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**BEFORE THE PUBLIC SERVICE COMMISSION OF UTAH**

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| In the Matter of Demand Side Management Cost Recovery by PACIFICORP dba UTAH POWER & LIGHT COMPANY | Docket No. 02-035-T12<br><br>PREFILED DIRECT TESTIMONY OF CHRISTINE WRIGHT ON BEHALF OF THE UAE INTERVENTION GROUP IN SUPPORT OF SELF-DIRECTION TARIFF |

The UAE Intervention Group ("UAE") hereby submits the prefiled direct testimony of Christine Wright on behalf of the UAE Intervention Group in support of a Self-Direction Tariff for DSM tariff rider charges.

DATED this 25th day of April, 2003.

HATCH, JAMES & DODGE

_____
Gary A. Dodge
Attorneys for UAE

CERTIFICATE OF SERVICE

I hereby certify that a true and correct copy of the foregoing was mailed, postage prepaid, this ____ day of _____, 2003, to the following:

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_____

**PREFILED DIRECT TESTIMONY**

**Of**

**CHRISTINE WRIGHT**

**On behalf of the UAE Intervention Group**

**In Support of Proposed Schedule 192, Self-Direction Credit**

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**In the Matter of Demand Side Management Cost Recovery by PACIFICORP dba UTAH POWER & LIGHT COMPANY**

**Utah Public Service Commission Docket No. 02-035-T12**

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**April 25, 2003**

## 1. INTRODUCTION

**Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

A. Christine Wright. My business address is 39 W. Market Street, Suite 200, Salt Lake City, Utah, 84101.

**Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?**

A. I am an energy consultant with Energy Strategies, LLC. Energy Strategies is a consulting firm offering professional energy services in the areas of natural gas and electricity

**Q. WHAT IS YOUR EDUCATIONAL BACKGROUND?**

A. I received my B.A. in Economics from Westminster College in Salt Lake City. I am currently pursuing a Masters Degree in Economics from the University of Utah.

**Q. PLEASE DESCRIBE YOUR PROFESSIONAL EXPERIENCE.**

A. I have been working on electricity and natural gas issues for the past four and a half years. My focus has been related to large customer energy issues throughout the West, including demand side management, competitive procurement, rate optimization, and other utility related issues. I have participated in the DSM Advisory Group on behalf of UAE since 2000.

**Q. ON WHOSE BEHALF ARE YOU FILING TESTIMONY IN THIS PROCEEDING?**

A. I am filing testimony on behalf of the Utah Association of Energy Users Intervention Group (UAE). The membership of UAE includes a large industrial and commercial base of companies, including mining, aerospace, healthcare, refineries and manufacturing. UAE Members spend over $216 Million on energy annually, and employ over 35,000 employees in Utah.

**Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

A. The purpose of my testimony is to present UAE's proposal for self-direction provisions to be included in the tariff proposed by PacifiCorp for the adoption of a tariff rider funding mechanism for demand side management (DSM) expenses.

**Q. WHY IS THIS ISSUE OF INTEREST TO THE MEMBERS OF UAE?**

A. UAE supports cost-effective DSM programs - programs with costs comparable to available supply side resources. However, UAE has typically resisted the use of tariff riders as funding mechanisms. UAE has agreed not to oppose the use of a tariff rider for a limited period of time to permit PacifiCorp to recover costs incurred in connection with cost-effective DSM programs so long as reasonable options are available for large customers to self-direct their DSM tariff rider charges into cost-effective DSM programs within their own facilities.

**Q. PLEASE PROVIDE A SUMMARY OF YOUR TESTIMONY.**

A. UAE supports the active pursuit of DSM programs that are demonstrated based upon reasonable assumptions to be cost effective in comparison to supply side resources. DSM opportunities within the facilities of Utah's largest energy consumers present some of the most fertile sources of efficient DSM. By permitting large customers to self-direct their DSM tariff rider charges, these available energy efficiencies can be realized.

UAE supports the approval of PacifiCorp's proposed tariff rider for recovery of DSM costs, so long as large customers are permitted to self-direct their DSM tariff rider charges into cost-effective DSM projects within their own facilities. My testimony proposes a tariff for such a self-direction program. Under UAE's proposed tariff, a monthly credit equal to a customer's monthly DSM tariff rider charge will be available for customers above a specified usage level who implement energy efficiency programs with a simple payback from energy savings of between 1 and 5 years. Eighty percent of the expenses incurred on such a project will be eligible for the credit. Applicants will be required to pay a reasonable application fee, and any remaining administrative costs will be funneled through the tariff rider for recovery. Customers who aggregate meters or customers to satisfy minimum usage requirements must pay associated incremental administrative costs. An administrator will be selected to qualify and confirm completion of projects, verify expenses, and inform the utility when the credit should be applied.

The types of self-directed DSM programs contemplated by the UAE proposal will be among the most cost-effective DSM programs pursued by the company. I urge the Commission to adopt the proposed Schedule 192 along with PacifiCorp's proposed Schedule 191.

**Q. HOW WAS UAE'S SELF-DIRECTION PROPOSAL DEVELOPED?**

A. UAE has participated on the DSM Advisory Group and associated task forces and technical conferences for many years. Over the past several months, UAE sponsored workshops for large customers to solicit input and to develop self-direction concepts that will work in practice as well as theory. We have also gathered and considered information and input from other states and from other sources. Utilizing all of the information available to us, UAE developed a self-direction proposal several months ago and presented it at a technical conference in this docket. We received useful input from several sources, and adjusted our proposal in response. The result of our efforts is the self-direction proposal explained in this testimony.

**Q. DOES PACIFICORP SUPPORT THE CONCEPT OF SELF-DIRECTION?**

A. Yes. In his direct testimony in this docket, John Stewart confirms PacifiCorp's support for customer self-direction. Moreover, PacifiCorp informed UAE and the Utah Legislature that it supports customer self direction during the 2002 Legislative Session. In that session, PacifiCorp proposed Senate Bill 152 to clarify that a tariff rider can legally be used for recovery of DSM expenses. Given its general resistance to tariff

riders, UAE initially had serious concerns about the bill, but ultimately agreed to support it after amendments were added to confirm that large customers should be permitted to self-direct their tariff rider charges into cost-effective DSM programs within their own facilities. Attached as Exhibit UAE-1.1 is a letter from PacifiCorp's Executive Vice President, Bill Landels, confirming PacifiCorp's support for self-direction.

