
Sierra Pacific Resources

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History of Mismanagement Leads to Concern Over Proposed Ely Energy Center

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Company Overview

Sierra Pacific Resources (Sierra Pacific) is an investor-owned corporation with operating subsidiaries engaged in the utility business, principally in the State of Nevada. The company's chief operating subsidiaries are Nevada Power Company, which serves approximately 807,000 electric customers in Las Vegas and surrounding areas of southern Nevada; and Sierra Pacific Power Company, which has approximately 361,000 electric customers in northern Nevada and the Lake Tahoe area of northern California, and provides natural gas service to approximately 146,000 customers in the Reno–Sparks metropolitan area of northern Nevada. Sierra Pacific Resources has a combined winter generating capacity of 4,703 MW (18% coal, 50% gas, and 32% gas/oil) and annual revenues of approximately \$3 billion.

Executive Summary

In January 2006, Sierra Pacific announced plans to develop a coal-fired power plant in Ely, Nevada. The proposed facility would serve customers of both Sierra Pacific Power Company and Nevada Power Company; and would utilize two 750 MW coal-fired generating units. The facility would be expanded to include two 500 MW coal gasification units once the technology is deemed to be commercially viable. Current estimates indicate that the project, including a 250-mile transmission line, will cost in excess of \$5 billion. Sierra Pacific Resources recently announced that it would delay its request for final approval until 2009 or early 2010; thereby postponing the construction of the first 750 MW unit, originally scheduled for completion in 2011.

Despite significant cost projection overruns and delays, the Ely generating facility remains the focal point of Sierra Pacific's Integrated Resource Plans for Sierra Pacific Power Company and Nevada Power Company. Although the power plant is intended to alleviate customers' reliance on natural gas generation and exposure to the associated price fluctuations, the proposed facility presents significant environmental and financial risks.

The completion of the first 1,500 MW at the Ely facility would increase Sierra Pacific's reliance on coal-fired generation from 18% of owned capacity to an estimated 38%. The addition of this capacity would increase Sierra Pacific's annual CO₂ emissions by an estimated 11.5 million tons. The company will subsequently be further exposed to the financial implications of current and future regulations on air emissions. Assuming future carbon costs of between \$10 and \$55/ton, the Ely Energy Center could result in annual costs of between \$115 million and \$632.5 million.¹ In addition, although Sierra Pacific continues to pursue contracts with renewable energy providers, the company's strategic decision to focus on new coal capacity suggests a failure to recognize the environmental, regulatory, and financial benefits associated with a strategic focus on energy efficiency and renewable energy. Sierra Pacific's minimum compliance approach to renewable energy development is of particular concern for investors given Nevada's abundant resources and the company's potential to capitalize on establishing a leadership role in this area.

This report demonstrates that Sierra Pacific's strategy does not address recent regulatory and economic trends that continue to shift the competitive balance away from new coal-fired generation. The company's decision to pursue the Ely Energy Center will therefore likely have negative long-term financial implications for the company's shareholders and ratepayers.

Historical Trend of Mismanagement

Sierra Pacific introduced the Ely Energy Center to state regulators as an essential part of the company's strategy to diversify its energy supply and to protect ratepayers from rising electricity prices. At the same time, the proposal is designed to provide long-term shareholder value through increased revenues. However, an analysis of Sierra Pacific's strategic decisions in recent years raises significant concerns about the company's ability to achieve its stated goals. In fact, Sierra Pacific has a history of imprudent business decisions that have resulted in efforts to transfer financial risks between shareholders and ratepayers. This historical trend has been illustrated by several incidents in which the Nevada Public Utilities Commission has refused the company's efforts to recover funds through rate increases.

In November, 2007, Sierra Pacific's request for \$22.6 million from its ratepayers to help cover a settlement with Enron was reduced to \$3.1 million by the Nevada Public Utilities Commission. The company's request represented settlement costs plus legal fees arising from a \$90 million settlement to end a dispute between Sierra Pacific and the now-bankrupt Enron. The suit concerned Sierra Pacific's inability to pass along increased electricity costs to consumers during the Western Energy Crisis of 2001 and 2002, and its subsequent refusal to post collateral for what were then future contracted payments.

