PRE-FILED DIRECT TESTIMONY

OF

ROBERT B. HEVERT

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I. INTRODUCTION

Q. Please state your name, position, and business address.

A. My name is Robert B. Hevert. I am a Partner at ScottMadden, Inc. ("ScottMadden"). My business address is 1900 West Park Drive, Suite 250, Westborough, Massachusetts, 01581.

Q. On whose behalf are you submitting your Direct Testimony?

A. I am submitting this Direct Testimony to the Rhode Island Public Utilities Commission (the "Commission") on behalf of Narragansett Electric Company, d/b/a National Grid ("Narragansett" or "the Company").

Q. Please describe your educational background.

A. I hold a Bachelor's degree in Business and Economics from the University of Delaware, and a Masters of Business Administration degree with a concentration in Finance from the University of Massachusetts. I also hold the Chartered Financial Analyst designation.

Q. Please describe your experience in the energy and utility industries.

A. I have worked in regulated industries for over 25 years, having served as an executive and manager with consulting firms, a financial officer of a publicly traded utility, and an analyst at a telecommunications utility. In my role as a consultant, I have advised numerous energy and utility clients on a wide range of financial and economic issues including corporate and asset-based transactions, asset and enterprise valuation, transaction due diligence, and strategic matters. As an expert witness, I have provided testimony in more than 250

proceedings regarding various financial and regulatory matters in numerous jurisdictions, including the Commission; the Federal Energy Regulatory Commission; the Province of Alberta, Canada; and U.S. District Court. A summary of my professional and educational background, including a list of my testimony in prior proceedings, is included in Exhibit NG-RBH-2.

II. PURPOSE OF TESTIMONY

Q. What is the purpose of your Direct Testimony in this proceeding?

A. The purpose of my Direct Testimony is to support the Company's request for financial remuneration and incentives of 2.75 percent of the actual annual payments (the "Remuneration Rate") under a new long-term renewable energy power purchase agreement (the "Contract") with Deepwater Wind for the 400-megawatt ("MW") Revolution Wind Project (the "Project"). Narragansett's recommended Remuneration Rate compensates the Company for strategically utilizing its strong balance sheet and credit ratings, which are derived from its investors' capital and the Company's prudent management of that capital, to enable the cost-effective financing of the Project. By supporting the cost-effective financing and development of this new, large-scale offshore wind project, the Company is proactively advancing the public interest objectives established in the Affordable Clean Energy Security Act (the "ACES Act"), while creating benefits for its ratepayers, and for Rhode Island. The requested Remuneration Rate in this proceeding is consistent with the level of remuneration and incentives included in the Long-Term Contracting Standard for

Renewable Energy.

My Direct Testimony explains that supporting the financial wherewithal and flexibility needed to fund the Company's operating expenses and distribution system investments alongside the Contract payments to ensure safe, reliable, and clean energy for customers is in the interest of both ratepayers and investors, and advances the public interest objectives contemplated by the ACES Act. As my Direct Testimony demonstrates, the Company's proposed 2.75 percent Remuneration Rate addresses the likely adverse effects on its ongoing financial flexibility and credit profile brought about by large, long-term, fixed financial obligations such as the Contract, with a high likelihood of creating significant customer benefits after consideration of the annual remuneration payments (the "Remuneration Payments").

Narragansett's recommended Remuneration Rate constitutes a proposed ratemaking change under the ACES Act. The Commission's authority to approve this proposed ratemaking change is established in §39-13-7(a)(7) of the ACES Act, under which the Commission is authorized to approve any regulatory or ratemaking changes that reasonably advance the goals of the ACES Act. My Direct Testimony therefore (1) reviews the relevant provisions of the ACES Act that enable the Project, the Contract, and Narragansett's proposed ratemaking change as reflected in its recommended Remuneration Rate, (2) addresses the appropriate standards of review by which the Commission should assess the reasonableness of Narragansett's proposed Remuneration Rate, and (3)

quantifies the net benefits likely realized for customers assuming the proposed 2.75 percent Remuneration Rate is approved.

Given the importance of Narragansett's ongoing credit strength in facilitating the cost-effective financing of new offshore renewable energy generation for Rhode Island and advancing the accompanying public interest objectives established in the ACES Act, Narragansett's proposed 2.75 percent Remuneration Rate is just and reasonable, and should be approved.

Q. How is the remainder of your Direct Testimony organized?

The remainder of my Direct Testimony is organized as follows:

- Section III – Provides an overview of how legislation enables the Project, the Contract, and the proposed Remuneration Rate;
- Section IV – Discusses the standards by which the Commission should evaluate the reasonableness of the Company's proposed Remuneration Rate;
- Section V – Presents the analysis of the net customer benefits associated with the Contract and the proposed Remuneration Rate; and
- Section VI – Summarizes and concludes my Direct Testimony.

III. OVERVIEW OF THE ENABLING LEGISLATION FOR THE PROJECT, THE CONTRACT, AND THE PROPOSED REMUNERATION RATE

Q. Please provide a brief overview of how the legislation enables the Project, the proposed Contract, and the 2.75 percent Remuneration Rate proposed by Narragansett in this proceeding.

A. In 2014, Rhode Island enacted the ACES Act, which enables the Company's selection of the Project, the proposed Contract, as well as the Company's proposed ratemaking change, including its recommended 2.75 percent Remuneration Rate. As outlined § 39-31-2, the purpose of the ACES Act is to:

> (1) Secure the future of the Rhode Island and New England economies, and their shared environment, by making coordinated, cost-effective, strategic investments in energy resources and infrastructure such that the New England States improve energy system reliability and security, enhance economic competitiveness by reducing energy costs to attract new investment and job growth opportunities; and protect the quality of life and environment for all residents and businesses;
>
> (2) Utilize coordinated competitive processes, in collaboration with other New England states and their instrumentalities, to advance strategic investment in energy infrastructure and energy resources, provided that the total energy security, reliability, environmental and economic benefits to the state of Rhode Island and its ratepayers exceed the costs of such projects, and ensure that the benefits and costs of such energy infrastructure investments are shared appropriately among the New England states; and
>
> (3) Encourage a multi-state or regional approach to energy policy that advances the objectives of achieving a reliable, clean-energy future that is consistent with meeting regional greenhouse gas reduction goals at reasonable cost to ratepayers.

The ACES Act therefore establishes a set of public interest objectives for the development of new renewable energy generation resources for Rhode Island and the New England region. Consistent with these objectives, the Company entered into a proposed long-term power purchase agreement with Deepwater Wind, a renewable energy project developer.

Although the ACES Act does not contain express provisions regarding remuneration, § 39-31-7 (a) provides that the Commission "may approve any proposals…that are commercially reasonable and advance the purposes of this chapter…" including the authority to "[a]pprove any other proposed regulatory or ratemaking changes that reasonably advance the goals set forth herein." Notably, § 39-26.1-4, the Long-Term Contracting Standard ("LTCS") for Renewable Energy, specifically entitles the Company to financial remuneration and incentives for long-term contracts supporting newly developed renewable energy resources as compensation, equal to 2.75 percent of the actual annual payments made under the contracts for those projects that are commercially operating, for accepting the financial obligations created by the long-term contracts.

In addition, under § 39-31-7(a)(7) of the ACES Act, the Commission is authorized to "[a]pprove any other proposed regulatory or ratemaking changes that reasonably advance the goals set forth herein." Accordingly, the proposed financial remuneration and incentives should be provided to Narragansett for extending its strong balance sheet and credit rating, which are derived from its investors' capital and the Company's prudent management of that capital, to support the cost-effective financing and development of

new and innovative renewable energy generation projects to achieve Rhode Island's public interest objectives.

In this case, Narragansett is entering into the Contract to support the financing of 400 MW of newly constructed offshore wind energy generation. In short, the Company's strong balance sheet and credit ratings make it a highly creditworthy counterparty under the Contract, and enhance the cost-effective financing and development of the Project. As explained in more detail below, the proposed financial remuneration and incentives will: (1) compensate the Company for strategically utilizing its balance sheet and strong credit profile to advance the public interest objectives of the ACES Act; (2) mitigate the financial risks to the Company associated with the long-term, fixed financial obligations under the Contract, thereby supporting the Company's financial flexibility and strong credit profile, which are required to efficiently fund its ongoing utility operations and to enter into long-term renewable energy contracts; and (3) enable significant net benefits to its customers after consideration of the Remuneration Payments, while advancing the public policy objectives that the ACES Act intends to achieve.

It is important to bear in mind that the Company is not an equity participant in the Project, and is not making an investment on which it would earn a return. Nonetheless, it is the investors' capital, and the Companies' prudent management of that capital, that enables the Project's cost-effective financing, and the policy objectives contemplated by the ACES Act. The Company's proposed Remuneration Rate simply compensates the Company and its investors for the use of their capital. That is, the Company's proposal acknowledges

the benefits created by, burdens imposed on, and use of its balance sheet, and provides a level of Remuneration reflecting those commonsense factors.

For all these reasons, the Commission should use its authority under § 39-13-7(a)(7) of the ACES Act to approve the Company's proposed financial remuneration and incentives as regulatory or ratemaking changes, that reasonably advance the goals set forth in the ACES Act.

IV. REASONABLENESS OF THE COMPANY'S PROPOSED REMUNERATION RATE

Q. Please summarize the standards the Commission should apply in reviewing and approving the requested Remuneration Rate.

A. As noted earlier, the proposed Remuneration Rate would compensate Narragansett Electric for utilizing its strong balance sheet and credit ratings to enable the cost-effective financing and development of the Project, and support the ongoing financial flexibility and credit strength required to support the Company's corporate operating and investment obligations. By entering into the Contract, the Company is taking on significant long-term, fixed financial obligations, which may strain its financial profile and flexibility.

The purpose of the proposed Remuneration Rate is to compensate Narragansett for utilizing its strong balance sheet and credit ratings to enable the cost-effective financing and development of the Project, and support the ongoing financial flexibility and credit strength required to support the Company's corporate operating and investment obligations.

Therefore, the Commission should consider whether the proposed Remuneration Rate, together with the Contract obligations, is likely to (1) create a cost-effective financing structure for the Project, thereby advancing the public interest objectives contemplated under the ACES Act; (2) helps mitigate adverse effects associated with large, long-lived, fixed financial obligations, such as the Contract, on the Company's financial profile and flexibility; and (3) produce net economic and environmental benefits for customers after giving effect to the proposed Remuneration Rate. Taken together, these three criteria will balance the interests of ratepayers and investors along with the public interest, and they are consistent with long-standing ratemaking principles of establishing "just and reasonable" rates.

In evaluating these three criteria, the Commission should consider several questions:

(1) Do the Project and the Contract support the public interest objectives established in the ACES Act?

(2) Does Narragansett's balance sheet strength and credit ratings, which are derived from its investors' capital and the Company's prudent management of that capital, support the financing for the Project?

(3) Are the financial obligations associated with the Contract significant, and could they create additional cash management and financing requirements for the Company?

(4) Could the financial obligations pose risks for the Company's long-term credit quality?

(5) Does the Contract, together with the 2.75 percent Remuneration Rate, create net economic and environmental benefits for customers?

As discussed in more detail below, these considerations support a finding that the proposed 2.75 percent Remuneration Rate is just and reasonable, and should be approved.

Q. As a preliminary matter, how does the regulatory concept of "just and reasonable rates" address the interests of the parties affected by the Contract?

A. Here, the ACES Act intends to bring benefits to broad classes of constituents, including the general public (whose interests are served by the Project's environmental and economic benefits), customers (who pay a lower cost for energy because of the financing benefit achieved through the use of the Company's balance sheet and credit quality), and the Project developer (whose investment risk in the Project is reduced through the support provided by the Contract and the Company's credit quality). The Company, however, may be adversely affected when its financial flexibility is diminished, and its investors are disadvantaged when the capital they supply is used for a purpose beyond funding the Company's utility assets and operations with no compensation for that use. The Remuneration Rate mitigates those adverse effects for the Company and its investors while providing cost-effective financing benefits for ratepayers, and advancing the public interest objectives established in the ACES Act.

In addition, "just and reasonable" ratemaking involves balancing customers' interests in being charged reasonable rates, and investors' interests in being fairly compensated for the

use of their capital.[1] Here, the Project's ability to secure cost-effective financing (which benefits customers) relies on the Company's strong financial profile, which in turn rests on the capital provided by investors and the Company's prudent management of that capital. The 2.75 percent Remuneration Rate compensates investors for the use of their capital, and conveys the important signal to investors that the Commission appreciates the importance of regulatory support to ensuring efficient access to capital. Because the Project's viability and financing depends on the Company's credit profile, maintaining that profile supports the public interest objectives that the ACES Act intends to achieve.

Lastly, "just and reasonable" rates cannot be disassociated from the customer benefits and public interest contemplated by the ACES Act, which are unrealizable absent the credit quality and financing capacity provided by the Companies' balance sheets. Absent the proposed Remuneration Rate, the State would rely on the Company's balance sheet to achieve the customer benefit and policy objectives the ACES Act contemplates, but would not compensate the Companies or their investors for offering the capital required to realize those ambitions. In my experience, the financial community would not view that outcome as "just and reasonable".

Q. How does the Project advance the public interest benefits articulated in the ACES Act?

A. Narragansett is making an important strategic decision to employ its balance sheet and

[1] In Re: United Water Rhode Island General Rate Filing, Dkt. 4434, Report and Order (Section VIII, at 7)(2014).

strong credit ratings profile to advance significantly Rhode Island's energy policy goals as encompassed in the ACES Act. The Project and its underlying Contract play an important role in helping to stabilize long-term energy prices for Rhode Island through a long-term, fixed-price energy purchase agreement that has been selected through a competitive solicitation process. As an efficient, newly contracted renewable energy generation resource having zero carbon emissions, the Project contributes significant environmental benefits to Rhode Island while promoting innovative investment in new offshore wind development and job growth in the renewable energy sector.

Both Narragansett's credit quality and the Contract are instrumental in enabling the cost-effective financing required to advance the development of new offshore wind energy for Rhode Island. Further, and as demonstrated later in my Direct Testimony, the Company's strong credit profile creates benefits for customers well in excess of the proposed 2.75 percent Remuneration Rate that, as noted earlier, compensates the Company for taking proactive steps to advance the public interest objectives of the ACES Act. That is, by assuming the long-term fixed financial obligations under the Contract, the Company has enabled cost-effective financing for the Project, significant net benefits for customers, and both environmental and economic benefits for Rhode Island.

Q. Do Narragansett's balance sheet strength and credit ratings directly support the cost-effective financing structure for the Project?

Yes. Absent Narragansett's strong financial profile (S&P credit rating of A-) and its long-term, fixed price commitments under the Contract, the Project likely would not be viable

or financeable on reasonable terms. Simply, the Project's size and position as an early off-shore wind project present risks that, in all likelihood, would detract from its ability to be cost-effectively financed on an uncontracted basis. The facilitation of efficient financing of new renewable energy generation to reduce greenhouse gas emissions for Rhode Island is one of the primary objectives of the ACES Act; I understand the Company's support of state and environmental policies is the primary reason it has offered the use of its balance sheet to achieve that objective.

Q. Is the cumulative effect of the long-term renewable contract solicitations under the LTCS and ACES on the Company's financial profile readily quantifiable?

A. Although the lifetime financial obligations are directly quantifiable, as discussed in more detail later in my Direct Testimony, the cumulative effect on the Company's financial profile depends on a range of variables, including prevailing market conditions, Company-specific financial and business circumstances, and changes to state and federal laws and regulations.[2] Even though certain of those factors may be assessed qualitatively, they are consequential to debt and equity investors. As discussed throughout my Direct Testimony, the Company's proposed Remuneration Rate mitigates that effect.

