623	623	623	623	623
9 Renewable	-	-	-	-	-	-	-	-	-	-	-	126	226
10 Cogeneration	1,066	1,073	1,269	1,272	1,279	1,296	1,310	1,324	1,355	1,416	1,456	3,350	3,440
11 Combined Cycle CT	536	529	333	329	319	328	337	376	381	374	384	2,722	3,277
12 Coal	-	-	-	-	-	-	-	-	-	-	-	-	-
13 Transmission	19	2	-	-	-	-	-	-	-	-	-	-	-
14 Peaking Resources	287	287	287	287	287	257	233	177	141	86	36	-	-
15 **Total Resources**	**11,459**	**11,460**	**11,459**	**11,459**	**11,455**	**11,452**	**11,451**	**11,447**	**11,448**	**11,446**	**11,448**	**15,770**	**16,515**
16 Reserves	1,043	1,043	1,043	1,043	1,042	1,042	1,042	1,042	1,042	1,042	1,042	5,376	6,128
17 Reserve Margin (%)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	51.7	59.0
Annual Energy in Year 2010 (aMW)													
18 Native Load	6,814	6,814	6,814	6,814	6,814	6,814	6,814	6,814	6,814	6,814	6,814	6,814	6,814
19 Pump Storage/Peak Return	223	223	223	223	223	223	223	223	223	223	223	223	223
20 Long Term Sales	794	794	794	794	794	794	794	794	794	794	794	794	794
21 Short Term Sales	1,873	1,871	1,869	1,867	1,847	1,821	1,766	1,759	1,707	1,688	1,647	1,543	1,654
22 less DSM	(164)	(164)	(164)	(164)	(168)	(171)	(172)	(175)	(175)	(176)	(175)	(184)	(190)
23 **Total Requirements**	**9,540**	**9,539**	**9,536**	**9,535**	**9,511**	**9,481**	**9,426**	**9,415**	**9,363**	**9,344**	**9,303**	**9,191**	**9,295**
24 Existing Generation	7,053	7,068	7,067	7,059	7,031	6,938	6,860	6,810	6,723	6,599	6,479	1,933	1,367
25 Long Term Purchases	335	335	335	335	335	335	335	335	335	350	356	376	292
26 Short Term Purchases	96	96	96	96	103	141	141	129	128	163	187	271	295
27 New Resources													
28 Short Term Market	459	459	459	459	459	459	459	459	459	459	459	459	459
28 Renewable	468	468	468	468	487	488	488	488	488	488	487	1,634	2,406
29 Cogeneration	1,055	1,062	1,256	1,259	1,266	1,282	1,297	1,310	1,341	1,402	1,442	3,316	3,402
30 Combined Cycle CT	524	517	323	326	316	325	333	372	377	371	380	2,695	3,244
31 Coal	-	-	-	-	-	-	-	-	-	-	-	-	-
32 Transmission	18	2	-	-	-	-	-	-	-	-	-	-	-
33 Peaking Resources	-	-	-	-	-	-	-	-	-	-	-	141	236
34 **Total Resources**	**9,540**	**9,539**	**9,536**	**9,535**	**9,511**	**9,481**	**9,426**	**9,415**	**9,363**	**9,344**	**9,303**	**9,191**	**9,295**

Difference between Case and Reference Case

Enviromental Tax Sweep - CO2 Tax from $1 to $40/Ton, TSP $100 to $4000/Ton, NOx $125 to $5000/Ton

		Reference	enviro.1	enviro.2	enviro.3	enviro.4	enviro.5	enviro.6	enviro.7	enviro.8	enviro.9	enviro.10	enviro.25	enviro.40
	Case #	1	101	102	103	104	105	106	107	108	109	110	111	112
	Summer Peak Capacity in Year 2010 (M													
1	Native Load	-	-	-	-	-	-	-	-	-	-	-	-	-
2	Long Term Sales	-	-	-	-	-	-	-	-	-	-	-	-	-
3	less DSM	-	-	-	-	(3)	(6)	(7)	(10)	(10)	(11)	(10)	(22)	(30)
4	**Total Requirements**	-	-	-	-	**(3)**	**(6)**	**(7)**	**(10)**	**(10)**	**(11)**	**(10)**	**(22)**	**(30)**
5	Existing Generation	-	17	19	19	19	19	19	19	19	19	19	19	19
6	Long Term Purchase	-	-	-	-	(1)	(1)	(1)	(1)	0	(1)	(0)	(0)	(0)
7	New Resources													
8	Short Term Market	-	-	-	-	-	-	-	-	-	-	-	-	-
9	Renewable	-	-	-	-	-	-	-	-	-	-	-	126	226
10	Cogeneration	-	7	203	206	213	230	244	258	289	350	390	2,285	2,375
11	Combined Cycle CT	-	(7)	(203)	(207)	(217)	(208)	(199)	(160)	(155)	(161)	(152)	2,187	2,742
12	Coal	-	-	-	-	-	-	-	-	-	-	-	-	-
13	Transmission	-	(17)	(19)	(19)	(19)	(19)	(19)	(19)	(19)	(19)	(19)	(19)	(19)
14	Peaking Resources	-	-	-	-	(0)	(30)	(54)	(110)	(146)	(201)	(251)	(287)	(287)
15	**Total Resources**	-	**1**	-	-	**(4)**	**(7)**	**(8)**	**(12)**	**(11)**	**(13)**	**(11)**	**4,311**	**5,056**
16	Reserves	-	-	-	-	(1)	(1)	(1)	(1)	(1)	(1)	(1)	4,333	5,085
17	Reserve Margin (%)	-	-	-	-	-	-	-	-	-	-	-	41.7	49.0
	Annual Energy in Year 2010 (aMW)													
18	Native Load	-	-	-	-	-	-	-	-	-	-	-	-	-
19	Pump Storage/Peak Return	-	-	-	-	-	-	-	-	-	-	-	-	-
20	Long Term Sales	-	-	-	-	-	-	-	-	-	-	-	-	-
21	Short Term Sales	-	(1)	(3)	(5)	(25)	(51)	(106)	(114)	(165)	(184)	(226)	(329)	(219)
22	less DSM	-	-	(0)	(0)	(4)	(7)	(8)	(11)	(11)	(12)	(12)	(20)	(26)
23	**Total Requirements**	-	**(1)**	**(4)**	**(5)**	**(29)**	**(59)**	**(114)**	**(125)**	**(177)**	**(196)**	**(237)**	**(349)**	**(245)**
24	Existing Generation	-	15	15	6	(21)	(114)	(193)	(243)	(330)	(454)	(574)	(5,120)	(5,686)
25	Long Term Purchases	-	-	-	-	-	-	-	-	-	15	21	41	(43)
26	Short Term Purchases	-	(0)	0	0	7	45	45	33	32	67	91	175	199
27	New Resources													
28	Short Term Market	-	-	-	-	-	-	-	-	-	-	-	-	-
28	Renewable	-	-	-	-	19	20	20	20	20	20	19	1,166	1,938
29	Cogeneration	-	7	201	204	211	227	242	255	286	347	386	2,261	2,347
30	Combined Cycle CT	-	(7)	(201)	(198)	(208)	(199)	(191)	(152)	(147)	(153)	(143)	2,171	2,720
31	Coal	-	-	-	-	-	-	-	-	-	-	-	-	-
32	Transmission	-	(16)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)
33	Peaking Resources	-	-	-	-	-	-	-	-	-	-	-	141	236
34	**Total Resources**	-	**(1)**	**(4)**	**(5)**	**(29)**	**(59)**	**(114)**	**(125)**	**(177)**	**(196)**	**(237)**	**(349)**	**(245)**

Miscellaneous Cases

		Wtd	Gas Carrying Cost		Gas Cap Cost		Transm	Renewable Price Advantage			Utah		Firm
	Reference	Average	Down	Up	Low	High	Zero	Geotherm	Solar	Wind	Grow	Big 4	Ind
Case #	1	2	121	122	123	124	125	126	127	128	129	130	131
Summer Peak Capacity in Year 2010 (M													
1 Native Load	9,399	8,627	9,399	9,399	9,399	9,399	9,399	9,399	9,399	9,399	9,795	9,399	9,766
2 Long Term Sales	1,249	1,177	1,249	1,249	1,249	1,249	1,249	1,249	1,249	1,249	1,249	1,043	882
3 less DSM	(232)	(225)	(224)	(233)	(232)	(232)	(230)	(232)	(232)	(232)	(232)	(232)	(232)
4 **Total Requirements**	**10,416**	**9,579**	**10,424**	**10,415**	**10,416**	**10,416**	**10,418**	**10,416**	**10,416**	**10,416**	**10,812**	**10,210**	**10,416**
5 Existing Generation	8,302	8,301	8,187	8,321	8,321	8,292	8,321	8,305	8,294	8,269	8,279	8,321	8,300
6 Long Term Purchase	626	626	626	626	626	626	626	626	626	626	626	626	465
7 New Resources													
8 Short Term Market	623	623	623	623	623	623	623	623	623	623	623	623	623
9 Renewable	-	0	-	-	-	-	-	300	238	126	-	-	-
10 Cogeneration	1,066	708	1,336	913	216	917	641	1,233	1,148	1,019	1,106	1,073	1,103
11 Combined Cycle CT	536	313	517	626	1,544	685	1,078	169	335	457	853	302	660
12 Coal	-	4	-	-	-	-	-	-	-	-	-	-	-
13 Transmission	19	20	133	-	-	29	-	16	26	51	41	-	20
14 Peaking Resources	287	158	46	348	128	287	171	187	168	287	365	287	287
15 **Total Resources**	**11,459**	**10,754**	**11,468**	**11,458**	**11,460**	**11,459**	**11,461**	**11,459**	**11,459**	**11,459**	**11,894**	**11,233**	**11,459**
16 Reserves	1,043	1,174	1,043	1,043	1,043	1,043	1,043	1,043	1,043	1,043	1,082	1,022	1,043
17 Reserve Margin (%)	10.0	12.8	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Annual Energy in Year 2010 (aMW)													
18 Native Load	6,814	6,229	6,814	6,814	6,814	6,814	6,814	6,814	6,814	6,814	7,117	6,814	7,232
19 Pump Storage/Peak Return	223	223	223	223	223	223	223	223	223	223	223	223	223
20 Long Term Sales	794	702	794	794	794	794	794	794	794	794	794	530	375
21 Short Term Sales	1,873	1,953	2,057	1,832	1,984	1,872	1,953	1,936	1,839	1,888	1,920	1,908	2,049
22 less DSM	(164)	(157)	(155)	(164)	(164)	(164)	(161)	(164)	(165)	(164)	(164)	(164)	(164)
23 **Total Requirements**	**9,540**	**8,949**	**9,733**	**9,499**	**9,652**	**9,539**	**9,624**	**9,603**	**9,505**	**9,555**	**9,890**	**9,311**	**9,716**
24 Existing Generation	7,053	7,029	6,943	7,070	7,067	7,044	7,068	7,054	7,045	7,023	7,032	7,068	7,045
25 Long Term Purchases	335	336	335	337	335	335	335	335	339	335	335	335	333
26 Short Term Purchases	96	99	58	115	61	95	68	76	111	93	97	89	131
27 New Resources													
28 Short Term Market	459	459	459	459	459	459	459	459	459	459	459	459	459
28 Renewable	468	461	467	469	467	468	467	1,023	563	858	468	468	468
29 Cogeneration	1,055	700	1,320	904	214	908	635	1,220	1,137	1,009	1,095	1,062	1,092
30 Combined Cycle CT	524	303	491	615	1,516	671	1,058	164	326	446	834	297	636
31 Coal	-	4	-	-	-	-	-	-	-	-	-	-	-
32 Transmission	18	19	126	-	-	27	-	15	25	49	39	-	19
33 Peaking Resources	-	0	-	-	-	-	-	279	63	141	-	-	-
34 **Total Resources**	**9,540**	**8,949**	**9,733**	**9,499**	**9,652**	**9,539**	**9,624**	**9,603**	**9,505**	**9,555**	**9,890**	**9,311**	**9,716**

Difference between Case and Reference Case

	Reference	Wtd	Gas Carrying Cost		Gas Cap Cost		Transm	Renewable Price Advantage			Utah		Firm
		Average	Down	Up	Low	High	Zero	Geotherm	Solar	Wind	Grow	Big 4	Ind
Case #	1	2	121	122	123	124	125	126	127	128	129	130	131
Summer Peak Capacity in Year 2010 (M													
1 Native Load	-	(772)	-	-	-	-	-	-	-	-	396	-	367
2 Long Term Sales	-	(72)	-	-	-	-	-	-	-	-	-	(206)	(367)
3 less DSM	-	7	8	(1)	-	-	2	-	-	-	-	-	-
4 **Total Requirements**	-	**(837)**	**8**	**(1)**	**-**	**-**	**2**	**-**	**-**	**-**	**396**	**(206)**	-
5 Existing Generation	-	(1)	(115)	19	19	(10)	19	3	(8)	(33)	(23)	19	(2)
6 Long Term Purchase	-	(0)	(1)	-	(0)	-	0	-	0	-	(0)	-	(161)
7 New Resources													
8 Short Term Market	-	-	-	-	-	-	-	-	-	-	-	-	-
9 Renewable	-	0	-	-	-	-	-	300	238	126	-	-	-
10 Cogeneration	-	(358)	270	(153)	(850)	(149)	(425)	167	82	(47)	41	7	37
11 Combined Cycle CT	-	(222)	(19)	91	1,009	149	542	(367)	(201)	(79)	317	(234)	124
12 Coal	-	4	-	-	-	-	-	-	-	-	-	-	-
13 Transmission	-	1	114	(19)	(19)	10	(19)	(3)	7	32	22	(19)	1
14 Peaking Resources	-	(129)	(241)	61	(159)	-	(116)	(100)	(119)	-	78	-	-
15 **Total Resources**	-	**(705)**	**9**	**(1)**	**1**	**-**	**2**	**-**	**-**	**-**	**435**	**(226)**	**-**
16 Reserves	-	131	-	-	-	-	-	-	-	-	39	(21)	-
17 Reserve Margin (%)	-	2.8	-	-	-	-	-	-	-	-	-	-	-
Annual Energy in Year 2010 (aMW)													
18 Native Load	-	(585)	-	-	-	-	-	-	-	-	304	-	419
19 Pump Storage/Peak Return	-	(0)	-	-	-	-	-	-	-	-	-	-	-
20 Long Term Sales	-	(93)	-	-	-	-	-	-	-	-	-	(264)	(419)
21 Short Term Sales	-	80	184	(41)	112	(1)	81	63	(34)	15	47	35	176
22 less DSM	-	6	8	(0)	0	-	3	-	(1)	-	-	0	-
23 **Total Requirements**	-	**(591)**	**193**	**(41)**	**112**	**(1)**	**84**	**63**	**(35)**	**15**	**351**	**(229)**	**176**
24 Existing Generation	-	(23)	(109)	17	14	(9)	16	1	(7)	(30)	(21)	15	(8)
25 Long Term Purchases	-	1	-	2	-	-	-	-	4	-	-	-	(2)
26 Short Term Purchases	-	3	(39)	19	(35)	(1)	(28)	(20)	15	(3)	1	(7)	35
27 New Resources													
28 Short Term Market	-	0	-	-	-	-	-	-	-	-	-	-	-
28 Renewable	-	(7)	(1)	1	(1)	-	(1)	555	95	390	-	(1)	-
29 Cogeneration	-	(355)	265	(151)	(841)	(147)	(421)	165	81	(46)	40	7	37
30 Combined Cycle CT	-	(221)	(33)	91	992	147	534	(360)	(197)	(77)	310	(227)	112
31 Coal	-	4	-	-	-	-	-	-	-	-	-	-	-
32 Transmission	-	1	108	(18)	(18)	9	(18)	(3)	7	31	21	(18)	1
33 Peaking Resources	-	0	-	-	-	-	-	279	63	141	-	-	-
34 **Total Resources**	-	**(591)**	**193**	**(41)**	**112**	**(1)**	**84**	**63**	**(35)**	**15**	**351**	**(229)**	**176**

PacifiCorp

Integrated Resource Planning

RAMPP-6

Total System Production Cost

40 Year Net Present Value in $2001 Millions

Tab 19

Total System Production Cost

Millions of $2001

Gas Price c/MMBtu	40 Year Net Present Value				Difference from Reference Case			
	Wholesale Market Price Average Annual Price in 2001 (Mills/kWh)							
	22	26	30	34	22	26	30	34
130 L	20,111	19,016	17,903	16,772	(681)	(1,776)	(2,889)	(4,020)
160 L	20,795	19,781	18,690	17,596	2	(1,012)	(2,103)	(3,197)
190 L	21,480	20,518	19,450	18,382	687	(274)	(1,343)	(2,411)
220 L	22,087	21,187	20,187	19,124	1,294	395	(606)	(1,668)
250 L	22,552	21,752	20,822	19,778	1,759	960	30	(1,014)
280 L	22,851	22,128	21,249	20,297	2,058	1,336	457	(496)
130 H	20,284	18,967	17,663	16,329	(508)	(1,825)	(3,130)	(4,464)
160 H	21,268	20,022	18,730	17,439	476	(770)	(2,062)	(3,354)
190 H	21,950	**20,793**	19,528	18,266	1,158	-	(1,265)	(2,526)
220 H	22,565	21,500	20,298	19,065	1,773	708	(494)	(1,728)
250 H	23,034	21,957	20,790	19,581	2,242	1,164	(2)	(1,212)
280 H	23,189	22,368	21,236	20,081	2,396	1,576	443	(711)

Gas Price c/MMBtu	Case Name				Case Number			
	Wholesale Market Price Average Annual Price in 2001 (Mills/kWh)							
	22	26	30	34	22	26	30	34
130 L	130L.22	130L.26	130L.30	130L.34	11	23	35	47
160 L	160L.22	160L.26	160L.30	160L.34	12	24	36	48
190 L	190L.22	190L.26	190L.30	190L.34	13	25	37	49
220 L	220L.22	220L.26	220L.30	220L.34	14	26	38	50
250 L	250L.22	250L.26	250L.30	250L.34	15	27	39	51
280 L	280L.22	280L.26	280L.30	280L.34	16	28	40	52
130 H	130H.22	130H.26	130H.30	130H.34	17	29	41	53
160 H	160H.22	160H.26	160H.30	160H.34	18	30	42	54
190 H	190H.22	**190H.26**	190H.30	190H.34	19	**31**	43	55
220 H	220H.22	220H.26	220H.30	220H.34	20	32	44	56
250 H	250H.22	250H.26	250H.30	250H.34	21	33	45	57
280 H	280H.22	280H.26	280H.30	280H.34	22	34	46	58

Case Number 31 (190H.26) was arbitrarily selected as the reference case.

Total System Production Cost

Millions of $2001

	40 Year Net Present Value					Difference from Reference Case				
	Load Loss			Enviro-	Misc	Load Loss			Enviro-	Misc
	Sys	Or	Ut	mental	Cases	Sys	Or	Ut	mental	Cases
1	16,731	18,101	19,375	22,271	20,196	(4,062)	(2,691)	(1,417)	1,479	(597)
2	16,124	17,929	18,883	23,693	21,344	(4,669)	(2,864)	(1,909)	2,900	552
3	15,564	17,763	18,406	25,143	20,557	(5,228)	(3,029)	(2,386)	4,351	(236)
4	14,976	17,595	17,961	26,519	20,803	(5,816)	(3,197)	(2,831)	5,727	11
5	14,427	17,428	17,518	27,875	20,597	(6,366)	(3,364)	(3,275)	7,082	(195)
6	13,882	17,262	17,105	29,199		(6,911)	(3,530)	(3,688)	8,406	
7	13,362	17,101	16,673	30,503		(7,430)	(3,692)	(4,120)	9,711	
8	12,857	16,939	16,257	31,778		(7,936)	(3,854)	(4,536)	10,986	
9	12,355	16,771	15,833	33,024	23,172	(8,438)	(4,022)	(4,960)	12,231	2,380
10	11,858	16,610	15,430	34,270	19,852	(8,935)	(4,182)	(5,362)	13,478	(941)
25				47,198	20,923				26,406	131
40				55,798	21,267				35,006	474

	Case Name					Case Number				
	Load Loss			Enviro-	Misc	Load Loss			Enviro-	Misc
	Sys	Or	Ut	mental	Cases	Sys	Or	Ut	mental	Cases
1	sys.1	or.1	ut.1	envir.1	capcost.down	71	81	91	101	121
2	sys.2	or.2	ut.2	envir.2	capcost.up	72	82	92	102	122
3	sys.3	or.3	ut.3	envir.3	gas.low	73	83	93	103	123
4	sys.4	or.4	ut.4	envir.4	gas.high	74	84	94	104	124
5	sys.5	or.5	ut.5	envir.5	trans.zero	75	85	95	105	125
6	sys.6	or.6	ut.6	envir.6	renew.geotherm	76	86	96	106	126
7	sys.7	or.7	ut.7	envir.7	renew.solar	77	87	97	107	127
8	sys.8	or.8	ut.8	envir.8	renew.wind	78	88	98	108	128
9	sys.9	or.9	ut.9	envir.9	utah.grow	79	89	99	109	129
10	sys.10	or.10	ut.10	envir.10	loads.big4	80	90	100	110	[illegible]
25				envir.25	firm.ind				111	[illegible]
40				envir.40	critical.wtr				112	132

Case Number 31 (190H.26) was arbitrarily selected as the reference case.

PacifiCorp

Integrated Resource Planning

RAMPP-6

Projected Net System Emissions

Average Annual Emissions (1,000 Tons)

Tab 20

Projected Net System Emissions

Key to Case Name and Cast Number

Gas Price / Whole Price Sensitivities

Gas Price c/MMBtu	Case Name				Case Number			
	Wholesale Market Price Average Annual Price(Mills/kWh)							
	22	26	30	34	22	26	30	34
130 L	130L.22	130L.26	130L.30	130L.34	11	23	35	47
160 L	160L.22	160L.26	160L.30	160L.34	12	24	36	48
190 L	190L.22	190L.26	190L.30	190L.34	13	25	37	49
220 L	220L.22	220L.26	220L.30	220L.34	14	26	38	50
250 L	250L.22	250L.26	250L.30	250L.34	15	27	39	51
280 L	280L.22	280L.26	280L.30	280L.34	16	28	40	52
130 H	130H.22	130H.26	130H.30	130H.34	17	29	41	53
160 H	160H.22	160H.26	160H.30	160H.34	18	30	42	54
190 H	190H.22	**190H.26**	190H.30	190H.34	19	**31**	43	55
220 H	220H.22	220H.26	220H.30	220H.34	20	32	44	56
250 H	250H.22	250H.26	250H.30	250H.34	21	33	45	57
280 H	280H.22	280H.26	280H.30	280H.34	22	34	46	58

All Other Sensitivities

	Case Name					Case Number				
	Load Loss			Enviro-mental	Misc Cases	Load Loss			Enviro-mental	Misc Cases
	Sys	Or	Ut			Sys	Or	Ut		
1	sys.1	or.1	ut.1	envir.1	capcost.down	71	81	91	101	121
2	sys.2	or.2	ut.2	envir.2	capcost.up	72	82	92	102	122
3	sys.3	or.3	ut.3	envir.3	gas.low	73	83	93	103	123
4	sys.4	or.4	ut.4	envir.4	gas.high	74	84	94	104	124
5	sys.5	or.5	ut.5	envir.5	trans.zero	75	85	95	105	125
6	sys.6	or.6	ut.6	envir.6	renew.geotherm	76	86	96	106	126
7	sys.7	or.7	ut.7	envir.7	renew.solar	77	87	97	107	127
8	sys.8	or.8	ut.8	envir.8	renew.wind	78	88	98	108	128
9	sys.9	or.9	ut.9	envir.9	utah.grow	79	89	99	109	129
10	sys.10	or.10	ut.10	envir.10	loads.big4	80	90	100	110	130
25				envir.25	firm.ind				111	131
40				envir.40					112	

Case Number 31 (190H.26) was arbitrarily selected as the reference case.

Projected Net System Emissions

Average Annual Emissions (1,000 Tons)

Gas Price / Whole Price Sensitivities

Gas Price c/MMBtu	CO2 Emissions				Difference from Reference Case			
	Wholesale Market Price Average Annual Price in 2001 (Mills/kWh)							
	22	26	30	34	22	26	30	34
130 L	57,831	57,878	57,898	57,882	(748)	(701)	(681)	(697)
160 L	57,925	58,026	58,008	57,984	(654)	(553)	(571)	(595)
190 L	58,049	58,102	58,105	58,109	(530)	(477)	(474)	(470)
220 L	58,068	58,109	58,114	58,130	(511)	(470)	(465)	(449)
250 L	58,049	58,045	58,057	58,041	(530)	(534)	(522)	(538)
280 L	58,121	58,180	58,187	58,186	(458)	(399)	(392)	(393)
130 H	58,075	58,025	58,006	57,988	(504)	(554)	(573)	(591)
160 H	58,039	58,048	58,043	58,044	(540)	(531)	(536)	(535)
190 H	58,592	**58,579**	58,598	58,623	13	-	19	44
220 H	59,271	59,262	59,269	59,257	692	683	690	678
250 H	59,666	59,776	59,849	59,870	1,087	1,197	1,270	1,291
280 H	60,222	60,367	61,012	60,874	1,643	1,788	2,433	2,295

Gas Price c/MMBtu	NOx Emissions				Difference from Reference Case			
	Wholesale Market Price Average Annual Price in 2001 (Mills/kWh)							
	22	26	30	34	22	26	30	34
130 L	119.4	119.6	119.7	119.6	(1.7)	(1.5)	(1.4)	(1.4)
160 L	119.8	120.3	120.2	120.1	(1.3)	(0.8)	(0.9)	(0.9)
190 L	120.3	120.6	120.6	120.6	(0.8)	(0.5)	(0.5)	(0.4)
220 L	120.4	120.7	120.7	120.8	(0.7)	(0.4)	(0.4)	(0.3)
250 L	120.5	120.7	120.7	120.8	(0.6)	(0.4)	(0.4)	(0.3)
280 L	120.5	120.8	120.8	120.9	(0.6)	(0.3)	(0.2)	(0.2)
130 H	120.4	120.3	120.2	120.2	(0.7)	(0.8)	(0.8)	(0.9)
160 H	120.5	120.7	120.7	120.7	(0.5)	(0.4)	(0.4)	(0.4)
190 H	121.0	**121.1**	121.1	121.2	(0.1)	-	0.0	0.1
220 H	121.5	121.6	121.6	121.7	0.4	0.5	0.5	0.6
250 H	121.6	121.6	121.6	121.6	0.5	0.5	0.5	0.5
280 H	121.6	121.7	122.3	122.2	0.5	0.6	1.2	1.1

Gas Price c/MMBtu	TSP Emissions				Difference from Reference Case			
	Wholesale Market Price Average Annual Price in 2001 (Mills/kWh)							
	22	26	30	34	22	26	30	34
130 L	11.55	11.57	11.57	11.56	(0.20)	(0.18)	(0.17)	(0.18)
160 L	11.60	11.64	11.63	11.62	(0.14)	(0.10)	(0.11)	(0.12)
190 L	11.65	11.67	11.68	11.67	(0.09)	(0.07)	(0.07)	(0.07)
220 L	11.66	11.68	11.69	11.69	(0.08)	(0.06)	(0.06)	(0.06)
250 L	11.67	11.69	11.69	11.69	(0.07)	(0.06)	(0.06)	(0.06)
280 L	11.67	11.70	11.70	11.71	(0.07)	(0.04)	(0.04)	(0.04)
130 H	11.66	11.65	11.64	11.63	(0.08)	(0.10)	(0.11)	(0.12)
160 H	11.68	11.68	11.68	11.67	(0.07)	(0.06)	(0.06)	(0.07)
190 H	11.74	**11.74**	11.74	11.75	(0.01)	-	0.00	0.00
220 H	11.81	11.81	11.81	11.81	0.07	0.07	0.07	0.07
250 H	11.83	11.81	11.80	11.79	0.08	0.06	0.05	0.05
280 H	11.81	11.82	11.88	11.86	0.07	0.07	0.13	0.12

Projected Net System Emissions

Average Annual Emissions (1,000 Tons)

All Other Sensitivities

	CO2 Emissions					Difference from Reference Case				
	Load Loss			Enviro-mental	Misc Cases	Load Loss			Enviro-mental	Misc Cases
	Sys	Or	Ut			Sys	Or	Ut		
1	55,845	56,219	53,554	53,057	58,632	(2,734)	(2,360)	(5,025)	(5,522)	53
2	55,241	56,074	53,169	52,923	58,261	(3,338)	(2,505)	(5,410)	(5,656)	(318)
3	54,483	55,931	52,776	52,703	58,316	(4,096)	(2,648)	(5,803)	(5,877)	(263)
4	53,883	55,786	52,323	52,434	58,334	(4,696)	(2,793)	(6,256)	(6,145)	(245)
5	53,267	55,644	51,867	51,963	58,269	(5,312)	(2,935)	(6,712)	(6,616)	(310)
6	52,577	50,232	51,355	51,511	57,669	(6,002)	(8,347)	(7,224)	(7,068)	(910)
7	51,856	50,068	50,915	50,943	57,950	(6,723)	(8,511)	(7,664)	(7,636)	(629)
8	51,053	49,907	50,463	50,308	58,345	(7,526)	(8,672)	(8,116)	(8,271)	(234)
9	50,185	49,735	50,007	49,484	60,007	(8,394)	(8,844)	(8,572)	(9,095)	1,428
10	49,233	49,564	49,546	48,920	58,572	(9,346)	(9,015)	(9,033)	(9,659)	(7)
25				24,498	59,989				(34,081)	1,410
40				21,263					(37,316)	

	NOx Emissions					Difference from Reference Case				
	Load Loss			Enviro-mental	Misc Cases	Load Loss			Enviro-mental	Misc Cases
	Sys	Or	Ut			Sys	Or	Ut		
1	120.6	120.8	120.4	120.1	121.2	(0.5)	(0.3)	(0.7)	(1.0)	0.1
2	120.4	120.8	120.3	120.0	120.8	(0.7)	(0.3)	(0.8)	(1.1)	(0.3)
3	120.0	120.8	120.2	119.5	120.8	(1.1)	(0.3)	(0.8)	(1.6)	(0.2)
4	119.6	120.7	120.1	118.5	120.9	(1.5)	(0.3)	(1.0)	(2.5)	(0.2)
5	119.1	120.7	120.0	116.7	120.8	(2.0)	(0.4)	(1.1)	(4.4)	(0.3)
6	118.4	120.0	119.8	115.3	121.0	(2.7)	(1.1)	(1.3)	(5.8)	(0.1)
7	117.5	120.0	119.7	113.5	120.8	(3.6)	(1.1)	(1.4)	(7.6)	(0.2)
8	116.4	119.9	119.5	111.0	121.1	(4.6)	(1.1)	(1.5)	(10.1)	(0.0)
9	115.1	119.9	119.4	107.7	121.3	(5.9)	(1.2)	(1.7)	(13.4)	0.2
10	113.6	119.9	119.1	105.4	121.0	(7.5)	(1.2)	(2.0)	(15.7)	(0.0)
25				27.6	121.2				(93.5)	0.2
40				18.9					(102.1)	

	TSP Emissions					Difference from Reference Case				
	Load Loss			Enviro-mental	Misc Cases	Load Loss			Enviro-mental	Misc Cases
	Sys	Or	Ut			Sys	Or	Ut		
1	11.67	11.69	11.61	11.58	11.75	(0.08)	(0.06)	(0.13)	(0.17)	0.01
2	11.64	11.68	11.61	11.56	11.71	(0.10)	(0.06)	(0.14)	(0.19)	(0.04)
3	11.59	11.68	11.60	11.51	11.71	(0.16)	(0.06)	(0.15)	(0.24)	(0.03)
4	11.54	11.68	11.58	11.40	11.72	(0.21)	(0.07)	(0.17)	(0.34)	(0.03)
5	11.47	11.67	11.56	11.20	11.71	(0.27)	(0.07)	(0.19)	(0.54)	(0.04)
6	11.39	11.54	11.53	11.06	11.72	(0.35)	(0.20)	(0.21)	(0.69)	(0.02)
7	11.30	11.54	11.52	10.87	11.71	(0.45)	(0.21)	(0.23)	(0.87)	(0.04)
8	11.17	11.53	11.50	10.62	11.74	(0.57)	(0.21)	(0.25)	(1.12)	(0.00)
9	11.02	11.53	11.47	10.25	11.78	(0.72)	(0.22)	(0.27)	(1.50)	0.04
10	10.84	11.52	11.44	10.00	11.74	(0.90)	(0.22)	(0.31)	(1.74)	(0.00)
25				2.45	11.77				(9.29)	0.03
40				1.73					(10.02)	

PacifiCorp

Integrated Resource Planning

RAMPP-6

Capital Cost Sensitivities

Cases 121 & 122

Tab 21

Capcost.down Case - 20% Decrease in Capital Cost LESS Base.Case (Reference Case)

Incremental Summer Capacity (MW) of Resource Additions

		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
	Short Term Cap Purch	2.6	1.7	2.5	-	-	-	-	-	-	(241.4)	-	(121.7)
	DSM Programs	(0.7)	(0.7)	(0.8)	(0.8)	(0.8)	(0.8)	(0.9)	(0.8)	(0.7)	(0.8)	(2.8)	(4.3)
	Or/Wa Wind	-	-	-	-	-	-	-	-	-	-	72.0	(72.0)
O	Or/Wa Geothermal	-	-	-	-	-	-	-	-	-	-	-	-
R	Or/Wa Cogen 1	-	-	-	-	-	-	-	-	-	-	-	-
/	Or/Wa Cogen 2	-	-	-	113.4	(37.5)	58.4	5.7	(23.6)	125.5	-	(241.9)	-
W	Or/Wa Combined Cycle	-	-	-	7.7	-	-	-	-	(207.8)	133.4	(11.1)	12.6
A	Or/Wa Bridger Transm	-	-	-	-	-	-	-	-	-	-	-	33.6
	Or/Wa Simple CycleCT	-	-	-	-	-	-	-	-	-	-	-	-
	Or/Wa Pump Storage	-	-	-	-	-	-	-	-	-	-	-	-
	Total	**(0.7)**	**(0.7)**	**(0.8)**	**120.3**	**(38.3)**	**57.6**	**4.8**	**(24.4)**	**(83.0)**	**132.6**	**(183.8)**	**(30.1)**
G	DSM Programs	-	-	(0.1)	0.1	(0.1)	0.1	-	(0.1)	0.1	-	(0.1)	-
O	Goshen Cogen 1	-	-	-	28.2	-	-	-	-	-	-	(28.2)	-
S	Goshen Cogen 2	-	-	-	-	-	-	-	-	-	-	-	-
H	Goshen Combined C CT	-	-	-	-	-	-	-	-	-	-	-	-
E	Goshen Bridger Trans	-	-	-	-	-	-	-	-	-	-	-	-
N	Goshen Hunter Transm	-	-	-	-	-	-	-	-	-	-	-	-
	Total	-	-	**(0.1)**	**28.3**	**(0.1)**	**0.1**	-	**(0.1)**	**0.1**	-	**(28.3)**	-
	DSM Programs	-	(0.1)	-	-	-	(0.1)	-	-	(0.1)	0.1	(0.1)	(0.2)
	Utah Geothermal	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Solar	-	-	-	-	-	-	-	-	-	-	-	-
U	Utah Cogen 1	-	-	-	-	-	-	-	-	-	-	-	-
T	Utah Cogen 2	-	-	-	-	-	-	-	-	-	-	464.8	(464.8)
A	Utah Combined Cycle	-	-	-	90.5	(68.3)	(12.7)	(12.9)	31.0	20.3	-	(547.6)	497.6
H	Utah IGCC Hunter 4	-	-	-	-	-	-	-	-	-	-	-	-
	Utah IGCC CT	-	-	-	-	-	-	-	-	-	-	-	-
	Utah PC Hunter 4	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Coal $23.25/Ton	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Coal $27.00/Ton	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Simple Cycle CT	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Pumped Storage	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Wyo/Ut Tran L	-	-	-	-	113.9	-	-	-	-	-	-	(113.9)
	Total	-	**(0.1)**	-	**90.5**	**45.6**	**(12.8)**	**(12.9)**	**31.0**	**20.2**	**0.1**	**(82.9)**	**(81.3)**
	DSM Programs	-	-	-	-	-	-	-	-	-	-	-	-
W	Wyo Wind	-	-	-	-	-	-	-	-	-	-	54.0	(54.0)
Y	Wyo Combined Cycle	-	-	-	-	-	-	-	-	-	-	-	-
O	Wyo IGCC Wyodak 2	-	-	-	-	-	-	-	-	-	-	-	-
M	Wyo IGCC CT	-	-	-	-	-	-	-	-	-	-	-	-
I	Wyo PC Wyodak 2	-	-	-	-	-	-	-	-	-	-	-	-
N	Wyo Coal $6.70/Ton	-	-	-	-	-	-	-	-	-	-	-	206.5
G	Wyo Simple Cycle CT	-	-	-	-	-	-	-	-	-	-	-	-
	Total	-	-	-	-	-	-	-	-	-	-	**54.0**	**152.5**
T	DSM Programs	(0.7)	(0.8)	(0.9)	(0.7)	(0.9)	(0.8)	(0.9)	(0.9)	(0.7)	(0.7)	(3.0)	(4.5)
O	Short Term Cap Purch	2.6	1.7	2.5	-	-	-	-	-	-	(241.4)	-	(121.7)
T	Cogeneration	-	-	-	141.6	(37.5)	58.4	5.7	(23.6)	125.5	-	194.7	(464.8)
A	Combined Cycle CT	-	-	-	98.2	(68.3)	(12.7)	(12.9)	31.0	(187.5)	133.4	(558.7)	510.2
L	Coal	-	-	-	-	-	-	-	-	-	-	-	206.5
	All Others	-	-	-	-	113.9	-	-	-	-	-	126.0	(206.3)
	Total	**1.9**	**0.9**	**1.6**	**239.1**	**7.2**	**44.9**	**(8.1)**	**6.5**	**(62.7)**	**(108.7)**	**(241.0)**	**(80.6)**

Annual Summer Peak Capacity (MW)

		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
S	Native Load	-	-	-	-	-	-	-	-	-	-	-	-
Y	Long Term Sales	-	-	-	-	-	-	-	-	-	-	-	-
S	DSM Programs	1.0	2.0	2.0	4.0	4.0	5.0	6.0	7.0	7.0	8.0	11.0	15.0
T	**Total Requirements**	**1.0**	**2.0**	**2.0**	**4.0**	**4.0**	**5.0**	**6.0**	**7.0**	**7.0**	**8.0**	**11.0**	**15.0**
E													
M	Existing Generation	-	-	-	-	(115.0)	(115.0)	(115.0)	(115.0)	(115.0)	(115.0)	(115.0)	(34.0)
	Long Term Purchases	(0.6)	(0.7)	0.5	-	-	-	-	-	-	(0.6)	-	(0.3)
L	Short Term Market	-	-	-	-	-	-	-	-	-	-	-	-
&	Short Term Cap Purch	2.6	1.7	2.5	-	-	-	-	-	-	(241.4)	-	(121.7)
R	New Resources	-	-	-	240.0	248.0	293.0	286.0	293.0	232.0	366.0	127.0	173.0
	Total Resources	**2.0**	**1.0**	**3.0**	**240.0**	**133.0**	**178.0**	**171.0**	**178.0**	**117.0**	**9.0**	**12.0**	**17.0**
	Reserves	2.0	-	1.0	237.0	129.0	174.0	166.0	172.0	110.0	-	1.0	2.0
	Reserve Margin (%)	-	-	-	2.3	1.3	1.7	1.7	1.7	1.1	-	-	-

Capcost.down Case - 20% Decrease in Capital Cost LESS
Base.Case (Reference Case)
Cumulative Annual Energy (aMW)

		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
	DSM Programs	(0.7)	(1.5)	(2.3)	(3.1)	(3.9)	(4.8)	(5.6)	(6.5)	(7.3)	(8.1)	(11.1)	(15.3)
	Or/Wa Wind	-	-	-	-	-	-	-	-	-	-	80.5	-
O	Or/Wa Geothermal	-	-	-	-	-	-	-	-	-	-	-	-
R	Or/Wa Cogen 1	-	-	-	-	-	-	-	-	-	-	-	-
/	Or/Wa Cogen 2	-	-	-	112.3	75.2	132.9	138.6	113.4	235.7	237.1	-	(0.3)
W	Or/Wa Combined Cycle	-	-	-	7.6	7.6	7.6	7.4	7.4	(195.2)	(68.9)	(72.0)	(68.0)
A	Or/Wa Bridger Transm	-	-	-	-	-	-	-	-	-	-	-	31.1
	Or/Wa Simple CycleCT	-	-	-	-	-	-	-	-	-	-	-	-
	Or/Wa Pump Storage	-	-	-	-	-	-	-	-	-	-	-	-
	Total	**(0.7)**	**(1.5)**	**(2.3)**	**116.8**	**78.8**	**135.7**	**140.4**	**114.4**	**33.2**	**160.0**	**(2.5)**	**(52.5)**
G	DSM Programs	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)
O	Goshen Cogen 1	-	-	-	27.5	27.9	27.9	27.9	27.9	27.9	27.9	-	-
S	Goshen Cogen 2	-	-	-	-	-	-	-	-	-	-	-	-
H	Goshen Combined C CT	-	-	-	-	-	-	-	-	-	-	-	-
E	Goshen Bridger Trans	-	-	-	-	-	-	-	-	-	-	-	-
N	Goshen Hunter Transm	-	-	-	-	-	-	-	-	-	-	-	-
	Total	**(0.0)**	**(0.0)**	**(0.0)**	**27.5**	**27.9**	**27.9**	**27.9**	**27.9**	**27.9**	**27.9**	**(0.1)**	**(0.1)**
	DSM Programs	(0.0)	(0.0)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.2)	(0.2)	(0.2)	(0.3)
	Utah Geothermal	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Solar	-	-	-	-	-	-	-	-	-	-	-	-
U	Utah Cogen 1	-	-	-	-	-	-	-	-	-	-	-	-
T	Utah Cogen 2	-	-	-	-	-	-	-	-	-	-	391.7	(2.1)
A	Utah Combined Cycle	-	-	-	80.6	13.1	9.2	(8.0)	15.6	32.3	36.1	(444.2)	(89.7)
H	Utah IGCC Hunter 4	-	-	-	-	-	-	-	-	-	-	-	-
	Utah IGCC CT	-	-	-	-	-	-	-	-	-	-	-	-
	Utah PC Hunter 4	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Coal $23.25/Ton	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Coal $27.00/Ton	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Simple Cycle CT	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Pumped Storage	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Wyo/Ut Tran L	-	-	-	-	102.3	108.3	108.3	108.3	108.3	108.3	108.3	-
	Total	**(0.0)**	**(0.0)**	**(0.1)**	**80.6**	**115.3**	**117.4**	**100.1**	**123.7**	**140.4**	**144.3**	**55.6**	**(92.1)**
	DSM Programs	-	-	-	-	-	-	-	-	-	-	-	-
W	Wyo Wind	-	-	-	-	-	-	-	-	-	-	60.4	-
Y	Wyo Combined Cycle	-	-	-	-	-	-	-	-	-	-	-	-
O	Wyo IGCC Wyodak 2	-	-	-	-	-	-	-	-	-	-	-	-
M	Wyo IGCC CT	-	-	-	-	-	-	-	-	-	-	-	-
I	Wyo PC Wyodak 2	-	-	-	-	-	-	-	-	-	-	-	-
N	Wyo Coal $6.70/Ton	-	-	-	-	-	-	-	-	-	-	-	189.3
G	Wyo Simple Cycle CT	-	-	-	-	-	-	-	-	-	-	-	-
	Total	-	-	-	-	-	-	-	-	-	-	**60.4**	**189.3**
	DSM Programs	(0.8)	(1.5)	(2.3)	(3.2)	(4.1)	(4.9)	(5.8)	(6.6)	(7.5)	(8.3)	(11.4)	(15.7)
	Short Term Cap Purch	-	-	-	-	-	-	-	-	-	-	-	(2.3)
T	Cogeneration	-	-	-	139.8	103.1	160.8	166.5	141.3	263.6	265.0	391.7	(2.3)
O	Combined Cycle CT	-	-	-	88.2	20.7	16.8	(0.6)	23.0	(163.0)	(32.8)	(516.1)	(157.7)
T	Coal	-	-	-	-	-	-	-	-	-	-	-	189.3
A	Transmission	-	-	-	-	102.3	108.3	108.3	108.3	108.3	108.3	108.3	31.1
L	Simple Cycle	-	-	-	-	-	-	-	-	-	-	-	-
	All Others	-	-	-	-	-	-	-	-	-	-	140.9	-
	Total	**(0.8)**	**(1.5)**	**(2.3)**	**224.8**	**222.0**	**281.0**	**268.4**	**266.0**	**201.5**	**332.2**	**113.4**	**42.3**
S	**Native Load**	-	-	-	-	-	-	-	-	-	-	-	-
Y	**Pump Storage/Peak Retu**	-	-	-	-	-	-	-	-	-	-	-	-
S	**Long Term Sales**	-	-	-	-	-	-	-	-	-	-	-	-
T	**Short Term Sales**	(0.7)	(1.6)	(2.1)	179.9	86.2	137.9	137.6	119.3	67.4	184.3	8.3	13.5
E	**DSM Programs**	0.7	1.5	2.3	3.1	4.0	4.9	5.8	6.7	7.5	8.4	11.4	15.7
M	**Total Requirements**	0.1	(0.1)	0.2	183.0	90.3	142.8	143.4	125.9	74.8	192.7	19.7	29.2
	Existing Generation	-	-	-	(4.4)	(106.9)	(109.3)	(114.1)	(111.5)	(107.3)	(109.4)	(104.2)	(27.0)
L	**Long Term Purchases**	-	-	-	-	(0.1)	(0.1)	-	(0.1)	(0.1)	-	-	(2.3)
&	**Short Term Market**	-	-	-	-	-	-	-	-	-	-	-	-
R	**Short Term Purchases**	0.1	(0.2)	0.1	(40.5)	(28.8)	(33.8)	(16.6)	(35.1)	(26.7)	(38.5)	(0.9)	(1.8)
	New Resources	-	-	-	228.0	226.0	286.0	274.1	272.6	208.9	340.6	124.7	60.3
	Total Resources	0.1	(0.1)	0.2	183.0	90.2	142.8	143.5	125.9	74.9	192.7	19.6	29.2

PacifiCorp RAMPP-6

NPV of 'Capcost.down Case - 20% Decrease in Capital Cost LESS
Base.Case (Reference Case)'
Total System Production Cost in Millions of $2001

Year	Total System Production Cost (A)	Adder (B)	TSPC less Adder (C) (A)+(B)	Net PV Factor at 4.88% (D)	Net Present Value (E) (C)*(D)	
2001	$ 0.3	$ -	$ 0.3	1.0000	$ 0.3	*
2002	$ 0.4	$ -	$ 0.4	0.9534	$ 0.4	*
2003	$ 0.6	$ -	$ 0.6	0.9090	$ 0.5	*
2004	$ (11.6)	$ -	$ (11.6)	0.8667	$ (10.0)	*
2005	$ (13.1)	$ -	$ (13.1)	0.8264	$ (10.8)	*
2006	$ (16.3)	$ -	$ (16.3)	0.7879	$ (12.9)	*
2007	$ (19.1)	$ -	$ (19.1)	0.7512	$ (14.3)	*
2008	$ (19.7)	$ -	$ (19.7)	0.7162	$ (14.1)	*
2009	$ (20.1)	$ -	$ (20.1)	0.6829	$ (13.7)	*
2010	$ (36.2)	$ -	$ (36.2)	0.6511	$ (23.6)	*
2011	$ (36.7)	$ -	$ (36.7)	0.6208	$ (22.8)	
2012	$ (37.2)	$ -	$ (37.2)	0.5919	$ (22.0)	
2013	$ (37.7)	$ -	$ (37.7)	0.5643	$ (21.3)	
2014	$ (38.2)	$ -	$ (38.2)	0.5380	$ (20.6)	
2015	$ (38.7)	$ -	$ (38.7)	0.5130	$ (19.9)	*
2016	$ (43.1)	$ -	$ (43.1)	0.4891	$ (21.1)	
2017	$ (47.5)	$ -	$ (47.5)	0.4663	$ (22.1)	
2018	$ (51.9)	$ -	$ (51.9)	0.4446	$ (23.1)	
2019	$ (56.3)	$ -	$ (56.3)	0.4239	$ (23.8)	
2020	$ (60.6)	$ -	$ (60.6)	0.4042	$ (24.5)	*
2021	$ (59.8)	$ -	$ (59.8)	0.3854	$ (23.0)	
2022	$ (58.9)	$ -	$ (58.9)	0.3674	$ (21.6)	
2023	$ (58.0)	$ -	$ (58.0)	0.3503	$ (20.3)	
2024	$ (57.1)	$ -	$ (57.1)	0.3340	$ (19.1)	
2025	$ (56.2)	$ -	$ (56.2)	0.3185	$ (17.9)	
2026	$ (55.4)	$ -	$ (55.4)	0.3036	$ (16.8)	
2027	$ (54.5)	$ -	$ (54.5)	0.2895	$ (15.8)	
2028	$ (53.6)	$ -	$ (53.6)	0.2760	$ (14.8)	
2029	$ (52.7)	$ -	$ (52.7)	0.2632	$ (13.9)	
2030	$ (51.9)	$ -	$ (51.9)	0.2509	$ (13.0)	*
2031	$ (51.9)	$ -	$ (51.9)	0.2392	$ (12.4)	
2032	$ (51.9)	$ -	$ (51.9)	0.2281	$ (11.8)	
2033	$ (51.9)	$ -	$ (51.9)	0.2175	$ (11.3)	
2034	$ (51.9)	$ -	$ (51.9)	0.2073	$ (10.8)	
2035	$ (51.9)	$ -	$ (51.9)	0.1977	$ (10.3)	
2036	$ (51.9)	$ -	$ (51.9)	0.1885	$ (9.8)	
2037	$ (51.9)	$ -	$ (51.9)	0.1797	$ (9.3)	
2038	$ (51.9)	$ -	$ (51.9)	0.1713	$ (8.9)	
2039	$ (51.9)	$ -	$ (51.9)	0.1634	$ (8.5)	
2040	$ (51.9)	$ -	$ (51.9)	0.1558	$ (8.1)	
			40 Year Net Present Value		$ (597)	

Capcost.down LESS Base.Case
Detail supporting the Total System Production Costs in $1,000

Total System Production Cost in $1,000

Totals	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020	2030
Long Term Purchases	86	112	90	(2,989)	318	103	(1,468)	(1,283)	(501)	(11,787)	250	(6,010)	(6,143)
Short Term Purchases	9	(15)	26	(7,423)	(5,292)	(6,429)	(3,165)	(6,054)	(4,680)	(10,808)	(207)	(521)	(212)
Existing Resource O&M	-	-	-	(811)	(5,644)	(5,601)	(6,088)	(5,998)	(5,805)	(5,771)	(5,452)	(1,673)	(1,622)
Potential Resource O&M	-	-	-	8,853	4,632	6,011	5,569	6,117	4,099	8,531	2,551	6,579	6,443
Fuel Existing	-	-	-	59	(8,375)	(8,700)	(9,003)	(8,567)	(8,219)	(8,573)	(8,144)	(1,893)	(1,893)
Fuel Potential	-	-	-	24,324	21,007	27,478	26,259	26,233	18,860	33,986	(6,927)	(9,023)	(9,060)
Short Term Sales	186	323	524	(38,694)	(18,146)	(28,730)	(28,046)	(24,950)	(14,947)	(37,798)	(1,238)	(2,525)	(3,348)
Total Operating Exp	281	420	639	(16,682)	(11,500)	(15,867)	(15,942)	(14,500)	(11,193)	(32,220)	(19,167)	(15,067)	(15,835)
Total Annual CC	-	-	-	5,167	(1,555)	(382)	(3,011)	(5,113)	(8,761)	(3,803)	(19,367)	(45,277)	(35,729)
Total Annual DSM	(14)	(27)	(43)	(58)	(73)	(89)	(105)	(121)	(136)	(152)	(207)	(287)	(297)
Total Real Costs	267	393	597	(11,573)	(13,128)	(16,338)	(19,058)	(19,734)	(20,090)	(36,175)	(38,742)	(60,631)	(51,860)
	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Real $2001 Costs	**267**	**393**	**597**	**(11,573)**	**(13,128)**	**(16,338)**	**(19,058)**	**(19,734)**	**(20,090)**	**(36,175)**	**(38,742)**	**(60,631)**	**(51,860)**

Annual Capital Cost

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020	2030
Coal	-	-	-	-	1,924	1,851	1,780	1,713	1,648	1,585	1,306	1,349	916
Nuclear	-	-	-	-	-	-	-	-	-	-	-	-	-
Oil/Gas	-	-	-	-	-	-	-	-	-	-	-	-	-
Combustion Turbi	-	-	-	-	-	-	-	-	-	-	-	-	-
Combined Cycle	-	-	-	4,150	(24)	(763)	(1,482)	(2,132)	(10,721)	(5,694)	(32,338)	(16,033)	(12,831)
Hydro	-	-	-	-	-	-	-	-	-	-	-	-	-
Cogen	-	-	-	1,018	(3,455)	(1,469)	(3,309)	(4,694)	313	306	(6,645)	(26,821)	(21,253)
Purchase	-	-	-	-	-	-	-	-	-	-	-	-	-
Renewable	-	-	-	-	-	-	-	-	-	-	18,310	(3,771)	(2,560)
Storage	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Annual CC	-	-	-	5,167	(1,555)	(382)	(3,011)	(5,113)	(8,761)	(3,803)	(19,367)	(45,277)	(35,729)

DSM PROGRAM

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020	2030
Total Annual DSM	(14)	(27)	(43)	(58)	(73)	(89)	(105)	(121)	(136)	(152)	(207)	(287)	(297)

Fuel Cost $	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020	2030
Fuel Existing	-	-	-	59	(8,375)	(8,700)	(9,003)	(8,567)	(8,219)	(8,573)	(8,144)	(1,893)	(1,893)
Fuel Potential	-	-	-	24,324	21,007	27,478	26,259	26,233	18,860	33,986	(6,927)	(9,023)	(9,060)

Capcost.up Case - 20% increase in Capital Cost LESS Base.Case (Reference Case)

Incremental Summer Capacity (MW) of Resource Additions

		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
	Short Term Cap Purch	(0.1)	(0.1)	(0.3)	-	-	-	-	-	61.1	61.0	25.3	127.2
	DSM Programs	-	-	-	-	-	-	-	-	-	-	-	-
	Or/Wa Wind	-	-	-	-	-	-	-	-	-	-	-	-
O	Or/Wa Geothermal	-	-	-	-	-	-	-	-	-	-	-	-
R	Or/Wa Cogen 1	-	-	-	-	-	-	-	-	-	-	-	-
/	Or/Wa Cogen 2	-	-	-	(342.3)	(129.4)	171.8	(81.3)	81.8	146.5	-	152.9	-
W	Or/Wa Combined Cycle	-	-	-	347.0	-	-	-	-	(207.8)	-	(101.1)	(5.6)
A	Or/Wa Bridger Transm	-	-	-	-	-	-	-	-	-	-	-	-
	Or/Wa Simple CycleCT	-	-	-	-	-	-	-	-	-	-	-	-
	Or/Wa Pump Storage	-	-	-	-	-	-	-	-	-	-	-	-
	Total	-	-	-	**4.7**	**(129.4)**	**171.8**	**(81.3)**	**81.8**	**(61.3)**	-	**51.8**	**(5.6)**
G	DSM Programs	-	-	-	-	-	-	-	-	-	-	-	-
O	Goshen Cogen 1	-	-	-	-	-	-	-	-	-	-	-	-
S	Goshen Cogen 2	-	-	-	-	-	-	-	-	-	-	-	-
H	Goshen Combined C CT	-	-	-	-	-	-	-	-	-	-	-	-
E	Goshen Bridger Trans	-	-	-	-	-	-	-	-	-	-	-	-
N	Goshen Hunter Transm	-	-	-	-	-	-	-	-	-	-	-	-
	Total	-	-	-	-	-	-	-	-	-	-	-	-
	DSM Programs	0.1	-	0.1	-	0.2	-	-	0.1	0.1	0.1	0.3	0.4
	Utah Geothermal	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Solar	-	-	-	-	-	-	-	-	-	-	-	-
U	Utah Cogen 1	-	-	-	-	-	-	-	-	-	-	-	-
T	Utah Cogen 2	-	-	-	-	-	-	-	-	-	-	(792.3)	792.3
A	Utah Combined Cycle	-	-	-	(14.2)	(68.3)	34.7	(12.9)	12.1	-	-	776.0	(294.3)
H	Utah IGCC Hunter 4	-	-	-	-	-	-	-	-	-	-	-	-
	Utah IGCC CT	-	-	-	-	-	-	-	-	-	-	-	-
	Utah PC Hunter 4	-	-	-	-	-	-	-	-	-	-	-	(400.0)
	Utah Coal $23.25/Ton	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Coal $27.00/Ton	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Simple Cycle CT	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Pumped Storage	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Wyo/Ut Tran L	-	-	-	-	(18.8)	-	-	-	-	-	-	18.8
	Total	**0.1**	-	**0.1**	**(14.2)**	**(86.9)**	**34.7**	**(12.9)**	**12.2**	**0.1**	**0.1**	**(16.0)**	**117.2**
	DSM Programs	-	-	-	-	0.1	0.1	(0.1)	0.1	-	-	0.1	0.1
W	Wyo Wind	-	-	-	-	-	-	-	-	-	-	-	(54.0)
Y	Wyo Combined Cycle	-	-	-	-	-	-	-	-	-	-	-	-
O	Wyo IGCC Wyodak 2	-	-	-	-	-	-	-	-	-	-	-	-
M	Wyo IGCC CT	-	-	-	-	-	-	-	-	-	-	-	-
I	Wyo PC Wyodak 2	-	-	-	-	-	-	-	-	-	-	-	-
N	Wyo Coal $6.70/Ton	-	-	-	-	-	-	-	-	-	-	-	(140.7)
G	Wyo Simple Cycle CT	-	-	-	-	-	-	-	-	-	-	-	-
	Total	-	-	-	-	**0.1**	**0.1**	**(0.1)**	**0.1**	-	-	**0.1**	**(194.6)**
T	DSM Programs	0.1	-	0.1	-	0.3	0.1	(0.1)	0.2	0.1	0.1	0.4	0.5
O	Short Term Cap Purch	(0.1)	(0.1)	(0.3)	-	-	-	-	-	61.1	61.0	25.3	127.2
T	Cogeneration	-	-	-	(342.3)	(129.4)	171.8	(81.3)	81.8	146.5	-	(639.4)	792.3
A	Combined Cycle CT	-	-	-	332.8	(68.3)	34.7	(12.9)	12.1	(207.8)	-	674.9	(299.9)
L	Coal	-	-	-	-	-	-	-	-	-	-	-	(540.7)
	All Others	-	-	-	-	(18.8)	-	-	-	-	-	-	(35.2)
	Total	-	**(0.1)**	**(0.2)**	**(9.5)**	**(216.2)**	**206.6**	**(94.3)**	**94.1**	**(0.1)**	**61.1**	**61.2**	**44.2**

Annual Summer Peak Capacity (MW)

		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
S	Native Load	-	-	-	-	-	-	-	-	-	-	-	-
Y	Long Term Sales	-	-	-	-	-	-	-	-	-	-	-	-
S	DSM Programs	-	-	(1.0)	-	(1.0)	(1.0)	-	-	(1.0)	(1.0)	(1.0)	(2.0)
T	**Total Requirements**	-	-	**(1.0)**	-	**(1.0)**	**(1.0)**	-	-	**(1.0)**	**(1.0)**	**(1.0)**	**(2.0)**
E													
M	Existing Generation	-	-	-	-	19.0	19.0	19.0	19.0	19.0	19.0	19.0	-
	Long Term Purchases	0.1	0.1	0.3	-	-	-	-	-	(0.1)	-	(0.3)	(0.2)
L	Short Term Market	-	-	-	-	-	-	-	-	-	-	-	-
&	Short Term Cap Purch	(0.1)	(0.1)	(0.3)	-	-	-	-	-	61.1	61.0	25.3	127.2
R	New Resources	-	-	-	(9.0)	(226.0)	(20.0)	(114.0)	(20.0)	(81.0)	(81.0)	(45.0)	(129.0)
	Total Resources	-	-	-	**(9.0)**	**(207.0)**	**(1.0)**	**(95.0)**	**(1.0)**	**(1.0)**	**(1.0)**	**(1.0)**	**(2.0)**
	Reserves	-	-	-	(9.0)	(206.0)	-	(94.0)	-	-	-	-	-
	Reserve Margin (%)	-	-	-	(0.1)	(2.0)	-	(0.9)	-	-	-	-	-

Capcost.up Case - 20% increase in Capital Cost LESS
Base.Case (Reference Case)
Cumulative Annual Energy (aMW)

