Direct Testimony and Schedules
Sarah W. Soong

Before the Minnesota Public Utilities Commission
State of Minnesota

In the Matter of the Application of Northern States Power Company
for Authority to Increase Rates for Electric Service in Minnesota

Docket No. E002/GR-19-564
Exhibit___(SWS-1)

Capital Structure, Overall Rate of Return And Investor Relations

November 1, 2019

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I. INTRODUCTION AND QUALIFICATIONS

Q. PLEASE STATE YOUR NAME AND OCCUPATION.

A. My name is Sarah W. Soong. I am Vice President and Treasurer of Xcel Energy Services, Inc.

Q. ON WHOSE BEHALF ARE YOU TESTIFYING IN THIS PROCEEDING?

A. I am testifying on behalf of Northern States Power Company, d/b/a Xcel Energy, (NSPM or Company).

Q. PLEASE BRIEFLY OUTLINE YOUR RESPONSIBILITIES AS VICE PRESIDENT AND TREASURER.

A. As Vice President and Treasurer, I am responsible for recommending and implementing the financing required to achieve target capital structure objectives at each of the regulated utility operating companies and at Xcel Energy. I am also responsible for corporate cash forecasting and management, pension plan management, hazard risk insurance, and treasury services and financial policies. A description of my qualifications, duties, and responsibilities is included in this testimony as Exhibit __(SWS-1), Schedule 1.

Q. PLEASE STATE THE PURPOSE OF YOUR TESTIMONY.

A. My testimony supports the capital structure and overall cost of capital proposed by the Company for the term of the proposed Multi-Year Rate Plan (MYRP), 2020 through 2022. In my testimony, I will:

- Demonstrate the reasonableness of the Company's proposed capital structure and costs of Long-Term debt (LTD), Short-Term debt (STD) and the overall Rate of Return (ROR) for 2020 through 2022 in the

context of Commission standards and the current environment;

- Discuss how constructive regulatory policy, including capital structure and an overall return on equity (ROE) that will allow the Company to achieve reasonable earnings levels and regulatory stability and predictability, is important for the Company to attract capital at competitive rates, and to provide customers with service at a fair and reasonable cost;
- Discuss how NSPM's current credit ratings and resulting access to debt and capital markets at low costs provide long-term benefits to customers and support the Company's capital investment plan;
- Explain the financial impacts of the Company's significant upcoming capital investments, discussed by the business unit witnesses in this rate case and how the Company's multi-year rate plan request can reduce the frequency of rate case filings, while still supporting these substantial investments; and
- Discuss the importance of the Company's Investor Relations efforts.

Q. HOW IS YOUR TESTIMONY ORGANIZED?

A. I present my testimony in the following sections:

- Section II provides a Summary and Overview of NSPM's proposed Capital Structure, Cost of Debt, and ROR for the time period covered by this rate case.
- Section III identifies the Commission's standards for review of capital structure and explains the purpose of, and how the Company determines, the capital structure.
- Section IV describes the Company's historical and planned financing and investment activities, explains the importance of the regulatory

environment to the credit rating agencies' and investors' perceptions of the regulatory risk and to the Company's ability to carry out its capital expenditure plans. This section also includes a discussion of the credit rating agencies' criteria and NSPM's current credit ratings and financial metrics.

- Section V provides a detailed description of the components of NSPM's capital structure and costs of LTD and STD for 2020 through 2022.
- Section VI discusses the need for and importance of the Company's Investor Relations expenses.
- Section VII includes a Summary and Recommendations.

II. SUMMARY AND OVERVIEW

Q. WHAT DO YOU DISCUSS IN THIS SECTION OF YOUR DIRECT TESTIMONY?

A. In this section, I provide an overview of the Company's recommended capital structure for 2020 through 2022. I summarize the importance of NSPM's financial strength and the resulting long-term benefits that strength provides to ratepayers. Finally, I discuss the importance of Commission decisions on these issues to investors' perceptions of NSPM's regulatory risk and to its cost of capital and cost of service.

Q. PLEASE SUMMARIZE THE COMPANY'S PROPOSED CAPITAL STRUCTURE, COSTS OF DEBT AND EQUITY, AND ROR FOR 2020, 2021 AND 2022.[1]

[1] Tables 1, 2 and 3, below, include the impact of a $600 million, 30-year "Green" First Mortgage Bond issued on September 10, 2019, discussed later in my testimony. As Company witness Mr. Halama notes, this issuance occurred after the Company had finalized the cost of service numbers in this case. I understand that Mr. Halama will be updating those numbers to reflect the numbers presented here, as this case moves forward.