[2] For example, Standard & Poor's observed that the recently passed Tax Cuts and Jobs Act of 2017 "… is credit negative for US regulated utilities because the lower 21% statutory tax rate reduces cash collected from customers, while the loss of bonus depreciation reduces tax deferrals, all else being equal. Moody's calculates that the recent changes in tax laws will dilute a utility's ratio of cash flow before changes in working capital to debt by approximately 150 - 250 basis points on average, depending to some degree on the size of the company's capital expenditure programs. From a leverage perspective, Moody's estimates that debt to total capitalization ratios will increase, based on the lower value of deferred tax liabilities." Moody's Investors' Service, *Rating Action: Moody's changes outlooks on 25 US regulated utilities primarily impacted by tax reform*, January 19, 2018.

Q. Are the financial obligations under the Contract material to Narragansett's balance sheet?

Yes. The Contract payments, which enable and support the Project, are large, long-term fixed financial obligations that rely on the size and quality of the Company's balance sheet. The Company's capacity to manage these large, ongoing obligations while simultaneously financing its other ongoing distribution system investments and operations to ensure high-quality, reliable utility service, however, is limited.

I understand the Company's aggregate lifetime financial commitment associated with the Project to be approximately $3.21 billion, or about $160.28 million, annually (both in nominal dollars). In its 2017/18 Annual Report (including data as of 03/31/2018, released on 7/19/2018), Narragansett disclosed its commitments under renewable energy contracts in Note 13, *Commitments and Contingencies*. Although I am not an accountant, I understand the purpose of such notes is to disclose long-term financial commitments likely considered material by investors.

In 2018 Narragansett disclosed lifetime commitments under energy contracts to be $611 million.[3] The Company's lifetime commitment under the Contract of about $3.21 billion is more than five times greater than its existing long-term energy purchase commitments. It stands to reason that if the Company found $611 million in financial commitments to rise to the level of disclosure, the additional $3.21 billion under the Contract would be a

[3] The Narragansett Electric Company, *Financial Statements For the years ended March 31, 2018, 2017, and 2016,* Note 13, at 45.

material increase in its disclosable financial commitments.

Q. Is the Company's $3.21 billion commitment under the Contract significant relative to other financial benchmarks?

A. Yes, it is. As of March 2018, Narragansett's Net Utility Plant was approximately $2.98 billion.[4] As noted above, the Company's existing commitments under long-term energy purchases is $611 million, or 20.50 percent of its Net Utility Plant balance. On a *proforma* basis, the Contract would increase the Company's commitments to 128.22 percent of its Net Utility Plant.[5] From a somewhat different perspective, the Contract represents about 158.00 percent of Narragansett's March 2018 Common Stockholder Equity balance (approximately $2.03 billion)[6]; combined with its existing commitments the Contract represents 188.22 percent of the Company's common equity.[7] From either perspective, the Contract is a material obligation that will be disclosed and known to the financial community, including the Company's debt and equity investors.[8]

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[4] The Narragansett Electric Company, *Financial Statements For the years ended March 31, 2018, 2017, and 2016*, at 24.

[5] ($611 million + $3.21 billion)/$2.98 billion = 128.22%

[6] The Narragansett Electric Company, *Financial Statements For the years ended March 31, 2018, 2017, and 2016*, at 8.

[7] The Narragansett Electric Company, *Financial Statements For the years ended March 31, 2018, 2017, and 2016, at 10.*

[8] As a third perspective, Narragansett Electric's authorized rate base effective Sept.1, 2020 in Docket 4770 is about $735 million. The nominal lifetime payments under the Contract therefore exceed the Company's recently authorized rate base by more than four times. Source: S&P Global Market Insights.

Q. Do the Contract payments have any implications for the Companies' cash flow and need to access short-term capital?

A. Yes, they do. It is important to keep in mind that payments for all obligations, fixed or otherwise, are made from day-to-day cash flow. Those daily cash requirements are a direct result of the timing associated with the receipt and disbursement of cash attributable to various operating and investing activities. Cash management, a fundamental part of corporate treasury management, focuses on the overall daily cash needs of the utility; each specific cash outflow is not financed independently by a specific cash inflow. That is, because cash is fungible, daily cash requirements are not traceable to any specific need. Consequently, the cash flow required to fund payments under the Contract may vary, creating additional challenges for the Company's financing flexibility.

Financing flexibility and financial liquidity are important considerations for capital-intensive utilities, whose free cash flows tend to be modest, and at times negative.[9] Because they cannot depend on operating cash flows to fund unexpected liquidity needs, it is extremely important for utilities such as Narragansett to preserve efficient access to short-term financing. As the cash flow requirements associated with the Contract and any subsequent agreements increase, the Company's financial flexibility will be adversely affected, potentially to the detriment of customers. As Moody's explains:

> Liquidity analysis is a key element in the financial analysis of electric and gas utilities, and it encompasses a company's ability to generate cash from internal sources as well as the availability of external sources of financing

[9] Free cash flow represents cash flows from operations less capital investments.

to supplement these internal sources. Liquidity and access to financing are of particular importance in this sector.[10]

Q. Does the fact that customers pay the costs associated with the Contract negate the obligations the Company assumes under the Contract?

A. No, it does not. First, the Company will make payments under the Contract based on its available daily cash flows. Those cash flows reflect funds from customer payments, short-term borrowings, long-term borrowings, and/or equity capital infusions. There is no means of tracing a given dollar of cash flow from its source to its use; that is the fundamental principle of "cash fungibility". It may be that customers are required to pay the Contract costs, but the Company's revenues may fall, and its cash requirements may increase for any number of reasons. Regardless of changes in its operating cash flow, the Company's obligation under the Contract remains. That continuing obligation requires ongoing access to financial liquidity, and contributes to the variability of cash flow created by increased operating leverage.

Moreover, the fact that customers pay the cost of service does not confer the obligations and risks of ownership on them. Rather, it is the Company that must provide safe and reliable service at just and reasonable rates using the capital provided by its debt and equity investors; it is the Company that takes on significant obligations to do so; and it is the Company that must perform under its contractual commitments, whether those commitments are long-term debt, power purchase agreements, or any other obligation

[10] Moody's Investors Service, *Regulated Electric and Gas Utilities*, June 23, 2017, at 25.

needed to provide utility service. Further, it is the Company's shareholders that provide the equity capital supporting its balance sheet and credit profile, but whose claim on cash flows falls behind most creditors.

Q. Do the financial obligations created under the Contract have potential implications to Narragansett from a credit rating agency perspective?

A. Yes, the financial obligation under the Contract creates multiple business and financial challenges, each of which would be considered in the credit rating process. That process is complex and considers a variety of factors, including various elements of business risk, the consistency and stability of regulatory treatment, the ability of a company to maintain sufficient financial liquidity, and quantitative measures financial risk. It is helpful to review the rating agencies' combined use of business risk assessments and credit metrics in their ratings determination processes to understand the breadth of the analysis that supports credit rating decisions.

On November 30, 2007, S&P released a statement announcing that electric, gas, and water utility ratings would be "categorized under the business/financial risk matrix used by the Corporate Ratings group."[11] S&P also provided matrices of business and financial risk, based on "Financial Risk Indicative Ratios": FFO/Debt; FFO/Interest; and Total Debt/Capital. In that announcement S&P noted:

> … even after we assign a company business risk and financial risk, the committee does not arrive by rote at a rating based on the matrix. The

[11] Standard & Poor's Ratings Services, *U.S. Utilities Ratings Analysis Now Portrayed In The S&P Corporate Ratings Matrix*, Nov. 30, 2007, at 2 - 3.

> matrix is a guide - - it is not intended to convey precision in the ratings process or reduce the decision to plotting intersections on a graph. Many small positives and negatives that affect credit quality can lead a committee to a different conclusion than what is indicated in the matrix.

On May 27, 2009, S&P expanded its matrix, and noted the relative significance of credit metrics to the rating process:

> The rating matrix indicative outcomes are what we typically observe - - but are not meant to be precise indications or guarantees of future rating opinions. Positive and negative nuances in our analysis may lead to a notch higher or lower than the outcomes indicated in the various cells of the matrix …. Still, it is essential to realize that the financial benchmarks are guidelines, neither gospel nor guarantees.
>
> Moreover, our assessment of financial risk is not as simplistic as looking at a few ratios.[12]

Later, on September 18, 2012, S&P further expanded its matrix, confirming "[s]till, it is essential to realize that the financial benchmarks are guidelines, neither gospel nor guarantees."[13]

On November 19, 2013, concurrent with the original publication of S&P's *Criteria | Corporates | General: Corporate Methodology*, S&P published *Key Credit Factors For The Regulated Utilities Industry*", in which it noted that:

> Standard & Poor's is updating its criteria for analyzing regulated utilities, applying its corporate criteria. The criteria for evaluating the competitive position of regulated utilities amend and partially supersede the "Competitive Position" section of the corporate criteria when evaluating

[12] Standard & Poor's Ratings Services*, Criteria Methodology: Business Risk/Financial Risk Matrix Expanded*, May 27, 2009, at 4 - 5.

[13] Standard & Poor's Ratings Services, *Methodology: Business Risk/Financial Risk Matrix Expanded*, September 18, 2012, at 4.

> these entities. The criteria for determining the cash flow leverage assessment partially supersede the "Cash Flow/Leverage" section of the corporate criteria for the purpose of evaluating regulated utilities. The section on liquidity for regulated utilities partially amends existing criteria. All other sections of the corporate criteria apply to the analysis of regulated utilities. [14]

S&P has identified the following factors for evaluating the business and financial risk of utilities:

Business risk

- Industry risk
- Cyclicality
- Competitive risk and growth
- Effectiveness of barriers to entry - - low risk
- Level and trend of industry profit margins - - low risk
- Risk of secular change and substitution of products, services, and technologies - - low risk
- Risk in industry growth trends - - low risk
- Country risk
- Competitive position
- Regulatory advantage
- Scale, scope, and diversity
- Operating efficiency
- Profitability
- Level of profitability
- Volatility of profitability

Financial risk

- Accounting
- Accounting characteristics
- Purchased power adjustment
- Natural gas inventory adjustment
- Infrastructure renewals adjustment
- Cash flow/leverage analysis

[14] Standard & Poor's Ratings Services, *Key Credit Factors For The Regulated Utilities Industry* (Nov. 19, 2013), at 3 – 4.

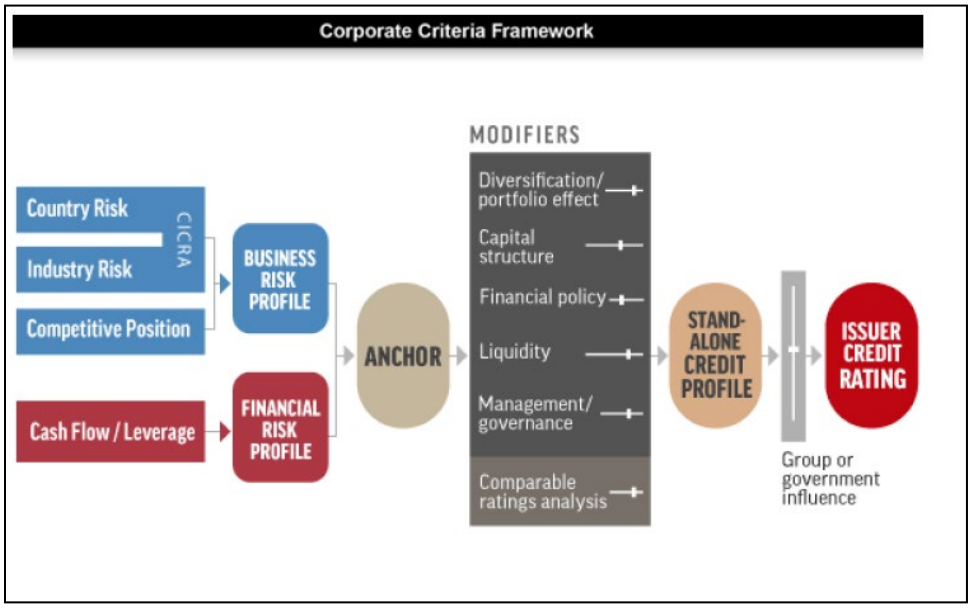
The following "Rating Modifiers" are used by S&P to modify the anchor rating if necessary:

- Diversification/portfolio effect
- Capital structure
- Liquidity
- Financial policy
- Management and governance
- Comparable ratings analysis.[15]

It is clear, therefore, that S&P reviews a broad assessment of business and financial risk, including factors based on both qualitative and quantitative measures. As Figure 1 (below) demonstrates, capital structure and cash flow considerations are a subset of a broad array of ratings criteria.

[15] Standard & Poor's Ratings Services, *Key Credit Factors For The Regulated Utilities Industry* (Nov. 19, 2013), at 19-20.

Figure 1: Standard & Poor's Corporate Criteria Framework[16]



Q. Has Standard & Poor's discussed the importance of the regulatory environment in determining credit ratings for regulated utilities?

A. Yes, S&P makes clear that the regulatory regime is one of the most important factors in its rating analyses:

> For a regulated utility company, the regulatory regime in which it operates will influence its performance in profound ways. As such, Standard & Poor's Ratings Services' regulatory advantage assessment - - which informs both our business and financial risk scores - - is one of the most important factors in our credit analysis of regulated utilities.[17]

Among S&P's principal considerations in assessing regulatory advantage is "regulatory

[16] Standard & Poor's Ratings Services, *Corporate Methodology*, November 19, 2013, at 5.

[17] Standard & Poor's Ratings Services, *How Regulatory Advantage Scores Can Affect Ratings On Regulated Utilities*, April 23, 2015, at 2.

stability". As S&P notes, regulatory advantage is "the most heavily weighted factor when S&P Global Ratings analyzes a regulated utility's business risk profile."[18] S&P further explains that:

> The foundation of our opinion of a jurisdiction is the stability of its approach to regulating utilities, encompassing transparency, predictability, and consistency. Given the maturity of the U.S. investor-owned utility industry, the long history of utility regulation (going back to the early 20th century) and the well-established constitutional protections accorded to utility investments, we emphasize the principle of consistency when weighing regulatory stability. We also incorporate the degree to which the regulatory framework either explicitly or implicitly considers credit quality in its design.[19]

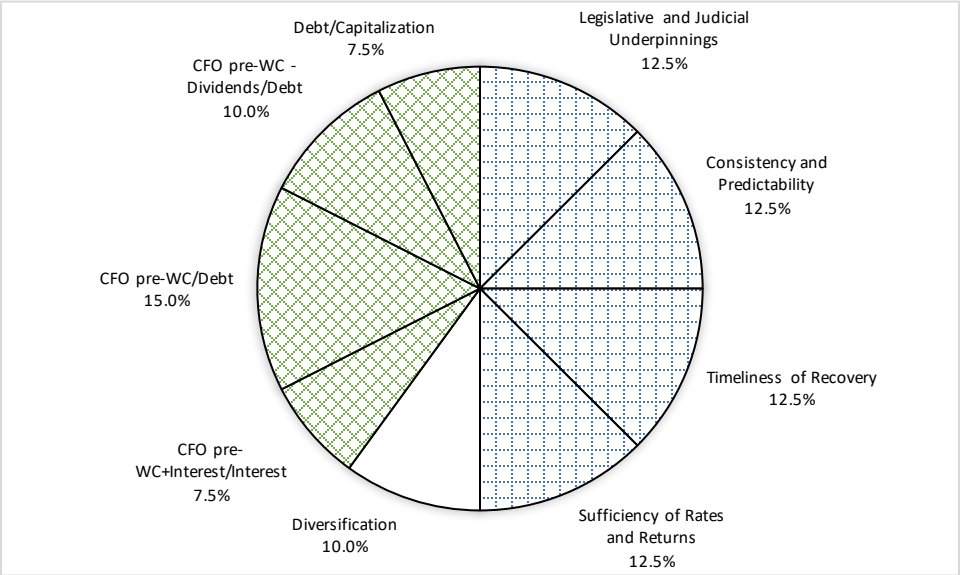
Q. Does Moody's also consider the regulatory environment in determining credit ratings?