		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
	DSM Programs	-	-	-	-	-	-	-	-	-	-	-	-
	Or/Wa Wind	-	-	-	-	-	-	-	-	-	-	-	-
O	Or/Wa Geothermal	-	-	-	-	-	-	-	-	-	-	-	-
R	Or/Wa Cogen 1	-	-	-	-	-	-	-	-	-	-	-	-
/	Or/Wa Cogen 2	-	-	-	(338.9)	(466.9)	(296.9)	(377.4)	(296.4)	(151.3)	(151.3)	-	-
W	Or/Wa Combined Cycle	-	-	-	343.5	343.5	343.5	343.5	343.5	140.8	137.8	37.4	54.9
A	Or/Wa Bridger Transm	-	-	-	-	-	-	-	-	-	-	-	-
	Or/Wa Simple CycleCT	-	-	-	-	-	-	-	-	-	-	-	-
	Or/Wa Pump Storage	-	-	-	-	-	-	-	-	-	-	-	-
	Total	-	-	-	**4.6**	**(123.5)**	**46.6**	**(33.9)**	**47.1**	**(10.5)**	**(13.5)**	**37.4**	**54.9**
G	DSM Programs	-	-	-	-	-	-	-	-	-	-	-	-
O	Goshen Cogen 1	-	-	-	-	-	-	-	-	-	-	-	-
S	Goshen Cogen 2	-	-	-	-	-	-	-	-	-	-	-	-
H	Goshen Combined C CT	-	-	-	-	-	-	-	-	-	-	-	-
E	Goshen Bridger Trans	-	-	-	-	-	-	-	-	-	-	-	-
N	Goshen Hunter Transm	-	-	-	-	-	-	-	-	-	-	-	-
	Total	-	-	-	-	-	-	-	-	-	-	-	-
	DSM Programs	0.0	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.3	0.5
	Utah Geothermal	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Solar	-	-	-	-	-	-	-	-	-	-	-	-
U	Utah Cogen 1	-	-	-	-	-	-	-	-	-	-	-	-
T	Utah Cogen 2	-	-	-	-	-	-	-	-	-	-	(767.1)	12.2
A	Utah Combined Cycle	-	-	-	(13.8)	(80.1)	(46.4)	(58.9)	(44.0)	(37.6)	(47.1)	715.6	453.5
H	Utah IGCC Hunter 4	-	-	-	-	-	-	-	-	-	-	-	-
	Utah IGCC CT	-	-	-	-	-	-	-	-	-	-	-	-
	Utah PC Hunter 4	-	-	-	-	-	-	-	-	-	-	-	(366.6)
	Utah Coal $23.25/Ton	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Coal $27.00/Ton	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Simple Cycle CT	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Pumped Storage	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Wyo/Ut Tran L	-	-	-	-	(16.8)	(17.8)	(17.8)	(17.8)	(17.8)	(17.8)	(17.8)	-
	Total	**0.0**	**0.1**	**0.1**	**(13.7)**	**(96.8)**	**(64.1)**	**(76.6)**	**(61.6)**	**(55.2)**	**(64.7)**	**(69.0)**	**99.6**
	DSM Programs	0.0	0.0	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.3	0.4
W	Wyo Wind	-	-	-	-	-	-	-	-	-	-	-	(60.4)
Y	Wyo Combined Cycle	-	-	-	-	-	-	-	-	-	-	-	-
O	Wyo IGCC Wyodak 2	-	-	-	-	-	-	-	-	-	-	-	-
M	Wyo IGCC CT	-	-	-	-	-	-	-	-	-	-	-	-
I	Wyo PC Wyodak 2	-	-	-	-	-	-	-	-	-	-	-	-
N	Wyo Coal $6.70/Ton	-	-	-	-	-	-	-	-	-	-	-	(129.0)
G	Wyo Simple Cycle CT	-	-	-	-	-	-	-	-	-	-	-	-
	Total	**0.0**	**0.0**	**0.1**	**0.1**	**0.1**	**0.1**	**0.2**	**0.2**	**0.2**	**0.2**	**0.3**	**(189.0)**
	DSM Programs	0.0	0.1	0.2	0.2	0.2	0.3	0.3	0.4	0.4	0.5	0.6	0.9
	Short Term Cap Purch	-	-	-	-	-	-	-	-	-	-	0.0	1.9
T	Cogeneration	-	-	-	(338.9)	(466.9)	(296.9)	(377.4)	(296.4)	(151.3)	(151.3)	(767.1)	12.2
O	Combined Cycle CT	-	-	-	329.7	263.4	297.1	284.5	299.4	103.2	90.7	753.0	508.4
T	Coal	-	-	-	-	-	-	-	-	-	-	-	(495.6)
A	Transmission	-	-	-	-	(16.8)	(17.8)	(17.8)	(17.8)	(17.8)	(17.8)	(17.8)	-
L	Simple Cycle	-	-	-	-	-	-	-	-	-	-	-	-
	All Others	-	-	-	-	-	-	-	-	-	-	-	(60.4)
	Total	**0.0**	**0.1**	**0.2**	**(9.0)**	**(220.1)**	**(17.4)**	**(110.4)**	**(14.4)**	**(65.6)**	**(78.0)**	**(31.3)**	**(32.6)**
		-	-	-	-	-	-	-	-	-	-	-	-
S	**Native Load**	-	-	-	-	-	-	-	-	-	-	-	-
Y	**Pump Storage/Peak Retu**	-	-	-	-	-	-	-	-	-	-	-	-
S	**Long Term Sales**	-	-	-	-	-	-	-	-	-	-	-	-
T	**Short Term Sales**	-	0.1	0.1	(5.9)	(152.0)	(2.3)	(63.6)	3.7	(45.2)	(40.6)	(13.1)	(32.0)
E	**DSM Programs**	(0.1)	(0.1)	(0.2)	(0.2)	(0.3)	(0.3)	(0.3)	(0.4)	(0.4)	(0.4)	(0.7)	(0.9)
M	**Total Requirements**	-	-	-	(6.1)	(152.1)	(2.5)	(63.9)	3.3	(45.6)	(41.1)	(13.8)	(32.9)
		-	-	-	-	-	-	-	-	-	-	-	-
	Existing Generation	-	-	-	1.2	24.7	18.2	21.8	17.0	17.2	17.0	18.0	(0.3)
L	**Long Term Purchases**	-	-	-	-	-	-	1.2	-	-	1.9	-	2.0
&	**Short Term Market**	-	-	-	-	-	-	-	-	-	-	-	-
R	**Short Term Purchases**	-	(0.1)	(0.1)	1.9	43.4	(3.2)	24.0	1.1	3.1	18.5	0.2	0.8
	New Resources	-	-	-	(9.2)	(220.4)	(17.6)	(110.7)	(14.8)	(66.0)	(78.4)	(32.0)	(35.4)
	Total Resources	-	-	(0.1)	(6.1)	(152.2)	(2.5)	(63.8)	3.3	(45.6)	(41.1)	(13.8)	(32.9)

NPV of 'Capcost.up Case - 20% increase in Capital Cost LESS Base.Case (Reference Case)'

Total System Production Cost in Millions of $2001

Year	Total System Production Cost (A)	Adder (B)	TSPC less Adder (C) (A)+(B)	Net PV Factor at 4.88% (D)	Net Present Value (E) (C)*(D)	
2001	$ -	$ -	$ -	1.0000	$ -	*
2002	$ -	$ -	$ -	0.9534	$ -	*
2003	$ -	$ -	$ -	0.9090	$ -	*
2004	$ 5.2	$ -	$ 5.2	0.8667	$ 4.5	*
2005	$ 8.8	$ -	$ 8.8	0.8264	$ 7.3	*
2006	$ 9.7	$ -	$ 9.7	0.7879	$ 7.7	*
2007	$ 12.2	$ -	$ 12.2	0.7512	$ 9.2	*
2008	$ 14.7	$ -	$ 14.7	0.7162	$ 10.6	*
2009	$ 18.4	$ -	$ 18.4	0.6829	$ 12.6	*
2010	$ 19.4	$ -	$ 19.4	0.6511	$ 12.6	*
2011	$ 21.9	$ -	$ 21.9	0.6208	$ 13.6	
2012	$ 24.5	$ -	$ 24.5	0.5919	$ 14.5	
2013	$ 27.0	$ -	$ 27.0	0.5643	$ 15.2	
2014	$ 29.5	$ -	$ 29.5	0.5380	$ 15.9	
2015	$ 32.0	$ -	$ 32.0	0.5130	$ 16.4	*
2016	$ 38.2	$ -	$ 38.2	0.4891	$ 18.7	
2017	$ 44.3	$ -	$ 44.3	0.4663	$ 20.7	
2018	$ 50.4	$ -	$ 50.4	0.4446	$ 22.4	
2019	$ 56.5	$ -	$ 56.5	0.4239	$ 24.0	
2020	$ 62.7	$ -	$ 62.7	0.4042	$ 25.3	*
2021	$ 62.2	$ -	$ 62.2	0.3854	$ 24.0	
2022	$ 61.6	$ -	$ 61.6	0.3674	$ 22.7	
2023	$ 61.1	$	$ 61.1	0.3503	$ 21.4	
2024	$ 60.6	$ -	$ 60.6	0.3340	$ 20.2	
2025	$ 60.1	$ -	$ 60.1	0.3185	$ 19.1	
2026	$ 59.6	$ -	$ 59.6	0.3036	$ 18.1	
2027	$ 59.1	$ -	$ 59.1	0.2895	$ 17.1	
2028	$ 58.6	$ -	$ 58.6	0.2760	$ 16.2	
2029	$ 58.0	$ -	$ 58.0	0.2632	$ 15.3	
2030	$ 57.5	$ -	$ 57.5	0.2509	$ 14.4	*
2031	$ 57.5	$ -	$ 57.5	0.2392	$ 13.8	
2032	$ 57.5	$ -	$ 57.5	0.2281	$ 13.1	
2033	$ 57.5	$ -	$ 57.5	0.2175	$ 12.5	
2034	$ 57.5	$ -	$ 57.5	0.2073	$ 11.9	
2035	$ 57.5	$ -	$ 57.5	0.1977	$ 11.4	
2036	$ 57.5	$ -	$ 57.5	0.1885	$ 10.8	
2037	$ 57.5	$ -	$ 57.5	0.1797	$ 10.3	
2038	$ 57.5	$ -	$ 57.5	0.1713	$ 9.9	
2039	$ 57.5	$ -	$ 57.5	0.1634	$ 9.4	
2040	$ 57.5	$ -	$ 57.5	0.1558	$ 9.0	
			40 Year Net Present Value		**$ 552**	

Capcost.up LESS Base.Case
Detail supporting the Total System Production Costs in $1,000

Total System Production Cost in $1,000

Totals	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020	2030
Long Term Purchases	(2)	(9)	(12)	50	1,625	246	330	(77)	3,322	2,927	1,495	6,263	6,484
Short Term Purchases	(2)	(3)	(12)	428	9,479	(755)	4,109	439	477	5,435	70	298	338
Existing Resource O&M	-	-	-	156	1,316	919	1,315	868	958	868	1,051	138	240
Potential Resource O&M	-	-	-	(8)	(7,127)	(152)	(3,299)	(134)	(2,273)	(2,390)	(4,138)	(7,168)	(7,273)
Fuel Existing	-	-	(3)	55	2,139	1,633	1,874	1,341	1,315	1,341	1,341	(80)	(80)
Fuel Potential	-	-	-	(383)	(23,070)	(827)	(11,135)	(494)	(6,597)	(8,055)	(1,550)	20,029	19,767
Short Term Sales	(10)	(18)	(20)	952	30,528	743	14,884	404	10,068	8,340	2,435	6,210	5,684
Total Operating Exp	(13)	(30)	(47)	1,251	14,890	1,807	8,077	2,347	7,270	8,465	705	25,690	25,160
Total Annual CC	-	-	-	3,879	(6,170)	7,871	4,081	12,299	11,080	10,830	31,173	36,770	32,138
Total Annual DSM	10	20	30	40	55	65	75	85	95	105	150	220	230
Total Real Costs	(2)	(10)	(17)	5,170	8,776	9,743	12,234	14,732	18,445	19,401	32,028	62,680	57,528
	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Real $2001 Costs	**(2)**	**(10)**	**(17)**	**5,170**	**8,776**	**9,743**	**12,234**	**14,732**	**18,445**	**19,401**	**32,028**	**62,680**	**57,528**

Annual Capital Cost

Coal	-	-	-	-	(413)	(397)	(382)	(368)	(354)	(340)	(280)	(21,337)	(14,473)
Nuclear	-	-	-	-	-	-	-	-	-	-	-	-	-
Oil/Gas	-	-	-	-	-	-	-	-	-	-	-	-	-
Combustion Turbi	-	-	-	-	-	-	-	-	-	-	-	-	-
Combined Cycle	-	-	-	20,986	16,426	18,624	17,459	19,942	9,961	9,732	54,060	37,382	29,496
Hydro	-	-	-	-	-	-	-	-	-	-	-	-	-
Cogen	-	-	-	(17,107)	(22,182)	(10,355)	(12,996)	(7,275)	1,472	1,438	(22,606)	26,821	21,253
Purchase	-	-	-	-	-	-	-	-	-	-	-	-	-
Renewable	-	-	-	-	-	-	-	-	-	-	-	(6,096)	(4,138)
Storage	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Annual CC	-	-	-	3,879	(6,170)	7,871	4,081	12,299	11,080	10,830	31,173	36,770	32,138

DSM PROGRAM

Total Annual DSM	10	20	30	40	55	65	75	85	95	105	150	220	230

Fuel Cost $	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020	2030
Fuel Existing	-	-	(3)	55	2,139	1,633	1,874	1,341	1,315	1,341	1,341	(80)	(80)
Fuel Potential	-	-	-	(383)	(23,070)	(827)	(11,135)	(494)	(6,597)	(8,055)	(1,550)	20,029	19,767

Case capcost.down Capital Cost Sensitivity
20% Decrease in Real Levelized Carrying Charge
Incremental Summer Capacity (MW) of Resource Additions

		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
	Short Term Cap Purch	42.8	3.0	173.5	-	-	-	-	-	-	45.5	-	306.1
	DSM Programs	6.1	6.0	6.4	6.4	6.3	6.5	6.4	6.4	6.4	6.4	23.8	38.6
	Or/Wa Wind	-	-	-	-	-	-	-	-	-	-	72.0	-
O	Or/Wa Geothermal	-	-	-	-	-	-	-	-	-	-	-	-
R	Or/Wa Cogen 1	-	-	-	94.0	94.0	14.1	-	-	-	-	-	-
/	Or/Wa Cogen 2	-	-	-	496.3	134.1	95.4	212.0	28.3	125.5	-	215.0	-
W	Or/Wa Combined Cycle	-	-	-	7.7	-	-	-	-	-	133.4	90.0	279.2
A	Or/Wa Bridger Transm	-	-	-	-	-	-	-	-	-	-	-	33.6
	Or/Wa Simple CycleCT	-	-	-	-	-	-	-	-	-	-	-	-
	Or/Wa Pump Storage	-	-	-	-	-	-	-	-	-	-	-	-
	Total	**6.1**	**6.0**	**6.4**	**604.4**	**234.4**	**116.0**	**218.4**	**34.7**	**131.9**	**139.8**	**400.8**	**351.4**
G	DSM Programs	0.6	0.6	0.6	0.7	0.6	0.7	0.7	0.6	0.7	0.7	2.3	3.2
O	Goshen Cogen 1	-	-	-	28.2	-	-	-	-	-	-	-	-
S	Goshen Cogen 2	-	-	-	-	-	-	-	-	-	-	-	-
H	Goshen Combined C CT	-	-	-	-	-	-	-	-	-	-	-	-
E	Goshen Bridger Trans	-	-	-	-	-	-	-	-	-	-	-	-
N	Goshen Hunter Transm	-	-	-	-	-	-	-	-	-	-	-	-
	Total	**0.6**	**0.6**	**0.6**	**28.9**	**0.6**	**0.7**	**0.7**	**0.6**	**0.7**	**0.7**	**2.3**	**3.2**
	DSM Programs	13.9	13.3	12.5	13.1	13.2	12.5	13.2	12.7	12.3	13.0	47.2	75.0
	Utah Geothermal	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Solar	-	-	-	-	-	-	-	-	-	-	-	-
U	Utah Cogen 1	-	-	-	14.1	-	-	-	-	-	-	-	-
T	Utah Cogen 2	-	-	-	-	-	-	-	-	-	-	1,673.2	-
A	Utah Combined Cycle	-	-	-	138.8	-	-	-	216.8	20.3	-	20.4	791.9
H	Utah IGCC Hunter 4	-	-	-	-	-	-	-	-	-	-	-	-
	Utah IGCC CT	-	-	-	-	-	-	-	-	-	-	-	-
	Utah PC Hunter 4	-	-	-	-	-	-	-	-	-	-	-	400.0
	Utah Coal $23.25/Ton	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Coal $27.00/Ton	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Simple Cycle CT	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Pumped Storage	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Wyo/Ut Tran L	-	-	-	-	132.7	-	-	-	-	-	-	132.6
	Total	**13.9**	**13.3**	**12.5**	**166.0**	**145.9**	**12.5**	**13.2**	**229.5**	**32.6**	**13.0**	**1,740.8**	**1,399.5**
	DSM Programs	2.3	2.3	2.4	2.4	2.4	2.4	2.5	2.5	2.5	2.5	9.3	15.7
W	Wyo Wind	-	-	-	-	-	-	-	-	-	-	54.0	-
Y	Wyo Combined Cycle	-	-	-	-	-	-	-	-	-	-	-	-
O	Wyo IGCC Wyodak 2	-	-	-	-	-	-	-	-	-	-	-	-
M	Wyo IGCC CT	-	-	-	-	-	-	-	-	-	-	-	-
I	Wyo PC Wyodak 2	-	-	-	-	-	-	-	-	-	-	-	325.0
N	Wyo Coal $6.70/Ton	-	-	-	-	-	-	-	-	-	-	-	353.1
G	Wyo Simple Cycle CT	-	-	-	-	-	-	-	-	-	-	-	-
	Total	**2.3**	**2.3**	**2.4**	**2.4**	**2.4**	**2.4**	**2.5**	**2.5**	**2.5**	**2.5**	**63.3**	**693.8**
T	DSM Programs	22.9	22.2	21.9	22.6	22.5	22.1	22.8	22.2	21.9	22.6	82.6	132.5
O	Short Term Cap Purch	42.8	3.0	173.5	-	-	-	-	-	-	45.5	-	306.1
T	Cogeneration	-	-	-	632.6	228.1	109.5	212.0	28.3	125.5	-	1,888.2	-
A	Combined Cycle CT	-	-	-	146.5	-	-	-	216.8	20.3	133.4	110.4	1,071.1
L	Coal	-	-	-	-	-	-	-	-	-	-	-	1,078.1
	All Others	-	-	-	-	132.7	-	-	-	-	-	126.0	166.2
	Total	**65.7**	**25.2**	**195.4**	**801.7**	**383.3**	**131.6**	**234.8**	**267.3**	**167.7**	**201.5**	**2,207.2**	**2,754.0**

Annual Summer Peak Capacity (MW)

		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
S	Native Load	7,987.0	8,030.0	8,203.0	8,435.0	8,608.0	8,767.0	8,937.0	9,052.0	9,267.0	9,399.0	10,535.0	12,042.0
Y	Long Term Sales	2,377.0	2,239.0	2,120.0	1,890.0	1,647.0	1,647.0	1,327.0	1,324.0	1,324.0	1,249.0	1,149.0	1,104.0
S	DSM Programs	(23.0)	(45.0)	(67.0)	(89.0)	(112.0)	(134.0)	(157.0)	(179.0)	(201.0)	(224.0)	(306.0)	(439.0)
T	**Total Requirements**	**10,341.0**	**10,224.0**	**10,256.0**	**10,236.0**	**10,143.0**	**10,280.0**	**10,107.0**	**10,197.0**	**10,390.0**	**10,424.0**	**11,378.0**	**12,707.0**
E													
M	Existing Generation	9,179.0	9,185.0	9,007.0	8,836.0	8,706.0	8,585.0	8,589.0	8,358.0	8,362.0	8,187.0	7,257.0	6,142.0
	Long Term Purchases	1,350.5	1,344.4	1,226.1	1,076.0	1,076.0	1,076.0	676.0	676.0	626.0	625.5	558.3	536.0
L	Short Term Market	805.7	713.6	875.4	814.0	571.0	571.0	651.0	648.0	698.0	623.0	590.7	567.9
&	Short Term Cap Purch	42.8	3.0	173.5	-	-	-	-	-	-	45.5	-	306.1
R	New Resources	1.0	1.0	1.0	780.0	1,141.0	1,250.0	1,462.0	1,707.0	1,853.0	1,987.0	4,115.0	6,431.0
	Total Resources	**11,379.0**	**11,247.0**	**11,283.0**	**11,506.0**	**11,494.0**	**11,482.0**	**11,378.0**	**11,389.0**	**11,539.0**	**11,468.0**	**12,521.0**	**13,983.0**
	Reserves	1,039.0	1,023.0	1,027.0	1,270.0	1,350.0	1,202.0	1,271.0	1,192.0	1,149.0	1,043.0	1,143.0	1,276.0
	Reserve Margin (%)	10.0	10.0	10.0	12.4	13.3	11.7	12.6	11.7	11.1	10.0	10.0	10.0

Case capcost.down Capital Cost Sensitivity
20% Decrease in Real Levelized Carrying Charge
Cumulative Annual Energy (aMW)

		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
	DSM Programs	4.5	8.9	13.7	18.5	23.2	28.0	32.9	37.7	42.5	47.3	65.2	94.8
	Or/Wa Wind	-	-	-	-	-	-	-	-	-	-	80.5	80.5
O	Or/Wa Geothermal	-	-	-	-	-	-	-	-	-	-	-	-
R	Or/Wa Cogen 1	-	-	-	93.1	186.2	200.1	200.1	200.1	200.1	200.1	200.1	200.1
/	Or/Wa Cogen 2	-	-	-	491.3	624.0	718.4	928.3	954.5	1,076.8	1,078.2	1,293.3	1,293.0
W	Or/Wa Combined Cycle	-	-	-	7.6	7.6	7.6	7.4	7.4	7.4	136.7	212.0	452.2
A	Or/Wa Bridger Transm	-	-	-	-	-	-	-	-	-	-	-	31.1
	Or/Wa Simple CycleCT	-	-	-	-	-	-	-	-	-	-	-	-
	Or/Wa Pump Storage	-	-	-	-	-	-	-	-	-	-	-	-
	Total	**4.5**	**8.9**	**13.7**	**610.4**	**841.0**	**954.2**	**1,168.8**	**1,199.7**	**1,326.8**	**1,462.3**	**1,851.2**	**2,151.7**
G	DSM Programs	0.5	0.9	1.4	1.9	2.4	2.9	3.3	3.8	4.3	4.8	6.6	9.3
O	Goshen Cogen 1	-	-	-	27.5	27.9	27.9	27.9	27.9	27.9	27.9	27.9	27.9
S	Goshen Cogen 2	-	-	-	-	-	-	-	-	-	-	-	-
H	Goshen Combined C CT	-	-	-	-	-	-	-	-	-	-	-	-
E	Goshen Bridger Trans	-	-	-	-	-	-	-	-	-	-	-	-
N	Goshen Hunter Transm	-	-	-	-	-	-	-	-	-	-	-	-
	Total	**0.5**	**0.9**	**1.4**	**29.4**	**30.3**	**30.8**	**31.3**	**31.8**	**32.3**	**32.8**	**34.6**	**37.2**
	DSM Programs	9.0	17.7	25.8	34.2	42.8	50.9	59.4	67.6	75.6	84.1	115.1	165.2
	Utah Geothermal	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Solar	-	-	-	-	-	-	-	-	-	-	-	-
U	Utah Cogen 1	-	-	-	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0
T	Utah Cogen 2	-	-	-	-	-	-	-	-	-	-	1,570.7	1,637.9
A	Utah Combined Cycle	-	-	-	127.5	126.3	134.7	130.0	330.8	341.1	354.4	281.8	867.9
H	Utah IGCC Hunter 4	-	-	-	-	-	-	-	-	-	-	-	-
	Utah IGCC CT	-	-	-	-	-	-	-	-	-	-	-	-
	Utah PC Hunter 4	-	-	-	-	-	-	-	-	-	-	-	366.6
	Utah Coal $23.25/Ton	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Coal $27.00/Ton	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Simple Cycle CT	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Pumped Storage	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Wyo/Ut Tran L	-	-	-	-	119.1	126.1	126.1	126.1	126.1	126.1	126.1	252.2
	Total	**9.0**	**17.7**	**25.8**	**175.7**	**302.1**	**325.7**	**329.4**	**538.5**	**556.8**	**578.6**	**2,107.7**	**3,303.7**
	DSM Programs	1.8	3.6	5.5	7.3	9.3	11.2	13.1	15.1	17.1	19.1	26.7	39.5
W	Wyo Wind	-	-	-	-	-	-	-	-	-	-	60.4	60.4
Y	Wyo Combined Cycle	-	-	-	-	-	-	-	-	-	-	-	-
O	Wyo IGCC Wyodak 2	-	-	-	-	-	-	-	-	-	-	-	-
M	Wyo IGCC CT	-	-	-	-	-	-	-	-	-	-	-	-
I	Wyo PC Wyodak 2	-	-	-	-	-	-	-	-	-	-	-	297.8
N	Wyo Coal $6.70/Ton	-	-	-	-	-	-	-	-	-	-	-	323.7
G	Wyo Simple Cycle CT	-	-	-	-	-	-	-	-	-	-	-	-
	Total	**1.8**	**3.6**	**5.5**	**7.3**	**9.3**	**11.2**	**13.1**	**15.1**	**17.1**	**19.1**	**87.1**	**721.5**
	DSM Programs	15.8	31.1	46.3	61.9	77.6	92.9	108.7	124.3	139.5	155.3	213.6	308.8
	Short Term Cap Purch	-	-	-	-	-	-	-	-	-	-	-	4.1
T	Cogeneration	-	-	-	625.8	852.1	960.5	1,170.3	1,196.5	1,318.8	1,320.2	3,106.0	3,172.9
O	Combined Cycle CT	-	-	-	135.1	133.8	142.3	137.4	338.2	348.5	491.1	493.8	1,320.1
T	Coal	-	-	-	-	-	-	-	-	-	-	-	988.1
A	Transmission	-	-	-	-	119.1	126.1	126.1	126.1	126.1	126.1	126.1	283.3
L	Simple Cycle	-	-	-	-	-	-	-	-	-	-	-	-
	All Others	-	-	-	-	-	-	-	-	-	-	140.9	140.9
	Total	**15.8**	**31.1**	**46.3**	**822.8**	**1,182.6**	**1,321.8**	**1,542.6**	**1,785.1**	**1,933.0**	**2,092.8**	**4,080.5**	**6,218.1**
		-	-	-	-	-	-	-	-	-	-	-	-
S	**Native Load**	5,677.0	5,744.6	5,881.5	6,002.1	6,122.6	6,248.3	6,392.6	6,540.1	6,691.4	6,813.5	7,622.3	8,696.7
Y	**Pump Storage/Peak Retu**	276.9	276.9	225.1	223.2	223.2	223.2	223.2	223.2	223.2	223.2	223.2	223.2
S	**Long Term Sales**	1,549.9	1,418.1	1,350.1	1,239.5	1,053.7	1,006.4	852.6	850.0	810.5	794.3	692.3	668.3
T	**Short Term Sales**	1,502.7	1,479.3	1,376.1	2,001.9	2,063.0	2,050.0	2,120.5	2,117.6	2,101.7	2,056.9	2,321.1	2,335.8
E	**DSM Programs**	(15.8)	(31.1)	(46.3)	(61.9)	(77.6)	(92.9)	(108.7)	(124.2)	(139.5)	(155.3)	(213.6)	(308.8)
M	**Total Requirements**	8,990.7	8,887.9	8,786.5	9,404.7	9,384.9	9,434.9	9,480.1	9,606.6	9,687.2	9,732.6	10,645.3	11,615.2
		-	-	-	-	-	-	-	-	-	-	-	-
	Existing Generation	7,380.1	7,374.9	7,330.0	7,367.7	7,175.7	7,137.7	7,140.5	7,033.6	7,038.2	6,943.3	6,085.9	5,043.7
L	**Long Term Purchases**	700.0	709.9	749.7	737.0	736.9	736.9	527.6	338.1	338.1	335.0	243.1	239.7
&	**Short Term Market**	805.7	708.2	600.4	502.5	316.7	269.4	325.0	511.8	472.3	459.3	449.2	426.3
R	**Short Term Purchases**	104.9	94.9	106.4	36.7	50.7	62.1	53.2	62.3	45.3	57.5	0.2	0.2
	New Resources	-	-	-	760.9	1,105.0	1,228.9	1,433.8	1,660.8	1,793.4	1,937.5	3,866.8	5,905.3
	Total Resources	8,990.7	8,887.9	8,786.5	9,404.7	9,384.9	9,434.9	9,480.2	9,606.6	9,687.3	9,732.6	10,645.2	11,615.2

NPV of 'Case capcost.down Capital Cost Sensitivity
20% Decrease in Real Levelized Carrying Charge'
Total System Production Cost in Millions of $2001

Year	Total System Production Cost (A)	Adder (B)	TSPC less Adder (C) (A)+(B)	Net PV Factor at 4.88% (D)	Net Present Value (E) (C)*(D)	
2001	$ 1,010		$ 1,010	1.0000	$ 1,010	*
2002	$ 939		$ 939	0.9534	$ 895	*
2003	$ 943		$ 943	0.9090	$ 858	*
2004	$ 865		$ 865	0.8667	$ 750	*
2005	$ 814		$ 814	0.8264	$ 673	*
2006	$ 825		$ 825	0.7879	$ 650	*
2007	$ 864		$ 864	0.7512	$ 649	*
2008	$ 923		$ 923	0.7162	$ 661	*
2009	$ 936		$ 936	0.6829	$ 640	*
2010	$ 970		$ 970	0.6511	$ 631	*
2011	$ 1,006		$ 1,006	0.6208	$ 624	
2012	$ 1,042		$ 1,042	0.5919	$ 617	
2013	$ 1,079		$ 1,079	0.5643	$ 609	
2014	$ 1,115		$ 1,115	0.5380	$ 600	
2015	$ 1,151		$ 1,151	0.5130	$ 591	*
2016	$ 1,201		$ 1,201	0.4891	$ 587	
2017	$ 1,251		$ 1,251	0.4663	$ 583	
2018	$ 1,301		$ 1,301	0.4446	$ 578	
2019	$ 1,351		$ 1,351	0.4239	$ 573	
2020	$ 1,400		$ 1,400	0.4042	$ 566	*
2021	$ 1,393		$ 1,393	0.3854	$ 537	
2022	$ 1,385		$ 1,385	0.3674	$ 509	
2023	$ 1,377		$ 1,377	0.3503	$ 482	
2024	$ 1,370		$ 1,370	0.3340	$ 457	
2025	$ 1,362		$ 1,362	0.3185	$ 434	
2026	$ 1,354		$ 1,354	0.3036	$ 411	
2027	$ 1,347		$ 1,347	0.2895	$ 390	
2028	$ 1,339		$ 1,339	0.2760	$ 370	
2029	$ 1,331		$ 1,331	0.2632	$ 350	
2030	$ 1,323		$ 1,323	0.2509	$ 332	*
2031	$ 1,323		$ 1,323	0.2392	$ 317	
2032	$ 1,323		$ 1,323	0.2281	$ 302	
2033	$ 1,323		$ 1,323	0.2175	$ 288	
2034	$ 1,323		$ 1,323	0.2073	$ 274	
2035	$ 1,323		$ 1,323	0.1977	$ 262	
2036	$ 1,323		$ 1,323	0.1885	$ 249	
2037	$ 1,323		$ 1,323	0.1797	$ 238	
2038	$ 1,323		$ 1,323	0.1713	$ 227	
2039	$ 1,323		$ 1,323	0.1634	$ 216	
2040	$ 1,323		$ 1,323	0.1558	$ 206	
				40 Year Net Present Value	**$ 20,196**	

Case capcost.down Capital Cost Sensitivity - 20% Decrease in Real Levelized C
Detail supporting the Total System Production Costs in $1,000

Total System Production Cost in $1,000

Totals			2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020	2030
Long Term Purchases			450,965	391,903	368,917	295,813	228,868	219,642	232,345	278,338	267,394	266,477	260,607	270,601	273,155
Short Term Purchases			17,270	15,938	19,376	6,256	8,565	9,516	9,783	10,229	7,842	11,306	61	61	61
Existing Resource O&M			391,155	391,824	391,541	390,457	384,094	381,086	381,128	375,355	375,458	371,304	313,046	258,813	258,762
Potential Resource O&M			-	-	-	26,353	33,282	36,800	43,464	53,840	58,603	63,152	157,104	251,235	251,271
Fuel Existing			523,398	508,116	504,058	501,192	487,805	490,346	491,332	462,907	464,131	465,115	389,703	331,680	331,680
Fuel Potential			-	-	-	79,939	112,318	126,040	149,397	175,866	191,725	209,307	422,839	620,008	620,813
Short Term Sales			(373,236)	(369,883)	(342,144)	(472,439)	(489,580)	(491,944)	(504,332)	(504,384)	(504,659)	(496,700)	(562,714)	(575,623)	(600,414)
Total Operating Exp			1,009,552	937,898	941,748	827,571	765,352	771,486	803,117	852,152	860,493	889,960	980,646	1,156,775	1,135,327
Total Annual CC			-	-	-	35,156	46,447	49,926	57,414	66,851	71,064	74,180	162,790	231,615	175,602
Total Annual DSM			523	1,041	1,571	2,101	2,648	3,197	3,761	4,334	4,917	5,509	7,865	11,915	12,557
Total Real Costs			1,010,075	938,939	943,319	864,828	814,448	824,609	864,292	923,336	936,474	969,649	1,151,300	1,400,305	1,323,486
			1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Real $2001 Costs			**1,010,075**	**938,939**	**943,319**	**864,828**	**814,448**	**824,609**	**864,292**	**923,336**	**936,474**	**969,649**	**1,151,300**	**1,400,305**	**1,323,486**

Annual Capital Cost

Coal	6.18%	-3.80%	-	-	-	-	2,337	2,248	2,162	2,080	2,001	1,925	1,586	54,726	37,148
Nuclear	100	100	-	-	-	-	-	-	-	-	-	-	-	-	-
Oil/Gas	100	100	-	-	-	-	-	-	-	-	-	-	-	-	-
Combustion Turbi	6.87%	-2.30%	-	-	-	-	-	-	-	-	-	-	-	-	-
Combined Cycle	6.70%	-2.30%	-	-	-	7,102	6,938	6,779	6,623	16,131	16,643	21,041	22,371	54,518	43,200
Hydro	6.02%	-2.80%	-	-	-	-	-	-	-	-	-	-	-	-	-
Cogen	6.70%	-2.30%	-	-	-	28,054	37,172	40,899	48,629	48,640	52,420	51,215	120,523	107,286	85,013
Purchase	100	100	-	-	-	-	-	-	-	-	-	-	-	-	-
Renewable	7.46%	-3.80%	-	-	-	-	-	-	-	-	-	-	18,310	15,085	10,240
Storage	6.02%	-2.80%	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Annual CC			-	-	-	35,156	46,447	49,926	57,414	66,851	71,064	74,180	162,790	231,615	175,602

DSM PROGRAM

Total Annual DSM			523	1,041	1,571	2,101	2,648	3,197	3,761	4,334	4,917	5,509	7,865	11,915	12,557

Fuel Cost $			2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020	2030
Fuel Existing			523,398	508,116	504,058	501,192	487,805	490,346	491,332	462,907	464,131	465,115	389,703	331,680	331,680
Fuel Potential			-	-	-	79,939	112,318	126,040	149,397	175,866	191,725	209,307	422,839	620,008	620,813

Case capcost.up Capital Cost Sensitivity
20% Increase in Real Levelized Carrying Charge
Incremental Summer Capacity (MW) of Resource Additions

		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
	Short Term Cap Purch	40.1	1.2	170.7	-	-	-	-	-	61.1	347.9	25.3	555.0
	DSM Programs	6.8	6.7	7.2	7.2	7.1	7.3	7.3	7.2	7.1	7.2	26.6	42.9
	Or/Wa Wind	-	-	-	-	-	-	-	-	-	-	-	72.0
O	Or/Wa Geothermal	-	-	-	-	-	-	-	-	-	-	-	-
R	Or/Wa Cogen 1	-	-	-	94.0	94.0	14.1	-	-	-	-	-	-
/	Or/Wa Cogen 2	-	-	-	40.6	42.2	208.8	125.0	133.7	146.5	-	609.8	-
W	Or/Wa Combined Cycle	-	-	-	347.0	-	-	-	-	-	-	-	261.0
A	Or/Wa Bridger Transm	-	-	-	-	-	-	-	-	-	-	-	-
	Or/Wa Simple CycleCT	-	-	-	-	-	-	-	-	-	-	-	-
	Or/Wa Pump Storage	-	-	-	-	-	-	-	-	-	-	-	-
	Total	**6.8**	**6.7**	**7.2**	**488.8**	**143.3**	**230.2**	**132.3**	**140.9**	**153.6**	**7.2**	**636.4**	**375.9**
G	DSM Programs	0.6	0.6	0.7	0.6	0.7	0.6	0.7	0.7	0.6	0.7	2.4	3.2
O	Goshen Cogen 1	-	-	-	-	-	-	-	-	-	-	28.2	-
S	Goshen Cogen 2	-	-	-	-	-	-	-	-	-	-	-	-
H	Goshen Combined C CT	-	-	-	-	-	-	-	-	-	-	-	-
E	Goshen Bridger Trans	-	-	-	-	-	-	-	-	-	-	-	-
N	Goshen Hunter Transm	-	-	-	-	-	-	-	-	-	-	-	-
	Total	**0.6**	**0.6**	**0.7**	**0.6**	**0.7**	**0.6**	**0.7**	**0.7**	**0.6**	**0.7**	**30.6**	**3.2**
	DSM Programs	14.0	13.4	12.6	13.1	13.4	12.6	13.2	12.8	12.5	13.0	47.6	75.6
	Utah Geothermal	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Solar	-	-	-	-	-	-	-	-	-	-	-	-
U	Utah Cogen 1	-	-	-	14.1	-	-	-	-	-	-	-	-
T	Utah Cogen 2	-	-	-	-	-	-	-	-	-	-	416.1	1,257.1
A	Utah Combined Cycle	-	-	-	34.1	-	47.4	-	197.9	-	-	1,344.0	-
H	Utah IGCC Hunter 4	-	-	-	-	-	-	-	-	-	-	-	-
	Utah IGCC CT	-	-	-	-	-	-	-	-	-	-	-	-
	Utah PC Hunter 4	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Coal $23.25/Ton	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Coal $27.00/Ton	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Simple Cycle CT	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Pumped Storage	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Wyo/Ut Tran L	-	-	-	-	-	-	-	-	-	-	-	265.3
	Total	**14.0**	**13.4**	**12.6**	**61.3**	**13.4**	**60.0**	**13.2**	**210.7**	**12.5**	**13.0**	**1,807.7**	**1,598.0**
	DSM Programs	2.3	2.3	2.4	2.4	2.5	2.5	2.4	2.6	2.5	2.5	9.4	15.8
W	Wyo Wind	-	-	-	-	-	-	-	-	-	-	-	-
Y	Wyo Combined Cycle	-	-	-	-	-	-	-	-	-	-	-	-
O	Wyo IGCC Wyodak 2	-	-	-	-	-	-	-	-	-	-	-	-
M	Wyo IGCC CT	-	-	-	-	-	-	-	-	-	-	-	-
I	Wyo PC Wyodak 2	-	-	-	-	-	-	-	-	-	-	-	325.0
N	Wyo Coal $6.70/Ton	-	-	-	-	-	-	-	-	-	-	-	5.9
G	Wyo Simple Cycle CT	-	-	-	-	-	-	-	-	-	-	-	-
	Total	**2.3**	**2.3**	**2.4**	**2.4**	**2.5**	**2.5**	**2.4**	**2.6**	**2.5**	**2.5**	**9.4**	**346.7**
T	DSM Programs	23.7	23.0	22.9	23.3	23.7	23.0	23.6	23.3	22.[illegible]	23.4	86.0	137.5
O	Short Term Cap Purch	40.1	1.2	170.7	-	-	-	-	-	6[illegible]	347.9	25.3	555.0
T	Cogeneration	-	-	-	148.7	136.2	222.9	125.0	133.7	146.[illegible]	-	1,054.1	1,257.1
A	Combined Cycle CT	-	-	-	381.1	-	47.4	-	197.9	-	-	1,344.0	261.0
L	Coal	-	-	-	-	-	-	-	-	-	-	-	330.9
	All Others	-	-	-	-	-	-	-	-	-	-	-	337.3
	Total	**63.8**	**24.2**	**193.6**	**553.1**	**159.9**	**293.3**	**148.6**	**354.9**	**230.3**	**371.3**	**2,509.4**	**2,878.8**

Annual Summer Peak Capacity (MW)

		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
S	Native Load	7,987.0	8,030.0	8,203.0	8,435.0	8,608.0	8,767.0	8,937.0	9,052.0	9,267.0	9,399.0	10,535.0	12,042.0
Y	Long Term Sales	2,377.0	2,239.0	2,120.0	1,890.0	1,647.0	1,647.0	1,327.0	1,324.0	1,324.0	1,249.0	1,149.0	1,104.0
S	DSM Programs	(24.0)	(47.0)	(70.0)	(93.0)	(117.0)	(140.0)	(163.0)	(186.0)	(209.0)	(233.0)	(318.0)	(456.0)
T	**Total Requirements**	**10,340.0**	**10,222.0**	**10,253.0**	**10,232.0**	**10,138.0**	**10,274.0**	**10,101.0**	**10,190.0**	**10,382.0**	**10,415.0**	**11,366.0**	**12,690.0**
E													
M	Existing Generation	9,179.0	9,185.0	9,007.0	8,836.0	8,840.0	8,719.0	8,723.0	8,492.0	8,496.0	8,321.0	7,391.0	6,176.0
	Long Term Purchases	1,351.2	1,345.2	1,225.9	1,076.0	1,076.0	1,076.0	676.0	676.0	625.9	626.1	558.0	536.1
L	Short Term Market	805.7	713.6	875.4	814.0	571.0	571.0	651.0	648.0	698.0	623.0	590.7	567.9
&	Short Term Cap Purch	40.1	1.2	170.7	-	-	-	-	-	61.1	347.9	25.3	555.0
R	New Resources	1.0	1.0	1.0	531.0	667.0	937.0	1,062.0	1,394.0	1,540.0	1,540.0	3,943.0	6,129.0
	Total Resources	**11,377.0**	**11,246.0**	**11,280.0**	**11,257.0**	**11,154.0**	**11,303.0**	**11,112.0**	**11,210.0**	**11,421.0**	**11,458.0**	**12,508.0**	**13,964.0**
	Reserves	1,037.0	1,023.0	1,026.0	1,024.0	1,015.0	1,028.0	1,011.0	1,020.0	1,039.0	1,043.0	1,142.0	1,274.0
	Reserve Margin (%)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0

Case capcost.up Capital Cost Sensitivity
20% Increase in Real Levelized Carrying Charge
Cumulative Annual Energy (aMW)

		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
	DSM Programs	5.2	10.4	15.9	21.5	27.1	32.8	38.5	44.1	49.7	55.4	76.3	110.0
	Or/Wa Wind	-	-	-	-	-	-	-	-	-	-	-	80.5
O	Or/Wa Geothermal	-	-	-	-	-	-	-	-	-	-	-	-
R	Or/Wa Cogen 1	-	-	-	93.1	186.2	200.1	200.1	200.1	200.1	200.1	200.1	200.1
/	Or/Wa Cogen 2	-	-	-	40.1	81.9	288.6	412.4	544.7	689.8	689.8	1,293.3	1,293.3
W	Or/Wa Combined Cycle	-	-	-	343.5	343.5	343.5	343.5	343.5	343.5	343.5	321.3	575.1
A	Or/Wa Bridger Transm	-	-	-	-	-	-	-	-	-	-	-	-
	Or/Wa Simple CycleCT	-	-	-	-	-	-	-	-	-	-	-	-
	Or/Wa Pump Storage	-	-	-	-	-	-	-	-	-	-	-	-
	Total	**5.2**	**10.4**	**15.9**	**498.2**	**638.7**	**865.0**	**994.4**	**1,132.4**	**1,283.1**	**1,288.8**	**1,891.1**	**2,259.1**
G	DSM Programs	0.5	0.9	1.4	1.9	2.4	2.9	3.4	3.9	4.4	4.9	6.7	9.4
O	Goshen Cogen 1	-	-	-	-	-	-	-	-	-	-	27.9	27.9
S	Goshen Cogen 2	-	-	-	-	-	-	-	-	-	-	-	-
H	Goshen Combined C CT	-	-	-	-	-	-	-	-	-	-	-	-
E	Goshen Bridger Trans	-	-	-	-	-	-	-	-	-	-	-	-
N	Goshen Hunter Transm	-	-	-	-	-	-	-	-	-	-	-	-
	Total	**0.5**	**0.9**	**1.4**	**1.9**	**2.4**	**2.9**	**3.4**	**3.9**	**4.4**	**4.9**	**34.6**	**37.3**
	DSM Programs	9.1	17.8	25.9	34.4	43.0	51.1	59.7	68.0	76.0	84.5	115.7	166.0
	Utah Geothermal	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Solar	-	-	-	-	-	-	-	-	-	-	-	-
U	Utah Cogen 1	-	-	-	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0
T	Utah Cogen 2	-	-	-	-	-	-	-	-	-	-	411.9	1,652.1
A	Utah Combined Cycle	-	-	-	33.1	33.1	79.1	79.1	271.2	271.2	271.2	1,441.5	1,411.1
H	Utah IGCC Hunter 4	-	-	-	-	-	-	-	-	-	-	-	-
	Utah IGCC CT	-	-	-	-	-	-	-	-	-	-	-	-
	Utah PC Hunter 4	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Coal $23.25/Ton	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Coal $27.00/Ton	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Simple Cycle CT	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Pumped Storage	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Wyo/Ut Tran L	-	-	-	-	-	-	-	-	-	-	-	252.2
	Total	**9.1**	**17.8**	**25.9**	**81.4**	**90.1**	**144.1**	**152.7**	**353.1**	**361.2**	**369.6**	**1,983.1**	**3,495.3**
	DSM Programs	1.8	3.6	5.5	7.4	9.4	11.3	13.3	15.3	17.3	19.3	27.0	40.0
W	Wyo Wind	-	-	-	-	-	-	-	-	-	-	-	-
Y	Wyo Combined Cycle	-	-	-	-	-	-	-	-	-	-	-	-
O	Wyo IGCC Wyodak 2	-	-	-	-	-	-	-	-	-	-	-	-
M	Wyo IGCC CT	-	-	-	-	-	-	-	-	-	-	-	-
I	Wyo PC Wyodak 2	-	-	-	-	-	-	-	-	-	-	-	297.8
N	Wyo Coal $6.70/Ton	-	-	-	-	-	-	-	-	-	-	-	5.4
G	Wyo Simple Cycle CT	-	-	-	-	-	-	-	-	-	-	-	-
	Total	**1.8**	**3.6**	**5.5**	**7.4**	**9.4**	**11.3**	**13.3**	**15.3**	**17.3**	**19.3**	**27.0**	**343.2**
	DSM Programs	16.6	32.7	48.8	65.2	81.9	98.1	114.9	131.3	147.5	164.1	225.7	325.4
	Short Term Cap Purch	-	-	-	-	-	-	-	-	-	-	0.0	8.3
T	Cogeneration	-	-	-	147.2	282.1	502.7	626.4	758.8	903.9	903.9	1,947.3	3,187.4
O	Combined Cycle CT	-	-	-	376.6	376.6	422.5	422.5	614.6	614.6	614.6	1,762.8	1,986.2
T	Coal	-	-	-	-	-	-	-	-	-	-	-	303.3
A	Transmission	-	-	-	-	-	-	-	-	-	-	-	252.2
L	Simple Cycle	-	-	-	-	-	-	-	-	-	-	-	-
	All Others	-	-	-	-	-	-	-	-	-	-	-	80.5
	Total	**16.6**	**32.7**	**48.8**	**589.0**	**740.5**	**1,023.4**	**1,163.8**	**1,504.7**	**1,666.0**	**1,682.6**	**3,935.8**	**6,143.3**
		-	-	-	-	-	-	-	-	-	-	-	-
S	**Native Load**	5,677.0	5,744.6	5,881.5	6,002.1	6,122.6	6,248.3	6,392.6	6,540.1	6,691.4	6,813.5	7,622.3	8,696.7
Y	**Pump Storage/Peak Retu**	276.9	276.9	225.1	223.2	223.2	223.2	223.2	223.2	223.2	223.2	223.2	223.2
S	**Long Term Sales**	1,549.9	1,418.1	1,350.1	1,239.5	1,053.7	1,006.4	852.6	850.0	810.5	794.3	692.3	668.3
T	**Short Term Sales**	1,503.4	1,481.0	1,378.3	1,816.1	1,824.8	1,909.8	1,919.3	2,002.0	1,989.1	1,832.0	2,299.7	2,290.3
E	**DSM Programs**	(16.6)	(32.7)	(48.8)	(65.2)	(81.9)	(98.1)	(114.8)	(131.3)	(147.4)	(164.1)	(225.7)	(325.4)
M	**Total Requirements**	8,990.6	8,888.0	8,786.3	9,215.6	9,142.5	9,289.6	9,272.8	9,484.0	9,566.8	9,498.8	10,611.8	11,553.1
		-	-	-	-	-	-	-	-	-	-	-	-
	Existing Generation	7,380.1	7,374.9	7,330.0	7,373.3	7,307.3	7,265.2	7,276.4	7,162.1	7,162.7	7,069.7	6,208.1	5,070.4
L	**Long Term Purchases**	700.0	709.9	749.7	737.0	737.0	737.0	528.8	338.2	338.2	336.9	243.1	244.0
&	**Short Term Market**	805.7	708.2	600.4	502.5	316.7	269.4	325.0	511.8	472.3	459.3	449.2	426.3
R	**Short Term Purchases**	104.8	95.0	106.2	79.1	122.9	92.7	93.8	98.5	75.1	114.5	1.3	2.8
	New Resources	-	-	-	523.7	658.6	925.3	1,049.0	1,373.4	1,518.5	1,518.5	3,710.1	5,809.6
	Total Resources	8,990.6	8,888.0	8,786.2	9,215.6	9,142.5	9,289.6	9,272.9	9,484.0	9,566.8	9,498.8	10,611.8	11,553.1

NPV of 'Case capcost.up Capital Cost Sensitivity
20% Increase in Real Levelized Carrying Charge'
Total System Production Cost in Millions of $2001

Year	Total System Production Cost (A)	Adder (B)	TSPC less Adder (C) (A)+(B)	Net PV Factor at 4.88% (D)	Net Present Value (E) (C)*(D)	
2001	$ 1,010		$ 1,010	1.0000	$ 1,010	*
2002	$ 939		$ 939	0.9534	$ 895	*
2003	$ 943		$ 943	0.9090	$ 857	*
2004	$ 882		$ 882	0.8667	$ 764	*
2005	$ 836		$ 836	0.8264	$ 691	*
2006	$ 851		$ 851	0.7879	$ 670	*
2007	$ 896		$ 896	0.7512	$ 673	*
2008	$ 958		$ 958	0.7162	$ 686	*
2009	$ 975		$ 975	0.6829	$ 666	*
2010	$ 1,025		$ 1,025	0.6511	$ 668	*
2011	$ 1,065		$ 1,065	0.6208	$ 661	
2012	$ 1,104		$ 1,104	0.5919	$ 653	
2013	$ 1,143		$ 1,143	0.5643	$ 645	
2014	$ 1,183		$ 1,183	0.5380	$ 636	
2015	$ 1,222		$ 1,222	0.5130	$ 627	*
2016	$ 1,282		$ 1,282	0.4891	$ 627	
2017	$ 1,343		$ 1,343	0.4663	$ 626	
2018	$ 1,403		$ 1,403	0.4446	$ 624	
2019	$ 1,463		$ 1,463	0.4239	$ 620	
2020	$ 1,524		$ 1,524	0.4042	$ 616	*
2021	$ 1,515		$ 1,515	0.3854	$ 584	
2022	$ 1,505		$ 1,505	0.3674	$ 553	
2023	$ 1,496		$ 1,496	0.3503	$ 524	
2024	$ 1,487		$ 1,487	0.3340	$ 497	
2025	$ 1,478		$ 1,478	0.3185	$ 471	
2026	$ 1,469		$ 1,469	0.3036	$ 446	
2027	$ 1,460		$ 1,460	0.2895	$ 423	
2028	$ 1,451		$ 1,451	0.2760	$ 401	
2029	$ 1,442		$ 1,442	0.2632	$ 379	
2030	$ 1,433		$ 1,433	0.2509	$ 360	*
2031	$ 1,433		$ 1,433	0.2392	$ 343	
2032	$ 1,433		$ 1,433	0.2281	$ 327	
2033	$ 1,433		$ 1,433	0.2175	$ 312	
2034	$ 1,433		$ 1,433	0.2073	$ 297	
2035	$ 1,433		$ 1,433	0.1977	$ 283	
2036	$ 1,433		$ 1,433	0.1885	$ 270	
2037	$ 1,433		$ 1,433	0.1797	$ 258	
2038	$ 1,433		$ 1,433	0.1713	$ 246	
2039	$ 1,433		$ 1,433	0.1634	$ 234	
2040	$ 1,433		$ 1,433	0.1558	$ 223	
			40 Year Net Present Value		$ 21,344	

Case capcost.up Capital Cost Sensitivity - 20% Increase in Real Levelized Car
Detail supporting the Total System Production Costs in $1,000

Total System Production Cost in $1,000

Totals			2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020	2030
Long Term Purchases			450,877	391,782	368,815	298,852	230,176	219,785	234,143	279,544	271,216	281,191	261,852	282,873	285,781
Short Term Purchases			17,259	15,950	19,339	14,107	23,336	15,189	17,057	16,722	12,999	27,548	338	880	611
Existing Resource O&M			391,155	391,824	391,541	391,425	391,053	387,606	388,531	382,221	382,221	377,943	319,549	260,624	260,624
Potential Resource O&M			-	-	-	17,492	21,522	30,637	34,595	47,589	52,231	52,231	150,415	237,488	237,555
Fuel Existing			523,398	508,116	504,056	501,188	498,319	500,679	502,209	472,814	473,664	475,028	399,188	333,493	333,493
Fuel Potential			-	-	-	55,233	68,241	97,735	112,003	149,139	166,268	167,266	428,216	649,061	649,640
Short Term Sales			(373,432)	(370,224)	(342,689)	(432,793)	(440,905)	(462,471)	(461,401)	(479,030)	(479,644)	(450,562)	(559,041)	(566,887)	(591,382)
Total Operating Exp			1,009,258	937,449	941,061	845,504	791,742	789,160	827,136	868,999	878,956	930,644	1,000,518	1,197,532	1,176,323
Total Annual CC			-	-	-	33,867	41,833	58,179	64,506	84,263	90,904	88,814	213,330	313,663	243,469
Total Annual DSM			547	1,088	1,644	2,200	2,776	3,352	3,942	4,540	5,148	5,767	8,223	12,422	13,083
Total Real Costs			1,009,806	938,537	942,705	881,571	836,351	850,691	895,583	957,802	975,008	1,025,224	1,222,070	1,523,616	1,432,875
			1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Real $2001 Costs			**1,009,806**	**938,537**	**942,705**	**881,571**	**836,351**	**850,691**	**895,583**	**957,802**	**975,008**	**1,025,224**	**1,222,070**	**1,523,616**	**1,432,875**

Annual Capital Cost

Coal	9.26%	-3.80%	-	-	-	-	-	-	-	-	-	-	-	32,040	21,760
Nuclear	100	100	-	-	-	-	-	-	-	-	-	-	-	-	-
Oil/Gas	100	100	-	-	-	-	-	-	-	-	-	-	-	-	-
Combustion Turbi	10.31%	-2.30%	-	-	-	-	-	-	-	-	-	-	-	-	-
Combined Cycle	10.04%	-2.30%	-	-	-	23,939	23,388	26,166	25,564	38,204	37,325	36,467	108,768	107,934	85,527
Hydro	9.02%	-2.80%	-	-	-	-	-	-	-	-	-	-	-	-	-
Cogen	10.04%	-2.30%	-	-	-	9,929	18,445	32,013	38,942	46,059	53,579	52,347	104,562	160,929	127,520
Purchase	100	100	-	-	-	-	-	-	-	-	-	-	-	-	-
Renewable	11.18%	-3.80%	-	-	-	-	-	-	-	-	-	-	-	12,760	8,662
Storage	9.02%	-2.80%	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Annual CC			-	-	-	33,867	41,833	58,179	64,506	84,263	90,904	88,814	213,330	313,663	243,469

DSM PROGRAM

Total Annual DSM			547	1,088	1,644	2,200	2,776	3,352	3,942	4,540	5,148	5,767	8,223	12,422	13,083

Fuel Cost $			2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020	2030
Fuel Existing			523,398	508,116	504,056	501,188	498,319	500,679	502,209	472,814	473,664	475,028	399,188	333,493	333,493
Fuel Potential			-	-	-	55,233	68,241	97,735	112,003	149,139	166,268	167,266	428,216	649,061	649,640

PacifiCorp

Integrated Resource Planning

RAMPP-6

Gas-fired Capital Cost Sensitivities

Cases 123 & 124

Tab 22

Gas.Low Case - Low CCCT Capital Cost Estimate LESS
Base.Case (Reference Case)
Incremental Summer Capacity (MW) of Resource Additions

		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
	Short Term Cap Purch	-	0.1	0.1	-	-	-	-	-	-	(158.8)	-	(3.5)
	DSM Programs	-	-	-	-	-	-	-	-	-	-	-	-
	Or/Wa Wind	-	-	-	-	-	-	-	-	-	-	-	-
O	Or/Wa Geothermal	-	-	-	-	-	-	-	-	-	-	-	-
R	Or/Wa Cogen 1	-	-	-	-	-	-	-	-	-	-	-	-
/	Or/Wa Cogen 2	-	-	-	(382.9)	(171.6)	(37.0)	(206.3)	(51.9)	-	-	(456.9)	335.4
W	Or/Wa Combined Cycle	-	-	-	547.9	23.5	72.8	187.8	43.5	(60.4)	84.3	370.3	(266.6)
A	Or/Wa Bridger Transm	-	-	-	-	-	-	-	-	-	-	-	-
	Or/Wa Simple CycleCT	-	-	-	-	-	-	-	-	-	-	-	-
	Or/Wa Pump Storage	-	-	-	-	-	-	-	-	-	-	-	-
	Total	-	-	-	**165.0**	**(148.1)**	**35.8**	**(18.5)**	**(8.4)**	**(60.4)**	**84.3**	**(86.6)**	**68.8**
G	DSM Programs	-	-	-	-	-	-	-	-	-	-	-	-
O	Goshen Cogen 1	-	-	-	-	-	-	-	-	-	-	-	-
S	Goshen Cogen 2	-	-	-	-	-	-	-	-	-	-	-	-
H	Goshen Combined C CT	-	-	-	-	-	-	-	-	-	-	-	-
E	Goshen Bridger Trans	-	-	-	-	-	-	-	-	-	-	-	-
N	Goshen Hunter Transm	-	-	-	-	-	-	-	-	-	-	-	-
	Total	-	-	-	-	-	-	-	-	-	-	-	-
	DSM Programs	-	(0.1)	-	-	-	(0.1)	-	-	(0.1)	0.1	(0.1)	(0.2)
	Utah Geothermal	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Solar	-	-	-	-	-	-	-	-	-	-	-	-
U	Utah Cogen 1	-	-	-	-	-	-	-	-	-	-	-	-
T	Utah Cogen 2	-	-	-	-	-	-	-	-	-	-	(1,208.4)	(464.8)
A	Utah Combined Cycle	-	-	-	83.5	(17.1)	(6.2)	15.5	33.4	-	-	1,136.5	912.5
H	Utah IGCC Hunter 4	-	-	-	-	-	-	-	-	-	-	-	-
	Utah IGCC CT	-	-	-	-	-	-	-	-	-	-	-	-
	Utah PC Hunter 4	-	-	-	-	-	-	-	-	-	-	-	(400.0)
	Utah Coal $23.25/Ton	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Coal $27.00/Ton	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Simple Cycle CT	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Pumped Storage	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Wyo/Ut Tran L	-	-	-	-	(18.8)	-	-	-	-	-	-	18.8
	Total	-	**(0.1)**	-	**83.5**	**(35.9)**	**(6.3)**	**15.5**	**33.4**	**(0.1)**	**0.1**	**(72.0)**	**66.3**
	DSM Programs	-	-	-	-	-	-	-	-	-	-	-	-
W	Wyo Wind	-	-	-	-	-	-	-	-	-	-	-	-
Y	Wyo Combined Cycle	-	-	-	-	-	-	-	-	-	-	-	-
O	Wyo IGCC Wyodak 2	-	-	-	-	-	-	-	-	-	-	-	-
M	Wyo IGCC CT	-	-	-	-	-	-	-	-	-	-	-	-
I	Wyo PC Wyodak 2	-	-	-	-	-	-	-	-	-	-	-	-
N	Wyo Coal $6.70/Ton	-	-	-	-	-	-	-	-	-	-	-	(112.7)
G	Wyo Simple Cycle CT	-	-	-	-	-	-	-	-	-	-	-	-
	Total	-	-	-	-	-	-	-	-	-	-	-	**(112.7)**
T	DSM Programs	-	(0.1)	-	-	-	(0.1)	-	-	(0.1)	0.1	(0.1)	(0.2)
O	Short Term Cap Purch	-	0.1	0.1	-	-	-	-	-	-	(158.8)	-	(3.5)
T	Cogeneration	-	-	-	(382.9)	(171.6)	(37.0)	(206.3)	(51.9)	-	-	(1,665.3)	(129.4)
A	Combined Cycle CT	-	-	-	631.4	6.4	66.6	203.3	76.9	(60.4)	84.3	1,506.8	645.9
L	Coal	-	-	-	-	-	-	-	-	-	-	-	(512.7)
	All Others	-	-	-	-	(18.8)	-	-	-	-	-	-	18.8
	Total	-	-	**0.1**	**248.5**	**(184.0)**	**29.5**	**(3.0)**	**25.0**	**(60.5)**	**(74.4)**	**(158.6)**	**18.9**
	Annual Summer Peak Capacity (MW)												
S	Native Load	-	-	-	-	-	-	-	-	-	-	-	-
Y	Long Term Sales	-	-	-	-	-	-	-	-	-	-	-	-
S	DSM Programs	-	1.0	-	1.0	-	-	1.0	1.0	-	-	-	-
T	**Total Requirements**	-	**1.0**	-	**1.0**	-	-	**1.0**	**1.0**	-	-	-	-
E													
M	Existing Generation	-	-	-	-	19.0	19.0	19.0	19.0	19.0	19.0	19.0	-
	Long Term Purchases	-	(0.1)	(0.1)	-	-	-	-	-	-	(0.2)	-	0.5
L	Short Term Market	-	-	-	-	-	-	-	-	-	-	-	-
&	Short Term Cap Purch	-	0.1	0.1	-	-	-	-	-	-	(158.8)	-	(3.5)
R	New Resources	-	-	-	249.0	65.0	94.0	91.0	116.0	56.0	141.0	(18.0)	4.0
	Total Resources	-	-	-	**249.0**	**84.0**	**113.0**	**110.0**	**135.0**	**75.0**	**1.0**	**1.0**	**1.0**
	Reserves	-	-	-	249.0	84.0	113.0	110.0	135.0	75.0	-	-	-
	Reserve Margin (%)	-	-	-	2.4	0.9	1.1	1.1	1.3	0.7	-	-	-