A. The Company's proposed capital structure for the 2020 test year, including costs of STD, LTD, and Common Equity, is included on Exhibit___(SWS-1), Schedule 2, Page 1 of 3, and can be summarized as follows:

Table 1
2020 Test Year
Recommended Capital Structure Ratios and Costs (NSPM)

	Percent of Total Capital	Cost	Weighted Cost
Short-Term Debt	0.87%	2.97%	0.03%
Long-Term Debt	46.63%	4.35%	2.03%
Common Equity	52.50%	10.20%	5.36%
Total Capital	100.00%		7.42%

The Company's proposed capital structure for the 2021 plan year is included on Exhibit___(SWS-1), Schedule 2, Page 2 of 3, and can be summarized as follows:

Table 2
2021
Recommended Capital Structure Ratios and Costs (NSPM)

	Percent of Total Capital	Cost	Weighted Cost
Short-Term Debt	1.22%	2.99%	0.04%
Long-Term Debt	46.28%	4.37%	2.02%
Common Equity	52.50%	10.20%	5.36%
Total Capital	100.00%		7.42%

The Company's proposed capital structure for the 2022 plan year is included on Exhibit___(SWS-1), Schedule 2, Page 3 of 3, and can be summarized as follows:

Table 3
2022
Recommended Capital Structure Ratios and Costs (NSPM)

	Percent of Total Capital	Cost	Weighted Cost
Short-Term Debt	1.08%	3.04%	0.03%
Long-Term Debt	46.42%	4.41%	2.05%
Common Equity	52.50%	10.20%	5.36%
Total Capital	100.00%		7.44%

Q. HOW DOES THE USE OF A 52.50 PERCENT EQUITY RATIO IN EACH OF THE YEARS OF THE COMPANY'S MYRP COMPARE TO RECENTLY AUTHORIZED CAPITAL STRUCTURES FOR NSPM?

A. The Company's recommended capital structure of 52.50 percent equity for the 2020 test year and for the 2021 and 2022 plan years is identical to the 52.50 percent equity ratio authorized by the Commission in the Company's 2013 rate case and used in all four years of the Settlement in the 2015 rate case. I would also note that the Company's authorized equity ratio has ranged between 52.47 percent and 52.56 percent over the last several electric general rate case proceedings dating back to 2009. In each of those cases, the Commission has agreed with the reasonableness of the Company's proposed capital structure. Throughout this time, the Company has been consistent and transparent in managing its capital structure to ensure the Company's financial health. The Company is following those same principles in this proceeding.

Q. DO YOU BELIEVE THE RECOMMENDED RORS RESULTING FROM YOUR PROPOSED CAPITAL STRUCTURES ARE REASONABLE AND APPROPRIATE?

A. Yes. The Company's recommended RORs for 2020 through 2022 are

reasonable. Regarding the proposed costs of the capital structure components, the cost of LTD for the 2020 through 2022 time frame, ranging from 4.35 to 4.41 percent, reflects a decrease from the cost of LTD specified in the representative costs used in the Commission-approved Settlement of the Company's 2015 rate case (4.75 to 4.81 percent). The cost of STD for 2020 through 2022 (2.97 to 3.04 percent) falls within the range of representative costs used in the Settlement (1.84 to 4.81 percent). And finally, the recommended ROE of 10.20 percent as supported in the Direct Testimony of Company Witness Mr. John J. Reed provides a reasonable return and supports NSPM's financial integrity.

Q. WHAT DO YOU MEAN BY "FINANCIAL INTEGRITY" IN THIS CONTEXT?

A. As used in my testimony, "financial integrity" refers to a company's financial strength and its ability to attract capital to support operations and infrastructure investment over the course of an economic cycle. The ability to attract capital at a reasonable cost in all market conditions is integral to a utility's obligation to provide safe and reliable utility service. Financial integrity ensures that the utility will have the flexibility to withstand unanticipated macroeconomic events outside of its control.

Q. WHAT FACTORS CONTRIBUTE TO A UTILITY'S FINANCIAL INTEGRITY?

A. The financial integrity of a regulated utility is largely a function of its capital structure, ROE, and cash flow, but can be impacted by other factors as well. To maintain a strong financial profile, a utility needs to have the opportunity to recover all prudently-incurred utility costs in a timely manner, which includes not only the costs for operations and maintenance, but also the costs of servicing debt and providing a fair return for equity investors. This is why

constructive regulatory decisions on capital structure, ROE and the recovery of prudent utility costs are vitally important to NSPM.

