1			
2 3 4	Public Service Commission		
4	IN THE MATTER OF THE APPLICATION OF ROCKY MOUNTAIN POWER FOR AUTHORITY TO INCREASE ITS RETAIL ELECTRIC UTILITY RATES IN WYOMING APPROXIMATELY \$97.9 MILLION PER YEAR OR AN AVERAGE OVERALL	OCKET NO. 0000-384-ER-10	
	INCREASE OF 17.3 PERCENT		
5			
6 7			
8			
9			
10			
11			
12			
13			
14	<b>Powder River Basin Resource Council</b>	l	
15	5		
16	5		
17	7		
18	3		
19			
20	)		
21	April 11, 2011		

# **Table of Contents**

1.	INTRODUCTION AND QUALIFICATIONS	. 1
2.	SUMMARY OF CONCLUSIONS AND RECOMMENDATIONS	. 3
3.	PRUDENCE AND THE COMPANY'S PROPOSAL	. 4
4.	RECOMMENDATIONS	14

# 1. INTRODUCTION AND QUALIFICATIONS

### Q. Please state your name and occupation.

 My name is William Steinhurst, and I am a Senior Consultant with Synapse Energy Economics (Synapse). My business address is 32 Main Street, #394, Montpelier, Vermont 05602.

## Q. Please describe Synapse Energy Economics.

A. Synapse Energy Economics is a research and consulting firm specializing in energy and environmental issues, including electric generation, transmission and distribution system reliability, ratemaking and rate design, electric industry restructuring and market power, electricity market prices, stranded costs, efficiency, renewable energy, environmental quality, and nuclear power.

## Q. Please summarize your work experience and educational background.

A. I have over thirty years of experience in utility regulation and energy policy, including work on renewable portfolio standards and portfolio management practices for default service providers and regulated utilities, green marketing, distributed resource issues, economic impact studies, and rate design. Prior to joining Synapse, I served as Planning Econometrician and Director for Regulated Utility Planning at the Vermont Department of Public Service, the State's Public Advocate and energy policy agency. I have provided consulting services for various clients, including the Connecticut Office of Consumer Counsel, the Illinois Citizens Utility Board, the California Division of Ratepayer Advocates, the D.C. and Maryland Offices of the Public Advocate, the Delaware Public Utilities Commission, the Regulatory Assistance Project, the National Association of Regulatory Utility Commissioners (NARUC), the National Regulatory Research Institute (NRRI), American Association of Retired Persons (AARP), The Utility Reform Network (TURN), the Union of Concerned Scientists, the Northern Forest Council, the Nova Scotia Utility and Review Board, the U.S. EPA, the Conservation Law Foundation, the Sierra Club, the Southern Alliance

for Clean Energy, the Oklahoma Sustainability Network, the Natural Resource Defense Council (NRDC), Illinois Energy Office, the Massachusetts Executive Office of Energy Resources, the James River Corporation, and the Newfoundland Department of Natural Resources.

I hold a B.A. in Physics from Wesleyan University and an M.S. in Statistics and Ph.D. in Mechanical Engineering from the University of Vermont.

I have testified as an expert witness in approximately 30 cases on topics including utility rates and ratemaking policy, prudence reviews, integrated resource planning, demand side management policy and program design, utility financings, regulatory enforcement, green marketing, power purchases, statistical analysis, and decision analysis. I have been a frequent witness in legislative hearings and represented the State of Vermont, the Delaware Public Utilities Commission Staff, and several other groups in numerous collaborative settlement processes addressing energy efficiency, resource planning and distributed resources.

I was the lead author or co-author of Vermont's long-term energy plans for 1983, 1988, and 1991, as well as the 1998 report *Fueling Vermont's Future: Comprehensive Energy* Plan and Greenhouse Gas Action Plan, and also Synapse's study *Portfolio Management: How to Procure Electricity Resources to Provide Reliable, Low-Cost, and Efficient Electricity Services to All Retail Customers.* In 2008, I was commissioned by the National Regulatory Research Institute (NRRI) to write *Electricity at a Glance*, a primer on the industry for new public utility commissioners, which included coverage of energy efficiency programs. In 2011, NRRI commissioned a second edition of that work.

My resume is attached to this testimony as Exhibit PRBRC-\_\_ (WS-1).

## Q. On whose behalf are you testifying in this case?

- A. I am testifying on behalf of the Powder River Basin Resource Council.
- Q. Have you testified previously before the Wyoming Public Service Commission?
- A. No, I have not.