Although the Nevada Public Utilities Commission supported the company's request to pass along a portion of the settlement costs to the company's customers, the state's consumer advocate for utility customers successfully challenged the plan on the basis that it resulted from imprudent power-purchasing by Sierra Pacific during the energy crisis. Furthermore, this request was issued in addition to the \$665 million that Sierra Pacific was authorized to recover from ratepayers following the energy crisis.

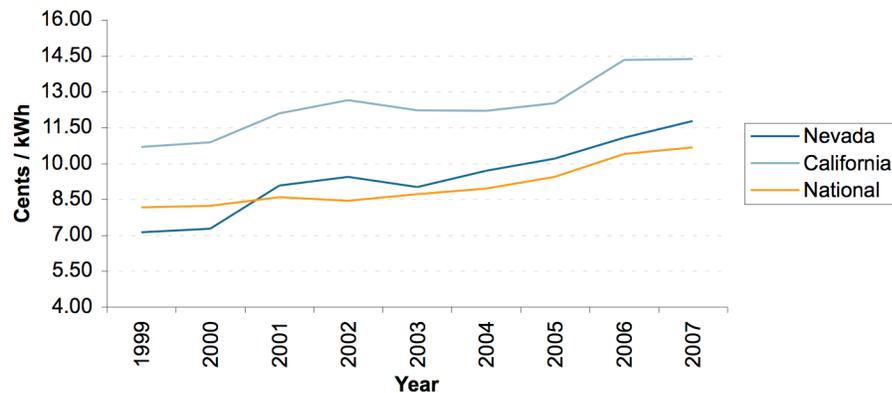
The Piñon Pine Coal Gasification Demonstration Project provides another example of how Sierra Pacific's management relies on shifting risks between ratepayers and shareholders. In 1993, the company proposed the Piñon Pine Project to the Nevada Public Utilities Commission under the premise that the associated risks would be assumed by Sierra Pacific's shareholders and the Department of Energy, which agreed to fund 50% of the initial construction costs and the fuel costs for the first 5 years. Although the plant was constructed, Sierra Pacific was unable to make it operational after numerous re-

¹ At the time of report writing, carbon was trading for \$31/tonne under the European Union Emissions Trading Scheme.

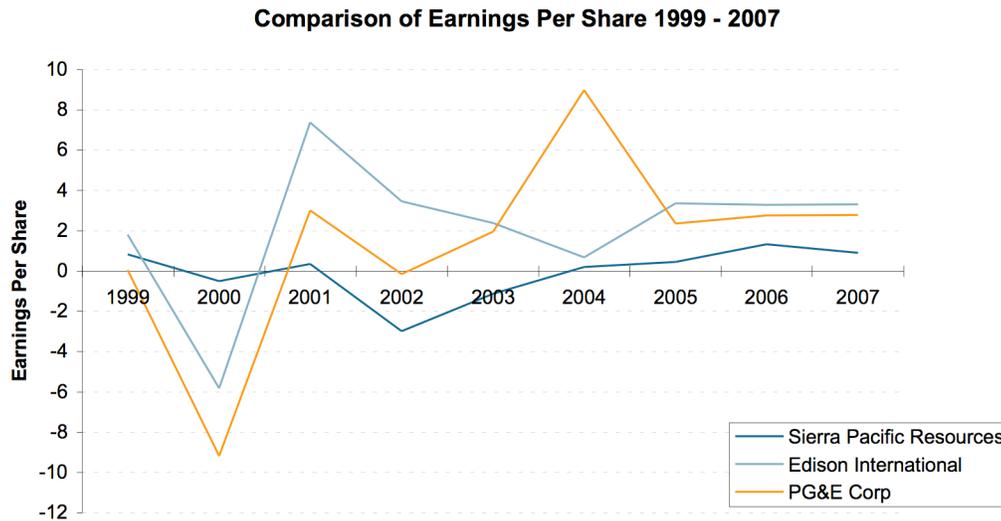
engineering attempts. The company subsequently sought to recover \$43 million in costs associated with the Piñon Project despite its initial promises. The Public Utilities Commission prevented Sierra Pacific from shifting the cost of the failed project onto ratepayers and disallowed Sierra Pacific's request. The company continued to challenge the ruling and was recently allowed to collect \$6 million of the \$43 million it sought from ratepayers. Although the decision to pursue more efficient methods of coal-fired electricity generation should be commended, this incident is indicative of the company's failure to accurately assess and manage the financial risks of capital projects.