A. Yes, it does. Moody's explains that its ratings are based on assessments of multiple factors, 50.00 percent of which relate to the nature of regulation. Capital structure, on the other hand, is given 7.50 percent weight. Cash flow-related metrics in aggregate are given 40.00 percent weight (see Figure 2, below).

[18] S&P Global Ratings, *Assessing U.S. Investor-Owned Utility Regulatory Environments*, August 10, 2016, at 2.

[19] *Ibid*.

Figure 2: Moody's Ratings Criteria[20]



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Because both S&P and Moody's consider the consistency and stability of regulatory treatment to be an important factor in determining credit ratings, it is reasonable to conclude the financial community's view of the Company's financial strength will be influenced by the Commission's decision regarding the appropriate Remuneration Rate in this proceeding. As noted earlier, the Long-Term Contracting Standard for Renewable Energy entitles the Company to a Remuneration Rate of 2.75 percent. Because the regulatory environment is of great concern to investors and rating agencies, both likely would view a departure from that 2.75 percent Remuneration Rate as a departure from the

[20] Moody's Investors Service, *Regulated Electric and Gas Utilities*, June 23, 2017, at 4.

Commission's credit-supportive practices.[21] The corresponding increase in perceived regulatory risk would extend beyond the Contract, putting downward pressure on the Company's credit and financial profile.

Q. Do fixed obligations have implications for earnings and cash flow volatility?

A. Yes, they do. As a general proposition, utilities tend to have relatively high proportions of fixed costs to variable costs, sometimes referred to as high "degrees of operating leverage".[22] As with financial leverage, operating leverage tends to magnify the variation in operating earnings and, therefore, cash flow. That variability is of concern to equity investors; as the CFA Institute notes:

> …the valuation of a company and its equity is affected by the degree of leverage: The greater a company's leverage, the greater its risk and, hence, the greater the discount rate that should be applied in its valuation. Further, highly leveraged (levered) companies have a greater chance of incurring significant losses during downturns, thus accelerating conditions that lead to financial distress and bankruptcy.[23]

Q. Do rating agencies consider the variability of profits in their assessments of risk?

A. Yes, they do. As noted earlier, S&P considers both the level and variability of profitability

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[21] Regulatory Research Associates ("RRA") currently ranks Rhode Island's regulatory environment as "Average/2", which falls roughly in the middle third of the 53 jurisdictions it ranks. As RRA notes, it "…maintains three principal rating categories, Above Average, Average, and Below Average, with Above Average indicating a relatively more constructive, lower-risk regulatory environment from an investor viewpoint, and Below Average indicating a less constructive, higher-risk regulatory climate from an investor viewpoint, Within the three principal rating categories, the numbers 1, 2, and 3 indicate relative position. The designation 1 indicates a stronger (more constructive) rating; 2, a mid range rating; and, 3, a weaker (less constructive) rating. We endeavor to maintain an approximately equal number of ratings above the average and below the average."

[22] See, e.g., J. Fred Weston, Eugene F. Brigham, Essentials of Managerial Finance, 9th Ed., The Dryden Press, 1990, at 371 – 373.

[23] CFA Institute, Refresher Reading: *Measures of Leverage.*

in their risk assessments. S&P does so by reviewing the ratio of the Standard Error of the Regression ("SER") of profits along a trend line, usually of seven years or more. Because that analysis is backward-looking, S&P will assess whether historical data adequately reflects forward-looking risks. As S&P explains, "[i]n certain circumstances, the SER derived from historical information may understate--or overstate--expected future volatility, and we may adjust the assessment downward or upward." S&P further explains that it may adjust that assessment if expected volatility is "not apparent" in historical data, and the extent of any adjustment may depend on certain factors, including whether the subject company "[o]perates in a subsector of the industry that may be prone to higher technology or regulation changes, or other potential disruptive risks that have not emerged over the seven year period."[24]

The implication is that when, as in this case, future fixed obligations will be substantially greater than historical obligations, it is reasonable to assume investors and rating agencies will focus on those future obligations, and the various risks they create.

Q. Is the relationship between fixed and variable costs a factor considered by rating agencies?

A. Yes, S&P explains that:

> Where information is available, we examine a company's fixed versus variable cost mix as an indication of operating leverage, a measure of how revenue growth translates into growth in operating income. A company with significant operating leverage may witness dramatic declines in operating

[24] Standard & Poor's Ratings Services, *Corporate Methodology*, November 19, 2013, at 27.

> profit if unit volumes fall, as during cyclical downturns. Conversely, in an upturn, once revenues pass the breakeven point, a substantial percentage of incremental revenues typically becomes profit.[25]

Moody's explains that even if it does not impute debt associated with a given contract, it will consider (at least qualitatively) the contract payments to be operating costs, and future uses of cash.[26] To the extent large financial obligations increase operating income variability and put additional pressure on financial liquidity requirements, those effects will be considered by analysts and investors.

Q. Does cost recovery eliminate the risks associated with operating leverage?

A. No, it does not. Cash flow varies for any number of reasons, but the long-term fixed obligations under the Contract will remain in place. As explained earlier, those obligations must be satisfied regardless of cash flow or credit market conditions, and before dividends are paid to equity investors.[27]

Q. What are your conclusions regarding the credit implications of large fixed obligations, such as the Contract?

A. Rating agencies and debt investors consider a broad range of factors, both qualitative and quantitative, in assessing the implications of large, fixed, long-term financial obligations. Those factors are considered as a comprehensive whole - they are not viewed in isolation, as discrete risks. In my view, a full review of such factors fully supports the Company's

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[25] *Ibid*, at 63.

[26] See, Moody's Investors Service, *Rating Methodology, Regulated Electric and Gas Utilities*, June 23, 2017 at 46.

[27] We appreciate that each of the Companies has a revenue decoupling mechanism in place. Consistent with S&P's approach, our focus is on the variability of cash flows, which may differ from the variability of revenue.

proposed 2.75 percent Remuneration Rate.

Q. In your experience, would equity investors have concerns similar to those of debt investors?

A. Yes, I believe so. A principal source of funding in the equity capital markets is provided by large institutional investors. Institutional investors often employ industry-specific equity research analysts and seasoned utility portfolio managers with considerable financial depth and expertise. My experience is that institutional equity investors would carefully weigh the significant financial obligation under the Contract relative to electric distribution utilities that do not have such large, fixed financial commitments in much the same manner as fixed income (*i.e.,* debt) analysts.[28]

Institutional investors also have the wherewithal to assess the default risk and consider the priority of payments for equity investors which, as noted earlier, falls behind most other creditors. In my view, to the extent the Companies' equity becomes even marginally less attractive relative to its peers, the demand for that equity would fall, the ability to efficiently

[28] The relationship between operating leverage, income variability, and investors' required Return on Equity has long been addressed in published research. For example, Mandelker and Rhee studied the "explicit introduction of the degrees of operating leverage and financial leverage in investigating the joint impact of both asset structure and capital structure on systematic risk." The authors explain that their "empirical findings suggest that the degrees of operating and financial leverage explain a large portion of the variation in beta." Beta is a component of the Capital Asset Pricing Model, a method used by investors to determine required equity returns. Gershon N. Madelker and S. Ghon Rhee, *The Impact of the Degrees of Operating and Financial Leverage on Systematic Risk of Common Stoc*k, The Journal of Financial and Quantitative Analysis, Vol 19, No. 1 (Mar., 1984), at 56. In a somewhat later (1992) article, Mensah found that "the real determinants of market beta can be satisfactorily represented by accounting flow measures, specifically accounting measures of Intrinsic Business Risk, Operating Leverage, and Financial Leverage as represented by the Mandelker and Rhee (1984) model. Yaw M. Mensah, *Adjusted Accounting Beta, Operating Leverage and Financial Leverage as Determinants of Market Beta: A Synthesis and Empirical Evaluation*, Review of Quantitative Finance and Accounting, 2, (1992), at 199.

access additional equity would be diminished, and the return required by equity investors would increase.

V. NET BENEFITS ASSOCIATED WITH THE CONTRACT AND THE PROPOSED REMUNERATION RATE

Q. Please explain why the benefits created by the Company's financial profile should be a consideration in determining the Remuneration Rate.

A. As noted earlier, the principle of "just and reasonable" rates cannot be disassociated from the public interest. Here, the Company's financial profile enables the cost-effective financing that, in turn, enables the public benefits the ACES Act intends to achieve. Moreover, the regulatory concept of "net benefits" is embedded in the ACES Act's "cost-effective financing objective. As discussed below, because the Company's credit profile creates net benefits for ratepayers and advance the policy goals the ACES Act contemplates, and investors' capital is used for that purpose, its proposed Remuneration Rate is reasonable.

Q. Are there net benefits created by the Contract assuming the 2.75 percent proposed Remuneration Rate?

A. Yes. Taken together, the 2.75 percent Remuneration Rate, the Contract, and the financing enabled by the Company's balance sheet and strong credit ratings profile, will produce significant positive net benefits for customers. My Direct Testimony demonstrates that, relative to an uncontracted "Merchant" project (assuming such a project is financeable in

the first instance), the Remuneration Rate could be as high as 13.59 percent and still produce net benefits for customers. The difference between the proposed 2.75 percent Remuneration Rate and the 13.59 percent breakeven rate represents net benefits to customers of approximately $348 million[29] (*see*, Table 1, below). Those benefits are in addition to the other public interest objectives contemplated by the ACES Act.

Q. Please describe the analysis that you performed to assess the likely level of net benefits assuming the proposed 2.75 percent Remuneration Rate.

A. As noted earlier, Narragansett's balance sheet strength and credit quality are instrumental in facilitating the Project's cost-effective financing because the Company must be able to access the short-term credit capacity required to fund the Contract payments regardless of capital market conditions. The Company's credit rating confirms that it is a highly creditworthy counterparty to the Contract. My analysis therefore compares the costs for the contracted Project including the proposed 2.75 percent Remuneration Rate to the costs that would likely be incurred if energy from the Project were to be sold on a "Merchant" basis without any credit support (assuming that the Project could be financed as a Merchant project).

Q. Please explain how Narragansett's credit quality supports the cost-effective financing for the Project, thereby creating value for customers.

A. When, as in this case, a project has a long-term, fixed-price offtake agreement (*i.e.,* the

[29] In nominal dollars. Based on a range of scenarios, and the assumptions and methods discussed in Section V, there is a high degree of certainty that the Company's financial profile, together with the proposed 2.75 percent Remuneration Rate, produce significant benefits for customers and for the state.

Contract) with one or more highly creditworthy counterparties (the Company), the sponsor's investment risk in the project is reduced because there is less uncertainty regarding the price of, and the timely payment for the energy sold under the offtake agreement. This lower level of investment risk enables a more cost-effective capital structure and overall cost of capital for the project. These financing benefits create economic value for customers through a lower energy price than would otherwise be achieved through a project having greater offtake risk.

In this case, the financing supported by Narragansett's balance sheet strength and credit profile create several benefits for customers, the Project sponsor, and the general public. For customers, the Weighted Average Cost of Capital ("WACC") needed to finance the project is reduced, owing to the higher proportion of lower-cost debt in the capital structure, and a lower cost of equity than would be the case if the Project were developed on a "merchant" basis. For the Project sponsor, there is reduced counterparty credit risk associated with Narragansett's strong credit profile. The broader public interest is advanced by increasing the diversity and quantity of new cost-effective, renewable generation resources needed to achieve the public interest objectives established under, and promoted by the ACES Act.

As discussed in more detail below, the lower cost rates enabled by relying on the Company's balance sheet strength are highly likely to outweigh the 2.75 percent Remuneration Rate. Under a range of scenarios considering reductions in (1) the cost of

debt; (2) the cost of equity; (3) the equity ratio; and (4) the overall rate of return, the reduction in capital costs significantly outweigh the incremental cost associated with the 2.75 percent Remuneration Rate. In fact, the Remuneration Rate could be as high as 13.59 percent.[30]

Q. How did you structure your analysis of the likely net benefits associated with the proposed Remuneration Rate?

A. The analytical premise is that if the sum of the total payments under the Contract and the 2.75 percent Remuneration Rate is less than the cost of the Project under a "Merchant" financing structure, then the Company's balance sheet has created net customer benefits. To measure those benefits, it is important first to model the Project costs based on the known Contract rate, and other factors. Once the model has been "calibrated" to reflect the Contract costs, we can vary individual parameters, principally the costs of capital, to quantify the likely increase in costs associated with moving from the fully contracted Project, to a merchant facility (assuming the Project could be financed in any fashion on a merchant basis). By comparing the higher cost structure to the Contract cost (including the 2.75 percent Remuneration Rate) we can determine the extent to which the Company's balance sheet reduces total Contract costs, thereby producing net benefits for customers.

The analytical structure is based on the methods discussed by two widely-referenced sources, the National Renewable Energy Laboratory ("NREL") *Simple Levelized Cost of*

[30] Based on the analyses discussed below.

Energy ("LCOE") *Calculator*[31], and Lazard's *Levelized Cost of Energy Analysis.*[32] Those approaches essentially set the present value of cash flows generated by the project equal to the project's installed cost. Given certain key assumptions, including the installed cost, MW capacity, capacity factor, project life, fixed Operating and Maintenance ("O&M") Costs, O&M cost escalation rate, and the WACC, the analysis finds the LCOE (*i.e.*, the Contract price) that results in a zero Net Present Value ("NPV"). Figure 3, below, provides an abbreviated summary of the analytical structure (also, Exhibit NG-RBH-3).

Figure 3: Abbreviated Analytical Structure[33]

Period	0	0.5	1.5	2.5	3.5	...	19.5
Overnight Installed Cost	$ 1,273,401,114						
MWH Generation		1,640,686					
kWh Generation		1,640,685,695	1,630,579,704	1,626,390,647	1,615,392,024	...	1,626,390,647
Revenue		$ 161,484,490	$ 160,489,807	$ 160,077,499	$ 158,994,960	...	$ 160,077,499
O&M		$ 38,000,000	$ 38,760,000	$ 39,535,200	$ 40,325,904	...	$ 55,358,825
Cash Flow (EBITDA)	$ (1,273,401,114)	$123,484,490	$121,729,807	$120,542,299	$118,669,056	...	$104,718,675
PV Factor	1.0000	0.9668	0.9036	0.8446	0.7894		0.2678
NPV - EBITDA	$ 0						

In this case, we know the Project's installed capacity (400 MW), the rate under the Contract ($98.425/MWh), the WACC utilized in the quantitative analysis of the Project (6.99 percent)[34], the escalation rate (2.00 percent), and the Project's life (20 years).[35] Looking

[31] https://www.nrel.gov/analysis/tech-lcoe-documentation.html; National Renewable Energy Laboratory, *Wind Energy Finance in the United States: Current Practice and Opportunities*, August 2017, at 31.

[32] *Lazard's Levelized Cost of Energy Analysis* - Version 12.0, November 2018. Referred to herein as the "Lazard Report".

[33] In the Base Case, the model is solved iteratively to converge on the Installed Cost. Consistent with Lazard's approach, the model assumes the "mid-year" convention. Please note, my fundamental conclusions do not change if the "year-end" convention is used.

[34] Project quantitative analysis provided by Narragansett Electric.

[35] Project quantitative analysis provided by Narragansett Electric.

to the Lazard report, we then can find estimates of the fixed O&M cost ($95.00/kW-year).[36] With those inputs, I solved for the installed cost/MW that produces a zero NPV at the Contract's $98.425/MWh rate. That installed cost, $3,184/kW falls within the $2,250 to $3,800 range of Lazard's installed cost estimates for offshore wind facilities.