# Q. What is the purpose of your testimony?

A. The purpose of my testimony is to consider whether investments in certain environmental upgrades made by the Rocky Mountain Power (the company) were prudent and should be allowed recovery. I also address the question of coordination between the company's integrated resource plan (IRP) activities and its rate case requests.

# Q. How is your testimony organized?

- A. My testimony is organized as follows:
  - 1. Introduction and Qualifications.
  - 2. Summary of Conclusions and Recommendations.
  - 3. Prudence and the Company's Proposal
  - 4. Recommendations

# 2. SUMMARY OF CONCLUSIONS AND RECOMMENDATIONS

# Q. Please summarize your primary conclusions.

- A. My primary conclusions are summarized as follows:
  - The company seeks recovery in this proceeding for the capital and operating costs of major environmental upgrades (Current Case Retrofits) at certain power plants.
  - (2) Over the near- to mid-term, the company faces substantial additional costs due to known and likely environmental regulations that will have to be made to keep those plants in operation, and the company knew or should have known that those known and likely regulations would impose such costs.<sup>1</sup>
  - (3) The available evidence indicates that the company failed to determine whether the Current Case Retrofits would be cost effective in the light of those known and likely environmental regulations. The magnitude of the costs of those

<sup>&</sup>lt;sup>1</sup> As explained below and in the prefiled testimony of PRBRC witness Dr. Jeremy I. Fisher, those known and likely upgrades fall into two categories, which he and I refer to as Company Projected Retrofits

known and likely regulations is actually greater than the cost of the Current Case Retrofits. Failure to determine whether the Current Case Retrofits are cost effective in the face of those known and likely future costs, which the company knew or should have known would be required, constitutes imprudence.

## Q. Please summarize your primary recommendations.

A. The Commission should disallow the costs of the company's Current Case Retrofit investments, including associated operation and maintenance (O&M) costs and costs due to lost output from the affected plants, until the company shows decisively that the incremental capital costs requested in this case are prudent in light of known and likely future investments and are in keeping with least cost principles.<sup>2</sup>

The Commission should also require the company to provide a full analysis and accounting for the impact of existing and upcoming environmental regulations affecting its fleet of coal plants, as well as the full range of options for addressing those regulations, including both supply- and demand-side resources. The costs facing the existing fleet should include not only the costs requested for meeting environmental compliance criteria today, but also the capital and operating expenses associated with reasonably anticipated environmental retrofits and other environmental mitigation requirements, as well as a price on carbon dioxide (CO<sub>2</sub>) representative of likely regional and federal policies on greenhouse gas emissions. Such analyses should provide the Commission and intervenors with an opportunity to evaluate the proposed investments in the context of the full range

and Emerging Retrofits. His prefiled testimony details the items included in all three categories (Current Case Retrofits, Company Projected Retrofits, and Emerging Retrofits).

<sup>&</sup>lt;sup>2</sup> By "costs due to lost output from the affected plants," I mean the cost of replacement power or additional production needed by the company due to any plant or unit downtime caused by the installation or operation and maintenance of the Current Case Retrofits, plus the cost of additional production or replacement power needed by the company due to either parasitic loads or reduced capacity at any plant or unit caused by the operation of the Current Case Retrofits, less the variable costs of production avoided at the plants or units affected by the installation and operation of the Current Case Retrofits.

of costs that the company will face at its units in order to determine if ratepayers should bear the costs.

## 3. PRUDENCE AND THE COMPANY'S PROPOSAL

# Q. What are the costs that the company is seeking to recover and that you conclude are imprudent?

A. As explained in the prefiled testimony of PRBRC witness Dr. Fisher, approximately 24% of the requested rate base increase is from new retrofits to meet environmental regulations at old coal plants in the company's fleet (the Current Case Retrofits). I will explain below why those investments, along with their associated operation and maintenance (O&M) costs and costs due to lost output from the affected plants, are imprudent. Dr. Fisher lists those specific Current Case Retrofits in his prefiled testimony.

# Q. Has the company presented information sufficient for the Commission to be able to evaluate the prudence of the capital investments in pollution control proposed for recovery in the current docket?