The above examples demonstrate a historical trend in which Sierra Pacific has relied on shifting risk between investors and ratepayers rather than on sound business strategy. The following graphs illustrate how this strategy has resulted in above average electricity prices and poor shareholder returns. Comparison is drawn to California's electricity prices and two California utilities' stock performance to illustrate the disparity in how the respective companies responded to the Western Energy Crisis. This analysis illustrates the fact that between 1999 and 2007, Nevada's average residential retail price for electricity increased by 65% compared to a 34% increase in California and a 30% increase in the national average.

Average Residential Retail Price for Electricity



Although Sierra Pacific, Edison International, and PG&E Corporation experienced significant losses surrounding the Western Energy Crisis, the following graph suggests that Sierra Pacific has been less successful in recovering shareholder value.



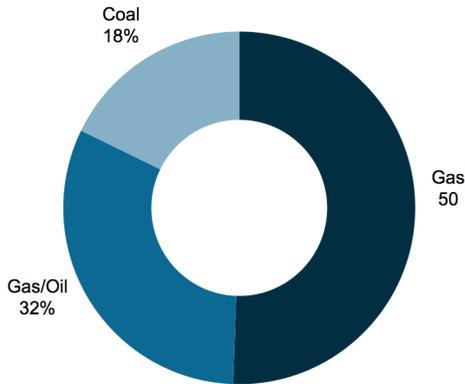
Analysis of the risks associated with Sierra Pacific's proposal indicates that these historical trends are likely to continue as the company is yet to account for significant risks that are associated with the Ely Energy Center.

Exposure to Future Climate Regulations

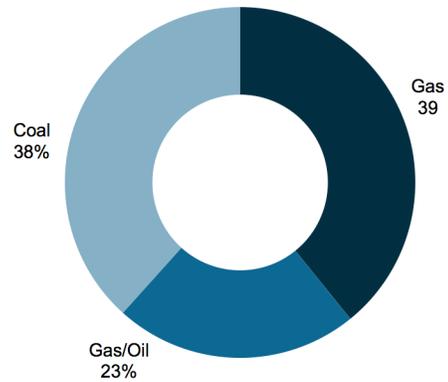
Although electric utilities continue to operate without federal limits on greenhouse gas emissions, consensus within the industry indicates that federal legislation on climate change is impending. As a result, several utilities have taken a proactive stance and developed voluntary greenhouse gas reduction initiatives. Furthermore, utilities have created and joined coalitions to voice support for a mandatory cap on greenhouse gas emissions. Meanwhile, Sierra Pacific continues to focus its resource planning on new coal-fired generation has yet to develop a voluntary greenhouse gas reduction policy, and does not account for the potential price of carbon in its resource planning. The company's failure to incorporate climate related risks and opportunities into its strategy will create significant financial risks for shareholders and ratepayers.

The addition of 1,500 MW of coal-fired capacity will increase Sierra Pacific's coal capacity by 180% and its annual CO₂ emissions by an estimated 93% compared to 2004 emissions levels.