Gas.Low Case - Low CCCT Capital Cost Estimate LESS Base.Case (Reference Case)
Cumulative Annual Energy (aMW)

		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
	DSM Programs	-	-	-	-	-	-	-	-	-	-	-	-
	Or/Wa Wind	-	-	-	-	-	-	-	-	-	-	-	-
O	Or/Wa Geothermal	-	-	-	-	-	-	-	-	-	-	-	-
R	Or/Wa Cogen 1	-	-	-	-	-	-	-	-	-	-	-	-
/	Or/Wa Cogen 2	-	-	-	(379.0)	(548.8)	(585.5)	(789.7)	(841.1)	(841.1)	(841.1)	(1,293.3)	(961.3)
W	Or/Wa Combined Cycle	-	-	-	542.4	565.6	637.7	823.6	866.4	807.5	890.3	1,262.8	1,005.7
A	Or/Wa Bridger Transm	-	-	-	-	-	-	-	-	-	-	-	-
	Or/Wa Simple CycleCT	-	-	-	-	-	-	-	-	-	-	-	-
	Or/Wa Pump Storage	-	-	-	-	-	-	-	-	-	-	-	-
	Total	-	-	-	**163.4**	**16.8**	**52.1**	**33.8**	**25.3**	**(33.6)**	**49.2**	**(30.5)**	**44.4**
G	DSM Programs	-	-	-	-	-	-	-	-	-	-	-	-
O	Goshen Cogen 1	-	-	-	-	-	-	-	-	-	-	-	-
S	Goshen Cogen 2	-	-	-	-	-	-	-	-	-	-	-	-
H	Goshen Combined C CT	-	-	-	-	-	-	-	-	-	-	-	-
E	Goshen Bridger Trans	-	-	-	-	-	-	-	-	-	-	-	-
N	Goshen Hunter Transm	-	-	-	-	-	-	-	-	-	-	-	-
	Total	-	-	-	-	-	-	-	-	-	-	-	-
	DSM Programs	(0.0)	(0.0)	(0.1)	(0.1)	(0.1)	(0.1)	[illegible]	(0.1)	(0.2)	(0.2)	(0.2)	(0.3)
	Utah Geothermal	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Solar	-	-	-	-	-	-	-	-	-	-	-	-
U	Utah Cogen 1	-	-	-	-	-	-	-	-	-	-	-	-
T	Utah Cogen 2	-	-	-	-	-	-	-	-	-	-	(1,179.0)	(1,639.9)
A	Utah Combined Cycle	-	-	-	75.1	53.3	58.5	72.2	98.8	96.8	101.8	1,199.7	2,071.8
H	Utah IGCC Hunter 4	-	-	-	-	-	-	-	-	-	-	-	-
	Utah IGCC CT	-	-	-	-	-	-	-	-	-	-	-	-
	Utah PC Hunter 4	-	-	-	-	-	-	-	-	-	-	-	(366.6)
	Utah Coal $23.25/Ton	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Coal $27.00/Ton	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Simple Cycle CT	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Pumped Storage	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Wyo/Ut Tran L	-	-	-	-	(16.8)	(17.8)	(17.8)	(17.8)	(17.8)	(17.8)	(17.8)	-
	Total	**(0.0)**	**(0.0)**	**(0.1)**	**75.0**	**36.4**	**40.5**	**54.3**	**80.8**	**78.8**	**83.8**	**2.6**	**65.0**
	DSM Programs	-	-	-	-	-	-	-	-	-	-	-	-
W	Wyo Wind	-	-	-	-	-	-	-	-	-	-	-	-
Y	Wyo Combined Cycle	-	-	-	-	-	-	-	-	-	-	-	-
O	Wyo IGCC Wyodak 2	-	-	-	-	-	-	-	-	-	-	-	-
M	Wyo IGCC CT	-	-	-	-	-	-	-	-	-	-	-	-
I	Wyo PC Wyodak 2	-	-	-	-	-	-	-	-	-	-	-	-
N	Wyo Coal $6.70/Ton	-	-	-	-	-	-	-	-	-	-	-	(103.4)
G	Wyo Simple Cycle CT	-	-	-	-	-	-	-	-	-	-	-	-
	Total	-	-	-	-	-	-	-	-	-	-	-	**(103.4)**
	DSM Programs	(0.0)	(0.0)	(0.0)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.2)	(0.2)	(0.2)	(0.3)
	Short Term Cap Purch	-	-	-	-	-	-	-	-	-	-	-	(0.1)
T	Cogeneration	-	-	-	(379.0)	(548.8)	(585.5)	(789.7)	(841.1)	(841.1)	(841.1)	(2,472.4)	(2,601.2)
O	Combined Cycle CT	-	-	-	617.4	618.9	696.1	895.8	965.1	904.3	992.1	2,462.5	3,077.5
T	Coal	-	-	-	-	-	-	-	-	-	-	-	(469.9)
A	Transmission	-	-	-	-	(16.8)	(17.8)	(17.8)	(17.8)	(17.8)	(17.8)	(17.8)	-
L	Simple Cycle	-	-	-	-	-	-	-	-	-	-	-	-
	All Others	-	-	-	-	-	-	-	-	-	-	-	-
	Total	**(0.0)**	**(0.0)**	**(0.0)**	**238.4**	**53.2**	**92.7**	**88.1**	**106.1**	**45.2**	**133.1**	**(28.0)**	**6.0**
S	**Native Load**	-	-	-	-	-	-	-	-	-	-	-	-
Y	**Pump Storage/Peak Retu**	-	-	-	-	-	-	-	-	-	-	-	-
S	**Long Term Sales**	-	-	-	-	-	-	-	-	-	-	-	-
T	**Short Term Sales**	-	-	-	190.2	51.6	86.1	83.6	98.5	43.1	111.8	(11.2)	1.7
E	**DSM Programs**	-	-	-	-	0.1	0.1	0.1	0.2	0.1	0.2	0.2	0.4
M	**Total Requirements**	-	-	-	190.3	51.8	86.3	83.8	98.6	43.2	112.0	(11.0)	2.1
	Existing Generation	-	-	-	(7.7)	17.3	15.6	11.7	13.0	15.1	14.1	16.9	(2.7)
L	**Long Term Purchases**	-	-	-	-	(0.1)	-	-	-	-	-	-	-
&	**Short Term Market**	-	-	-	-	-	-	-	-	-	-	-	-
R	**Short Term Purchases**	-	-	-	(40.4)	(18.8)	(22.1)	(16.1)	(20.6)	(17.2)	(35.4)	(0.2)	(1.5)
	New Resources	-	-	-	238.4	53.2	92.8	88.2	106.2	45.3	133.3	(27.7)	6.3
	Total Resources	0.1	-	-	190.3	51.7	86.3	83.8	98.6	43.2	111.9	(11.0)	2.1

NPV of Gas.Low Case - Low CCCT Capital Cost Estimate LESS
Base.Case (Reference Case)
Total System Production Cost in Millions of $2001

Year	Total System Production Cost (A)	Adder (B)	TSPC less Adder (C) (A)+(B)	Net PV Factor at 4.88% (D)	Net Present Value (E) (C)*(D)	
2001	$ -	$ -	$ -	1.0000	$ -	*
2002	$ -	$ -	$ -	0.9534	$ -	*
2003	$ -	$ -	$ -	0.9090	$ -	*
2004	$ (8.9)	$ -	$ (8.9)	0.8667	$ (7.7)	*
2005	$ (3.4)	$ -	$ (3.4)	0.8264	$ (2.8)	*
2006	$ (4.6)	$ -	$ (4.6)	0.7879	$ (3.6)	*
2007	$ (6.4)	$ -	$ (6.4)	0.7512	$ (4.8)	*
2008	$ (6.2)	$ -	$ (6.2)	0.7162	$ (4.4)	*
2009	$ (6.6)	$ -	$ (6.6)	0.6829	$ (4.5)	*
2010	$ (17.8)	$ -	$ (17.8)	0.6511	$ (11.6)	*
2011	$ (19.1)	$ -	$ (19.1)	0.6208	$ (11.8)	
2012	$ (20.3)	$ -	$ (20.3)	0.5919	$ (12.0)	
2013	$ (21.6)	$ -	$ (21.6)	0.5643	$ (12.2)	
2014	$ (22.9)	$ -	$ (22.9)	0.5380	$ (12.3)	
2015	$ (24.2)	$ -	$ (24.2)	0.5130	$ (12.4)	*
2016	$ (23.9)	$ -	$ (23.9)	0.4891	$ (11.7)	
2017	$ (23.6)	$ -	$ (23.6)	0.4663	$ (11.0)	
2018	$ (23.4)	$ -	$ (23.4)	0.4446	$ (10.4)	
2019	$ (23.1)	$ -	$ (23.1)	0.4239	$ (9.8)	
2020	$ (22.8)	$ -	$ (22.8)	0.4042	$ (9.2)	*
2021	$ (21.9)	$ -	$ (21.9)	0.3854	$ (8.4)	
2022	$ (21.0)	$ -	$ (21.0)	0.3674	$ (7.7)	
2023	$ (20.1)	$ -	$ (20.1)	0.3503	$ (7.0)	
2024	$ (19.1)	$ -	$ (19.1)	0.3340	$ (6.4)	
2025	$ (18.2)	$ -	$ (18.2)	0.3185	$ (5.8)	
2026	$ (17.3)	$ -	$ (17.3)	0.3036	$ (5.2)	
2027	$ (16.3)	$ -	$ (16.3)	0.2895	$ (4.7)	
2028	$ (15.4)	$ -	$ (15.4)	0.2760	$ (4.3)	
2029	$ (14.5)	$ -	$ (14.5)	0.2632	$ (3.8)	
2030	$ (13.6)	$ -	$ (13.6)	0.2509	$ (3.4)	*
2031	$ (13.6)	$ -	$ (13.6)	0.2392	$ (3.2)	
2032	$ (13.6)	$ -	$ (13.6)	0.2281	$ (3.1)	
2033	$ (13.6)	$ -	$ (13.6)	0.2175	$ (2.9)	
2034	$ (13.6)	$ -	$ (13.6)	0.2073	$ (2.8)	
2035	$ (13.6)	$ -	$ (13.6)	0.1977	$ (2.7)	
2036	$ (13.6)	$ -	$ (13.6)	0.1885	$ (2.6)	
2037	$ (13.6)	$ -	$ (13.6)	0.1797	$ (2.4)	
2038	$ (13.6)	$ -	$ (13.6)	0.1713	$ (2.3)	
2039	$ (13.6)	$ -	$ (13.6)	0.1634	$ (2.2)	
2040	$ (13.6)	$ -	$ (13.6)	0.1558	$ (2.1)	
				40 Year Net Present Value	$ (236)	

Gas.low LESS Base.Case
Detail supporting the Total System Production Costs in $1,000

Total System Production Cost in $1,000

Totals	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020	2030
Long Term Purchases	1	3	4	(2,822)	(51)	273	237	(655)	(169)	(7,868)	(311)	(171)	(1,228)
Short Term Purchases	1	1	5	(7,459)	(3,510)	(4,515)	(2,935)	(3,988)	(3,026)	(10,153)	(44)	(464)	(216)
Existing Resource O&M	-	-	-	(1,209)	825	658	558	537	508	456	849	(335)	(233)
Potential Resource O&M	-	-	-	9,603	4,132	5,212	5,553	6,758	4,746	7,585	(1,973)	(6,525)	(6,369)
Fuel Existing	-	-	-	(4)	1,405	1,274	734	1,102	1,403	1,284	1,341	(80)	(80)
Fuel Potential	-	-	-	27,048	7,492	12,065	12,022	14,237	7,402	17,516	2,348	21,098	20,053
Short Term Sales	4	7	7	(41,613)	(11,085)	(17,821)	(18,804)	(20,003)	(9,801)	(22,358)	2,160	(690)	(227)
Total Operating Exp	5	11	16	(16,456)	(791)	(2,853)	(2,636)	(2,011)	1,062	(13,537)	4,368	12,832	11,702
Total Annual CC	-	-	-	7,603	(2,560)	(1,733)	(3,720)	(4,162)	(7,709)	(4,243)	(28,538)	(35,674)	(25,255)
Total Annual DSM	(1)	(1)	(1)	(2)	(2)	(2)	(3)	(3)	(4)	(4)	(6)	(8)	(8)
Total Real Costs	5	10	15	(8,855)	(3,353)	(4,588)	(6,359)	(6,176)	(6,650)	(17,784)	(24,175)	(22,849)	(13,561)
	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Real $2001 Costs	**1,009,808**	**938,546**	**942,722**	**876,401**	**827,576**	**840,948**	**883,350**	**943,070**	**956,564**	**1,005,824**	**1,190,042**	**1,460,936**	**1,375,347**

Annual Capital Cost

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020	2030
Coal	-	-	-	-	(413)	(397)	(382)	(368)	(354)	(340)	(280)	(24,698)	(16,765)
Nuclear	-	-	-	-	-	-	-	-	-	-	-	-	-
Oil/Gas	-	-	-	-	-	-	-	-	-	-	-	-	-
Combustion Turbi	-	-	-	-	-	-	-	-	-	-	-	-	-
Combined Cycle	-	-	-	28,587	27,542	29,610	37,439	38,636	34,099	36,598	88,240	100,965	80,145
Hydro	-	-	-	-	-	-	-	-	-	-	-	-	-
Cogen	-	-	-	(20,985)	(29,689)	(30,945)	(40,777)	(42,431)	(41,455)	(40,501)	(116,498)	(111,941)	(88,635)
Purchase	-	-	-	-	-	-	-	-	-	-	-	-	-
Renewable	-	-	-	-	-	-	-	-	-	-	-	-	-
Storage	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Annual CC	-	-	-	7,603	(2,560)	(1,733)	(3,720)	(4,162)	(7,709)	(4,243)	(28,538)	(35,674)	(25,255)

DSM PROGRAM

Total Annual DSM	(1)	(1)	(1)	(2)	(2)	(2)	(3)	(3)	(4)	(4)	(6)	(8)	(8)

Fuel Cost $	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020	2030
Fuel Existing	-	-	-	(4)	1,405	1,274	734	1,102	1,403	1,284	1,341	(80)	(80)
Fuel Potential	-	-	-	27,048	7,492	12,065	12,022	14,237	7,402	17,516	2,348	21,098	20,053

Gas.high Case - High CCCT Capital Cost Estimate LESS
Base.Case (Reference Case)
Incremental Summer Capacity (MW) of Resource Additions

		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
	Short Term Cap Purch	-	-	-	-	-	-	-	-	-	-	-	21.5
	DSM Programs	-	-	-	-	-	-	-	-	-	-	-	-
	Or/Wa Wind	-	-	-	-	-	-	-	-	-	-	-	-
O	Or/Wa Geothermal	-	-	-	-	-	-	-	-	-	-	-	-
R	Or/Wa Cogen 1	-	-	-	-	-	-	-	-	-	-	-	-
/	Or/Wa Cogen 2	-	-	-	(344.3)	(0.6)	(6.3)	-	19.9	182.7	-	148.6	-
W	Or/Wa Combined Cycle	-	-	-	344.2	-	-	-	-	(207.8)	-	(101.1)	(35.3)
A	Or/Wa Bridger Transm	-	-	-	-	-	-	-	-	-	-	-	-
	Or/Wa Simple CycleCT	-	-	-	-	-	-	-	-	-	-	-	-
	Or/Wa Pump Storage	-	-	-	-	-	-	-	-	-	-	-	-
	Total	-	-	-	**(0.1)**	**(0.6)**	**(6.3)**	-	**19.9**	**(25.1)**	-	**47.5**	**(35.3)**
G	DSM Programs	-	-	-	-	-	-	-	-	-	-	-	-
O	Goshen Cogen 1	-	-	-	-	-	-	-	-	-	-	-	-
S	Goshen Cogen 2	-	-	-	-	-	-	-	-	-	-	-	-
H	Goshen Combined C CT	-	-	-	-	-	-	-	-	-	-	-	-
E	Goshen Bridger Trans	-	-	-	-	-	-	-	-	-	-	-	-
N	Goshen Hunter Transm	-	-	-	-	-	-	-	-	-	-	-	-
	Total	-	-	-	-	-	-	-	-	-	-	-	-
	DSM Programs	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Geothermal	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Solar	-	-	-	-	-	-	-	-	-	-	-	-
U	Utah Cogen 1	-	-	-	-	-	-	-	-	-	-	-	-
T	Utah Cogen 2	-	-	-	-	-	-	-	-	-	-	(710.8)	710.8
A	Utah Combined Cycle	-	-	-	1.5	(3.3)	8.9	12.8	(8.9)	1.3	-	663.3	(294.3)
H	Utah IGCC Hunter 4	-	-	-	-	-	-	-	-	-	-	-	-
	Utah IGCC CT	-	-	-	-	-	-	-	-	-	-	-	-
	Utah PC Hunter 4	-	-	-	-	-	-	-	-	-	-	-	(400.0)
	Utah Coal $23.25/Ton	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Coal $27.00/Ton	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Simple Cycle CT	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Pumped Storage	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Wyo/Ut Tran L	-	-	-	-	9.9	-	-	-	-	-	-	(9.9)
	Total	-	-	-	**1.5**	**6.6**	**8.9**	**12.8**	**(8.9)**	**1.3**	-	**(47.5)**	**6.6**
	DSM Programs	-	-	-	-	-	-	-	-	-	-	-	-
W	Wyo Wind	-	-	-	-	-	-	-	-	-	-	-	-
Y	Wyo Combined Cycle	-	-	-	-	-	-	-	-	-	-	-	-
O	Wyo IGCC Wyodak 2	-	-	-	-	-	-	-	-	-	-	-	-
M	Wyo IGCC CT	-	-	-	-	-	-	-	-	-	-	-	-
I	Wyo PC Wyodak 2	-	-	-	-	-	-	-	-	-	-	-	-
N	Wyo Coal $6.70/Ton	-	-	-	-	-	-	-	-	-	-	-	(2.8)
G	Wyo Simple Cycle CT	-	-	-	-	-	-	-	-	-	-	-	-
	Total	-	-	-	-	-	-	-	-	-	-	-	**(2.8)**
T	DSM Programs	-	-	-	-	-	-	-	-	-	-	-	-
O	Short Term Cap Purch	-	-	-	-	-	-	-	-	-	-	-	21.5
T	Cogeneration	-	-	-	(344.3)	(0.6)	(6.3)	-	19.9	182.7	-	(562.2)	710.8
A	Combined Cycle CT	-	-	-	345.7	(3.3)	8.9	12.8	(8.9)	(206.5)	-	562.2	(329.6)
L	Coal	-	-	-	-	-	-	-	-	-	-	-	(402.8)
	All Others	-	-	-	-	9.9	-	-	-	-	-	-	(9.9)
	Total	-	-	-	**1.4**	**6.0**	**2.6**	12.8	**11.0**	**(23.8)**	-	-	**(10.0)**

Annual Summer Peak Capacity (MW)

		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
S	Native Load	-	-	-	-	-	-	-	-	-	-	-	-
Y	Long Term Sales	-	-	-	-	-	-	-	-	-	-	-	-
S	DSM Programs	-	-	-	-	-	-	-	-	-	-	-	-
T	**Total Requirements**	-	-	-	-	-	-	-	-	-	-	-	-
E													
M	Existing Generation	-	-	-	-	(11.0)	(10.0)	(10.0)	(10.0)	(10.0)	(10.0)	(10.0)	-
	Long Term Purchases	-	-	-	-	-	-	-	-	-	-	-	0.5
L	Short Term Market	-	-	-	-	-	-	-	-	-	-	-	-
&	Short Term Cap Purch	-	-	-	-	-	-	-	-	-	-	-	21.5
R	New Resources	-	-	-	2.0	7.0	10.0	23.0	34.0	10.0	10.0	10.0	(22.0)
	Total Resources	-	-	-	**2.0**	**(4.0)**	-	**13.0**	**24.0**	-	-	-	-
	Reserves	-	-	-	2.0	(2.0)	-	13.0	24.0	-	-	-	-
	Reserve Margin (%)	-	-	-	-	-	-	0.2	0.2	-	-	-	-

Gas.high Case - High CCCT Capital Cost Estimate LESS Base.Case (Reference Case)

Cumulative Annual Energy (aMW)

		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
	DSM Programs	-	-	-	-	-	-	-	-	-	-	-	-
	Or/Wa Wind	-	-	-	-	-	-	-	-	-	-	-	-
O	Or/Wa Geothermal	-	-	-	-	-	-	-	-	-	-	-	-
R	Or/Wa Cogen 1	-	-	-	-	-	-	-	-	-	-	-	-
/	Or/Wa Cogen 2	-	-	-	(340.8)	(341.4)	(347.7)	(347.7)	(327.9)	(147.2)	(147.2)	-	-
W	Or/Wa Combined Cycle	-	-	-	340.7	340.7	340.7	340.7	340.7	135.4	135.1	31.0	3.7
A	Or/Wa Bridger Transm	-	-	-	-	-	-	-	-	-	-	-	-
	Or/Wa Simple CycleCT	-	-	-	-	-	-	-	-	-	-	-	-
	Or/Wa Pump Storage	-	-	-	-	-	-	-	-	-	-	-	-
	Total	-	-	-	**(0.1)**	**(0.6)**	**(6.9)**	**(6.9)**	**12.8**	**(11.8)**	**(12.1)**	**31.0**	**3.7**
G	DSM Programs	-	-	-	-	-	-	-	-	-	-	-	-
O	Goshen Cogen 1	-	-	-	-	-	-	-	-	-	-	-	-
S	Goshen Cogen 2	-	-	-	-	-	-	-	-	-	-	-	-
H	Goshen Combined C CT	-	-	-	-	-	-	-	-	-	-	-	-
E	Goshen Bridger Trans	-	-	-	-	-	-	-	-	-	-	-	-
N	Goshen Hunter Transm	-	-	-	-	-	-	-	-	-	-	-	-
	Total	-	-	-	-	-	-	-	-	-	-	-	-
	DSM Programs	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Geothermal	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Solar	-	-	-	-	-	-	-	-	-	-	-	-
U	Utah Cogen 1	-	-	-	-	-	-	-	-	-	-	-	-
T	Utah Cogen 2	-	-	-	-	-	-	-	-	-	-	(686.5)	10.9
A	Utah Combined Cycle	-	-	-	1.4	(1.8)	6.9	19.3	8.0	13.3	11.9	651.1	350.6
H	Utah IGCC Hunter 4	-	-	-	-	-	-	-	-	-	-	-	-
	Utah IGCC CT	-	-	-	-	-	-	-	-	-	-	-	-
	Utah PC Hunter 4	-	-	-	-	-	-	-	-	-	-	-	(366.6)
	Utah Coal $23.25/Ton	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Coal $27.00/Ton	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Simple Cycle CT	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Pumped Storage	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Wyo/Ut Tran L	-	-	-	-	9.0	9.5	9.5	9.5	9.5	9.5	9.5	-
	Total	-	-	-	**1.4**	**7.2**	**16.4**	**28.8**	**17.5**	**22.8**	**21.4**	**(25.9)**	**(5.1)**
	DSM Programs	-	-	-	-	-	-	-	-	-	-	-	-
W	Wyo Wind	-	-	-	-	-	-	-	-	-	-	-	-
Y	Wyo Combined Cycle	-	-	-	-	-	-	-	-	-	-	-	-
O	Wyo IGCC Wyodak 2	-	-	-	-	-	-	-	-	-	-	-	-
M	Wyo IGCC CT	-	-	-	-	-	-	-	-	-	-	-	-
I	Wyo PC Wyodak 2	-	-	-	-	-	-	-	-	-	-	-	-
N	Wyo Coal $6.70/Ton	-	-	-	-	-	-	-	-	-	-	-	(2.6)
G	Wyo Simple Cycle CT	-	-	-	-	-	-	-	-	-	-	-	-
	Total	-	-	-	-	-	-	-	-	-	-	-	**(2.6)**
	DSM Programs	-	-	-	-	-	-	-	-	-	-	-	-
	Short Term Cap Purch	-	-	-	-	-	-	-	-	-	-	-	0.3
T	Cogeneration	-	-	-	(340.8)	(341.4)	(347.7)	(347.7)	(327.9)	(147.2)	(147.2)	(686.5)	10.9
O	Combined Cycle CT	-	-	-	342.1	339.0	347.6	360.1	348.8	148.7	147.0	682.1	354.3
T	Coal	-	-	-	-	-	-	-	-	-	-	-	(369.2)
A	Transmission	-	-	-	-	9.0	9.5	9.5	9.5	9.5	9.5	9.5	-
L	Simple Cycle	-	-	-	-	-	-	-	-	-	-	-	-
	All Others	-	-	-	-	-	-	-	-	-	-	-	-
	Total	-	-	-	**1.3**	**6.6**	**9.4**	**21.9**	**30.3**	**11.0**	**9.3**	**5.1**	**(3.7)**
S	**Native Load**	-	-	-	-	-	-	-	-	-	-	-	-
Y	**Pump Storage/Peak Retu**	-	-	-	-	-	-	-	-	-	-	-	-
S	**Long Term Sales**	-	-	-	-	-	-	-	-	-	-	-	-
T	**Short Term Sales**	-	-	-	1.4	(2.2)	0.2	9.1	18.8	1.9	(0.9)	(3.6)	(3.6)
E	**DSM Programs**	-	-	-	-	-	-	-	-	-	-	-	-
M	**Total Requirements**	-	-	-	1.4	(2.2)	0.2	9.2	18.8	1.9	(0.9)	(3.7)	(3.6)
	Existing Generation	-	-	-	0.3	(8.5)	(9.2)	(9.5)	(11.5)	(9.2)	(9.1)	(9.0)	-
L	**Long Term Purchases**	-	-	-	-	-	-	-	-	-	-	-	0.4
&	**Short Term Market**	-	-	-	-	-	-	-	-	-	-	-	-
R	**Short Term Purchases**	-	-	-	(0.3)	(0.3)	(0.1)	(3.2)	-	0.1	(1.2)	0.2	-
	New Resources	-	-	-	1.3	6.5	9.5	21.9	30.3	11.0	9.4	5.1	(4.0)
	Total Resources	-	-	-	1.3	(2.2)	0.2	9.2	18.8	2.0	(0.9)	(3.7)	(3.6)

NPV of Gas.high Case - High CCCT Capital Cost Estimate LESS
Base.Case (Reference Case)'
Total System Production Cost in Millions of $2001

Year	Total System Production Cost (A)		Adder (B)		TSPC less Adder (C) (A)+(B)	Net PV Factor at 4.88% (D)		Net Present Value (E) (C)*(D)	
2001	$	-	$	-	$ -	1.0000	$	-	*
2002	$	-	$	-	$ -	0.9534	$	-	*
2003	$	-	$	-	$ -	0.9090	$	-	*
2004	$	(0.3)	$	-	$ (0.3)	0.8667	$	(0.2)	*
2005	$	(0.5)	$	-	$ (0.5)	0.8264	$	(0.4)	*
2006	$	(1.1)	$	-	$ (1.1)	0.7879	$	(0.8)	*
2007	$	(0.9)	$	-	$ (0.9)	0.7512	$	(0.6)	*
2008	$	(0.8)	$	-	$ (0.8)	0.7162	$	(0.5)	*
2009	$	(0.9)	$	-	$ (0.9)	0.6829	$	(0.6)	*
2010	$	(1.0)	$	-	$ (1.0)	0.6511	$	(0.6)	*
2011	$	(1.8)	$	-	$ (1.8)	0.6208	$	(1.1)	
2012	$	(2.7)	$	-	$ (2.7)	0.5919	$	(1.6)	
2013	$	(3.5)	$	-	$ (3.5)	0.5643	$	(2.0)	
2014	$	(4.3)	$	-	$ (4.3)	0.5380	$	(2.3)	
2015	$	(5.2)	$	-	$ (5.2)	0.5130	$	(2.6)	*
2016	$	(3.4)	$	-	$ (3.4)	0.4891	$	(1.7)	
2017	$	(1.7)	$	-	$ (1.7)	0.4663	$	(0.8)	
2018	$	-	$	-	$ -	0.4446	$	-	
2019	$	1.7	$	-	$ 1.7	0.4239	$	0.7	
2020	$	3.5	$	-	$ 3.5	0.4042	$	1.4	*
2021	$	3.7	$	-	$ 3.7	0.3854	$	1.4	
2022	$	3.9	$	-	$ 3.9	0.3674	$	1.4	
2023	$	4.1	$	-	$ 4.1	0.3503	$	1.4	
2024	$	4.3	$	-	$ 4.3	0.3340	$	1.4	
2025	$	4.5	$	-	$ 4.5	0.3185	$	1.4	
2026	$	4.7	$	-	$ 4.7	0.3036	$	1.4	
2027	$	4.9	$	-	$ 4.9	0.2895	$	1.4	
2028	$	5.1	$	-	$ 5.1	0.2760	$	1.4	
2029	$	5.3	$	-	$ 5.3	0.2632	$	1.4	
2030	$	5.5	$	-	$ 5.5	0.2509	$	1.4	*
2031	$	5.5	$	-	$ 5.5	0.2392	$	1.3	
2032	$	5.5	$	-	$ 5.5	0.2281	$	1.2	
2033	$	5.5	$	-	$ 5.5	0.2175	$	1.2	
2034	$	5.5	$	-	$ 5.5	0.2073	$	1.1	
2035	$	5.5	$	-	$ 5.5	0.1977	$	1.1	
2036	$	5.5	$	-	$ 5.5	0.1885	$	1.0	
2037	$	5.5	$	-	$ 5.5	0.1797	$	1.0	
2038	$	5.5	$	-	$ 5.5	0.1713	$	0.9	
2039	$	5.5	$	-	$ 5.5	0.1634	$	0.9	
2040	$	5.5	$	-	$ 5.5	0.1558	$	0.9	
						40 Year Net Present Value	**$**	**11**	

Gas.high LESS Base.Case
Detail supporting the Total System Production Costs in $1,000

Total System Production Cost in $1,000

Totals	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020	2030
Long Term Purchases	-	-	-	(24)	(87)	(7)	250	(444)	84	(77)	44	1,055	1,227
Short Term Purchases	-	-	-	(53)	(53)	(242)	(689)	15	(2)	(495)	81	(1)	(17)
Existing Resource O&M	-	-	-	(5)	(460)	(447)	(445)	(461)	(461)	(461)	(461)	(103)	-
Potential Resource O&M	-	-	-	530	369	562	1,130	1,338	360	344	(2,797)	(2,380)	(2,512)
Fuel Existing	-	-	-	52	(654)	(779)	(879)	(978)	(729)	(712)	(712)	43	43
Fuel Potential	-	-	-	780	1,080	1,398	2,805	3,731	1,204	1,015	1,598	6,536	6,160
Short Term Sales	-	-	-	(193)	706	(368)	(2,581)	(3,886)	(762)	-	696	376	388
Total Operating Exp	-	-	-	1,088	901	118	(409)	(685)	(306)	(386)	(1,551)	5,525	5,289
Total Annual CC	-	-	-	(1,359)	(1,385)	(1,186)	(449)	(77)	(622)	(611)	(3,604)	(2,050)	180
Total Annual DSM	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Real Costs	-	-	-	(270)	(483)	(1,068)	(859)	(762)	(928)	(997)	(5,155)	3,476	5,469
	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Real $2001 Costs	**1,009,808**	**938,546**	**942,722**	**876,401**	**827,576**	**840,948**	**883,350**	**943,070**	**956,564**	**1,005,824**	**1,190,042**	**1,460,936**	**1,375,347**

Annual Capital Cost

Coal	-	-	-	-	219	211	203	195	188	181	149	(16,916)	(11,483)
Nuclear	-	-	-	-	-	-	-	-	-	-	-	-	-
Oil/Gas	-	-	-	-	-	-	-	-	-	-	-	-	-
Combustion Turbi	-	-	-	-	-	-	-	-	-	-	-	-	-
Combined Cycle	-	-	-	17,512	16,861	16,977	17,298	16,270	6,443	6,295	32,164	14,866	11,663
Hydro	-	-	-	-	-	-	-	-	-	-	-	-	-
Cogen	-	-	-	(18,871)	(18,466)	(18,374)	(17,951)	(16,543)	(7,253)	(7,086)	(35,916)	-	-
Purchase	-	-	-	-	-	-	-	-	-	-	-	-	-
Renewable	-	-	-	-	-	-	-	-	-	-	-	-	-
Storage	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Annual CC	-	-	-	(1,359)	(1,385)	(1,186)	(449)	(77)	(622)	(611)	(3,604)	(2,050)	180

DSM PROGRAM

Total Annual DSM	-	-	-	-	-	-	-	-	-	-	-	-	-

Fuel Cost $	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020	2030
Fuel Existing	-	-	-	52	(654)	(779)	(879)	(978)	(729)	(712)	(712)	43	43
Fuel Potential	-	-	-	780	1,080	1,398	2,805	3,731	1,204	1,015	1,598	6,536	6,160

Case gas.low Gas Fired Resource Sensitivity
High Gas Resource Capital Cost
Incremental Summer Capacity (MW) of Resource Additions

		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
	Short Term Cap Purch	40.2	1.4	171.1	-	-	-	-	-	-	128.1	-	424.3
	DSM Programs	6.8	6.7	7.2	7.2	7.1	7.3	7.3	7.2	7.1	7.2	26.6	42.9
	Or/Wa Wind	-	-	-	-	-	-	-	-	-	-	-	72.0
O	Or/Wa Geothermal	-	-	-	-	-	-	-	-	-	-	-	-
R	Or/Wa Cogen 1	-	-	-	94.0	94.0	14.1	-	-	-	-	-	-
/	Or/Wa Cogen 2	-	-	-	-	-	-	-	-	-	-	-	335.4
W	Or/Wa Combined Cycle	-	-	-	547.9	23.5	72.8	187.8	43.5	147.4	84.3	471.4	-
A	Or/Wa Bridger Transm	-	-	-	-	-	-	-	-	-	-	-	-
	Or/Wa Simple CycleCT	-	-	-	-	-	-	-	-	-	-	-	-
	Or/Wa Pump Storage	-	-	-	-	-	-	-	-	-	-	-	-
	Total	**6.8**	**6.7**	**7.2**	**649.1**	**124.6**	**94.2**	**195.1**	**50.7**	**154.5**	**91.5**	**498.0**	**450.3**
G	DSM Programs	0.6	0.6	0.7	0.6	0.7	0.6	0.7	0.7	0.6	0.7	2.4	3.2
O	Goshen Cogen 1	-	-	-	-	-	-	-	-	-	-	28.2	-
S	Goshen Cogen 2	-	-	-	-	-	-	-	-	-	-	-	-
H	Goshen Combined C CT	-	-	-	-	-	-	-	-	-	-	-	-
E	Goshen Bridger Trans	-	-	-	-	-	-	-	-	-	-	-	-
N	Goshen Hunter Transm	-	-	-	-	-	-	-	-	-	-	-	-
	Total	**0.6**	**0.6**	**0.7**	**0.6**	**0.7**	**0.6**	**0.7**	**0.7**	**0.6**	**0.7**	**30.6**	**3.2**
	DSM Programs	13.9	13.3	12.5	13.1	13.2	12.5	13.2	12.7	12.3	13.0	47.2	75.0
	Utah Geothermal	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Solar	-	-	-	-	-	-	-	-	-	-	-	-
U	Utah Cogen 1	-	-	-	14.1	-	-	-	-	-	-	-	-
T	Utah Cogen 2	-	-	-	-	-	-	-	-	-	-	-	-
A	Utah Combined Cycle	-	-	-	131.8	51.2	6.5	28.4	219.2	-	-	1,704.5	1,206.8
H	Utah IGCC Hunter 4	-	-	-	-	-	-	-	-	-	-	-	-
	Utah IGCC CT	-	-	-	-	-	-	-	-	-	-	-	-
	Utah PC Hunter 4	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Coal $23.25/Ton	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Coal $27.00/Ton	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Simple Cycle CT	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Pumped Storage	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Wyo/Ut Tran L	-	-	-	-	-	-	-	-	-	-	-	265.3
	Total	**13.9**	**13.3**	**12.5**	**159.0**	**64.4**	**19.0**	**41.6**	**231.9**	**12.3**	**13.0**	**1,751.7**	**1,547.1**
	DSM Programs	2.3	2.3	2.4	2.4	2.4	2.4	2.5	2.5	2.5	2.5	9.3	15.7
W	Wyo Wind	-	-	-	-	-	-	-	-	-	-	-	54.0
Y	Wyo Combined Cycle	-	-	-	-	-	-	-	-	-	-	-	-
O	Wyo IGCC Wyodak 2	-	-	-	-	-	-	-	-	-	-	-	-
M	Wyo IGCC CT	-	-	-	-	-	-	-	-	-	-	-	-
I	Wyo PC Wyodak 2	-	-	-	-	-	-	-	-	-	-	-	325.0
N	Wyo Coal $6.70/Ton	-	-	-	-	-	-	-	-	-	-	-	33.9
G	Wyo Simple Cycle CT	-	-	-	-	-	-	-	-	-	-	-	-
	Total	**2.3**	**2.3**	**2.4**	**2.4**	**2.4**	**2.4**	**2.5**	**2.5**	**2.5**	**2.5**	**9.3**	**428.6**
T	DSM Programs	23.6	22.9	22.8	23.3	23.4	22.8	23.7	23.1	22.5	23.4	85.5	136.8
O	Short Term Cap Purch	40.2	1.4	171.1	-	-	-	-	-	-	128.1	-	424.3
T	Cogeneration	-	-	-	108.1	94.0	14.1	-	-	-	-	28.2	335.4
A	Combined Cycle CT	-	-	-	679.7	74.7	79.3	216.2	262.7	147.4	84.3	2,175.9	1,206.8
L	Coal	-	-	-	-	-	-	-	-	-	-	-	358.9
	All Others	-	-	-	-	-	-	-	-	-	-	-	391.3
	Total	63.8	24.3	**193.9**	811.1	192.1	**116.2**	239.9	**285.8**	169.9	235.8	**2,289.6**	**2,853.5**

Annual Summer Peak Capacity (MW)

		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
S	Native Load	7,987.0	8,030.0	8,203.0	8,435.0	8,608.0	8,767.0	8,937.0	9,052.0	9,267.0	9,399.0	10,535.0	12,042.0
Y	Long Term Sales	2,377.0	2,239.0	2,120.0	1,890.0	1,647.0	1,647.0	1,327.0	1,324.0	1,324.0	1,249.0	1,149.0	1,104.0
S	DSM Programs	(24.0)	(46.0)	(69.0)	(92.0)	(116.0)	(139.0)	(162.0)	(185.0)	(208.0)	(232.0)	(317.0)	(454.0)
T	**Total Requirements**	**10,340.0**	**10,223.0**	**10,254.0**	**10,233.0**	**10,139.0**	**10,275.0**	**10,102.0**	**10,191.0**	**10,383.0**	**10,416.0**	**11,367.0**	**12,692.0**
E													
M	Existing Generation	9,179.0	9,185.0	9,007.0	8,836.0	8,840.0	8,719.0	8,723.0	8,492.0	8,496.0	8,321.0	7,391.0	6,176.0
	Long Term Purchases	1,351.1	1,345.0	1,225.5	1,076.0	1,076.0	1,076.0	676.0	676.0	626.0	625.9	558.3	536.8
L	Short Term Market	805.7	713.6	875.4	814.0	571.0	571.0	651.0	648.0	698.0	623.0	590.7	567.9
&	Short Term Cap Purch	40.2	1.4	171.1	-	-	-	-	-	-	128.1	-	424.3
R	New Resources	1.0	1.0	1.0	789.0	958.0	1,051.0	1,267.0	1,530.0	1,677.0	1,762.0	3,970.0	6,262.0
	Total Resources	**11,377.0**	**11,246.0**	**11,280.0**	**11,515.0**	**11,445.0**	**11,417.0**	**11,317.0**	**11,346.0**	**11,497.0**	**11,460.0**	**12,510.0**	**13,967.0**
	Reserves	1,037.0	1,023.0	1,026.0	1,282.0	1,305.0	1,141.0	1,215.0	1,155.0	1,114.0	1,043.0	1,142.0	1,274.0
	Reserve Margin (%)	10.0	10.0	10.0	12.5	12.9	11.1	12.0	11.3	10.7	10.0	10.0	10.0

Case gas.low Gas Fired Resource Sensitivity
High Gas Resource Capital Cost
Cumulative Annual Energy (aMW)

		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
	DSM Programs	5.2	10.4	15.9	21.5	27.1	32.8	38.5	44.1	49.7	55.4	76.3	110.0
	Or/Wa Wind	-	-	-	-	-	-	-	-	-	-	-	80.5
O	Or/Wa Geothermal	-	-	-	-	-	-	-	-	-	-	-	-
R	Or/Wa Cogen 1	-	-	-	93.1	186.2	200.1	200.1	200.1	200.1	200.1	200.1	200.1
/	Or/Wa Cogen 2	-	-	-	-	-	-	-	-	-	-	-	332.0
W	Or/Wa Combined Cycle	-	-	-	542.4	565.6	637.7	823.6	866.4	1,010.2	1,096.0	1,546.8	1,525.8
A	Or/Wa Bridger Transm	-	-	-	-	-	-	-	-	-	-	-	-
	Or/Wa Simple CycleCT	-	-	-	-	-	-	-	-	-	-	-	-
	Or/Wa Pump Storage	-	-	-	-	-	-	-	-	-	-	-	-
	Total	**5.2**	**10.4**	**15.9**	**657.0**	**778.9**	**870.6**	**1,062.2**	**1,110.6**	**1,260.0**	**1,351.5**	**1,823.2**	**2,248.5**
G	DSM Programs	0.5	0.9	1.4	1.9	2.4	2.9	3.4	3.9	4.4	4.9	6.7	9.4
O	Goshen Cogen 1	-	-	-	-	-	-	-	-	-	-	27.9	27.9
S	Goshen Cogen 2	-	-	-	-	-	-	-	-	-	-	-	-
H	Goshen Combined C CT	-	-	-	-	-	-	-	-	-	-	-	-
E	Goshen Bridger Trans	-	-	-	-	-	-	-	-	-	-	-	-
N	Goshen Hunter Transm	-	-	-	-	-	-	-	-	-	-	-	-
	Total	**0.5**	**0.9**	**1.4**	**1.9**	**2.4**	**2.9**	**3.4**	**3.9**	**4.4**	**4.9**	**34.6**	**37.3**
	DSM Programs	9.0	17.7	25.8	34.2	42.8	50.9	59.4	67.6	75.6	84.1	115.1	165.2
	Utah Geothermal	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Solar	-	-	-	-	-	-	-	-	-	-	-	-
U	Utah Cogen 1	-	-	-	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0
T	Utah Cogen 2	-	-	-	-	-	-	-	-	-	-	-	-
A	Utah Combined Cycle	-	-	-	122.0	166.5	183.9	210.2	414.0	405.6	420.1	1,925.6	3,029.4
H	Utah IGCC Hunter 4	-	-	-	-	-	-	-	-	-	-	-	-
	Utah IGCC CT	-	-	-	-	-	-	-	-	-	-	-	-
	Utah PC Hunter 4	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Coal $23.25/Ton	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Coal $27.00/Ton	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Simple Cycle CT	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Pumped Storage	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Wyo/Ut Tran L	-	-	-	-	-	-	-	-	-	-	-	252.2
	Total	**9.0**	**17.7**	**25.8**	**170.1**	**223.2**	**248.8**	**283.6**	**495.5**	**495.2**	**518.1**	**2,054.7**	**3,460.8**
	DSM Programs	1.8	3.6	5.5	7.3	9.3	11.2	13.1	15.1	17.1	19.1	26.7	39.5
W	Wyo Wind	-	-	-	-	-	-	-	-	-	-	-	60.4
Y	Wyo Combined Cycle	-	-	-	-	-	-	-	-	-	-	-	-
O	Wyo IGCC Wyodak 2	-	-	-	-	-	-	-	-	-	-	-	-
M	Wyo IGCC CT	-	-	-	-	-	-	-	-	-	-	-	-
I	Wyo PC Wyodak 2	-	-	-	-	-	-	-	-	-	-	-	297.8
N	Wyo Coal $6.70/Ton	-	-	-	-	-	-	-	-	-	-	-	31.1
G	Wyo Simple Cycle CT	-	-	-	-	-	-	-	-	-	-	-	-
	Total	**1.8**	**3.6**	**5.5**	**7.3**	**9.3**	**11.2**	**13.1**	**15.1**	**17.1**	**19.1**	**26.7**	**428.8**
	DSM Programs	16.5	32.6	48.6	65.0	81.6	97.7	114.4	130.8	146.9	163.5	224.8	324.1
	Short Term Cap Purch	-	-	-	-	-	-	-	-	-	-	-	6.4
T	Cogeneration	-	-	-	107.0	200.1	214.1	214.1	214.1	214.1	214.1	242.0	574.0
O	Combined Cycle CT	-	-	-	664.3	732.1	821.6	1,033.8	1,280.3	1,415.7	1,516.1	3,472.3	4,555.3
T	Coal	-	-	-	-	-	-	-	-	-	-	-	328.9
A	Transmission	-	-	-	-	-	-	-	-	-	-	-	252.2
L	Simple Cycle	-	-	-	-	-	-	-	-	-	-	-	-
	All Others	-	-	-	-	-	-	-	-	-	-	-	140.9
	Total	**16.5**	**32.6**	**48.6**	**836.3**	**1,013.8**	**1,133.4**	**1,362.3**	**1,625.2**	**1,776.7**	**1,893.7**	**3,939.2**	**6,181.8**
		-	-	-	-	-	-	-	-	-	-	-	-
S	**Native Load**	5,677.0	5,744.6	5,881.5	6,002.1	6,122.6	6,248.3	6,392.6	6,540.1	6,691.4	6,813.5	7,622.3	8,696.7
Y	**Pump Storage/Peak Retu**	276.9	276.9	225.1	223.2	223.2	223.2	223.2	223.2	223.2	223.2	223.2	223.2
S	**Long Term Sales**	1,549.9	1,418.1	1,350.1	1,239.5	1,053.7	1,006.4	852.6	850.0	810.5	794.3	692.3	668.3
T	**Short Term Sales**	1,503.4	1,480.9	1,378.2	2,012.2	2,028.4	1,998.2	2,066.5	2,096.8	2,077.4	1,984.4	2,301.6	2,324.0
E	**DSM Programs**	(16.5)	(32.6)	(48.6)	(65.0)	(81.5)	(97.7)	(114.4)	(130.7)	(146.9)	(163.5)	(224.8)	(324.1)
M	**Total Requirements**	8,990.6	8,888.0	8,786.3	9,412.0	9,346.4	9,378.4	9,420.5	9,579.3	9,655.6	9,651.9	10,614.6	11,588.1
		-	-	-	-	-	-	-	-	-	-	-	-
	Existing Generation	7,380.1	7,374.9	7,330.0	7,364.4	7,299.9	7,262.6	7,266.3	7,158.1	7,160.6	7,066.8	6,207.0	5,068.0
L	**Long Term Purchases**	700.0	709.9	749.7	737.0	736.9	737.0	527.6	338.2	338.2	335.0	243.1	242.0
&	**Short Term Market**	805.7	708.2	600.4	502.5	316.7	269.4	325.0	511.8	472.3	459.3	449.2	426.3
R	**Short Term Purchases**	104.8	95.1	106.3	36.8	60.7	73.8	53.7	76.8	54.8	60.6	0.9	0.5
	New Resources	-	-	-	771.3	932.2	1,035.7	1,247.9	1,494.4	1,629.8	1,730.2	3,714.4	5,851.3
	Total Resources	8,990.7	8,888.0	8,786.3	9,412.0	9,346.4	9,378.4	9,420.5	9,579.3	9,655.6	9,651.8	10,614.6	11,588.1

NPV of 'Case gas.low Gas Fired Resource Sensitivity
High Gas Resource Capital Cost'
Total System Production Cost in Millions of $2001

Year	Total System Production Cost (A)	Adder (B)	TSPC less Adder (C) (A)+(B)	Net PV Factor at 4.88% (D)	Net Present Value (E) (C)*(D)	
2001	$ 1,010		$ 1,010	1.0000	$ 1,010	*
2002	$ 939		$ 939	0.9534	$ 895	*
2003	$ 943		$ 943	0.9090	$ 857	*
2004	$ 868		$ 868	0.8667	$ 752	*
2005	$ 824		$ 824	0.8264	$ 681	*
2006	$ 836		$ 836	0.7879	$ 659	*
2007	$ 877		$ 877	0.7512	$ 659	*
2008	$ 937		$ 937	0.7162	$ 671	*
2009	$ 950		$ 950	0.6829	$ 649	*
2010	$ 988		$ 988	0.6511	$ 643	*
2011	$ 1,024		$ 1,024	0.6208	$ 635	
2012	$ 1,059		$ 1,059	0.5919	$ 627	
2013	$ 1,095		$ 1,095	0.5643	$ 618	
2014	$ 1,130		$ 1,130	0.5380	$ 608	
2015	$ 1,166		$ 1,166	0.5130	$ 598	*
2016	$ 1,220		$ 1,220	0.4891	$ 597	
2017	$ 1,275		$ 1,275	0.4663	$ 594	
2018	$ 1,329		$ 1,329	0.4446	$ 591	
2019	$ 1,384		$ 1,384	0.4239	$ 587	
2020	$ 1,438		$ 1,438	0.4042	$ 581	*
2021	$ 1,430		$ 1,430	0.3854	$ 551	
2022	$ 1,423		$ 1,423	0.3674	$ 523	
2023	$ 1,415		$ 1,415	0.3503	$ 496	
2024	$ 1,408		$ 1,408	0.3340	$ 470	
2025	$ 1,400		$ 1,400	0.3185	$ 446	
2026	$ 1,392		$ 1,392	0.3036	$ 423	
2027	$ 1,385		$ 1,385	0.2895	$ 401	
2028	$ 1,377		$ 1,377	0.2760	$ 380	
2029	$ 1,369		$ 1,369	0.2632	$ 360	
2030	$ 1,362		$ 1,362	0.2509	$ 342	*
2031	$ 1,362		$ 1,362	0.2392	$ 326	
2032	$ 1,362		$ 1,362	0.2281	$ 311	
2033	$ 1,362		$ 1,362	0.2175	$ 296	
2034	$ 1,362		$ 1,362	0.2073	$ 282	
2035	$ 1,362		$ 1,362	0.1977	$ 269	
2036	$ 1,362		$ 1,362	0.1885	$ 257	
2037	$ 1,362		$ 1,362	0.1797	$ 245	
2038	$ 1,362		$ 1,362	0.1713	$ 233	
2039	$ 1,362		$ 1,362	0.1634	$ 222	
2040	$ 1,362		$ 1,362	0.1558	$ 212	
				40 Year Net Present Value	**$ 20,557**	

Case gas.low Gas Fired Resource Sensitivity - Low Gas Resource Capital Cost
Detail supporting the Total System Production Costs in $1,000

Total System Production Cost in $1,000

Totals	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020	2030
Long Term Purchases	450,880	391,794	368,831	295,980	228,500	219,812	234,049	278,966	267,725	270,396	260,046	276,439	278,069
Short Term Purchases	17,261	15,954	19,356	6,220	10,348	11,430	10,013	12,295	9,496	11,961	224	118	57
Existing Resource O&M	391,155	391,824	391,541	390,059	390,562	387,345	387,774	381,890	381,772	377,531	319,347	260,151	260,151
Potential Resource O&M	-	-	-	27,104	32,782	36,001	43,447	54,481	59,250	62,206	152,579	238,131	238,459
Fuel Existing	523,398	508,116	504,058	501,129	497,585	500,320	501,069	472,576	473,752	474,972	399,188	333,493	333,493
Fuel Potential	-	-	-	82,663	98,803	110,628	135,159	163,870	180,267	192,837	432,114	650,129	649,926
Short Term Sales	(373,418)	(370,199)	(342,661)	(475,357)	(482,518)	(481,035)	(495,089)	(499,436)	(499,513)	(481,260)	(559,316)	(573,788)	(597,293)
Total Operating Exp	1,009,276	937,490	941,125	827,798	776,061	784,501	816,422	864,641	872,748	908,643	1,004,181	1,184,674	1,162,864
Total Annual CC	-	-	-	37,591	45,443	48,575	56,705	67,802	72,116	73,740	153,619	241,219	186,076
Total Annual DSM	537	1,067	1,612	2,158	2,719	3,284	3,863	4,451	5,049	5,657	8,067	12,194	12,846
Total Real Costs	1,009,813	938,557	942,737	867,546	824,223	836,360	876,990	936,894	949,914	988,040	1,165,867	1,438,087	1,361,786
	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Real $2001 Costs	**1,009,813**	**938,557**	**942,737**	**867,546**	**824,223**	**836,360**	**876,990**	**936,894**	**949,914**	**988,040**	**1,165,867**	**1,438,087**	**1,361,786**

Annual Capital Cost

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020	2030
Coal	-	-	-	-	-	-	-	-	-	-	-	28,679	19,468
Nuclear	-	-	-	-	-	-	-	-	-	-	-	-	-
Oil/Gas	-	-	-	-	-	-	-	-	-	-	-	-	-
Combustion Turbi	-	-	-	-	-	-	-	-	-	-	-	-	-
Combined Cycle	-	-	-	31,540	34,505	37,152	45,545	56,899	61,464	63,333	142,949	171,516	136,176
Hydro	-	-	-	-	-	-	-	-	-	-	-	-	-
Cogen	-	-	-	6,051	10,938	11,423	11,160	10,903	10,653	10,408	10,669	22,166	-
Purchase	-	-	-	-	-	-	-	-	-	-	-	-	17,632
Renewable	-	-	-	-	-	-	-	-	-	-	-	18,857	-
Storage	-	-	-	-	-	-	-	-	-	-	-	-	12,800
Total Annual CC	-	-	-	37,591	45,443	48,575	56,705	67,802	72,116	73,740	153,619	241,219	186,076

DSM PROGRAM

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020	2030
Total Annual DSM	537	1,067	1,612	2,158	2,719	3,284	3,863	4,451	5,049	5,657	8,067	12,194	12,846

Fuel Cost $	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020	2030
Fuel Existing	523,398	508,116	504,058	501,129	497,585	500,320	501,069	472,576	473,752	474,972	399,188	333,493	333,493
Fuel Potential	-	-	-	82,663	98,803	110,628	135,159	163,870	180,267	192,837	432,114	650,129	649,926

Case gas.high Gas Fired Resource Sensitivity
Low Gas Resource Capital Cost
Incremental Summer Capacity (MW) of Resource Additions

		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
	Short Term Cap Purch	40.2	1.3	171.0	-	-	-	-	-	-	286.9	-	449.3
	DSM Programs	6.8	6.7	7.2	7.2	7.1	7.3	7.3	7.2	7.1	7.2	26.6	42.9
	Or/Wa Wind	-	-	-	-	-	-	-	-	-	-	-	72.0
O	Or/Wa Geothermal	-	-	-	-	-	-	-	-	-	-	-	-
R	Or/Wa Cogen 1	-	-	-	94.0	94.0	14.1	-	-	-	-	-	-
/	Or/Wa Cogen 2	-	-	-	38.6	171.0	30.7	206.3	71.8	182.7	-	605.5	-
W	Or/Wa Combined Cycle	-	-	-	344.2	-	-	-	-	-	-	-	231.3
A	Or/Wa Bridger Transm	-	-	-	-	-	-	-	-	-	-	-	-
	Or/Wa Simple CycleCT	-	-	-	-	-	-	-	-	-	-	-	-
	Or/Wa Pump Storage	-	-	-	-	-	-	-	-	-	-	-	-
	Total	**6.8**	**6.7**	**7.2**	**484.0**	**272.1**	**52.1**	**213.6**	**79.0**	**189.8**	**7.2**	**632.1**	**346.2**
G	DSM Programs	0.6	0.6	0.7	0.6	0.7	0.6	0.7	0.7	0.6	0.7	2.4	3.2
O	Goshen Cogen 1	-	-	-	-	-	-	-	-	-	-	28.2	-
S	Goshen Cogen 2	-	-	-	-	-	-	-	-	-	-	-	-
H	Goshen Combined C CT	-	-	-	-	-	-	-	-	-	-	-	-
E	Goshen Bridger Trans	-	-	-	-	-	-	-	-	-	-	-	-
N	Goshen Hunter Transm	-	-	-	-	-	-	-	-	-	-	-	-
	Total	**0.6**	**0.6**	**0.7**	**0.6**	**0.7**	**0.6**	**0.7**	**0.7**	**0.6**	**0.7**	**30.6**	**3.2**
	DSM Programs	13.9	13.4	12.5	13.1	13.2	12.6	13.2	12.7	12.4	12.9	47.3	75.2
	Utah Geothermal	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Solar	-	-	-	-	-	-	-	-	-	-	-	-
U	Utah Cogen 1	-	-	-	14.1	-	-	-	-	-	-	-	-
T	Utah Cogen 2	-	-	-	-	-	-	-	-	-	-	497.6	1,175.6
A	Utah Combined Cycle	-	-	-	49.8	65.0	21.6	25.7	176.9	1.3	-	1,231.3	-
H	Utah IGCC Hunter 4	-	-	-	-	-	-	-	-	-	-	-	-
	Utah IGCC CT	-	-	-	-	-	-	-	-	-	-	-	-
	Utah PC Hunter 4	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Coal $23.25/Ton	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Coal $27.00/Ton	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Simple Cycle CT	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Pumped Storage	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Wyo/Ut Tran L	-	-	-	-	28.7	-	-	-	-	-	-	236.6
	Total	**13.9**	**13.4**	**12.5**	**77.0**	**106.9**	**34.2**	**38.9**	**189.6**	**13.7**	**12.9**	**1,776.2**	**1,487.4**
	DSM Programs	2.3	2.3	2.4	2.4	2.4	2.4	2.5	2.5	2.5	2.5	9.3	15.7
W	Wyo Wind	-	-	-	-	-	-	-	-	-	-	-	54.0
Y	Wyo Combined Cycle	-	-	-	-	-	-	-	-	-	-	-	-
O	Wyo IGCC Wyodak 2	-	-	-	-	-	-	-	-	-	-	-	-
M	Wyo IGCC CT	-	-	-	-	-	-	-	-	-	-	-	-
I	Wyo PC Wyodak 2	-	-	-	-	-	-	-	-	-	-	-	325.0
N	Wyo Coal $6.70/Ton	-	-	-	-	-	-	-	-	-	-	-	143.8
G	Wyo Simple Cycle CT	-	-	-	-	-	-	-	-	-	-	-	-
	Total	**2.3**	**2.3**	**2.4**	**2.4**	**2.4**	**2.4**	**2.5**	**2.5**	**2.5**	**2.5**	**9.3**	**538.5**
T	DSM Programs	23.6	23.0	22.8	23.3	23.4	22.9	23.7	23.1	22.6	23.3	85.6	137.0
O	Short Term Cap Purch	40.2	1.3	171.0	-	-	-	-	-	-	286.9	-	449.3
T	Cogeneration	-	-	-	146.7	265.0	44.8	206.3	71.8	182.7	-	1,131.3	1,175.6
A	Combined Cycle CT	-	-	-	394.0	65.0	21.6	25.7	176.9	1.3	-	1,231.3	231.3
L	Coal	-	-	-	-	-	-	-	-	-	-	-	468.8
	All Others	-	-	-	-	28.7	-	-	-	-	-	-	362.6
	Total	63.8	24.3	193.8	564.0	**382.1**	**89.3**	255.7	271.8	**206.6**	310.2	**2,448.2**	2,824.6