A. No. The company has presented testimony by witnesses to provide information supporting the prudence of capital investments in pollution control equipment and additional generation plant, mining, and hydro projects being placed in service during the test period. However, while that information was necessary, it is not sufficient to demonstrate prudence. As explained in the testimony of Dr. Fisher, the amount that the company is requesting in this rate case is only a portion of the costs that it anticipates in its overall emissions reduction plan (the Company Projected Retrofits) and only a portion of the total costs that it is likely to face over the next few years for environmental compliance activities at its power plants (including the Emerging Retrofits). Beyond the pollution controls that are likely to be required to comply with current and upcoming EPA rules, the question of what costs are likely to arise due to emissions of greenhouse gases, such as CO<sub>2</sub>, presents a potentially significant cost to the company. The likely costs for greenhouse gas control regimes must be addressed in any reasonable

review of the cost effectiveness of investments aimed at the continued operation of a power plant with high carbon emissions.

# Q. Please explain your understanding of prudence determinations and their effect in a rate case.

- A. While I am not an attorney, my lay understanding is as follows. In general, only prudently incurred expenses, including recovery of and on prudently incurred investments used and useful for the provision of utility service, may be recovered in retail rates, and only prudent investments used and useful for the provision of utility service may be included in rate base. Conversely, imprudently incurred expenditures are traditionally disallowed. A rate-regulated utility traditionally enjoys a rebuttable presumption that its expenditures and investments are prudent. That presumption is rebutted by factual evidence demonstrating imprudent utility expenditures. Once that presumption has been rebutted, then the burden shifts to the utility to provide evidence of its prudence sufficient:
  - (1) to form the basis for a finding of prudence; and,
  - (2) to overcome any evidence to the contrary.

# Q. Please explain your understanding of prudence determinations in Wyoming.

A. It is my understanding that W.S. 37-2-119 guides prudence determinations for the Wyoming Public Service Commission.

> Matters to be considered and determined in investigation. In conducting any investigation pursuant to the provisions of this act the commission may investigate, consider and determine such matters as the cost or value, or both, of the property and business of any public utility, used and useful for the convenience of the public, and all matters affecting or influencing such cost or value, the operating statistics for any public utility both as to revenues and expenses and as to the physical features of operation in such detail as the commission may deem advisable; the earnings, investment and expenditures of any such corporation as a whole within this state, and as to rates in plants of any water, electrical or gas corporations, the geographical location thereof shall be considered as well as the population of the municipality in which such plant is located.

I also understand that the Wyoming Supreme Court identified several situations where the Commission should disallow imprudent utility expenses. These include the following:

- (1) If the questioned outlays represent "inefficiency" or "improvidence";
- (2) Managerial discretion has been abused;
- (3) The action taken has been "arbitrary" or "inimical" to the public interest;
- (4) There has been "economic waste"; or,
- (5) Such outlays were not legitimate operating expenses because they were "in excess of just and reasonable charges." <u>Pacific Power & Light</u> <u>Co. v. Public Service Com'n of Wyoming</u> 677 P.2d 799, 805 (1984).

In this case, Rocky Mountain Power's decision counts as imprudent under all five factors. First, installing the Current Case Retrofits is highly inefficient at this time and, so, is imprudent under (1) above. Rocky Mountain Power may be forced to completely revamp its pollution controls once the final EPA rules are issued. The proposed investments may result in inefficiencies by installing controls that may be redundant, unnecessary or obsolete. Second, company management chose to exercise its discretion and to investment in premature controls in such a way that ratepayers may bear substantial and unnecessary costs, a clear abuse of discretion by the management of an enterprise entrusted with the public good and, so, imprudent under (2) above. Third, the most basic duty of a public utility is to provide adequate service at just and reasonable rates, but the Current Case Retrofit costs have not been shown to be necessary for least cost utility service over the long term. Therefore, rates that include recovery for these costs are inimical to the public interest, create economic waste, and would be, by definition in excess of just and reasonable rates. So, the company's Current Case Retrofit decisions were imprudent under (3), (4) and (5), above.

As explained by Dr. Fisher and below in this testimony, Rocky Mountain Power has made premature expenditures for pollution control equipment. Those expenditures do not qualify as "used and useful" property because they have not been prudently incurred expenses.

The investments in Current Case Retrofits, which the utility seeks to put into rate base, are not "used and useful" for several reasons. First, EPA has not yet finalized a regional haze rule under the Clean Air Act, thus, the company has no way of knowing whether its premature retrofit work will meet federal requirements. If, as Dr. Fisher demonstrates it is likely or certain depending on the particular regulation, additional or different technology is ultimately required, the company will have to go back and expend additional resources meeting EPA requirements. Thus, the company unnecessarily acted prematurely.