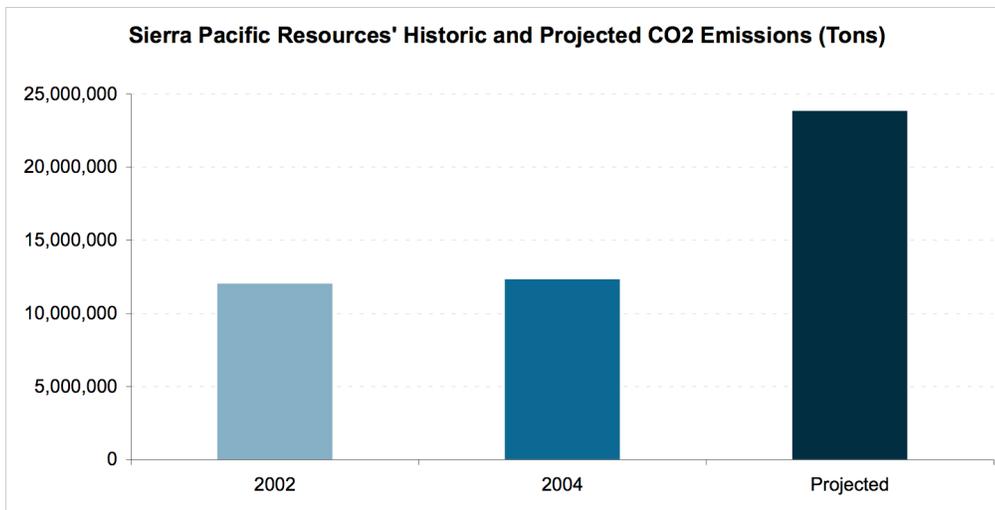
Sierra Pacific Resources' 2008 Fuel Mix for Owned Generating Capacity



Sierra Pacific Resources' Proposed Fuel Mix for Owned Generating Capacity



Sierra Pacific Resources' Historic and Projected CO2 Emissions (Tons)



Assuming future carbon costs of between \$10 and \$55/ton, the Ely Energy Center could result in annual costs of between \$115 million and \$632.5 million. Although the structure of any future climate change legislation will determine what percentage of carbon costs will be recoverable through rate increases, it is clear that these costs will result in higher electricity rates and or decreased shareholder value.

Potential Effect of Carbon Legislation on Electricity Prices for Sierra Pacific Resources' Customers

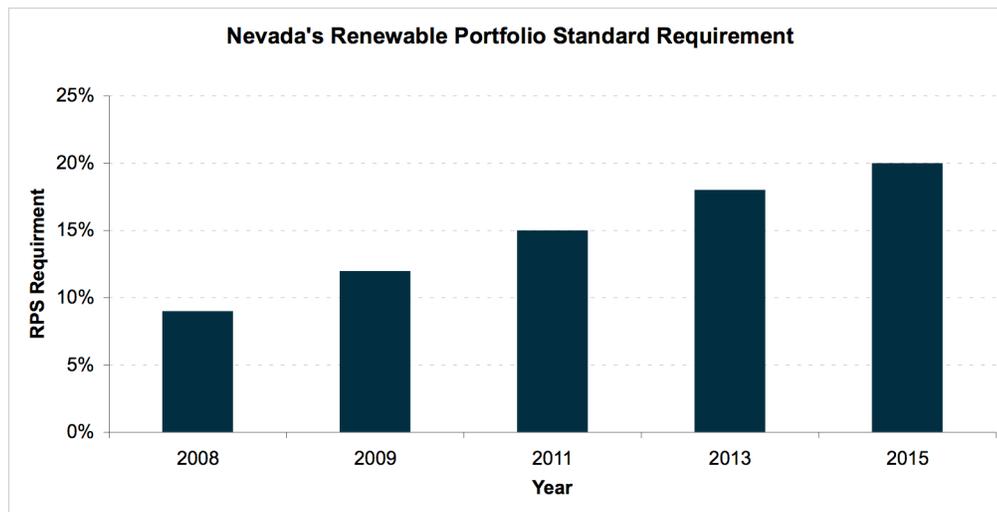
Price Per Ton of Carbon	Increase in Electricity Rates Per kWh
\$10	\$0.01
\$25	\$0.02
\$40	\$0.04
\$55	\$0.05

Sierra Pacific's failure to incorporate carbon pricing into its strategic plan is indicative of previous decisions that have resulted in an increase in Nevada's electricity rates from among the nation's lowest to the 13th highest.² Although the construction of the Ely Energy Center is intended to alleviate customers' exposure to volatility in the price of natural gas, Sierra Pacific's failure to account for the future costs of carbon will likely continue to result in increased electricity rates.