Annual Summer Peak Capacity (MW)

		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
S	Native Load	7,987.0	8,030.0	8,203.0	8,435.0	8,608.0	8,767.0	8,937.0	9,052.0	9,267.0	9,399.0	10,535.0	12,042.0
Y	Long Term Sales	2,377.0	2,239.0	2,120.0	1,890.0	1,647.0	1,647.0	1,327.0	1,324.0	1,324.0	1,249.0	1,149.0	1,104.0
S	DSM Programs	(24.0)	(47.0)	(69.0)	(93.0)	(116.0)	(139.0)	(163.0)	(186.0)	(208.0)	(232.0)	(317.0)	(454.0)
T	**Total Requirements**	**10,340.0**	**10,222.0**	**10,254.0**	**10,232.0**	**10,139.0**	**10,275.0**	**10,101.0**	**10,190.0**	**10,383.0**	**10,416.0**	**11,367.0**	**12,692.0**
E													
M	Existing Generation	9,179.0	9,185.0	9,007.0	8,836.0	8,810.0	8,690.0	8,694.0	8,463.0	8,467.0	8,292.0	7,362.0	6,176.0
	Long Term Purchases	1,351.1	1,345.1	1,225.6	1,076.0	1,076.0	1,076.0	676.0	676.0	626.0	626.1	558.3	536.8
L	Short Term Market	805.7	713.6	875.4	814.0	571.0	571.0	651.0	648.0	698.0	623.0	590.7	567.9
&	Short Term Cap Purch	40.2	1.3	171.0	-	-	-	-	-	-	286.9	-	449.3
R	New Resources	1.0	1.0	1.0	542.0	900.0	967.0	1,199.0	1,448.0	1,631.0	1,631.0	3,998.0	6,236.0
	Total Resources	**11,377.0**	**11,246.0**	**11,280.0**	**11,268.0**	**11,357.0**	**11,304.0**	**11,220.0**	**11,235.0**	**11,422.0**	**11,459.0**	**12,509.0**	**13,966.0**
	Reserves	1,037.0	1,023.0	1,026.0	1,035.0	1,219.0	1,028.0	1,118.0	1,044.0	1,039.0	1,043.0	1,142.0	1,274.0
	Reserve Margin (%)	10.0	10.0	10.0	10.1	12.0	10.0	11.1	10.2	10.0	10.0	10.0	10.0

Case gas.high Gas Fired Resource Sensitivity
Low Gas Resource Capital Cost
Cumulative Annual Energy (aMW)

		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
	DSM Programs	5.2	10.4	15.9	21.5	27.1	32.8	38.5	44.1	49.7	55.4	76.3	110.0
	Or/Wa Wind	-	-	-	-	-	-	-	-	-	-	-	80.5
O	Or/Wa Geothermal	-	-	-	-	-	-	-	-	-	-	-	-
R	Or/Wa Cogen 1	-	-	-	93.1	186.2	200.1	200.1	200.1	200.1	200.1	200.1	200.1
/	Or/Wa Cogen 2	-	-	-	38.2	207.5	237.9	442.1	513.2	693.9	693.9	1,293.3	1,293.3
W	Or/Wa Combined Cycle	-	-	-	340.7	340.7	340.7	340.7	340.7	338.[illegible]	340.7	314.9	523.9
A	Or/Wa Bridger Transm	-	-	-	-	-	-	-	-	-	-	-	-
	Or/Wa Simple CycleCT	-	-	-	-	-	-	-	-	-	-	-	-
	Or/Wa Pump Storage	-	-	-	-	-	-	-	-	-	-	-	-
	Total	**5.2**	**10.4**	**15.9**	**493.5**	**761.5**	**811.5**	**1,021.4**	**1,098.2**	**1,281.8**	**1,290.2**	**1,884.7**	**2,207.9**
G	DSM Programs	0.5	0.9	1.4	1.9	2.4	2.9	3.4	3.9	4.4	4.9	6.7	9.4
O	Goshen Cogen 1	-	-	-	-	-	-	-	-	-	-	27.9	27.9
S	Goshen Cogen 2	-	-	-	-	-	-	-	-	-	-	-	-
H	Goshen Combined C CT	-	-	-	-	-	-	-	-	-	-	-	-
E	Goshen Bridger Trans	-	-	-	-	-	-	-	-	-	-	-	-
N	Goshen Hunter Transm	-	-	-	-	-	-	-	-	-	-	-	-
	Total	**0.5**	**0.9**	**1.4**	**1.9**	**2.4**	**2.9**	**3.4**	**3.9**	**4.4**	**4.9**	**34.6**	**37.3**
	DSM Programs	9.1	17.7	25.8	34.3	42.9	51.0	59.5	67.8	75.8	84.2	115.3	165.5
	Utah Geothermal	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Solar	-	-	-	-	-	-	-	-	-	-	-	-
U	Utah Cogen 1	-	-	-	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0
T	Utah Cogen 2	-	-	-	-	-	-	-	-	-	-	492.6	1,650.8
A	Utah Combined Cycle	-	-	-	48.3	111.4	132.4	157.4	323.2	322.2	330.2	1,377.1	1,308.2
H	Utah IGCC Hunter 4	-	-	-	-	-	-	-	-	-	-	-	-
	Utah IGCC CT	-	-	-	-	-	-	-	-	-	-	-	-
	Utah PC Hunter 4	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Coal $23.25/Ton	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Coal $27.00/Ton	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Simple Cycle CT	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Pumped Storage	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Wyo/Ut Tran L	-	-	-	-	25.8	27.3	27.3	27.3	27.3	27.3	27.3	252.2
	Total	**9.1**	**17.7**	**25.8**	**96.5**	**194.0**	**224.6**	**258.1**	**432.2**	**439.2**	**455.7**	**2,026.2**	**3,390.7**
	DSM Programs	1.8	3.6	5.5	7.3	9.3	11.2	13.1	15.1	17.1	19.1	26.7	39.5
W	Wyo Wind	-	-	-	-	-	-	-	-	-	-	-	60.4
Y	Wyo Combined Cycle	-	-	-	-	-	-	-	-	-	-	-	-
O	Wyo IGCC Wyodak 2	-	-	-	-	-	-	-	-	-	-	-	-
M	Wyo IGCC CT	-	-	-	-	-	-	-	-	-	-	-	-
I	Wyo PC Wyodak 2	-	-	-	-	-	-	-	-	-	-	-	297.8
N	Wyo Coal $6.70/Ton	-	-	-	-	-	-	-	-	-	-	-	131.8
G	Wyo Simple Cycle CT	-	-	-	-	-	-	-	-	-	-	-	-
	Total	**1.8**	**3.6**	**5.5**	**7.3**	**9.3**	**11.2**	**13.1**	**15.1**	**17.1**	**19.1**	**26.7**	**529.6**
	DSM Programs	16.5	32.6	48.6	65.1	81.6	97.8	114.5	130.9	147.0	163.7	225.0	324.5
	Short Term Cap Purch	-	-	-	-	-	-	-	-	-	-	-	6.7
T	Cogeneration	-	-	-	145.2	407.6	452.0	656.2	727.3	908.0	908.0	2,027.9	3,186.2
O	Combined Cycle CT	-	-	-	389.0	452.1	473.1	498.1	664.0	660.2	671.0	1,692.0	1,832.1
T	Coal	-	-	-	-	-	-	-	-	-	-	-	429.6
A	Transmission	-	-	-	-	25.8	27.3	27.3	27.3	27.3	27.3	27.3	252.2
L	Simple Cycle	-	-	-	-	-	-	-	-	-	-	-	-
	All Others	-	-	-	-	-	-	-	-	-	-	-	140.9
	Total	**16.5**	**32.6**	**48.6**	**599.3**	**967.2**	**1,050.2**	**1,296.1**	**1,549.4**	**1,742.5**	**1,769.9**	**3,972.2**	**6,172.2**
		-	-	-	-	-	-	-	-	-	-	-	-
S	**Native Load**	5,677.0	5,744.6	5,881.5	6,002.1	6,122.6	6,248.3	6,392.6	6,540.1	6,691.4	6,813.5	7,622.3	8,696.7
Y	**Pump Storage/Peak Retu**	276.9	276.9	225.1	223.2	223.2	223.2	223.2	223.2	223.2	223.2	223.2	223.2
S	**Long Term Sales**	1,549.9	1,418.1	1,350.1	1,239.5	1,053.7	1,006.4	852.6	850.0	810.5	794.3	692.3	668.3
T	**Short Term Sales**	1,503.4	1,480.9	1,378.2	1,823.4	1,974.6	1,912.3	1,992.0	2,017.1	2,036.2	1,871.7	2,309.2	2,318.7
E	**DSM Programs**	(16.5)	(32.6)	(48.6)	(65.0)	(81.6)	(97.8)	(114.5)	(130.9)	(147.0)	(163.7)	(225.0)	(324.5)
M	**Total Requirements**	8,990.6	8,888.0	8,786.3	9,223.1	9,292.4	9,292.3	9,345.9	9,499.5	9,614.3	9,539.0	10,621.9	11,582.4
		-	-	-	-	-	-	-	-	-	-	-	-
	Existing Generation	7,380.1	7,374.9	7,330.0	7,372.4	7,274.1	7,237.8	7,245.1	7,133.6	7,136.[illegible]	7,043.6	6,181.1	5,070.7
L	**Long Term Purchases**	700.0	709.9	749.7	737.0	737.0	737.0	527.6	338.2	338.2	335.0	243.1	242.4
&	**Short Term Market**	805.7	708.2	600.4	502.5	316.7	269.4	325.0	511.8	472.3	459.3	449.2	426.3
R	**Short Term Purchases**	104.8	95.1	106.3	76.9	79.2	95.8	66.6	97.4	72.1	94.8	1.3	2.0
	New Resources	-	-	-	534.2	885.5	952.4	1,181.6	1,418.5	1,595.5	1,606.3	3,747.2	5,841.0
	Total Resources	8,990.6	8,888.0	8,786.3	9,223.0	9,292.5	9,292.3	9,345.9	9,499.5	9,614.4	9,539.0	10,621.9	11,582.4

NPV of 'Case gas.high Gas Fired Resource Sensitivity
Low Gas Resource Capital Cost'
Total System Production Cost in Millions of $2001

Year	Total System Production Cost (A)	Adder (B)	TSPC less Adder (C) (A)+(B)	Net PV Factor at 4.88% (D)	Net Present Value (E) (C)*(D)	
2001	$ 1,010		$ 1,010	1.0000	$ 1,010	*
2002	$ 939		$ 939	0.9534	$ 895	*
2003	$ 943		$ 943	0.9090	$ 857	*
2004	$ 876		$ 876	0.8667	$ 759	*
2005	$ 827		$ 827	0.8264	$ 683	*
2006	$ 840		$ 840	0.7879	$ 662	*
2007	$ 882		$ 882	0.7512	$ 663	*
2008	$ 942		$ 942	0.7162	$ 675	*
2009	$ 956		$ 956	0.6829	$ 653	*
2010	$ 1,005		$ 1,005	0.6511	$ 654	*
2011	$ 1,041		$ 1,041	0.6208	$ 646	
2012	$ 1,077		$ 1,077	0.5919	$ 637	
2013	$ 1,113		$ 1,113	0.5643	$ 628	
2014	$ 1,149		$ 1,149	0.5380	$ 618	
2015	$ 1,185		$ 1,185	0.5130	$ 608	*
2016	$ 1,241		$ 1,241	0.4891	$ 607	
2017	$ 1,297		$ 1,297	0.4663	$ 605	
2018	$ 1,353		$ 1,353	0.4446	$ 601	
2019	$ 1,409		$ 1,409	0.4239	$ 597	
2020	$ 1,464		$ 1,464	0.4042	$ 592	*
2021	$ 1,456		$ 1,456	0.3854	$ 561	
2022	$ 1,448		$ 1,448	0.3674	$ 532	
2023	$ 1,439		$ 1,439	0.3503	$ 504	
2024	$ 1,431		$ 1,431	0.3340	$ 478	
2025	$ 1,423		$ 1,423	0.3185	$ 453	
2026	$ 1,414		$ 1,414	0.3036	$ 429	
2027	$ 1,406		$ 1,406	0.2895	$ 407	
2028	$ 1,398		$ 1,398	0.2760	$ 386	
2029	$ 1,389		$ 1,389	0.2632	$ 366	
2030	$ 1,381		$ 1,381	0.2509	$ 346	*
2031	$ 1,381		$ 1,381	0.2392	$ 330	
2032	$ 1,381		$ 1,381	0.2281	$ 315	
2033	$ 1,381		$ 1,381	0.2175	$ 300	
2034	$ 1,381		$ 1,381	0.2073	$ 286	
2035	$ 1,381		$ 1,381	0.1977	$ 273	
2036	$ 1,381		$ 1,381	0.1885	$ 260	
2037	$ 1,381		$ 1,381	0.1797	$ 248	
2038	$ 1,381		$ 1,381	0.1713	$ 237	
2039	$ 1,381		$ 1,381	0.1634	$ 226	
2040	$ 1,381		$ 1,381	0.1558	$ 215	
				40 Year Net Present Value	**$ 20,803**	

Case gas.high Gas Fired Resource Sensitivity - High Gas Resource Capital Cost
Detail supporting the Total System Production Costs in $1,000

Total System Production Cost in $1,000

Totals	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020	2030
Long Term Purchases	450,879	391,791	368,827	298,778	228,464	219,532	234,062	279,177	267,979	278,187	260,401	277,665	280,524
Short Term Purchases	17,261	15,953	19,351	13,626	13,804	15,703	12,260	16,297	12,520	21,619	349	582	256
Existing Resource O&M	391,155	391,824	391,541	391,264	389,278	386,240	386,771	380,892	380,802	376,614	318,038	260,384	260,384
Potential Resource O&M	-	-	-	18,031	29,018	31,350	39,025	49,061	54,864	54,965	151,756	242,276	242,317
Fuel Existing	523,398	508,116	504,058	501,185	495,525	498,267	499,455	470,495	471,620	472,975	397,135	333,616	333,616
Fuel Potential	-	-	-	56,395	92,391	99,961	125,943	153,364	174,069	176,336	431,364	635,568	636,033
Short Term Sales	(373,422)	(370,206)	(342,669)	(433,937)	(470,727)	(463,582)	(478,866)	(483,320)	(490,474)	(458,902)	(560,781)	(572,722)	(596,678)
Total Operating Exp	1,009,271	937,479	941,108	845,342	777,754	787,472	818,650	865,967	871,380	921,793	998,262	1,177,367	1,156,451
Total Annual CC	-	-	-	28,629	46,617	49,122	59,975	71,887	79,203	77,373	178,553	274,843	211,511
Total Annual DSM	537	1,068	1,614	2,160	2,721	3,286	3,866	4,455	5,053	5,661	8,072	12,202	12,854
Total Real Costs	1,009,808	938,546	942,722	876,131	827,092	839,880	882,491	942,308	955,636	1,004,827	1,184,887	1,464,412	1,380,815
	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Real $2001 Costs	**1,009,808**	**938,546**	**942,722**	**876,131**	**827,092**	**839,880**	**882,491**	**942,308**	**955,636**	**1,004,827**	**1,184,887**	**1,464,412**	**1,380,815**

Annual Capital Cost

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020	2030
Coal	-	-	-	-	632	608	585	563	541	521	429	36,461	24,750
Nuclear	-	-	-	-	-	-	-	-	-	-	-	-	-
Oil/Gas	-	-	-	-	-	-	-	-	-	-	-	-	-
Combustion Turbi	-	-	-	-	-	-	-	-	-	-	-	-	-
Combined Cycle	-	-	-	20,465	23,824	24,519	25,403	34,532	33,807	33,029	86,873	85,418	67,694
Hydro	-	-	-	-	-	-	-	-	-	-	-	-	-
Cogen	-	-	-	8,165	22,161	23,994	33,987	36,791	44,854	43,823	91,251	134,107	106,267
Purchase	-	-	-	-	-	-	-	-	-	-	-	-	-
Renewable	-	-	-	-	-	-	-	-	-	-	-	18,857	12,800
Storage	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Annual CC	-	-	-	28,629	46,617	49,122	59,975	71,887	79,203	77,373	178,553	274,843	211,511

DSM PROGRAM

Total Annual DSM	537	1,068	1,614	2,160	2,721	3,286	3,866	4,455	5,053	5,661	8,072	12,202	12,854

Fuel Cost $	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020	2030
Fuel Existing	523,398	508,116	504,058	501,185	495,525	498,267	499,455	470,495	471,620	472,975	397,135	333,616	333,616
Fuel Potential	-	-	-	56,395	92,391	99,961	125,943	153,364	174,069	176,336	431,364	635,568	636,033

PacifiCorp
Integrated Resource Planning
RAMPP-6

No Transmission Cost
for Gas-Fired Resources

Case 125

Tab 23

Case trans.zero No Transmission Cost for Gas Fired Resources LESS Base.Case (Reference Case)

Incremental Summer Capacity (MW) of Resource Additions

		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
	Short Term Cap Purch	0.7	-	0.4	-	-	-	-	-	-	(116.2)	-	(18.3)
	DSM Programs	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.2)	(0.1)	(0.1)	(0.1)	(0.4)	(0.5)
	Or/Wa Wind	-	-	-	-	-	-	-	-	-	-	-	-
O	Or/Wa Geothermal	-	-	-	-	-	-	-	-	-	-	-	-
R	Or/Wa Cogen 1	-	-	-	-	-	-	-	-	-	-	-	-
/	Or/Wa Cogen 2	-	-	-	(382.9)	(171.6)	(37.0)	11.3	(34.2)	150.4	39.2	160.2	264.6
W	Or/Wa Combined Cycle	-	-	-	544.1	21.6	36.8	-	-	(207.8)	-	(101.1)	(266.6)
A	Or/Wa Bridger Transm	-	-	-	-	-	-	-	-	-	-	-	-
	Or/Wa Simple CycleCT	-	-	-	-	-	-	-	-	-	-	-	-
	Or/Wa Pump Storage	-	-	-	-	-	-	-	-	-	-	-	-
	Total	**(0.1)**	**(0.1)**	**(0.1)**	**161.1**	**(150.1)**	**(0.3)**	**11.1**	**(34.3)**	**(57.5)**	**39.1**	**58.7**	**(2.5)**
G	DSM Programs	-	-	-	-	-	-	-	-	-	-	-	-
O	Goshen Cogen 1	-	-	-	-	-	-	-	-	-	-	-	-
S	Goshen Cogen 2	-	-	-	-	-	-	-	-	-	-	-	-
H	Goshen Combined C CT	-	-	-	-	-	-	-	-	-	-	-	-
E	Goshen Bridger Trans	-	-	-	-	-	-	-	-	-	-	-	-
N	Goshen Hunter Transm	-	-	-	-	-	-	-	-	-	-	-	-
	Total	-	-	-	-	-	-	-	-	-	-	-	-
	DSM Programs	-	(0.1)	-	-	-	(0.1)	-	-	(0.1)	0.1	(0.1)	(0.2)
	Utah Geothermal	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Solar	-	-	-	-	-	-	-	-	-	-	-	-
U	Utah Cogen 1	-	-	-	-	-	-	-	-	-	-	-	-
T	Utah Cogen 2	-	-	-	-	-	-	-	-	-	-	(844.7)	844.7
A	Utah Combined Cycle	-	-	-	93.4	(17.7)	12.8	(4.8)	63.8	-	-	670.2	(294.3)
H	Utah IGCC Hunter 4	-	-	-	-	-	-	-	-	-	-	-	-
	Utah IGCC CT	-	-	-	-	-	-	-	-	-	-	-	-
	Utah PC Hunter 4	-	-	-	-	-	-	-	-	-	-	-	(400.0)
	Utah Coal $23.25/Ton	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Coal $27.00/Ton	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Simple Cycle CT	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Pumped Storage	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Wyo/Ut Tran L	-	-	-	-	(18.8)	-	-	-	-	-	-	18.8
	Total	-	**(0.1)**	-	**93.4**	**(36.5)**	**12.7**	**(4.8)**	**63.8**	**(0.1)**	**0.1**	**(174.6)**	**169.0**
	DSM Programs	-	-	-	-	-	-	-	-	-	-	-	-
W	Wyo Wind	-	-	-	-	-	-	-	-	-	-	-	-
Y	Wyo Combined Cycle	-	-	-	-	-	-	-	-	-	-	-	-
O	Wyo IGCC Wyodak 2	-	-	-	-	-	-	-	-	-	-	-	-
M	Wyo IGCC CT	-	-	-	-	-	-	-	-	-	-	-	-
I	Wyo PC Wyodak 2	-	-	-	-	-	-	-	-	-	-	-	-
N	Wyo Coal $6.70/Ton	-	-	-	-	-	-	-	-	-	-	-	(129.4)
G	Wyo Simple Cycle CT	-	-	-	-	-	-	-	-	-	-	-	-
	Total	-	-	-	-	-	-	-	-	-	-	-	**(129.4)**
T	DSM Programs	(0.1)	(0.2)	(0.1)	(0.1)	(0.1)	(0.2)	(0.2)	(0.1)	(0.2)	-	(0.5)	(0.7)
O	Short Term Cap Purc	0.7	0.3	0.4	-	-	-	-	-	-	(116.2)	-	(18.3)
T	Cogeneration	-	-	-	(382.9)	(171.6)	(37.0)	11.3	(34.2)	150.4	39.2	(684.5)	1,109.3
A	Combined Cycle CT	-	-	-	637.5	3.9	49.6	(4.8)	63.8	(207.8)	-	569.1	(560.9)
L	Coal	-	-	-	-	-	-	-	-	-	-	-	(529.4)
	All Others	-	-	-	-	(18.8)	-	-	-	-	-	-	18.8
	Total	**0.6**	**0.1**	**0.3**	**254.5**	**(186.6)**	**12.4**	**6.3**	**29.5**	**(57.6)**	**(77.0)**	**(115.9)**	**18.8**
	Annual Summer Peak Capacity (MW)												
S	Native Load	-	-	-	-	-	-	-	-	-	-	-	-
Y	Long Term Sales	-	-	-	-	-	-	-	-	-	-	-	-
S	DSM Programs	1.0	1.0	-	1.0	1.0	1.0	1.0	1.0	1.0	2.0	2.0	2.0
T	**Total Requirements**	**1.0**	**1.0**	-	**1.0**	**1.0**	**1.0**	**1.0**	**1.0**	**1.0**	**2.0**	**2.0**	**2.0**
E													
M	Existing Generation	-	-	-	-	19.0	19.0	19.0	19.0	19.0	19.0	19.0	-
	Long Term Purchases	(0.7)	(0.3)	0.6	-	-	-	-	-	-	0.2	-	0.3
L	Short Term Market	-	-	-	-	-	-	-	-	-	-	-	-
&	Short Term Cap Purch	0.7	0.3	0.4	-	-	-	-	-	-	(116.2)	-	(18.3)
R	New Resources	-	-	-	255.0	68.0	81.0	87.0	117.0	60.0	99.0	(17.0)	21.0
	Total Resources	-	-	**1.0**	**255.0**	**87.0**	**100.0**	**106.0**	**136.0**	**79.0**	**2.0**	**2.0**	**3.0**
	Reserves	-	-	-	254.0	87.0	99.0	106.0	135.0	78.0	-	-	-
	Reserve Margin (%)	-	-	-	2.5	0.9	1.0	1.1	1.3	0.8	-	-	-

Case trans.zero No Transmission Cost for Gas Fired Resources LESS Base.Case (Reference Case)

Cumulative Annual Energy (aMW)

		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
	DSM Programs	(0.2)	(0.5)	(0.7)	(1.0)	(1.3)	(1.6)	(1.8)	(2.1)	(2.4)	(2.7)	(3.7)	(4.8)
	Or/Wa Wind	-	-	-	-	-	-	-	-	-	-	-	-
O	Or/Wa Geothermal	-	-	-	-	-	-	-	-	-	-	-	-
R	Or/Wa Cogen 1	-	-	-	-	-	-	-	-	-	-	-	-
/	Or/Wa Cogen 2	-	-	-	(379.0)	(548.8)	(585.5)	(574.3)	(608.2)	(459.3)	(420.5)	(261.9)	-
W	Or/Wa Combined Cycle	-	-	-	538.5	560.0	596.4	596.4	596.4	392.2	390.8	286.0	42.2
A	Or/Wa Bridger Transm	-	-	-	-	-	-	-	-	-	-	-	-
	Or/Wa Simple CycleCT	-	-	-	-	-	-	-	-	-	-	-	-
	Or/Wa Pump Storage	-	-	-	-	-	-	-	-	-	-	-	-
	Total	**(0.2)**	**(0.5)**	**(0.7)**	**158.5**	**9.9**	**9.3**	**20.3**	**(13.8)**	**(69.6)**	**(32.4)**	**20.4**	**37.3**
G	DSM Programs	-	-	-	-	-	-	-	-	-	-	-	-
O	Goshen Cogen 1	-	-	-	-	-	-	-	-	-	-	-	-
S	Goshen Cogen 2	-	-	-	-	-	-	-	-	-	-	-	-
H	Goshen Combined C CT	-	-	-	-	-	-	-	-	-	-	-	-
E	Goshen Bridger Trans	-	-	-	-	-	-	-	-	-	-	-	-
N	Goshen Hunter Transm	-	-	-	-	-	-	-	-	-	-	-	-
	Total	-	-	-	-	-	-	-	-	-	-	-	-
	DSM Programs	(0.0)	(0.0)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.2)	(0.2)	(0.2)	(0.3)
	Utah Geothermal	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Solar	-	-	-	-	-	-	-	-	-	-	-	-
U	Utah Cogen 1	-	-	-	-	-	-	-	-	-	-	-	-
T	Utah Cogen 2	-	-	-	-	-	-	-	-	-	-	(819.0)	12.3
A	Utah Combined Cycle	-	-	-	83.8	61.8	85.9	79.6	133.6	133.2	143.2	794.0	442.6
H	Utah IGCC Hunter 4	-	-	-	-	-	-	-	-	-	-	-	-
	Utah IGCC CT	-	-	-	-	-	-	-	-	-	-	-	-
	Utah PC Hunter 4	-	-	-	-	-	-	-	-	-	-	-	(366.6)
	Utah Coal $23.25/Ton	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Coal $27.00/Ton	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Simple Cycle CT	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Pumped Storage	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Wyo/Ut Tran L	-	-	-	-	(16.8)	(17.8)	(17.8)	(17.8)	(17.8)	(17.8)	(17.8)	-
	Total	**(0.0)**	**(0.0)**	**(0.1)**	**83.7**	**44.8**	**68.0**	**61.7**	**115.7**	**115.2**	**125.2**	**(43.1)**	**88.0**
	DSM Programs	-	-	-	-	-	-	-	-	-	-	-	-
W	Wyo Wind	-	-	-	-	-	-	-	-	-	-	-	-
Y	Wyo Combined Cycle	-	-	-	-	-	-	-	-	-	-	-	-
O	Wyo IGCC Wyodak 2	-	-	-	-	-	-	-	-	-	-	-	-
M	Wyo IGCC CT	-	-	-	-	-	-	-	-	-	-	-	-
I	Wyo PC Wyodak 2	-	-	-	-	-	-	-	-	-	-	-	-
N	Wyo Coal $6.70/Ton	-	-	-	-	-	-	-	-	-	-	-	(118.6)
G	Wyo Simple Cycle CT	-	-	-	-	-	-	-	-	-	-	-	-
	Total	-	-	-	-	-	-	-	-	-	-	-	**(118.6)**
	DSM Programs	(0.3)	(0.5)	(0.8)	(1.1)	(1.4)	(1.6)	(2.0)	(2.2)	(2.6)	(2.9)	(4.0)	(5.2)
	Short Term Cap Purch	-	-	-	-	-	-	-	-	-	-	-	(0.4)
T	Cogeneration	-	-	-	(379.0)	(548.8)	(585.5)	(574.3)	(608.2)	(459.3)	(420.5)	(1,081.0)	12.3
O	Combined Cycle CT	-	-	-	622.3	621.7	682.4	676.0	730.0	525.4	533.9	1,080.0	484.7
T	Coal	-	-	-	-	-	-	-	-	-	-	-	(485.2)
A	Transmission	-	-	-	-	(16.8)	(17.8)	(17.8)	(17.8)	(17.8)	(17.8)	(17.8)	-
L	Simple Cycle	-	-	-	-	-	-	-	-	-	-	-	-
	All Others	-	-	-	-	-	-	-	-	-	-	-	-
	Total	(0.3)	(0.5)	(0.8)	242.2	54.7	77.3	81.9	101.8	45.7	92.8	(22.7)	6.3
		-	-	-	-	-	-	-	-	-	-	-	-
S	**Native Load**	-	-	-	-	-	-	-	-	-	-	-	-
Y	**Pump Storage/Peak Retu**	-	-	-	-	-	-	-	-	-	-	-	-
S	**Long Term Sales**	-	-	-	-	-	-	-	-	-	-	-	-
T	**Short Term Sales**	(0.3)	(0.5)	(0.7)	193.4	52.8	72.0	79.9	97.4	50.2	80.7	(5.4)	1.8
E	**DSM Programs**	0.2	0.5	0.7	1.0	1.3	1.6	1.9	2.3	2.5	2.9	3.9	5.2
M	**Total Requirements**	0.1	-	0.1	194.4	54.2	73.7	81.9	99.6	52.7	83.6	(1.5)	7.0
		-	-	-	-	-	-	-	-	-	-	-	-
	Existing Generation	-	-	-	(7.9)	17.3	15.4	14.1	13.7	15.2	15.6	17.0	(2.7)
L	**Long Term Purchases**	-	-	-	-	(0.1)	-	-	-	(0.1)	-	-	(0.4)
&	**Short Term Market**	-	-	-	-	-	-	-	-	-	-	-	-
R	**Short Term Purchases**	0.1	(0.1)	-	(41.0)	(19.2)	(20.8)	(16.0)	(18.1)	(10.7)	(27.7)	0.3	(1.8)
	New Resources	-	-	-	243.3	56.0	79.0	83.8	104.1	48.2	95.6	(18.8)	11.8
	Total Resources	0.1	-	0.1	194.4	54.1	73.7	81.9	99.6	52.7	83.6	(1.5)	7.0

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Case trans.zero No Transmission Cost for Gas Fired Resources LESS Base.Case (Reference Case)

Total System Production Cost in Millions of $2001

Year	Total System Production Cost (A)	Adder (B)	TSPC less Adder (C) (A)+(B)	Net PV Factor at 4.88% (D)	Net Present Value (E) (C)*(D)	
2001	$ 0.1	$ -	$ 0.1	1.0000	$ 0.1	*
2002	$ 0.1	$ -	$ 0.1	0.9534	$ 0.1	*
2003	$ 0.2	$ -	$ 0.2	0.9090	$ 0.2	*
2004	$ (9.1)	$ -	$ (9.1)	0.8667	$ (7.9)	*
2005	$ (3.5)	$ -	$ (3.5)	0.8264	$ (2.9)	*
2006	$ (4.7)	$ -	$ (4.7)	0.7879	$ (3.7)	*
2007	$ (6.4)	$ -	$ (6.4)	0.7512	$ (4.8)	*
2008	$ (6.0)	$ -	$ (6.0)	0.7162	$ (4.3)	*
2009	$ (6.1)	$ -	$ (6.1)	0.6829	$ (4.1)	*
2010	$ (14.3)	$ -	$ (14.3)	0.6511	$ (9.3)	*
2011	$ (16.2)	$ -	$ (16.2)	0.6208	$ (10.1)	
2012	$ (18.2)	$ -	$ (18.2)	0.5919	$ (10.8)	
2013	$ (20.2)	$ -	$ (20.2)	0.5643	$ (11.4)	
2014	$ (22.2)	$ -	$ (22.2)	0.5380	$ (12.0)	
2015	$ (24.2)	$ -	$ (24.2)	0.5130	$ (12.4)	*
2016	$ (22.7)	$ -	$ (22.7)	0.4891	$ (11.1)	
2017	$ (21.3)	$ -	$ (21.3)	0.4663	$ (9.9)	
2018	$ (19.8)	$ -	$ (19.8)	0.4446	$ (8.8)	
2019	$ (18.4)	$ -	$ (18.4)	0.4239	$ (7.8)	
2020	$ (16.9)	$ -	$ (16.9)	0.4042	$ (6.8)	*
2021	$ (16.1)	$ -	$ (16.1)	0.3854	$ (6.2)	
2022	$ (15.3)	$ -	$ (15.3)	0.3674	$ (5.6)	
2023	$ (14.5)	$ -	$ (14.5)	0.3503	$ (5.1)	
2024	$ (13.7)	$ -	$ (13.7)	0.3340	$ (4.6)	
2025	$ (12.9)	$ -	$ (12.9)	0.3185	$ (4.1)	
2026	$ (12.1)	$ -	$ (12.1)	0.3036	$ (3.7)	
2027	$ (11.3)	$ -	$ (11.3)	0.2895	$ (3.3)	
2028	$ (10.5)	$ -	$ (10.5)	0.2760	$ (2.9)	
2029	$ (9.7)	$ -	$ (9.7)	0.2632	$ (2.5)	
2030	$ (8.8)	$ -	$ (8.8)	0.2509	$ (2.2)	*
2031	$ (8.8)	$ -	$ (8.8)	0.2392	$ (2.1)	
2032	$ (8.8)	$ -	$ (8.8)	0.2281	$ (2.0)	
2033	$ (8.8)	$ -	$ (8.8)	0.2175	$ (1.9)	
2034	$ (8.8)	$ -	$ (8.8)	0.2073	$ (1.8)	
2035	$ (8.8)	$ -	$ (8.8)	0.1977	$ (1.7)	
2036	$ (8.8)	$ -	$ (8.8)	0.1885	$ (1.7)	
2037	$ (8.8)	$ -	$ (8.8)	0.1797	$ (1.6)	
2038	$ (8.8)	$ -	$ (8.8)	0.1713	$ (1.5)	
2039	$ (8.8)	$ -	$ (8.8)	0.1634	$ (1.4)	
2040	$ (8.8)	$ -	$ (8.8)	0.1558	$ (1.4)	
			40 Year Net Present Value		**$ (195)**	

Case trans.zero No Transmission Cost for Gas Fired Resources LESS Base.Case
Detail supporting the Total System Production Costs in $1,000

Total System Production Cost in $1,000

Totals	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020	2030
Long Term Purchases	21	23	9	(2,729)	(57)	846	475	(205)	(227)	(4,994)	33	(947)	(1,384)
Short Term Purchases	3	-	10	(7,579)	(3,615)	(4,217)	(2,834)	(3,515)	(1,803)	(8,211)	93	(522)	(205)
Existing Resource O&M	-	-	-	(1,209)	825	678	559	601	508	607	868	(335)	(233)
Potential Resource O&M	-	-	-	9,903	4,348	5,087	5,215	6,869	4,769	6,114	(2,709)	(1,660)	(1,893)
Fuel Existing	-	-	-	(21)	1,404	1,239	993	1,125	1,418	1,341	1,341	(80)	(80)
Fuel Potential	-	-	-	27,586	7,804	10,524	11,125	13,547	6,994	12,398	634	17,611	16,272
Short Term Sales	59	107	171	(42,522)	(11,389)	(16,201)	(18,503)	(20,779)	(11,229)	(16,843)	1,229	(1,056)	(424)
Total Operating Exp	83	130	190	(16,571)	(680)	(2,043)	(2,970)	(2,357)	430	(9,589)	1,488	13,011	12,055
Total Annual CC	-	-	-	7,519	(2,820)	(2,604)	(3,414)	(3,630)	(6,461)	(4,625)	(25,635)	(29,826)	(20,821)
Total Annual DSM	(4)	(8)	(12)	(16)	(21)	(25)	(30)	(35)	(40)	(44)	(61)	(80)	(80)
Total Real Costs	79	122	178	(9,069)	(3,521)	(4,672)	(6,414)	(6,022)	(6,071)	(14,258)	(24,208)	(16,896)	(8,847)
	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Real $2001 Costs	**1,009,808**	**938,546**	**942,722**	**876,401**	**827,576**	**840,948**	**883,350**	**943,070**	**956,564**	**1,005,824**	**1,190,042**	**1,460,936**	**1,375,347**

Annual Capital Cost

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020	2030
Coal	-	-	-	-	(413)	(397)	(382)	(368)	(354)	(340)	(280)	(25,876)	(17,565)
Nuclear	-	-	-	-	-	-	-	-	-	-	-	-	-
Oil/Gas	-	-	-	-	-	-	-	-	-	-	-	-	-
Combustion Turbi	-	-	-	-	-	-	-	-	-	-	-	-	-
Combined Cycle	-	-	-	28,504	27,282	28,739	27,735	28,592	18,413	17,989	35,012	9,315	7,255
Hydro	-	-	-	-	-	-	-	-	-	-	-	-	-
Cogen	-	-	-	(20,985)	(29,689)	(30,945)	(30,767)	(31,854)	(24,520)	(22,274)	(60,366)	(13,265)	(10,511)
Purchase	-	-	-	-	-	-	-	-	-	-	-	-	-
Renewable	-	-	-	-	-	-	-	-	-	-	-	-	-
Storage	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Annual CC	-	-	-	7,519	(2,820)	(2,604)	(3,414)	(3,630)	(6,461)	(4,625)	(25,635)	(29,826)	(20,821)

DSM PROGRAM

Total Annual DSM	(4)	(8)	(12)	(16)	(21)	(25)	(30)	(35)	(40)	(44)	(61)	(80)	(80)

Fuel Cost $	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020	2030
Fuel Existing	-	-	-	(21)	1,404	1,239	993	1,125	1,418	1,341	1,341	(80)	(80)
Fuel Potential	-	-	-	27,586	7,804	10,524	11,125	13,547	6,994	12,398	634	17,611	16,272

Case trans.zero No Transmission Cost for Gas Fired Resources

Incremental Summer Capacity (MW) of Resource Additions

		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
	Short Term Cap Purch	40.9	1.6	171.4	-	-	-	-	-	-	170.7	-	409.5
	DSM Programs	6.7	6.6	7.1	7.1	7.0	7.2	7.1	7.1	7.0	7.1	26.2	42.4
	Or/Wa Wind	-	-	-	-	-	-	-	-	-	-	-	72.0
O	Or/Wa Geothermal	-	-	-	-	-	-	-	-	-	-	-	-
R	Or/Wa Cogen 1	-	-	-	94.0	94.0	14.1	-	-	-	-	-	-
/	Or/Wa Cogen 2	-	-	-	-	-	-	217.6	17.7	150.4	39.2	617.1	264.6
W	Or/Wa Combined Cycle	-	-	-	544.1	21.6	36.8	-	-	-	-	-	-
A	Or/Wa Bridger Transm	-	-	-	-	-	-	-	-	-	-	-	-
	Or/Wa Simple CycleCT	-	-	-	-	-	-	-	-	-	-	-	-
	Or/Wa Pump Storage	-	-	-	-	-	-	-	-	-	-	-	-
	Total	**6.7**	**6.6**	**7.1**	**645.2**	**122.6**	**58.1**	**224.7**	**24.8**	**157.4**	**46.3**	**643.3**	**379.0**
G	DSM Programs	0.6	0.6	0.7	0.6	0.7	0.6	0.7	0.7	0.6	0.7	2.4	3.2
O	Goshen Cogen 1	-	-	-	-	-	-	-	-	-	-	28.2	-
S	Goshen Cogen 2	-	-	-	-	-	-	-	-	-	-	-	-
H	Goshen Combined C CT	-	-	-	-	-	-	-	-	-	-	-	-
E	Goshen Bridger Trans	-	-	-	-	-	-	-	-	-	-	-	-
N	Goshen Hunter Transm	-	-	-	-	-	-	-	-	-	-	-	-
	Total	**0.6**	**0.6**	**0.7**	**0.6**	**0.7**	**0.6**	**0.7**	**0.7**	**0.6**	**0.7**	**30.6**	**3.2**
	DSM Programs	13.9	13.3	12.5	13.1	13.2	12.5	13.2	12.7	12.3	13.0	47.2	75.0
	Utah Geothermal	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Solar	-	-	-	-	-	-	-	-	-	-	-	-
U	Utah Cogen 1	-	-	-	14.1	-	-	-	-	-	-	-	-
T	Utah Cogen 2	-	-	-	-	-	-	-	-	-	-	363.7	1,309.5
A	Utah Combined Cycle	-	-	-	141.7	50.6	25.[illegible]	8.1	249.6	-	-	1,238.2	-
H	Utah IGCC Hunter 4	-	-	-	-	-	-	-	-	-	-	-	-
	Utah IGCC CT	-	-	-	-	-	-	-	-	-	-	-	-
	Utah PC Hunter 4	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Coal $23.25/Ton	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Coal $27.00/Ton	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Simple Cycle CT	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Pumped Storage	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Wyo/Ut Tran L	-	-	-	-	-	-	-	-	-	-	-	265.3
	Total	**13.9**	**13.3**	**12.5**	**168.9**	**63.8**	**38.0**	**21.3**	**262.3**	**12.3**	**13.0**	**1,649.1**	**1,649.8**
	DSM Programs	2.3	2.3	2.4	2.4	2.4	2.4	2.5	2.5	2.5	2.5	9.3	15.7
W	Wyo Wind	-	-	-	-	-	-	-	-	-	-	-	54.0
Y	Wyo Combined Cycle	-	-	-	-	-	-	-	-	-	-	-	-
O	Wyo IGCC Wyodak 2	-	-	-	-	-	-	-	-	-	-	-	-
M	Wyo IGCC CT	-	-	-	-	-	-	-	-	-	-	-	-
I	Wyo PC Wyodak 2	-	-	-	-	-	-	-	-	-	-	-	325.0
N	Wyo Coal $6.70/Ton	-	-	-	-	-	-	-	-	-	-	-	17.2
G	Wyo Simple Cycle CT	-	-	-	-	-	-	-	-	-	-	-	-
	Total	**2.3**	**2.3**	**2.4**	**2.4**	**2.4**	**2.4**	**2.5**	**2.5**	**2.5**	**2.5**	**9.3**	**411.9**
T	DSM Programs	23.5	22.8	22.7	23.2	23.3	22.7	23.5	23.0	22.4	23.3	85.1	136.3
O	Short Term Cap Purch	40.9	1.6	171.4	-	-	-	-	-	-	170.7	-	409.5
T	Cogeneration	-	-	-	108.1	94.0	14.1	217.6	17.7	150.4	39.2	1,009.0	1,574.1
A	Combined Cycle CT	-	-	-	685.8	72.2	62.3	8.1	249.6	-	-	1,238.2	-
L	Coal	-	-	-	-	-	-	-	-	-	-	-	342.2
	All Others	-	-	-	-	-	-	-	-	-	-	-	391.3
	Total	**64.4**	**24.4**	**194.[illegible]**	**817.1**	**189.5**	**99.1**	**249.2**	**290.3**	**172.8**	**233.2**	**2,332.3**	**2,853.4**

Annual Summer Peak Capacity (MW)

		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
S	Native Load	7,987.0	8,030.0	8,203.0	8,435.0	8,608.0	8,767.0	8,937.0	9,052.0	9,267.[illegible]	9,399.0	10,535.0	12,042.0
Y	Long Term Sales	2,377.0	2,239.0	2,120.0	1,890.0	1,647.0	1,647.0	1,327.0	1,324.0	1,324.0	1,249.0	1,149.0	1,104.0
S	DSM Programs	([illegible]3.0)	(46.0)	(69.0)	(92.0)	(115.0)	(138.0)	(162.0)	(185.0)	(207.0)	(230.0)	(315.0)	(452.0)
T	**Total Requirements**	**[illegible]41.0**	**10,223.0**	**10,254.0**	**10,233.0**	**10,140.0**	**10,276.0**	**10,102.0**	**10,191.0**	**10,384.0**	**10,418.0**	**11,369.0**	**12,694.0**
E													
M	Existing Generation	9,179.0	9,185.0	9,007.0	8,836.0	8,840.0	8,719.0	8,723.0	8,492.0	8,496.0	8,321.0	7,391.0	6,176.0
	Long Term Purchases	1,350.4	1,344.8	1,226.2	1,076.0	1,076.0	1,076.0	676.0	676.0	626.0	626.3	558.3	536.6
L	Short Term Market	805.7	713.6	875.4	814.0	571.0	571.0	651.0	648.0	698.0	623.0	590.7	567.9
&	Short Term Cap Purch	40.9	1.6	171.4	-	-	-	-	-	-	170.7	-	409.5
R	New Resources	1.0	1.0	1.0	795.0	961.0	1,038.0	1,263.0	1,531.0	1,681.0	1,720.0	3,971.0	6,279.0
	Total Resources	**11,377.0**	**11,246.0**	**11,281.0**	**11,521.0**	**11,448.0**	**11,404.0**	**11,313.0**	**11,347.0**	**11,501.0**	**11,461.0**	**12,511.0**	**13,969.0**
	Reserves	1,037.0	1,023.0	1,026.0	1,287.0	1,308.0	[illegible]	1,211.0	1,155.0	1,117.0	1,043.0	1,142.0	1,274.0
	Reserve Margin (%)	10.0	10.0	10.0	12.6	12.9	[illegible]	12.0	11.3	10.8	10.0	10.0	10.0

Case trans.zero No Transmission Cost for Gas Fired Resources

Cumulative Annual Energy (aMW)

		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
	DSM Programs	5.0	9.9	15.2	20.6	25.9	31.3	36.7	42.0	47.3	52.7	72.6	105.2
	Or/Wa Wind	-	-	-	-	-	-	-	-	-	-	-	80.5
O	Or/Wa Geothermal	-	-	-	-	-	-	-	-	-	-	-	-
R	Or/Wa Cogen 1	-	-	-	93.1	186.2	200.1	200.1	200.1	200.1	200.1	200.1	200.1
/	Or/Wa Cogen 2	-	-	-	-	-	-	215.4	232.9	381.8	420.6	1,031.4	1,293.3
W	Or/Wa Combined Cycle	-	-	-	538.5	560.0	596.4	596.4	596.4	594.8	596.4	570.0	562.3
A	Or/Wa Bridger Transm	-	-	-	-	-	-	-	-	-	-	-	-
	Or/Wa Simple CycleCT	-	-	-	-	-	-	-	-	-	-	-	-
	Or/Wa Pump Storage	-	-	-	-	-	-	-	-	-	-	-	-
	Total	**5.0**	**9.9**	**15.2**	**652.2**	**772.0**	**827.8**	**1,048.6**	**1,071.5**	**1,224.1**	**1,269.9**	**1,874.1**	**2,241.5**
G	DSM Programs	0.5	0.9	1.4	1.9	2.4	2.9	3.4	3.9	4.4	4.9	6.7	9.4
O	Goshen Cogen 1	-	-	-	-	-	-	-	-	-	-	27.9	27.9
S	Goshen Cogen 2	-	-	-	-	-	-	-	-	-	-	-	-
H	Goshen Combined C CT	-	-	-	-	-	-	-	-	-	-	-	-
E	Goshen Bridger Trans	-	-	-	-	-	-	-	-	-	-	-	-
N	Goshen Hunter Transm	-	-	-	-	-	-	-	-	-	-	-	-
	Total	**0.5**	**0.9**	**1.4**	**1.9**	**2.4**	**2.9**	**3.4**	**3.9**	**4.4**	**4.9**	**34.6**	**37.3**
	DSM Programs	9.0	17.7	25.8	34.2	42.8	50.9	59.4	67.6	75.6	84.1	115.1	165.2
	Utah Geothermal	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Solar	-	-	-	-	-	-	-	-	-	-	-	-
U	Utah Cogen 1	-	-	-	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0
T	Utah Cogen 2	-	-	-	-	-	-	-	-	-	-	360.0	1,652.2
A	Utah Combined Cycle	-	-	-	130.6	174.9	211.4	217.6	448.8	442.0	461.5	1,519.9	1,400.2
H	Utah IGCC Hunter 4	-	-	-	-	-	-	-	-	-	-	-	-
	Utah IGCC CT	-	-	-	-	-	-	-	-	-	-	-	-
	Utah PC Hunter 4	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Coal $23.25/Ton	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Coal $27.00/Ton	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Simple Cycle CT	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Pumped Storage	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Wyo/Ut Tran L	-	-	-	-	-	-	-	-	-	-	-	252.2
	Total	**9.0**	**17.7**	**25.8**	**178.8**	**231.6**	**276.2**	**291.0**	**530.4**	**531.6**	**559.5**	**2,009.0**	**3,483.8**
	DSM Programs	1.8	3.6	5.5	7.3	9.3	11.2	13.1	15.1	17.1	19.1	26.7	39.5
W	Wyo Wind	-	-	-	-	-	-	-	-	-	-	-	60.4
Y	Wyo Combined Cycle	-	-	-	-	-	-	-	-	-	-	-	-
O	Wyo IGCC Wyodak 2	-	-	-	-	-	-	-	-	-	-	-	-
M	Wyo IGCC CT	-	-	-	-	-	-	-	-	-	-	-	-
I	Wyo PC Wyodak 2	-	-	-	-	-	-	-	-	-	-	-	297.8
N	Wyo Coal $6.70/Ton	-	-	-	-	-	-	-	-	-	-	-	15.8
G	Wyo Simple Cycle CT	-	-	-	-	-	-	-	-	-	-	-	-
	Total	**1.8**	**3.6**	**5.5**	**7.3**	**9.3**	**11.2**	**13.1**	**15.1**	**17.1**	**19.1**	**26.7**	**413.6**
	DSM Programs	16.3	32.1	47.8	64.0	80.3	96.2	112.6	128.6	144.5	160.8	221.1	319.3
	Short Term Cap Purch	-	-	-	-	-	-	-	-	-	-	-	6.0
T	Cogeneration	-	-	-	107.0	200.1	214.1	429.5	447.0	595.9	634.7	1,633.4	3,187.6
O	Combined Cycle CT	-	-	-	669.2	734.9	807.8	814.0	1,045.2	1,036.8	1,057.9	2,089.9	1,962.5
T	Coal	-	-	-	-	-	-	-	-	-	-	-	313.6
A	Transmission	-	-	-	-	-	-	-	-	-	-	-	252.2
L	Simple Cycle	-	-	-	-	-	-	-	-	-	-	-	-
	All Others	-	-	-	-	-	-	-	-	-	-	-	140.9
	Total	16.3	32.1	47.8	840.2	1,015.3	1,118.1	1,356.1	1,620.9	1,777.2	1,853.4	3,944.4	6,182.1
		-	-	-	-	-	-	-	-	-	-	-	-
S	**Native Load**	5,677.0	5,744.6	5,881.5	6,002.1	6,122.6	6,248.3	6,392.6	6,540.1	6,691.4	6,813.5	7,622.3	8,696.7
Y	**Pump Storage/Peak Retu**	276.9	276.9	225.1	223.2	223.2	223.2	223.2	223.2	223.2	223.2	223.2	223.2
S	**Long Term Sales**	1,549.9	1,418.1	1,350.1	1,239.5	1,053.7	1,006.4	852.6	850.0	810.5	794.3	692.3	668.3
T	**Short Term Sales**	1,503.1	1,480.4	1,377.5	2,015.4	2,029.6	1,984.1	2,062.8	2,095.7	2,084.5	1,953.3	2,307.4	2,324.1
E	**DSM Programs**	(16.3)	(32.1)	(47.9)	(64.0)	(80.3)	(96.2)	(112.6)	(128.6)	(144.5)	(160.8)	(221.1)	(319.3)
M	**Total Requirements**	8,990.7	8,888.0	8,786.4	9,416.1	9,348.8	9,365.8	9,418.6	9,580.3	9,665.1	9,623.5	10,624.1	11,593.0
		-	-	-	-	-	-	-	-	-	-	-	-
	Existing Generation	7,380.1	7,374.9	7,330.0	7,364.2	7,299.9	7,262.4	7,268.7	7,158.8	7,160.7	7,068.3	6,207.1	5,068.0
L	**Long Term Purchases**	700.0	709.9	749.7	737.0	736.9	737.0	527.6	338.2	338.1	335.0	243.1	241.6
&	**Short Term Market**	805.7	708.2	600.4	502.5	316.7	269.4	325.0	511.8	472.3	459.3	449.2	426.3
R	**Short Term Purchases**	104.9	95.0	106.3	36.2	60.3	75.1	53.8	79.3	61.3	68.3	1.4	0.2
	New Resources	-	-	-	776.2	935.0	1,021.9	1,243.5	1,492.3	1,632.7	1,692.5	3,723.3	5,856.8
	Total Resources	8,990.7	8,888.0	8,786.4	9,416.1	9,348.8	9,365.8	9,418.6	9,580.3	9,665.1	9,623.5	10,624.1	11,593.0

NPV of 'Case trans.zero No Transmission Cost for Gas Fired Resources'

Total System Production Cost in Millions of $2001

Year	Total System Production Cost (A)	Adder (B)	TSPC less Adder (C) (A)+(B)	Net PV Factor at 4.88% (D)	Net Present Value (E) (C)*(D)	
2001	$ 1,010		$ 1,010	1.0000	$ 1,010	*
2002	$ 939		$ 939	0.9534	$ 895	*
2003	$ 943		$ 943	0.9090	$ 857	*
2004	$ 867		$ 867	0.8667	$ 752	*
2005	$ 824		$ 824	0.8264	$ 681	*
2006	$ 836		$ 836	0.7879	$ 659	*
2007	$ 877		$ 877	0.7512	$ 659	*
2008	$ 937		$ 937	0.7162	$ 671	*
2009	$ 950		$ 950	0.6829	$ 649	*
2010	$ 992		$ 992	0.6511	$ 646	*
2011	$ 1,026		$ 1,026	0.6208	$ 637	
2012	$ 1,061		$ 1,061	0.5919	$ 628	
2013	$ 1,096		$ 1,096	0.5643	$ 619	
2014	$ 1,131		$ 1,131	0.5380	$ 609	
2015	$ 1,166		$ 1,166	0.5130	$ 598	*
2016	$ 1,221		$ 1,221	0.4891	$ 597	
2017	$ 1,277		$ 1,277	0.4663	$ 596	
2018	$ 1,333		$ 1,333	0.4446	$ 593	
2019	$ 1,388		$ 1,388	0.4239	$ 589	
2020	$ 1,444		$ 1,444	0.4042	$ 584	*
2021	$ 1,436		$ 1,436	0.3854	$ 553	
2022	$ 1,429		$ 1,429	0.3674	$ 525	
2023	$ 1,421		$ 1,421	0.3503	$ 498	
2024	$ 1,413		$ 1,413	0.3340	$ 472	
2025	$ 1,405		$ 1,405	0.3185	$ 448	
2026	$ 1,398		$ 1,398	0.3036	$ 424	
2027	$ 1,390		$ 1,390	0.2895	$ 402	
2028	$ 1,382		$ 1,382	0.2760	$ 381	
2029	$ 1,374		$ 1,374	0.2632	$ 362	
2030	$ 1,367		$ 1,367	0.2509	$ 343	*
2031	$ 1,367		$ 1,367	0.2392	$ 327	
2032	$ 1,367		$ 1,367	0.2281	$ 312	
2033	$ 1,367		$ 1,367	0.2175	$ 297	
2034	$ 1,367		$ 1,367	0.2073	$ 283	
2035	$ 1,367		$ 1,367	0.1977	$ 270	
2036	$ 1,367		$ 1,367	0.1885	$ 258	
2037	$ 1,367		$ 1,367	0.1797	$ 246	
2038	$ 1,367		$ 1,367	0.1713	$ 234	
2039	$ 1,367		$ 1,367	0.1634	$ 223	
2040	$ 1,367		$ 1,367	0.1558	$ 213	
			40 Year Net Present Value		**$ 20,597**	

Case trans.zero No Transmission Cost - for Gas Fired Resources
Detail supporting the Total System Production Costs in $1,000

Total System Production Cost in $1,000

Totals	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020	2030
Long Term Purchases	450,900	391,814	368,837	296,073	228,494	220,385	234,287	279,416	267,668	273,270	260,391	275,663	277,914
Short Term Purchases	17,264	15,953	19,361	6,100	10,243	11,727	10,114	12,768	10,719	13,902	361	60	68
Existing Resource O&M	391,155	391,824	391,541	390,059	390,562	387,365	387,776	381,954	381,772	377,682	319,366	260,151	260,151
Potential Resource O&M	-	-	-	27,403	32,997	35,876	43,110	54,592	59,273	60,735	151,844	242,997	242,935
Fuel Existing	523,398	508,116	504,058	501,112	497,583	500,285	501,327	472,599	473,767	475,028	399,188	333,493	333,493
Fuel Potential	-	-	-	83,201	99,115	109,087	134,262	163,180	179,859	187,719	430,400	646,642	646,145
Short Term Sales	(373,364)	(370,099)	(342,498)	(476,267)	(482,822)	(479,414)	(494,788)	(500,213)	(500,942)	(475,745)	(560,248)	(574,153)	(597,490)
Total Operating Exp	1,009,354	937,609	941,299	827,682	776,173	785,310	816,089	864,295	872,116	912,590	1,001,302	1,184,853	1,163,217
Total Annual CC	-	-	-	37,507	45,182	47,704	57,011	68,334	73,364	73,359	156,522	247,066	190,510
Total Annual DSM	533	1,060	1,602	2,143	2,700	3,261	3,836	4,420	5,013	5,617	8,011	12,122	12,773
Total Real Costs	1,009,887	938,669	942,900	867,333	824,055	836,275	876,936	937,049	950,493	991,566	1,165,834	1,444,040	1,366,500
	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Real $2001 Costs	**1,009,887**	**938,669**	**942,900**	**867,333**	**824,055**	**836,275**	**876,936**	**937,049**	**950,493**	**991,566**	**1,165,834**	**1,444,040**	**1,366,500**

Annual Capital Cost

Coal	-	-	-	-	-	-	-	-	-	-	-	27,501	18,668
Nuclear	-	-	-	-	-	-	-	-	-	-	-	-	-
Oil/Gas	-	-	-	-	-	-	-	-	-	-	-	-	-
Combustion Turbi	-	-	-	-	-	-	-	-	-	-	-	-	-
Combined Cycle	-	-	-	31,456	34,244	36,281	35,840	46,854	45,777	44,724	89,720	79,866	63,286
Hydro	-	-	-	-	-	-	-	-	-	-	-	-	-
Cogen	-	-	-	6,051	10,938	11,423	21,171	21,479	27,587	28,635	66,801	120,842	95,755
Purchase	-	-	-	-	-	-	-	-	-	-	-	-	-
Renewable	-	-	-	-	-	-	-	-	-	-	-	18,857	12,800
Storage	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Annual CC	-	-	-	37,507	45,182	47,704	57,011	68,334	73,364	73,359	156,522	247,066	190,510

DSM PROGRAM

Total Annual DSM	533	1,060	1,602	2,143	2,700	3,261	3,836	4,420	5,013	5,617	8,011	12,122	12,773

Fuel Cost $	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020	2030
Fuel Existing	523,398	508,116	504,058	501,112	497,583	500,285	501,327	472,599	473,767	475,028	399,188	333,493	333,493
Fuel Potential	-	-	-	83,201	99,115	109,087	134,262	163,180	179,859	187,719	430,400	646,642	646,145

PacifiCorp

Integrated Resource Planning

RAMPP-6

Renewable Cost Sensitivity

Cases 126, 127 & 128

Tab 24

Case renew.geotherm Renewable Cost Sensitivity
Escalation rate needed to bring Geothermal on by 2010
Incremental Summer Capacity (MW) of Resource Additions