Second, Rocky Mountain Power has not reflected a number of emerging federal requirements that will require additional expenditures on control technology (Emerging Retrofits). In this way, the company is asking ratepayers to fund piecemeal work that could be done more efficiently once it has a better understanding of the full suite of requirements. Instead, the company is asking for the authority to gamble on the installation of pollution controls that it believes will meet (or be a cost effective foundation for meeting) the standards EPA ultimately adopts. This gamble violates the principle that utility property must be used and useful for public convenience at the time of rate consideration. <u>Pacific Power & Light Co. v. Public Service Com'n of Wyoming</u> 677 P.2d 799, 805 (1984) ("the 'used and useful' status must be as of the time of rate consideration"). The Current Case Retrofit capital investments proposed by Rocky Mountain Power are not currently "used and useful" to ratepayers at this time because they are not shown to be necessary to meet the currently applicable EPA standards.

Thus, the Current Case Retrofit investments are not prudent for the company to have at this time because the final pollution control requirements are not yet known. It would be far more efficient, and a better use of ratepayer funds, to wait until EPA issues final rules that definitively describe the required work. To do otherwise risks installing expensive pollution controls that fall short of meeting EPA requirements and would therefore require a new round of investment and shutdowns.

The company is asking ratepayers to bear the risk that the Current Case Retrofit investments will be a necessary part of the Company Projected Retrofit and Emerging Retrofit investments that will be required to meet final EPA rules. As discussed above, at this time these investments are not "used and useful" because the final EPA rules may call for a different suite of pollution controls. It is inappropriate for Rocky Mountain Power to force ratepayers to bear this risk where the choice to assume such risk is entirely within the control of management. It is my understanding that the Wyoming Supreme Court squarely rejected this type of business strategy by publicly regulated utilities: "If [the utility] gauged the risk with the intention that the loss would be borne by consumers, there would be no risk at all for [the utility] (the stockholders). This fact might encourage [the utility] to venture into activities having a very small chance of economic success with the knowledge of no loss to it should the activity fail..." Pacific Power & Light Co. v. Public Service Com'n of Wyoming 677 P.2d 799, 806 (1984). To the extent Rocky Mountain Power management decided to make these premature investments, shareholders should bear the risk of these investments until such time as the utility can conclusively demonstrate that the retrofits are necessary and sufficient to meet EPA standards.

# Q. Can you identify the other costs that the company is likely to incur, and that Wyoming ratepayers would be asked to bear, in the near- to mid-term for Company Projected Retrofits and Emerging Retrofits?

A. Yes, in broad terms. As described in the testimony of Dr. Fisher, the U.S. Environmental Protection Agency (EPA) is poised to promulgate a series of rules that will apply to generating units in the electric sector, including the company's fleet of generating units. The rules will address air emissions, coal combustion residue, water intake and water effluent. Dr. Fisher's testimony explains that the company currently anticipates substantial additional expenditures on Company Projected Retrofits to meet certain of these rules. He also explains that the company is likely to face additional costs for Emerging Retrofits associated with rules and regulations that are currently under development.

# Q. Has the company presented information about additional costs that would ultimately be charged to ratepayers?

The company clearly acknowledges it will make additional investments in its A. coal-fired power plants beyond those for which it requests approval in this docket. For example, in his testimony Mr. Teply states that "the company takes several factors into consideration when making pollution control equipment investments, including: evaluation of state and federal environmental regulatory requirements and associated compliance deadlines; review of emerging environmental regulations and rulemaking; and analyses of alternate compliance options." (Teply Testimony at 14.) Further, in its Emission Reduction Plan (Exhibit PRBRC (JIF-1)), the company discusses capital expenditures for additional pollution control equipment on PacifiCorp's coal-fired units, as well as associated annual increases to costs to customers and increases in O&M expenses due to the additional pollution control equipment. (Exhibit PRBRC (JIF-1) at 5-7.) The company acknowledged that the costs do not include other costs expected to be incurred as future emission reduction measures are finalized, nor did it address other applicable environmental initiatives. (Exhibit PRBRC (JIF-1) at 7.) In short, the company has not quantified many of these known and likely costs, making it very difficult to do a comprehensive evaluation of the full cost to ratepayers of continuing to operate specific plants in the company's fleet.