Q. WHY SHOULD THE COMMISSION BE CONCERNED ABOUT THE COMPANY'S FINANCIAL INTEGRITY?

A. As I mentioned above, financial integrity directly affects NSPM's ability to access capital and the cost of that capital, which, in turn, impacts the cost of debt and the cost of equity that must be paid by customers as well as NSPM's ability to fund new projects. The ability to attract capital at a reasonable cost in all market conditions is also critical to satisfying NSPM's obligation to provide safe and reliable utility service and it helps to ensure that a utility has the flexibility to withstand unanticipated macroeconomic events outside of its control, such as the deep economic downturn that occurred in 2008-2009. In contrast, a company that lacks financial integrity will be limited in its ability to finance assets or undertake new projects, particularly during times of volatility in the capital markets. Weak financial integrity at a utility also increases the issued cost of debt and the implied cost of equity, which increases the overall ROR and the ultimate financing costs which are paid by customers.

Q. DO CUSTOMERS BENEFIT FROM NSPM'S CONTINUED FINANCIAL INTEGRITY?

A. Yes. The Company's financial integrity delivers benefits to our customers in several ways, including enabling the Company to maintain its credit ratings, which results in lower borrowing costs that are directly passed on to customers. The Company's financial integrity also enables it to support the significant investments in utility infrastructure planned during this MYRP, as discussed by other witnesses.

Q. WHY ARE THE COMMISSION'S DECISIONS REGARDING NSPM'S COST OF DEBT, CAPITAL STRUCTURE, AND ROE IMPORTANT TO INVESTORS' PERCEPTIONS?

A. As I discuss in more detail later in my Direct Testimony, both debt and equity investors know that: (i) Minnesota is NSPM's primary regulatory jurisdiction; (ii) NSPM's electric business is predominant; and (iii) as discussed by other Company witnesses, NSPM continues to make substantial investments in its systems to meet our customers' and other stakeholders' expectations and to continue to transition our generation resources away from traditional fossil fuel plants. Regulatory climate is one of the principle investment risk factors for a regulated utility. Given the importance of the Company's Minnesota electric operations to its overall financial health, and the significant investments being made in Minnesota, debt and equity investors pay particular attention to this Commission's rate case decisions.

III. STANDARDS AND FUNDAMENTAL CONSIDERATIONS FOR THE NSPM CAPITAL STRUCTURE

Q. PLEASE SUMMARIZE THE MOST SIGNIFICANT POINTS YOU DISCUSS IN THIS SECTION OF YOUR DIRECT TESTIMONY.

A. I discuss the following points:

- The basic regulatory standard for reviewing a utility's capital structure is one of reasonableness.
- NSPM's capital structure meets these Commission criteria, and provides long-term customer benefits, including financing for capital expenditures that serve customer needs, in part through reduced LTD costs.
- The Company's management of its capital structure is based on long-

term considerations, including credit ratings, future financing plans to fund NSPM's capital expenditures, the relative capital structures of other utilities, and overall financial market conditions.

Q. WHAT GENERAL STANDARD HAS THE COMMISSION USED TO EVALUATE CAPITAL STRUCTURES FOR SETTING UTILITY RATES?

A. The Commission has used a reasonableness standard in making capital structure decisions. To determine whether a company's actual capital structure is reasonable, the Commission has considered:

- How the debt and equity ratios for the utility compare to those of similarly situated utility companies;
- Whether the utility's capital structure is an actual capital structure based on market forces, or is an internal accounting capital structure;
- Whether the capital structure supports long-term credit quality given the utility's capital investment forecast, future financing requirements, and the need to access public capital markets; and
- Whether the capital structure provides long-term cost benefits to customers.