Because the calculated installed cost is consistent with Lazard's estimates, I considered the assumptions summarized above (*see*, also, Table 1, below) to constitute an appropriate Base Case scenario on which I could calculate the annual Remuneration Payments, and from which I could develop alternative scenarios to measure the likely net benefits created by the financing structure (which, as discussed above, is enabled by the Company's balance sheet). Under this analytical construct, "net benefits" are zero when the sum of (1) the Contract payments, and (2) the Remuneration Payments equal (3) the cost under the Merchant scenario.[37]

To assess the benefit associated with the Company's balance sheet, I held all inputs constant but for the components of the WACC. In this scenario, I solved for the Contract Rate (that is, the LCOE) that produces a zero NPV, assuming the Installed Cost/kW implied by the Base Case (*i.e.,* $3,184/kW). That analysis calculates the incremental cost to customers if the Project could not rely on the Company's financial profile for financing support. Table 1 (below) summarizes the scenario assumptions.

[36] Lazard Report, at 17. $95.00 is the midpoint of the reported range of $80.00 to $110.00.

[37] I sometimes refer to that Remuneration Rate as the "breakeven Remuneration Rate".

Table 1: Merchant Scenario Assumptions[38]

	Contract	Merchant
Assumptions		
Installed Cost/kW	$3,184	$3,184
MW Capacity	400	400
Contract Rate	$98.425	$111.805
Fixed O&M/kW-yr	$95.00	$95.00
Project Life[39]	20	20
Effective Tax Rate	26.53%	26.53%
Escalation Rate	2.00%	2.00%
WACC	6.99%	9.55%
Remuneration Rate	2.75%	
Results ($ Nominal millions)		
Cumulative Contract Cost	$3,206	$3,641
Cumulative Remuneration	$88	
Cumulative Net Benefits	$348	
Breakeven Remuneration Rate	13.59%	

Q. Please summarize the results of your analyses.

A. As Table 1 indicates, the higher cost of capital under the Merchant scenario increases the contract rate required to produce a zero NPV (at the installed cost of $3,184/kW) from $98.425/MWh under the Contract, to $111.805/MWh, an increase of 13.59 percent. The proposed Remuneration Rate is only 2.75 percent, 10.84 percentage points below the increase under the Merchant Case. Stated somewhat differently, if the Remuneration Rate applied to the Contract rate (*i.e.*, $98.425/MWh) was 13.59 percent, the total cost would

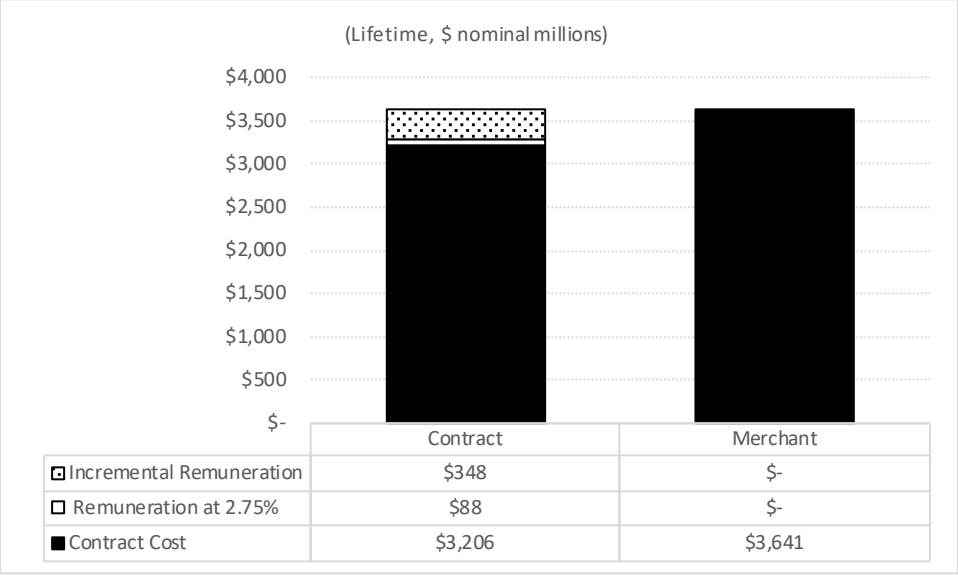
[38] I recognize that the WACC has been applied to EBITDA, a pre-tax measure of cash flow. A 6.99% WACC was used to solve for the assumed installed capital cost. For the sake of consistency and conservatism, I applied the Merchant Scenario WACC, on an after-tax basis, to the Merchant Scenario EBITDA. If I had applied a pre-tax WACC to the EBITDA estimates, the breakeven Remuneration Rate would have been greater than 13.59%.

[39] Due to mid-year convention, spans 21 years.

equal the Merchant Scenario cost. That is, the net benefit would be zero. At any Remuneration Rate less than 13.59 percent, the net benefit would be positive, and the Project's financing would remain cost-effective.

Considering the total lifetime payments (in nominal dollars), the total payments increase from approximately $3.206 billion under the Contract (before Remuneration Payments) to about $3.641 billion under the Merchant scenario. Again, that increase is about 13.59 percent, 10.84 percentage points greater than the proposed 2.75 percent Remuneration Rate. Figure 4, below, provides a summary of those results.

Figure 4: Comparative Costs



	Contract	Merchant
Incremental Remuneration	$348	$-
Remuneration at 2.75%	$88	$-
Contract Cost	$3,206	$3,641

As Figure 4 indicates, total remuneration to be paid could be increased by about $348 million over the $88 million (to be paid at the proposed 2.75 percent Remuneration Rate) with no increase in total costs to customers (relative to the Merchant scenario); any amount

less than $436 million would produce positive net benefits. Taken together, the Remuneration Rate at 2.75 percent ($88 million), the Incremental Remuneration ($348 million) represents 13.59 percent of the Contract Cost. Put differently, the $436 million represents financial and economic benefits provided to customers by the Contract.

Q. What was the basis of the assumed 9.55 percent WACC under the Merchant scenario?

A. The assumptions underlying the 9.55 percent WACC are provided in Table 2, below.

Table 2: Merchant WACC Assumptions

Component	Assumption	Source
Effective Tax Rate	26.53%	Composite of Federal (21.00%) and state (7.00%) Income Tax Rates
Equity Ratio	60.00%	1 - Debt Ratio
Cost of Equity	12.00%	Lazard Report
Debt Ratio	40.00%	NREL Lower Cost Financing Scenario[40]
Cost of Debt	8.00%	Lazard Report
WACC	9.55%	Calculation

Q. Knowing your results depend on the cost of capital assumptions for the Merchant case, have you vetted the assumptions contained in the Lazard Report on which you relied?

A. Yes, I have. On balance, I found the Lazard and NREL assumptions to be reasonable and, in certain respects, somewhat conservative. In addition, I performed a series of "stress tests" to find the capital cost rate changes that would offset the proposed Remuneration Rate (that is, that produce zero net benefits); I refer to those rates as "breakeven" cost rates.

[40] National Renewable Energy Laboratory, *Wind Energy Finance in the United States: Current Practice and Opportunities*, August 2017, at 31.

For both the cost of debt and the cost of equity, the breakeven cost rates were considerably below reasonable estimates under the Merchant scenario. I discuss those analyses in more detail, below.

i. Weighted Average Cost of Capital Stress Tests

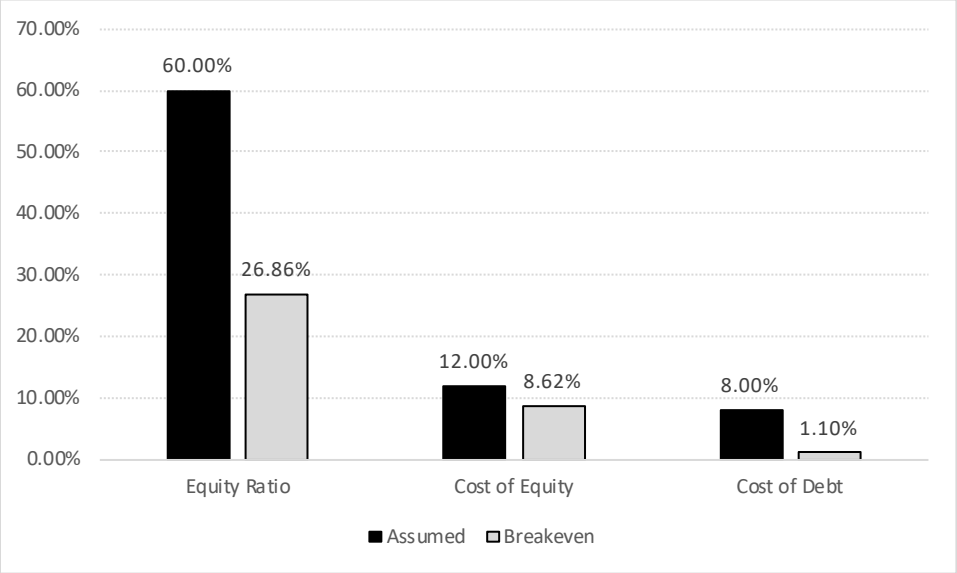
Q. Please briefly describe the purpose of your "stress tests" and how you considered their results in arriving at your conclusion that the proposed 2.75 percent Remuneration Rate is reasonable.

A. In general, a "stress test" is a form of simulation analysis designed to determine the sensitivity of a result to changes in certain variables. Here, the relevant result is the "net benefit". The stress test analysis therefore was structured to find the level to which the WACC components each must change such that net benefits are zero, and the breakeven Remuneration Rate is 2.75 percent.

Q. How did you structure your analysis?

A. As discussed above, three financial variables included in the WACC are the cost of equity, the cost of debt, and the equity ratio. For each variable, I found the extent to which it must change (holding the others constant) to create a net benefit of zero. As shown on Figure 5 (below), for example, the equity ratio under the Merchant scenario would have to fall from 60.00 percent to about 26.86 percent for the Merchant project cost to equal the sum of the Contract Cost and the Remuneration payment (at 2.75 percent of the Contract Cost).

Figure 5: WACC Component Stress Test Results



An equity ratio of 26.86 percent (*i.e.,* a debt ratio of 73.14 percent) for an uncontracted merchant wind facility is highly implausible – there simply is too much business risk to allow for such a high level of financial risk. As Figure 5 indicates, the costs of equity and debt both must fall to similarly improbable levels; the cost of equity would fall to 8.62 percent, 66.5 basis points below Narragansett's currently authorized Return on Equity of 9.275 percent; and the cost of debt would decline to 1.10 percent, about 210 basis points below the expected ten-year Treasury yield of 3.2 percent.[41]

Q. What conclusions do you draw from those analyses?

A. The components of the WACC individually would have to fall to improbably low levels

[41] Source: *Blue Chip Financial Forecast*, December 1, 2018, at 2. Quarterly consensus forecast for 4th Q 2018.

before the proposed Remuneration Rate no longer produces positive net benefits. It therefore is highly likely that the Company's financial strength, together with its proposed 2.75 percent Remuneration Rate, will provide significant net benefits to customers.

ii. Cost of Debt

Q. Please summarize your assessment of the cost of debt assumed in the Merchant scenario.

A. I compared the yields of A-rated utility corporate debt to BB-rated utility corporate debt, based on Bloomberg's Fair Value Curves. This comparison was meant to capture differences in the cost of debt for IPP merchant facilities relative to contracted facilities, where the counterparty to the offtake agreement has a strong financial profile, such as Narragansett Electric.

Q. Please now summarize your review of Bloomberg's Fair Value Curve.

A. By way of background, Bloomberg's Fair Value Curve is a measure of where the yield on a given class of bonds should trade based on where comparably rated bonds with comparable maturities do trade. Because there are relatively few publicly traded BB-rated utility corporate bonds from which we can observe yield differences (that is, there are few publicly traded IPP bonds, especially with tenors beyond 10 years), the Fair Value Curve method provides a reasonable proxy.

Whereas IPP credit ratings are typically below investment grade, Narragansett currently is rated A- (S&P). To assess the lower cost of debt associated with the Company's financial profile, I reviewed the Fair Value Curves for BB+, BB, and BB- rated utility debt. As

Table 3 (below) demonstrates, at 15 years (the longest tenor for which speculative grade Fair Value Curve yields were available), the difference in yields ranged from 2.096 percent to 3.378 percent, with an average of about 2.936 percent.[42]

Table 3: Fair Value Curve Credit Spreads[43]

	A/BB+	A/BB	A/BB-	Average
3-Year	1.361	2.278	2.354	1.998
5-year	1.573	2.635	2.687	2.298
7-year	1.763	2.882	2.954	2.533
10-Year	1.941	3.132	3.159	2.744
15-Year	2.096	3.333	3.378	2.936

The fact that there are no yields available for tenors longer than fifteen years raises two important points. First, because the spreads increase with the tenor, it is highly likely that spreads on 20-year debt would exceed the reported 15-year spreads. Second, and perhaps more important, the analysis assumes 20-year debt would be available for an uncontracted off-shore wind project. Consequently, considering increases in credit spreads is a reasonable, albeit conservative approach. Nonetheless, Table 3 certainly supports the stress test results reported earlier.

[42] Relative to the assumed 8.00% cost of debt in the Merchant scenario, the 2.936 percent difference implies a debt cost rate of 5.064 percent for A-rated utilities such as Narragansett. As noted above, however, the longest tenor available for the BB-rated Fair Value Curves was 15 years. Consequently, the difference in credit spreads for those two companies likely would be offset by the increased term spread (from 15 to 20 years).

[43] Source: Bloomberg Professional Services

iii. Cost of Equity

Q. Have you also estimated differences in the cost of equity for renewable projects that would be financed largely on a merchant basis relative to those financed on a project basis?

A. Yes, I reviewed the differences in average Beta coefficients for a group of three BB-rated reference IPP companies identified in Table 4 (below) relative to a reference group of ten A-rated utility companies. In the practice of finance, Beta coefficients are the measure of relative risk captured in the Capital Asset Pricing Model ("CAPM"), a method frequently used to estimate the cost of equity among investors and in regulatory proceedings. As shown in the following equation, the CAPM is defined by four components, $K_e = r_f + B(r_m - r_f)$, where K_e = the required market ROE; β = Beta coefficient of an individual security; r_f = the risk-free rate of return; and r_m = the required return on the market, as a whole. Based on the CAPM, we can estimate differences in the cost of equity by applying differences in Beta coefficients to the expected Market Risk Premium (*i.e.,* the term (r_m – r_f)).

In Docket No. 4770, Narragansett was authorized a Return on Equity of 9.275 percent. Assuming a risk-free rate of 3.40 percent, and an average A-rated electric utility Beta coefficient of 0.54,[44] the implied Market Risk Premium is 10.88 percent.[45] Applying the

[44] See, Exhibit NG-RBH-4.

[45] 9.275% = 3.40% + (0.54 x 10.88%). *See, Blue Chip Financial Forecast*, December 1, 2018 at 2 for the fourth quarter 2018 projected 30-year Treasury yield of 3.40%.

difference between the average IPP reference group Beta coefficient, and the average A-rated utility reference group Beta coefficient (that difference being 0.83), the difference in the cost of equity is 9.03 percent (903 basis points).[46]

Table 4: Beta Coefficients[47]

Company	Beta Coefficient
NRG Energy, Inc.	1.25
Targa Resources Corp.	1.95
Vistra Energy Corp.	0.90
Average	1.37
Electric Utility Average	0.54
Difference	0.83

Q. What do you conclude from that analysis?

A. Assuming the project could be financed on a merchant basis, the cost of equity would increase considerably. The stress test result, 8.62 percent, is 66.5 basis points below the 9.275 percent return on equity authorized for Narragansett, and 969 basis points below the CAPM-implied cost of equity.[48] From either perspective, an 8.62 percent cost of equity for a merchant facility is implausibly low.

iv. Equity Ratio

Q. Is it reasonable to assume a 60.00 percent equity ratio, or less, if the Project were to be financed on a merchant basis?