## II. SELF DIRECTION PROPOSAL

**Q. WHAT IS UAE'S PROPOSAL FOR SELF-DIRECTION IF A DSM TARIFF RIDER IS ADOPTED AND IMPLEMENTED?**

A. UAE's self-direction tariff proposal, Schedule 192, is attached to my testimony as Exhibit UAE-1.2. UAE supports approval of PacifiCorp's proposed DSM tariff rider Schedule 191, but only if it includes a workable self-direction program and is amended to be consistent with UAE's proposed schedule 192.

**Q. WHY SHOULD CUSTOMERS BE ALLOWED TO SELF-DIRECT?**

A. Customer-directed DSM projects represent simply another set of DSM opportunities. So long as self-directed projects are cost-effective, the system will benefit from them, as with other cost-effective DSM projects. Logically, many of the most attractive energy efficiency opportunities will lie within the facilities of the largest energy consumers. Unfortunately, given the realities of constrained capital budgets faced by most companies, even efficient DSM programs - programs with relatively short payback

periods - often compete unsuccessfully with other internal projects for limited capital dollars. For most companies in Utah, internal market barriers are a reality.

By allowing large customers to self-direct into their own facilities money that they would otherwise pay to the utility for other DSM programs, they will have a much greater ability and incentive to tap available energy efficiencies within their own facilities. The result will be that significant additional amounts of cost-effective DSM will be achieved in Utah, to the benefit of all ratepayers.

**Q. WHAT SHOULD THE ELIGIBILITY REQUIREMENTS BE FOR A CUSTOMER TO SELF-DIRECT?**

A. We propose that any tariff customer with a peak load of 1000 kW or annual usage of 5,000,000 kWh over the prior 12 month period should be eligible. At and above these usage levels, the Schedule 191 DSM Cost Adjustment charges are sufficiently large to warrant consideration of self-direction.

**Q. WHAT ABOUT SMALLER CUSTOMERS WHO WANT TO SELF-DIRECT?**

A. Conceptually, UAE supports self-direction for all customers. UAE believes that self-directed DSM projects that meet the proposed efficiency criteria will be among the most cost-effective DSM programs available, and all efficient self-directed DSM programs should be encouraged. Unfortunately, however, administrative expenses can eat up the efficiencies for customers at lower usage levels. UAE supports an approach that will

effectively police itself, by requiring all applicants to pay a reasonable application fee and by requiring customers who aggregate meters or usage to meet the minimum load requirements to bear the incremental associated administrative costs.

**Q. HOW DO YOU PROPOSE SELF-DIRECTION BE ADMINISTERED?**

A. We propose that an RFP process overseen by the DSM Advisory Group be utilized to identify potential administrators, and that the Commission select an administrator after considering comments from the DSM Advisory Group and other interested parties. We propose that the administrator be asked to perform pre-construction and post-construction qualification analyses, confirm project completion, confirm eligible project costs, communicate with the utility and the customers with respect to the credit, and otherwise administer the self direction program.

**Q. WHAT OVERSIGHT SHOULD THE COMMISSION HAVE OVER THE ADMINISTRATOR AND THE PROCESS?**

A. As with all other ratemaking issues, the Commission should have final say on everything related to the self direction program and all determinations of the Administrator. To the extent disputes arise, we suggest that the Division be asked to mediate the disputes. Only unresolved disputes should be submitted to the Commission for resolution.

UAE also recommends that the Administrator be required to file annual reports on the program with the Commission, the Company, the Division and the Committee, with

copies also provided to the DSM Advisory Group. As the program progresses, we suggest that the DSM Advisory Group help determine whether additional reporting requirements are appropriate.

**Q. HOW SHOULD ADMINISTRATIVE EXPENSES BE FUNDED?**

A. As with most other DSM programs, we believe that a portion of the administrative costs should be borne by the utility and recovered from all ratepayers. We support requiring applicants to pay a reasonable administrative fee which we propose, at least initially, be set at $500. Additional expenses of administration should be paid by PacifiCorp, included in the DSM deferred account, and recovered through the Schedule 191 tariff rider. As mentioned above, customers who aggregate delivery points or customers to meet the minimum usage requirements should be required to pay an additional administrative fee to offset incremental administrative costs, in amounts to be determined by the Administrator.

**Q. WHAT TYPES OF PROJECTS SHOULD BE ELIGIBLE FOR SELF-DIRECTION?**

A. A self-direction credit should be available for cost-effective DSM projects. For simplicity purposes, UAE believes that cost-effectiveness should be demonstrated through a showing that the simple payback of eligible expenses from reduced consumption of electricity will be between one and five years. If a package of projects is submitted, the average payback should meet this requirement. As discussed later in my

testimony, projects that meet this simple payback test will be very efficient and will compare favorably with other DSM programs.

**Q. HOW SHOULD THE SIMPLE PAYBACK PERIOD BE DEMONSTRATED?**

A. A customer submitting an application for qualification of a self-direction project should be required to demonstrate that, utilizing industry standard procedures and assumptions, the project will result in sufficient reductions in the use of electricity at its facility that, based upon then-existing tariff rates, the total of all eligible expenses associated with the project will be repaid within 1 to 5 years. A payback period of less than one year was eliminated on the theory that a customer will likely pursue such a project even without the credit. Projects with payback periods of more than 5 years are not proposed because they are less likely to be funded even with the credit and because UAE wishes to ensure the cost-effectiveness of projects supported by ratepayer funds.

**Q. WHAT ABOUT NEW CONSTRUCTION OR EXPANSIONS TO EXISTING FACILITIES?**

A. UAE believes that installation of energy efficiency measures in excess of industry standards should be encouraged and incremental costs incurred to attain such efficiencies should qualify for the credit. The Administrator should be directed to approve a self-direction credit for expenses that are demonstrated by the customer to be incremental expenses associated with energy efficiency measures that exceed normal industry standards. The incremental costs and savings should satisfy the efficiency criteria. An

applicant should bear the burden of convincing the administrator of the amount of such incremental costs and excess efficiencies.