Q. DOES NSPM'S PROPOSED CAPITAL STRUCTURE MEET THE COMMISSION'S STANDARDS AND CRITERIA FOR REASONABLENESS?

A. Yes. NSPM's proposed capital structure meets the Commission's standards and criteria. NSPM's capital structure is within a reasonable range of equity ratios for similarly situated utilities, as Mr. Reed's analysis shows. Further, NSPM's proposed capital structure is an actual, market-based capital structure and is comparable to its historical capital structure, which has provided long-term benefits to customers in the form of low costs of capital over time and

sufficient access to capital markets. Finally, the Commission has consistently found the Company's recommended capital structures to be reasonable and the requested equity ratio in this case is identical to the equity ratio approved in Docket No. E002/GR-13-868 and utilized in the Settlement of the 2015 rate case, and is in line with the approved equity ratio in the three cases prior to those proceedings (Docket Nos. E002/GR-12-961, E002/GR-10-971, and E002/GR-08-1065).

Q. HOW DOES THE COMPANY'S 52.50 PERCENT EQUITY RATIO COMPARE WITH THE EQUITY RATIOS OF COMPANIES IN MR. REED'S PROXY GROUP?

A. The Company's 52.50 equity ratio is well within the ranges of the operating utilities in Mr. Reed's proxy group, as Mr. Reed explains. Based on the 8 quarters ending June 30, 2019, the weighted average equity ratio of his proxy group is 52.34 percent, with a range of ratios as high as 60.45 percent. See Exhibit___(JJR-1), Schedule 10. As Mr. Reed concludes, our proposal is consistent with these proxy group companies' equity ratios.

Q. WHEN YOU DESCRIBE NSPM'S CAPITAL STRUCTURE AS AN ACTUAL AND MARKET-BASED CAPITAL STRUCTURE, WHAT DOES THAT MEAN?

A. NSPM is a separate legal Minnesota corporation that is a subsidiary of Xcel Energy, Inc. (XEI). NSPM manages its own separate capital structure and issues its own debt securities. The Company currently has approximately $5.1 billion of outstanding publicly traded LTD in the form of First Mortgage Bonds (FMB) with senior secured credit ratings of A, Aa3 and A+ from Standard & Poor's (S&P), Moody's, and Fitch, respectively. NSPM reports its financial results in separate Securities and Exchange Commission (SEC) filings, including annual Form 10-K filings and quarterly Form 10-Q filings.

Each of the credit rating agencies assigns credit ratings to NSPM as a corporate entity and to each of its individual bonds as they are issued.

Q. WHAT FACTORS ARE CONSIDERED IN PLANNING AND MANAGING THE CAPITAL STRUCTURE FOR NSPM?

A. The Company considers a number of factors, including:

- Credit rating evaluations that reflect rating agency assessments of NSPM's business and financial risk;
- NSPM's position in relation to its long-term construction cycle and the scale of its capital investments relative to earnings;
- Capital structures of other utilities;
- The long-term stability of the capital structure in relation to the long life of the Company's asset investments;
- The current macroeconomic outlook and associated risk factors affecting the utility sector and the capital markets generally; and
- The need to manage the maturities of LTD to avoid excessive refinancing risk exposure in any given year.

Q. DO YOU HAVE A TARGET FOR MANAGING NSPM'S EQUITY RATIO?

A. Yes. NSPM continues to target a regulated capital structure having an equity ratio of 52.50 percent, which the Company considers appropriate to support NSPM's current credit ratings and projected cost of LTD and STD.

Q. WHY IS THAT TARGET EQUITY RATIO APPROPRIATE?

A. NSPM's target equity ratio supports its current S&P A- and Moody's A2 corporate credit ratings and is consistent with the Company's plan to maintain its credit ratings, which provides access to low cost financing while the

Company continues to make significant capital investments in our utility. The target regulated equity ratio of 52.50 percent is also consistent with other utility capital structures, as shown by the equity ratios of the utilities in Mr. Reed's proxy group.

Q. HAS NSPM'S EQUITY RATIO CHANGED OVER TIME?

A. NSPM's equity ratio has not substantially changed in the last decade, rather it has stayed at approximately 52.50 percent. This equity ratio has contributed to the improved credit ratings of the Company and has helped the Company maintain its current credit ratings through an extensive, multi-year infrastructure investment plan and increased level of purchased power agreement obligations. This has benefitted our customers and will continue to provide benefits for years ahead.

Q. HOW DO CUSTOMERS BENEFIT FROM NSPM'S CAPITAL STRUCTURE AND EQUITY RATIO?

A. NSPM's capital structure and equity ratio have a significant effect on its financial integrity. NSPM's financial integrity is essential to: (i) its ability to finance its investments and operations at a reasonable cost; and (ii) its credit ratings. NSPM's capital structure has allowed it to simultaneously finance its investments and maintain access to capital at competitive rates and maintain credit ratings. NSPM's S&P and Moody's corporate credit ratings have remained stable since 2010. In addition, NSPM has maintained its financial strength to ensure consistent access to capital markets under a range of financial market conditions and also enable it to raise the future capital required to efficiently fund its future investments.