# Q. Why should the Commission consider costs outside those proposed for recovery in the current docket?

A. Determination of the prudence of the company's investment and the most economically efficient resource choices requires a comprehensive and detailed assessment of the costs associated with a variety of options. This assessment must include a full understanding of all of the known costs associated with specific options, as well as an understanding and evaluation of costs that can reasonably be anticipated for specific options. While the company is not seeking cost recovery for all of the upcoming costs in this docket, it is not possible to evaluate the prudence of these expenditures in isolation from known and likely upcoming expenditures.

### Q. Please explain how a rate case is related to the company's IRP process.

A. An integrated resource planning process, by definition, must abide by two broad principles. First, all resources must be considered—and considered on a "level playing field." Second, the IRP process must deliver an integrated portfolio of resources with the mix of resources that will provide adequate and reliable service at the lowest life cycle cost, with the life cycle cost comparisons (between resources or portfolios) and with an acceptable level of risk to ratepayers. The company has used IRP for years, and it is appropriate that the company's rate requests be consistent with these principles of IRP.

# Q. Is it not quite difficult for utilities to plan for compliance given the sheer number of regulatory activities that EPA is currently undertaking?

A. There is no question that anticipating upcoming regulations is challenging.
However, EPA is explicitly pursuing a multi-pollutant plan to enable companies to take a comprehensive approach to planning for compliance. In January, 2010, EPA announced its intention to ensure better air quality, and promote a cleaner and more efficient power sector and have strong but achievable reduction goals for SO<sub>2</sub>, NO<sub>X</sub>, mercury, and other air toxics.<sup>3</sup> In other words, Rocky Mountain Power is asking for recovery of a tip of the iceberg, before decision makers and ratepayers have a full understanding of the magnitude of later, related costs.

The company's premature actions are all the more imprudent because EPA Administrator Jackson has emphasized the agency's efforts to take a multipollutant sector-based approach to regulation in order to provide certainty and clarity.<sup>4</sup>

The company argues "customers directly benefit from the continued availability of low-cost generation produced at the facilities while also achieving environmental improvements from these resources, resulting in cleaner air."

<sup>&</sup>lt;sup>3</sup> Lisa P. Jackson, *Seven Priorities for EPA's Future*, available at http://blog.epa.gov/administrator/2010/01/12/seven-priorities-for-epas-future/. Accessed 4/8/11.

<sup>&</sup>lt;sup>4</sup> Lisa Jackson, *Remarks on the 40th Anniversary of the Clean Air Act, As Prepared*; September 14, 2010. Available at

http://yosemite.epa.gov/opa/admpress.nsf/a883dc3da7094f97852572a00065d7d8/b6210c1d1d49b7a48 52577fb006f435a!OpenDocument. Accessed 4/8/11.

(Direct Testimony of Chad A. Teply at 16.) While additional controls would result in environmental improvements, the question of whether the generation in question is "low-cost" cannot be resolved without taking into account known and likely upcoming rules and associated compliance costs. In evaluating additional investment in existing capacity for recovery from ratepayers, the Commission should be rigorous in its scrutiny and require the utility to go beyond simply the question of whether a particular retrofit is mandated for continued operation.

# Q: Why is it not sufficient for the company to determine the cost-effectiveness of the retrofits currently required for compliance?

Such an evaluation would be incomplete, ignores relevant planning information A. that the company's management knows or should know, and could put ratepayers at risk for the costs of investments that, when considered as part of a whole, might not be cost-effective. But the company is pursuing a piecemeal approach requesting cost recovery approval for a single upcoming cost (BART) rather than considering the full costs to ratepayers of continuing to operate. Without factoring in the full range of known and likely costs that ratepayers would have to bear, it is not possible to assert that the power plants in question produce low-cost generation. A piecemeal approach to evaluating capital upgrades to existing power plants ignores the 40-year-plus trend of steadily increasing and tightening environmental regulation in the United States. It is reasonable for the Commission and the company to assume additional regulation and additional regulatory costs will be imposed. Doing so will support evaluation of individual compliance expenditures within a broader context of the full range of compliance obligations and costs that the company is likely to face at a particular unit rather than reviewing compliance obligations one by one.

The company's piecemeal approach to evaluating the upcoming costs of compliance deprives ratepayers of the benefit of a comprehensive review and prudence determination. In general, the scope of the Commission's consideration of the company's proposal should reflect a multi-pollutant approach to evaluating the known and likely costs of continued operation and retrofit, rather than considering one regulation at a time. The company should provide information to the Commission and parties now that permits such an evaluation. It is not reasonable to put ratepayers at risk of having to fund multiple modifications or retrofits to meet compliance obligations if, taken as a whole, those compliance activities are less economical than alternatives.