**Q. HOW MUCH OF THE TOTAL COST OF A PROJECT SHOULD BE ELIGIBLE FOR THE CREDIT?**

**A.** UAE proposes that 80% of all costs incurred in connection with an eligible energy efficiency project should be eligible for the credit. Initially, UAE strongly supported making 100% of such costs eligible because, so long as cost-effectiveness is demonstrated, reducing the amount of expenses eligible for the credit will simply reduce the incentive to pursue the project, leaving desirable, cost-effective DSM projects not being pursued. Any reduction in the percentage of expenses eligible for the credit or the portion of the Schedule 191 cost adjustment charge that can be offset by the credit will simply reduce the incentive to pursue cost-effective DSM programs and thus restrain the success of DSM initiatives. Nevertheless, based upon comments received from other parties and a recognition that eligible self-direction customers will benefit from the credit, UAE modified its proposal and suggests that only 80% of the actual expenses be available for the credit. UAE will strongly oppose any further reduction to this percentage or any reduction in the amount of the monthly Schedule 191 charges available for offset.

**Q. WHAT TYPES OF PROJECT COSTS SHOULD BE ELIGIBLE FOR THE CREDIT?**

**A.** All costs actually and reasonably incurred by a customer in connection with an eligible project as defined in the eligibility criteria in Schedule 192 should be included in the total project costs, including equipment, engineering and consulting expenses, financing costs, etc., but not including the $500 application fee.

**Q. WHAT ABOUT ONGOING FINANCING COSTS FOR ENERGY EFFICIENCY PROJECTS STARTED BEFORE APPROVAL OF THE 2004 DSM TARIFF RIDER?**

A. UAE submits that customers that have already implemented DSM projects at their facilities that satisfy the efficiency criteria and are still paying to finance those projects should be eligible to receive the credit, up to the amount of any such remaining payments. The customer would have the burden of demonstrating to the administrator that the ongoing payments were incurred directly for the qualifying project.

**Q. SHOULD A CUSTOMER WHO SELF DIRECTS BE PERMITTED TO PARTICIPATE IN OTHER DSM PROGRAMS OFFERED BY PACIFICORP?**

A. Absolutely. By participating in other DSM programs offered by PacifiCorp, a customer is contributing even more to reducing Utah's system peaks, and to the energy efficiency of the system. It would be self-defeating for a customer to be prohibited from participating in other DSM programs because it also self-directs its DSM tariff rider charges into other efficient projects. The goal should be to encourage the pursuit of all cost-effective DSM projects, given the numerous distinct advantages of DSM over supply

side resources. All customers should be encouraged to take advantage of all available DSM programs - predicated on the assumption that approved DSM programs have been demonstrated to be cost-effective.

It would not be proper, of course, for a customer to "double-dip." Accordingly, a customer should not receive a self-direction credit for money spent on DSM measures supported by other DSM tariff programs, unless that other DSM program provides only alternative (non-subsidized) financing.

**Q. CAN YOU ELABORATE ON YOUR SUGGESTED PROCESS FOR APPROVAL OF A SELF-DIRECTION CREDIT?**

A. A customer should be permitted to submit a DSM proposal for pre-qualification to the administrator. The customer should submit engineering specifications and drawings and all other information necessary to enable the administrator to verify projected energy savings, costs, and payback periods. The administrator can request any additional information reasonably needed to perform its functions. The administrator should respond to a request for pre-qualification within 30 days. If a project is pre-qualified by the Administrator, upon completion of the project the administrator should confirm that the project is substantially completed as proposed. If a project is not pre-qualified, upon completion the customer should submit information to the administrator to enable it to determine whether the project qualifies. Following completion, the customer should submit evidence of all of its expenses incurred in connection with the project and the

Administrator should confirm the amount of eligible expenses and the amount of the credit. The Administrator should then notify the utility and customer of the amount of credit.

**Q. HOW SHOULD THE CREDIT BE APPLIED?**

A. After receiving notice from the administrator of the amount of the credit, the utility should begin reflecting the credit on the customer's monthly bills for the full amount of the monthly Schedule 191 charge, until the credit has been fully utilized. For example, if a customer's tariff rider charge were $10,000 each month and its total eligible expenses were $200,000, the customer would receive a credit of $10,000 for 16 months, or until 80% of the project costs had been offset by the monthly credit.

**Q. HOW WILL THE UTILITY KNOW WHEN TO STOP APPLYING THE CREDIT?**

A. The administrator and the utility will exchange relevant information each month. The Administrator will project when the credit will be exhausted and notify PacifiCorp at least 60 days in advance of the month when the credit should cease. The administrator will then do a true-up calculation to account for any over or under collection and notify the utility and the customer of any necessary bill adjustment.

**Q. SHOULD THE PROCESS BE THE SAME FOR CUSTOMERS THAT AGGREGATE METERS OR CUSTOMERS TO BECOME ELIGIBLE?**

A. Generally yes, with a few exceptions. First, as discussed above, aggregated projects should be required to bear incremental costs associated with such aggregation, as determined by the administrator. Second, the administrator and the customers should work out a simple means for reflecting the credit on customer bills without imposing undue administrative burdens or costs on the utility. For example, the total aggregated credit may be applied against a limited number of accounts, leaving the administrator and the affected customers to work out the internal accounting. Several details will need to be worked out for aggregated projects, but it is not possible to anticipate all such details in advance. The administrator, the affected customers and the utility should be able to identify and resolve all such details as the program progresses, with input from the DSM Advisory Group and approval of any proposed tariff changes by the Commission.

**Q. WHAT ABOUT A CUSTOMER THAT HAS IMPLEMENTED ALL COST-EFFECTIVE DSM MEASURES AT ITS FACILITY?**

A. UAE believes that any customer that can demonstrate through an outside energy audit that it has implemented all possible cost-effective DSM measures at its facility should receive a credit equal to one-half of the Schedule 191 tariff rider charge. The audit should be paid for by the customer and must demonstrate to the administrator's satisfaction that there are no remaining projects at the customer's facility that meet the efficiency criteria of a payback of less than 5 years. This credit should last for one year, subject to renewal if the customer makes a similar demonstration each year. UAE believes that few companies will be able to meet this standard, but it is a goal that should be encouraged.

**Q. WHEN SHOULD SCHEDULE 192 BECOME EFFECTIVE?**

A. Schedule 192 be approved and become effective as soon as possible. The credit itself should become available at the same time the tariff rider charges begin under schedule 191, which we expect to be April 1, 2004. The Administrator should be selected as soon as possible so that customers can immediately begin implementing cost-effective DSM programs in anticipation of receiving the credit beginning next April.