IV. NSPM'S CAPITAL EXPENDITURE PLAN, THE REGULATORY ENVIRONMENT, AND CREDIT RATINGS

Q. PLEASE SUMMARIZE THE KEY POINTS YOU DISCUSS IN THIS SECTION OF YOUR DIRECT TESTIMONY.

A. The key points are as follows:

- To date, NSPM's significant capital expenditure program has resulted in significant issuances of debt and equity infusions.
- NSPM will continue to make significant capital investments in Minnesota, which requires future access to capital at favorable rates.
- Regulatory decisions are very important to both debt and equity investors, rating agencies, and financial analysts.
- NSPM's credit ratings remain strong, but they are dependent on NSPM's business and financial risk ratings, which can be affected by unfavorable regulatory decisions.

A. NSPM Capital Expenditures and Financial Implications

Q. PLEASE SUMMARIZE THE HISTORICAL CONTEXT FOR NSPM'S CAPITAL EXPENDITURES PROGRAM.

A. Over the past several years, the Company has engaged in a large scale capital expenditure program for necessary investments in its system. As shown on Exhibit___(SWS-1), Schedule 3, during the period 2009 through 2018, NSPM made capital expenditures of approximately $11.7 billion in its combined gas and electric utility business, with approximately $2.2 billion in forecasted capital expenditures in 2019[2]. As examples, the Company's investments in

[2] I would note that the Capital Structure Schedules, as with the Company's budget documentation discussed by Company witness Mr. Gregory Robinson, were developed assuming NSPM regulatory

wind generation and new transmission projects required significant capital investment during this period. In addition, the Company has been making ongoing investments to modernize and support its aging distribution infrastructure and will be making further significant investments such as in its advanced grid intelligence and security ("AGIS") initiative, discussed by other Company witnesses.

These and other ongoing investments make it critical that the Company maintain a strong financial position, so that it can access the capital markets at favorable rates, as necessary. Investors are aware of the ROE trend that has accompanied the Company's significant capital expenditures, and this pattern provides a context against which investors will evaluate the results of this proceeding.

Q. HOW DO FORECAST CAPITAL EXPENDITURE LEVELS COMPARE TO PRIOR YEARS?

A. Exhibit___(SWS-1), Schedule 3 shows that NSPM's forecasted capital expenditures for 2020 through 2022 are approximately $5.1 billion ($4.6 billion of which is for the electric operations) or an average of approximately $1.7 billion ($1.53 billion for electric) per year. This level of forecasted capital expenditures is slightly higher than the historical average during 2014 through 2018 due to the projects noted earlier.

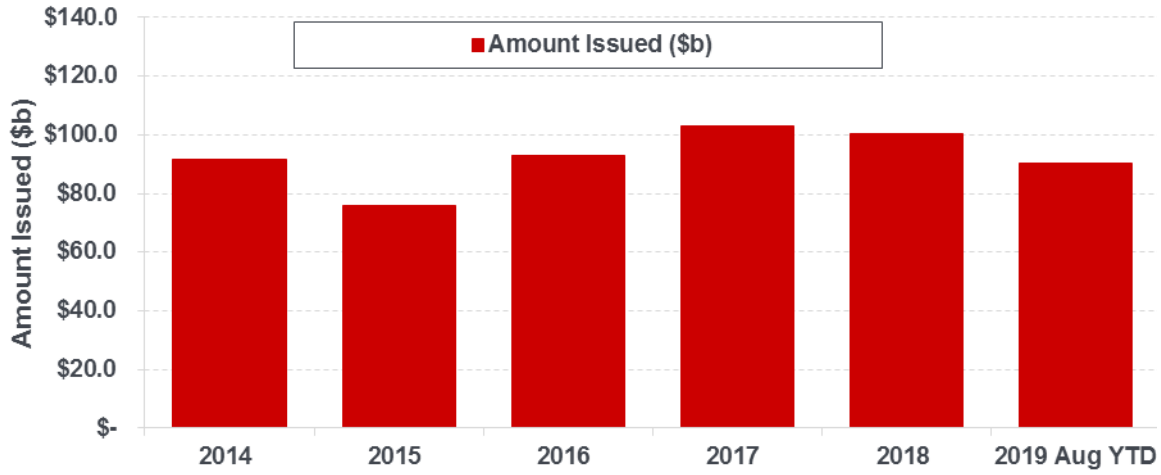
Q. HOW DOES THE COMPANY'S CAPITAL EXPENDITURE FORECAST AFFECT THE COMPANY'S FINANCING PLANS AND INVESTOR EXPECTATIONS?