Involvement in Renewable Energy

In the absence of federal standards on renewable energy production, numerous states have developed legislation to increase renewable energy output. Currently, 28 states and the District of Columbia have established standards that require electric utilities to derive a percentage of the electricity they sell from renewable sources. These requirements, which are most commonly developed as mandatory renewable portfolio standards, have added additional regulatory incentive for electric utilities to shift away from traditional fossil-fuel generating capacity.³

In June 2005, Nevada expanded an existing renewable portfolio standard (RPS) to require that 20% of the state's electricity come from renewable sources including biomass, fuel cells, geothermal, solar, waterpower and wind by 2015. Furthermore, the RPS mandates that no less than 5% must be generated from solar capacity. Finally, utilities can earn credit for up to 25% of the RPS requirement through energy efficiency measures.



Sierra Pacific has traditionally relied on issuing RFPs and developing power purchasing agreements to comply with Nevada's RPS. This strategy has limited the company's ability to capitalize on the growing strategic profit opportunities associated with the development and ownership of renewable energy generating capacity. As a result, Sierra Pacific is now more actively engaged in trying to develop ownership or co-ownership of generating assets in this area. However, despite

² As of November 2007, average electricity prices in Nevada were 12.61 cents/kWh compared to the national average of 10.69 cents/kWh and regional average of 8.94 cents/kWh.

³ Missouri and Virginia's renewable portfolio standards are implemented through voluntary commitments by electric utilities.

the development of Sierra Pacific Resources' Renewable Energy Program, the company's strategy continues to be based on minimum compliance.

In 2007, Nevada Power Company and Sierra Pacific Power Company had 90.6 MWs and 184 MWs respectively of renewable energy and associated portfolio energy credits from long term purchase power contracts with renewable energy providers. In addition, the two utilities report to have 287.9 MWs and 27.4 MWs of renewable energy under development respectively. Existing and new renewable energy purchasing contracts including those from the recently completed 64 MW Nevada Solar One concentrated solar power plant will position the utilities well to comply with Nevada's RPS.⁴

The Nevada Solar One project, which meets electricity needs for approximately 40,000 households during periods of peak demand, demonstrates the potential for solar energy to play a critical role in Nevada's energy mix. In addition, studies suggest that Nevada's wind and geothermal resources could provide generating capacities of 1,900 MW and 1,200 MW respectively.⁵

Although, wind and solar do not currently provide baseline generating capacity, it is clear that strategic efforts to increase renewable energy production coupled with expanded energy efficiency measures could drastically reduce the need for new coal-fired capacity and limit shareholder and ratepayer exposure to the associated environmental costs. In particular, investments in baseload geothermal capacity and continuing improvements in energy storage technology for solar and wind capacity could significantly reduce the company's overall dependence on fossil fuel-fired generating capacity.

Sierra Pacific's strategy of minimum compliance will isolate shareholders and ratepayers from the financial risks associated with non-compliance; however it prevents the company from recognizing the financial benefits associated with establishing a leadership role in renewable energy generation. Given the fact that Sierra Pacific operates in one of the states with the highest renewable energy potential, the company could establish itself as a leader and capitalize on continuing growth in demand for clean energy. However, the company's strategic focus is predicated on a paradigm that does not account for the stakeholder, regulatory, and financial drivers that continue to reward investments in renewable energy.