**Q. HOW LONG SHOULD THE SELF-DIRECTION TARIFF LAST?**

A. UAE believes that the self-direction tariff and the tariff rider should both carry a mandatory sunset date of no more than 10 years. This will require interested parties to re-evaluate the program and re-apply for approval if it is working properly. In addition, of course, we expect the utility, the administrator, the Division, the Committee, UAE, the DSM Advisory Group, and others to monitor and evaluate the program each year as it progresses.

**Q. HOW CAN THE COMMISSION BE CONFIDENT THAT THE SELF-DIRECTED PROJECTS CONTEMPLATED BY YOUR PROPOSED SCHEDULE 192 WILL BE COST EFFECTIVE?**

A. By imposing eligibility criteria that require sufficient reductions in electricity usage to repay the entire cost of the project through reduced electric bills within 1 to 5 years, cost efficiency is assured. Customer-directed DSM programs with an efficiency payback

period of 1 - 5 years will clearly be among the most cost-effective DSM programs pursued by PacifiCorp in Utah.

The efficiency of the self-directed projects can be also demonstrated by comparing them to first-year and total costs per mwh of energy savings for Utah DSM programs identified in PacifiCorp's IRP, as reflected in Exhibit UAE 1.3. Page 1 of Exhibit UAE 1.3 is a copy of Table G1 from page 308 of the Company's IRP (DSM Resource Stack). Page 2 of Exhibit UAE 1.3 reproduces certain information from that chart for potential Utah DSM projects identified in the IRP, specifically projected first year costs, first year savings, and project life. Four new columns have been added to reflect first year costs per mwh of energy savings, total costs (to be conservative, we assumed that the first-year costs will produce the identified first-year energy savings throughout the projected life of the DSM project at no additional cost), total mwh of energy savings, and total costs per mwh of energy savings. Five new rows have also been added to page 2 of Exhibit UAE 1.3 for illustrative self-directed programs with assumed payback periods of 1-5 years. Data added to the IRP chart, and new calculations, are shown in bold. The assumptions used for these five self-directed programs and for the calculations are reflected on page 3 of Exhibit UAE 1.3. To be conservative, we have assumed a life for self-directed projects of only 10 years, even though the other industrial DSM programs reflected on page 1 of Exhibit UAE 1.3 typically assume lives of 15 years and there is no reason to believe the self-directed projects will produce shorter lives. To project energy savings for self-directed projects, we calculated the all-in cost per mwh for a schedule 9 customer

with usage characteristics as defined in the exhibit, thus implicitly assuming that the self-directed projects will produce commensurate reductions in capacity and energy costs. As reflected on page 2 of Exhibit UAE 1.3, self directed projects with short payback periods will be among the most efficient and cost-effective DSM programs available, based on first-year costs and total costs per mwh of energy savings.

The cost-effectiveness of self-directed projects that qualify under UAE's proposal can also be demonstrated through the four traditional DSM cost-effectiveness tests. Pages 4 - 7 of Exhibit UAE 1.3 illustrates the results of these calculations, utilizing assumptions specified on page 3 of the exhibit. We requested but were not provided with access to the necessary PacifiCorp models to run the illustrative self-directed programs through the same modeling used by PacifiCorp in its recent DSM filings, so it was necessary for us to make a number of simplifying assumptions. For example, we assumed avoided costs, including both capacity and energy savings, at $50 per mwh, based on our general understanding of the average cost of new resources proposed in the IRP. We also assumed administrative costs to the utility of $1,000 per project and to the customer of $500 per project. Finally, the numbers have not been reduced to reflect present value. Exhibit UAE 1.3 shows that the illustrative self-directed projects fare very well under the traditional DSM cost-effectiveness tests. We have asked PacifiCorp to run these tests utilizing its models, and anticipate that this information will be made available in the near future.

**Q. DO YOU WISH TO MAKE ANY CONCLUDING REMARKS?**

A. Yes. Historically, industrial energy users have opposed many DSM programs because they are often social programs financed through utility rates. That kind of financing is detrimental to the economic well being and competitiveness of Utah industries. Given PacifiCorp's apparent need for substantial additional capacity and energy to meet projected load growth, however, UAE has become convinced that a number of cost-effective DSM programs are available, and many of the best such projects are available within their own facilities. Given the reality faced by most energy managers of stiff competition for limited capital budget dollars, even very efficient energy projects often cannot be pursued. The adoption of a tariff rider recovery mechanism for DSM programs with a potential credit for self-direction provides a unique and compelling opportunity for these energy managers to compete more favorably for these constrained capital dollars. I urge the Commission to adopt the self-direction proposal that UAE has developed.

# UAE Exhibit 1.1

*William D. Landels*
*Executive Vice President*

PACIFICORP

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February 6, 2002

Mr. Scott Gutting
Executive Director
Utah Association of Energy Users
39 W. Market Street, Suite 200
Salt Lake City, Utah 84101

RE: Senate Bill 152 – Implementation of Demand Side Management & Energy Efficiency Programs

Dear Scott:

In reviewing Senate Bill 152, members of the Utah Association of Energy Users (UAE) have raised concerns over whether the recovery mechanisms for energy efficiency and demand side management (EE/DSM) programs implemented in Utah will include provisions for (1) self-direction of EE/DSM charges or payments into in-house efficiency projects for industrial and commercial customers (self-direction); and (2) credits for previous expenditures on EE/DSM programs already implemented by such customers (credits).

As we have previously explained, it is PacifiCorp's intent to work with large businesses in Utah so that EE/DSM programs are voluntary, cost-effective, and designed, implemented, and administered to lower overall system costs, minimize cost shifting and ensure equity between customer classes. PacifiCorp supports the concept that a tariff rider funding mechanism for EE/DSM programs should include provisions for both self-direction and credits for large customers, and PacifiCorp interprets and understands SB 152 not to preclude those provisions. PacifiCorp promises and agrees to support reasonable self-direction and credit provisions in the design and development of a tariff rider recovery mechanism. PacifiCorp agrees to work with UAE and other task force members in good faith in attempting to design and implement such a mechanism.