ownership of the Mankato Energy Center (MEC). However, Company witness Mr. Halama explains that, based on the Commission's decision in Docket IP6949, E002/PA-18-702, all MEC related capital and operations and maintenance expenses have been removed from the cost of service.

A. To fund its forecasted capital expenditures, the Company will need to access the capital markets periodically over the next several years. It is therefore important for the Company to meet investor expectations and maintain its credit ratings during this time to continue to be able to obtain low cost financing. To do so, it is important that the Company receives timely recovery of the costs of its investments and a reasonable overall cost of capital.

Credit ratings help debt investors differentiate between utilities – all of whom are competing (with companies within and outside the utility sector) for the same investment dollars. During the past five and a half years, debt investors have provided approximately $550 billion of capital investment to the U.S. utility sector. Capital provided from these investors allows utilities to fund a portion of their capital investment programs. See Chart 1.

Chart 1
Debt Issued by U.S. Utility Sector



Higher credit ratings are associated with reduced risk, which attract investors at a lower cost of debt and position a utility favorably relative to lower-rated

comparable companies. Equity investors also look at credit ratings as a source of information they rely on to differentiate between utilities. Ultimately, customers of the higher-rated utility benefit from the lower capital costs.

Q. HAS NSPM RECENTLY ISSUED LTD, AND WILL NSPM NEED TO ISSUE MORE LTD IN THE 2020 TO 2022 TIME PERIOD?

A. Yes. NSPM issued a $600 million, 30-year "Green" First Mortgage Bond on September 10, 2019. This issuance has already been reflected in the proposed capital structure and cost of LTD I discussed earlier. NSPM is projected to issue additional debt in each of the years 2020-2022.

Q. DO CURRENT INTEREST RATES REMAIN ADVANTAGEOUS?

A. Yes. Current interest rates remain low by long-term historical measures, and market conditions may continue to provide an opportunity to obtain favorable costs of LTD that will remain fixed for a long period of time. Positive credit rating agency and bond market perceptions will remain very important to our long-term cost of service and will allow the Company to take advantage of the low rate environment.

B. Importance of Healthy Regulatory Environment

Q. PLEASE SUMMARIZE THE SIGNIFICANCE OF REGULATORY DECISIONS TO UTILITY INVESTORS, INCLUDING INVESTORS IN NSPM.

A. Regulatory climate is one of the principle investment risk factors considered for a regulated utility. Credit rating agencies and utility investors keenly follow regulatory decisions, particularly when utilities commit to substantial capital expenditure programs, as these decisions directly affect the risk profile of the company. In fact, investors and rating agencies categorize the state regulatory

environments and incorporate these environments in their assessment of a utility's risk profile. A regulatory environment that lacks predictability or that signals disagreement with utility strategic plans and decision making introduces a higher level of risk from the perspective of investors and the credit rating agencies. If a regulated utility receives an adverse regulatory decision, particularly one that is a significant departure from past rulings or with rulings from other jurisdictions, the credit rating agencies and the debt and equity investors react by reassessing the Company's financial outlook and to re-price its debt and equity securities. This can increase the cost of capital – both debt and equity – to the detriment of our customers over the long term. Thus, the Commission's decisions in this proceeding, including the ROE and overall cost of capital that it authorizes, will affect the Company's ability to finance capital expenditures as well as affect investor and rating agency perceptions of NSPM.

As S&P states in their November 19, 2013 report titled Key Credit Factors For The Regulated Utility Industry Exhibit___(SWS-1), Schedule 4:

> We base our assessment of the regulatory framework's relative credit supportiveness on our view of how regulatory stability, efficiency of tariff setting procedures, financial stability, and regulatory independence protect a utility's credit quality and its ability to recover its costs and earn a timely return. Our view of these four pillars is the foundation of a utility's regulatory support. We then assess the utility's business strategy, in particular its regulatory strategy and its ability to manage the tariff-setting process, to arrive at a final regulatory advantage assessment.