The Impact of Rising Construction Costs

In recent years, rising construction costs have forced several utilities to abandon or reconsider plans to develop new coal power plants. Since Sierra Pacific announced its plans to construct the Ely Energy Center in 2006, the facility's cost estimates have increased by more than 31% from \$3.8 billion to \$5 billion. Given the fact that further delays will likely lead to increased cost projections over the next two years, the Nevada Public Utilities Commission will have to determine whether investors or ratepayers will be responsible for the additional costs. The following examples provide context, and point to concern over the viability of Sierra Pacific's proposal.

In 2008, the Department of Energy withdrew funding from FutureGen, effectively terminating the project. FutureGen had been a public-private partnership to build the world's first near zero-emissions coal-fired power plant in Illinois. The planned 275 MW plant was intended to demonstrate the feasibility of producing electricity and hydrogen from coal while capturing and sequestering CO₂ underground. The Department of Energy's decision to withdraw funding is in part a reaction to project costs that had nearly doubled from \$1 billion.

In 2006, Duke Energy submitted a filing with the North Carolina Utilities Commission seeking approval for two 800 MW coal-fired generating units at the site of its existing Cliffside Stream Station. The company's initial, May 2005, estimates

⁴ Prior to the completion of Nevada Solar One both Sierra Pacific Power Company and Nevada Power Company had failed to meet the solar energy requirement of the Nevada RPS.

⁵ The Energy Foundation 'Analysis: New Direction Necessary for Nevada's Energy Needs Four-pronged Approach: New Transmission, Efficiency, Renewables, Natural Gas'. 13 February 2008.

suggested that the two units would cost approximately \$2 billion; however in a second filing the projected costs increased to \$3 billion. The North Carolina Utilities Commission approved the construction of one 800 MW unit, but disapproved the second unit, primarily on the basis that Duke had failed to demonstrate that it needed the capacity to serve native load demands. In January 2008, Duke filed an updated cost estimate for the 800 MW unit of \$1.8 billion excluding \$600 million for allowance for funds used during the construction.

In 2005, a consortium of seven Midwestern utilities announced plans to build a 630 MW coal-fired power plant on the site of the existing Big Stone Plant in South Dakota. Initial cost estimates for the facility were approximately \$1 billion, with an additional \$200 million for a transmission line. Since the original plan was proposed, two of the utilities have withdrawn as owners, and the size of the project has been scaled back to between 500 and 580 MW. Meanwhile, regulatory delays have led to a revised project cost estimate of \$1.6 billion due to higher costs of construction materials and labor.

Cost Inflation of Select Power Plant Materials 2003–2006

Material	Price Increase
Steel	60%
Iron Ore	60%
Scrap Steel	150%
Aluminum	100%
Copper	400%
Cement	31%
Crushed Stone	30%

Sierra Pacific's exposure to rising construction costs is increased by limits established by Nevada Public Utilities Commission on the amount of money the company can spend on the Ely Energy Center prior to receiving final approval. Sierra Pacific can spend up to \$155 million before it receives a final air permit and an additional \$145 million before it begins construction. These restrictions prevent the company from pre-purchasing key material inputs, and therefore further expose Sierra Pacific to additional costs increases that it is likely to encounter as the permitting process continues. This raises the question for shareholders and ratepayers of how the company will recover the increasing costs associated with the Ely facility.

Increasing Regulatory and Stakeholder Opposition to New Coal Plants

In 2007, more than 50 proposed coal-fired power plants in 20 states were cancelled or delayed. Although these cancellations and delays can be in part attributed to rising construction costs and coal transportation problems, regulators are increasingly denying approval for coal power plants on the basis of concern over climate change. The following examples demonstrate how regulatory concerns coupled with growing stakeholder opposition will create significant challenges to the Ely Energy Center.

In March 2008, the Rural Utility Service announced that it would not fund new coal plants in 2008 and 2009. Since 2001, the Rural Utility Service has issued more than \$1.3 billion in low-cost financing to rural electric cooperatives for new power plant

construction. The decision to suspend the funding of new coal fired power plants was a response to pending litigation and concern that the Rural Utilities Service was putting taxpayers at risk and undermining efforts to address global climate change. This decision will affect at least six proposed coal plants in Montana, Kentucky, Illinois, Arkansas, Texas, and Missouri.