		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
	Short Term Cap Purch	40.2	1.3	171.0	-	-	-	-	-	-	186.9	-	368.6
	DSM Programs	6.8	6.7	7.2	7.2	7.1	7.3	7.3	7.2	7.1	7.2	26.6	42.9
	Or/Wa Wind	-	-	-	-	-	-	-	-	-	-	-	72.0
O	Or/Wa Geothermal	-	-	-	-	-	-	-	-	-	-	300.0	-
R	Or/Wa Cogen 1	-	-	-	94.0	94.0	14.1	-	-	-	-	-	-
/	Or/Wa Cogen 2	-	-	-	382.9	170.9	34.9	207.4	126.7	93.7	-	290.1	-
W	Or/Wa Combined Cycle	-	-	-	-	-	-	-	-	14.1	-	-	313.7
A	Or/Wa Bridger Transm	-	-	-	-	-	-	-	-	-	-	-	-
	Or/Wa Simple CycleCT	-	-	-	-	-	-	-	-	-	-	-	-
	Or/Wa Pump Storage	-	-	-	-	-	-	-	-	-	-	-	-
	Total	**6.8**	**6.7**	**7.2**	**484.1**	**272.0**	**56.3**	**214.7**	**133.9**	**114.9**	**7.2**	**616.7**	**428.6**
G	DSM Programs	0.6	0.6	0.7	0.6	0.7	0.6	0.7	0.7	0.6	0.7	2.4	3.2
O	Goshen Cogen 1	-	-	-	-	-	-	-	-	-	-	28.2	-
S	Goshen Cogen 2	-	-	-	-	-	-	-	-	-	-	-	-
H	Goshen Combined C CT	-	-	-	-	-	-	-	-	-	-	-	-
E	Goshen Bridger Trans	-	-	-	-	-	-	-	-	-	-	-	-
N	Goshen Hunter Transm	-	-	-	-	-	-	-	-	-	-	-	-
	Total	**0.6**	**0.6**	**0.7**	**0.6**	**0.7**	**0.6**	**0.7**	**0.7**	**0.6**	**0.7**	**30.6**	**3.2**
	DSM Programs	13.9	13.4	12.5	13.1	13.2	12.6	13.2	12.7	12.4	12.9	47.3	75.2
	Utah Geothermal	-	-	-	-	-	-	-	100.0	100.0	100.0	-	-
	Utah Solar	-	-	-	-	-	-	-	-	-	-	-	-
U	Utah Cogen 1	-	-	-	14.1	-	-	-	-	-	-	-	-
T	Utah Cogen 2	-	-	-	-	-	-	-	-	-	-	894.3	778.9
A	Utah Combined Cycle	-	-	-	48.3	70.6	13.2	12.0	10.7	-	-	750.1	-
H	Utah IGCC Hunter 4	-	-	-	-	-	-	-	-	-	-	-	-
	Utah IGCC CT	-	-	-	-	-	-	-	-	-	-	-	-
	Utah PC Hunter 4	-	-	-	-	-	-	-	-	-	-	-	400.0
	Utah Coal $23.25/Ton	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Coal $27.00/Ton	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Simple Cycle CT	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Pumped Storage	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Wyo/Ut Tran L	-	-	-	-	15.7	-	-	-	-	-	-	249.6
	Total	**13.9**	**13.4**	**12.5**	**75.5**	**99.5**	**25.8**	**25.2**	**123.4**	**112.4**	**112.9**	**1,691.7**	**1,503.7**
	DSM Programs	2.3	2.3	2.4	2.4	2.4	2.4	2.5	2.5	2.5	2.5	9.3	15.7
W	Wyo Wind	-	-	-	-	-	-	-	-	-	-	-	54.0
Y	Wyo Combined Cycle	-	-	-	-	-	-	-	-	-	-	-	-
O	Wyo IGCC Wyodak 2	-	-	-	-	-	-	-	-	-	-	-	-
M	Wyo IGCC CT	-	-	-	-	-	-	-	-	-	-	-	-
I	Wyo PC Wyodak 2	-	-	-	-	-	-	-	-	-	-	-	325.0
N	Wyo Coal $6.70/Ton	-	-	-	-	-	-	-	-	-	-	-	138.9
G	Wyo Simple Cycle CT	-	-	-	-	-	-	-	-	-	-	-	-
	Total	**2.3**	**2.3**	**2.4**	**2.4**	**2.4**	**2.4**	**2.5**	**2.5**	**2.5**	**2.5**	**9.3**	**533.6**
T	DSM Programs	23.6	23.0	22.8	23.3	23.4	22.9	23.7	23.1	22.6	23.3	85.6	137.0
O	Short Term Cap Purch	40.2	1.3	171.0	-	-	-	-	-	-	186.9	-	368.6
T	Cogeneration	-	-	-	491.0	264.9	49.0	207.4	126.7	93.7	-	1,212.6	778.9
A	Combined Cycle CT	-	-	-	48.3	70.6	13.2	12.0	10.7	14.1	-	750.1	313.7
L	Coal	-	-	-	-	-	-	-	-	-	-	-	863.9
	All Others	-	-	-	-	15.7	-	-	100.0	100.0	100.0	300.0	375.6
	Total	**63.8**	**24.3**	**193.8**	**562.6**	**374.6**	**85.1**	**243.1**	**260.5**	**230.4**	**310.2**	**2,348.3**	**2,837.7**

Annual Summer Peak Capacity (MW)

		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
S	Native Load	7,987.0	8,030.0	8,203.0	8,435.0	8,608.0	8,767.0	8,937.0	9,052.0	9,267.0	9,399.0	10,535.0	12,042.0
Y	Long Term Sales	2,377.0	2,239.0	2,120.0	1,890.0	1,647.0	1,647.0	1,327.0	1,324.0	1,324.0	1,249.0	1,149.0	1,104.0
S	DSM Programs	(24.0)	(47.0)	(69.0)	(93.0)	(116.0)	(139.0)	(163.0)	(186.0)	(208.0)	(232.0)	(317.0)	(454.0)
T	**Total Requirements**	**10,340.0**	**10,222.0**	**10,254.0**	**10,232.0**	**10,139.0**	**10,275.0**	**10,101.0**	**10,190.0**	**10,383.0**	**10,416.0**	**11,367.0**	**12,692.0**
E													
M	Existing Generation	9,179.0	9,185.0	9,007.0	8,836.0	8,824.0	8,703.0	8,707.0	8,476.0	8,480.0	8,305.0	7,375.0	6,176.0
	Long Term Purchases	1,351.1	1,345.1	1,225.6	1,076.0	1,076.0	1,076.0	676.0	676.0	626.0	626.1	558.3	536.5
L	Short Term Market	805.7	713.6	875.4	814.0	571.0	571.0	651.0	648.0	698.0	623.0	590.7	567.9
&	Short Term Cap Purch	40.2	1.3	171.0	-	-	-	-	-	-	186.9	-	368.6
R	New Resources	1.0	1.0	1.0	540.0	892.0	954.0	1,173.0	1,411.0	1,618.0	1,718.0	3,985.0	6,317.0
	Total Resources	**11,377.0**	**11,246.0**	**11,280.0**	**11,266.0**	**11,363.0**	**11,304.0**	**11,207.0**	**11,211.0**	**11,422.0**	**11,459.0**	**12,509.0**	**13,966.0**
	Reserves	1,037.0	1,023.0	1,026.0	1,033.0	1,223.0	1,028.0	1,105.0	1,020.0	1,039.0	1,043.0	1,142.0	1,274.0
	Reserve Margin (%)	10.0	10.0	10.0	10.1	12.1	10.0	10.9	10.0	10.0	10.0	10.0	10.0

Case renew.geotherm Renewable Cost Sensitivity
Escalation rate needed to bring Geothermal on by 2010
Cumulative Annual Energy (aMW)

		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
	DSM Programs	5.2	10.4	15.9	21.5	27.1	32.8	38.5	44.1	49.7	55.4	76.3	110.0
	Or/Wa Wind	-	-	-	-	-	-	-	-	-	-	-	80.5
O	Or/Wa Geothermal	-	-	-	-	-	-	-	-	-	-	259.7	280.4
R	Or/Wa Cogen 1	-	-	-	93.1	186.2	200.1	200.1	200.1	200.1	200.1	200.1	200.1
/	Or/Wa Cogen 2	-	-	-	379.0	548.2	582.7	788.0	913.4	1,006.1	1,006.1	1,293.3	1,293.3
W	Or/Wa Combined Cycle	-	-	-	-	-	-	-	-	13.7	14.0	14.0	278.9
A	Or/Wa Bridger Transm	-	-	-	-	-	-	-	-	-	-	-	-
	Or/Wa Simple CycleCT	-	-	-	-	-	-	-	-	-	-	-	-
	Or/Wa Pump Storage	-	-	-	-	-	-	-	-	-	-	-	-
	Total	**5.2**	**10.4**	**15.9**	**493.6**	**761.5**	**815.7**	**1,026.6**	**1,157.7**	**1,269.7**	**1,275.7**	**1,843.5**	**2,243.3**
G	DSM Programs	0.5	0.9	1.4	1.9	2.4	2.9	3.4	3.9	4.4	4.9	6.7	9.4
O	Goshen Cogen 1	-	-	-	-	-	-	-	-	-	-	27.9	27.9
S	Goshen Cogen 2	-	-	-	-	-	-	-	-	-	-	-	-
H	Goshen Combined C CT	-	-	-	-	-	-	-	-	-	-	-	-
E	Goshen Bridger Trans	-	-	-	-	-	-	-	-	-	-	-	-
N	Goshen Hunter Transm	-	-	-	-	-	-	-	-	-	-	-	-
	Total	**0.5**	**0.9**	**1.4**	**1.9**	**2.4**	**2.9**	**3.4**	**3.9**	**4.4**	**4.9**	**34.6**	**37.3**
	DSM Programs	9.1	17.7	25.8	34.3	42.9	51.0	59.5	67.8	75.8	84.2	115.3	165.5
	Utah Geothermal	-	-	-	-	-	-	-	93.0	183.2	278.9	284.4	284.4
	Utah Solar	-	-	-	-	-	-	-	-	-	-	-	-
U	Utah Cogen 1	-	-	-	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0
T	Utah Cogen 2	-	-	-	-	-	-	-	-	-	-	869.2	1,613.6
A	Utah Combined Cycle	-	-	-	46.9	115.4	128.2	139.8	150.3	147.1	150.3	745.7	677.5
H	Utah IGCC Hunter 4	-	-	-	-	-	-	-	-	-	-	-	-
	Utah IGCC CT	-	-	-	-	-	-	-	-	-	-	-	-
	Utah PC Hunter 4	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Coal $23.25/Ton	-	-	-	-	-	-	-	-	-	-	-	366.6
	Utah Coal $27.00/Ton	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Simple Cycle CT	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Pumped Storage	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Wyo/Ut Tran L	-	-	-	-	14.1	15.0	15.0	15.0	15.0	15.0	15.0	252.2
	Total	**9.1**	**17.7**	**25.8**	**95.1**	**186.3**	**208.0**	**228.2**	**339.9**	**435.0**	**542.3**	**2,043.6**	**3,373.8**
	DSM Programs	1.8	3.6	5.5	7.3	9.3	11.2	13.1	15.1	17.1	19.1	26.7	39.5
W	Wyo Wind	-	-	-	-	-	-	-	-	-	-	-	60.4
Y	Wyo Combined Cycle	-	-	-	-	-	-	-	-	-	-	-	-
O	Wyo IGCC Wyodak 2	-	-	-	-	-	-	-	-	-	-	-	-
M	Wyo IGCC CT	-	-	-	-	-	-	-	-	-	-	-	-
I	Wyo PC Wyodak 2	-	-	-	-	-	-	-	-	-	-	-	-
N	Wyo Coal $6.70/Ton	-	-	-	-	-	-	-	-	-	-	-	297.8
G	Wyo Simple Cycle CT	-	-	-	-	-	-	-	-	-	-	-	127.4
	Total	**1.8**	**3.6**	**5.5**	**7.3**	**9.3**	**11.2**	**13.1**	**15.1**	**17.1**	**19.1**	**26.7**	**525.1**
	DSM Programs	16.5	32.6	48.6	65.1	81.6	97.8	114.5	130.9	147.0	163.7	225.0	324.5
	Short Term Cap Purch	-	-	-	-	-	-	-	-	-	-	-	5.5
T	Cogeneration	-	-	-	486.0	748.4	796.8	1,002.1	1,127.5	1,220.2	1,220.2	2,404.6	3,148.9
O	Combined Cycle CT	-	-	-	46.9	115.4	128.2	139.8	150.3	160.8	164.2	759.7	956.4
T	Coal	-	-	-	-	-	-	-	-	-	-	-	791.8
A	Transmission	-	-	-	-	14.1	15.0	15.0	15.0	15.0	15.0	15.0	252.2
L	Simple Cycle	-	-	-	-	-	-	-	-	-	-	-	-
	All Others	-	-	-	-	-	-	-	93.0	183.2	278.9	544.2	705.8
	Total	**16.5**	**32.6**	**48.6**	**598.0**	**959.5**	**1,037.8**	**1,271.4**	**1,516.6**	**1,726.2**	**1,841.9**	**3,948.4**	**6,185.0**
		-	-	-	-	-	-	-	-	-	-	-	-
S	**Native Load**	5,677.0	5,744.6	5,881.5	6,002.1	6,122.6	6,248.3	6,392.6	6,540.1	6,691.4	6,813.5	7,622.3	8,696.7
Y	**Pump Storage/Peak Retu**	276.9	276.9	225.1	223.2	223.2	223.2	223.2	223.2	223.2	223.2	223.2	223.2
S	**Long Term Sales**	1,549.9	1,418.1	1,350.1	1,239.5	1,053.7	1,006.4	852.6	850.0	810.5	794.3	692.3	668.3
T	**Short Term Sales**	1,503.4	1,480.9	1,378.2	1,822.0	1,978.3	1,911.9	1,983.0	2,000.6	2,034.4	1,935.7	2,304.0	2,331.4
E	**DSM Programs**	(16.5)	(32.6)	(48.6)	(65.0)	(81.6)	(97.8)	(114.5)	(130.9)	(147.0)	(163.7)	(225.0)	(324.5)
M	**Total Requirements**	8,990.6	8,888.0	8,786.3	9,221.7	9,296.2	9,292.0	9,336.9	9,483.0	9,612.5	9,603.0	10,616.8	11,595.1
		-	-	-	-	-	-	-	-	-	-	-	-
	Existing Generation	7,380.1	7,374.9	7,330.0	7,372.1	7,285.4	7,249.8	7,257.4	7,148.2	7,148.4	7,054.1	6,192.9	5,070.8
L	**Long Term Purchases**	700.0	709.9	749.7	737.0	737.0	737.0	527.6	338.2	338.2	335.0	243.1	241.2
&	**Short Term Market**	805.7	708.2	600.4	502.5	316.7	269.4	325.0	511.8	472.3	459.3	449.2	426.3
R	**Short Term Purchases**	104.8	95.1	106.3	77.2	79.3	95.9	70.0	99.1	74.5	76.3	8.3	1.9
	New Resources	-	-	-	532.9	877.8	940.0	1,156.9	1,385.7	1,579.1	1,678.3	3,723.4	5,855.0
	Total Resources	8,990.6	8,888.0	8,786.3	9,221.7	9,296.2	9,292.0	9,336.9	9,483.0	9,612.5	9,603.0	10,616.8	11,595.1

Case renew.solar Renewable Cost Sensitivity
Escalation rate needed to bring Solar on by 2010
Incremental Summer Capacity (MW) of Resource Additions

		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
	Short Term Cap Purch	40.1	1.4	171.1	-	-	-	-	-	-	167.8	-	-
	DSM Programs	6.8	6.7	7.2	7.2	7.1	7.3	7.3	7.2	7.1	7.2	26.6	42.9
	Or/Wa Wind	-	-	-	-	-	-	-	-	-	-	-	72.0
O	Or/Wa Geothermal	-	-	-	-	-	-	-	-	-	-	-	-
R	Or/Wa Cogen 1	-	-	-	94.0	94.0	14.1	-	-	-	-	-	-
/	Or/Wa Cogen 2	-	-	-	382.9	171.6	42.0	204.0	131.5	-	-	374.6	-
W	Or/Wa Combined Cycle	-	-	-	-	-	-	-	-	88.7	-	127.6	353.0
A	Or/Wa Bridger Transm	-	-	-	-	-	-	-	-	-	-	-	-
	Or/Wa Simple CycleCT	-	-	-	-	-	-	-	-	-	-	-	-
	Or/Wa Pump Storage	-	-	-	-	-	-	-	-	-	-	-	-
	Total	**6.8**	**6.7**	**7.2**	**484.1**	**272.7**	**63.4**	**211.3**	**138.7**	**95.8**	**7.2**	**528.8**	**467.9**
G	DSM Programs	0.6	0.6	0.7	0.6	0.7	0.6	0.7	0.7	0.6	0.7	2.4	3.2
O	Goshen Cogen 1	-	-	-	-	-	-	-	-	-	-	28.2	-
S	Goshen Cogen 2	-	-	-	-	-	-	-	-	-	-	-	-
H	Goshen Combined C CT	-	-	-	-	-	-	-	-	-	-	-	-
E	Goshen Bridger Trans	-	-	-	-	-	-	-	-	-	-	-	-
N	Goshen Hunter Transm	-	-	-	-	-	-	-	-	-	-	-	-
	Total	**0.6**	**0.6**	**0.7**	**0.6**	**0.7**	**0.6**	**0.7**	**0.7**	**0.6**	**0.7**	**30.6**	**3.2**
	DSM Programs	13.9	13.3	12.5	13.1	13.2	12.5	13.2	12.7	12.3	13.0	47.2	75.0
	Utah Geothermal	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Solar	-	-	-	-	-	-	-	-	119.1	119.2	595.7	42.0
U	Utah Cogen 1	-	-	-	14.1	-	-	-	-	-	-	-	-
T	Utah Cogen 2	-	-	-	-	-	-	-	-	-	-	1,404.0	269.2
A	Utah Combined Cycle	-	-	-	48.4	64.6	11.5	15.0	106.4	-	-	-	955.9
H	Utah IGCC Hunter 4	-	-	-	-	-	-	-	-	-	-	-	-
	Utah IGCC CT	-	-	-	-	-	-	-	-	-	-	-	-
	Utah PC Hunter 4	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Coal $23.25/Ton	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Coal $27.00/Ton	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Simple Cycle CT	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Pumped Storage	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Wyo/Ut Tran L	-	-	-	-	26.2	-	-	-	-	-	-	239.1
	Total	**13.9**	**13.3**	**12.5**	**75.6**	**104.0**	**24.0**	**28.2**	**119.1**	**131.4**	**132.2**	**2,046.9**	**1,581.2**
	DSM Programs	2.3	2.3	2.4	2.4	2.4	2.4	2.5	2.5	2.5	2.5	9.3	15.7
W	Wyo Wind	-	-	-	-	-	-	-	-	-	-	-	54.0
Y	Wyo Combined Cycle	-	-	-	-	-	-	-	-	-	-	-	-
O	Wyo IGCC Wyodak 2	-	-	-	-	-	-	-	-	-	-	-	-
M	Wyo IGCC CT	-	-	-	-	-	-	-	-	-	-	-	-
I	Wyo PC Wyodak 2	-	-	-	-	-	-	-	-	-	-	-	325.0
N	Wyo Coal $6.70/Ton	-	-	-	-	-	-	-	-	-	-	-	93.7
G	Wyo Simple Cycle CT	-	-	-	-	-	-	-	-	-	-	-	-
	Total	**2.3**	**2.3**	**2.4**	**2.4**	**2.4**	**2.4**	**2.5**	**2.5**	**2.5**	**2.5**	**9.3**	**488.4**
T	DSM Programs	23.6	22.9	22.8	23.3	23.4	22.8	23.7	23.1	22.5	23.4	85.5	136.8
O	Short Term Cap Purch	40.1	1.4	171.1	-	-	-	-	-	-	167.8	-	-
T	Cogeneration	-	-	-	491.0	265.6	56.1	204.0	131.5	-	-	1,806.8	269.2
A	Combined Cycle CT	-	-	-	48.4	64.6	11.5	15.0	106.4	88.7	-	127.6	1,308.9
L	Coal	-	-	-	-	-	-	-	-	-	-	-	418.7
	All Others	-	-	-	-	26.2	-	-	-	119.1	119.2	595.7	407.1
	Total	**63.7**	**24.3**	**193.9**	**562.7**	**379.8**	**90.4**	**242.7**	**261.0**	**230.3**	**310.4**	**2,615.6**	**2,540.7**

Annual Summer Peak Capacity (MW)

		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
S	Native Load	7,987.0	8,030.0	8,203.0	8,435.0	8,608.0	8,767.0	8,937.0	9,052.0	9,267.0	9,399.0	10,535.0	12,042.0
Y	Long Term Sales	2,377.0	2,239.0	2,120.0	1,890.0	1,647.0	1,647.0	1,327.0	1,324.0	1,324.0	1,249.0	1,149.0	1,104.0
S	DSM Programs	(24.0)	(46.0)	(69.0)	(92.0)	(116.0)	(139.0)	(162.0)	(185.0)	(208.0)	(232.0)	(317.0)	(454.0)
T	**Total Requirements**	**10,340.0**	**10,223.0**	**10,254.0**	**10,233.0**	**10,139.0**	**10,275.0**	**10,102.0**	**10,191.0**	**10,383.0**	**10,416.0**	**11,367.0**	**12,692.0**
E													
M	Existing Generation	9,179.0	9,185.0	9,007.0	8,836.0	8,813.0	8,692.0	8,696.0	8,465.0	8,469.0	8,294.0	7,364.0	6,176.0
	Long Term Purchases	1,351.2	1,345.0	1,225.5	1,076.0	1,076.0	1,076.0	676.0	676.0	626.0	626.2	558.3	536.1
L	Short Term Market	805.7	713.6	875.4	814.0	571.0	571.0	651.0	648.0	698.0	623.0	590.7	567.9
&	Short Term Cap Purch	40.1	1.4	171.1	-	-	-	-	-	-	167.8	-	-
R	New Resources	1.0	1.0	1.0	540.0	897.0	964.0	1,183.0	1,421.0	1,629.0	1,748.0	4,282.0	6,686.0
	Total Resources	**11,377.0**	**11,246.0**	**11,280.0**	**11,266.0**	**11,357.0**	**11,303.0**	**11,206.0**	**11,210.0**	**11,422.0**	**11,459.0**	**12,795.0**	**13,966.0**
	Reserves	1,037.0	1,023.0	1,026.0	1,033.0	1,218.0	1,028.0	1,105.0	1,020.0	1,039.0	1,043.0	1,428.0	1,274.0
	Reserve Margin (%)	10.0	10.0	10.0	10.1	12.0	10.0	10.9	10.0	10.0	10.0	12.6	10.0

Case renew.solar Renewable Cost Sensitivity
Escalation rate needed to bring Solar on by 2010
Cumulative Annual Energy (aMW)

		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
	DSM Programs	5.2	10.4	15.9	21.5	27.1	32.8	38.5	44.1	49.7	55.4	76.3	110.0
	Or/Wa Wind	-	-	-	-	-	-	-	-	-	-	-	80.5
O	Or/Wa Geothermal	-	-	-	-	-	-	-	-	-	-	-	-
R	Or/Wa Cogen 1	-	-	-	93.1	186.2	200.1	200.1	200.1	200.1	200.1	200.1	200.1
/	Or/Wa Cogen 2	-	-	-	379.0	548.8	590.5	792.3	922.6	922.6	922.6	1,293.3	1,293.3
W	Or/Wa Combined Cycle	-	-	-	-	-	-	-	-	87.8	87.8	211.9	532.4
A	Or/Wa Bridger Transm	-	-	-	-	-	-	-	-	-	-	-	-
	Or/Wa Simple CycleCT	-	-	-	-	-	-	-	-	-	-	-	-
	Or/Wa Pump Storage	-	-	-	-	-	-	-	-	-	-	-	-
	Total	**5.2**	**10.4**	**15.9**	**493.6**	**762.2**	**823.4**	**1,031.0**	**1,166.8**	**1,260.2**	**1,265.9**	**1,781.6**	**2,216.5**
G	DSM Programs	0.5	0.9	1.4	1.9	2.4	3.0	3.5	4.0	4.5	5.0	6.9	9.7
O	Goshen Cogen 1	-	-	-	-	-	-	-	-	-	-	27.9	27.9
S	Goshen Cogen 2	-		-	-	-	-	-	-	-	-	-	-
H	Goshen Combined C CT	-		-	-	-	-	-	-	-	-	-	-
E	Goshen Bridger Trans	-		-	-	-	-	-	-	-	-	-	-
N	Goshen Hunter Transm	-	-	-	-	-	-	-	-	-	-	-	-
	Total	**0.5**	**0.9**	**1.4**	**1.9**	**2.4**	**3.0**	**3.5**	**4.0**	**4.5**	**5.0**	**34.9**	**37.7**
	DSM Programs	9.1	17.7	25.8	34.3	42.9	51.1	59.7	67.9	76.0	84.5	115.8	166.3
	Utah Geothermal	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Solar	-	-	-	-	-	-	-	-	31.3	62.6	218.9	230.0
U	Utah Cogen 1	-	-	-	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0
T	Utah Cogen 2	-	-	-	-	-	-	-	-	-	-	1,359.5	1,651.3
A	Utah Combined Cycle	-		-	46.9	109.6	120.9	135.3	237.9	238.7	238.7	223.7	1,060.7
H	Utah IGCC Hunter 4	-	-	-	-	-	-	-	-	-	-	-	-
	Utah IGCC CT	-	-	-	-	-	-	-	-	-	-	-	-
	Utah PC Hunter 4	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Coal $23.25/Ton	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Coal $27.00/Ton	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Simple Cycle CT	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Pumped Storage	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Wyo/Ut Tran L	-	-	-	-	23.5	24.9	24.9	24.9	24.9	24.9	24.9	252.2
	Total	**9.1**	**17.7**	**25.8**	**95.2**	**190.0**	**210.8**	**233.9**	**344.7**	**384.8**	**424.6**	**1,956.8**	**3,374.4**
	DSM Programs	1.8	3.6	5.5	7.3	9.3	11.4	13.4	15.5	17.7	19.8	28.0	41.9
W	Wyo Wind	-	-	-	-	-	-	-	-	-	-	-	60.4
Y	Wyo Combined Cycle	-	-	-	-	-	-	-	-	-	-	-	-
O	Wyo IGCC Wyodak 2	-	-	-	-	-	-	-	-	-	-	-	-
M	Wyo IGCC CT	-	-	-	-	-	-	-	-	-	-	-	-
I	Wyo PC Wyodak 2	-	-	-	-	-	-	-	-	-	-	-	-
N	Wyo Coal $6.70/Ton	-	-	-	-	-	-	-	-	-	-	-	297.8
G	Wyo Simple Cycle CT	-	-	-	-	-	-	-	-	-	-	-	85.9
	Total	**1.8**	**3.6**	**5.5**	**7.3**	**9.3**	**11.4**	**13.4**	**15.5**	**17.7**	**19.8**	**28.0**	**486.0**
	DSM Programs	16.5	32.6	48.6	65.1	81.8	98.2	115.0	131.6	148.0	164.8	227.1	327.9
	Short Term Cap Purch	-	-	-	-	-	-	-	-	-	-	-	-
T	Cogeneration	-	-	-	486.0	749.0	804.6	1,006.4	1,136.7	1,136.7	1,136.7	2,894.8	3,186.6
O	Combined Cycle CT	-	-	-	46.9	109.6	120.9	135.3	237.9	326.4	326.4	435.6	1,593.2
T	Coal	-	-	-	-	-	-	-	-	-	-	-	383.8
A	Transmission	-	-	-	-	23.5	24.9	24.9	24.9	24.9	24.9	24.9	252.2
L	Simple Cycle	-	-	-	-	-	-	-	-	-	-	-	-
	All Others	-	-	-	-	-	-	-	-	31.3	62.6	218.9	370.9
	Total	**16.5**	**32.6**	**48.6**	**598.1**	**963.9**	**1,048.5**	**1,281.7**	**1,531.0**	**1,667.2**	**1,715.4**	**3,801.3**	**6,114.5**
		-	-	-	-	-	-	-	-	-	-	-	-
S	**Native Load**	5,677.0	5,744.6	5,881.5	6,002.1	6,122.6	6,248.3	6,392.6	6,540.1	6,691.4	6,813.5	7,622.3	8,696.7
Y	**Pump Storage/Peak Retu**	276.9	276.9	225.1	223.2	223.2	223.2	223.2	223.2	223.2	223.2	223.2	223.2
S	**Long Term Sales**	1,549.9	1,418.1	1,350.1	1,239.5	1,053.7	1,006.4	852.6	850.0	810.5	794.3	692.3	668.3
T	**Short Term Sales**	1,503.4	1,480.9	1,378.3	1,822.0	1,973.4	1,912.8	1,983.1	2,003.5	1,974.6	1,838.7	2,210.3	2,282.7
E	**DSM Programs**	(16.5)	(32.6)	(48.6)	(65.1)	(81.8)	(98.2)	(115.0)	(131.6)	(147.9)	(164.8)	(227.1)	(327.9)
M	**Total Requirements**	8,990.6	8,888.0	8,786.3	9,221.7	9,291.1	9,292.5	9,336.4	9,485.2	9,551.8	9,504.9	10,521.0	11,543.0
		-	-	-	-	-	-	-	-	-	-	-	-
	Existing Generation	7,380.1	7,374.9	7,330.0	7,372.1	7,276.0	7,240.1	7,247.7	7,138.4	7,139.1	7,045.3	6,186.4	5,073.6
L	**Long Term Purchases**	700.0	709.9	749.7	737.0	737.0	737.0	527.6	338.2	338.2	338.9	243.1	235.6
&	**Short Term Market**	805.7	708.2	600.4	502.5	316.7	269.4	325.0	511.8	472.3	459.3	449.2	426.3
R	**Short Term Purchases**	104.8	95.1	106.3	77.2	79.3	95.7	69.4	97.4	83.0	110.8	68.1	20.8
	New Resources	-	-	-	533.0	882.1	950.3	1,166.7	1,399.5	1,519.3	1,550.6	3,574.2	5,786.6
	Total Resources	8,990.6	8,888.0	8,786.	9,221.7	9,291.1	9,292.5	9,336.4	9,485.2	9,551.8	9,504.9	10,521.0	11,543.0

Case renew.wind Renewable Cost Sensitivity
Escalation rate needed to bring Wind on by 2010
Incremental Summer Capacity (MW) of Resource Additions

		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
	Short Term Cap Purch	40.2	1.3	171.0	-	-	-	-	-	-	286.9	-	427.8
	DSM Programs	6.8	6.7	7.2	7.2	7.1	7.3	7.3	7.2	7.1	7.2	26.6	42.9
	Or/Wa Wind	-	-	-	-	-	-	-	72.0	-	-	-	-
O	Or/Wa Geothermal	-	-	-	-	-	-	-	-	-	-	-	-
R	Or/Wa Cogen 1	-	-	-	94.0	94.0	14.1	-	-	-	-	-	-
/	Or/Wa Cogen 2	-	-	-	382.9	182.5	38.9	198.7	-	-	-	503.6	-
W	Or/Wa Combined Cycle	-	-	-	-	-	-	-	-	164.4	-	50.7	360.4
A	Or/Wa Bridger Transm	-	-	-	-	-	-	-	-	-	-	-	-
	Or/Wa Simple CycleCT	-	-	-	-	-	-	-	-	-	-	-	-
	Or/Wa Pump Storage	-	-	-	-	-	-	-	-	-	-	-	-
	Total	**6.8**	**6.7**	**7.2**	**484.1**	**283.6**	**60.3**	**206.0**	**79.2**	**171.5**	**7.2**	**580.9**	**403.3**
G	DSM Programs	0.6	0.6	0.7	0.6	0.7	0.6	0.7	0.7	0.6	0.7	2.4	3.2
O	Goshen Cogen 1	-	-	-	-	-	-	-	-	-	-	28.2	-
S	Goshen Cogen 2	-	-	-	-	-	-	-	-	-	-	-	-
H	Goshen Combined C CT	-	-	-	-	-	-	-	-	-	-	-	-
E	Goshen Bridger Trans	-	-	-	-	-	-	-	-	-	-	-	-
N	Goshen Hunter Transm	-	-	-	-	-	-	-	-	-	-	-	-
	Total	**0.6**	**0.6**	**0.7**	**0.6**	**0.7**	**0.6**	**0.7**	**0.7**	**0.6**	**0.7**	**30.6**	**3.2**
	DSM Programs	13.9	13.4	12.5	13.1	13.2	12.6	13.2	12.7	12.4	12.9	47.3	75.2
	Utah Geothermal	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Solar	-	-	-	-	-	-	-	-	-	-	-	-
U	Utah Cogen 1	-	-	-	14.1	-	-	-	-	-	-	-	-
T	Utah Cogen 2	-	-	-	-	-	-	-	-	-	-	1,186.8	486.4
A	Utah Combined Cycle	-	-	-	48.3	51.9	16.6	16.3	155.4	3.9	-	593.5	304.4
H	Utah IGCC Hunter 4	-	-	-	-	-	-	-	-	-	-	-	-
	Utah IGCC CT	-	-	-	-	-	-	-	-	-	-	-	-
	Utah PC Hunter 4	-	-	-	-	-	-	-	-	-	-	-	400.0
	Utah Coal $23.25/Ton	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Coal $27.00/Ton	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Simple Cycle CT	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Pumped Storage	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Wyo/Ut Tran L	-	-	-	-	51.2	-	-	-	-	-	-	214.1
	Total	**13.9**	**13.4**	**12.5**	**75.5**	**116.3**	**29.2**	**29.5**	**168.1**	**16.3**	**12.9**	**1,827.6**	**1,480.1**
	DSM Programs	2.3	2.3	2.4	2.4	2.4	2.4	2.5	2.5	2.5	2.5	9.3	15.7
W	Wyo Wind	-	-	-	-	-	-	-	25.0	29.0	-	-	-
Y	Wyo Combined Cycle	-	-	-	-	-	-	-	-	-	-	-	-
O	Wyo IGCC Wyodak 2	-	-	-	-	-	-	-	-	-	-	-	-
M	Wyo IGCC CT	-	-	-	-	-	-	-	-	-	-	-	-
I	Wyo PC Wyodak 2	-	-	-	-	-	-	-	-	-	-	-	325.0
N	Wyo Coal $6.70/Ton	-	-	-	-	-	-	-	-	-	-	-	146.6
G	Wyo Simple Cycle CT	-	-	-	-	-	-	-	-	-	-	-	-
	Total	**2.3**	**2.3**	**2.4**	**2.4**	**2.4**	**2.4**	**2.5**	**27.5**	**31.5**	**2.5**	**9.3**	**487.3**
T	DSM Programs	23.6	23.0	22.8	23.3	23.4	22.9	23.7	23.1	22.6	23.3	85.6	137.0
O	Short Term Cap Purch	40.2	1.3	171.0	-	-	-	-	-	-	286.9	-	427.8
T	Cogeneration	-	-	-	491.0	276.5	53.0	198.7	-	-	-	1,718.6	486.4
A	Combined Cycle CT	-	-	-	48.3	51.9	16.6	16.3	155.4	168.3	-	644.2	664.8
L	Coal	-	-	-	-	-	-	-	-	-	-	-	871.6
	All Others	-	-	-	-	51.2	-	-	97.0	29.0	-	-	214.1
	Total	**63.8**	**24.3**	**193.8**	**562.6**	**403.0**	**92.5**	**238.7**	**275.5**	**219.9**	**310.2**	**2,448.4**	**2,801.7**

Annual Summer Peak Capacity (MW)

		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
S	Native Load	7,987.0	8,030.0	8,203.0	8,435.0	8,608.0	8,767.0	8,937.0	9,052.0	9,267.0	9,399.0	10,535.0	12,042.0
Y	Long Term Sales	2,377.0	2,239.0	2,120.0	1,890.0	1,647.0	1,647.0	1,327.0	1,324.0	1,324.0	1,249.0	1,149.0	1,104.0
S	DSM Programs	(24.0)	(47.0)	(69.0)	(93.0)	(116.0)	(139.0)	(163.0)	(186.0)	(208.0)	(232.0)	(317.0)	(454.0)
T	**Total Requirements**	**10,340.0**	**10,222.0**	**10,254.0**	**10,232.0**	**10,139.0**	**10,275.0**	**10,101.0**	**10,190.0**	**10,383.0**	**10,416.0**	**11,367.0**	**12,692.0**
E													
M	Existing Generation	9,179.0	9,185.0	9,007.0	8,836.0	8,788.0	8,667.0	8,671.0	8,440.0	8,444.0	8,269.0	7,339.0	6,176.0
	Long Term Purchases	1,351.1	1,345.1	1,225.6	1,076.0	1,076.0	1,076.0	676.0	676.0	626.0	626.1	558.3	536.3
L	Short Term Market	805.7	713.6	875.4	814.0	571.0	571.0	651.0	648.0	698.0	623.0	590.7	567.9
&	Short Term Cap Purch	40.2	1.3	171.0	-	-	-	-	-	-	286.9	-	427.8
R	New Resources	1.0	1.0	1.0	540.0	920.0	990.0	1,205.0	1,457.0	1,654.0	1,654.0	4,021.0	6,258.0
	Total Resources	**11,377.0**	**11,246.0**	**11,280.0**	**11,266.0**	**11,355.0**	**11,304.0**	**11,203.0**	**11,221.0**	**11,422.0**	**11,459.0**	**12,509.0**	**13,966.0**
	Reserves	1,037.0	1,023.0	1,026.0	1,033.0	1,216.0	1,028.0	1,101.0	1,030.0	1,039.0	1,043.0	1,142.0	1,274.0
	Reserve Margin (%)	10.0	10.0	10.0	10.1	12.0	10.0	10.9	10.1	10.0	10.0	10.0	10.0

Case renew.wind Renewable Cost Sensitivity
Escalation rate needed to bring Wind on by 2010
Cumulative Annual Energy (aMW)

		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
	DSM Programs	5.2	10.4	15.9	21.5	27.1	32.8	38.5	44.1	49.7	55.4	76.3	110.0
	Or/Wa Wind	-	-	-	-	-	-	-	80.5	80.5	80.5	80.5	80.5
O	Or/Wa Geothermal	-	-	-	-	-	-	-	-	-	-	-	-
R	Or/Wa Cogen 1	-	-	-	93.1	186.2	200.1	200.1	200.1	200.1	200.1	200.1	200.1
/	Or/Wa Cogen 2	-	-	-	379.0	559.6	598.2	794.8	794.8	794.8	794.8	1,293.3	1,293.3
W	Or/Wa Combined Cycle	-	-	-	-	-	-	-	-	160.9	162.7	197.3	521.4
A	Or/Wa Bridger Transm	-	-	-	-	-	-	-	-	-	-	-	-
	Or/Wa Simple CycleCT	-	-	-	-	-	-	-	-	-	-	-	-
	Or/Wa Pump Storage	-	-	-	-	-	-	-	-	-	-	-	-
	Total	**5.2**	**10.4**	**15.9**	**493.6**	**772.9**	**831.1**	**1,033.5**	**1,119.6**	**1,286.1**	**1,293.6**	**1,847.6**	**2,205.4**
G	DSM Programs	0.5	0.9	1.4	1.9	2.4	2.9	3.4	3.9	4.4	4.9	6.7	9.4
O	Goshen Cogen 1	-	-	-	-	-	-	-	-	-	-	27.9	27.9
S	Goshen Cogen 2	-	-	-	-	-	-	-	-	-	-	-	-
H	Goshen Combined C CT	-	-	-	-	-	-	-	-	-	-	-	-
E	Goshen Bridger Trans	-	-	-	-	-	-	-	-	-	-	-	-
N	Goshen Hunter Transm	-	-	-	-	-	-	-	-	-	-	-	-
	Total	**0.5**	**0.9**	**1.4**	**1.9**	**2.4**	**2.9**	**3.4**	**3.9**	**4.4**	**4.9**	**34.6**	**37.3**
	DSM Programs	9.1	17.7	25.8	34.3	42.9	51.0	59.5	67.8	75.8	84.2	115.3	165.5
	Utah Geothermal	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Solar	-	-	-	-	-	-	-	-	-	-	-	-
U	Utah Cogen 1	-	-	-	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0
T	Utah Cogen 2	-	-	-	-	-	-	-	-	-	-	1,155.8	1,639.9
A	Utah Combined Cycle	-	-	-	46.9	97.2	113.4	129.2	275.9	279.6	283.7	699.6	954.6
H	Utah IGCC Hunter 4	-	-	-	-	-	-	-	-	-	-	-	-
	Utah IGCC CT	-	-	-	-	-	-	-	-	-	-	-	-
	Utah PC Hunter 4	-	-	-	-	-	-	-	-	-	-	-	366.6
	Utah Coal $23.25/Ton	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Coal $27.00/Ton	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Simple Cycle CT	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Pumped Storage	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Wyo/Ut Tran L	-	-	-	-	46.0	48.7	48.7	48.7	48.7	48.7	48.7	252.2
	Total	**9.1**	**17.7**	**25.8**	**95.1**	**200.0**	**227.0**	**251.4**	**406.3**	**418.0**	**430.6**	**2,033.4**	**3,392.8**
	DSM Programs	1.8	3.6	5.5	7.3	9.3	11.2	13.1	15.1	17.1	19.1	26.7	39.5
W	Wyo Wind	-	-	-	-	-	-	-	27.9	60.4	60.4	60.4	60.4
Y	Wyo Combined Cycle	-	-	-	-	-	-	-	-	-	-	-	-
O	Wyo IGCC Wyodak 2	-	-	-	-	-	-	-	-	-	-	-	-
M	Wyo IGCC CT	-	-	-	-	-	-	-	-	-	-	-	-
I	Wyo PC Wyodak 2	-	-	-	-	-	-	-	-	-	-	-	297.8
N	Wyo Coal $6.70/Ton	-	-	-	-	-	-	-	-	-	-	-	134.4
G	Wyo Simple Cycle CT	-	-	-	-	-	-	-	-	-	-	-	-
	Total	**1.8**	**3.6**	**5.5**	**7.3**	**9.3**	**11.2**	**13.1**	**43.1**	**77.5**	**79.5**	**87.1**	**532.2**
	DSM Programs	16.5	32.6	48.6	65.1	81.6	97.8	114.5	130.9	147.0	163.7	225.0	324.5
	Short Term Cap Purch	-	-	-	-	-	-	-	-	-	-	-	6.4
T	Cogeneration	-	-	-	486.0	759.8	812.3	1,008.9	1,008.9	1,008.9	1,008.9	2,691.2	3,175.3
O	Combined Cycle CT	-	-	-	46.9	97.2	113.4	129.2	275.9	440.5	446.5	896.9	1,475.9
T	Coal	-	-	-	-	-	-	-	-	-	-	-	798.8
A	Transmission	-	-	-	-	46.0	48.7	48.7	48.7	48.7	48.7	48.7	252.2
L	Simple Cycle	-	-	-	-	-	-	-	-	-	-	-	-
	All Others	-	-	-	-	-	-	-	108.5	140.9	140.9	140.9	140.9
	Total	**16.5**	**32.6**	**48.6**	**598.0**	**984.6**	**1,072.2**	**1,301.4**	**1,572.9**	**1,786.0**	**1,808.7**	**4,002.7**	**6,174.0**
		-	-	-	-	-	-	-	-	-	-	-	-
S	**Native Load**	5,677.0	5,744.6	5,881.5	6,002.1	6,122.6	6,248.3	6,392.6	6,540.1	6,691.4	6,813.5	7,622.3	8,696.7
Y	**Pump Storage/Peak Retu**	276.9	276.9	225.1	223.2	223.2	223.2	223.2	223.2	223.2	223.2	223.2	223.2
S	**Long Term Sales**	1,549.9	1,418.1	1,350.1	1,239.5	1,053.7	1,006.4	852.6	850.0	810.5	794.3	692.3	668.3
T	**Short Term Sales**	1,503.4	1,480.9	1,378.2	1,822.0	1,972.3	1,916.9	1,980.6	2,021.1	2,056.8	1,887.9	2,318.3	2,322.3
E	**DSM Programs**	(16.5)	(32.6)	(48.6)	(65.0)	(81.6)	(97.8)	(114.5)	(130.9)	(147.0)	(163.7)	(225.0)	(324.5)
M	**Total Requirements**	8,990.6	8,888.0	8,786.3	9,221.7	9,290.2	9,297.0	9,334.4	9,503.5	9,634.9	9,555.1	10,631.0	11,586.0
		-	-	-	-	-	-	-	-	-	-	-	-
	Existing Generation	7,380.1	7,374.9	7,330.0	7,372.1	7,253.1	7,219.6	7,224.5	7,115.6	7,115.9	7,022.7	6,160.5	5,072.5
L	**Long Term Purchases**	700.0	709.9	749.7	737.0	737.0	737.0	527.6	338.2	338.2	335.0	243.1	242.0
&	**Short Term Market**	805.7	708.2	600.4	502.5	316.7	269.4	325.0	511.8	472.3	459.3	449.2	426.3
R	**Short Term Purchases**	104.8	95.1	106.3	77.2	80.5	96.6	70.4	95.9	69.5	93.2	0.7	2.0
	New Resources	-	-	-	532.9	903.0	974.4	1,186.8	1,442.0	1,639.0	1,645.0	3,777.7	5,843.2
	Total Resources	8,990.6	8,888.0	8,786.3	9,221.7	9,290.2	9,297.0	9,334.4	9,503.5	9,634.9	9,555.1	10,631.0	11,586.0

PacifiCorp

Integrated Resource Planning

RAMPP-6

Utah Grow 50% Faster

Case 129

Tab 25

Case utah.grow Utah grows 50% faster to 2010 then 25% faster to 2020 LESS Base.Case (Reference Case)

Incremental Summer Capacity (MW) of Resource Additions

		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
	Short Term Cap Purch	-	149.6	174.9	-	-	-	-	-	-	78.1	233.5	393.7
	DSM Programs	-	-	-	-	-	-	-	-	-	-	-	-
	Or/Wa Wind	-	-	-	-	-	-	-	-	-	-	-	-
O	Or/Wa Geothermal	-	-	-	-	-	-	-	-	-	-	-	-
R	Or/Wa Cogen 1	-	-	-	-	-	-	-	-	-	-	-	-
/	Or/Wa Cogen 2	-	-	-	17.9	(11.9)	29.3	(21.2)	26.4	-	-	(40.5)	-
W	Or/Wa Combined Cycle	-	-	-	-	-	-	-	-	(14.3)	-	21.0	(57.8)
A	Or/Wa Bridger Transm	-	-	-	-	-	-	-	-	-	-	-	-
	Or/Wa Simple CycleCT	-	-	-	-	-	-	-	-	-	-	-	-
	Or/Wa Pump Storage	-	-	-	-	-	-	-	-	-	-	-	-
	Total	-	-	-	**17.9**	**(11.9)**	**29.3**	**(21.2)**	**26.4**	**(14.3)**	-	**(19.5)**	**(57.8)**
G	DSM Programs	-	-	-	-	-	-	-	-	-	-	-	-
O	Goshen Cogen 1	-	-	-	-	-	-	-	-	-	-	-	-
S	Goshen Cogen 2	-	-	-	-	-	-	-	-	-	-	-	-
H	Goshen Combined C CT	-	-	-	-	-	-	-	-	-	-	-	-
E	Goshen Bridger Trans	-	-	-	-	-	-	-	-	-	-	-	-
N	Goshen Hunter Transm	-	-	-	-	-	-	-	-	-	-	-	-
	Total	-	-	-	-	-	-	-	-	-	-	-	-
	DSM Programs	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Geothermal	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Solar	-	-	-	-	-	-	-	-	-	-	-	-
U	Utah Cogen 1	-	-	-	-	-	-	-	-	-	-	-	-
T	Utah Cogen 2	-	-	-	-	-	-	-	-	-	-	463.9	(463.9)
A	Utah Combined Cycle	-	-	-	155.5	2.1	54.8	33.3	85.8	-	-	(116.8)	1,053.1
H	Utah IGCC Hunter 4	-	-	-	-	-	-	-	-	-	-	-	-
	Utah IGCC CT	-	-	-	-	-	-	-	-	-	-	-	-
	Utah PC Hunter 4	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Coal $23.25/Ton	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Coal $27.00/Ton	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Simple Cycle CT	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Pumped Storage	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Wyo/Ut Tran L	-	-	-	-	22.2	-	-	-	-	-	-	(22.2)
	Total	-	-	-	**155.5**	**24.3**	**54.8**	**33.3**	**85.8**	-	-	**347.1**	**567.0**
	DSM Programs	-	-	-	-	-	-	-	-	-	-	-	-
W	Wyo Wind	-	-	-	-	-	-	-	-	-	-	-	-
Y	Wyo Combined Cycle	-	-	-	-	-	-	-	-	-	-	-	-
O	Wyo IGCC Wyodak 2	-	-	-	-	-	-	-	-	-	-	-	-
M	Wyo IGCC CT	-	-	-	-	-	-	-	-	-	-	-	-
I	Wyo PC Wyodak 2	-	-	-	-	-	-	-	-	-	-	-	-
N	Wyo Coal $6.70/Ton	-	-	-	-	-	-	-	-	-	-	-	(5.5)
G	Wyo Simple Cycle CT	-	-	-	-	-	-	-	-	-	-	-	-
	Total	-	-	-	-	-	-	-	-	-	-	-	**(5.5)**
T	DSM Programs	-	-	-	-	-	-	-	-	-	-	-	-
O	Short Term Cap Purch	-	149.6	174.9	-	-	-	-	-	-	78.1	233.5	393.7
T	Cogeneration	-	-	-	17.9	(11.9)	29.3	(21.2)	26.4	-	-	423.4	(463.9)
A	Combined Cycle CT	-	-	-	155.5	2.1	54.8	33.3	85.8	(14.3)	-	(95.8)	995.3
L	Coal	-	-	-	-	-	-	-	-	-	-	-	(5.5)
	All Others	-	-	-	-	22.2	-	-	-	-	-	-	(22.2)
	Total	-	**149.6**	**174.9**	**173.4**	**12.4**	**84.1**	**12.1**	**112.2**	**(14.3)**	**78.1**	**561.1**	**897.4**

Annual Summer Peak Capacity (MW)

		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
S	Native Load	-	136.0	159.0	166.0	190.0	225.0	246.0	338.0	325.0	396.0	835.0	1,459.0
Y	Long Term Sales	-	-	-	-	-	-	-	-	-	-	-	-
S	DSM Programs	-	-	-	-	-	-	-	-	-	-	-	-
T	**Total Requirements**	-	**136.0**	**159.0**	**166.0**	**190.0**	**225.0**	**246.0**	**338.0**	**325.0**	**396.0**	**835.0**	**1,459.0**
E													
M	Existing Generation	-	-	-	-	(23.0)	(23.0)	(23.0)	(23.0)	(23.0)	(23.0)	(23.0)	-
	Long Term Purchases	-	(0.6)	0.1	-	-	-	-	-	-	(0.1)	(0.5)	0.3
L	Short Term Market	-	-	-	-	-	-	-	-	-	-	-	-
&	Short Term Cap Purch	-	149.6	174.9	-	-	-	-	-	-	78.1	233.5	393.7
R	New Resources	-	-	-	174.0	186.0	270.0	282.0	394.0	380.0	380.0	708.0	1,211.0
	Total Resources	-	**149.0**	**175.0**	**174.0**	**163.0**	**247.0**	**259.0**	**371.0**	**357.0**	**435.0**	**918.0**	**1,605.0**
	Reserves	-	14.0	16.0	8.0	(26.0)	23.0	14.0	34.0	33.0	39.0	83.0	146.0
	Reserve Margin (%)	-	-	-	(0.1)	(0.4)	-	(0.1)	-	-	-	-	-

Case utah.grow Utah grows 50% faster to 2010 then 25% faster to 2020 LESS Base.Case (Reference Case)

Cumulative Annual Energy (aMW)

		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
	DSM Programs	-	-	-	-	-	-	-	-	-	-	-	-
	Or/Wa Wind	-	-	-	-	-	-	-	-	-	-	-	-
O	Or/Wa Geothermal	-	-	-	-	-	-	-	-	-	-	-	-
R	Or/Wa Cogen 1	-	-	-	-	-	-	-	-	-	-	-	-
/	Or/Wa Cogen 2	-	-	-	17.8	6.0	34.9	14.0	40.1	40.1	40.1	-	-
W	Or/Wa Combined Cycle	-	-	-	-	-	-	-	-	(14.7)	(14.2)	8.1	(41.7)
A	Or/Wa Bridger Transm	-	-	-	-	-	-	-	-	-	-	-	-
	Or/Wa Simple CycleCT	-	-	-	-	-	-	-	-	-	-	-	-
	Or/Wa Pump Storage	-	-	-	-	-	-	-	-	-	-	-	-
	Total	-	-	-	**17.8**	**6.0**	**34.9**	**14.0**	**40.1**	**25.3**	**25.9**	**8.1**	**(41.7)**
G	DSM Programs	-	-	-	-	-	-	-	-	-	-	-	-
O	Goshen Cogen 1	-	-	-	-	-	-	-	-	-	-	-	-
S	Goshen Cogen 2	-	-	-	-	-	-	-	-	-	-	-	-
H	Goshen Combined C CT	-	-	-	-	-	-	-	-	-	-	-	-
E	Goshen Bridger Trans	-	-	-	-	-	-	-	-	-	-	-	-
N	Goshen Hunter Transm	-	-	-	-	-	-	-	-	-	-	-	-
	Total	-	-	-	-	-	-	-	-	-	-	-	-
	DSM Programs	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Geothermal	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Solar	-	-	-	-	-	-	-	-	-	-	-	-
U	Utah Cogen 1	-	-	-	-	-	-	-	-	-	-	-	-
T	Utah Cogen 2	-	-	-	-	-	-	-	-	-	-	459.5	16.3
A	Utah Combined Cycle	-	-	-	151.2	153.0	206.2	238.2	309.9	313.4	324.0	175.2	1,091.7
H	Utah IGCC Hunter 4	-	-	-	-	-	-	-	-	-	-	-	-
	Utah IGCC CT	-	-	-	-	-	-	-	-	-	-	-	-
	Utah PC Hunter 4	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Coal $23.25/Ton	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Coal $27.00/Ton	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Simple Cycle CT	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Pumped Storage	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Wyo/Ut Tran L	-	-	-	-	19.9	21.1	21.1	21.1	21.1	21.1	21.1	-
	Total	-	-	-	**151.2**	**172.9**	**227.3**	**259.3**	**331.0**	**334.5**	**345.2**	**655.8**	**1,108.0**
	DSM Programs	-	-	-	-	-	-	-	-	-	-	-	-
W	Wyo Wind	-	-	-	-	-	-	-	-	-	-	-	-
Y	Wyo Combined Cycle	-	-	-	-	-	-	-	-	-	-	-	-
O	Wyo IGCC Wyodak 2	-	-	-	-	-	-	-	-	-	-	-	-
M	Wyo IGCC CT	-	-	-	-	-	-	-	-	-	-	-	-
I	Wyo PC Wyodak 2	-	-	-	-	-	-	-	-	-	-	-	-
N	Wyo Coal $6.70/Ton	-	-	-	-	-	-	-	-	-	-	-	(5.0)
G	Wyo Simple Cycle CT	-	-	-	-	-	-	-	-	-	-	-	-
	Total	-	-	-	-	-	-	-	-	-	-	-	**(5.0)**
	DSM Programs	-	-	-	-	-	-	-	-	-	-	-	-
	Short Term Cap Purch	-	-	-	-	-	-	-	-	-	-	0.1	5.9
T	Cogeneration	-	-	-	17.8	6.0	34.9	14.0	40.1	40.1	40.1	459.5	16.3
O	Combined Cycle CT	-	-	-	151.2	153.0	206.2	238.2	309.9	298.7	309.9	183.4	1,050.0
T	Coal	-	-	-	-	-	-	-	-	-	-	-	(5.0)
A	Transmission	-	-	-	-	19.9	21.1	21.1	21.1	21.1	21.1	21.1	-
L	Simple Cycle	-	-	-	-	-	-	-	-	-	-	-	-
	All Others	-	-	-	-	-	-	-	-	-	-	-	-
	Total	-	-	-	**169.0**	**178.9**	**262.2**	**273.3**	**371.0**	**359.8**	**371.1**	**664.1**	**1,067.2**
		-	-	-	-	-	-	-	-	-	-	-	-
S	**Native Load**	-	81.9	102.0	118.7	165.3	210.4	247.0	285.6	325.7	303.5	632.5	1,084.6
Y	**Pump Storage/Peak Retu**	-	-	-	-	-	-	-	-	-	-	-	-
S	**Long Term Sales**	-	-	-	-	-	-	-	-	-	-	-	-
T	**Short Term Sales**	-	(45.9)	(54.5)	36.0	(6.3)	17.7	3.2	57.6	18.3	47.0	10.3	(17.5)
E	**DSM Programs**	-	-	-	-	-	-	-	-	-	-	-	-
M	**Total Requirements**	-	35.9	47.5	154.7	159.1	228.2	250.3	343.2	344.0	350.5	642.8	1,067.1
		-	-	-	-	-	-	-	-	-	-	-	-
	Existing Generation	-	1.1	4.3	1.0	(17.4)	(20.8)	(20.0)	(21.1)	(18.3)	(21.1)	(21.6)	(0.5)
L	**Long Term Purchases**	-	-	2.3	-	-	-	-	-	-	-	0.1	5.9
&	**Short Term Market**	-	-	-	-	-	-	-	-	-	-	-	-
R	**Short Term Purchases**	-	34.7	40.8	(15.3)	(2.5)	(13.3)	(3.0)	(6.7)	2.4	0.5	0.4	0.4
	New Resources	-	-	-	169.0	178.9	262.2	273.3	371.0	359.8	371.1	663.9	1,061.2
	Total Resources	-	35.9	47.5	154.7	159.0	228.2	250.3	343.2	344.0	350.5	642.8	1,067.1

Case Utah.grow Utah grows 50% faster to 2010 then 25% faster to 2020

Incremental Summer Capacity (MW) of Resource Additions

		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
	Short Term Cap Purch	40.2	150.9	345.9	-	-	-	-	-	-	365.0	233.5	821.5
	DSM Programs	6.8	6.7	7.2	7.2	7.1	7.3	7.3	7.2	7.1	7.2	26.6	42.9
	Or/Wa Wind	-	-	-	-	-	-	-	-	-	-	-	72.0
O	Or/Wa Geothermal	-	-	-	-	-	-	-	-	-	-	-	-
R	Or/Wa Cogen 1	-	-	-	94.0	94.0	14.1	-	-	-	-	-	-
/	Or/Wa Cogen 2	-	-	-	400.8	159.7	66.3	185.1	78.3	-	-	416.4	-
W	Or/Wa Combined Cycle	-	-	-	-	-	-	-	-	193.5	-	122.1	208.8
A	Or/Wa Bridger Transm	-	-	-	-	-	-	-	-	-	-	-	-
	Or/Wa Simple CycleCT	-	-	-	-	-	-	-	-	-	-	-	-
	Or/Wa Pump Storage	-	-	-	-	-	-	-	-	-	-	-	-
	Total	**6.8**	**6.7**	**7.2**	**502.0**	**260.8**	**87.7**	**192.4**	**85.5**	**200.6**	**7.2**	**565.1**	**323.7**
G	DSM Programs	0.6	0.6	0.7	0.6	0.7	0.6	0.7	0.7	0.6	0.7	2.4	3.2
O	Goshen Cogen 1	-	-	-	-	-	-	-	-	-	-	28.2	-
S	Goshen Cogen 2	-	-	-	-	-	-	-	-	-	-	-	-
H	Goshen Combined C CT	-	-	-	-	-	-	-	-	-	-	-	-
E	Goshen Bridger Trans	-	-	-	-	-	-	-	-	-	-	-	-
N	Goshen Hunter Transm	-	-	-	-	-	-	-	-	-	-	-	-
	Total	**0.6**	**0.6**	**0.7**	**0.6**	**0.7**	**0.6**	**0.7**	**0.7**	**0.6**	**0.7**	**30.6**	**3.2**
	DSM Programs	13.9	13.4	12.5	13.1	13.2	12.6	13.2	12.7	12.4	12.9	47.3	75.2
	Utah Geothermal	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Solar	-	-	-	-	-	-	-	-	-	-	-	-
U	Utah Cogen 1	-	-	-	14.1	-	-	-	-	-	-	-	-
T	Utah Cogen 2	-	-	-	-	-	-	-	-	-	-	1,672.3	0.9
A	Utah Combined Cycle	-	-	-	203.8	70.4	67.5	46.2	271.6	-	-	451.2	1,347.4
H	Utah IGCC Hunter 4	-	-	-	-	-	-	-	-	-	-	-	-
	Utah IGCC CT	-	-	-	-	-	-	-	-	-	-	-	-
	Utah PC Hunter 4	-	-	-	-	-	-	-	-	-	-	-	400.0
	Utah Coal $23.25/Ton	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Coal $27.00/Ton	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Simple Cycle CT	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Pumped Storage	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Wyo/Ut Tran L	-	-	-	-	41.0	-	-	-	-	-	-	224.3
	Total	**13.9**	**13.4**	**12.5**	**231.0**	**124.6**	**80.1**	**59.4**	**284.3**	**12.4**	**12.9**	**2,170.8**	**2,047.8**
	DSM Programs	2.3	2.3	2.4	2.4	2.4	2.4	2.5	2.5	2.5	2.5	9.3	15.7
W	Wyo Wind	-	-	-	-	-	-	-	-	-	-	-	54.0
Y	Wyo Combined Cycle	-	-	-	-	-	-	-	-	-	-	-	-
O	Wyo IGCC Wyodak 2	-	-	-	-	-	-	-	-	-	-	-	-
M	Wyo IGCC CT	-	-	-	-	-	-	-	-	-	-	-	-
I	Wyo PC Wyodak 2	-	-	-	-	-	-	-	-	-	-	-	325.0
N	Wyo Coal $6.70/Ton	-	-	-	-	-	-	-	-	-	-	-	141.1
G	Wyo Simple Cycle CT	-	-	-	-	-	-	-	-	-	-	-	-
	Total	**2.3**	**2.3**	**2.4**	**2.4**	**2.4**	**2.4**	**2.5**	**2.5**	**2.5**	**2.5**	**9.3**	**535.8**
T	DSM Programs	23.6	23.0	22.8	23.3	23.4	22.9	23.7	23.1	22.6	23.3	85.6	137.0
O	Short Term Cap Purch	40.2	150.9	345.9	-	-	-	-	-	-	365.0	233.5	821.5
T	Cogeneration	-	-	-	508.9	253.7	80.4	185.1	78.3	-	-	2,116.9	0.9
A	Combined Cycle CT	-	-	-	203.8	70.4	67.5	46.2	271.6	193.5	-	573.3	1,556.2
L	Coal	-	-	-	-	-	-	-	-	-	-	-	866.1
	All Others	-	-	-	-	41.0	-	-	-	-	-	-	350.3
	Total	**63.8**	**173.9**	**368.7**	**736.0**	**388.5**	**170.8**	**255.0**	**373.0**	**216.1**	**388.3**	**3,009.3**	**3,732.0**