The summaries of upcoming environmental requirements presented in Dr. Fisher's testimony evidence the potential synergistic magnitude of existing and proposed regulatory requirements. These mandates will inevitably inform utilities decisions as they make future resource allocations to meet customer demand and determine the most appropriate investments for recovery from ratepayers. Given the sheer number and wide coverage of these mandates, it will be essential that, for future planning purposes and rate treatment, the Commission and the utilities consider their potential impact in a comprehensive, rather than singular, case-bycase basis. A step-wise, consistent decision-making process for deciding whether to retrofit existing plants, new plants or employ some other resource will be essential to ensuring the best outcome for ratepayers. When evaluating alternatives, utilities must consider the market cost of existing, unused natural gas capacity, the cost of a new combined cycle natural gas plant, as well as that of wind, other renewables, demand response, and energy efficiency, in comparison to the specific retrofit costs faced by an individual unit.

It is critical for companies to consider a reasonable range and intensity of risks and uncertainties, particularly those associated with environmental regulation. These include carbon costs, ozone regulation, mercury regulation, coal combustion waste risks and requirements, and a lengthy list of pending regulatory issues, as discussed in Dr. Fisher's testimony. We recommend that utilities be directed to include the costs and risks of existing and emerging regulations on a joint, multi-pollutant basis in evaluating investment plans, even when the final form or timing of a regulation is unknown, given the capital intensive and longlived nature of investments in the electric industry.

## 4. **RECOMMENDATIONS**

## Q. What recommendations do you have for Commission?

I recommend that the costs of the company's Current Case Retrofit investments A be disallowed for recovery until the company shows decisively that the incremental capital costs requested in this case are prudent in light of known and likely future investments and are in keeping with least cost principles. That disallowance should include not only the capital costs of the Current Case Retrofits, but also any associated operation and maintenance (O&M) costs and costs due to lost output from the affected plants. By "costs due to lost output from the affected plants," I mean the cost of replacement power or additional production needed by the company due to any plant or unit downtime caused by the installation or operation and maintenance of the Current Case Retrofits, plus the cost of additional production or replacement power needed by the company due to either parasitic loads or reduced capacity at any plant or unit caused by the operation of the Current Case Retrofits, less the variable costs of production avoided at the plants or units affected by the installation and operation of the Current Case Retrofits.

# Q. What if construction has already started or has been completed on one or more of the imprudent upgrades that is being proposed for cost recovery in this proceeding?

A. Their costs should still be disallowed. The disallowances I recommend are fully consistent with traditional ratemaking, whether or not the imprudent investment has already been made, in whole or in part.

# Q. What if additional investment in a specific imprudent upgrade is being proposed for recovery, but some of that upgrade's cost had already been allowed in rate base in a prior rate case?

A. The Commission should disallow as imprudent that portion of the investment not already allowed into rate base by prior Commission Order. The Commission should also consider, now and in the future, whether any of those or similar investments (that is, investments now found to have been imprudent but which had been allowed into rate base by prior Commission Order) are used and useful in the provision of utility service. Under traditional ratemaking practice, the cost of investments that have already been allowed into rate base (whether by an explicit finding of prudence or in accordance with a utility's presumption of prudence), but which are no longer used and useful (if they ever were) may be subject to a disallowance, the extent of which is within the Commission's discretion.

### Q. Do you have additional suggestions for the Commission?

A. Yes. I urge the Commission to take a proactive approach to ensure sound decision-making and to ensure that the Commission has sufficient information to evaluate company decisions that could result in significant costs to ratepayers. In particular, the Commission should consider establishing a comprehensive and consistent process for considering utility proposals for major investments in existing generating units. In general, the Commission's guidelines for such a process should require:

(1) A thorough inventory and description of all the relevant resource options, together with an assessment of their costs, benefits, uncertainties and risks, as well as the probabilities of those risks,

(2) An objective analysis of how those uncertainties and risks affect the performance of various resource plans individually and in combination,

(3) Development of a plan relying on a portfolio of resources that manages risk and uncertainty to a reasonable level while delivering the lowest life cycle cost over the fullest possible range of plausible future scenarios.

If the company fails to do so or fails to coordinate its rate requests with its IRP planning processes and principles, it would be reasonable for the Commission to consider imposing a penalty in the form of a reduction to the company's allowed rate of return.

#### Q. Does this conclude your testimony?

A. Yes, it does.