PacifiCorp recently cancelled plans to develop 950 MW of new coal capacity at its existing Intermountain Power station. The company cited concern over climate change after six California cities that rely on the plant refused to support the proposed expansion. PacifiCorp will subsequently focus on developing new natural gas or wind generating capacity.

In October 2007, Sunflower Electric Power was denied an air permit for its proposed 1,400 MW of new coal generating capacity in Holcomb, Kansas. In denying the permit, the Kansas Department of Health and Environment became the first government agency in the United States to cite CO₂ emissions as the reason for refusing an air permit for a coal-fired power plant. This decision is currently being challenged by the Kansas legislature.

In June 2007, the Florida Public Services Commission denied Florida Power & Light's proposal to build a coal-fired power plant in Glades County, Florida. The company was seeking approval to spend approximately \$5.7 billion to build a 1,960 MW generating facility that would reduce ratepayers' dependence on natural gas. The project was denied due to concern about large fixed costs that would be added to base rates for construction and uncertainty associated with carbon regulation and the future of natural gas and coal prices.

Although it is difficult to predict precisely what impact regulators and stakeholders will have on Sierra Pacific's proposal, national trends suggest that there is significant risk involved in the construction of new coal capacity. In particular, these trends suggest that regulators are scrutinizing proposals similar to the Ely Energy Center that present coal as a source of rate stability for customers. This trend suggests that Sierra Pacific will no longer be able to rely on favorable decisions from the Nevada Public Utilities Commission as it has in previous years. Furthermore, additional delays in the permitting process could further intensify any regulatory challenges to the Ely Energy Center.

Exposure to Rising Coal Costs

Sierra Pacific's strategy to increase its reliance on coal-fired generation will further put shareholders and ratepayers at risk as it does not account for the significant increases in coal prices that have occurred over the last year. Spot prices for two benchmark American grades of coal, from central Appalachia and the Powder River Basin of Wyoming have increased by approximately 90% and 65% respectively in the last year.⁶ As demand for coal consumption throughout the world continues to grow, forecasts suggest that price increases will likely continue through 2009.

Although most utilities purchase a majority of their coal through long-term contracts with fixed prices, the industry will likely experience a significant price increase once these contracts expire. Companies such as Sierra Pacific that have proposed increased coal capacity as a method of stabilizing electricity prices will likely be forced to file for rate increases. This will further expose the company's shareholders and ratepayers to the negative financial implications associated with its failure to invest additional resources in renewable energy and energy efficiency.

⁶ The New York Times 'An Export in Solid Supply' 19 March 2008: <http://www.nytimes.com/2008/03/19/business/19coal.html?pagewanted=1>

Conclusion

The development of the Ely Energy Center would provide Sierra Pacific with additional baseload generating capacity to meet increasing energy demand throughout Nevada. However, an analysis of the company's proposal indicates that it has not adequately considered the associated risks. Recent trends suggest that Sierra Pacific will experience significant regulatory challenges which will subsequently expose the company to rising construction costs. Furthermore, the company has yet to account for the costs associated with future legislation on climate change. Finally, renewable portfolio standards and increasing demand for clean energy continue to shift the competitive balance away from new coal-fired generating capacity. These challenges coupled with the company's historical inability to consistently provide investor returns and to protect ratepayers from rising electricity rates suggest that significant risks accompany Sierra Pacific's decision to pursue the Ely Energy Center.

ABOUT INNOVEST

Innovest Strategic Value Advisors was founded in 1995 with the mission of integrating sustainability and finance by identifying non-traditional sources of risk and value potential for investors. Our analysis is designed to assist our clients in constructing and managing portfolios that outperform the market. We do this by tracking company performance and strategic positioning on over 120 factors that are not captured or explained by the traditional, accounting-driven securities analysis. **To learn more about Innovest please see the contact information listed below, or visit us online at www.innovestgroup.com. We look forward to assisting you.**

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