Annual Summer Peak Capacity (MW)

		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
S	Native Load	7,987.0	8,166.0	8,362.0	8,601.0	8,798.0	8,992.0	9,183.0	9,390.0	9,592.0	9,795.0	11,370.0	13,501.0
Y	Long Term Sales	2,377.0	2,239.0	2,120.0	1,890.0	1,647.0	1,647.0	1,327.0	1,324.0	1,324.0	1,249.0	1,149.0	1,104.0
S	DSM Programs	(24.0)	(47.0)	(69.0)	(93.0)	(116.0)	(139.0)	(163.0)	(186.0)	(208.0)	(232.0)	(317.0)	(454.0)
T	**Total Requirements**	**10,340.0**	**10,358.0**	**10,413.0**	**10,398.0**	**10,329.0**	**10,500.0**	**10,347.0**	**10,528.0**	**10,708.0**	**10,812.0**	**12,202.0**	**14,151.0**
E													
M	Existing Generation	9,179.0	9,185.0	9,007.0	8,836.0	8,798.0	8,677.0	8,681.0	8,450.0	8,454.0	8,279.0	7,349.0	6,176.0
	Long Term Purchases	1,351.1	1,344.5	1,225.7	1,076.0	1,076.0	1,076.0	676.0	676.0	626.0	626.0	557.8	536.6
L	Short Term Market	805.7	713.6	875.4	814.0	571.0	571.0	651.0	648.0	698.0	623.0	590.7	567.9
&	Short Term Cap Purch	40.2	150.9	345.9	-	-	-	-	-	-	365.0	233.5	821.5
R	New Resources	1.0	1.0	1.0	714.0	1,079.0	1,227.0	1,458.0	1,808.0	2,001.0	2,001.0	4,696.0	7,469.0
	Total Resources	**11,377.0**	**11,395.0**	**11,455.0**	**11,440.0**	**11,524.0**	**11,551.0**	**11,466.0**	**11,582.0**	**11,779.0**	**11,894.0**	**13,427.0**	**15,571.0**
	Reserves	1,037.0	1,037.0	1,042.0	1,041.0	1,195.0	1,051.0	1,119.0	1,054.0	1,072.0	1,082.0	1,225.0	1,420.0
	Reserve Margin (%)	10.0	10.0	10.0	10.0	11.6	10.0	10.8	10.0	10.0	10.0	10.0	10.0

Case utah.grow Utah grows 50% faster to 2010
then 25% faster to 2020
Cumulative Annual Energy (aMW)

		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
	DSM Programs	5.2	10.4	15.9	21.5	27.1	32.8	38.5	44.1	49.7	55.4	76.3	110.0
	Or/Wa Wind	-	-	-	-	-	-	-	-	-	-	-	80.5
O	Or/Wa Geothermal	-	-	-	-	-	-	-	-	-	-	-	-
R	Or/Wa Cogen 1	-	-	-	93.1	186.2	200.1	200.1	200.1	200.1	200.1	200.1	200.1
/	Or/Wa Cogen 2	-	-	-	396.8	554.9	620.5	803.7	881.1	881.1	881.1	1,293.3	1,293.3
W	Or/Wa Combined Cycle	-	-	-	-	-	-	-	-	187.9	191.5	292.1	478.4
A	Or/Wa Bridger Transm	-	-	-	-	-	-	-	-	-	-	-	-
	Or/Wa Simple CycleCT	-	-	-	-	-	-	-	-	-	-	-	-
	Or/Wa Pump Storage	-	-	-	-	-	-	-	-	-	-	-	-
	Total	**5.2**	**10.4**	**15.9**	**511.4**	**768.2**	**853.4**	**1,042.3**	**1,125.4**	**1,318.9**	**1,328.2**	**1,861.9**	**2,162.5**
G	DSM Programs	0.5	0.9	1.4	1.9	2.4	2.9	3.4	3.9	4.4	4.9	6.7	9.4
O	Goshen Cogen 1	-	-	-	-	-	-	-	-	-	-	27.9	27.9
S	Goshen Cogen 2	-	-	-	-	-	-	-	-	-	-	-	-
H	Goshen Combined C CT	-	-	-	-	-	-	-	-	-	-	-	-
E	Goshen Bridger Trans	-	-	-	-	-	-	-	-	-	-	-	-
N	Goshen Hunter Transm	-	-	-	-	-	-	-	-	-	-	-	-
	Total	**0.5**	**0.9**	**1.4**	**1.9**	**2.4**	**2.9**	**3.4**	**3.9**	**4.4**	**4.9**	**34.6**	**37.3**
	DSM Programs	9.1	17.7	25.8	34.3	42.9	51.0	59.5	67.8	75.8	84.2	115.3	165.5
	Utah Geothermal	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Solar	-	-	-	-	-	-	-	-	-	-	-	-
U	Utah Cogen 1	-	-	-	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0
T	Utah Cogen 2	-	-	-	-	-	-	-	-	-	-	1,638.5	1,656.2
A	Utah Combined Cycle	-	-	-	198.1	266.2	331.6	376.2	625.1	622.2	642.3	901.2	2,049.3
H	Utah IGCC Hunter 4	-	-	-	-	-	-	-	-	-	-	-	-
	Utah IGCC CT	-	-	-	-	-	-	-	-	-	-	-	-
	Utah PC Hunter 4	-	-	-	-	-	-	-	-	-	-	-	366.6
	Utah Coal $23.25/Ton	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Coal $27.00/Ton	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Simple Cycle CT	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Pumped Storage	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Wyo/Ut Tran L	-	-	-	-	36.8	39.0	39.0	39.0	39.0	39.0	39.0	252.2
	Total	**9.1**	**17.7**	**25.8**	**246.3**	**359.7**	**435.5**	**488.6**	**745.7**	**750.9**	**779.5**	**2,707.9**	**4,503.8**
	DSM Programs	1.8	3.6	5.5	7.3	9.3	11.2	13.1	15.1	17.1	19.1	26.7	39.5
W	Wyo Wind	-	-	-	-	-	-	-	-	-	-	-	60.4
Y	Wyo Combined Cycle	-	-	-	-	-	-	-	-	-	-	-	-
O	Wyo IGCC Wyodak 2	-	-	-	-	-	-	-	-	-	-	-	-
M	Wyo IGCC CT	-	-	-	-	-	-	-	-	-	-	-	-
I	Wyo PC Wyodak 2	-	-	-	-	-	-	-	-	-	-	-	297.8
N	Wyo Coal $6.70/Ton	-	-	-	-	-	-	-	-	-	-	-	129.4
G	Wyo Simple Cycle CT	-	-	-	-	-	-	-	-	-	-	-	-
	Total	**1.8**	**3.6**	**5.5**	**7.3**	**9.3**	**11.2**	**13.1**	**15.1**	**17.1**	**19.1**	**26.7**	**527.2**
	DSM Programs	16.5	32.6	48.6	65.1	81.6	97.8	114.5	130.9	147.0	163.7	225.0	324.5
	Short Term Cap Purch	-	-	-	-	-	-	-	-	-	-	0.1	12.3
T	Cogeneration	-	-	-	503.8	755.0	834.6	1,017.8	1,095.2	1,095.2	1,095.2	3,173.8	3,191.6
O	Combined Cycle CT	-	-	-	198.1	266.2	331.6	376.2	625.1	810.1	833.8	1,193.2	2,527.8
T	Coal	-	-	-	-	-	-	-	-	-	-	-	793.8
A	Transmission	-	-	-	-	36.8	39.0	39.0	39.0	39.0	39.0	39.0	252.2
L	Simple Cycle	-	-	-	-	-	-	-	-	-	-	-	-
	All Others	-	-	-	-	-	-	-	-	-	-	-	140.9
	Total	**16.5**	**32.6**	**48.6**	766.9	**1,139.5**	**1,303.0**	1,547.5	**1,890.1**	**2,091.3**	**2,131.7**	**4,631.2**	**7,243.0**
		-	-	-	-	-	-	-	-	-	-	-	-
S	**Native Load**	5,677.0	5,826.5	5,983.5	6,120.8	6,287.9	6,458.7	6,639.6	6,825.7	7,017.1	7,117.0	8,254.8	9,781.3
Y	**Pump Storage/Peak Retu**	276.9	276.9	225.1	223.2	223.2	223.2	223.2	223.2	223.2	223.2	223.2	223.2
S	**Long Term Sales**	1,549.9	1,418.1	1,350.1	1,239.5	1,053.7	1,006.4	852.6	850.0	810.5	794.3	692.3	668.3
T	**Short Term Sales**	1,503.4	1,435.0	1,323.7	1,858.0	1,970.5	1,929.8	1,986.1	2,055.9	2,052.6	1,919.6	2,323.1	2,304.8
E	**DSM Programs**	(16.5)	(32.6)	(48.6)	(65.0)	(81.6)	(97.8)	(114.5)	(130.9)	(147.0)	(163.7)	(225.0)	(324.5)
M	**Total Requirements**	8,990.6	8,923.9	8,833.8	9,376.4	9,453.7	9,520.3	9,587.0	9,823.9	9,956.4	9,890.4	11,268.4	12,653.1
		-	-	-	-	-	-	-	-	-	-	-	-
	Existing Generation	7,380.1	7,376.0	7,334.3	7,373.1	7,265.2	7,226.2	7,234.6	7,124.0	7,127.2	7,031.6	6,168.5	5,070.2
L	**Long Term Purchases**	700.0	709.9	752.0	737.0	737.0	737.0	527.6	338.2	338.2	335.0	243.2	247.9
&	**Short Term Market**	805.7	708.2	600.4	502.5	316.7	269.4	325.0	511.8	472.3	459.3	449.2	426.3
R	**Short Term Purchases**	104.8	129.8	147.1	61.9	77.0	82.6	66.8	90.7	74.4	96.5	1.5	2.4
	New Resources	-	-	-	701.9	1,057.9	1,205.1	1,433.0	1,759.2	1,944.3	1,968.0	4,406.0	6,906.2
	Total Resources	8,990.6	8,923.9	8,833.8	9,376.4	9,453.7	9,520.3	9,587.0	9,823.9	9,956.4	9,890.4	11,268.4	12,653.1

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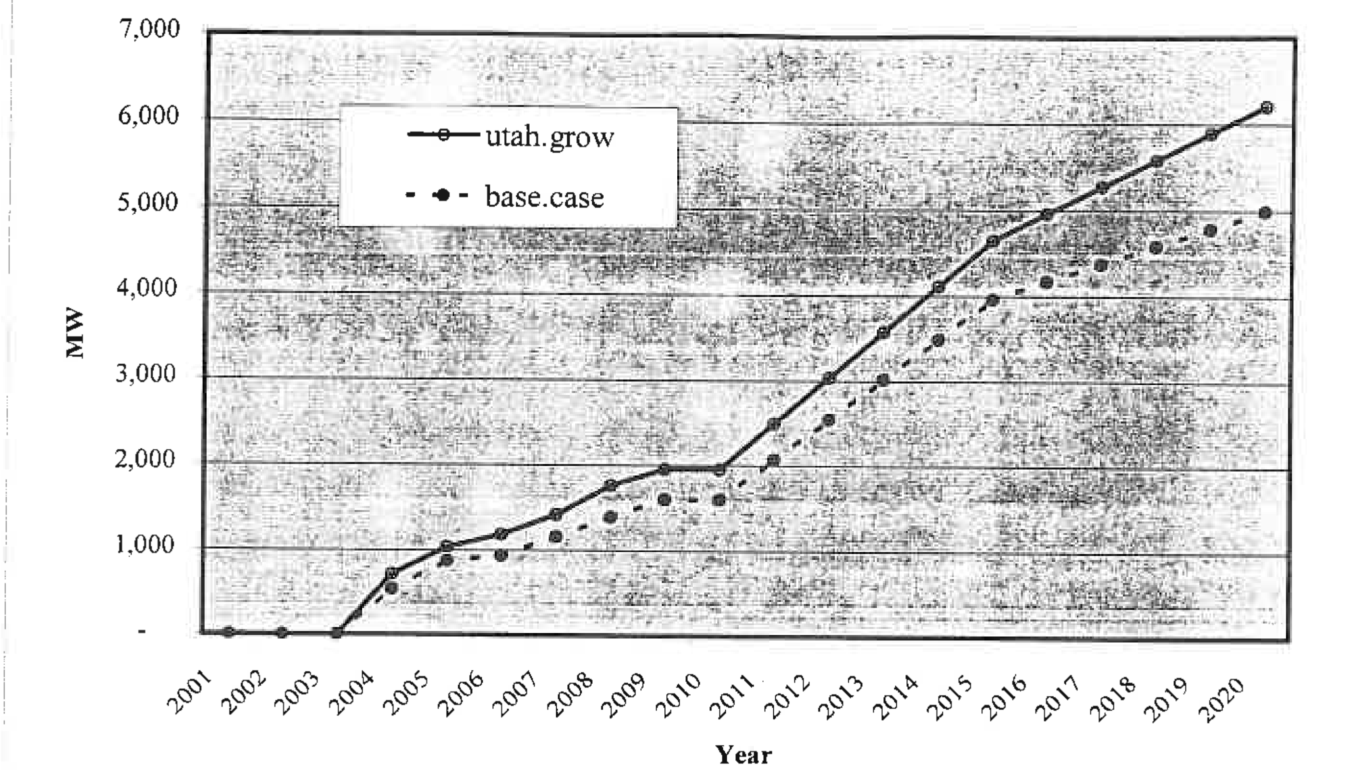
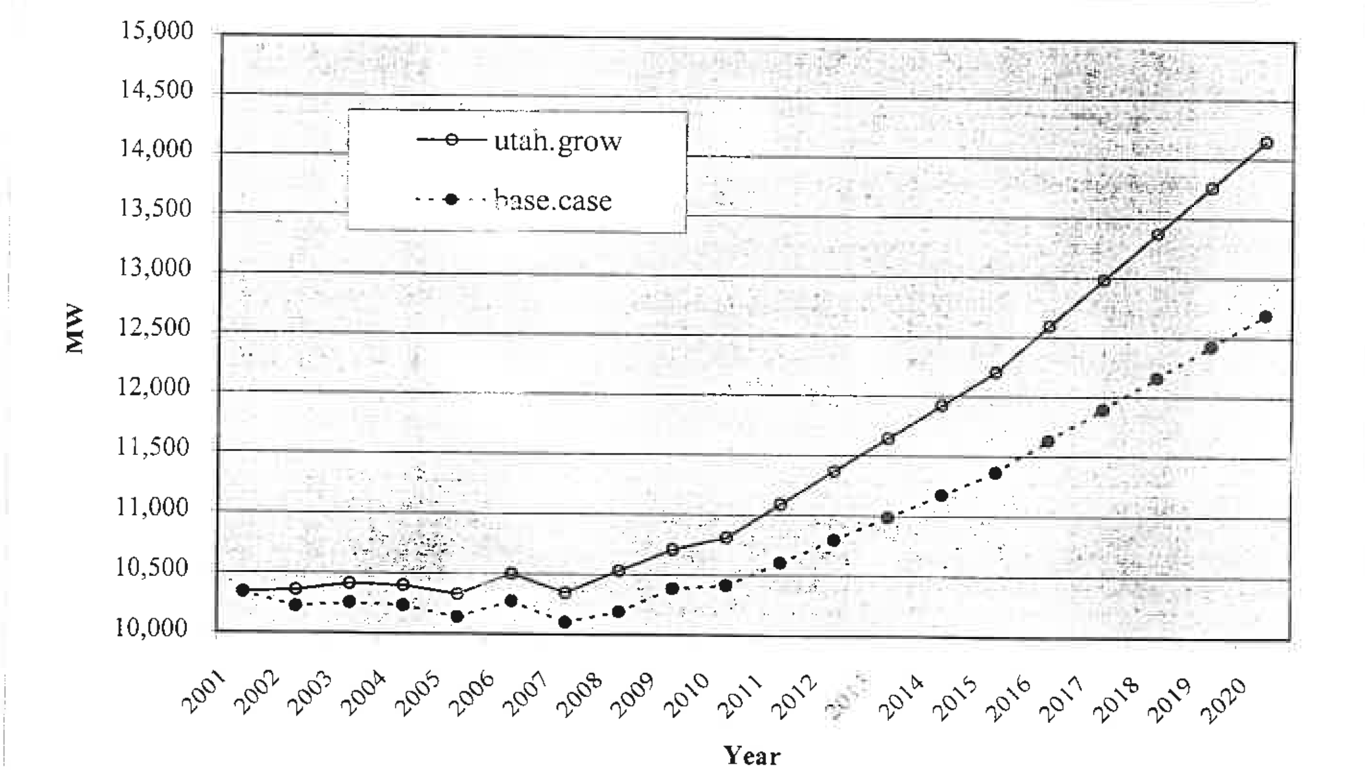
Summer Cogeneration & Combined Cycle Resources Selected (MW)

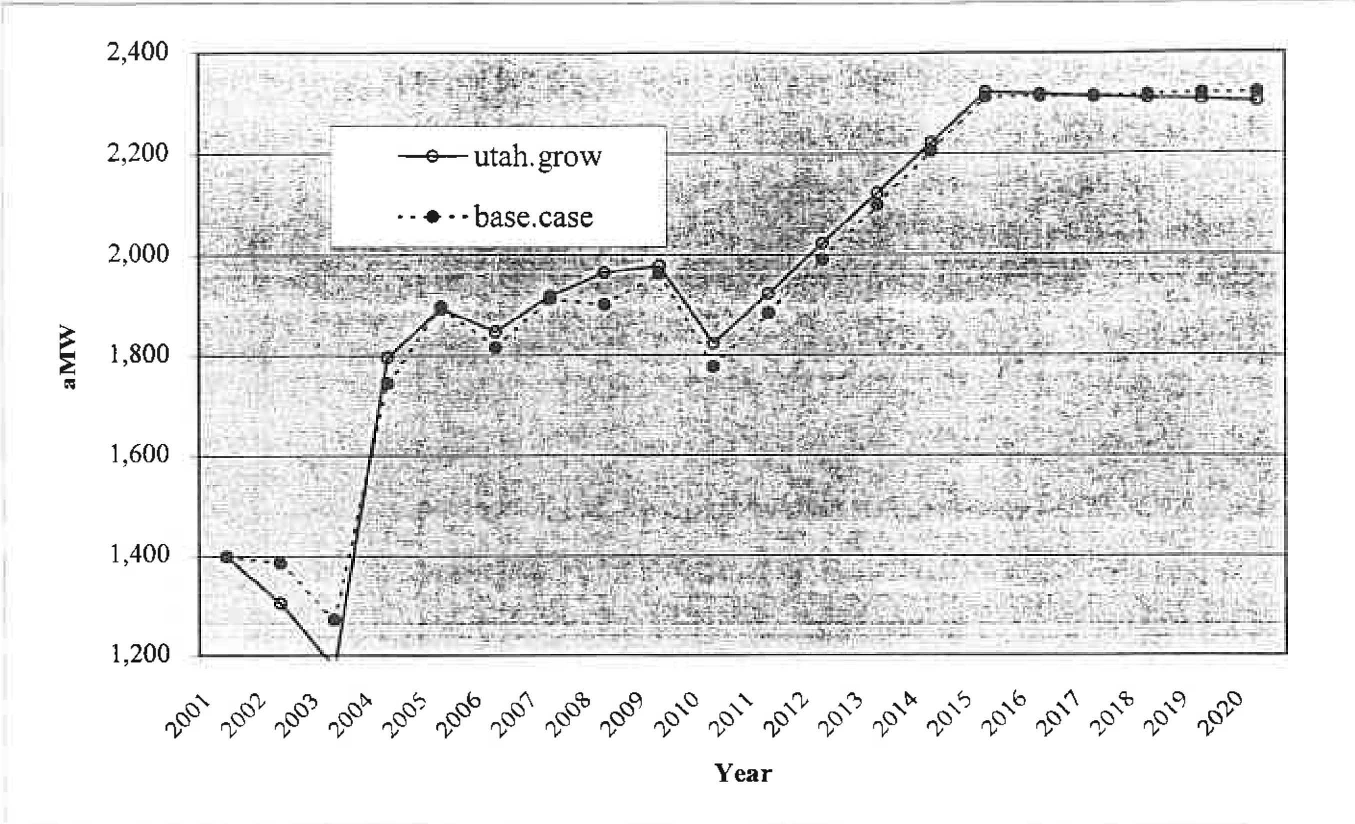


Total System Load Requirements including Long Term Sales and Reduced by DSM (Summer MW)

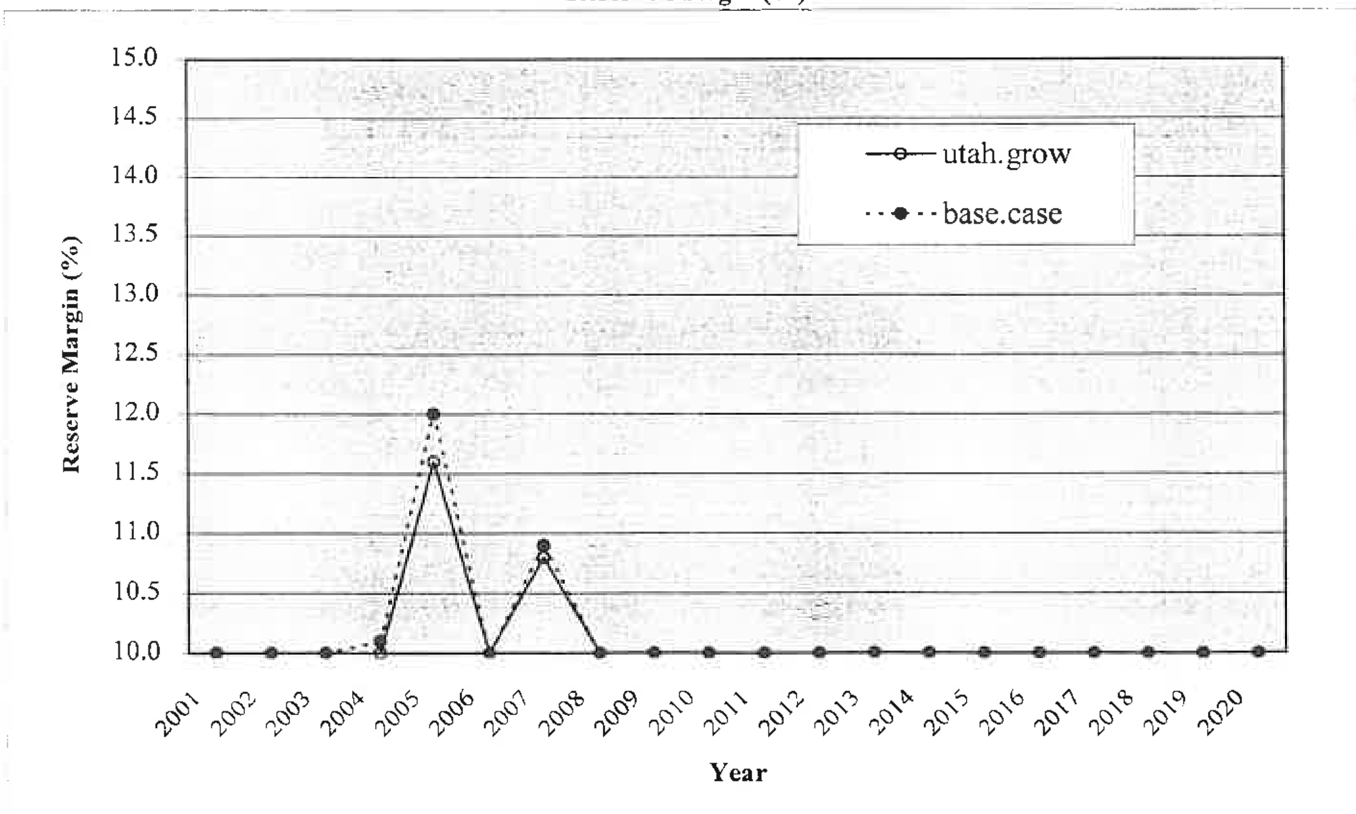


Case Utah.grow Utah grows 50% faster to 2010

Net Short Term Market Transactions (aMW)



Reserve Margin (%)



Case Utah.grow Utah grows 50% faster to 2010

Load Forcase as Revised

Year	Oregon - Washington			UTAH			Wyoming			Goshen			TOTAL		
	Win	Sum	aMW	Win	Sum	aMW	Win	Sum	aMW	Win	Sum	aMW	Win	Sum	aMW
2001	3,612	2,925	2,435	3,086	3,846	2,384	1,104	975	748	100	241	110	7,902	7,987	5,677
2002	3,690	3,033	2,489	3,187	3,956	2,465	1,121	945	759	102	232	113	8,100	8,166	5,827
2003	3,776	3,097	2,548	3,292	4,068	2,549	1,138	960	771	104	237	116	8,310	8,362	5,984
2004	3,847	3,157	2,589	3,400	4,184	2,636	1,152	1,020	778	105	240	118	8,504	8,601	6,121
2005	3,909	3,210	2,647	3,512	4,303	2,725	1,174	1,041	796	106	244	120	8,701	8,798	6,288
2006	3,962	3,255	2,704	3,627	4,426	2,818	1,196	1,063	815	108	248	122	8,893	8,991	6,459
2007	4,008	3,294	2,767	3,747	4,552	2,913	1,216	1,085	835	110	252	124	9,080	9,182	6,640
2008	4,058	3,342	2,831	3,870	4,682	3,012	1,237	1,110	856	111	256	126	9,276	9,389	6,826
2009	4,116	3,389	2,897	3,997	4,815	3,114	1,259	1,128	878	113	260	128	9,484	9,592	7,017
2010	4,175	3,435	2,882	4,128	4,952	3,220	1,284	1,147	882	114	261	133	9,701	9,795	7,117
2011	4,243	3,494	2,867	4,288	5,159	3,365	1,308	1,152	886	116	270	138	9,954	10,074	7,257
2012	4,323	3,563	2,913	4,453	5,374	3,517	1,337	1,156	903	118	273	142	10,231	10,366	7,475
2013	4,410	3,632	2,981	4,625	5,598	3,676	1,367	1,161	926	120	281	146	10,522	10,672	7,729
2014	4,512	3,707	3,050	4,804	5,832	3,842	1,389	1,179	941	122	286	150	10,826	11,004	7,983
2015	4,624	3,801	3,127	4,990	6,075	4,016	1,414	1,201	958	124	293	154	11,151	11,370	8,255
2016	4,737	3,848	3,195	5,182	6,328	4,197	1,440	1,246	972	126	296	157	11,485	11,717	8,522
2017	4,859	3,996	3,288	5,382	6,592	4,386	1,465	1,290	992	129	305	162	11,835	12,184	8,829
2018	4,978	4,106	3,378	5,590	6,867	4,585	1,491	1,335	1,010	131	311	167	12,190	12,619	9,140
2019	5,100	4,208	3,463	5,806	7,154	4,792	1,517	1,373	1,028	133	317	172	12,556	13,052	9,454
2020	5,225	4,313	3,551	6,031	7,452	5,008	1,544	1,412	1,046	135	324	176	12,935	13,501	9,781

	UTAH		
	Win	Sum	aMW
2001 Load	3,086	3,846	2,384
2010 Load	3,751	4,556	2,916
Total Change	21.53%	18.45%	22.31%
Annual Growth Rate	2.19%	1.90%	2.26%
50% Growth Rate	3.29%	2.85%	3.39%
Adjusted 2010 Load	4,128	4,952	3,220

	UTAH		
	Win	Sum	aMW
2010 Load	3,751	4,556	2,916
2020 Load	4,836	5,993	3,923
Total Change	28.95%	31.56%	34.52%
Annual Growth Rate	2.58%	2.78%	3.01%
25% Growth Rate	3.86%	4.17%	4.52%
Adjusted 2020 Load	5,275	6,581	4,340

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Load Forcase as Revised

Year	As Revised UTAH Win	As Revised UTAH Sum	As Revised UTAH aMW	As Originally Filed UTAH Win	As Originally Filed UTAH Sum	As Originally Filed UTAH aMW	Difference UTAH Win	Difference UTAH Sum	Difference UTAH aMW
2001	3,086	3,846	2,384	3,086	3,846	2,384	-	-	-
2002	3,187	3,956	2,465	3,083	3,820	2,384	105	136	82
2003	3,292	4,068	2,549	3,155	3,909	2,447	138	160	102
2004	3,400	4,184	2,636	3,244	4,018	2,517	157	166	119
2005	3,512	4,303	2,725	3,330	4,113	2,560	182	190	165
2006	3,627	4,426	2,818	3,413	4,201	2,607	215	225	210
2007	3,747	4,552	2,913	3,497	4,306	2,666	250	246	247
2008	3,870	4,682	3,012	3,584	4,344	2,727	286	338	286
2009	3,997	4,815	3,114	3,674	4,490	2,789	323	325	326
2010	4,128	4,952	3,220	3,751	4,556	2,916	378	397	304
2011	4,288	5,159	3,365	3,841	4,760	3,044	447	399	321
2012	4,453	5,374	3,517	3,940	4,893	3,122	514	481	396
2013	4,625	5,598	3,676	4,033	4,998	3,212	593	601	464
2014	4,804	5,832	3,842	4,134	5,122	3,301	670	710	541
2015	4,990	6,075	4,016	4,228	5,240	3,383	762	835	633
2016	5,182	6,328	4,197	4,325	5,374	3,458	857	955	739
2017	5,382	6,592	4,386	4,431	5,492	3,561	952	1,100	826
2018	5,590	6,867	4,585	4,592	5,690	3,705	999	1,177	879
2019	5,806	7,154	4,792	4,712	5,840	3,813	1,094	1,314	979
2020	6,031	7,452	5,008	4,836	5,993	3,923	1,194	1,459	1,085

PacifiCorp

Integrated Resource Planning

RAMPP-6

Utah Big 4 Industrial Customers

Case 130

Tab 26

Case loads.big4 Loss of Utah 'Big 4' Interruptible Customers LESS Base.Case (Reference Case)

Incremental Summer Capacity (MW) of Resource Additions

		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
	Short Term Cap Purch	-	(1.3)	(171.0)	-	-	-	-	-	-	-	-	32.1
	DSM Programs	-	-	-	-	-	-	-	-	-	-	-	-
	Or/Wa Wind	-	-	-	-	-	-	-	-	-	-	-	-
O	Or/Wa Geothermal	-	-	-	-	-	-	-	-	-	-	-	-
R	Or/Wa Cogen 1	-	-	-	-	-	-	-	-	-	-	-	-
/	Or/Wa Cogen 2	-	-	-	(107.9)	29.9	(19.4)	29.5	74.8	-	-	(6.9)	-
W	Or/Wa Combined Cycle	-	-	-	-	-	-	-	-	-	-	17.2	(17.2)
A	Or/Wa Bridger Transm	-	-	-	-	-	-	-	-	-	-	-	-
	Or/Wa Simple CycleCT	-	-	-	-	-	-	-	-	-	-	-	-
	Or/Wa Pump Storage	-	-	-	-	-	-	-	-	-	-	-	-
	Total	-	-	-	**(107.9)**	**29.9**	**(19.4)**	**29.5**	**74.8**	-	-	**10.3**	**(17.2)**
G	DSM Programs	-	-	-	-	-	-	-	-	-	-	-	-
O	Goshen Cogen 1	-	-	-	-	-	-	-	-	-	-	-	-
S	Goshen Cogen 2	-	-	-	-	-	-	-	-	-	-	-	-
H	Goshen Combined C CT	-	-	-	-	-	-	-	-	-	-	-	-
E	Goshen Bridger Trans	-	-	-	-	-	-	-	-	-	-	-	-
N	Goshen Hunter Transm	-	-	-	-	-	-	-	-	-	-	-	-
	Total	-	-	-	-	-	-	-	-	-	-	-	-
	DSM Programs	-	(0.1)	0.1	(0.1)	0.1	(0.1)	-	-	(0.1)	0.1	-	(0.2)
	Utah Geothermal	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Solar	-	-	-	-	-	-	-	-	-	-	-	-
U	Utah Cogen 1	-	-	-	-	-	-	-	-	-	-	-	-
T	Utah Cogen 2	-	-	-	-	-	-	-	-	-	-	(258.0)	258.0
A	Utah Combined Cycle	-	-	-	(48.3)	(68.3)	(12.7)	(12.9)	(91.5)	-	-	248.0	(272.7)
H	Utah IGCC Hunter 4	-	-	-	-	-	-	-	-	-	-	-	-
	Utah IGCC CT	-	-	-	-	-	-	-	-	-	-	-	-
	Utah PC Hunter 4	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Coal $23.25/Ton	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Coal $27.00/Ton	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Simple Cycle CT	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Pumped Storage	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Wyo/Ut Tran L	-	-	-	-	(18.8)	-	-	-	-	-	-	18.8
	Total	-	**(0.1)**	**0.1**	**(48.4)**	**(87.0)**	**(12.8)**	**(12.9)**	**(91.5)**	**(0.1)**	**0.1**	**(10.0)**	**3.9**
	DSM Programs	-	-	-	-	-	-	-	-	-	-	-	-
W	Wyo Wind	-	-	-	-	-	-	-	-	-	-	-	-
Y	Wyo Combined Cycle	-	-	-	-	-	-	-	-	-	-	-	-
O	Wyo IGCC Wyodak 2	-	-	-	-	-	-	-	-	-	-	-	-
M	Wyo IGCC CT	-	-	-	-	-	-	-	-	-	-	-	-
I	Wyo PC Wyodak 2	-	-	-	-	-	-	-	-	-	-	-	-
N	Wyo Coal $6.70/Ton	-	-	-	-	-	-	-	-	-	-	-	-
G	Wyo Simple Cycle CT	-	-	-	-	-	-	-	-	-	-	-	-
	Total	-	-	-	-	-	-	-	-	-	-	-	-
T	DSM Programs	-	(0.1)	0.1	(0.1)	0.1	(0.1)	-	-	(0.1)	0.1	-	(0.2)
O	Short Term Cap Purch	-	(1.3)	(171.0)	-	-	-	-	-	-	-	-	32.1
T	Cogeneration	-	-	-	(107.9)	29.9	(19.4)	29.5	74.8	-	-	(264.9)	258.0
A	Combined Cycle CT	-	-	-	(48.3)	(68.3)	(12.7)	(12.9)	(91.5)	-	-	265.2	(289.9)
L	Coal	-	-	-	-	-	-	-	-	-	-	-	-
	All Others	-	-	-	-	(18.8)	-	-	-	-	-	-	18.8
	Total	-	**(1.4)**	**(170.9)**	**(156.3)**	**(57.1)**	**(32.2)**	16.6	(16.7)	(0.1)	**0.1**	**0.3**	**18.8**

Annual Summer Peak Capacity (MW)

		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
S	Native Load	-	-	-	-	-	-	-	-	-	-	-	-
Y	Long Term Sales	-	(206.0)	(206.0)	(206.0)	(206.0)	(206.0)	(206.0)	(206.0)	(206.0)	(206.0)	(206.0)	(206.0)
S	DSM Programs	-	-	-	-	-	-	-	-	-	-	-	-
T	**Total Requirements**	-	**(206.0)**	**(206.0)**	(206.0)	**(206.0)**	**(206.0)**	(206.0)	**(206.0)**	**(206.0)**	**(206.0)**	**(206.0)**	**(206.0)**
E													
M	Existing Generation	-	-	-	-	19.0	19.0	19.0	19.0	19.0	19.0	19.0	-
	Long Term Purchases	-	(0.7)	-	-	-	-	-	-	-	-	-	(0.1)
L	Short Term Market	-	-	-	-	-	-	-	-	-	-	-	-
&	Short Term Cap Purch	-	(1.3)	(171.0)	-	-	-	-	-	-	-	-	32.1
R	New Resources	-	-	-	(156.0)	(213.0)	(246.0)	(229.0)	(246.0)	(245.0)	(245.0)	(245.0)	(259.0)
	Total Resources	-	**(2.0)**	**(171.0)**	**(156.0)**	**(194.0)**	**(227.0)**	**(210.0)**	**(227.0)**	**(226.0)**	**(226.0)**	**(226.0)**	**(227.0)**
	Reserves	-	205.0	35.0	50.0	12.0	(20.0)	(4.0)	(21.0)	(20.0)	(21.0)	(21.0)	(21.0)
	Reserve Margin (%)	-	2.3	0.6	0.7	0.4	-	0.2	-	-	-	-	-

Case loads.big4 Loss of Utah 'Big 4' Interruptible Customers LESS Base.Case (Reference Case)

Cumulative Annual Energy (aMW)

		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
	DSM Programs	-	-	-	-	-	-	-	-	-	-	-	-
	Or/Wa Wind	-	-	-	-	-	-	-	-	-	-	-	-
O	Or/Wa Geothermal	-	-	-	-	-	-	-	-	-	-	-	-
R	Or/Wa Cogen 1	-	-	-	-	-	-	-	-	-	-	-	-
/	Or/Wa Cogen 2	-	-	-	(106.8)	(77.2)	(96.5)	(67.2)	6.8	6.8	6.8	-	-
W	Or/Wa Combined Cycle	-	-	-	-	-	-	-	-	(0.3)	-	8.6	(0.4)
A	Or/Wa Bridger Transm	-	-	-	-	-	-	-	-	-	-	-	-
	Or/Wa Simple CycleCT	-	-	-	-	-	-	-	-	-	-	-	-
	Or/Wa Pump Storage	-	-	-	-	-	-	-	-	-	-	-	-
	Total	-	-	-	**(106.8)**	**(77.2)**	**(96.5)**	**(67.2)**	**6.8**	**6.5**	**6.8**	**8.6**	**(0.4)**
G	DSM Programs	-	-	-	-	-	-	-	-	-	-	-	-
O	Goshen Cogen 1	-	-	-	-	-	-	-	-	-	-	-	-
S	Goshen Cogen 2	-	-	-	-	-	-	-	-	-	-	-	-
H	Goshen Combined C CT	-	-	-	-	-	-	-	-	-	-	-	-
E	Goshen Bridger Trans	-	-	-	-	-	-	-	-	-	-	-	-
N	Goshen Hunter Transm	-	-	-	-	-	-	-	-	-	-	-	-
	Total	-	-	-	-	-	-	-	-	-	-	-	-
	DSM Programs	-	-	-	-	-	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.2)
	Utah Geothermal	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Solar	-	-	-	-	-	-	-	-	-	-	-	-
U	Utah Cogen 1	-	-	-	-	-	-	-	-	-	-	-	-
T	Utah Cogen 2	-	-	-	-	-	-	-	-	-	-	(254.9)	(22.2)
A	Utah Combined Cycle	-	-	-	(46.9)	(113.2)	(125.5)	(138.0)	(225.6)	(223.0)	(226.7)	(2.0)	(238.7)
H	Utah IGCC Hunter 4	-	-	-	-	-	-	-	-	-	-	-	-
	Utah IGCC CT	-	-	-	-	-	-	-	-	-	-	-	-
	Utah PC Hunter 4	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Coal $23.25/Ton	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Coal $27.00/Ton	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Simple Cycle CT	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Pumped Storage	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Wyo/Ut Tran L	-	-	-	-	(16.8)	(17.8)	(17.8)	(17.8)	(17.8)	(17.8)	(17.8)	-
	Total	-	-	-	**(46.9)**	**(130.0)**	**(143.4)**	**(155.9)**	**(243.5)**	**(240.9)**	**(244.7)**	**(274.8)**	**(261.1)**
	DSM Programs	-	-	-	-	-	-	-	-	-	-	-	-
W	Wyo Wind	-	-	-	-	-	-	-	-	-	-	-	-
Y	Wyo Combined Cycle	-	-	-	-	-	-	-	-	-	-	-	-
O	Wyo IGCC Wyodak 2	-	-	-	-	-	-	-	-	-	-	-	-
M	Wyo IGCC CT	-	-	-	-	-	-	-	-	-	-	-	-
I	Wyo PC Wyodak 2	-	-	-	-	-	-	-	-	-	-	-	-
N	Wyo Coal $6.70/Ton	-	-	-	-	-	-	-	-	-	-	-	-
G	Wyo Simple Cycle CT	-	-	-	-	-	-	-	-	-	-	-	-
	Total	-	-	-	-	-	-	-	-	-	-	-	-
	DSM Programs	-	-	-	-	-	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.2)
	Short Term Cap Purch	-	-	-	-	-	-	-	-	-	-	-	0.5
T	Cogeneration	-	-	-	(106.8)	(77.2)	(96.5)	(67.2)	6.8	6.8	6.8	(254.9)	(22.2)
O	Combined Cycle CT	-	-	-	(46.9)	(113.2)	(125.5)	(138.0)	(225.6)	(223.3)	(226.7)	6.7	(239.1)
T	Coal	-	-	-	-	-	-	-	-	-	-	-	-
A	Transmission	-	-	-	-	(16.8)	(17.8)	(17.8)	(17.8)	(17.8)	(17.8)	(17.8)	-
L	Simple Cycle	-	-	-	-	-	-	-	-	-	-	-	-
	All Others	-	-	-	-	-	-	-	-	-	-	-	-
	Total	-	-	-	**(153.7)**	**(207.2)**	**(239.9)**	**(223.1)**	**(236.6)**	**(234.4)**	**(237.8)**	**(266.2)**	**(261.0)**
		-	-	-	-	-	-	-	-	-	-	-	-
S	**Native Load**	-	-	-	-	-	-	-	-	-	-	-	-
Y	**Pump Storage/Peak Retu**	-	-	-	-	-	-	-	-	-	-	-	-
S	**Long Term Sales**	(21.0)	(239.3)	(264.4)	(264.4)	(264.4)	(264.4)	(264.4)	(264.4)	(264.4)	(264.4)	(264.4)	(264.4)
T	**Short Term Sales**	15.2	191.1	221.1	60.3	55.0	20.2	38.3	34.9	23.8	35.1	13.9	1.8
E	**DSM Programs**	-	-	-	-	-	-	-	0.1	0.1	0.1	0.1	0.2
M	**Total Requirements**	(5.7)	(48.3)	(43.3)	(204.1)	(209.3)	(244.1)	(226.0)	(229.4)	(240.5)	(229.2)	(250.4)	(262.3)
		-	-	-	-	-	-	-	-	-	-	-	-
	Existing Generation	(0.5)	(3.6)	(1.8)	(3.7)	12.0	13.5	10.3	9.2	8.7	15.2	16.1	(1.5)
L	**Long Term Purchases**	-	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	-	-	-	-	-	0.5
&	**Short Term Market**	-	-	-	-	-	-	-	-	-	-	-	-
R	**Short Term Purchases**	(5.2)	(44.6)	(41.5)	(46.7)	(14.2)	(17.8)	(13.2)	(2.0)	(15.0)	(6.6)	(0.4)	-
	New Resources	-	-	-	(153.6)	(207.2)	(239.8)	(223.1)	(236.5)	(234.3)	(237.7)	(266.1)	(261.3)
	Total Resources	(5.7)	(48.2)	(43.3)	(204.1)	(209.4)	(244.1)	(226.0)	(229.4)	(240.5)	(229.2)	(250.4)	(262.3)

Case loads.big4 Loss of Utah 'Big 4' Interruptible Customers at end of Current Contracts

Incremental Summer Capacity (MW) of Resource Additions

		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
	Short Term Cap Purch	40.2	-	-	-	-	-	-	-	-	286.9	-	459.9
	DSM Programs	6.8	6.7	7.2	7.2	7.1	7.3	7.3	7.2	7.1	7.2	26.6	42.9
	Or/Wa Wind	-	-	-	-	-	-	-	-	-	-	-	72.0
O	Or/Wa Geothermal	-	-	-	-	-	-	-	-	-	-	-	-
R	Or/Wa Cogen 1	-	-	-	94.0	94.0	14.1	-	-	-	-	-	-
/	Or/Wa Cogen 2	-	-	-	275.0	201.5	17.6	235.8	126.7	-	-	450.0	-
W	Or/Wa Combined Cycle	-	-	-	-	-	-	-	-	207.8	-	118.3	249.4
A	Or/Wa Bridger Transm	-	-	-	-	-	-	-	-	-	-	-	-
	Or/Wa Simple CycleCT	-	-	-	-	-	-	-	-	-	-	-	-
	Or/Wa Pump Storage	-	-	-	-	-	-	-	-	-	-	-	-
	Total	**6.8**	**6.7**	**7.2**	**376.2**	**302.6**	**39.0**	**243.1**	**133.9**	**214.9**	**7.2**	**594.9**	**364.3**
G	DSM Programs	0.6	0.6	0.7	0.6	0.7	0.6	0.7	0.7	0.6	0.7	2.4	3.2
O	Goshen Cogen 1	-	-	-	-	-	-	-	-	-	-	28.2	-
S	Goshen Cogen 2	-	-	-	-	-	-	-	-	-	-	-	-
H	Goshen Combined C CT	-	-	-	-	-	-	-	-	-	-	-	-
E	Goshen Bridger Trans	-	-	-	-	-	-	-	-	-	-	-	-
N	Goshen Hunter Transm	-	-	-	-	-	-	-	-	-	-	-	-
	Total	0.6	**0.6**	**0.7**	**0.6**	**0.7**	**0.6**	**0.7**	**0.7**	**0.6**	**0.7**	**30.6**	**3.2**
	DSM Programs	13.9	13.3	12.6	13.0	13.3	12.5	13.2	12.7	12.3	13.0	47.3	75.0
	Utah Geothermal	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Solar	-	-	-	-	-	-	-	-	-	-	-	-
U	Utah Cogen 1	-	-	-	14.1	-	-	-	-	-	-	-	-
T	Utah Cogen 2	-	-	-	-	-	-	-	-	-	-	950.4	722.8
A	Utah Combined Cycle	-	-	-	-	-	-	-	94.3	-	-	816.0	21.6
H	Utah IGCC Hunter 4	-	-	-	-	-	-	-	-	-	-	-	-
	Utah IGCC CT	-	-	-	-	-	-	-	-	-	-	-	-
	Utah PC Hunter 4	-	-	-	-	-	-	-	-	-	-	-	400.0
	Utah Coal $23.25/Ton	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Coal $27.00/Ton	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Simple Cycle CT	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Pumped Storage	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Wyo/Ut Tran L	-	-	-	-	-	-	-	-	-	-	-	265.3
	Total	**13.9**	**13.3**	12.6	**27.1**	**13.3**	**12.5**	**13.2**	**107.0**	**12.3**	**13.0**	**1,813.7**	**1,484.7**
	DSM Programs	2.3	2.3	2.4	2.4	2.4	2.4	2.5	2.5	2.5	2.5	9.3	15.7
W	Wyo Wind	-	-	-	-	-	-	-	-	-	-	-	54.0
Y	Wyo Combined Cycle	-	-	-	-	-	-	-	-	-	-	-	-
O	Wyo IGCC Wyodak 2	-	-	-	-	-	-	-	-	-	-	-	-
M	Wyo IGCC CT	-	-	-	-	-	-	-	-	-	-	-	-
I	Wyo PC Wyodak 2	-	-	-	-	-	-	-	-	-	-	-	325.0
N	Wyo Coal $6.70/Ton	-	-	-	-	-	-	-	-	-	-	-	146.6
G	Wyo Simple Cycle CT	-	-	-	-	-	-	-	-	-	-	-	-
	Total	**2.3**	**2.3**	**2.4**	**2.4**	**2.4**	**2.4**	**2.5**	**2.5**	**2.5**	**2.5**	**9.3**	**541.3**
T	DSM Programs	23.6	22.9	22.9	23.2	23.5	22.8	23.7	23.1	22.5	23.4	85.6	136.8
O	Short Term Cap Purch	40.2	-	-	-	-	-	-	-	-	286.9	-	459.9
T	Cogeneration	-	-	-	383.1	295.5	31.7	235.8	126.7	-	-	1,428.6	722.8
A	Combined Cycle CT	-	-	-	-	-	-	-	94.3	207.8	-	934.3	271.0
L	Coal	-	-	-	-	-	-	-	-	-	-	-	871.6
	All Others	-	-	-	-	-	-	-	-	-	-	-	391.3
	Total	**63.8**	22.9	22.9	406.3	**319.0**	54.5	259.5	244.1	230.3	310.3	**2,448.5**	**2,853.4**

Annual Summer Peak Capacity (MW)

		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
S	Native Load	7,987.0	8,030.0	8,203.0	8,435.0	8,608.0	8,767.0	8,937.0	9,052.0	9,267.0	9,399.0	10,535.0	12,042.0
Y	Long Term Sales	2,377.0	2,033.0	1,914.0	1,684.0	1,441.0	1,441.0	1,121.0	1,118.0	1,118.0	1,043.0	943.0	898.0
S	DSM Programs	(24.0)	(47.0)	(69.0)	(93.0)	(116.0)	(139.0)	(163.0)	(186.0)	(208.0)	(232.0)	(317.0)	(454.0)
T	**Total Requirements**	**10,340.0**	**10,016.0**	**10,048.0**	**10,026.0**	**9,933.0**	**10,069.0**	**9,895.0**	**9,984.0**	**10,177.0**	**10,210.0**	**11,161.0**	**12,486.0**
E													
M	Existing Generation	9,179.0	9,185.0	9,007.0	8,836.0	8,840.0	8,719.0	8,723.0	8,492.0	8,496.0	8,321.0	7,391.0	6,176.0
	Long Term Purchases	1,351.1	1,344.4	1,225.6	1,076.0	1,076.0	1,076.0	676.0	676.0	626.0	626.1	558.3	536.2
L	Short Term Market	805.7	713.6	875.4	814.0	571.0	571.0	651.0	648.0	698.0	623.0	590.7	567.9
&	Short Term Cap Purch	40.2	-	-	-	-	-	-	-	-	286.9	-	459.9
R	New Resources	1.0	1.0	1.0	384.0	680.0	711.0	947.0	1,168.0	1,376.0	1,376.0	3,743.0	5,999.0
	Total Resources	**11,377.0**	**11,244.0**	**11,109.0**	**11,110.0**	**11,167.0**	**11,077.0**	**10,997.0**	**10,984.0**	**11,196.0**	**11,233.0**	**12,283.0**	**13,739.0**

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
Reserves	1,037.0	1,228.0	1,061.0	1,083.0	1,233.0	1,008.0	1,101.0	999.0	1,019.0	1,022.0	1,121.0	1,253.0
Reserve Margin (%)	10.0	12.3	10.6	10.8	12.4	10.0	11.1	10.0	10.0	10.0	10.0	10.0

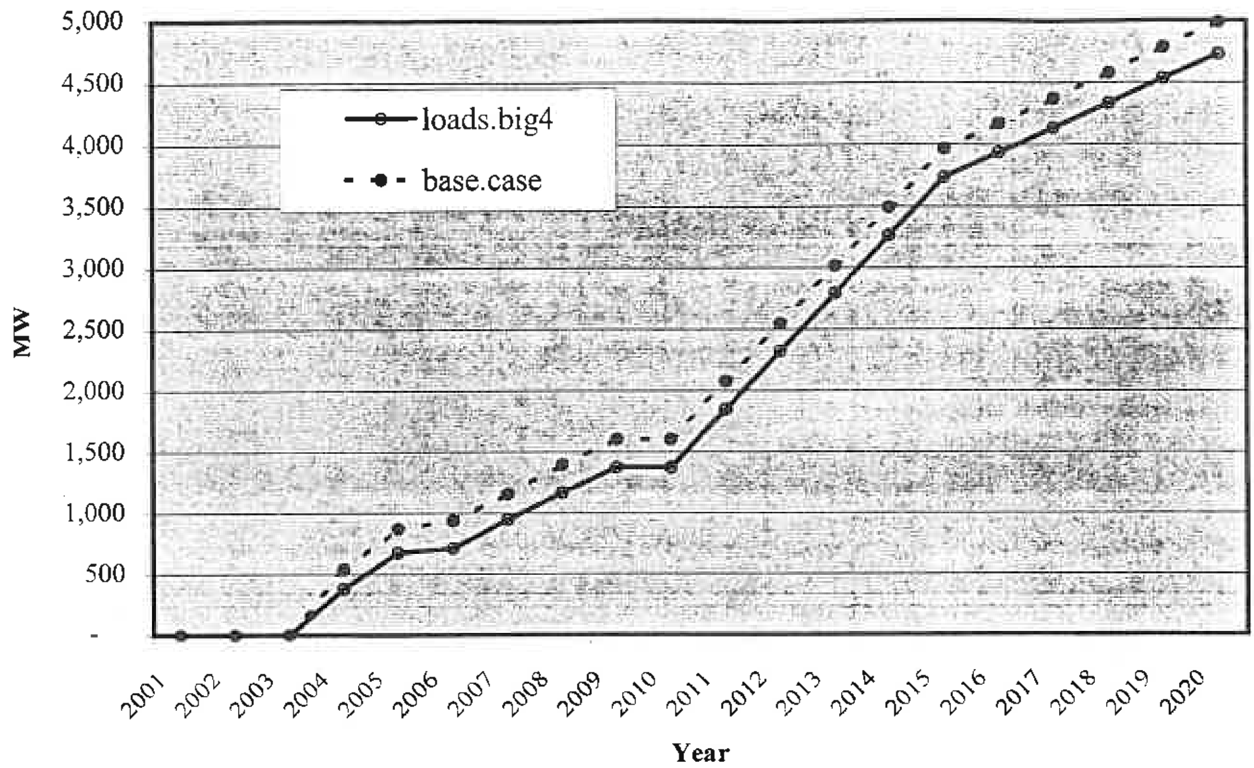
Case loads.big4 Loss of Utah 'Big 4' Interruptible Customers at end of Current Contracts

Cumulative Annual Energy (aMW)

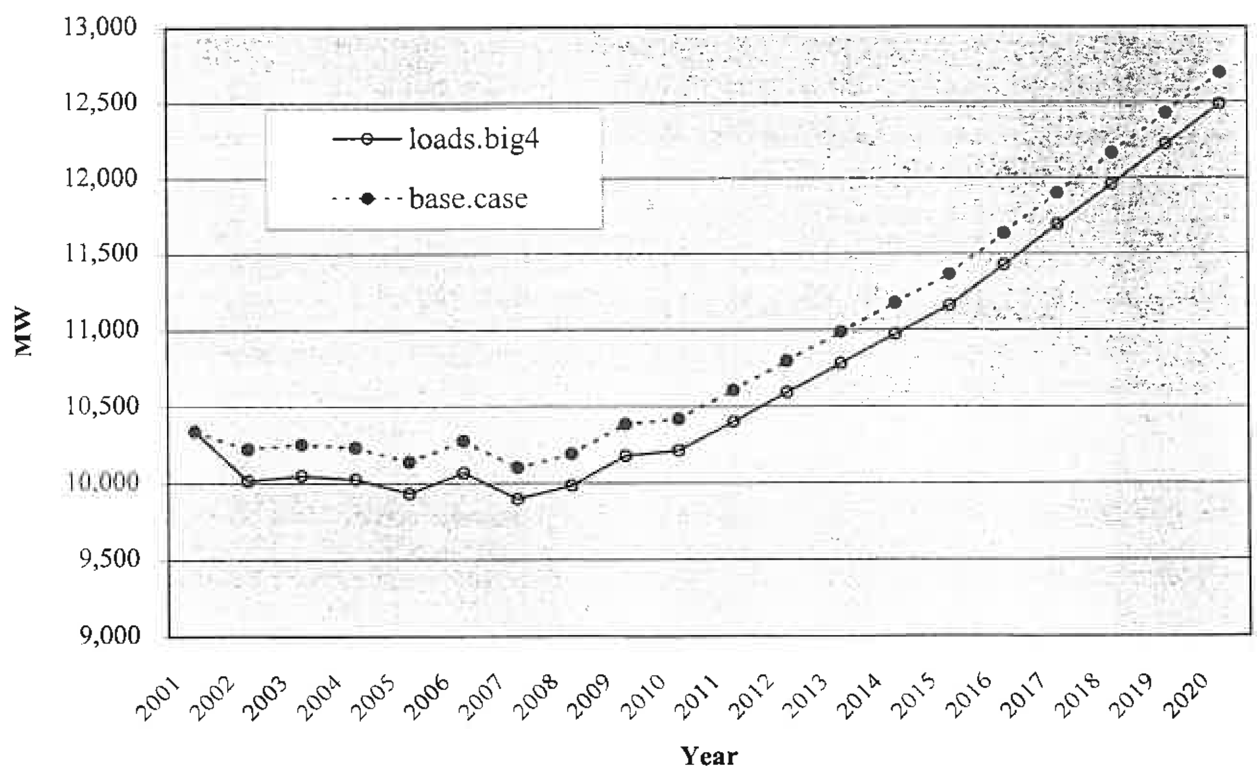
		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
	DSM Programs	5.2	10.4	15.9	21.5	27.1	32.8	38.5	44.1	49.7	55.4	76.3	110.0
	Or/Wa Wind	-	-	-	-	-	-	-	-	-	-	-	80.5
O	Or/Wa Geothermal	-	-	-	-	-	-	-	-	-	-	-	-
R	Or/Wa Cogen 1	-	-	-	93.1	186.2	200.1	200.1	200.1	200.1	200.1	200.1	200.1
/	Or/Wa Cogen 2	-	-	-	272.2	471.7	489.0	722.5	847.9	847.9	847.9	1,293.3	1,293.3
W	Or/Wa Combined Cycle	-	-	-	-	-	-	-	-	202.4	205.7	292.6	519.8
A	Or/Wa Bridger Transm	-	-	-	-	-	-	-	-	-	-	-	-
	Or/Wa Simple CycleCT	-	-	-	-	-	-	-	-	-	-	-	-
	Or/Wa Pump Storage	-	-	-	-	-	-	-	-	-	-	-	-
	Total	**5.2**	**10.4**	**15.9**	**386.9**	**685.0**	**722.0**	**961.1**	**1,092.2**	**1,300.2**	**1,309.1**	**1,862.3**	**2,203.8**
G	DSM Programs	0.5	0.9	1.4	1.9	2.4	2.9	3.4	3.9	4.4	4.9	6.7	9.4
O	Goshen Cogen 1	-	-	-	-	-	-	-	-	-	-	27.9	27.9
S	Goshen Cogen 2	-	-	-	-	-	-	-	-	-	-	-	-
H	Goshen Combined C CT	-	-	-	-	-	-	-	-	-	-	-	-
E	Goshen Bridger Trans	-	-	-	-	-	-	-	-	-	-	-	-
N	Goshen Hunter Transm	-	-	-	-	-	-	-	-	-	-	-	-
	Total	**0.5**	**0.9**	**1.4**	**1.9**	**2.4**	**2.9**	**3.4**	**3.9**	**4.4**	**4.9**	**34.6**	**37.3**
	DSM Programs	9.1	17.7	25.8	34.2	42.8	50.9	59.4	67.7	75.7	84.1	115.2	165.3
	Utah Geothermal	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Solar	-	-	-	-	-	-	-	-	-	-	-	-
U	Utah Cogen 1	-	-	-	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0
T	Utah Cogen 2	-	-	-	-	-	-	-	-	-	-	924.1	1,617.7
A	Utah Combined Cycle	-	-	-	-	-	-	-	89.7	85.8	91.5	724.0	718.9
H	Utah IGCC Hunter 4	-	-	-	-	-	-	-	-	-	-	-	-
	Utah IGCC CT	-	-	-	-	-	-	-	-	-	-	-	-
	Utah PC Hunter 4	-	-	-	-	-	-	-	-	-	-	-	366.6
	Utah Coal $23.25/Ton	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Coal $27.00/Ton	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Simple Cycle CT	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Pumped Storage	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Wyo/Ut Tran L	-	-	-	-	-	-	-	-	-	-	-	252.2
	Total	**9.1**	**17.7**	**25.8**	**48.2**	**56.8**	**64.9**	**73.4**	**171.3**	**175.5**	**189.6**	**1,777.3**	**3,134.7**
	DSM Programs	1.8	3.6	5.5	7.3	9.3	11.2	13.1	15.1	17.1	19.1	26.7	39.5
W	Wyo Wind	-	-	-	-	-	-	-	-	-	-	-	60.4
Y	Wyo Combined Cycle	-	-	-	-	-	-	-	-	-	-	-	-
O	Wyo IGCC Wyodak 2	-	-	-	-	-	-	-	-	-	-	-	-
M	Wyo IGCC CT	-	-	-	-	-	-	-	-	-	-	-	-
I	Wyo PC Wyodak 2	-	-	-	-	-	-	-	-	-	-	-	297.8
N	Wyo Coal $6.70/Ton	-	-	-	-	-	-	-	-	-	-	-	134.4
G	Wyo Simple Cycle CT	-	-	-	-	-	-	-	-	-	-	-	-
	Total	**1.8**	**3.6**	**5.5**	**7.3**	**9.3**	**11.2**	**13.1**	**15.1**	**17.1**	**19.1**	**26.7**	**532.2**
	DSM Programs	16.5	32.6	48.6	65.0	81.6	97.8	114.5	130.8	146.9	163.6	224.9	324.3
	Short Term Cap Purch	-	-	-	-	-	-	-	-	-	-	-	6.9
T	Cogeneration	-	-	-	379.3	671.8	703.1	936.6	1,062.0	1,062.0	1,062.0	2,459.5	3,153.1
O	Combined Cycle CT	-	-	-	-	-	-	-	89.7	288.2	297.2	1,016.6	1,238.6
T	Coal	-	-	-	-	-	-	-	-	-	-	-	798.8
A	Transmission	-	-	-	-	-	-	-	-	-	-	-	252.2
L	Simple Cycle	-	-	-	-	-	-	-	-		-	-	-
	All Others	-	-	-	-	-	-	-	-		-	-	140.9
	Total	**16.5**	**32.6**	**48.6**	**444.3**	**753.4**	**800.9**	**1,051.1**	**1,282.5**	**1,497.1**	**1,522.8**	**3,700.9**	**5,914.8**
		-	-	-	-	-	-	-	-	-	-	-	-
S	**Native Load**	5,677.0	5,744.6	5,881.5	6,002.1	6,122.6	6,248.3	6,392.6	6,540.1	6,691.4	6,813.5	7,622.3	8,696.7
Y	**Pump Storage/Peak Retu**	276.9	276.9	225.1	223.2	223.2	223.2	223.2	223.2	223.2	223.2	223.2	223.2
S	**Long Term Sales**	1,528.9	1,178.8	1,085.7	975.1	789.3	742.0	588.2	585.6	546.1	529.9	427.9	403.9
T	**Short Term Sales**	1,518.6	1,672.0	1,599.3	1,882.3	2,031.8	1,932.3	2,021.2	2,033.2	2,058.1	1,907.7	2,326.7	2,324.1
E	**DSM Programs**	(16.5)	(32.6)	(48.6)	(65.0)	(81.6)	(97.8)	(114.5)	(130.8)	(146.9)	(163.6)	(224.9)	(324.3)
M	**Total Requirements**	8,984.9	8,839.7	8,743.0	9,017.6	9,085.3	9,048.0	9,110.7	9,251.3	9,371.9	9,310.7	10,375.2	11,323.7
		-	-	-	-	-	-	-	-	-	-	-	-
	Existing Generation	7,379.6	7,371.3	7,328.2	7,368.4	7,294.6	7,260.5	7,264.9	7,154.3	7,154.2	7,067.9	6,206.2	5,069.2
L	**Long Term Purchases**	700.0	709.8	749.6	736.9	736.9	736.9	527.6	338.2	338.2	335.0	243.1	242.5
&	**Short Term Market**	805.7	708.2	600.4	502.5	316.7	269.4	325.0	511.8	472.3	459.3	449.2	426.3
R	**Short Term Purchases**	99.6	50.5	64.8	30.5	65.3	78.1	56.6	95.4	57.0	89.4	0.7	2.0
	New Resources	-	-	-	379.3	671.8	703.1	936.6	1,151.7	1,350.2	1,359.2	3,476.0	5,583.7
	Total Resources	8,984.9	8,839.7	8,743.0	9,017.6	9,085.3	9,048.0	9,110.7	9,251.3	9,371.9	9,310.7	10,375.2	11,323.7