A. In my view, a 60.00 percent equity ratio is conservative. As noted earlier, absent a long-

[46] 9.03% = 0.83 x 10.88%

[47] Source: Value Line.

[48] 9.686% = 3.40% + (1.37 x 10.88%) – 8.62%.

term contract with creditworthy counterparties (such as the Company), it is unlikely an off-shore wind facility would be financed with any debt. To the extent such a project would be financeable in any fashion, it likely would require 100.00 percent equity.

Q. What are your conclusions regarding the analyses discussed above?

A. For the cost of debt, the cost of equity, and the equity ratio, the stress test results all are highly improbable estimates. On that basis, I conclude the Company's financial profile enables cost-effective financing, consistent with the objective of the ACES Act to enable the development of new renewable generation resources.

Lastly, I understand the total net benefits associated with the Project (including net direct costs, the proposed Remuneration Rate, indirect benefits, and other benefits) to be about $662 million (on a present value basis).[49] By offering its strong credit profile, and the balance sheet supporting that profile, the Company has supported the financing that makes those net benefits possible. Because the Company's participation in the Project enables significant net benefits and advances the public interest, it is my view that the proposed 2.75 percent Remuneration Rate is reasonable, and should be approved.

VI. SUMMARY AND CONCLUSIONS

Q. Please summarize your conclusions regarding the Company's proposed 2.75 percent Remuneration Rate.

A. Under a wide range of scenarios, the reduction in the Project's financing costs made

[49] Company-provided information.

possible by the Company's financial strength are likely to outweigh considerably the 2.75 percent Remuneration Rate, by a factor of nearly five-to-one.[50] That is, the financing and customer benefits enabled by the Company's balance sheet are considerably greater than the cost associated with the 2.75 percent Remuneration Rate. My analyses demonstrate that under a variety of reasonable scenarios, the Remuneration Rate could be considerably greater than 2.75 percent and still produce customer benefits. Those benefits do not consider the important qualitative public policy objectives contemplated by the ACES Act and enabled by the Contract. The Company's proposal therefore achieves cost-effective financing for new renewable energy generation that is one of the primary goals of the ACES Act, and the broader "just and reasonable" standard.

The Company's balance sheet is not an unlimited resource that can be continually encumbered at no incremental cost, and with no loss of financing flexibility. There is no question that adding fixed financial obligations diminishes the Company's financial flexibility and increases operating leverage. There also is no question that customers and the public have an interest in financially strong utilities. Further encumbering the Company's balance sheet and weakening its financial flexibility without reasonable compensation can only diminish its financial profile, ultimately to the detriment of customers, investors, and the public.

Approving the 2.75 percent Remuneration Rate will provide the financial community and

[50] 13.59%/2.75% = 4.9x

the credit rating agencies with a perspective that the Commission reasonably balances the interests of both customers and investors.

Q. Considering the analyses discussed above, is it your view that the 2.75 percent Remuneration Rate is reasonable and appropriate in this proceeding?

A. Yes, it is.

Q. Does this conclude your Direct Testimony?

A. Yes, it does.

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Resume of:

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Rates, Regulation & Planning Practice Area Leader

Summary

Bob Hevert is a financial and economic consultant with more than 30 years of broad experience in the energy and utility industries. He has an extensive background in the areas of corporate finance, mergers and acquisitions, project finance, asset and business unit valuation, rate and regulatory matters, energy market assessment, and corporate strategic planning. He has provided expert testimony on a wide range of financial, strategic, and economic matters on more than 250 occasions at the state, provincial, and federal levels.

Prior to joining ScottMadden, Bob served as managing partner at Sussex Economic Advisors, LLC. Throughout the course of his career, he has worked with numerous leading energy companies and financial institutions throughout North America. He has provided expert testimony and support of litigation in various regulatory proceedings on a variety of energy and economic issues. Bob earned a B.S. in business and economics from the University of Delaware and an M.B.A. with a concentration in finance from the University of Massachusetts at Amherst. Bob also holds the Chartered Financial Analyst designation.

Areas of Specialization

- Regulation and rates
- Utilities
- Fossil/hydro generation
- Markets and RTOs
- Nuclear generation
- Mergers and acquisitions
- Regulatory strategy and rate case support
- Capital project planning
- Strategic and business planning

Recent Expert Testimony Submission/Appearance

- Federal Energy Regulatory Commission – Return on Equity
- New Jersey Board of Public Utilities – Merger Approval
- New Mexico Public Regulation Commission – Cost of Capital and Financial Integrity
- United States District Court – PURPA and FERC Regulations
- Alberta Utilities Commission – Return on Equity and Capital Structure

Recent Assignments

- Provided expert testimony on the cost of capital for ratemaking purposes before numerous state utility regulatory agencies, the Alberta Utilities Commission, and the Federal Energy Regulatory Commission
- For an independent electric transmission provider in Texas, prepared an expert report on the economic damages with respect to failure to meet guaranteed completion dates. The report was filed as part of an arbitration proceeding and included a review of the ratemaking implications of economic damages
- Advised the board of directors of a publicly traded electric and natural gas combination utility on dividend policy issues, earnings payout trends and related capital market considerations
- Assisted a publicly traded utility with a strategic buy-side evaluation of a gas utility with more than $1 billion in assets. The assignment included operational performance benchmarking, calculation of merger synergies, risk analysis, and review of the regulatory implications of the transaction
- Provided testimony before the Arkansas Public Service Commission in support of the acquisition of SourceGas LLC by Black Hills Corporation. The testimony addressed certain balance sheet capitalization and credit rating issues
- For the State of Maine Public Utility Commission, prepared a report that summarized the Northeast and Atlantic Canada natural gas power markets and analyzed the potential benefits and costs associated with natural gas pipeline expansions. The independent report was filed at the Maine Public Utility Commission

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Testimony Listing of:
Robert B. Hevert, Partner
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SPONSOR	DATE	CASE/APPLICANT	DOCKET NO.	SUBJECT
Regulatory Commission of Alaska				
Cook Inlet Natural Gas Storage Alaska, LLC	06/18	Cook Inlet Natural Gas Storage Alaska, LLC	Docket No. U-18-043	Return on Equity
ENSTAR Natural Gas Company	06/16	ENSTAR Natural Gas Company	Matter No. TA 285-4	Return on Equity
ENSTAR Natural Gas Company	08/14	ENSTAR Natural Gas Company	Matter No. TA 262-4	Return on Equity
Alberta Utilities Commission				
AltaLink, L.P., and EPCOR Distribution & Transmission, Inc., and FortisAlberta Inc.	10/17	AltaLink, L.P., and EPCOR Distribution & Transmission, Inc., and FortisAlberta Inc.	2018 General Cost of Capital, Proceeding ID. 22570	Rate of Return
EPCOR Energy Alberta G.P. Inc.	01/17	EPCOR Energy Alberta G.P. Inc.	Proceeding 22357	Energy Price Setting Plan
AltaLink, L.P., and EPCOR Distribution & Transmission, Inc.	02/16	AltaLink, L.P., and EPCOR Distribution & Transmission, Inc.	2016 General Cost of Capital, Proceeding ID. 20622	Rate of Return
Arizona Corporation Commission				
Southwest Gas Corporation	05/16	Southwest Gas Corporation	Docket No. G-01551A-16-0107	Return on Equity
Southwest Gas Corporation	11/10	Southwest Gas Corporation	Docket No. G-01551A-10-0458	Return on Equity
Arkansas Public Service Commission				
Oklahoma Gas and Electric Company	09/16	Oklahoma Gas and Electric Company	Docket No. 16-052-U	Return on Equity
SourceGas Arkansas, Inc.	12/15	SourceGas Arkansas, Inc.	Docket No. 15-078-U	Response to Direct Testimony by Arkansas Attorney General related to Compliance Issues
CenterPoint Energy Resources Corp. d/b/a CenterPoint Energy Arkansas Gas	11/15	CenterPoint Energy Resources Corp. d/b/a CenterPoint Energy Arkansas Gas	Docket No. 15-098-U	Return on Equity
SourceGas Arkansas, Inc.	04/15	SourceGas Arkansas, Inc.	Docket No. 15-011-U	Return on Equity
CenterPoint Energy Resources Corp. d/b/a CenterPoint Energy Arkansas Gas	01/07	CenterPoint Energy Resources Corp. d/b/a CenterPoint Energy Arkansas Gas	Docket No. 06-161-U	Return on Equity
California Public Utilities Commission				
Southwest Gas Corporation	12/12	Southwest Gas Corporation	Docket No. A-12-12-024	Return on Equity
Colorado Public Utilities Commission				
Atmos Energy Corporation	06/17	Atmos Energy Corporation	Docket No. 17AL-0429G	Return on Equity
Xcel Energy, Inc.	03/15	Public Service Company of Colorado	Docket No. 15AL-0135G	Return on Equity (gas)
Xcel Energy, Inc.	06/14	Public Service Company of Colorado	Docket No. 14AL-0660E	Return on Equity (electric)
Xcel Energy, Inc.	12/12	Public Service Company of Colorado	Docket No. 12AL-1268G	Return on Equity (gas)

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SPONSOR	DATE	CASE/APPLICANT	DOCKET NO.	SUBJECT
Xcel Energy, Inc.	11/11	Public Service Company of Colorado	Docket No. 11AL-947E	Return on Equity (electric)
Xcel Energy, Inc.	12/10	Public Service Company of Colorado	Docket No. 10AL-963G	Return on Equity (electric)
Atmos Energy Corporation	07/09	Atmos Energy Colorado-Kansas Division	Docket No. 09AL-507G	Return on Equity (gas)
Xcel Energy, Inc.	12/06	Public Service Company of Colorado	Docket No. 06S-656G	Return on Equity (gas)
Xcel Energy, Inc.	04/06	Public Service Company of Colorado	Docket No. 06S-234EG	Return on Equity (electric)
Xcel Energy, Inc.	08/05	Public Service Company of Colorado	Docket No. 05S-369ST	Return on Equity (steam)
Xcel Energy, Inc.	05/05	Public Service Company of Colorado	Docket No. 05S-246G	Return on Equity (gas)
Connecticut Public Utilities Regulatory Authority				
Connecticut Light and Power Company	11/17	Connecticut Light and Power Company	Docket No. 17-10-46	Return on Equity
Connecticut Light and Power Company	06/14	Connecticut Light and Power Company	Docket No. 14-05-06	Return on Equity
Southern Connecticut Gas Company	09/08	Southern Connecticut Gas Company	Docket No. 08-08-17	Return on Equity
Southern Connecticut Gas Company	12/07	Southern Connecticut Gas Company	Docket No. 05-03-17PH02	Return on Equity
Connecticut Natural Gas Corporation	12/07	Connecticut Natural Gas Corporation	Docket No. 06-03-04PH02	Return on Equity
Council of the City of New Orleans				
Entergy New Orleans, LLC	09/18	Entergy New Orleans, LLC	Docket No. UD-18-07	Return on Equity
Delaware Public Service Commission				
Delmarva Power & Light Company	08/17	Delmarva Power & Light Company	Docket No. 17-0977 (Electric)	Return on Equity
Delmarva Power & Light Company	08/17	Delmarva Power & Light Company	Docket No. 17-0978 (Gas)	Return on Equity
Delmarva Power & Light Company	05/16	Delmarva Power & Light Company	Case No. 16-649 (Electric)	Return on Equity
Delmarva Power & Light Company	05/16	Delmarva Power & Light Company	Case No. 16-650 (Gas)	Return on Equity
Delmarva Power & Light Company	03/13	Delmarva Power & Light Company	Case No. 13-115	Return on Equity
Delmarva Power & Light Company	12/12	Delmarva Power & Light Company	Case No. 12-546	Return on Equity
Delmarva Power & Light Company	03/12	Delmarva Power & Light Company	Case No. 11-528	Return on Equity
District of Columbia Public Service Commission				
Potomac Electric Power Company	12/17	Potomac Electric Power Company	Formal Case No. 1150	Return on Equity
Potomac Electric Power Company	06/16	Potomac Electric Power Company	Formal Case No. 1139	Return on Equity
Washington Gas Light Company	02/16	Washington Gas Light Company	Formal Case No. 1137	Return on Equity
Potomac Electric Power Company	03/13	Potomac Electric Power Company	Formal Case No. 1103-2013-E	Return on Equity
Potomac Electric Power Company	07/11	Potomac Electric Power Company	Formal Case No. 1087	Return on Equity

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SPONSOR	DATE	CASE/APPLICANT	DOCKET NO.	SUBJECT
Federal Energy Regulatory Commission				
Sabine Pipeline, LLC	09/15	Sabine Pipeline, LLC	Docket No. RP15-1322-000	Return on Equity
NextEra Energy Transmission West, LLC	07/15	NextEra Energy Transmission West, LLC	Docket No. ER15-2239-000	Return on Equity
Maritimes & Northeast Pipeline, LLC	05/15	Maritimes & Northeast Pipeline, LLC	Docket No. RP15-1026-000	Return on Equity
Public Service Company of New Mexico	12/12	Public Service Company of New Mexico	Docket No. ER13-685-000	Return on Equity
Public Service Company of New Mexico	10/10	Public Service Company of New Mexico	Docket No. ER11-1915-000	Return on Equity
Portland Natural Gas Transmission System	05/10	Portland Natural Gas Transmission System	Docket No. RP10-729-000	Return on Equity
Florida Gas Transmission Company, LLC	10/09	Florida Gas Transmission Company, LLC	Docket No. RP10-21-000	Return on Equity
Maritimes and Northeast Pipeline, LLC	07/09	Maritimes and Northeast Pipeline, LLC	Docket No. RP09-809-000	Return on Equity
Spectra Energy	02/08	Saltville Gas Storage	Docket No. RP08-257-000	Return on Equity
Panhandle Energy Pipelines	08/07	Panhandle Energy Pipelines	Docket No. PL07-2-000	Response to draft policy statement regarding inclusion of MLPs in proxy groups for determination of gas pipeline ROEs
Southwest Gas Storage Company	08/07	Southwest Gas Storage Company	Docket No. RP07-541-000	Return on Equity
Southwest Gas Storage Company	06/07	Southwest Gas Storage Company	Docket No. RP07-34-000	Return on Equity
Sea Robin Pipeline LLC	06/07	Sea Robin Pipeline LLC	Docket No. RP07-513-000	Return on Equity
Transwestern Pipeline Company	09/06	Transwestern Pipeline Company	Docket No. RP06-614-000	Return on Equity
GPU International and Aquila	11/00	GPU International	Docket No. EC01-24-000	Market Power Study
Florida Public Service Commission				
Florida Power & Light Company	03/16	Florida Power & Light Company	Docket No. 160021-EI	Return on Equity
Tampa Electric Company	04/13	Tampa Electric Company	Docket No. 130040-EI	Return on Equity
Georgia Public Service Commission				
Atlanta Gas Light Company	05/10	Atlanta Gas Light Company	Docket No. 31647-U	Return on Equity
Hawaii Public Utilities Commission				
Hawai'i Electric Light Company, Inc.	12/18	Hawai'i Electric Light Company, Inc.	Docket No. 2018-0368	Return on Equity
Maui Electric Company, Limited	10/17	Maui Electric Company, Limited	Docket No. 2017-0150	Return on Equity
Hawaiian Electric Company, Inc.	12/16	Hawaiian Electric Company, Inc.	Docket No. 2016-0328	Return on Equity
Hawai'i Electric Light Company, Inc.	09/16	Hawai'i Electric Light Company, Inc.	Docket No. 2015-0170	Return on Equity