You have agreed that, in reliance on the representations and agreements in this letter, UAE will not oppose the passage of SB 152. You have explained that UAE will offer and support two minor amendments: (1) to clarify that credits may be included in EE/DMS funding mechanisms; and (2) to clarify that the Utah Public Service Commission will establish and approve the criteria for self-direction and credits. PacifiCorp agrees with these two minor amendments, and will support the same.

Yours sincerely,

Bill Landels

Bill Landels

# UAE Exhibit 1.2

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P.S.C.U. No. 44 Original Sheet No. 192. 1

**UTAH POWER & LIGHT COMPANY**

**ELECTRIC SERVICE SCHEDULE NO. 192**

**STATE OF UTAH**

**Self-Direction Credit**

**PURPOSE:** To provide an incentive for customers to self-direct Schedule 191 DSM Cost Adjustment charges into cost-effective energy efficiency projects within their own facilities.

**APPLICATION:** This Schedule shall be available to any customer subject to a DSM Cost Adjustment charge pursuant to Electric Service Schedule No. 191 that meets the usage requirements of an Eligible Customer.

**TERM:** The term of this Self-Direction Credit shall be coterminous with the DSM Cost Adjustment provided in Schedule 191, both of which will expire automatically, absent a Commission order extending the term, on December 31, 2013.

**DEFINITIONS:**

**Efficiency Criteria:** A projected Payback Period (or average Payback Period for projects submitted as a package) of between 1 and 5 years.

**Eligible Customer:** A customer with a peak load of 1,000 kw or annual usage of 5,000,000 kwh at a single meter within the prior 12 months.

**Eligible Expenses:** Eighty percent (80%) of the total of all expenses actually

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P.S.C.U. No. 44 Original Sheet No. 192. 2

incurred by an Eligible Customer in connection with an Eligible Project, including equipment costs, engineering and consulting expenses, and finance charges. Expenses incurred in connection with new construction or expansion of existing facilities are not Eligible Expenses, except to the extent expenses for an Energy Efficiency Project exceed standard industry practices. Ongoing financing expenses that stem directly from an Energy Efficiency Project completed prior to the effective date of this tariff qualify as Eligible Expenses.

**Eligible Project:** An Energy Efficiency Project of an Eligible Customer that satisfies the Efficiency Criteria, but not including an Energy Efficiency Project funded in whole or in part by another Commission-approved DSM tariff (other than financing programs).

**Energy Efficiency Project:** A permanently installed measure (or package of measures submitted for consideration together) meeting reasonable industry standards as determined by the Self-Direction Administrator that is designed to improve the efficiency of electric usage at an Eligible Customer's facility.

**Payback Period:** The projected period for an Eligible Customer to recover all Eligible Expenses incurred in connection with an Energy Efficiency Project from reduced electric usage.

**Required Information:** Plans, drawings, energy savings calculations, pay-back calculations, usage information, as-built information, receipts, expense itemizations, and other data and information needed for determinations of an Eligible Customer, an Eligible Project, Eligible Expenses, or other matters required to be determined by the Self Direction Administrator hereunder. Required Information shall include any information reasonably requested by the Self-Direction Administrator.

**Self-Direction Administrator:** An independent and qualified person or entity selected by the Commission to administer this Self-Direction Credit Schedule 191, after consideration of recommendations from the DSM Task Force and other interested parties.

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& LIGHT COMPANY

P.S.C.U. No. 44 Original Sheet No. 192. 3

**Self Direction Credit:** A credit to be applied against an Eligible Customer's monthly Schedule 191 DSM Cost Adjustment charges, in the amount of all Eligible Expenses. The Self-Direction Credit will be carried forward and applied against future Schedule 191 DSM Cost Adjustment charges billed to the Customer until all Eligible Expenses have been utilized. A Self-Direction Credit equal to one-half of an Eligible Customer's monthly Schedule 191 DSM Cost Adjustment charges for 12 consecutive monthly billings is available for an Eligible Customer who demonstrates to the satisfaction of the Self Direction Administrator through an energy audit performed at the expense of the Eligible Customer by an auditor approved by the Self-Direction Administrator that there are no remaining Eligible Projects available at the customer's facility. This credit may be renewed annually, based upon a new energy audit.

**AVAILABILITY OF SELF-DIRECTION CREDIT:** An Eligible Customer may receive a Self-Direction Credit against any charges billed pursuant to Schedule 191 in accordance with the terms and provisions specified herein.

A customer with multiple meters or multiple customers who aggregate to meet minimum usage requirements may qualify as Eligible Customers, so long as the Energy Efficiency Projects for the aggregated facilities or customers are submitted as a package. Customers who become Eligible Customers through aggregation of meters or customers must bear any incremental costs and expenses incurred by the Self-Direction Administrator in excess of the average costs and expenses incurred in connection with customers who are Eligible Customers without consideration of aggregation.

**PROVISIONS OF SERVICE:**

(1) Pre-Qualification of a Proposed Project.

a. A customer may submit Required Information to the Self-Direction Administrator for pre-qualification of a proposed Energy Efficiency Project as an Eligible Project.

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P.S.C.U. No. 44 Original Sheet No. 192. 4

b. The Self-Direction Administrator shall notify the customer and the Company within 30 days after receipt of all Required Information of its determination that the proposed Energy Efficiency Project is pre-qualified as an Eligible Project, or explaining why it is not pre-qualified as proposed.

c. Following substantial completion of a pre-qualified Energy Efficiency Project, the Eligible Customer shall submit Required Information to the Self-Direction Administrator for a determination of whether the Eligible Project is substantially completed and generally consistent with the project as pre-qualified. A customer with a pre-qualified Eligible Project need not demonstrate actual compliance with the Efficiency Criteria.

d. The Self-Direction Administrator shall notify the customer and the Company within 30 days after receipt of all Required Information of its determination that the Eligible Project is substantially completed and generally consistent with the project as pre-qualified, or explaining why it is not.

(2) Qualification of a Completed Project.

a. Following substantial completion of an Energy Efficiency Project that was not pre-qualified, a customer may submit Required Information to the Self-Direction Administrator for a determination of whether a project is an Eligible Project. A customer with a qualified Eligible Project need not demonstrate actual compliance with the Efficiency Criteria.

b. The Self-Direction Administrator shall notify the customer and the Company within 30 days after receipt of all Required Information of its determination that the proposed Energy Efficiency Project is qualified as an Eligible Project, or explaining why it is not qualified.