Case loads.big4 Loss of Utah 'Big 4' Interruptible Customers

Summer Cogeneration & Combined Cycle Resources Selected (MW)

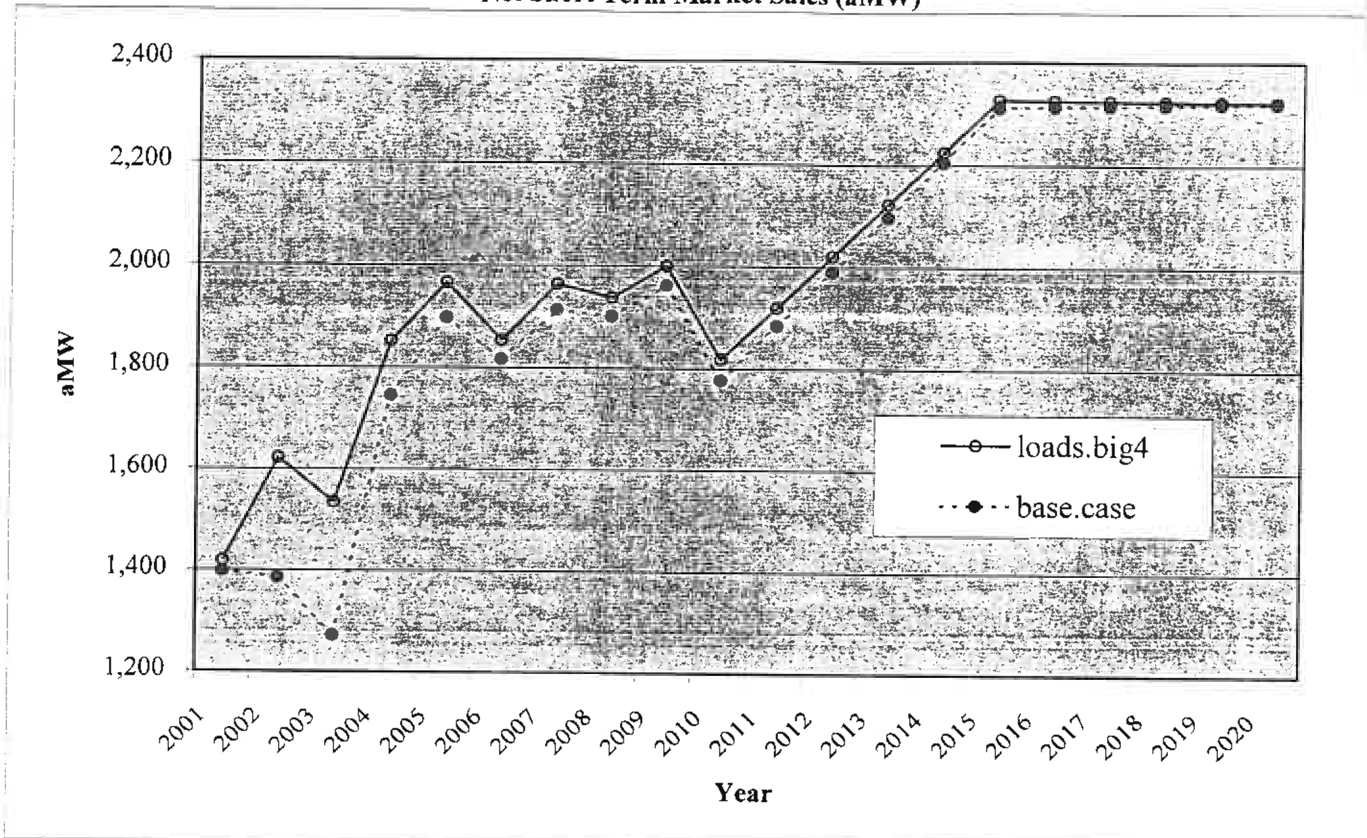


Total System Load Requirements including Long Term Sales and Reduced by DSM (Summer MW)

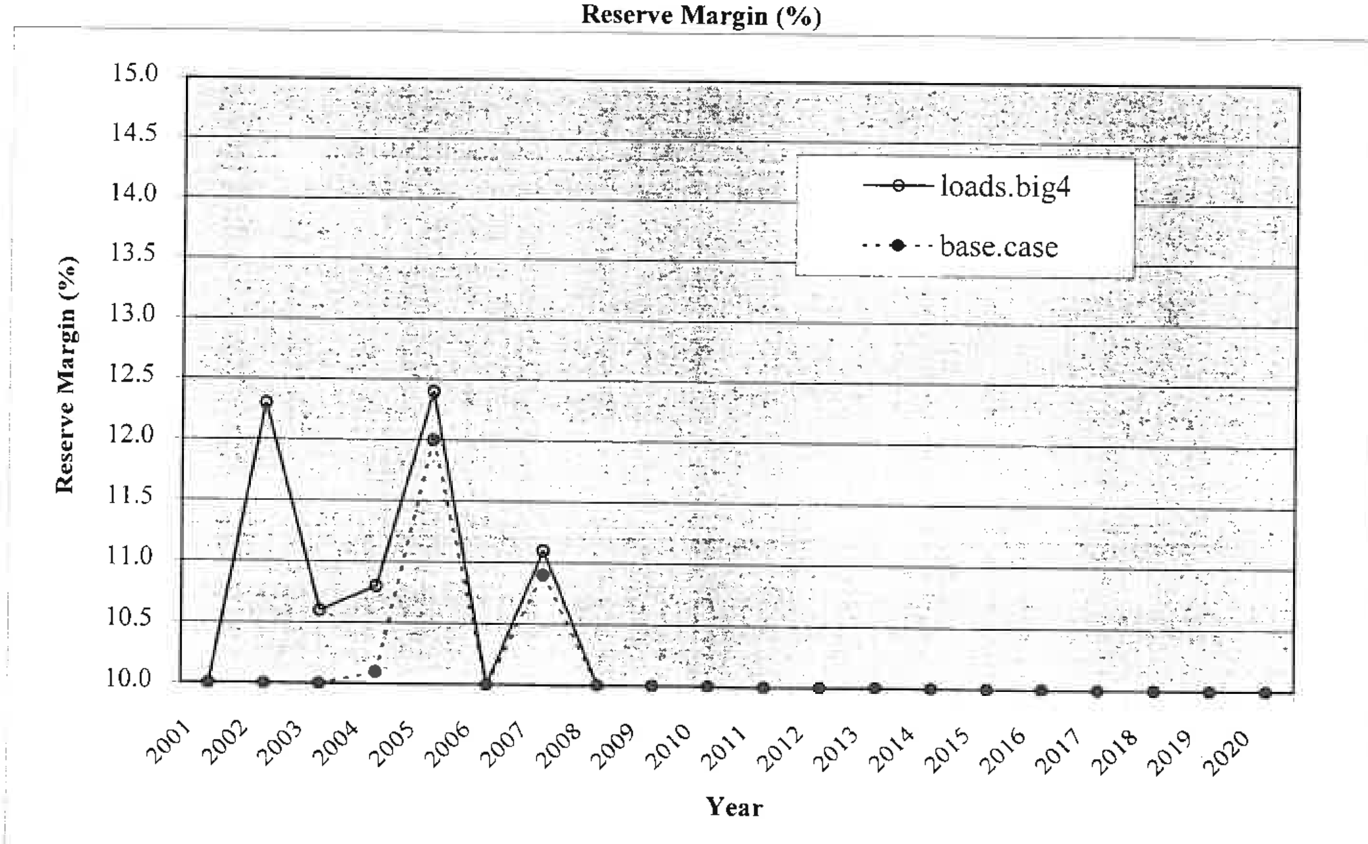


Case loads.big4 Loss of Utah 'Big 4' Interruptible Customers

Net Short Term Market Sales (aMW)



Reserve Margin (%)



PacifiCorp

Integrated Resource Planning

RAMPP-6

Large Customers Modeled as Firm Retail Customers

Case 131

Tab 27

Case firm.ind Large Customers Modeled as Firm Retail Customers LESS Base.Case (Reference Case)

Incremental Summer Capacity (MW) of Resource Additions

		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
	Short Term Cap Purch	159.3	161.0	160.9	-	-	-	-	-	-	-	105.4	111.6
	DSM Programs	-	-	-	-	-	-	-	-	-	-	-	-
	Or/Wa Wind	-	-	-	-	-	-	-	-	-	-	-	-
O	Or/Wa Geothermal	-	-	-	-	-	-	-	-	-	-	-	-
R	Or/Wa Cogen 1	-	-	-	-	-	-	-	-	-	-	-	-
/	Or/Wa Cogen 2	-	-	-	67.7	(75.2)	114.4	(81.2)	11.5	-	-	(37.2)	-
W	Or/Wa Combined Cycle	-	-	-	-	-	-	-	-	-	-	-	-
A	Or/Wa Bridger Transm	-	-	-	-	-	-	-	-	-	-	6.1	(13.3)
	Or/Wa Simple CycleCT	-	-	-	-	-	-	-	-	-	-	-	-
	Or/Wa Pump Storage	-	-	-	-	-	-	-	-	-	-	-	-
	Total	-	-	-	**67.7**	**(75.2)**	**114.4**	**(81.2)**	**11.5**	-	-	**(31.1)**	**(13.3)**
G	DSM Programs	-	-	-	-	-	-	-	-	-	-	-	-
O	Goshen Cogen 1	-	-	-	-	-	-	-	-	-	-	-	-
S	Goshen Cogen 2	-	-	-	-	-	-	-	-	-	-	-	-
H	Goshen Combined C CT	-	-	-	-	-	-	-	-	-	-	-	-
E	Goshen Bridger Trans	-	-	-	-	-	-	-	-	-	-	-	-
N	Goshen Hunter Transm	-	-	-	-	-	-	-	-	-	-	-	-
	Total	-	-	-	-	-	-	-	-	-	-	-	-
	DSM Programs	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Geothermal	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Solar	-	-	-	-	-	-	-	-	-	-	-	-
U	Utah Cogen 1	-	-	-	-	-	-	-	-	-	-	-	-
T	Utah Cogen 2	-	-	-	-	-	-	-	-	-	-	(29.6)	29.6
A	Utah Combined Cycle	-	-	-	84.1	(61.6)	31.6	(12.9)	82.5	-	-	(44.7)	(18.1)
H	Utah IGCC Hunter 4	-	-	-	-	-	-	-	-	-	-	-	-
	Utah IGCC CT	-	-	-	-	-	-	-	-	-	-	-	-
	Utah PC Hunter 4	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Coal $23.25/Ton	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Coal $27.00/Ton	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Simple Cycle CT	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Pumped Storage	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Wyo/Ut Tran L	-	-	-	-	1.4	-	-	-	-	-	-	(1.4)
	Total	-	-	-	**84.1**	**(60.2)**	**31.6**	**(12.9)**	**82.5**	-	-	**(74.3)**	**10.1**
	DSM Programs	-	-	-	-	-	-	-	-	-	-	-	-
W	Wyo Wind	-	-	-	-	-	-	-	-	-	-	-	-
Y	Wyo Combined Cycle	-	-	-	-	-	-	-	-	-	-	-	-
O	Wyo IGCC Wyodak 2	-	-	-	-	-	-	-	-	-	-	-	-
M	Wyo IGCC CT	-	-	-	-	-	-	-	-	-	-	-	-
I	Wyo PC Wyodak 2	-	-	-	-	-	-	-	-	-	-	-	-
N	Wyo Coal $6.70/Ton	-	-	-	-	-	-	-	-	-	-	-	(3.3)
G	Wyo Simple Cycle CT	-	-	-	-	-	-	-	-	-	-	-	-
	Total	-	-	-	-	-	-	-	-	-	-	-	**(3.3)**
T	DSM Programs	-	-	-	-	-	-	-	-	-	-	-	-
O	Short Term Cap Purch	159.3	161.0	160.9	-	-	-	-	-	-	-	105.4	111.6
T	Cogeneration	-	-	-	67.7	(75.2)	114.4	(81.2)	11.5	-	-	(66.8)	29.6
A	Combined Cycle CT	-	-	-	[illegible]	(61.6)	31.6	(12.9)	82.5	-	-	(38.6)	(31.4)
L	Coal	-	-	-	-	-	-	-	-	-	-	-	(3.3)
	All Others	-	-	-	-	1.4	-	-	-	-	-	-	(1.4)
	Total	**159.3**	**161.0**	**160.9**	151.8	**(135.4)**	**146.0**	**(94.1)**	[illegible]	-	-	-	**105.1**

Annual Summer Peak Capacity (MW)

		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
S	Native Load	367.0	367.0	367.0	367.0	367.0	367.0	367.0	367.0	367.0	367.0	367.0	368.0
Y	Long Term Sales	(368.0)	(367.0)	(367.0)	(367.0)	(367.0)	(367.0)	(367.0)	(367.0)	(367[illegible]	[illegible]367.0)	(367.0)	(367.0)
S	DSM Programs	-	-	-	-	-	-	-	-	-	-	-	-
T	**Total Requirements**	**(1.0)**	-	-	-	-	-	-	-	-	-	-	**1.0**
E													
M	Existing Generation	-	-	-	-	(2.0)	(2.0)	(2.0)	(2.0)	(2.0)	(2.0)	(2.0)	-
	Long Term Purchases	(161.3)	(162.0)	(160.9)	(161.0)	(161.0)	(161.0)	(161.0)	(161.0)	(161.0)	(161.0)	(161.4)	(161.6)
L	Short Term Market	-	-	-	-	-	-	-	-	-	-	-	-
&	Short Term Cap Purch	159.3	161.0	160.9	-	-	-	-	-	-	-	105.4	111.6
R	New Resources	-	-	-	152.0	16.0	162.0	68.0	162.0	163.0	163.0	57.0	50.0
	Total Resources	**(2.0)**	**(1.0)**	-	**(9.0)**	**(147.0)**	**(1.0)**	**(95.0)**	**(1.0)**	-	-	**(1.0)**	-
	Reserves	(2.0)	-	-	(9.0)	(146.0)	-	(94.0)	-	-	-	-	-
	Reserve Margin (%)	-	-	-	(0.1)	(1.4)	-	(0.9)	-	-	-	-	-

Case firm.ind Large Customers Modeled as Firm Retail Customers LESS Base.Case (Reference Case)

Cumulative Annual Energy (aMW)

		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
	DSM Programs	-	-	-	-	-	-	-	-	-	-	-	-
	Or/Wa Wind	-	-	-	-	-	-	-	-	-	-	-	-
O	Or/Wa Geothermal	-	-	-	-	-	-	-	-	-	-	-	-
R	Or/Wa Cogen 1	-	-	-	-	-	-	-	-	-	-	-	-
/	Or/Wa Cogen 2	-	-	-	67.0	(7.4)	105.8	25.4	36.6	36.8	36.8	-	-
W	Or/Wa Combined Cycle	-	-	-	-	-	-	-	-	(1.3)	-	2.6	(2.8)
A	Or/Wa Bridger Transm	-	-	-	-	-	-	-	-	-	-	-	-
	Or/Wa Simple CycleCT	-	-	-	-	-	-	-	-	-	-	-	-
	Or/Wa Pump Storage	-	-	-	-	-	-	-	-	-	-	-	-
	Total	-	-	-	**67.0**	**(7.4)**	**105.8**	**25.4**	**36.6**	**35.5**	**36.8**	**2.6**	**(2.8)**
G	DSM Programs	-	-	-	-	-	-	-	-	-	-	-	-
O	Goshen Cogen 1	-	-	-	-	-	-	-	-	-	-	-	-
S	Goshen Cogen 2	-	-	-	-	-	-	-	-	-	-	-	-
H	Goshen Combined C CT	-	-	-	-	-	-	-	-	-	-	-	-
E	Goshen Bridger Trans	-	-	-	-	-	-	-	-	-	-	-	-
N	Goshen Hunter Transm	-	-	-	-	-	-	-	-	-	-	-	-
	Total	-	-	-	-	-	-	-	-	-	-	-	-
	DSM Programs	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Geothermal	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Solar	-	-	-	-	-	-	-	-	-	-	-	-
U	Utah Cogen 1	-	-	-	-	-	-	-	-	-	-	-	-
T	Utah Cogen 2	-	-	-	-	-	-	-	-	-	-	(32.3)	(3.7)
A	Utah Combined Cycle	-	-	-	72.5	21.8	52.1	32.1	104.8	92.8	112.3	46.7	6.1
H	Utah IGCC Hunter 4	-	-	-	-	-	-	-	-	-	-	-	-
	Utah IGCC CT	-	-	-	-	-	-	-	-	-	-	-	-
	Utah PC Hunter 4	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Coal $23.25/Ton	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Coal $27.00/Ton	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Simple Cycle CT	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Pumped Storage	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Wyo/Ut Tran L	-	-	-	-	1.3	1.4	1.4	1.4	1.4	1.4	1.4	-
	Total	-	-	-	**72.5**	**23.1**	**53.4**	**33.5**	**106.2**	**94.1**	**113.6**	**15.8**	**2.4**
	DSM Programs	-	-	-	-	-	-	-	-	-	-	-	-
W	Wyo Wind	-	-	-	-	-	-	-	-	-	-	-	-
Y	Wyo Combined Cycle	-	-	-	-	-	-	-	-	-	-	-	-
O	Wyo IGCC Wyodak 2	-	-	-	-	-	-	-	-	-	-	-	-
M	Wyo IGCC CT	-	-	-	-	-	-	-	-	-	-	-	-
I	Wyo PC Wyodak 2	-	-	-	-	-	-	-	-	-	-	-	-
N	Wyo Coal $6.70/Ton	-	-	-	-	-	-	-	-	-	-	-	(3.0)
G	Wyo Simple Cycle CT	-	-	-	-	-	-	-	-	-	-	-	-
	Total	-	-	-	-	-	-	-	-	-	-	-	**(3.0)**
	DSM Programs	-	-	-	-	-	-	-	-	-	-	-	-
	Short Term Cap Purch	-	-	-	-	-	-	-	-	-	-	0.1	1.7
T	Cogeneration	-	-	-	67.0	(7.4)	105.8	25.4	36.6	36.8	36.8	(32.3)	(3.7)
O	Combined Cycle CT	-	-	-	72.5	21.8	52.1	32.1	104.8	91.4	112.3	49.3	3.3
T	Coal	-	-	-	-	-	-	-	-	-	-	-	(3.0)
A	Transmission	-	-	-	-	1.3	1.4	1.4	1.4	1.4	1.4	1.4	-
L	Simple Cycle	-	-	-	-	-	-	-	-	-	-	-	-
	All Others	-	-	-	-	-	-	-	-	-	-	-	-
	Total	-	-	-	**139.5**	**15.7**	**159.2**	**58.9**	**142.7**	**129.6**	**150.5**	**18.4**	**(1.8)**
		-	-	-	-	-	-	-	-	-	-	-	-
S	**Native Load**	418.8	418.9	418.7	418.8	418.8	418.7	418.8	418.8	418.8	418.7	418.8	418.7
Y	**Pump Storage/Peak Retu**	-	-	-	-	-	-	-	-	-	-	-	-
S	**Long Term Sales**	(418.8)	(418.8)	(418.9)	(418.9)	(418.9)	(418.9)	(418.8)	(418.8)	(418.9)	(418.9)	(418.9)	(418.9)
T	**Short Term Sales**	88.3	84.7	65.3	143.7	55.6	152.3	80.3	137.0	119.9	176.2	18.3	0.3
E	**DSM Programs**	-	-	-	-	-	-	-	-	-	-	-	-
M	**Total Requirements**	88.4	84.6	65.2	143.7	55.7	152.2	80.4	137.0	119.8	176.1	18.2	0.2
		-	-	-	-	-	-	-	-	-	-	-	-
	Existing Generation	(2.7)	-	1.0	(3.1)	(3.1)	(7.2)	(4.2)	(8.2)	(13.2)	(8.1)	(3.0)	(0.4)
L	**Long Term Purchases**	(1.6)	(1.6)	(1.6)	(1.6)	(1.6)	(1.6)	(1.5)	(1.6)	(1.7)	(1.6)	(1.6)	0.2
&	**Short Term Market**	-	-	-	-	-	-	-	-	-	-	-	-
R	**Short Term Purchases**	92.6	86.2	65.6	8.8	44.6	1.6	27.2	4.0	4.9	35.3	4.5	3.9
	New Resources	-	-	-	139.5	15.6	159.2	58.9	142.8	129.6	150.5	18.3	(3.4)
	Total Resources	88.4	84.6	65.2	143.7	55.6	152.2	80.4	137.0	119.8	176.1	18.2	0.2

PacifiCorp RAMPP-6

Case firm.ind Large Customers Modeled as Firm Retail Customers LESS

Base.Case (Reference Case)

Total System Production Cost in Millions of $2001

Year	Total System Production Cost (A)	Adder (B)	TSPC less Adder (C) (A)+(B)	Net PV Factor at 4.88% (D)	Net Present Value (E) (C)*(D)	
2001	$ 10.2	$ -	$ 10.2	1.0000	$ 10.2	*
2002	$ 10.5	$ -	$ 10.5	0.9534	$ 10.0	*
2003	$ 10.2	$ -	$ 10.2	0.9090	$ 9.3	*
2004	$ 2.6	$ -	$ 2.6	0.8667	$ 2.2	*
2005	$ 3.5	$ -	$ 3.5	0.8264	$ 2.9	*
2006	$ 3.9	$ -	$ 3.9	0.7879	$ 3.0	*
2007	$ 2.1	$ -	$ 2.1	0.7512	$ 1.6	*
2008	$ 3.9	$ -	$ 3.9	0.7162	$ 2.8	*
2009	$ 4.8	$ -	$ 4.8	0.6829	$ 3.2	*
2010	$ 1.7	$ -	$ 1.7	0.6511	$ 1.1	*
2011	$ 3.1	$ -	$ 3.1	0.6208	$ 1.9	
2012	$ 4.4	$ -	$ 4.4	0.5919	$ 2.6	
2013	$ 5.8	$ -	$ 5.8	0.5643	$ 3.3	
2014	$ 7.2	$ -	$ 7.2	0.5380	$ 3.9	
2015	$ 8.5	$ -	$ 8.5	0.5130	$ 4.4	*
2016	$ 8.8	$ -	$ 8.8	0.4891	$ 4.3	
2017	$ 9.0	$ -	$ 9.0	0.4663	$ 4.2	
2018	$ 9.3	$ -	$ 9.3	0.4446	$ 4.1	
2019	$ 9.6	$ -	$ 9.6	0.4239	$ 4.1	
2020	$ 9.8	$ -	$ 9.8	0.4042	$ 4.0	*
2021	$ 9.7	$ -	$ 9.7	0.3854	$ 3.8	
2022	$ 9.7	$ -	$ 9.7	0.3674	$ 3.6	
2023	$ 9.6	$ -	$ 9.6	0.3503	$ 3.4	
2024	$ 9.6	$ -	$ 9.6	0.3340	$ 3.2	
2025	$ 9.5	$ -	$ 9.5	0.3185	$ 3.0	
2026	$ 9.4	$ -	$ 9.4	0.3036	$ 2.9	
2027	$ 9.4	$ -	$ 9.4	0.2895	$ 2.7	
2028	$ 9.3	$ -	$ 9.3	0.2760	$ 2.6	
2029	$ 9.3	$ -	$ 9.3	0.2632	$ 2.4	
2030	$ 9.2	$ -	$ 9.2	0.2509	$ 2.3	*
2031	$ 9.2	$ -	$ 9.2	0.2392	$ 2.2	
2032	$ 9.2	$ -	$ 9.2	0.2281	$ 2.1	
2033	$ 9.2	$ -	$ 9.2	0.2175	$ 2.0	
2034	$ 9.2	$ -	$ 9.2	0.2073	$ 1.9	
2035	$ 9.2	$ -	$ 9.2	0.1977	$ 1.8	
2036	$ 9.2	$ -	$ 9.2	0.1885	$ 1.7	
2037	$ 9.2	$ -	$ 9.2	0.1797	$ 1.7	
2038	$ 9.2	$ -	$ 9.2	0.1713	$ 1.6	
2039	$ 9.2	$ -	$ 9.2	0.1634	$ 1.5	
2040	$ 9.2	$ -	$ 9.2	0.1558	$ 1.4	
				40 Year Net Present Value	**$ 131**	

Case firm.ind Large Customers Modeled as Firm Retail Customers LESS Base.Case
Detail supporting the Total System Production Costs in $1,000

Total System Production Cost in $1,000

Totals	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020	2030
Long Term Purchases	6,645	6,511	6,648	(2,224)	31	2	(743)	(1,290)	(1,164)	(1,272)	4,158	5,143	4,828
Short Term Purchases	19,577	18,789	12,644	3,434	11,705	3,107	7,135	5,048	2,712	5,633	1,731	1,547	2,140
Existing Resource O&M	(100)	-	111	(413)	(109)	(373)	(199)	(431)	(1,042)	(575)	(411)	(102)	(207)
Potential Resource O&M	-	-	-	5,764	756	5,773	2,548	6,484	6,348	6,567	1,906	1,701	1,739
Fuel Existing	(253)	-	127	(87)	(263)	(602)	(521)	(652)	(708)	(579)	(103)	6	6
Fuel Potential	-	-	-	15,288	1,712	17,558	6,531	16,036	14,637	17,112	2,172	(173)	77
Short Term Sales	(15,638)	(14,766)	(9,306)	(28,043)	(11,321)	(30,389)	(16,368)	(30,082)	(24,602)	(33,554)	(3,428)	(391)	(1,060)
Total Operating Exp	10,230	10,534	10,224	(6,280)	2,510	(4,924)	(1,618)	(4,887)	(3,819)	(6,669)	6,026	7,731	7,523
Total Annual CC	-	-	-	8,847	971	8,775	3,686	8,776	8,573	8,376	2,507	2,080	1,679
Total Annual DSM	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Real Costs	10,230	10,534	10,224	2,567	3,481	3,851	2,068	3,889	4,755	1,707	8,533	9,810	9,202
	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Real $2001 Costs	**10,230**	**10,534**	**10,224**	**2,567**	**3,481**	**3,851**	**2,068**	**3,889**	**4,755**	**1,707**	**8,533**	**9,810**	**9,202**

Annual Capital Cost

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020	2030
Coal	-	-	-	-	32	30	29	28	27	26	21	(232)	(157)
Nuclear	-	-	-	-	-	-	-	-	-	-	-	-	-
Oil/Gas	-	-	-	-	-	-	-	-	-	-	-	-	-
Combustion Turbi	-	-	-	-	-	-	-	-	-	-	-	-	-
Combined Cycle	-	-	-	5,138	1,342	3,154	2,345	6,889	6,730	6,576	3,981	2,311	1,836
Hydro	-	-	-	-	-	-	-	-	-	-	-	-	-
Cogen	-	-	-	3,709	(402)	5,591	1,311	1,859	1,816	1,774	(1,495)	-	-
Purchase	-	-	-	-	-	-	-	-	-	-	-	-	-
Renewable	-	-	-	-	-	-	-	-	-	-	-	-	-
Storage	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Annual CC	-	-	-	8,847	971	8,775	3,686	8,776	8,573	8,376	2,507	2,080	1,679

DSM PROGRAM

Total Annual DSM	-	-	-	-	-	-	-	-	-	-	-	-	-

Fuel Cost $	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020	2030
Fuel Existing	(253)	-	127	(87)	(263)	(602)	(521)	(652)	(708)	(579)	(103)	6	6
Fuel Potential	-	-	-	15,288	1,712	17,558	6,531	16,036	14,637	17,112	2,172	(173)	77

Case firm.ind Large Customers Modeled as Firm Retail Customers

Incremental Summer Capacity (MW) of Resource Additions

		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
	Short Term Cap Purch	199.5	162.3	331.9	-	-	-	-	-	-	286.9	105.4	539.4
	DSM Programs	6.8	6.7	7.2	7.2	7.1	7.3	7.3	7.2	7.1	7.2	26.6	42.9
	Or/Wa Wind	-	-	-	-	-	-	-	-	-	-	-	72.0
O	Or/Wa Geothermal	-	-	-	-	-	-	-	-	-	-	-	-
R	Or/Wa Cogen 1	-	-	-	94.0	94.0	14.1	-	-	-	-	-	-
/	Or/Wa Cogen 2	-	-	-	450.6	96.4	151.4	125.1	63.4	-	-	419.7	-
W	Or/Wa Combined Cycle	-	-	-	-	-	-	-	-	207.8	-	107.2	253.3
A	Or/Wa Bridger Transm	-	-	-	-	-	-	-	-	-	-	-	-
	Or/Wa Simple CycleCT	-	-	-	-	-	-	-	-	-	-	-	-
	Or/Wa Pump Storage	-	-	-	-	-	-	-	-	-	-	-	-
	Total	**6.8**	**6.7**	**7.2**	**551.8**	**197.5**	**172.8**	**132.4**	**70.6**	**214.9**	**7.2**	**553.5**	**368.2**
G	DSM Programs	0.6	0.6	0.7	0.6	0.7	0.6	0.7	0.7	0.6	0.7	2.4	3.2
O	Goshen Cogen 1	-	-	-	-	-	-	-	-	-	-	28.2	-
S	Goshen Cogen 2	-	-	-	-	-	-	-	-	-	-	-	-
H	Goshen Combined C CT	-	-	-	-	-	-	-	-	-	-	-	-
E	Goshen Bridger Trans	-	-	-	-	-	-	-	-	-	-	-	-
N	Goshen Hunter Transm	-	-	-	-	-	-	-	-	-	-	-	-
	Total	**0.6**	**0.6**	**0.7**	**0.6**	**0.7**	**0.6**	**0.7**	**0.7**	**0.6**	**0.7**	**30.6**	**3.2**
	DSM Programs	13.9	13.4	12.5	13.1	13.2	12.6	13.2	12.7	12.4	12.9	47.3	75.2
	Utah Geothermal	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Solar	-	-	-	-	-	-	-	-	-	-	-	-
U	Utah Cogen 1	-	-	-	14.1	-	-	-	-	-	-	-	-
T	Utah Cogen 2	-	-	-	-	-	-	-	-	-	-	1,178.8	494.4
A	Utah Combined Cycle	-	-		132.4	6.7	44.3	-	268.3	-	-	523.3	276.2
H	Utah IGCC Hunter 4	-	-	-	-	-	-	-	-	-	-	-	-
	Utah IGCC CT	-	-	-	-	-	-	-	-	-	-	-	-
	Utah PC Hunter 4	-	-	-	-	-	-	-	-	-	-	-	400.0
	Utah Coal $23.25/Ton	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Coal $27.00/Ton	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Simple Cycle CT	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Pumped Storage	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Wyo/Ut Tran L	-	-	-	-	20.2	-	-	-	-	-	-	245.1
	Total	**13.9**	**13.4**	**12.5**	**159.6**	**40.1**	**56.9**	**13.2**	**281.0**	**12.4**	**12.9**	**1,749.4**	**1,490.9**
	DSM Programs	2.3	2.3	2.4	2.4	2.4	2.4	2.5	2.5	2.5	2.5	9.3	15.7
W	Wyo Wind	-	-	-	-	-	-	-	-	-	-	-	54.0
Y	Wyo Combined Cycle	-	-	-	-	-	-	-	-	-	-	-	-
O	Wyo IGCC Wyodak 2	-	-	-	-	-	-	-	-	-	-	-	-
M	Wyo IGCC CT	-	-	-	-	-	-	-	-	-	-	-	-
I	Wyo PC Wyodak 2	-	-	-	-	-	-	-	-	-	-	-	325.0
N	Wyo Coal $6.70/Ton	-	-	-	-	-	-	-	-	-	-	-	143.3
G	Wyo Simple Cycle CT	-	-	-	-	-	-	-	-	-	-	-	-
	Total	**2.3**	**2.3**	**2.4**	**2.4**	[illegible]	**2.4**	**2.5**	**2.5**	**2.5**	**2.5**	**9.3**	**538.0**
T	DSM Programs	23.6	23.0	22.8	23.3	23.4	22.9	23.7	23.1	22.6	23.3	85.6	137.0
O	Short Term Cap Purch	199.5	162.3	331.9	-	-	-	-	-	-	286.9	105.4	539.4
T	Cogeneration	-	-	-	558.7	190.4	165.5	125.1	63.4	-	-	1,626.7	494.4
A	Combined Cycle CT	-	-	-	132.4	6.7	44.3	-	268.3	207.8	-	630.5	529.5
L	Coal	-	-	-	-	-	-	-	-	-	-	-	868.3
	All Others	-	-	-	-	20.2	-	-	-	-	-	-	371.1
	Total	**223.1**	**185.3**	**354.[illegible]**	**714.4**	**240.7**	**232.7**	**148.8**	**354.8**	**230.4**	**310.2**	**2,448.2**	**2,939.7**

Annual Summer Peak Capacity (MW)

		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
S	Native Load	8,354.0	8,397.0	8,570.0	8,802.0	8,975.0	9,134.0	9,304.0	9,419.0	9,634.0	9,766.0	10,902.0	12,410.0
Y	Long Term Sales	2,009.0	1,872.0	1,753.0	1,523.0	1,280.0	1,280.0	960.0	957.0	957.0	882.0	782.0	737.0
S	DSM Programs	(24.0)	(47.0)	(69.0)	(93.0)	(116.0)	(139.0)	(163.0)	(186.0)	(208.[illegible]	(232.0)	(317.0)	(454.0)
T	**Total Requirements**	**10,339.0**	**10,222.0**	**10,254.0**	**10,232.0**	**10,139.0**	**10,275.0**	**10,101.0**	**10,190.0**	**10,383.0**	**10,416.0**	**11,367.0**	**12,693.0**
E													
M	Existing Generation	9,179.0	9,185.0	9,007.0	8,836.0	8,819.0	8,698.0	8,702.0	8,471.0	8,475.0	8,300.0	7,370.0	6,176.0
	Long Term Purchases	1,189.8	1,183.1	1,064.7	915.0	915.0	915.0	515.0	515.0	465.0	465.1	396.9	374.7
L	Short Term Market	805.7	713.6	875.4	814.0	571.0	571.0	651.0	648.0	698.0	623.0	590.7	567.9
&	Short Term Cap Purch	199.5	162.3	331.9	-	-	-	-	-	-	286.9	105.4	539.4
R	New Resources	1.0	1.0	1.0	692.0	909.0	1,119.0	1,244.0	1,576.0	1,784.0	1,784.0	4,045.0	6,308.0
	Total Resources	**11,375.0**	**11,245.0**	**11,280.0**	**11,257.0**	**11,214.0**	**11,303.0**	**11,112.0**	**11,210.0**	**11,422.0**	**11,459.0**	**12,508.0**	**13,966.0**
	Reserves	1,035.0	1,023.0	1,026.0	1,024.0	1,075.0	1,028.0	1,011.0	1,020.0	1,039.0	1,043.0	1,142.0	1,274.0
	Reserve Margin (%)	10.0	10.0	10.0	10.0	10.6	10.0	10.0	10.0	10.0	10.0	10.0	10.0

Case firm.ind Large Customers Modeled as Firm Retail Customers

Cumulative Annual Energy (aMW)

		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
	DSM Programs	5.2	10.4	15.9	21.5	27.1	32.8	38.5	44.1	49.7	55.4	76.3	110.0
	Or/Wa Wind	-	-	-	-	-	-	-	-	-	-	-	80.5
O	Or/Wa Geothermal	-	-	-	-	-	-	-	-	-	-	-	-
R	Or/Wa Cogen 1	-	-	-	93.1	186.2	200.1	200.1	200.1	200.1	200.1	200.1	200.1
/	Or/Wa Cogen 2	-	-	-	446.0	541.4	691.3	815.1	877.7	877.9	877.9	1,293.3	1,293.3
W	Or/Wa Combined Cycle	-	-	-	-	-	-	-	-	201.3	205.7	286.5	517.3
A	Or/Wa Bridger Transm	-	-	-	-	-	-	-	-	-	-	-	-
	Or/Wa Simple CycleCT	-	-	-	-	-	-	-	-	-	-	-	-
	Or/Wa Pump Storage	-	-	-	-	-	-	-	-	-	-	-	-
	Total	**5.2**	**10.4**	**15.9**	**560.6**	**754.7**	**924.2**	**1,053.7**	**1,121.9**	**1,329.1**	**1,339.1**	**1,856.3**	**2,201.3**
G	DSM Programs	0.5	0.9	1.4	1.9	2.4	2.9	3.4	3.9	4.4	4.9	6.7	9.4
O	Goshen Cogen 1	-	-	-	-	-	-	-	-	-	-	27.9	27.9
S	Goshen Cogen 2	-	-	-	-	-	-	-	-	-	-	-	-
H	Goshen Combined C CT	-	-	-	-	-	-	-	-	-	-	-	-
E	Goshen Bridger Trans	-	-	-	-	-	-	-	-	-	-	-	-
N	Goshen Hunter Transm	-	-	-	-	-	-	-	-	-	-	-	-
	Total	**0.5**	**0.9**	**1.4**	**1.9**	**2.4**	**2.9**	**3.4**	**3.9**	**4.4**	**4.9**	**34.6**	**37.3**
	DSM Programs	9.1	17.7	25.8	34.3	42.9	51.0	59.5	67.8	75.8	84.2	115.3	165.5
	Utah Geothermal	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Solar	-	-	-	-	-	-	-	-	-	-	-	-
U	Utah Cogen 1	-	-	-	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0
T	Utah Cogen 2	-	-	-	-	-	-	-	-	-	-	1,146.7	1,636.2
A	Utah Combined Cycle	-	-	-	119.4	135.0	177.5	170.2	420.0	401.6	430.5	772.6	963.7
H	Utah IGCC Hunter 4	-	-	-	-	-	-	-	-	-	-	-	-
	Utah IGCC CT	-	-	-	-	-	-	-	-	-	-	-	-
	Utah PC Hunter 4	-	-	-	-	-	-	-	-	-	-	-	366.6
	Utah Coal $23.25/Ton	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Coal $27.00/Ton	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Simple Cycle CT	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Pumped Storage	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Wyo/Ut Tran L	-	-	-	-	18.1	19.2	19.2	19.2	19.2	19.2	19.2	252.2
	Total	**9.1**	**17.7**	**25.8**	**167.6**	**209.9**	**261.7**	**262.8**	**520.9**	**510.5**	**547.9**	**2,067.9**	**3,398.2**
	DSM Programs	1.8	3.6	5.5	7.3	9.3	11.2	13.1	15.1	17.1	19.1	26.7	39.5
W	Wyo Wind	-	-	-	-	-	-	-	-	-	-	-	60.4
Y	Wyo Combined Cycle	-	-	-	-	-	-	-	-	-	-	-	-
O	Wyo IGCC Wyodak 2	-	-	-	-	-	-	-	-	-	-	-	-
M	Wyo IGCC CT	-	-	-	-	-	-	-	-	-	-	-	-
I	Wyo PC Wyodak 2	-	-	-	-	-	-	-	-	-	-	-	297.8
N	Wyo Coal $6.70/Ton	-	-	-	-	-	-	-	-	-	-	-	131.4
G	Wyo Simple Cycle CT	-	-	-	-	-	-	-	-	-	-	-	-
	Total	**1.8**	**3.6**	**5.5**	**7.3**	**9.3**	**11.2**	**13.1**	**15.1**	**17.1**	**19.1**	**26.7**	**529.2**
	DSM Programs	16.5	32.6	48.6	65.1	81.6	97.8	114.5	130.9	147.0	163.7	225.0	324.5
	Short Term Cap Purch	-	-	-	-	-	-	-	-	-	-	0.1	8.1
T	Cogeneration	-	-	-	553.0	741.5	905.4	1,029.2	1,091.8	1,092.0	1,092.0	2,682.1	3,171.6
O	Combined Cycle CT	-	-	-	119.4	135.0	177.5	170.2	420.0	602.9	636.2	1,059.2	1,481.0
T	Coal	-	-	-	-	-	-	-	-	-	-	-	795.8
A	Transmission	-	-	-	-	18.1	19.2	19.2	19.2	19.2	19.2	19.2	252.2
L	Simple Cycle	-	-	-	-	-	-	-	-	-	-	-	-
	All Others	-	-	-	-	-	-	-	-	-	-	-	140.9
	Total	**16.5**	**32.6**	**48.6**	**737.5**	**976.3**	**1,200.0**	**1,333.1**	**1,661.8**	**1,861.1**	**1,911.1**	**3,985.5**	**6,174.1**
		-	-	-	-	-	-	-	-	-	-	-	-
S	**Native Load**	6,095.8	6,163.5	6,300.2	6,420.9	6,541.4	6,667.0	6,811.4	6,958.9	7,110.2	7,232.2	8,041.1	9,115.4
Y	**Pump Storage/Peak Retu**	276.9	276.9	225.1	223.2	223.2	223.2	223.2	223.2	223.2	223.2	223.2	223.2
S	**Long Term Sales**	1,131.1	999.3	931.2	820.6	634.8	587.5	433.8	431.2	391.6	375.4	273.4	249.4
T	**Short Term Sales**	1,591.7	1,565.6	1,443.5	1,965.7	2,032.4	2,064.4	2,063.2	2,135.3	2,154.2	2,048.8	2,331.1	2,322.6
E	**DSM Programs**	(16.5)	(32.6)	(48.6)	(65.0)	(81.6)	(97.8)	(114.5)	(130.9)	(147.0)	(163.7)	(225.0)	(324.5)
M	**Total Requirements**	9,079.0	8,972.6	8,851.5	9,365.4	9,350.3	9,444.3	9,417.1	9,617.7	9,732.2	9,716.0	10,643.8	11,586.2
		-	-	-	-	-	-	-	-	-	-	-	-
	Existing Generation	7,377.4	7,374.9	7,331.0	7,369.0	7,279.5	7,239.8	7,250.4	7,136.9	7,132.3	7,044.6	6,187.1	5,070.3
L	**Long Term Purchases**	698.4	708.3	748.1	735.4	735.4	735.4	526.1	336.6	336.5	333.4	241.5	242.2
&	**Short Term Market**	805.7	708.2	600.4	502.5	316.7	269.4	325.0	511.8	472.3	459.3	449.2	426.3
R	**Short Term Purchases**	197.4	181.3	171.9	86.0	124.1	97.5	97.0	101.4	76.9	131.3	5.6	5.9
	New Resources	-	-	-	672.4	894.6	1,102.1	1,218.6	1,531.0	1,714.1	1,747.4	3,760.4	5,841.6
	Total Resources	9,079.0	8,972.6	8,851.5	9,365.4	9,350.3	9,444.3	9,417.1	9,617.7	9,732.2	9,716.0	10,643.8	11,586.2

NPV of 'Case firm.ind Large Customers Modeled as Firm Retail Customers'
Total System Production Cost in Millions of $2001

Year	Total System Production Cost (A)	Adder (B)	TSPC less Adder (C) (A)+(B)	Net PV Factor at 4.88% (D)	Net Present Value (E) (C)*(D)	
2001	$ 1,020		$ 1,020	1.0000	$ 1,020	*
2002	$ 949		$ 949	0.9534	$ 905	*
2003	$ 953		$ 953	0.9090	$ 866	*
2004	$ 879		$ 879	0.8667	$ 762	*
2005	$ 831		$ 831	0.8264	$ 687	*
2006	$ 845		$ 845	0.7879	$ 666	*
2007	$ 885		$ 885	0.7512	$ 665	*
2008	$ 947		$ 947	0.7162	$ 678	*
2009	$ 961		$ 961	0.6829	$ 656	*
2010	$ 1,008		$ 1,008	0.6511	$ 656	*
2011	$ 1,046		$ 1,046	0.6208	$ 649	
2012	$ 1,084		$ 1,084	0.5919	$ 642	
2013	$ 1,122		$ 1,122	0.5643	$ 633	
2014	$ 1,160		$ 1,160	0.5380	$ 624	
2015	$ 1,199		$ 1,199	0.5130	$ 615	*
2016	$ 1,253		$ 1,253	0.4891	$ 613	
2017	$ 1,307		$ 1,307	0.4663	$ 610	
2018	$ 1,362		$ 1,362	0.4446	$ 606	
2019	$ 1,416		$ 1,416	0.4239	$ 600	
2020	$ 1,471		$ 1,471	0.4042	$ 594	*
2021	$ 1,462		$ 1,462	0.3854	$ 563	
2022	$ 1,454		$ 1,454	0.3674	$ 534	
2023	$ 1,445		$ 1,445	0.3503	$ 506	
2024	$ 1,436		$ 1,436	0.3340	$ 480	
2025	$ 1,428		$ 1,428	0.3185	$ 455	
2026	$ 1,419		$ 1,419	0.3036	$ 431	
2027	$ 1,410		$ 1,410	0.2895	$ 408	
2028	$ 1,402		$ 1,402	0.2760	$ 387	
2029	$ 1,393		$ 1,393	0.2632	$ 367	
2030	$ 1,385		$ 1,385	0.2509	$ 347	*
2031	$ 1,385		$ 1,385	0.2392	$ 331	
2032	$ 1,385		$ 1,385	0.2281	$ 316	
2033	$ 1,385		$ 1,385	0.2175	$ 301	
2034	$ 1,385		$ 1,385	0.2073	$ 287	
2035	$ 1,385		$ 1,385	0.1977	$ 274	
2036	$ 1,385		$ 1,385	0.1885	$ 261	
2037	$ 1,385		$ 1,385	0.1797	$ 249	
2038	$ 1,385		$ 1,385	0.1713	$ 237	
2039	$ 1,385		$ 1,385	0.1634	$ 226	
2040	$ 1,385		$ 1,385	0.1558	$ 216	
			40 Year Net Present Value		**$ 20,923**	

Case firm.ind - Large Industrial as Firm Retail Load
Detail supporting the Total System Production Costs in $1,000

Total System Production Cost in $1,000

Totals	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020	2030
Long Term Purchases	457,524	398,302	375,475	296,578	228,582	219,541	233,070	278,331	266,731	276,992	264,515	281,753	284,125
Short Term Purchases	36,838	34,743	31,995	17,113	25,563	19,051	20,083	21,330	15,234	27,747	1,999	2,129	2,413
Existing Resource O&M	391,055	391,824	391,652	390,856	389,628	386,314	387,017	380,923	380,222	376,500	318,087	260,384	260,177
Potential Resource O&M	-	-	-	23,264	29,405	36,561	40,442	54,207	60,851	61,188	156,459	246,357	246,567
Fuel Existing	523,145	508,116	504,185	501,046	495,917	498,444	499,814	470,822	471,641	473,108	397,745	333,579	333,579
Fuel Potential	-	-	-	70,903	93,023	116,121	129,669	165,668	187,502	192,433	431,938	628,859	629,950
Short Term Sales	(389,060)	(384,972)	(351,974)	(461,787)	(482,755)	(493,603)	(492,654)	(509,516)	(514,314)	(492,456)	(564,905)	(573,489)	(598,126)
Total Operating Exp	1,019,501	948,012	951,332	837,973	779,363	782,430	817,441	861,765	867,867	915,511	1,005,839	1,179,573	1,158,686
Total Annual CC	-	-	-	38,835	48,973	59,083	64,110	80,739	88,398	86,359	184,664	278,972	213,010
Total Annual DSM	537	1,068	1,614	2,160	2,721	3,286	3,866	4,455	5,053	5,661	8,072	12,202	12,854
Total Real Costs	1,020,039	949,080	952,946	878,968	831,057	844,799	885,418	946,959	961,318	1,007,531	1,198,575	1,470,746	1,384,549
	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Real $2001 Costs	**1,020,039**	**949,080**	**952,946**	**878,968**	**831,057**	**844,799**	**885,418**	**946,959**	**961,318**	**1,007,531**	**1,198,575**	**1,470,746**	**1,384,549**

Annual Capital Cost

Coal	-	-	-	-	445	428	411	396	381	366	302	53,145	36,076
Nuclear	-	-	-	-	-	-	-	-	-	-	-	-	-
Oil/Gas	-	-	-	-	-	-	-	-	-	-	-	-	-
Combustion Turbi	-	-	-	-	-	-	-	-	-	-	-	-	-
Combined Cycle	-	-	-	8,090	8,304	10,696	10,450	25,151	34,095	33,310	58,690	72,863	57,867
Hydro	-	-	-	-	-	-	-	-	-	-	-	-	-
Cogen	-	-	-	30,745	40,225	47,959	53,249	55,192	53,923	52,683	125,672	134,107	106,267
Purchase	-	-	-	-	-	-	-	-	-	-	-	-	-
Renewable	-	-	-	-	-	-	-	-	-	-	-	18,857	12,800
Storage	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Annual CC	-	-	-	38,835	48,973	59,083	64,110	80,739	88,398	86,359	184,664	278,972	213,010

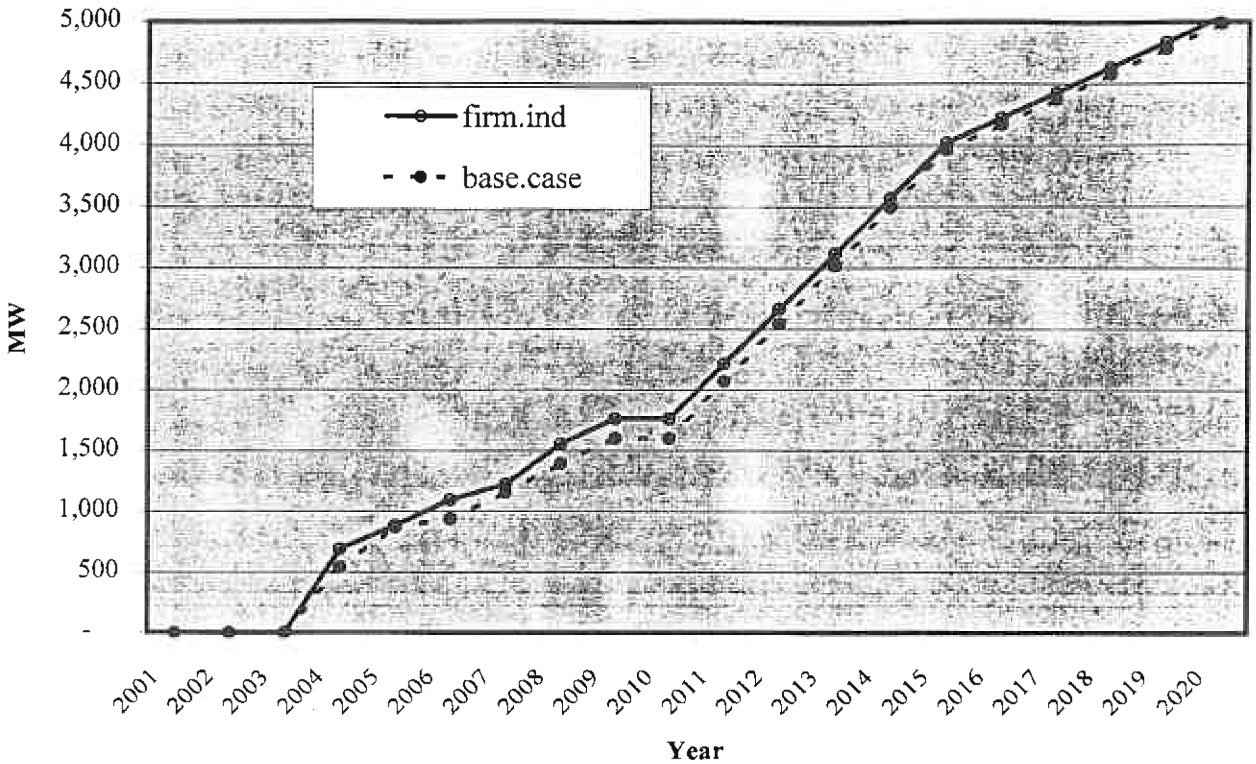
DSM PROGRAM

Total Annual DSM	537	1,068	1,614	2,160	2,721	3,286	3,866	4,455	5,053	5,661	8,072	12,202	12,854

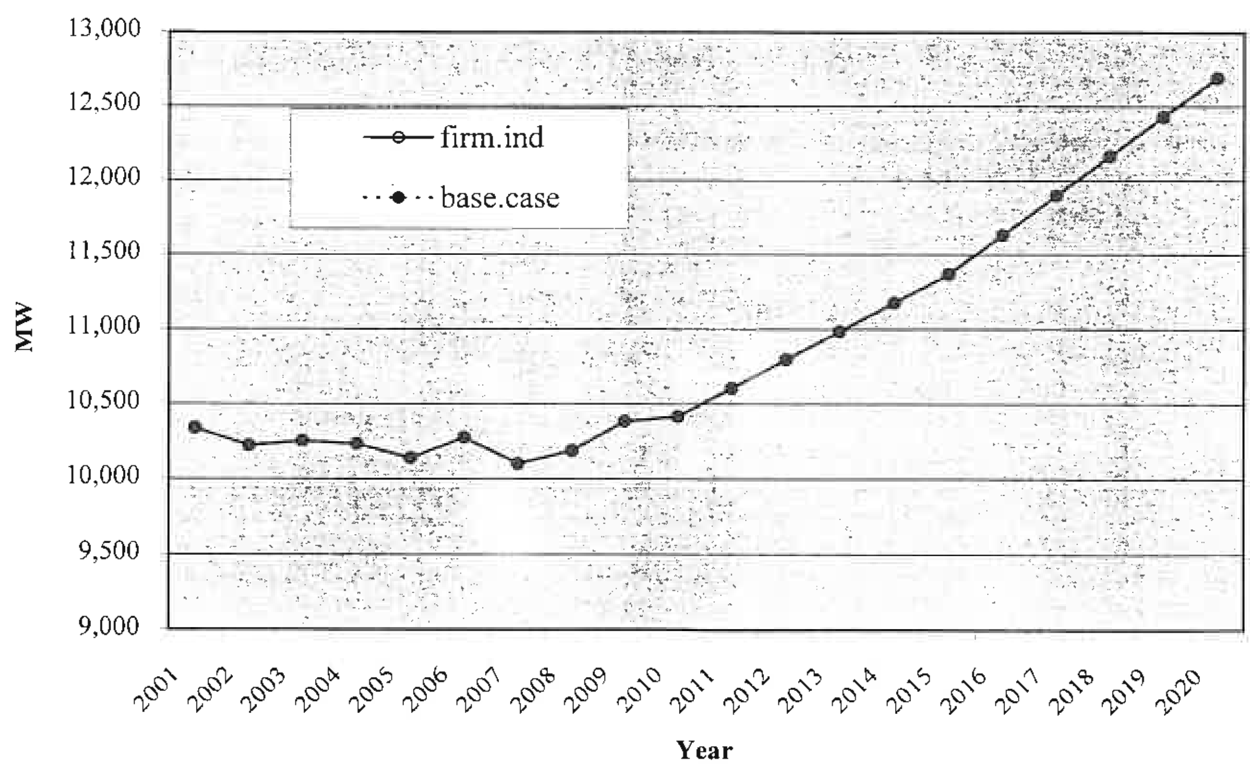
Fuel Cost $	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020	2030
Fuel Existing	523,145	508,116	504,185	501,046	495,917	498,444	499,814	470,822	471,641	473,108	397,745	333,579	333,579
Fuel Potential	-	-	-	70,903	93,023	116,121	129,669	165,668	187,502	192,433	431,938	628,859	629,950

Case firm.ind Large Customers Modeled as Firm Retail Customers

Summer Cogeneration & Combined Cycle Resources Selected (MW)



Total System Load Requirements including Long Term Sales and Reduced by DSM (Summer MW)