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SPONSOR	DATE	CASE/APPLICANT	DOCKET NO.	SUBJECT
Maui Electric Company, Limited	12/14	Maui Electric Company, Limited	Docket No. 2014-0318	Return on Equity
Hawaiian Electric Company, Inc.	06/14	Hawaiian Electric Company, Inc.	Docket No. 2013-0373	Return on Equity
Hawai'i Electric Light Company, Inc.	08/12	Hawai'i Electric Light Company, Inc.	Docket No. 2012-0099	Return on Equity
Illinois Commerce Commission				
Ameren Illinois Company d/b/a Ameren Illinois	01/18	Ameren Illinois Company d/b/a Ameren Illinois	Docket No. 18-0463	Return on Equity
Ameren Illinois Company d/b/a Ameren Illinois	01/15	Ameren Illinois Company d/b/a Ameren Illinois	Docket No. 15-0142	Return on Equity
Liberty Utilities (Midstates Natural Gas) Corp. d/b/a Liberty Utilities	04/14	Liberty Utilities (Midstates Natural Gas) Corp. d/b/a Liberty Utilities	Docket No. 14-0371	Return on Equity
Ameren Illinois Company d/b/a Ameren Illinois	01/13	Ameren Illinois Company d/b/a Ameren Illinois	Docket No. 13-0192	Return on Equity
Ameren Illinois Company d/b/a Ameren Illinois	02/11	Ameren Illinois Company d/b/a Ameren Illinois	Docket No. 11-0279	Return on Equity (electric)
Ameren Illinois Company d/b/a Ameren Illinois	02/11	Ameren Illinois Company d/b/a Ameren Illinois	Docket No. 11-0282	Return on Equity (gas)
Indiana Utility Regulatory Commission				
Indiana Michigan Power Company	7/17	Indiana Michigan Power Company	Cause No. 44967	Return on Equity
Duke Energy Indiana, Inc.	12/15	Duke Energy Indiana, Inc.	Cause No. 44720	Return on Equity
Duke Energy Indiana, Inc.	12/14	Duke Energy Indiana, Inc.	Cause No. 44526	Return on Equity
Northern Indiana Public Service Company	05/09	Northern Indiana Public Service Company	Cause No. 43894	Assessment of Valuation Approaches
Kansas Corporation Commission				
Empire District Electric Company	12/18	Empire District Electric Company	Docket No. 19-EPDE-223-RTS	Alternative Ratemaking Mechanisms
Kansas City Power & Light Company	05/18	Kansas City Power & Light Company	Docket No. 18-KCPE-480-RTS	Return on Equity
Westar Energy	02/18	Westar Energy	Docket No. 18-WSEE-328-RTS	Return on Equity
Great Plains Energy, Inc. and Kansas City Power & Light Company	01/17	Great Plains Energy, Inc. and Kansas City Power & Light Company	Docket No. 16-KCPE-593-ACQ	Response to Direct Testimony by Commission Staff related to the ratemaking capital structure processes

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SPONSOR	DATE	CASE/APPLICANT	DOCKET NO.	SUBJECT
Kansas City Power & Light Company	01/15	Kansas City Power & Light Company	Docket No. 15-KCPE-116-RTS	Return on Equity
Maine Public Utilities Commission				
Northern Utilities, Inc.	05/17	Northern Utilities, Inc.	Docket No. 2017-00065	Return on Equity
Central Maine Power Company	06/11	Central Maine Power Company	Docket No. 2010-327	Response to Bench Analysis provided by Commission Staff relating to the Company's credit and collections processes
Maryland Public Service Commission				
Potomac Electric Power Company	01/19	Potomac Electric Power Company	Case No. 9602	Return on Equity
Washington Gas Light Company	05/18	Washington Gas Light Company	Case No. 9481	Return on Equity
Potomac Electric Power Company	01/18	Potomac Electric Power Company	Case No. 9472	Return on Equity
Delmarva Power & Light Company	07/17	Delmarva Power & Light Company	Case No. 9455	Return on Equity
Potomac Electric Power Company	03/17	Potomac Electric Power Company	Case No. 9443	Return on Equity
Delmarva Power & Light Company	06/16	Delmarva Power & Light Company	Case No. 9424	Return on Equity
Potomac Electric Power Company	06/16	Potomac Electric Power Company	Case No. 9418	Return on Equity
Potomac Electric Power Company	12/13	Potomac Electric Power Company	Case No. 9336	Return on Equity
Delmarva Power & Light Company	03/13	Delmarva Power & Light Company	Case No. 9317	Return on Equity
Potomac Electric Power Company	11/12	Potomac Electric Power Company	Case No. 9311	Return on Equity
Potomac Electric Power Company	12/11	Potomac Electric Power Company	Case No. 9286	Return on Equity
Delmarva Power & Light Company	12/11	Delmarva Power & Light Company	Case No. 9285	Return on Equity
Delmarva Power & Light Company	12/10	Delmarva Power & Light Company	Case No. 9249	Return on Equity
Massachusetts Department of Public Utilities				
National Grid	11/18	Massachusetts Electric Company and Nantucket Electric Company d/b/a National Grid	DPU 18-150	Return on Equity
NSTAR Electric Company Western d/b/a Eversource Energy	11/18	NSTAR Electric Company d/b/a Eversource Energy	DPU 18-76/DPU 18-77/DPU 18-78	Response to Direct Testimony by Attorney General Witness regarding Remuneration Rate
Boston Gas Company, Colonial Gas Company each d/b/a National Grid	11/17	Boston Gas Company, Colonial Gas Company each d/b/a National Grid	DPU 17-170	Return on Equity

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SPONSOR	DATE	CASE/APPLICANT	DOCKET NO.	SUBJECT
NSTAR Electric Company Western and Massachusetts Electric Company each d/b/a Eversource Energy	01/17	NSTAR Electric Company Western Massachusetts Electric Company each d/b/a Eversource Energy	DPU 17-05	Return on Equity
National Grid	11/15	Massachusetts Electric Company and Nantucket Electric Company d/b/a National Grid	DPU 15-155	Return on Equity
Fitchburg Gas and Electric Light Company d/b/a Unitil	06/15	Fitchburg Gas and Electric Light Company d/b/a Unitil	DPU 15-80	Return on Equity
NSTAR Gas Company	12/14	NSTAR Gas Company	DPU 14-150	Return on Equity
Fitchburg Gas and Electric Light Company d/b/a Unitil	07/13	Fitchburg Gas and Electric Light Company d/b/a Unitil	DPU 13-90	Return on Equity
Bay State Gas Company d/b/a Columbia Gas of Massachusetts	04/12	Bay State Gas Company d/b/a Columbia Gas of Massachusetts	DPU 12-25	Capital Cost Recovery
National Grid	08/09	Massachusetts Electric Company d/b/a National Grid	DPU 09-39	Revenue Decoupling and Return on Equity
National Grid	08/09	Massachusetts Electric Company and Nantucket Electric Company d/b/a National Grid	DPU 09-38	Return on Equity – Solar Generation
Bay State Gas Company	04/09	Bay State Gas Company	DPU 09-30	Return on Equity
NSTAR Electric	09/04	NSTAR Electric	DTE 04-85	Divestiture of Power Purchase Agreement
NSTAR Electric	08/04	NSTAR Electric	DTE 04-78	Divestiture of Power Purchase Agreement
NSTAR Electric	07/04	NSTAR Electric	DTE 04-68	Divestiture of Power Purchase Agreement
NSTAR Electric	07/04	NSTAR Electric	DTE 04-61	Divestiture of Power Purchase Agreement
NSTAR Electric	06/04	NSTAR Electric	DTE 04-60	Divestiture of Power Purchase Agreement
Unitil Corporation	01/04	Fitchburg Gas and Electric	DTE 03-52	Integrated Resource Plan; Gas Demand Forecast
Bay State Gas Company	01/93	Bay State Gas Company	DPU 93-14	Divestiture of Shelf Registration

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SPONSOR	DATE	CASE/APPLICANT	DOCKET NO.	SUBJECT
Bay State Gas Company	01/91	Bay State Gas Company	DPU 91-25	Divestiture of Shelf Registration
Michigan Public Service Commission				
Indiana Michigan Power Company	05/17	Indiana Michigan Power Company	Case No. U-18370	Return on Equity
Minnesota Public Utilities Commission				
CenterPoint Energy Resources Corp. d/b/a CenterPoint Energy Minnesota Gas	08/17	CenterPoint Energy Resources Corp. d/b/a CenterPoint Energy Minnesota Gas	Docket No. G-008/GR-17-285	Return on Equity
ALLETE, Inc., d/b/a Minnesota Power Inc.	11/16	ALLETE, Inc., d/b/a Minnesota Power Inc.	Docket No. E015/GR-16-664	Return on Equity
Otter Tail Power Corporation	02/16	Otter Tail Power Company	Docket No. E017/GR-15-1033	Return on Equity
Minnesota Energy Resources Corporation	09/15	Minnesota Energy Resources Corporation	Docket No. G-011/GR-15-736	Return on Equity
CenterPoint Energy Resources Corp. d/b/a CenterPoint Energy Minnesota Gas	08/15	CenterPoint Energy Resources Corp. d/b/a CenterPoint Energy Minnesota Gas	Docket No. G-008/GR-15-424	Return on Equity
Xcel Energy, Inc.	11/13	Northern States Power Company	Docket No. E002/GR-13-868	Return on Equity
CenterPoint Energy Resources Corp. d/b/a CenterPoint Energy Minnesota Gas	08/13	CenterPoint Energy Resources Corp. d/b/a CenterPoint Energy Minnesota Gas	Docket No. G-008/GR-13-316	Return on Equity
Xcel Energy, Inc.	11/12	Northern States Power Company	Docket No. E002/GR-12-961	Return on Equity
Otter Tail Power Corporation	04/10	Otter Tail Power Company	Docket No. E-017/GR-10-239	Return on Equity
Minnesota Power a division of ALLETE, Inc.	11/09	Minnesota Power	Docket No. E-015/GR-09-1151	Return on Equity
CenterPoint Energy Resources Corp. d/b/a CenterPoint Energy Minnesota Gas	11/08	CenterPoint Energy Minnesota Gas	Docket No. G-008/GR-08-1075	Return on Equity
Otter Tail Power Corporation	10/07	Otter Tail Power Company	Docket No. E-017/GR-07-1178	Return on Equity
Xcel Energy, Inc.	11/05	Northern States Power Company -Minnesota	Docket No. E-002/GR-05-1428	Return on Equity (electric)
Xcel Energy, Inc.	09/04	Northern States Power Company - Minnesota	Docket No. G-002/GR-04-1511	Return on Equity (gas)
Mississippi Public Service Commission				
CenterPoint Energy Resources, Corp. d/b/a CenterPoint Energy Entex and CenterPoint Energy Mississippi Gas	07/09	CenterPoint Energy Mississippi Gas	Docket No. 09-UN-334	Return on Equity
Missouri Public Service Commission				
Union Electric Company d/b/a Ameren Missouri	12/18	Union Electric Company d/b/a Ameren Missouri	Case No. GR-2019-0077	Return on Equity

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SPONSOR	DATE	CASE/APPLICANT	DOCKET NO.	SUBJECT
KCP&L Greater Missouri Operations Company	01/18	KCP&L Greater Missouri Operations Company	Case No. ER-2018-0146	Return on Equity
Kansas City Power & Light Company	01/18	Kansas City Power & Light Company	Case No. ER-2018-0145	Return on Equity
Laclede Gas Company and Missouri Gas Energy	11/17	Laclede Gas Company and Missouri Gas Energy	Case No. GR-2017-0215 Case No. GR-2017-0216	Goodwill Adjustment on Capital Structure
Liberty Utilities (Midstates Natural Gas) Corp. d/b/a/ Liberty Utilities	09/17	Liberty Utilities (Midstates Natural Gas) Corp. d/b/a/ Liberty Utilities	Case No. GR-2018-0013	New Ratemaking Mechanisms
Union Electric Company d/b/a Ameren Missouri	07/16	Union Electric Company d/b/a Ameren Missouri	Case No. ER-2016-0179	Return on Equity (electric)
Kansas City Power & Light Company	07/16	Kansas City Power & Light Company	Case No. ER-2016-0285	Return on Equity (electric)
Kansas City Power & Light Company	02/16	Kansas City Power & Light Company	Case No. ER-2016-0156	Return on Equity (electric)
Kansas City Power & Light Company	10/14	Kansas City Power & Light Company	Case No. ER-2014-0370	Return on Equity (electric)
Union Electric Company d/b/a Ameren Missouri	07/14	Union Electric Company d/b/a Ameren Missouri	Case No. ER-2014-0258	Return on Equity (electric)
Union Electric Company d/b/a Ameren Missouri	06/14	Union Electric Company d/b/a Ameren Missouri	Case No. EC-2014-0223	Return on Equity (electric)
Liberty Utilities (Midstates Natural Gas) Corp. d/b/a Liberty Utilities	02/14	Liberty Utilities (Midstates Natural Gas) Corp. d/b/a Liberty Utilities	Case No. GR-2014-0152	Return on Equity
Laclede Gas Company	12/12	Laclede Gas Company	Case No. GR-2013-0171	Return on Equity
Union Electric Company d/b/a Ameren Missouri	02/12	Union Electric Company d/b/a Ameren Missouri	Case No. ER-2012-0166	Return on Equity (electric)
Union Electric Company d/b/a AmerenUE	09/10	Union Electric Company d/b/a AmerenUE	Case No. ER-2011-0028	Return on Equity (electric)
Union Electric Company d/b/a AmerenUE	06/10	Union Electric Company d/b/a AmerenUE	Case No. GR-2010-0363	Return on Equity (gas)
Montana Public Service Commission				
Northwestern Corporation	09/12	Northwestern Corporation d/b/a Northwestern Energy	Docket No. D2012.9.94	Return on Equity (gas)
Nevada Public Utilities Commission				
Southwest Gas Corporation	05/18	Southwest Gas Corporation	Docket No. 18-05031	Return on Equity (gas)
Southwest Gas Corporation	04/12	Southwest Gas Corporation	Docket No. 12-04005	Return on Equity (gas)
Nevada Power Company	06/11	Nevada Power Company	Docket No. 11-06006	Return on Equity (electric)
New Hampshire Public Utilities Commission				