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(3) Determination of Eligible Expenses and Implementation of Self-Direction Credit.

a. Following substantial completion of an Energy Efficiency Project, a customer may submit Required Information to the Self-Direction Administrator for a determination of Eligible Expenses.

b. The Self-Direction Administrator shall notify the Eligible Customer and the Company within 30 days after receipt of all Required Information of its determination of the amount of Eligible Expenses and the amount of the Self-Direction Credit.

c. The Company shall reflect the available Self-Direction Credit on the Eligible Customer's monthly bills in an amount equal to the Eligible Customer's full monthly Schedule 191 DSM Cost Adjustment charge beginning as soon as practicable, no later than the first monthly bill issued more than 30 days after the Company's receipt of the Self-Direction Administrator's determination of the Self-Direction Credit.

d. Each month, the Company shall provide the Self-Direction Administrator with the amount of actual Self-Direction Credits applied to the prior month's bills for each Eligible Customer.

e. The Self-Direction Administrator shall notify the Company and the Eligible Customer at least 60 days before the month when the Self-Direction Credit for an Eligible Customer is projected by the Self-Direction Administrator to be exhausted, and the billing month in which the credit should be terminated.

f. The Self-Direction Administrator shall notify the Company and the Eligible Customer of any billing adjustment necessary to true-up the Self-Direction Credit in the event of under or over collection.

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& LIGHT COMPANY

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(4) The Self-Direction Administrator shall make determinations based upon information provided by the utility and the customers on all matters under this Schedule 192, including determinations as to Eligible Customers, pre-qualification or qualification of Eligible Projects, satisfaction of Efficiency Criteria, Eligible Expenses, Self Direction Credit, incremental expenses for projects in excess of industry practices, financing costs for prior projects, and incremental costs for aggregated meters or customers. All determinations made by the Self Direction Administrator shall be documented and provided to the appropriate parties. Any disputes over any determination of the Self Direction Administrator shall be submitted initially to the Division of Public Utilities for mediation and, if mediation is unsuccessful, to the Commission for resolution.

(5) The Self-Direction Administrator shall file annual reports with the Commission and the Company summarizing its determinations during the year and providing an accounting of Self Direction Credits and the costs and expenses of the Self-Direction Administrator under this Schedule.

(6) This Schedule 192 shall become effective as of the Effective Date specified by the Commission. A Self-Direction Credit shall be available for an Eligible Customer in any month when a Schedule 191 DSM Cost Adjustment charge appears on the Eligible Customers' monthly bill from the Company.

# UAE Exhibit 1.3

**Table G.1 DSM Resource Stack**

In order of ascending levelized costs per MWh.

| State | Program [1] | First Year Cost | First Year Savings (MWh) | Life (y) | MWa | Cumulative MWa | Levelized Cost ($/MWh) | $/MWa |
|---|---|---|---|---|---|---|---|---|
| UT | CPN | 250,000 | 3770 | 7 | 0.43 | 0.43 | [illegible] | $ 580,902 |
| WA | CFL | 50,000 | 631 | 7 | 0.07 | 0.50 | [illegible] | $ 694,136 |
| WY | CFL | 1,200,000 | 12,610 | 7 | 1.44 | 1.94 | [illegible] | $ 833,624 |
| UT | 115 | 1,125,000 | 6,570 | 15 | 0.75 | 2.69 | [illegible] | $ 1,500,000 |
| WA | 116 | 600,000 | 3,504 | 15 | 0.40 | 3.09 | [illegible] | $ 1,500,000 |
| WY | 115 | 495,000 | 2,891 | 15 | 0.33 | 3.42 | [illegible] | $ 1,500,000 |
| WY | 116 | 495,000 | 2,891 | 15 | 0.33 | 3.75 | [illegible] | $ 1,500,000 |
| ID | 115 | 240000 | 1401.6 | 15 | 0.16 | 3.91 | [illegible] | $ 1,500,000 |
| ID | 116 | 240000 | 1401.6 | 15 | 0.16 | 4.07 | [illegible] | $ 1,500,000 |
| UT | 116 | 3,000,000 | 17,520 | 15 | 2.00 | 6.07 | [illegible] | $ 1,500,000 |
| WA | 115 | 390,000 | 2,278 | 15 | 0.26 | 6.33 | [illegible] | $ 1,500,000 |
| ID | CFL | 550,000 | 5,590 | 7 | 0.64 | 6.97 | [illegible] | $ 861,896 |
| ID | 125 | 288,000 | 1,577 | 15 | 0.18 | 7.15 | [illegible] | $ 1,600,000 |
| CA | 116 | 400,000 | 2,190 | 15 | 0.25 | 7.40 | [illegible] | $ 1,600,000 |
| WA | 125 | 1,600,000 | 8,760 | 15 | 1.00 | 8.40 | [illegible] | $ 1,600,000 |
| UT | 125 | 6,800,000 | 37,230 | 15 | 4.25 | 12.65 | [illegible] | $ 1,600,000 |
| WY | 125 | 544,000 | 2,978 | 15 | 0.34 | 12.99 | [illegible] | $ 1,600,000 |
| CA | CFL | 450,000 | 4,160 | 7 | 0.47 | 13.46 | [illegible] | $ 947,596 |
| UT | CFL | 3,100,000 | 27,528 | 7 | 3.14 | 16.61 | [illegible] | $ 986,486 |
| WA | WEB | 300,000 | 1,800 | 10 | 0.21 | 16.81 | [illegible] | $ 1,460,000 |
| UT | CAC | 3,958,642 | 17,643 | 15 | 2.01 | 18.83 | [illegible] | $ 1,965,522 |
| ID | WEB | 50,000 | 240 | 10 | 0.03 | 18.85 | [illegible] | $ 1,825,000 |
| ID | CAC | 277,000 | 988 | 15 | 0.11 | 18.97 | [illegible] | $ 2,455,992 |
| WA | CAC | 672,969 | 2,399 | 15 | 0.27 | 19.24 | [illegible] | $ 2,457,361 |
| UT | FRIG | 2,247,000 | 15,166 | 6 | 1.73 | 20.97 | [illegible] | $ 1,297,885 |
| CA | WEB | 50,000 | 200 | 10 | 0.02 | 21.00 | [illegible] | $ 2,190,000 |
| WA | FRIG | 382,000 | 2,062 | 6 | 0.24 | 21.23 | [illegible] | $ 1,622,852 |
| WY | FRIG | 548,640 | 2,791 | 6 | 0.32 | 21.55 | [illegible] | $ 1,721,994 |
| ID | FRIG | 342,400 | 1309 | 6 | 0.15 | 21.70 | 52.18 | $ 2,291,386 |
| UT | HVAC | 770,000 | 1,380 | 15 | 0.16 | 21.86 | 55.18 | $ 4,887,826 |
| WA | LIWX | 800,000 | 1,000 | 20 | 0.11 | 21.97 | 66.33 | $ 7,008,000 |
| UT | RCX | 266,000 | 495 | 5 | 0.06 | 22.03 | 125.46 | $ 4,707,394 |
| ID | LIWX | 50,000 | 32 | 20 | 0.00 | 22.03 | 129.56 | $13,687,500 |
| CA | LIWX | 100,000 | 60 | 20 | 0.01 | 22.04 | 138.20 | $14,600,000 |
| UT | ESP | 654,000 | 357 | 15 | 0.04 | 22.08 | 181.18 | $16,047,731 |
| WY | ESP | 98,100 | 54 | 15 | 0.01 | 22.08 | 181.18 | $16,047,731 |