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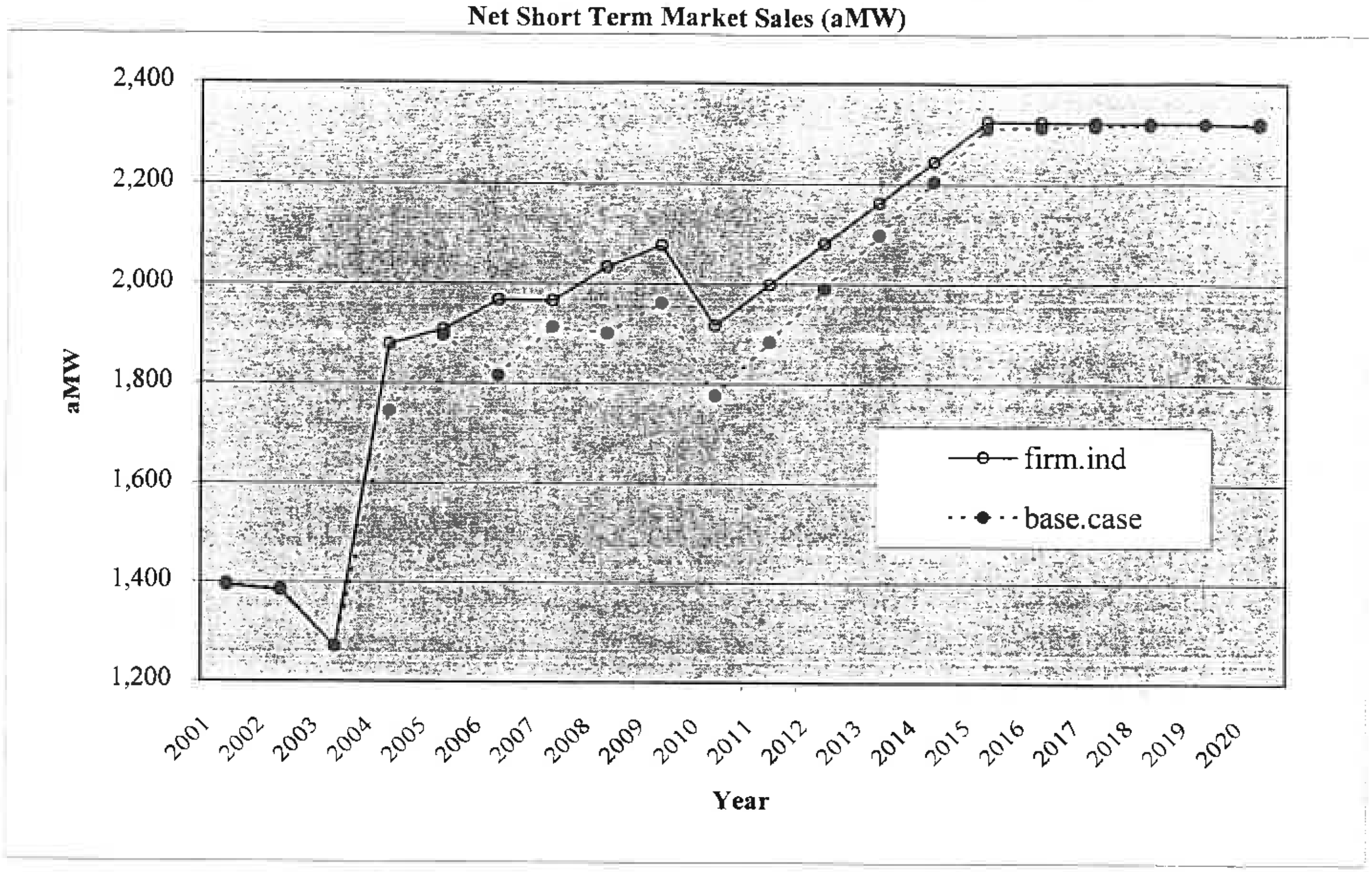
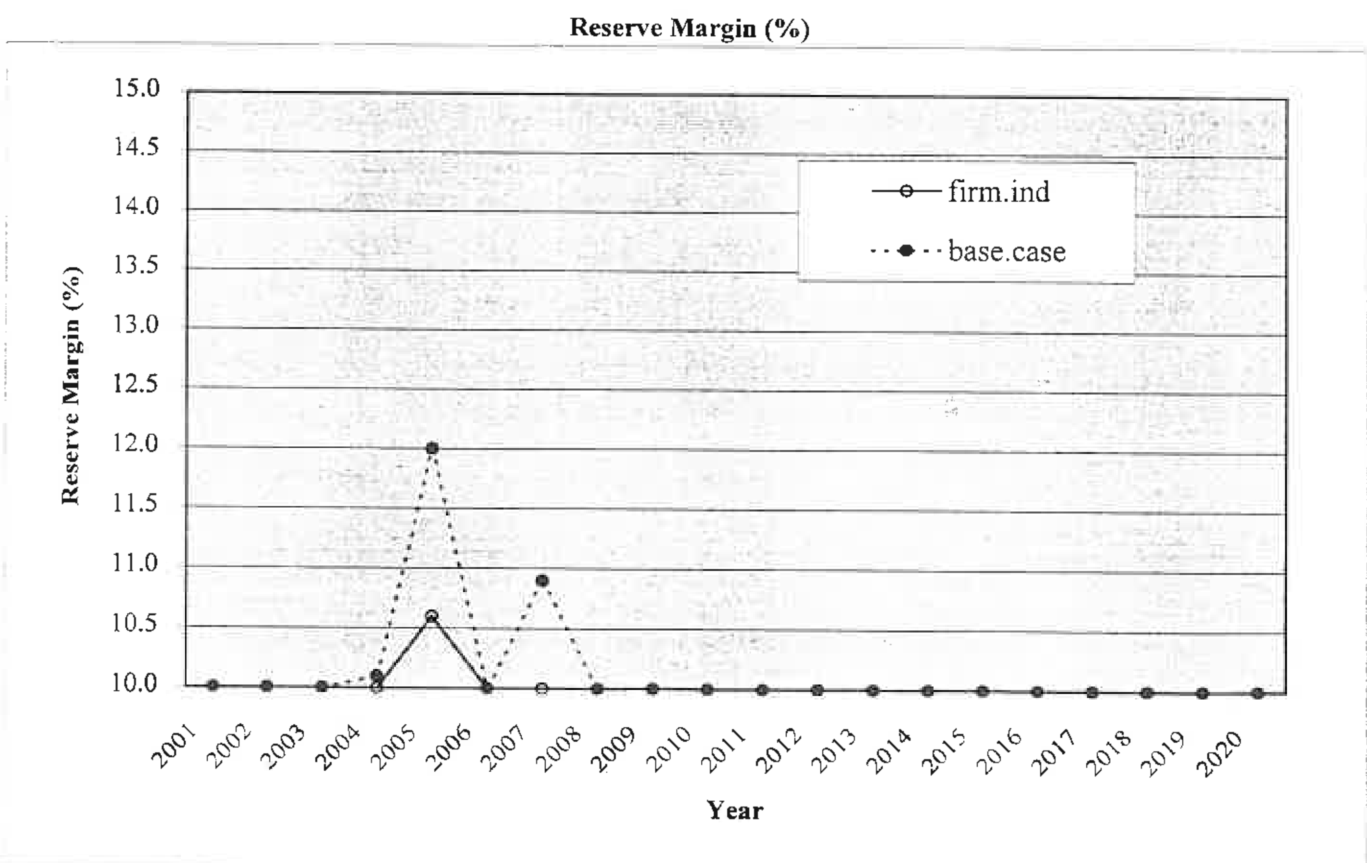
Case firm.ind Large Customers Modeled as Firm Retail Customers





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Integrated Resource Planning

RAMPP-6

Hydro Resources Modeled at Critical Water Levels

Case 132

Tab 28

Case critical.wtr Hydro Resources Modeled at Critical Water Levels LESS Base.Case (Reference Case)

Incremental Summer Capacity (MW) of Resource Additions

		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
	Short Term Cap Purch	135.4	134.6	134.6	-	-	-	-	-	-	(17.9)	11.5	19.4
	DSM Programs	-	-	-	-	-	-	-	-	-	-	-	-
	Or/Wa Wind	-	-	-	-	-	-	-	-	-	-	-	-
O	Or/Wa Geothermal	-	-	-	-	-	-	-	-	-	-	-	-
R	Or/Wa Cogen 1	-	-	-	-	-	-	-	-	-	-	-	-
/	Or/Wa Cogen 2	-	-	-	113.4	32.3	(11.6)	20.1	(17.8)	-	-	(136.4)	-
W	Or/Wa Combined Cycle	-	-	-	48.7	-	-	-	-	(28.5)	-	99.8	(89.5)
A	Or/Wa Bridger Transm	-	-	-	-	-	-	-	-	-	-	-	-
	Or/Wa Simple CycleCT	-	-	-	-	-	-	-	-	-	-	-	-
	Or/Wa Pump Storage	-	-	-	-	-	-	-	-	-	-	-	-
	Total	-	-	-	**162.1**	**32.3**	**(11.6)**	**20.1**	**(17.8)**	**(28.5)**	-	**(36.6)**	**(89.5)**
G	DSM Programs	-	-	-	-	-	-	-	-	-	-	-	-
O	Goshen Cogen 1	-	-	-	-	-	-	-	-	-	-	-	-
S	Goshen Cogen 2	-	-	-	-	-	-	-	-	-	-	-	-
H	Goshen Combined C CT	-	-	-	-	-	-	-	-	-	-	-	-
E	Goshen Bridger Trans	-	-	-	-	-	-	-	-	-	-	-	-
N	Goshen Hunter Transm	-	-	-	-	-	-	-	-	-	-	-	-
	Total	-	-	-	-	-	-	-	-	-	-	-	-
	DSM Programs	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Geothermal	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Solar	-	-	-	-	-	-	-	-	-	-	-	-
U	Utah Cogen 1	-	-	-	-	-	-	-	-	-	-	-	-
T	Utah Cogen 2	-	-	-	-	-	-	-	-	-	-	315.8	(315.8)
A	Utah Combined Cycle	-	-	-	(4.6)	(43.6)	(12.7)	(12.9)	39.1	-	-	(314.8)	304.6
H	Utah IGCC Hunter 4	-	-	-	-	-	-	-	-	-	-	-	-
	Utah IGCC CT	-	-	-	-	-	-	-	-	-	-	-	-
	Utah PC Hunter 4	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Coal $23.25/Ton	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Coal $27.00/Ton	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Simple Cycle CT	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Pumped Storage	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Wyo/Ut Tran L	-	-	-	-	(18.8)	-	-	-	-	-	-	18.8
	Total	-	-	-	**(4.6)**	**(62.4)**	**(12.7)**	**(12.9)**	**39.1**	-	-	**1.0**	**7.6**
	DSM Programs	-	-	-	-	-	-	-	-	-	-	-	-
W	Wyo Wind	-	-	-	-	-	-	-	-	-	-	-	-
Y	Wyo Combined Cycle	-	-	-	-	-	-	-	-	-	-	-	-
O	Wyo IGCC Wyodak 2	-	-	-	-	-	-	-	-	-	-	-	-
M	Wyo IGCC CT	-	-	-	-	-	-	-	-	-	-	-	-
I	Wyo PC Wyodak 2	-	-	-	-	-	-	-	-	-	-	-	-
N	Wyo Coal $6.70/Ton	-	-	-	-	-	-	-	-	-	-	-	92.9
G	Wyo Simple Cycle CT	-	-	-	-	-	-	-	-	-	-	-	-
	Total	-	-	-	-	-	-	-	-	-	-	-	**92.9**
T	DSM Programs	-	-	-	-	-	-	-	-	-	-	-	-
O	Short Term Cap Purch	135.4	134.6	134.6	-	-	-	-	-	-	(17.9)	11.5	19.4
T	Cogeneration	-	-	-	113.4	32.3	(11.6)	20.1	(17.8)	-	-	179.4	(315.8)
A	Combined Cycle CT	-	-	-	44.1	(43.6)	(12.7)	(12.9)	39.1	(28.5)	-	(215.0)	215.1
L	Coal	-	-	-	-	-	-	-	-	-	-	-	92.9
	All Others	-	-	-	-	(18.8)	-	-	-	-	-	-	18.8
	Total	**135.4**	**134.6**	**134.6**	**157.5**	**(30.1)**	**(24.3)**	**7.2**	**21.3**	**(28.5)**	**(17.9)**	**(24.1)**	**30.4**

Annual Summer Peak Capacity (MW)

		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
S	Native Load	-	-	-	-	-	-	-	-	-	-	-	-
Y	Long Term Sales	-	-	-	-	-	-	-	-	-	-	-	-
S	DSM Programs	-	-	-	-	-	-	-	-	-	-	-	-
T	**Total Requirements**	-	-	-	-	-	-	-	-	-	-	-	-
E													
M	Existing Generation	(134.0)	(134.0)	(135.0)	(135.0)	(116.0)	(103.0)	(103.0)	(103.0)	(103.0)	(85.0)	(79.0)	(98.0)
	Long Term Purchases	(0.4)	(0.6)	0.4	-	-	-	-	-	-	(0.1)	(0.5)	0.6
L	Short Term Market	-	-	-	-	-	-	-	-	-	-	-	-
&	Short Term Cap Purch	135.4	134.6	134.6	-	-	-	-	-	-	(17.9)	11.5	19.4
R	New Resources	-	-	-	158.0	127.0	103.0	110.0	131.0	104.0	104.0	68.0	78.0
	Total Resources	**1.0**	-	-	**23.0**	**11.0**	-	**7.0**	**28.0**	**1.0**	**1.0**	-	-
	Reserves	-	-	-	23.0	12.0	-	7.0	28.0	-	-	-	-
	Reserve Margin (%)	-	-	-	0.2	0.2	-	0.1	0.3	-	-	-	-

PacifiCorp RAMPP-6

Case critical.wtr Hydro Resources Modeled at Critical Water Levels LESS Base.Case (Reference Case)

Cumulative Annual Energy (aMW)

		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
	DSM Programs	-	-	-	-	-	-	-	-	-	-	-	-
	Or/Wa Wind	-	-	-	-	-	-	-	-	-	-	-	-
O	Or/Wa Geothermal	-	-	-	-	-	-	-	-	-	-	-	-
R	Or/Wa Cogen 1	-	-	-	-	-	-	-	-	-	-	-	-
/	Or/Wa Cogen 2	-	-	-	112.3	144.2	132.7	152.6	135.0	135.0	135.0	-	-
W	Or/Wa Combined Cycle	-	-	-	48.2	48.2	48.2	48.2	48.2	23.0	20.0	128.9	72.0
A	Or/Wa Bridger Transm	-	-	-	-	-	-	-	-	-	-	-	-
	Or/Wa Simple CycleCT	-	-	-	-	-	-	-	-	-	-	-	-
	Or/Wa Pump Storage	-	-	-	-	-	-	-	-	-	-	-	-
	Total	-	-	-	**160.5**	**192.5**	**181.0**	**200.8**	**183.2**	**158.0**	**155.0**	**128.9**	**72.0**
G	DSM Programs	-	-	-	-	-	-	-	-	-	-	-	-
O	Goshen Cogen 1	-	-	-	-	-	-	-	-	-	-	-	-
S	Goshen Cogen 2	-	-	-	-	-	-	-	-	-	-	-	-
H	Goshen Combined C CT	-	-	-	-	-	-	-	-	-	-	-	-
E	Goshen Bridger Trans	-	-	-	-	-	-	-	-	-	-	-	-
N	Goshen Hunter Transm	-	-	-	-	-	-	-	-	-	-	-	-
	Total	-	-	-	-	-	-	-	-	-	-	-	-
	DSM Programs	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Geothermal	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Solar	-	-	-	-	-	-	-	-	-	-	-	-
U	Utah Cogen 1	-	-	-	-	-	-	-	-	-	-	-	-
T	Utah Cogen 2	-	-	-	-	-	-	-	-	-	-	285.5	3.8
A	Utah Combined Cycle	-	-	-	(4.5)	(46.8)	(59.1)	(71.6)	(34.8)	(28.4)	(33.7)	(292.6)	(61.0)
H	Utah IGCC Hunter 4	-	-	-	-	-	-	-	-	-	-	-	-
	Utah IGCC CT	-	-	-	-	-	-	-	-	-	-	-	-
	Utah PC Hunter 4	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Coal $23.25/Ton	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Coal $27.00/Ton	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Simple Cycle CT	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Pumped Storage	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Wyo/Ut Tran L	-	-	-	-	(16.8)	(17.8)	(17.8)	(17.8)	(17.8)	(17.8)	(17.8)	-
	Total	-	-	-	**(4.5)**	**(63.6)**	**(76.9)**	**(89.5)**	**(52.6)**	**(46.2)**	**(51.5)**	**(25.0)**	**(57.3)**
	DSM Programs	-	-	-	-	-	-	-	-	-	-	-	-
W	Wyo Wind	-	-	-	-	-	-	-	-	-	-	-	-
Y	Wyo Combined Cycle	-	-	-	-	-	-	-	-	-	-	-	-
O	Wyo IGCC Wyodak 2	-	-	-	-	-	-	-	-	-	-	-	-
M	Wyo IGCC CT	-	-	-	-	-	-	-	-	-	-	-	-
I	Wyo PC Wyodak 2	-	-	-	-	-	-	-	-	-	-	-	-
N	Wyo Coal $6.70/Ton	-	-	-	-	-	-	-	-	-	-	-	85.2
G	Wyo Simple Cycle CT	-	-	-	-	-	-	-	-	-	-	-	-
	Total	-	-	-	-	-	-	-	-	-	-	-	**85.2**
	DSM Programs	-	-	-	-	-	-	-	-	-	-	-	-
	Short Term Cap Purch	-	-		-	-	-	-	-	-	-	-	(1.9)
T	Cogeneration	-	-		112.3	144.2	132.7	152.6	135.0	135.0	135.0	285.5	3.8
O	Combined Cycle CT	-	-	-	43.8	1.5	(10.9)	(23.4)	13.5	(5.4)	(13.6)	(163.7)	11.0
T	Coal	-	-	-	-	-	-	-	-	-	-	-	85.2
A	Transmission	-	-	-	-	(16.8)	(17.8)	(17.8)	(17.8)	(17.8)	(17.8)	(17.8)	-
L	Simple Cycle	-	-	-	-	-	-	-	-	-	-	-	-
	All Others	-	-	-	-	-	-	-	-	-	-	-	-
	Total	-	-	-	**156.1**	**128.8**	**104.0**	**111.3**	**130.6**	**111.8**	**103.5**	**104.0**	98.1
		-	-	-	-	-	-	-	-	-	-	-	-
S	**Native Load**	-	-	-	-	-	-	-	-	-	-	-	-
Y	**Pump Storage/Peak Retu**	-	-	-	-	-	-	-	-	-	-	-	-
S	**Long Term Sales**	-	-	-	-	-	-	-	-	-	-	-	-
T	**Short Term Sales**	(150.3)	(149.0)	(125.9)	(7.4)	(35.4)	(58.5)	(12.5	(24.5)	[illegible]	1.2	(1.5)	(23.7)
E	**DSM Programs**	-	-	-	-	-	-	-	-	-	-	-	-
M	**Total Requirements**	(150.2)	(149.1)	(125.9)	(7.4)	(35.3)	(58.5)	(12.4)	(24.5)	(36.6	1.2	(1.6)	(23.7)
		-	-	-	-	-	-	-	-	-	-	-	-
	Existing Generation	(173.1)	(172.8)	(171.1)	(174.8)	(151.7)	(140.2)	(139.5)	(141.4)	(140.7)	(115.0)	(108.4)	(125.7)
L	**Long Term Purchases**	-	-	1.3	-	-	-	-	-	-	-	-	(1.8)
&	**Short Term Market**	-	-	-	-	-	-	-	-	-	-	-	-
R	**Short Term Purchases**	22.9	23.7	43.8	11.4	(12.5)	(22.3)	15.7	(13.7)	(7.7)	12.6	2.9	3.9
	New Resources	-	-	-	156.1	128.8	104.0	111.3	130.6	111.8	103.6	103.9	99.9
	Total Resources	(150.2)	(149.1)	(125.9)	(7.4)	(35.4)	(58.5)	(12.4)	(24.5)	(36.6)	1.2	(1.6)	(23.7)

PacifiCorp RAMPP-6

Case critical.wtr Hydro Resources Modeled at Critical Water Levels LESS

Base.Case (Reference Case)

Total System Production Cost in Millions of $2001

Year	Total System Production Cost (A)	Adder (B)	TSPC less Adder (C) (A)+(B)	Net PV Factor at 4.88% (D)	Net Present Value (E) (C)*(D)	
2001	$ 39.2	$ -	$ 39.2	1.0000	$ 39.2	*
2002	$ 39.5	$ -	$ 39.5	0.9534	$ 37.7	*
2003	$ 40.7	$ -	$ 40.7	0.9090	$ 37.0	*
2004	$ 29.3	$ -	$ 29.3	0.8667	$ 25.4	*
2005	$ 31.0	$ -	$ 31.0	0.8264	$ 25.6	*
2006	$ 29.1	$ -	$ 29.1	0.7879	$ 22.9	*
2007	$ 26.8	$ -	$ 26.8	0.7512	$ 20.1	*
2008	$ 26.6	$ -	$ 26.6	0.7162	$ 19.1	*
2009	$ 27.1	$ -	$ 27.1	0.6829	$ 18.5	*
2010	$ 22.3	$ -	$ 22.3	0.6511	$ 14.5	*
2011	$ 22.6	$ -	$ 22.6	0.6208	$ 14.0	
2012	$ 22.8	$ -	$ 22.8	0.5919	$ 13.5	
2013	$ 23.1	$ -	$ 23.1	0.5643	$ 13.0	
2014	$ 23.4	$ -	$ 23.4	0.5380	$ 12.6	
2015	$ 23.7	$ -	$ 23.7	0.5130	$ 12.1	*
2016	$ 23.4	$ -	$ 23.4	0.4891	$ 11.4	
2017	$ 23.1	$ -	$ 23.1	0.4663	$ 10.8	
2018	$ 22.8	$ -	$ 22.8	0.4446	$ 10.1	
2019	$ 22.5	$ -	$ 22.5	0.4239	$ 9.6	
2020	$ 22.3	$ -	$ 22.3	0.4042	$ 9.0	*
2021	$ 21.8	$ -	$ 21.8	0.3854	$ 8.4	
2022	$ 21.4	$ -	$ 21.4	0.3674	$ 7.9	
2023	$ 21.0	$ -	$ 21.0	0.3503	$ 7.4	
2024	$ 20.6	$ -	$ 20.6	0.3340	$ 6.9	
2025	$ 20.1	$ -	$ 20.1	0.3185	$ 6.4	
2026	$ 19.7	$ -	$ 19.7	0.3036	$ 6.0	
2027	$ 19.3	$ -	$ 19.3	0.2895	$ 5.6	
2028	$ 18.9	$ -	$ 18.9	0.2760	$ 5.2	
2029	$ 18.5	$ -	$ 18.5	0.2632	$ 4.9	
2030	$ 18.0	$ -	$ 18.0	0.2509	$ 4.5	*
2031	$ 18.0	$ -	$ 18.0	0.2392	$ 4.3	
2032	$ 18.0	$ -	$ 18.0	0.2281	$ 4.1	
2033	$ 18.0	$ -	$ 18.0	0.2175	$ 3.9	
2034	$ 18.0	$ -	$ 18.0	0.2073	$ 3.7	
2035	$ 18.0	$ -	$ 18.0	0.1977	$ 3.6	
2036	$ 18.0	$ -	$ 18.0	0.1885	$ 3.4	
2037	$ 18.0	$ -	$ 18.0	0.1797	$ 3.2	
2038	$ 18.0	$ -	$ 18.0	0.1713	$ 3.1	
2039	$ 18.0	$ -	$ 18.0	0.1634	$ 2.9	
2040	$ 18.0	$ -	$ 18.0	0.1558	$ 2.8	
			40 Year Net Present Value		$ 474	

Case critical.wtr Hydro Resources Modeled at Critical Water Levels LESS Base.Case
Detail supporting the Total System Production Costs in $1,000

Total System Production Cost in $1,000

Totals	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020	2030
Long Term Purchases	151	1,699	4,844	(1,673)	726	1,182	(142)	(2,829)	(1,060)	(1,299)	116	1,304	1,653
Short Term Purchases	3,816	3,812	8,371	1,899	(2,082)	(3,483)	3,860	(1,337)	1,180	4,988	1,099	1,567	1,839
Existing Resource O&M	(1,959)	(1,912)	(1,801)	(2,141)	(745)	(444)	(657)	(700)	(590)	(248)	(460)	(1,187)	(1,084)
Potential Resource O&M	-	-	-	5,000	4,092	3,163	3,227	4,383	3,524	3,453	3,856	3,479	3,633
Fuel Existing	-	-	299	(56)	1,707	872	1,572	1,063	1,088	1,341	1,341	(80)	(80)
Fuel Potential	-	-	-	17,034	14,592	11,968	12,834	15,134	13,088	12,229	12,394	5,422	6,192
Short Term Sales	37,179	35,939	29,032	764	5,709	10,348	450	4,102	4,578	(3,408)	1,388	5,996	1,947
Total Operating Exp	39,186	39,537	40,745	20,826	24,000	23,606	21,144	19,816	21,808	17,057	19,734	16,501	14,100
Total Annual CC	-	-	-	8,445	6,961	5,459	5,628	6,797	5,339	5,222	3,921	5,770	3,928
Total Annual DSM	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Real Costs	39,186	39,537	40,745	29,271	30,960	29,065	26,773	26,613	27,148	22,279	23,654	22,270	18,028
	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Real $2001 Costs	**39,186**	**39,537**	**40,745**	**29,271**	**30,960**	**29,065**	**26,773**	**26,613**	**27,148**	**22,279**	**23,654**	**22,270**	**18,028**

Annual Capital Cost

Coal	-	-	-	-	(413)	(397)	(382)	(368)	(354)	(340)	(280)	6,579	4,466
Nuclear	-	-	-	-	-	-	-	-	-	-	-	-	-
Oil/Gas	-	-	-	-	-	-	-	-	-	-	-	-	-
Combustion Turbi	-	-	-	-	-	-	-	-	-	-	-	-	-
Combined Cycle	-	-	-	2,229	(428)	(1,158)	(1,868)	355	(960)	(938)	(11,756)	(809)	(538)
Hydro	-	-	-	-	-	-	-	-	-	-	-	-	-
Cogen	-	-	-	6,216	7,801	7,014	7,878	6,810	6,653	6,500	15,957	-	-
Purchase	-	-	-	-	-	-	-	-	-	-	-	-	-
Renewable	-	-	-	-	-	-	-	-	-	-	-	-	-
Storage	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Annual CC	-	-	-	8,445	6,961	5,459	5,628	6,797	5,339	5,222	3,921	5,770	3,928

DSM PROGRAM

Total Annual DSM	-	-	-	-	-	-	-	-	-	-	-		-

Fuel Cost $	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020	2030
Fuel Existing	-	-	299	(56)	1,707	872	1,572	1,063	1,088	1,341	1,341	(80)	(80)
Fuel Potential	-	-	-	17,034	14,592	11,968	12,834	15,134	13,088	12,229	12,394	5,422	6,192

Case critical.wtr Hydro Resources
Modeled at Critical Water Levels
Incremental Summer Capacity (MW) of Resource Additions

		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
	Short Term Cap Purch	175.6	135.9	305.6	-	-	-	-	-	-	269.0	11.5	447.2
	DSM Programs	6.8	6.7	7.2	7.2	7.1	7.3	7.3	7.2	7.1	7.2	26.6	42.9
	Or/Wa Wind	-	-	-	-	-	-	-	-	-	-	-	72.0
O	Or/Wa Geothermal	-	-	-	-	-	-	-	-	-	-	-	-
R	Or/Wa Cogen 1	-	-	-	94.0	94.0	14.1	-	-	-	-	-	-
/	Or/Wa Cogen 2	-	-	-	496.3	203.9	25.4	226.4	34.1	-	-	320.5	-
W	Or/Wa Combined Cycle	-	-	-	48.7	-	-	-	-	179.3	-	200.9	177.1
A	Or/Wa Bridger Transm	-	-	-	-	-	-	-	-	-	-	-	-
	Or/Wa Simple CycleCT	-	-	-	-	-	-	-	-	-	-	-	-
	Or/Wa Pump Storage	-	-	-	-	-	-	-	-	-	-	-	-
	Total	**6.8**	**6.7**	**7.2**	**646.2**	**305.0**	**46.8**	**233.7**	**41.3**	**186.4**	**7.2**	**548.0**	**292.0**
G	DSM Programs	0.6	0.6	0.7	0.6	0.7	0.6	0.7	0.7	0.6	0.7	2.4	3.2
O	Goshen Cogen 1	-	-	-	-	-	-	-	-	-	-	28.2	-
S	Goshen Cogen 2	-	-	-	-	-	-	-	-	-	-	-	-
H	Goshen Combined C CT	-	-	-	-	-	-	-	-	-	-	-	-
E	Goshen Bridger Trans	-	-	-	-	-	-	-	-	-	-	-	-
N	Goshen Hunter Transm	-	-	-	-	-	-	-	-	-	-	-	-
	Total	**0.6**	**0.6**	**0.7**	**0.6**	**0.7**	**0.6**	**0.7**	**0.7**	**0.6**	**0.7**	**30.6**	**3.2**
	DSM Programs	13.9	13.4	12.5	13.1	13.2	12.6	13.2	12.7	12.4	12.9	47.3	75.2
	Utah Geothermal	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Solar	-	-	-	-	-	-	-	-	-	-	-	-
U	Utah Cogen 1	-	-	-	14.1	-	-	-	-	-	-	-	-
T	Utah Cogen 2	-	-	-	-	-	-	-	-	-	-	1,524.2	149.0
A	Utah Combined Cycle	-	-	-	43.7	24.7	-	-	224.9	-	-	253.2	598.9
H	Utah IGCC Hunter 4	-	-	-	-	-	-	-	-	-	-	-	-
	Utah IGCC CT	-	-	-	-	-	-	-	-	-	-	-	-
	Utah PC Hunter 4	-	-	-	-	-	-	-	-	-	-	-	400.0
	Utah Coal $23.25/Ton	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Coal $27.00/Ton	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Simple Cycle CT	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Pumped Storage	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Wyo/Ut Tran L	-	-	-	-	-	-	-	-	-	-	-	265.3
	Total	**13.9**	**13.4**	**12.5**	**70.9**	**37.9**	**12.6**	**13.2**	**237.6**	**12.4**	**12.9**	**1,824.7**	**1,488.4**
	DSM Programs	2.3	2.3	2.4	2.4	2.4	2.4	2.5	2.5	2.5	2.5	9.3	15.7
W	Wyo Wind	-	-	-	-	-	-	-	-	-	-	-	54.0
Y	Wyo Combined Cycle	-	-	-	-	-	-	-	-	-	-	-	-
O	Wyo IGCC Wyodak 2	-	-	-	-	-	-	-	-	-	-	-	-
M	Wyo IGCC CT	-	-	-	-	-	-	-	-	-	-	-	-
I	Wyo PC Wyodak 2	-	-	-	-	-	-	-	-	-	-	-	325.0
N	Wyo Coal $6.70/Ton	-	-	-	-	-	-	-	-	-	-	-	239.5
G	Wyo Simple Cycle CT	-	-	-	-	-	-	-	-	-	-	-	-
	Total	**2.3**	**2.3**	**2.4**	**2.4**	**2.4**	**2.4**	**2.5**	**2.5**	**2.5**	**2.5**	**9.3**	**634.2**
T	DSM Programs	23.6	23.0	22.8	23.3	23.4	22.9	23.7	23.1	22.6	23.3	85.6	137.0
O	Short Term Cap Purch	175.6	135.9	305.6	-	-	-	-	-	-	269.0	11.5	447.2
T	Cogeneration	-	-	-	604.4	297.9	39.5	226.4	34.1	-	-	1,872.9	149.0
A	Combined Cycle CT	-	-	-	92.4	24.7	-	-	224.9	179.3	-	454.1	776.0
L	Coal	-	-	-	-	-	-	-	-	-	-	-	964.5
	All Others	-	-	-	-	-	-	-	-	-	-	-	391.3
	Total	**199.2**	**158.9**	**328.4**	**720.1**	**346.0**	**62.4**	**250.1**	**282.1**	**201.9**	**292.3**	**2,424.1**	**2,865.0**

Annual Summer Peak Capacity (MW)

		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
S	Native Load	7,987.0	8,030.0	8,203.0	8,435.0	8,608.0	8,767.0	8,937.0	9,052.0	9,267.0	9,399.0	10,535.0	12,042.0
Y	Long Term Sales	2,377.0	2,239.0	2,120.0	1,890.0	1,647.0	1,647.0	1,327.0	1,324.0	1,324.0	1,249.0	1,149.0	1,104.0
S	DSM Programs	(24.0)	(47.0)	(69.0)	(93.0)	(116.0)	(139.0)	(163.0)	(186.0)	(208.0)	(232.0)	(317.0)	(454.0)
T	**Total Requirements**	**10,340.0**	**10,222.0**	**10,254.0**	**10,232.0**	**10,139.0**	**10,275.0**	**10,101.0**	**10,190.0**	**10,383.0**	**10,416.0**	**11,367.0**	**12,692.0**
E													
M	Existing Generation	9,045.0	9,051.0	8,872.0	8,701.0	8,705.0	8,597.0	8,601.0	8,370.0	8,374.0	8,217.0	7,293.0	6,078.0
	Long Term Purchases	1,350.7	1,344.5	1,226.0	1,076.0	1,076.0	1,076.0	676.0	676.0	626.0	626.0	557.8	536.9
L	Short Term Market	805.7	713.6	875.4	814.0	571.0	571.0	651.0	648.0	698.0	623.0	590.7	567.9
&	Short Term Cap Purch	175.6	135.9	305.6	-	-	-	-	-	-	269.0	11.5	447.2
R	New Resources	1.0	1.0	1.0	698.0	1,020.0	1,060.0	1,286.0	1,545.0	1,725.0	1,725.0	4,056.0	6,336.0
	Total Resources	**11,378.0**	**11,246.0**	**11,280.0**	**11,289.0**	**11,372.0**	**11,304.0**	**11,214.0**	**11,239.0**	**11,423.0**	**11,460.0**	**12,509.0**	**13,966.0**
	Reserves	1,037.0	1,023.0	1,026.0	1,056.0	1,233.0	1,028.0	1,112.0	1,048.0	1,039.0	1,043.0	1,142.0	1,274.0
	Reserve Margin (%)	10.0	10.0	10.0	10.3	12.2	10.0	11.0	10.3	10.0	10.0	10.0	10.0

Case critical.wtr Hydro Resources
Modeled at Critical Water Levels
Cumulative Annual Energy (aMW)

		2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020
	DSM Programs	5.2	10.4	15.9	21.5	27.1	32.8	38.5	44.1	49.7	55.4	76.3	110.0
	Or/Wa Wind	-	-	-	-	-	-	-	-	-	-	-	80.5
O	Or/Wa Geothermal	-	-	-	-	-	-	-	-	-	-	-	-
R	Or/Wa Cogen 1	-	-	-	93.1	186.2	200.1	200.1	200.1	200.1	200.1	200.1	200.1
/	Or/Wa Cogen 2	-	-	-	491.3	693.1	718.2	942.3	976.1	976.1	976.1	1,293.3	1,293.3
W	Or/Wa Combined Cycle	-	-	-	48.2	48.2	48.2	48.2	48.2	225.7	225.7	412.9	592.2
A	Or/Wa Bridger Transm	-	-	-	-	-	-	-	-	-	-	-	-
	Or/Wa Simple CycleCT	-	-	-	-	-	-	-	-	-	-	-	-
	Or/Wa Pump Storage	-	-	-	-	-	-	-	-	-	-	-	-
	Total	**5.2**	**10.4**	**15.9**	**654.1**	**954.6**	**999.4**	**1,229.2**	**1,268.6**	**1,451.6**	**1,457.3**	**1,982.7**	**2,276.2**
G	DSM Programs	0.5	0.9	1.4	1.9	2.4	2.9	3.4	3.9	4.4	4.9	6.7	9.4
O	Goshen Cogen 1	-	-	-	-	-	-	-	-	-	-	27.9	27.9
S	Goshen Cogen 2	-	-	-	-	-	-	-	-	-	-	-	-
H	Goshen Combined C CT	-	-	-	-	-	-	-	-	-	-	-	-
E	Goshen Bridger Trans	-	-	-	-	-	-	-	-	-	-	-	-
N	Goshen Hunter Transm	-	-	-	-	-	-	-	-	-	-	-	-
	Total	**0.5**	**0.9**	**1.4**	**1.9**	**2.4**	**2.9**	**3.4**	**3.9**	**4.4**	**4.9**	**34.6**	**37.3**
	DSM Programs	9.1	17.7	25.8	34.3	42.9	51.0	59.5	67.8	75.8	84.2	115.3	165.5
	Utah Geothermal	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Solar	-	-	-	-	-	-	-	-	-	-	-	-
U	Utah Cogen 1	-	-	-	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0
T	Utah Cogen 2	-	-	-	-	-	-	-	-	-	-	1,464.5	1,643.7
A	Utah Combined Cycle	-	-	-	42.4	66.4	66.4	66.4	280.4	280.4	284.6	433.3	896.6
H	Utah IGCC Hunter 4	-	-	-	-	-	-	-	-	-	-	-	-
	Utah IGCC CT	-	-	-	-	-	-	-	-	-	-	-	-
	Utah PC Hunter 4	-	-	-	-	-	-	-	-	-	-	-	366.6
	Utah Coal $23.25/Ton	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Coal $27.00/Ton	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Simple Cycle CT	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Pumped Storage	-	-	-	-	-	-	-	-	-	-	-	-
	Utah Wyo/Ut Tran L	-	-	-	-	-	-	-	-	-	-	-	252.2
	Total	**9.1**	**17.7**	**25.8**	**90.7**	**123.2**	**131.3**	**139.8**	**362.1**	**370.2**	**382.8**	**2,027.1**	**3,338.5**
	DSM Programs	1.8	3.6	[illegible]	7.3	9.3	11.2	13.1	15.1	17.1	19.1	26.7	39.5
W	Wyo Wind	-	-		-	-	-	-	-	-	-	-	60.4
Y	Wyo Combined Cycle	-	-		-	-	-	-	-	-	-	-	-
O	Wyo IGCC Wyodak 2	-	-	-	-	-	-	-	-	-		-	-
M	Wyo IGCC CT	-	-	-	-	-	-	-	-	-		-	-
I	Wyo PC Wyodak 2	-	-	-	-	-	-	-	-	-		-	297.8
N	Wyo Coal $6.70/Ton	-	-	-	-	-	-	-	-	-	-	-	219.6
G	Wyo Simple Cycle CT	-	-	-	-	-	-	-	-	-	-	-	-
	Total	**1.8**	**3.6**	**5.5**	**7.3**	**9.3**	**11.2**	**13.1**	**15.1**	**17.1**	**19.1**	**26.7**	**617.4**
	DSM Programs	16.5	32.6	48.6	65.1	81.6	97.8	114.5	130.9	147.0	163.7	225.0	324.5
	Short Term Cap Purch	-	-	-	-	-	-	-	-	-	-	0.0	4.5
T	Cogeneration	-	-	-	598.3	893.2	932.3	1,156.4	1,190.2	1,190.2	1,190.2	2,999.8	3,179.0
O	Combined Cycle CT	-	-	-	90.7	114.6	114.6	114.6	328.7	506.1	510.3	846.2	1,488.8
T	Coal	-	-	-	-	-	-	-	-	-	-	-	884.0
A	Transmission	-	-	-	-	-	-	-	-	-	-	-	252.2
L	Simple Cycle	-	-	-	-	-	-	-	-	-	-	-	-
	All Others	-	-	-	-	-	-	-	-	-	-	-	140.9
	Total	**16.5**	**32.6**	**48.6**	**754.0**	**1,089.4**	**1,144.8**	**1,385.5**	**1,649.7**	**1,843.3**	**1,864.1**	**4,071.1**	**6,273.9**
		-	-	-	-	-	-	-	-	-	-	-	-
S	**Native Load**	5,677.0	5,744.6	5,881.5	6,002.1	6,122.6	6,248.3	6,392.6	6,540.1	6,691.4	6,813.5	7,622.3	8,696.7
Y	**Pump Storage/Peak Retu**	276.9	276.9	225.1	223.2	223.2	223.2	223.2	223.2	223.2	223.2	223.2	223.2
S	**Long Term Sales**	1,549.9	1,418.1	1,350.1	1,239.5	1,053.7	1,006.4	852.6	850.0	810.5	794.3	692.3	668.3
T	**Short Term Sales**	1,353.1	1,331.9	1,252.3	1,814.6	1,941.4	1,853.6	1,970.4	1,973.8	1,997.7	1,873.8	2,311.3	2,298.6
E	**DSM Programs**	(16.5)	(32.6)	(48.6)	(65.0)	(81.6)	(97.8)	(114.5)	(130.9)	(147.0)	(163.7)	(225.0)	[illegible]
M	**Total Requirements**	8,840.4	8,738.9	8,660.4	9,214.3	9,259.3	9,233.6	9,324.3	9,456.2	9,575.8	9,541.1	10,624.0	[illegible]
		-	-	-	-	-	-	-	-	-	-	-	-
	Existing Generation	7,207.0	7,202.1	7,158.9	7,197.3	7,130.9	7,106.8	7,115.1	7,003.7	7,004.[illegible]	6,937.7	6,081.7	4,945.0
L	**Long Term Purchases**	700.0	709.9	751.0	737.0	737.0	737.0	527.6	338.2	338.2	335.0	243.1	240.2
&	**Short Term Market**	805.7	708.2	600.4	502.5	316.7	269.4	325.0	511.8	472.3	459.3	449.2	426.3
R	**Short Term Purchases**	127.7	118.8	150.1	88.6	67.0	73.6	85.5	83.7	64.3	108.6	4.0	5.9
	New Resources	-	-	-	689.0	1,007.8	1,046.9	1,271.0	1,518.8	1,696.3	1,700.5	3,846.0	5,944.9
	Total Resources	8,840.4	8,738.9	8,660.4	9,214.3	9,259.3	9,233.6	9,324.3	9,456.2	9,575.8	9,541.1	10,624.0	11,562.3

NPV of 'Case critical.wtr Hydro Resources
Modeled at Critical Water Levels'
Total System Production Cost in Millions of $2001

Year	Total System Production Cost (A)	Adder (B)	TSPC less Adder (C) (A)+(B)	Net PV Factor at 4.88% (D)	Net Present Value (E) (C)*(D)	
2001	$ 1,049		$ 1,049	1.0000	$ 1,049	*
2002	$ 978		$ 978	0.9534	$ 933	*
2003	$ 983		$ 983	0.9090	$ 894	*
2004	$ 906		$ 906	0.8667	$ 785	*
2005	$ 859		$ 859	0.8264	$ 709	*
2006	$ 870		$ 870	0.7879	$ 685	*
2007	$ 910		$ 910	0.7512	$ 684	*
2008	$ 970		$ 970	0.7162	$ 695	*
2009	$ 984		$ 984	0.6829	$ 672	*
2010	$ 1,028		$ 1,028	0.6511	$ 669	*
2011	$ 1,065		$ 1,065	0.6208	$ 661	
2012	$ 1,102		$ 1,102	0.5919	$ 652	
2013	$ 1,139		$ 1,139	0.5643	$ 643	
2014	$ 1,177		$ 1,177	0.5380	$ 633	
2015	$ 1,214		$ 1,214	0.5130	$ 623	*
2016	$ 1,268		$ 1,268	0.4891	$ 620	
2017	$ 1,322		$ 1,322	0.4663	$ 616	
2018	$ 1,375		$ 1,375	0.4446	$ 612	
2019	$ 1,429		$ 1,429	0.4239	$ 606	
2020	$ 1,483		$ 1,483	0.4042	$ 599	*
2021	$ 1,474		$ 1,474	0.3854	$ 568	
2022	$ 1,465		$ 1,465	0.3674	$ 538	
2023	$ 1,456		$ 1,456	0.3503	$ 510	
2024	$ 1,447		$ 1,447	0.3340	$ 483	
2025	$ 1,438		$ 1,438	0.3185	$ 458	
2026	$ 1,429		$ 1,429	0.3036	$ 434	
2027	$ 1,420		$ 1,420	0.2895	$ 411	
2028	$ 1,411		$ 1,411	0.2760	$ 390	
2029	$ 1,402		$ 1,402	0.2632	$ 369	
2030	$ 1,393		$ 1,393	0.2509	$ 350	*
2031	$ 1,393		$ 1,393	0.2392	$ 333	
2032	$ 1,393		$ 1,393	0.2281	$ 318	
2033	$ 1,393		$ 1,393	0.2175	$ 303	
2034	$ 1,393		$ 1,393	0.2073	$ 289	
2035	$ 1,393		$ 1,393	0.1977	$ 275	
2036	$ 1,393		$ 1,393	0.1885	$ 263	
2037	$ 1,393		$ 1,393	0.1797	$ 250	
2038	$ 1,393		$ 1,393	0.1713	$ 239	
2039	$ 1,393		$ 1,393	0.1634	$ 228	
2040	$ 1,393		$ 1,393	0.1558	$ 217	
			40 Year Net Present Value		$ 21,267	

Case critical.wtr - Critical Water
Detail supporting the Total System Production Costs in $1,000

Total System Production Cost in $1,000

Totals	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020	2030
Long Term Purchases	451,029	393,490	373,672	297,129	229,277	220,721	233,671	276,792	266,834	276,965	260,473	277,914	280,951
Short Term Purchases	21,077	19,765	27,721	15,578	11,776	12,462	16,808	14,945	13,702	27,102	1,367	2,149	2,112
Existing Resource O&M	389,196	389,913	389,740	389,127	388,993	386,243	386,560	380,653	380,674	376,827	318,039	259,299	259,299
Potential Resource O&M	-	-	-	22,500	32,741	33,951	41,121	52,106	58,028	58,074	158,408	248,135	248,461
Fuel Existing	523,398	508,116	504,357	501,077	497,887	499,917	501,906	472,537	473,437	475,028	399,188	333,493	333,493
Fuel Potential	-	-	-	72,649	105,903	110,531	135,972	164,766	185,953	187,550	442,160	634,454	636,065
Short Term Sales	(336,243)	(334,268)	(313,637)	(432,981)	(465,724)	(452,866)	(475,835)	(475,332)	(485,134)	(462,310)	(560,088)	(567,102)	(595,119)
Total Operating Exp	1,048,457	977,016	981,853	865,079	800,852	810,959	840,203	886,468	893,494	939,236	1,019,547	1,188,343	1,165,262
Total Annual CC	-	-	-	38,433	54,963	55,767	66,053	78,761	85,164	83,206	186,078	282,662	215,259
Total Annual DSM	537	1,068	1,614	2,160	2,721	3,286	3,866	4,455	5,053	5,661	8,072	12,202	12,854
Total Real Costs	1,048,994	978,084	983,467	905,672	858,536	870,012	910,122	969,683	983,711	1,028,103	1,213,696	1,483,206	1,393,375
	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Real $2001 Costs	**1,048,994**	**978,084**	**983,467**	**905,672**	**858,536**	**870,012**	**910,122**	**969,683**	**983,711**	**1,028,103**	**1,213,696**	**1,483,206**	**1,393,375**

Annual Capital Cost

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020	2030
Coal	-	-	-	-	-	-	-	-	-	-	-	59,956	40,699
Nuclear	-	-	-	-	-	-	-	-	-	-	-	-	-
Oil/Gas	-	-	-	-	-	-	-	-	-	-	-	-	-
Combustion Turbi	-	-	-	-	-	-	-	-	-	-	-	-	-
Combined Cycle	-	-	-	5,181	6,535	6,385	6,238	18,617	26,404	25,797	42,953	69,742	55,493
Hydro	-	-	-	-	-	-	-	-	-	-	-	-	-
Cogen	-	-	-	33,252	48,428	49,382	59,815	60,143	58,760	57,409	143,124	134,107	106,267
Purchase	-	-	-	-	-	-	-	-	-	-	-	-	-
Renewable	-	-	-	-	-	-	-	-	-	-	-	18,857	12,800
Storage	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Annual CC	-	-	-	38,433	54,963	55,767	66,053	78,761	85,164	83,206	186,078	282,662	215,259

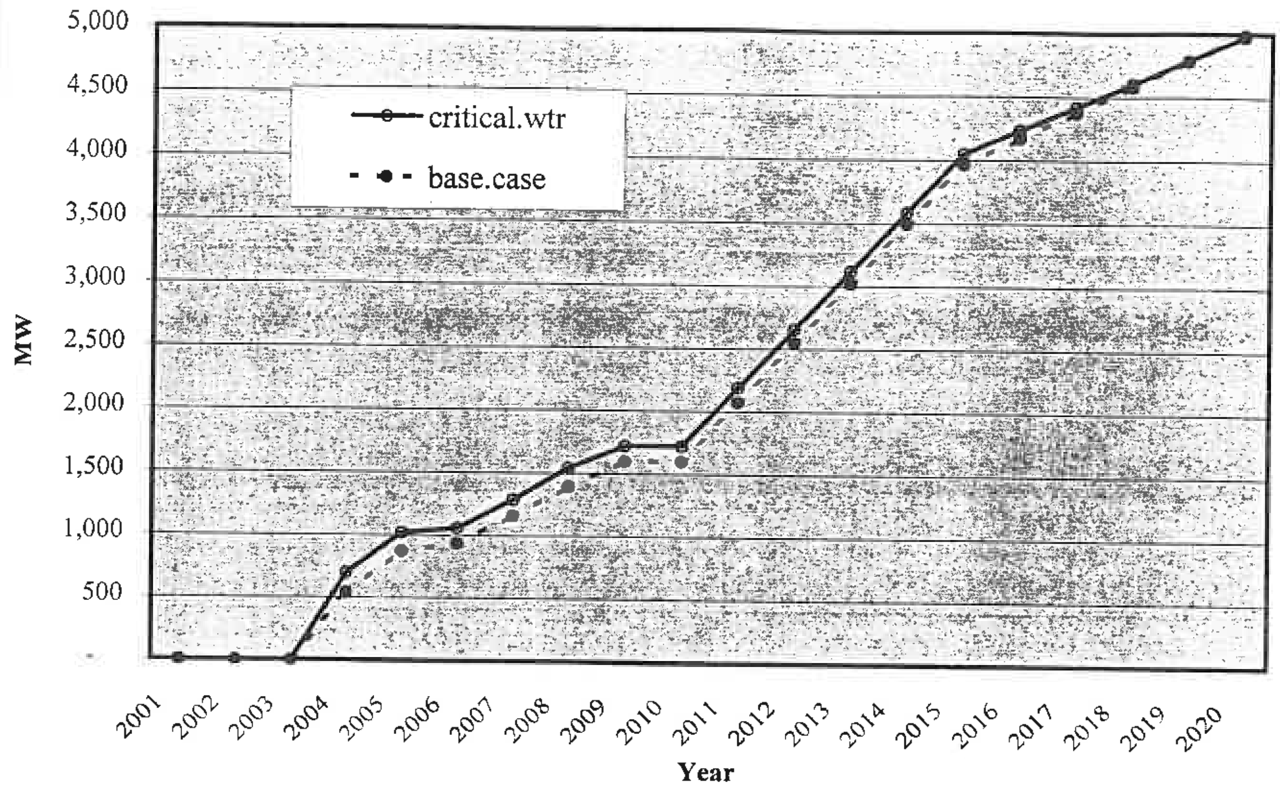
DSM PROGRAM

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020	2030
Total Annual DSM	537	1,068	1,614	2,160	2,721	3,286	3,866	4,455	5,053	5,661	8,072	12,202	12,854

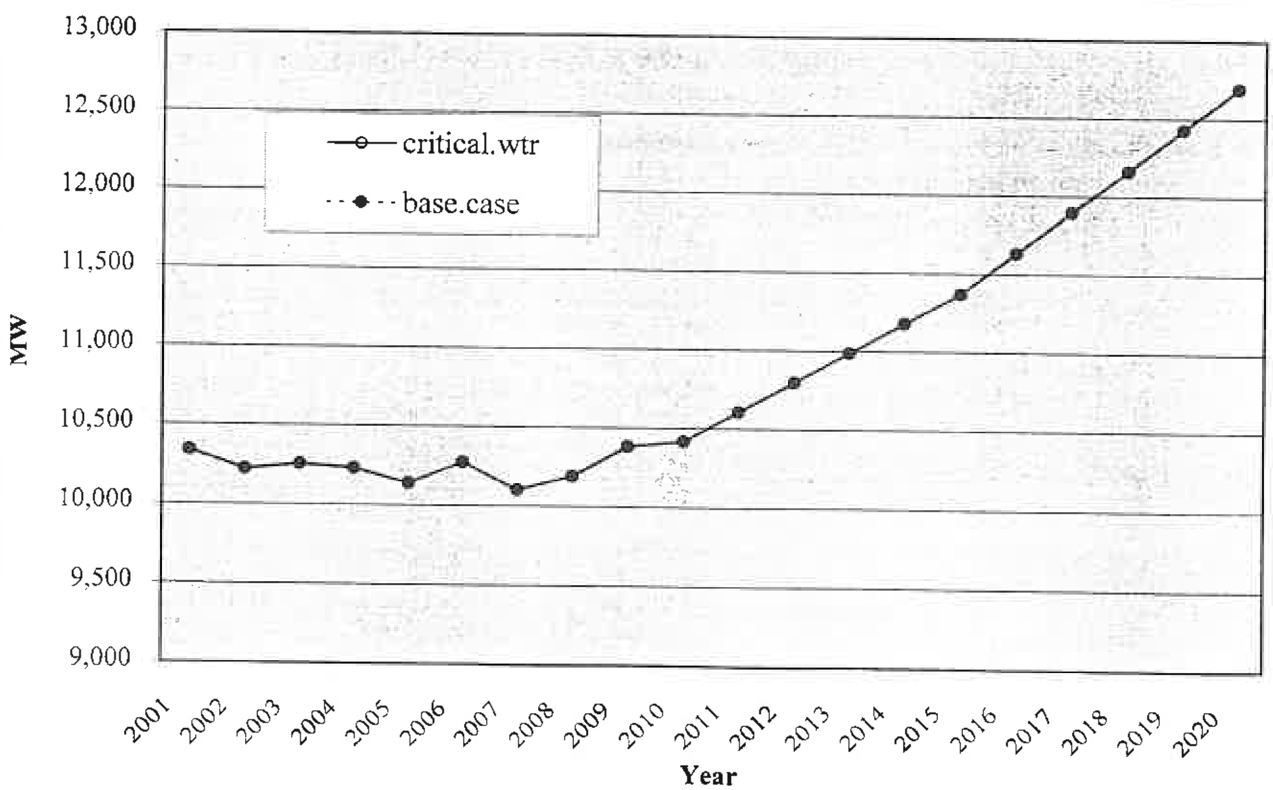
Fuel Cost $	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020	2030
Fuel Existing	523,398	508,116	504,357	501,077	497,887	499,917	501,906	472,537	473,437	475,028	399,188	333,493	333,493
Fuel Potential	-	-	-	72,649	105,903	110,531	135,972	164,766	185,953	187,550	442,160	634,454	636,065

Case critical.wtr Hydro Resources Modeled at Critical Water Levels

Summer Cogeneration & Combined Cycle Resources Selected (MW)

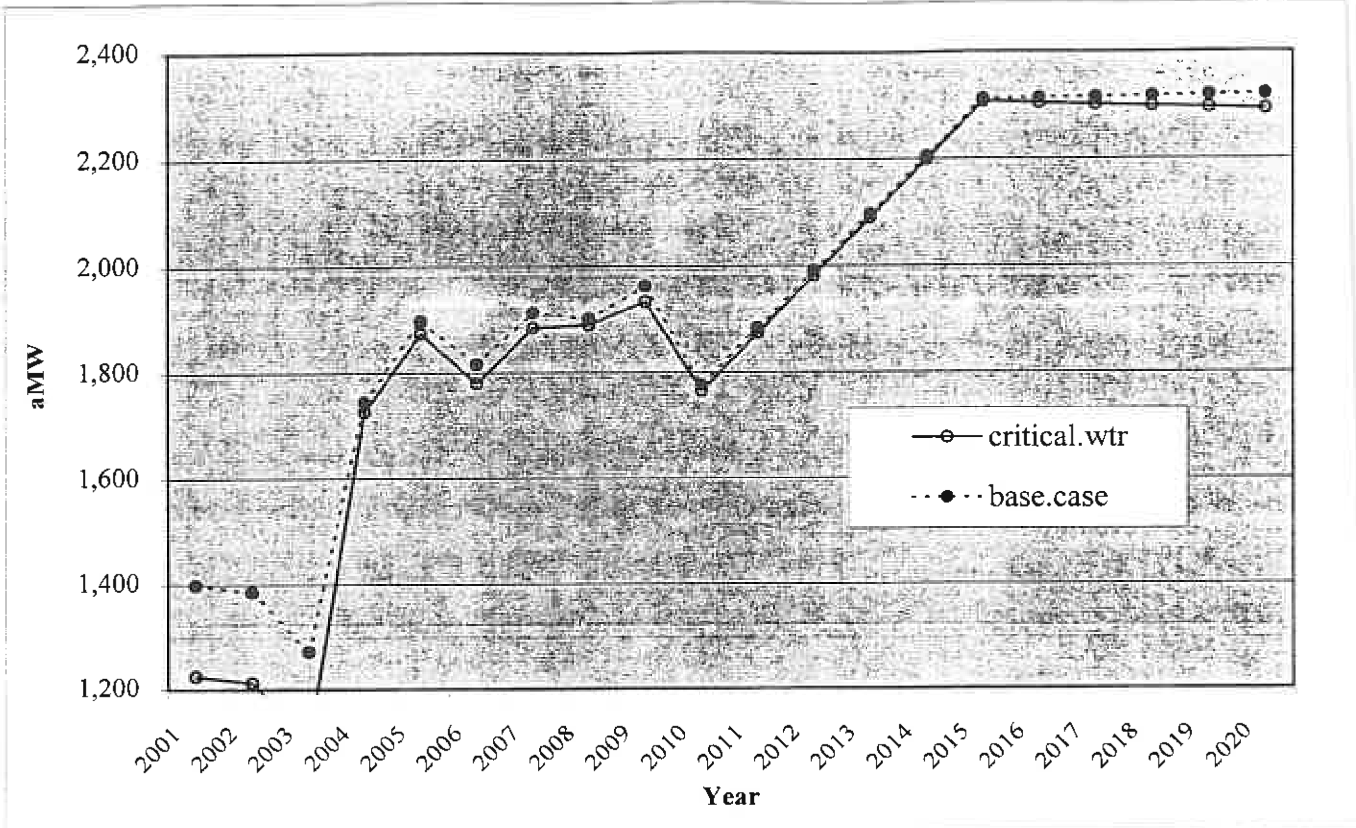


Total System Load Requirements including Long Term Sales and Reduced by DSM (Summer MW)

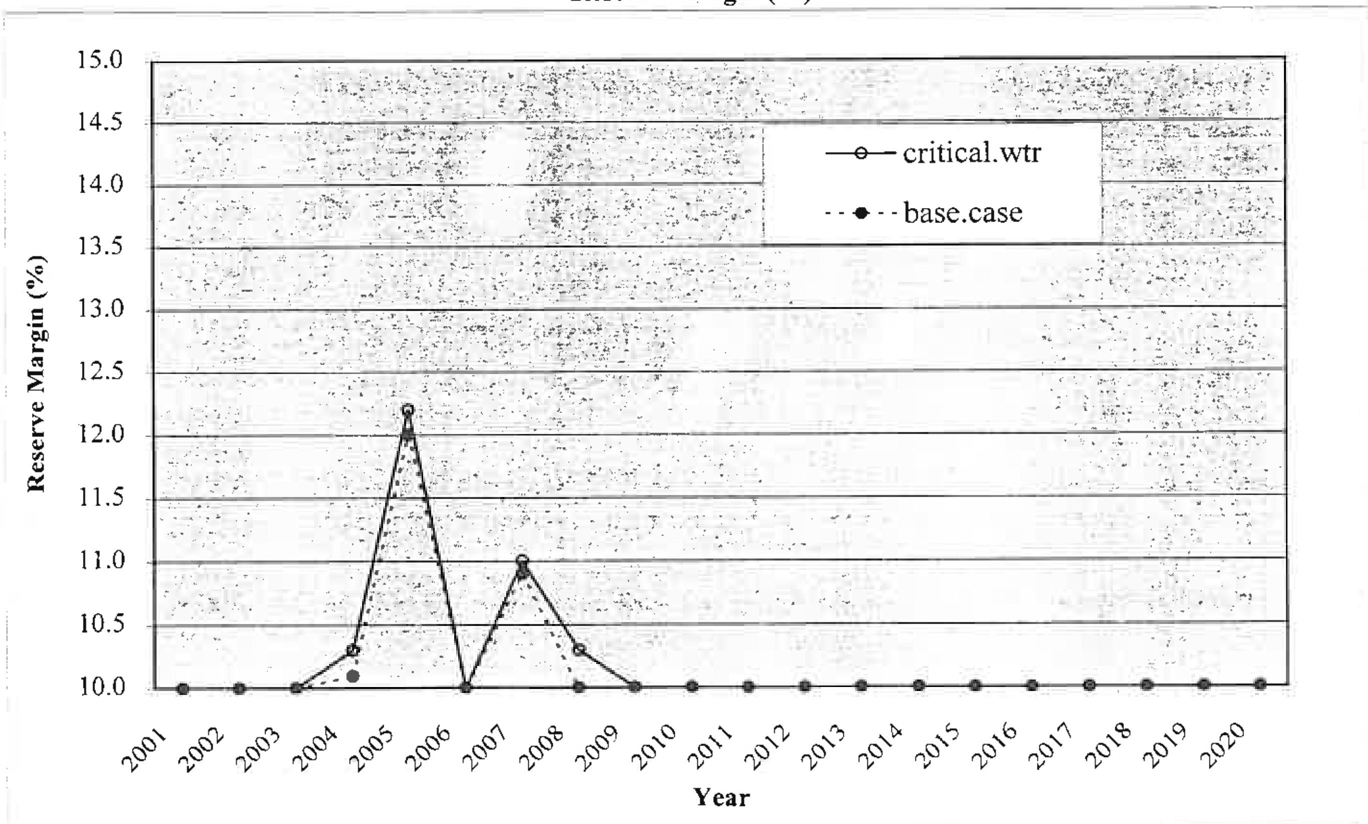


Case critical.wtr Hydro Resources Modeled at Critical Water Levels

Net Short Term Market Sales (aMW)



Reserve Margin (%)



Analysis of Critical Water Flows for Hydro Modeling

Stream flows converted to aMW

	Season				
Pacific Hydro	**Win**	**Spr**	**Sum**	**Fall**	**Annual**
Average of Lowest 5 Years	542.7	402.7	260.5	376.0	395.7
Average	705.2	513.8	329.1	450.3	499.9
Ratio 5 Years / Average	77.0%	78.4%	79.1%	83.5%	79.2%
Difference	-162.5	-111.1	-68.6	-74.3	-104.2
Mid-Columbia					
Average of Lowest 5 Years	205.5	163.4	169.4	181.0	180.2
Average	263.5	197.4	219.4	192.6	218.6
Ratio 5 Years / Average	78.0%	82.8%	77.2%	94.0%	82.4%
Difference	-58.0	-34.0	-50.0	-11.6	-38.4
Utah Hydro					
Average of Lowest 3 Years	18.0	37.4	58.4	16.7	32.7
Average	50.5	71.9	69.4	51.3	60.8
Ratio 3 Years / Average	35.6%	52.1%	84.1%	32.5%	53.8%
Difference	-32.5	-34.5	-11.0	-34.6	-28.1
Total					
Average of Lowest 3 Years	766.2	603.6	488.2	573.6	608.6
Average	1,019.2	783.2	617.9	694.1	779.4
Ratio Lowest / Average	75.2%	77.1%	79.0%	82.6%	78.1%
Difference	-253.0	-179.6	-129.7	-120.5	-170.8