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SPONSOR	DATE	CASE/APPLICANT	DOCKET NO.	SUBJECT
Northern Utilities, Inc.	06/17	Northern Utilities, Inc.	Docket No. DG 17-070	Return on Equity
Liberty Utilities d/b/a EnergyNorth Natural Gas	04/17	Liberty Utilities d/b/a EnergyNorth Natural Gas	Docket No. DG 17-048	Return on Equity
Unitil Energy Systems, Inc.	04/16	Unitil Energy Systems, Inc.	Docket No. DE 16-384	Return on Equity
Liberty Utilities d/b/a Granite State Electric Company	04/16	Liberty Utilities d/b/a Granite State Electric Company	Docket No. DE 16-383	Return on Equity
Liberty Utilities d/b/a EnergyNorth Natural Gas	08/14	Liberty Utilities d/b/a EnergyNorth Natural Gas	Docket No. DG 14-180	Return on Equity
Liberty Utilities d/b/a Granite State Electric Company	03/13	Liberty Utilities d/b/a Granite State Electric Company	Docket No. DE 13-063	Return on Equity
EnergyNorth Natural Gas d/b/a National Grid NH	02/10	EnergyNorth Natural Gas d/b/a National Grid NH	Docket No. DG 10-017	Return on Equity
Unitil Energy Systems, Inc., EnergyNorth Natural Gas, Inc. d/b/a National Grid NH, Granite State Electric Company d/b/a National Grid, and Northern Utilities, Inc. – New Hampshire Division	08/08	Unitil Energy Systems, Inc., EnergyNorth Natural Gas, Inc. d/b/a National Grid NH, Granite State Electric Company d/b/a National Grid, and Northern Utilities, Inc. – New Hampshire Division	Docket No. DG 07-072	Carrying Charge Rate on Cash Working Capital
New Jersey Board of Public Utilities				
Atlantic City Electric Company	10/18	Atlantic City Electric Company	Docket No. EO18020196	Return on Equity
Atlantic City Electric Company	08/18	Atlantic City Electric Company	Docket No. ER18080925	Return on Equity
Atlantic City Electric Company	06/18	Atlantic City Electric Company	Docket No. ER18060638	Return on Equity
Atlantic City Electric Company	03/17	Atlantic City Electric Company	Docket No. ER17030308	Return on Equity
Pivotal Utility Holdings, Inc.	08/16	Elizabethtown Gas	Docket No. GR16090826	Return on Equity
The Southern Company; AGL Resources Inc.; AMS Corp. and Pivotal Holdings, Inc. d/b/a Elizabethtown Gas	04/16	The Southern Company; AGL Resources Inc.; AMS Corp. and Pivotal Holdings, Inc. d/b/a Elizabethtown Gas	BPU Docket No. GM15101196	Merger Approval
Atlantic City Electric Company	03/16	Atlantic City Electric Company	Docket No. ER16030252	Return on Equity
Pepco Holdings, Inc.	03/14	Atlantic City Electric Company	Docket No. ER14030245	Return on Equity
Orange and Rockland Utilities	11/13	Rockland Electric Company	Docket No. ER13111135	Return on Equity
Atlantic City Electric Company	12/12	Atlantic City Electric Company	Docket No. ER12121071	Return on Equity
Atlantic City Electric Company	08/11	Atlantic City Electric Company	Docket No. ER11080469	Return on Equity

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Testimony Listing of:
Robert B. Hevert, Partner
Rates, Regulation and Planning Practice Area Leader

SPONSOR	DATE	CASE/APPLICANT	DOCKET NO.	SUBJECT
Pepco Holdings, Inc.	09/06	Atlantic City Electric Company	Docket No. EM06090638	Divestiture and Valuation of Electric Generating Assets
Pepco Holdings, Inc.	12/05	Atlantic City Electric Company	Docket No. EM05121058	Market Value of Electric Generation Assets; Auction
Conectiv	06/03	Atlantic City Electric Company	Docket No. EO03020091	Market Value of Electric Generation Assets; Auction Process
New Mexico Public Regulation Commission				
Public Service Company of New Mexico	12/16	Public Service Company of New Mexico	Case No. 16-00276-UT	Return on Equity (electric)
Public Service Company of New Mexico	08/15	Public Service Company of New Mexico	Case No. 15-00261-UT	Return on Equity (electric)
Public Service Company of New Mexico	12/14	Public Service Company of New Mexico	Case No. 14-00332-UT	Return on Equity (electric)
Public Service Company of New Mexico	12/14	Public Service Company of New Mexico	Case No. 13-00390-UT	Cost of Capital and Financial Integrity
Southwestern Public Service Company	02/11	Southwestern Public Service Company	Case No. 10-00395-UT	Return on Equity (electric)
Public Service Company of New Mexico	06/10	Public Service Company of New Mexico	Case No. 10-00086-UT	Return on Equity (electric)
Public Service Company of New Mexico	09/08	Public Service Company of New Mexico	Case No. 08-00273-UT	Return on Equity (electric)
Xcel Energy, Inc.	07/07	Southwestern Public Service Company	Case No. 07-00319-UT	Return on Equity (electric)
New York State Public Service Commission				
Consolidated Edison Company of New York, Inc.	01/15	Consolidated Edison Company of New York, Inc.	Case No. 15-E-0050	Return on Equity (electric)
Orange and Rockland Utilities, Inc.	11/14	Orange and Rockland Utilities, Inc.	Case Nos. 14-E-0493 and 14-G-0494	Return on Equity (electric and gas)
Consolidated Edison Company of New York, Inc.	01/13	Consolidated Edison Company of New York, Inc.	Case No. 13-E-0030	Return on Equity (electric)
Niagara Mohawk Corporation d/b/a National Grid for Electric Service	04/12	Niagara Mohawk Corporation d/b/a National Grid for Electric Service	Case No. 12-E-0201	Return on Equity (electric)
Niagara Mohawk Corporation d/b/a National Grid for Gas Service	04/12	Niagara Mohawk Corporation d/b/a National Grid for Gas Service	Case No. 12-G-0202	Return on Equity (gas)
Orange and Rockland Utilities, Inc.	07/11	Orange and Rockland Utilities, Inc.	Case No. 11-E-0408	Return on Equity (electric)
Orange and Rockland Utilities, Inc.	07/10	Orange and Rockland Utilities, Inc.	Case No. 10-E-0362	Return on Equity (electric)

SPONSOR	DATE	CASE/APPLICANT	DOCKET NO.	SUBJECT
Consolidated Edison Company of New York, Inc.	11/09	Consolidated Edison Company of New York, Inc.	Case No. 09-G-0795	Return on Equity (gas)
Consolidated Edison Company of New York, Inc.	11/09	Consolidated Edison Company of New York, Inc.	Case No. 09-S-0794	Return on Equity (steam)
Niagara Mohawk Power Corporation	07/01	Niagara Mohawk Power Corporation	Case No. 01-E-1046	Power Purchase and Sale Agreement; Standard Offer Service Agreement
North Carolina Utilities Commission				
Duke Energy Carolinas, LLC	08/17	Duke Energy Carolinas, LLC	Docket No. E-7, Sub 1146	Return on Equity
Duke Energy Progress, LLC	06/17	Duke Energy Progress, LLC	Docket No. E-2, Sub 1142	Return on Equity
Public Service Company of North Carolina, Inc.	03/16	Public Service Company of North Carolina, Inc.	Docket No. G-5, Sub 565	Return on Equity
Dominion North Carolina Power	03/16	Dominion North Carolina Power	Docket No. E-22, Sub 532	Return on Equity
Duke Energy Carolinas, LLC	02/13	Duke Energy Carolinas, LLC	Docket No. E-7, Sub 1026	Return on Equity
Carolina Power & Light Company d/b/a Progress Energy Carolinas, Inc.	10/12	Carolina Power & Light Company d/b/a Progress Energy Carolinas, Inc.	Docket No. E-2, Sub 1023	Return on Equity
Virginia Electric and Power Company d/b/a Dominion North Carolina Power	03/12	Virginia Electric and Power Company d/b/a Dominion North Carolina Power	Docket No. E-22, Sub 479	Return on Equity (electric)
Duke Energy Carolinas, LLC	07/11	Duke Energy Carolinas, LLC	Docket No. E-7, Sub 989	Return on Equity (electric)
North Dakota Public Service Commission				
Otter Tail Power Company	11/17	Otter Tail Power Company	Docket No. 17-398	Return on Equity (electric)
Otter Tail Power Company	11/08	Otter Tail Power Company	Docket No. 08-862	Return on Equity (electric)
Oklahoma Corporation Commission				
CenterPoint Energy Resources Corp., d/b/a CenterPoint Energy Oklahoma Gas	03/16	CenterPoint Energy Resources Corp., d/b/a CenterPoint Energy Oklahoma Gas	Cause No. PUD201600094	Return on Equity
Oklahoma Gas & Electric Company	12/15	Oklahoma Gas & Electric Company	Cause No. PUD201500273	Return on Equity
Public Service Company of Oklahoma	07/15	Public Service Company of Oklahoma	Cause No. PUD201500208	Return on Equity
Oklahoma Gas & Electric Company	07/11	Oklahoma Gas & Electric Company	Cause No. PUD201100087	Return on Equity
CenterPoint Energy Resources Corp., d/b/a CenterPoint Energy Oklahoma Gas	03/09	CenterPoint Energy Oklahoma Gas	Cause No. PUD200900055	Return on Equity

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SPONSOR	DATE	CASE/APPLICANT	DOCKET NO.	SUBJECT
Pennsylvania Public Utility Commission				
Pike County Light & Power Company	01/14	Pike County Light & Power Company	Docket No. R-2013-2397237	Return on Equity (electric & gas)
Veolia Energy Philadelphia, Inc.	12/13	Veolia Energy Philadelphia, Inc.	Docket No. R-2013-2386293	Return on Equity (steam)
Rhode Island Public Utilities Commission				
The Narragansett Electric Company d/b/a National Grid	11/17	The Narragansett Electric Company d/b/a National Grid	Docket No. 4770	Return on Equity (electric & gas)
The Narragansett Electric Company d/b/a National Grid	04/12	The Narragansett Electric Company d/b/a National Grid	Docket No. 4323	Return on Equity (electric & gas)
National Grid RI – Gas	08/08	National Grid RI – Gas	Docket No. 3943	Revenue Decoupling and Return on Equity
South Carolina Public Service Commission				
Duke Energy Carolinas, LLC	11/18	Duke Energy Carolinas, LLC	Docket No. 2018-319-E	Return on Equity
Duke Energy Progress, LLC	11/18	Duke Energy Progress, LLC	Docket No. 2018-318-E	Return on Equity
South Carolina Electric & Gas	08/18	South Carolina Electric & Gas	Docket No. 2017-370-E	Return on Equity
South Carolina Electric & Gas	12/17	South Carolina Electric & Gas	Docket No. 2017-305-E	Return on Equity
Duke Energy Progress, LLC	07/16	Duke Energy Progress, LLC	Docket No. 2016-227-E	Return on Equity
Duke Energy Carolinas, LLC	03/13	Duke Energy Carolinas, LLC	Docket No. 2013-59-E	Return on Equity
South Carolina Electric & Gas	06/12	South Carolina Electric & Gas	Docket No. 2012-218-E	Return on Equity
Duke Energy Carolinas, LLC	08/11	Duke Energy Carolinas, LLC	Docket No. 2011-271-E	Return on Equity
South Carolina Electric & Gas	03/10	South Carolina Electric & Gas	Docket No. 2009-489-E	Return on Equity
South Dakota Public Utilities Commission				
Otter Tail Power Company	04/18	Otter Tail Power Company	Docket No. EL18-021	Return on Equity (electric)
Otter Tail Power Company	08/10	Otter Tail Power Company	Docket No. EL10-011	Return on Equity (electric)
Northern States Power Company	06/09	South Dakota Division of Northern States Power	Docket No. EL09-009	Return on Equity (electric)
Otter Tail Power Company	10/08	Otter Tail Power Company	Docket No. EL08-030	Return on Equity (electric)
Texas Public Utility Commission				
Texas-New Mexico Power Company	05/18	Texas-New Mexico Power Company	Docket No. 48401	Return on Equity
Entergy Texas, Inc.	05/18	Entergy Texas, Inc.	Docket No. 48371	Return on Equity

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SPONSOR	DATE	CASE/APPLICANT	DOCKET NO.	SUBJECT
Southwestern Public Service Company	08/17	Southwestern Public Service Company	Docket No. 47527	Return on Equity
Oncor Electric Delivery Company, LLC	03/17	Oncor Electric Delivery Company, LLC	Docket No. 46957	Return on Equity
El Paso Electric Company	02/17	El Paso Electric Company	Docket No. 46831	Return on Equity
Southwestern Electric Power Company	12/16	Southwestern Electric Power Company	Docket No. 46449	Return on Equity (electric)
Sharyland Utilities, L.P.	04/16	Sharyland Utilities, L.P.	Docket No. 45414	Return on Equity
Southwestern Public Service Company	02/16	Southwestern Public Service Company	Docket No. 44524	Return on Equity (electric)
Wind Energy Transmission Texas, LLC	05/15	Wind Energy Transmission Texas, LLC	Docket No. 44746	Return on Equity
Cross Texas Transmission	12/14	Cross Texas Transmission	Docket No. 43950	Return on Equity
Southwestern Public Service Company	12/14	Southwestern Public Service Company	Docket No. 43695	Return on Equity (electric)
Sharyland Utilities, L.P.	05/13	Sharyland Utilities, L.P.	Docket No. 41474	Return on Equity
Wind Energy Texas Transmission, LLC	08/12	Wind Energy Texas Transmission, LLC	Docket No. 40606	Return on Equity
Southwestern Electric Power Company	07/12	Southwestern Electric Power Company	Docket No. 40443	Return on Equity
Oncor Electric Delivery Company, LLC	01/11	Oncor Electric Delivery Company, LLC	Docket No. 38929	Return on Equity
Texas-New Mexico Power Company	08/10	Texas-New Mexico Power Company	Docket No. 38480	Return on Equity (electric)
CenterPoint Energy Houston Electric LLC	06/10	CenterPoint Energy Houston Electric LLC	Docket No. 38339	Return on Equity
Xcel Energy, Inc.	05/10	Southwestern Public Service Company	Docket No. 38147	Return on Equity (electric)
Texas-New Mexico Power Company	08/08	Texas-New Mexico Power Company	Docket No. 36025	Return on Equity (electric)
Xcel Energy, Inc.	05/06	Southwestern Public Service Company	Docket No. 32766	Return on Equity (electric)
Texas Railroad Commission				
Atmos Energy Corporation – Mid-Tex Division	10/18	Atmos Energy Corporation – Mid-Tex Division	GUD 10779	Return on Equity
Atmos Energy Corporation – West Texas Division	06/18	Atmos Energy Corporation – West Texas Division	GUD 10743	Return on Equity
Atmos Energy Corporation – Mid-Texas Division	06/18	Atmos Energy Corporation – Mid-Texas Division	GUD 10742	Return on Equity
CenterPoint Energy Resources Corp. D/B/A CenterPoint Energy Entex And CenterPoint Energy Texas Gas	11/17	CenterPoint Energy Resources Corp. D/B/A CenterPoint Energy Entex And CenterPoint Energy Texas Gas	GUD 10669	Return on Equity
Atmos Pipeline - Texas	01/17	Atmos Pipeline - Texas	GUD 10580	Return on Equity

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SPONSOR	DATE	CASE/APPLICANT	DOCKET NO.	SUBJECT
CenterPoint Energy Resources Corp. D/B/A CenterPoint Energy Entex And CenterPoint Energy Texas Gas	12/16	CenterPoint Energy Resources Corp. D/B/A CenterPoint Energy Entex And CenterPoint Energy Texas Gas	GUD 10567	Return on Equity
CenterPoint Energy Resources Corp. d/b/a CenterPoint Energy Entex and CenterPoint Energy Texas Gas	03/15	CenterPoint Energy Resources Corp. d/b/a CenterPoint Energy Entex and CenterPoint Energy Texas Gas	GUD 10432	Return on Equity
CenterPoint Energy Resources Corp. d/b/a CenterPoint Energy Entex and CenterPoint Energy Texas Gas	07/12	CenterPoint Energy Resources Corp. d/b/a CenterPoint Energy Entex and CenterPoint Energy Texas Gas	GUD 10182	Return on Equity
Atmos Energy Corporation – West Texas Division	06/12	Atmos Energy Corporation – West Texas Division	GUD 10174	Return on Equity
Atmos Energy Corporation – Mid-Texas Division	06/12	Atmos Energy Corporation – Mid-Texas Division	GUD 10170	Return on Equity
CenterPoint Energy Resources Corp. d/b/a CenterPoint Energy Entex and CenterPoint Energy Texas Gas	12/10	CenterPoint Energy Resources Corp. d/b/a CenterPoint Energy Entex and CenterPoint Energy Texas Gas	GUD 10038	Return on Equity
Atmos Pipeline – Texas	09/10	Atmos Pipeline - Texas	GUD 10000	Return on Equity
CenterPoint Energy Resources Corp. d/b/a CenterPoint Energy Entex and CenterPoint Energy Texas Gas	07/09	CenterPoint Energy Resources Corp. d/b/a CenterPoint Energy Entex and CenterPoint Energy Texas Gas	GUD 9902	Return on Equity
CenterPoint Energy Resources Corp. d/b/a CenterPoint Energy Texas Gas	03/08	CenterPoint Energy Resources Corp. d/b/a CenterPoint Energy Texas Gas	GUD 9791	Return on Equity
Utah Public Service Commission				
Questar Gas Company	12/07	Questar Gas Company	Docket No. 07-057-13	Return on Equity
Vermont Public Service Board				
Central Vermont Public Service Corporation; Green Mountain Power	02/12	Central Vermont Public Service Corporation; Green Mountain Power	Docket No. 7770	Merger Policy
Central Vermont Public Service Corporation	12/10	Central Vermont Public Service Corporation	Docket No. 7627	Return on Equity (electric)
Green Mountain Power	04/06	Green Mountain Power	Docket Nos. 7175 and 7176	Return on Equity (electric)
Vermont Gas Systems, Inc.	12/05	Vermont Gas Systems	Docket Nos. 7109 and 7160	Return on Equity (gas)
Virginia State Corporation Commission				
Virginia Electric and Power Company	03/17	Virginia Electric and Power Company	Case No. PUR-2017-00038	Return on Equity