[1] CPN-Coupon for CFL, CFL – Compact fluorescent giveaway, 115 - Small Retrofit, 116 – Large Retrofit, 125 – FinAnswer, WEB – Web Audit, CAC – High Efficiency CAC, FRIG – Appliance Recycling, HVAC – AC Best Practices Service, LIWX – Low Income Weatherization, RCX – Retro Commissioning, ESP – Energy Star Appliance

| IRP DSM CHART | | | | | | | | UAE Exhibit 1.3 (CW) | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | UPSC Docket 02-035-T12 | |
| | | | | | | | | Page 2 of 7 | |
| | | | | | | | | | |
| | | | **utility** | | **utility** | | **utility** | **utility** | |
| State | Program | First Year | **total** | First Year | **1st yr.** | Life | **total** | **total** | |
| | [1] | Cost | **costs** | Savings | **costs** | (y) | **savings** | **cost** | |
| | | **($)** | **($)** | (MWh) | **($/MWh)** | | **(MWh)** | **($/MWh)** | |
| **[self-directed** | **[simple payback** | | | | | | | | |
| **project #]** | **(years)]** | | | | | | | | |
| | | | | | | | | | |
| **SD-1** | **1 yr payback** | **20,000** | **40,000** | **1,422** | **14.06** | **10** | **14,221** | **2.81** | |
| | | | | | | | | | |
| **SD-2** | **2 yr payback** | **20,000** | **40,000** | **711** | **28.13** | **10** | **7,111** | **5.63** | |
| | | | | | | | | | |
| **SD-3** | **3 yr payback** | **20,000** | **40,000** | **474** | **42.19** | **10** | **4,740** | **8.44** | |
| | | | | | | | | | |
| **SD-4** | **4 yr payback** | **20,000** | **40,000** | **356** | **56.25** | **10** | **3,555** | **11.25** | |
| | | | | | | | | | |
| **SD-5** | **5 yr payback** | **20,000** | **40,000** | **284** | **70.32** | **10** | **2,844** | **14.06** | |
| | | | | | | | | | |
| UT | CPN | 250,000 | **250,000** | 3,770 | **66.31** | 7 | **26,390** | **9.47** | |
| | | | | | | | | | |
| UT | 115 | 1,125,000 | **1,125,000** | 6,570 | **171.23** | 15 | **98,550** | **11.42** | |
| | | | | | | | | | |
| UT | 116 | 3,000,000 | **3,000,000** | 17,520 | **171.23** | 15 | **262,800** | **11.42** | |
| | | | | | | | | | |
| UT | 125 | 6,800,000 | **6,800,000** | 37,230 | **182.65** | 15 | **558,450** | **12.18** | |
| | | | | | | | | | |
| UT | CFL | 3,100,000 | **3,100,000** | 27,528 | **112.61** | 7 | **192,696** | **16.09** | |
| | | | | | | | | | |
| UT | CAC | 3,958,642 | **3,958,642** | 17,643 | **224.37** | 15 | **264,645** | **14.96** | |
| | | | | | | | | | |
| UT | FRIG | 2,247,000 | **2,247,000** | 15,166 | **148.16** | 6 | **90,996** | **24.69** | |
| | | | | | | | | | |
| UT | HVAC | 770,000 | **770,000** | 1,380 | **557.97** | 15 | **20,700** | **37.20** | |
| | | | | | | | | | |
| UT | RCX | 266,000 | **266,000** | 495 | **537.37** | 5 | **2,475** | **107.47** | |
| | | | | | | | | | |
| UT | ESP | 654,000.00 | **654,000** | 357 | **1831.93** | 15 | **5,355** | **122.13** | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| [1] CPN-Coupon for CFL, CFL – Compact fluorescent giveaway, 115 - Small Retrofit, 116 – Large Retrofit, 125 – | | | | | | | | | |
| FinAnswer, CAC – High Efficiency CAC, FRIG – Appliance Recycling, HVAC – AC Best | | | | | | | | | |
| Practices Service, RCX – Retro Commissioning, ESP – Energy Star Appliance | | | | | | | | | |