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SPONSOR	DATE	CASE/APPLICANT	DOCKET NO.	SUBJECT
Virginia Natural Gas, Inc.	03/17	Virginia Natural Gas, Inc.	Case No. PUE-2016-00143	Return on Equity
Virginia Electric and Power Company	10/16	Virginia Electric and Power Company	Case No. PUE-2016-00112; PUE-2016-00113; PUE-2016-00136	Return on Equity
Washington Gas Light Company	06/16	Washington Gas Light Company	Case No. PUE-2016-00001	Return on Equity
Virginia Electric and Power Company	06/16	Virginia Electric and Power Company	Case Nos. PUE-2016-00063; PUE-2016-00062; PUE-2016-00061; PUE-2016-00060; PUE-2016-00059	Return on Equity
Virginia Electric and Power Company	12/15	Virginia Electric and Power Company	Case Nos. PUE-2015-00058; PUE-2015-00059; PUE-2015-00060; PUE-2015-00061; PUE-2015-00075; PUE-2015-00089; PUE-2015-00102; PUE-2015-00104	Return on Equity
Virginia Electric and Power Company	03/15	Virginia Electric and Power Company	Case No. PUE-2015-00027	Return on Equity
Virginia Electric and Power Company	03/13	Virginia Electric and Power Company	Case No. PUE-2013-00020	Return on Equity
Virginia Natural Gas, Inc.	02/11	Virginia Natural Gas, Inc.	Case No. PUE-2010-00142	Capital Structure
Columbia Gas of Virginia, Inc.	06/06	Columbia Gas of Virginia, Inc.	Case No. PUE-2005-00098	Merger Synergies
Dominion Resources	10/01	Virginia Electric and Power Company	Case No. PUE000584	Corporate Structure and Electric Generation Strategy

Expert Reports

United States District Court, District of South Carolina, Columbia Division				
South Carolina Electric & Gas Company	07/18	South Carolina Electric & Gas Company	Case No. 3:18-CV-01795-JMC	Return on Equity
United States District Court, Western District of Texas, Austin Division				
Southwestern Public Service Company	02/12	Southwestern Public Service Company	C.A. No. A-09-CA-917-SS	PURPA and FERC regulations
American Arbitration Association				
Confidential Client	11/14	Confidential Client	Confidential	Economic harm related to failure to perform

	Calculation Assumption
Installed Cost/kW	$ 3,184
MW Capacity	400
Fixed O&M/kW-yr	$95.00
Effective Tax Rate	26.53%
O&M Escalation Rate	2.00%
Contract Rate	$98.43
WACC	6.99%
Remuneration Rate	2.75%
Mid-Year Convention?	y

Period	0	0.5	1.5	2.5	3.5	4.5	5.5	6.5	7.5	8.5	9.5	10.5	11.5
Overnight Installed Cost	$ 1,273,401,114												
MWH Generation		1,640,686											
kWh Generation		1,640,685,695	1,630,579,704	1,626,390,647	1,615,392,024	1,632,451,871	1,630,148,136	1,633,440,455	1,630,579,704	1,621,512,671	1,622,170,079	1,629,829,631	1,630,148,136
Revenue		$ 161,484,490	$ 160,489,807	$ 160,077,499	$ 158,994,960	$ 160,674,075	$ 160,447,330	$ 160,771,377	$ 160,489,807	$ 159,597,385	$ 159,662,090	$ 160,415,981	$ 160,447,330
O&M		$ 38,000,000	$ 38,760,000	$ 39,535,200	$ 40,325,904	$ 41,132,422	$ 41,955,071	$ 42,794,172	$ 43,650,055	$ 44,523,056	$ 45,413,518	$ 46,321,788	$ 47,248,224
Cash Flow (EBITDA)	$ (1,273,401,114)	$123,484,490	$121,729,807	$120,542,299	$118,669,056	$119,541,653	$118,492,260	$117,977,205	$116,839,752	$115,074,328	$114,248,572	$114,094,193	$113,199,107
PV Factor	1.0000	0.9668	0.9036	0.8446	0.7894	0.7378	0.6896	0.6446	0.6025	0.5631	0.5263	0.4919	0.4598
NPV - EBITDA	$ 0												
Remuneration		$ 4,440,823	$ 4,413,470	$ 4,402,131	$ 4,372,361	$ 4,418,537	$ 4,412,302	$ 4,421,213	$ 4,413,470	$ 4,388,928	$ 4,390,707	$ 4,411,439	$ 4,412,302

	Calculation Assumption
Installed Cost/kW	$ 3,184
MW Capacity	400
Fixed O&M/kW-yr	$95.00
Effective Tax Rate	26.53%
O&M Escalation Rate	2.00%
Contract Rate	$98.43
WACC	6.99%
Remuneration Rate	2.75%
Mid-Year Convention?	y

Period	0	12.5	13.5	14.5	15.5	16.5	17.5	18.5	19.5
Overnight Installed Cost	$ 1,273,401,114								
MWH Generation									
kWh Generation		1,636,055,352	1,626,390,647	1,615,392,024	1,622,170,079	1,634,221,824	1,633,440,455	1,630,579,704	1,626,390,647
Revenue		$ 161,028,748	$ 160,077,499	$ 158,994,960	$ 159,662,090	$ 160,848,283	$ 160,771,377	$ 160,489,807	$ 160,077,499
O&M		$ 48,193,188	$ 49,157,052	$ 50,140,193	$ 51,142,997	$ 52,165,857	$ 53,209,174	$ 54,273,357	$ 55,358,825
Cash Flow (EBITDA)	$ (1,273,401,114)	$112,835,560	$110,920,448	$108,854,767	$108,519,093	$108,682,426	$107,562,203	$106,216,450	$104,718,675
PV Factor	1.0000	0.4297	0.4017	0.3754	0.3509	0.3280	0.3065	0.2865	0.2678
NPV - EBITDA	$ 0								
Remuneration		$ 4,428,291	$ 4,402,131	$ 4,372,361	$ 4,390,707	$ 4,423,328	$ 4,421,213	$ 4,413,470	$ 4,402,131

	Calculation / Assumption
Installed Cost/kW	$ 3,184
Contract Rate	$ 111.81
MW Capacity	400
Fixed O&M/kW-yr	$ 95.00
Effective Tax Rate	26.53%
O&M Escalation Rate	2.00%
Debt Ratio	40.00%
WACC	9.55%
Mid-Year Convention?	Y
Equity Ratio	60.00%
Cost of Equity	12.00%
Cost of Debt	8.00%

Cumulative Nominal Results

	Contract Cost	Remuneration at 2.75%	Incremental Remuneration
Contract	$ 3,206	$ 88	$ 348
Merchant	$ 3,641	$ -	$ -
Breakeven Remuneration Rate ==========>			13.59%
Scaler	$ 1,000,000		

Period	0	0.5	1.5	2.5	3.5	4.5	5.5	6.5	7.5	8.5	9.5	10.5	11.5
Overnight Installed Cost	$ 1,273,401,114												
MWH Generation		1,640,686											
kWh Generation		1,640,685,695	1,630,579,704	1,626,390,647	1,615,392,024	1,632,451,871	1,630,148,136	1,633,440,455	1,630,579,704	1,621,512,671	1,622,170,079	1,629,829,631	1,630,148,136
Revenue		$ 183,437,411	$ 182,307,507	$ 181,839,148	$ 180,609,443	$ 182,516,825	$ 182,259,255	$ 182,627,354	$ 182,307,507	$ 181,293,764	$ 181,367,266	$ 182,223,645	$ 182,259,255
O&M		$ 38,000,000	$ 38,760,000	$ 39,535,200	$ 40,325,904	$ 41,132,422	$ 41,955,071	$ 42,794,172	$ 43,650,055	$ 44,523,056	$ 45,413,518	$ 46,321,788	$ 47,248,224
Cash Flow (EBITDA)	$ (1,273,401,114)	$145,437,411	$143,547,507	$142,303,948	$140,283,539	$141,384,403	$140,304,185	$139,833,182	$138,657,452	$136,770,708	$135,953,749	$135,901,857	$135,011,032
PV Factor	1.0000	0.9554	0.8721	0.7961	0.7267	0.6633	0.6055	0.5527	0.5045	0.4605	0.4204	0.3837	0.3503
NPV - EBITDA	$ 0.00												
Remuneration Cost		$ (4,440,823)	$ (4,413,470)	$ (4,402,131)	$ (4,372,361)	$ (4,418,537)	$ (4,412,302)	$ (4,421,213)	$ (4,413,470)	$ (4,388,928)	$ (4,390,707)	$ (4,411,439)	$ (4,412,302)
Rate Benefit		$ 21,952,921	$ 21,817,700	$ 21,761,649	$ 21,614,483	$ 21,842,750	$ 21,811,925	$ 21,855,977	$ 21,817,700	$ 21,696,380	$ 21,705,176	$ 21,807,663	$ 21,811,925
Net Benefit		$ 17,512,098	$ 17,404,230	$ 17,359,517	$ 17,242,122	$ 17,424,213	$ 17,399,624	$ 17,434,765	$ 17,404,230	$ 17,307,452	$ 17,314,469	$ 17,396,224	$ 17,399,624

	Calculation Assumption
Installed Cost/kW	$ 3,184
Contract Rate	$ 111.81
MW Capacity	400
Fixed O&M/kW-yr	$ 95.00
Effective Tax Rate	26.53%
O&M Escalation Rate	2.00%
Debt Ratio	40.00%
WACC	9.55%
Mid-Year Convention?	Y
Equity Ratio	60.00%
Cost of Equity	12.00%
Cost of Debt	8.00%

Period	0	12.5	13.5	14.5	15.5	16.5	17.5	18.5	19.5
Overnight Installed Cost	$ 1,273,401,114								
MWH Generation									
kWh Generation		1,636,055,352	1,626,390,647	1,615,392,024	1,622,170,079	1,634,221,824	1,633,440,455	1,630,579,704	1,626,390,647
Revenue		$ 182,919,714	$ 181,839,148	$ 180,609,443	$ 181,367,266	$ 182,714,715	$ 182,627,354	$ 182,307,507	$ 181,839,148
O&M		$ 48,193,188	$ 49,157,052	$ 50,140,193	$ 51,142,997	$ 52,165,857	$ 53,209,174	$ 54,273,357	$ 55,358,825
Cash Flow (EBITDA)	$ (1,273,401,114)	$134,726,525	$132,682,096	$130,469,250	$130,224,269	$130,548,859	$129,418,180	$128,034,150	$126,480,324
PV Factor	1.0000	0.3197	0.2919	0.2664	0.2432	0.2220	0.2026	0.1850	0.1688
NPV - EBITDA	$ 0.00								
Remuneration Cost		$ (4,428,291)	$ (4,402,131)	$ (4,372,361)	$ (4,390,707)	$ (4,423,328)	$ (4,421,213)	$ (4,413,470)	$ (4,402,131)
Rate Benefit		$ 21,890,966	$ 21,761,649	$ 21,614,483	$ 21,705,176	$ 21,866,432	$ 21,855,977	$ 21,817,700	$ 21,761,649
Net Benefit		$ 17,462,675	$ 17,359,517	$ 17,242,122	$ 17,314,469	$ 17,443,105	$ 17,434,765	$ 17,404,230	$ 17,359,517

Breakeven Remuneration Rate	13.59%

Period	0	0.5	1.5	2.5	3.5	4.5	5.5	6.5	7.5	8.5	9.5	10.5	11.5
Overnight Installed Cost													
MWH Generation		1,640,686											
KW Generation		1,640,685,695	1,630,579,704	1,626,390,647	1,615,392,024	1,632,451,871	1,630,148,136	1,633,440,455	1,630,579,704	1,621,512,671	1,622,170,079	1,629,829,631	1,630,148,136
Revenue (Base Case)		$ 161,484,490	$ 160,489,807	$ 160,077,499	$ 158,994,960	$ 160,674,075	$ 160,447,330	$ 160,771,377	$ 160,489,807	$ 159,597,385	$ 159,662,090	$ 160,415,981	$ 160,447,330
Breakeven Remuneration		$ 21,952,921	$ 21,817,700	$ 21,761,649	$ 21,614,483	$ 21,842,750	$ 21,811,925	$ 21,855,977	$ 21,817,700	$ 21,696,380	$ 21,705,176	$ 21,807,663	$ 21,811,925
Total Project Cost		$ 183,437,411	$ 182,307,507	$ 181,839,148	$ 180,609,443	$ 182,516,825	$ 182,259,255	$ 182,627,354	$ 182,307,507	$ 181,293,764	$ 181,367,266	$ 182,223,645	$ 182,259,255
Merchant Project Cost		$ 183,437,411	$ 182,307,507	$ 181,839,148	$ 180,609,443	$ 182,516,825	$ 182,259,255	$ 182,627,354	$ 182,307,507	$ 181,293,764	$ 181,367,266	$ 182,223,645	$ 182,259,255
Net Benefit		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -

Breakeven Remuneration Rate	13.59%

Period	0	12.5	13.5	14.5	15.5	16.5	17.5	18.5	19.5
Overnight Installed Cost									
MWH Generation									
KW Generation		1,636,055,352	1,626,390,647	1,615,392,024	1,622,170,079	1,634,221,824	1,633,440,455	1,630,579,704	1,626,390,647
Revenue (Base Case)		$ 161,028,748	$ 160,077,499	$ 158,994,960	$ 159,662,090	$ 160,848,283	$ 160,771,377	$ 160,489,807	$ 160,077,499
Breakeven Remuneration		$ 21,890,966	$ 21,761,649	$ 21,614,483	$ 21,705,176	$ 21,866,432	$ 21,855,977	$ 21,817,700	$ 21,761,649
Total Project Cost		$ 182,919,714	$ 181,839,148	$ 180,609,443	$ 181,367,266	$ 182,714,715	$ 182,627,354	$ 182,307,507	$ 181,839,148
Merchant Project Cost		$ 182,919,714	$ 181,839,148	$ 180,609,443	$ 181,367,266	$ 182,714,715	$ 182,627,354	$ 182,307,507	$ 181,839,148
Net Benefit		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -

Company	Ticker	Value Line Beta Coefficient
Alliant Energy Corporation	LNT	0.60
American Electric Power Company, Inc.	AEP	0.55
Consolidated Edison, Inc.	ED	0.40
Duke Energy Corporation	DUK	0.50
Eversource Energy	ES	0.60
NextEra Energy, Inc.	NEE	0.55
Pinnacle West Capital Corporation	PNW	0.60
Southern Company	SO	0.50
WEC Energy Group, Inc.	WEC	0.50
Xcel Energy Inc.	XEL	0.55
Average		0.54

Source: Value Line