**INPUTS**

| **Assumptions:** | | | **Explanation:** |
|---|---|---|---|
| Sch. 9 costs | capacity | $6.02 | $ per kW/mo. from Sch. 9, P.S.C.U. No. 44, effective 11/2/01 |
| | energy | $0.021279 | $ per kWh from Sch. 9, P.S.C.U. No. 44, effective 11/2/01 |
| Sch 95 surcharge % | | 1.0351 | % increase to capacity and energy from Sch. 95, P.S.C.U. No. 44, effective 5/29/02 |
| Sch. 9 + Sch. 95 | capacity | $6.23 | $ per kW/mo. (line 5 x line 7) |
| | energy | $0.022026 | $ per kWh (line 6 x line 7) |
| Annual energy usage | | 28,443 | MWh - annual energy usage for illustrative customer (line 12 / line 11) |
| Load factor | | 65% | assumed load factor for illustrative schedule 9 customer |
| Annual electric bill | | $1,000,000 | assumed annual cost for electricity for illustrative Sch. 9 customer |
| Cost/MWh | | $35.15825 | Sch. 9 cost per MWh for capacity and energy at assumed load factor (line 8+(730 hrs x line 10xline 9)/(730xline 10)x1000 kwh) |
| tariff rider percentage | | 2% | assumed Sch. 191 tariff rider % for Sch. 9 customers |
| % of project costs eligible | | 80% | assumed portion of customer project costs eligible for self-direction credit |
| total cost of project | | $50,000 | assumed total incremental cost to customer for illustrative energy efficiency measure |
| first year cost to utility | | $20,000 | first year self-direction credit available for illustrative project (line 12 x line 14) |
| total cost to utility | | $40,000 | total customer self-direction credit available for illustrative project (line 15 x line 16) |
| customer cost | | $10,000 | customer cost for eligible project not available for self-direction credit (line 16 - line 18) |
| years of efficiency | | 10 | assumed life of energy efficiency measure, calculated at 2/3 of life assumed by utility for other industrial dsm projects |
| avoided costs | | $50 | assumed levelized avoided capacity and energy costs, based on general IRP information |
| utility administrative costs | | $1,000 | assumed per project expenses borne by utility for administrator |
| customer administrative costs | | $500 | assumed per project expenses borne by customer for administrator |

**Illustrative Self Directed Projects:**

| Self-Directed Project Number: | Assumed simple payback (years) | First year utility savings (total MWh) | First year utility cost (per MWh) | Total utility savings (total MWh) | Total utility cost (per MWh) | Utility avoided costs (cumulative) | Utility lost revenues (customer savings) (cumulative) |
|---|---|---|---|---|---|---|---|
| SD-1 | 1 | 1422 | $14.06 | 14221 | $2.81 | $711,071 | $500,000 |
| SD-2 | 2 | 711 | $28.13 | 7111 | $5.63 | $355,535 | $250,000 |
| SD-3 | 3 | 474 | $42.19 | 4740 | $8.44 | $237,024 | $166,667 |
| SD-4 | 4 | 356 | $56.25 | 3555 | $11.25 | $177,768 | $125,000 |
| SD-5 | 5 | 284 | $70.32 | 2844 | $14.06 | $142,214 | $100,000 |

**TOTAL RESOURCE COST TEST (TRC)**

| Self-Directed Project # | Customer project costs | Customer admin. costs | Utility admin. costs | Customer incentives | Avoided costs | Total benefits | Total costs | Benefit/Cost Ratio |
|---|---|---|---|---|---|---|---|---|
| SD-1 | $ 10,000 | $500 | $ 1,000 | $ 40,000 | $ 711,071 | $ 711,071 | $ 51,500 | **13.81** |
| SD-2 | $ 10,000 | $500 | $ 1,000 | $ 40,000 | $ 355,535 | $ 355,535 | $ 51,500 | **6.90** |
| SD-3 | $ 10,000 | $500 | $ 1,000 | $ 40,000 | $ 237,024 | $ 237,024 | $ 51,500 | **4.60** |
| SD-4 | $ 10,000 | $500 | $ 1,000 | $ 40,000 | $ 177,768 | $ 177,768 | $ 51,500 | **3.45** |
| SD-5 | $ 10,000 | $500 | $ 1,000 | $ 40,000 | $ 142,214 | $ 142,214 | $ 51,500 | **2.76** |

**UTILITY COST TEST (UCT)**

| Self-Directed Project # | Utility admin. costs | Customer incentives | Avoided costs | Total benefits | Total costs | Benefit/Cost Ratio |
|---|---|---|---|---|---|---|
| SD-1 | $ 1,000 | $ 40,000 | $ 711,071 | $ 711,071 | $ 41,000 | **17.34** |
| SD-2 | $ 1,000 | $ 40,000 | $ 355,535 | $ 355,535 | $ 41,000 | **8.67** |
| SD-3 | $ 1,000 | $ 40,000 | $ 237,024 | $ 237,024 | $ 41,000 | **5.78** |
| SD-4 | $ 1,000 | $ 40,000 | $ 177,768 | $ 177,768 | $ 41,000 | **4.34** |
| SD-5 | $ 1,000 | $ 40,000 | $ 142,214 | $ 142,214 | $ 41,000 | **3.47** |

**PARTICIPANT COST TEST (PCT)**

| Self-Directed Project # | Customer project costs | Customer admin. costs | Customer bill savings | Total benefits | Total costs | Benefit/Cost Ratio |
|---|---|---|---|---|---|---|
| SD-1 | $ 10,000 | $ 500 | $ 500,000 | $ 500,000 | $ 10,500 | **47.62** |
| SD-2 | $ 10,000 | $ 500 | $ 250,000 | $ 250,000 | $ 10,500 | **23.81** |
| SD-3 | $ 10,000 | $ 500 | $ 166,667 | $ 166,667 | $ 10,500 | **15.87** |
| SD-4 | $ 10,000 | $ 500 | $ 125,000 | $ 125,000 | $ 10,500 | **11.90** |
| SD-5 | $ 10,000 | $ 500 | $ 100,000 | $ 100,000 | $ 10,500 | **9.52** |

## RATEPAYER IMPACT TEST (RIM)

| Self-Directed Project # | Utility admin. costs | Customer incentives | Utility lost revenues | Avoided Costs | Total benefits | Total costs | Benefit/Cost Ratio |
|---|---|---|---|---|---|---|---|
| SD-1 | $ 1,000 | $ 40,000 | $ 500,000 | $ 711,071 | $ 711,071 | $ 541,000 | **1.31** |
| SD-2 | $ 1,000 | $ 40,000 | $ 250,000 | $ 355,535 | $ 355,535 | $ 291,000 | **1.22** |
| SD-3 | $ 1,000 | $ 40,000 | $ 166,667 | $ 237,024 | $ 237,024 | $ 207,667 | **1.14** |
| SD-4 | $ 1,000 | $ 40,000 | $ 125,000 | $ 177,768 | $ 177,768 | $ 166,000 | **1.07** |
| SD-5 | $ 1,000 | $ 40,000 | $ 100,000 | $ 142,214 | $ 142,214 | $ 141,000 | **1.01** |