Moody's further states in their June 23, 2017 report titled Regulated Electric and Gas Utilities Exhibit___(SWS-1), Schedule 5:

> For rate-regulated utilities, which typically operate as a monopoly, the regulatory environment and how the utility adapts to that environment are the most important credit considerations. The regulatory

environment is comprised of two rating factors - the Regulatory Framework and its corollary factor, the Ability to Recover Costs and Earn Returns. Broadly speaking, the Regulatory Framework is the foundation for how all the decisions that affect utilities are made (including the setting of rates), as well as the predictability and consistency of decision-making provided by that foundation. The Ability to Recover Costs and Earn Returns relates more directly to the actual decisions, including their timeliness and the rate-setting outcomes.

Q. WHAT IS THE SIGNIFICANCE OF RATEMAKING-RELATED FINANCIAL METRICS SUCH AS ROE, EQUITY RATIO/CAPITAL STRUCTURE, AND TIMELINESS AND RELIABILITY OF COST RECOVERY?

A. I will address each component in turn:

- First, the authorized ROE and equity ratio affect a utility's earnings and directly affect its ability to fund capital investment with internally generated funds. Both debt and equity investors expect a utility to be able to internally generate a substantial portion of its investment funding.
- Second, the capital structure and authorized costs directly affect all of the utility's key credit metrics because either total debt or interest expense is a component of each of the primary credit metrics that rating agencies analyze. The credit rating agencies also evaluate the relative amounts of debt and equity in the capital structure to determine whether the company is appropriately capitalized given its business risk profile and to determine whether the company has the ability to issue additional debt to fund its utility capital expenditures. The rating agencies include off-balance sheet obligation (OBS) adjustments in their debt valuation, placing further pressure on the financial metrics. The credit rating agencies are very concerned with a company's liquidity to meet its short-term capital needs under conditions of financial stress, and they factor in

the debt portfolio maturity schedule and other future obligations as part of this assessment.

- Third, debt and equity investors expect the utility to be able to recover its costs in a timely manner and to have an opportunity to earn its authorized ROE. Investors' and credit rating agencies' perceptions regarding the regulatory environment in which we operate are an important consideration in assessing a utility's business risk. Investors and rating agencies track the decisions of regulatory agencies relating to capital structure, cost of debt, ROE, and forward-looking cost recovery mechanisms, and they categorize the state regulatory environments in their assessment of the relative risks of different utility investment opportunities.

Q. CAN YOU FURTHER EXPLAIN WHY THE COMMISSION'S DECISIONS FOR NSPM ARE PARTICULARLY IMPORTANT TO THE INVESTOR COMMUNITY?

A. Investors – both debt and equity – and credit rating agencies understand the importance of the regulatory environment on the business risks of utilities. Credit rating agencies and investors also know that NSPM has investments weighted heavily toward its electric business and that NSPM's customers are concentrated in Minnesota, making the Minnesota retail electric jurisdiction NSPM's primary jurisdiction. Finally, rating agencies and bond and equity investors know that the Commission is fully informed about NSPM's investment plans through the various dockets before the Commission. As a result, these agencies and investors will likely consider the Commission's decisions regarding the financial components of our overall ROR and electric rates as a reflection of the level of support for the Company's investment plans, including the investments necessary to meet the Company's aggressive

carbon reduction goals. Therefore, the Commission's decisions not only have an important impact on the Company's ability to maintain its financial integrity and allow us to access low cost capital, they will impact the Company's ability to achieve its broader business and environmental goals.

C. Credit Ratings

Q. DO CREDIT RATINGS AFFECT NSPM'S COST OF CAPITAL?

A. Yes. Banks and fixed income investors rely on a company's credit ratings to determine the return that they require on their capital. As a result, credit and debt ratings impact the cost of LTD and STD required to fund the Company's large scale investments. Credit ratings also affect a company's cost of equity. A decrease in the credit quality of a company will increase the required equity return needed by equity investors to compensate for the additional risk.

LTD is priced based on the underlying Treasury rate plus a credit spread, which is based on NSPM's credit rating. In general, the lower the credit rating, the higher the credit spread. Issuing debt at a higher rate will increase the long-term cost of debt for NSPM and ultimately increase the cost of debt paid for by NSPM's customers. NSPM's current credit rating allows for the ability to access the capital market and attract capital at a reasonable cost in all market conditions, even through the unanticipated macroeconomic events outside of its control.

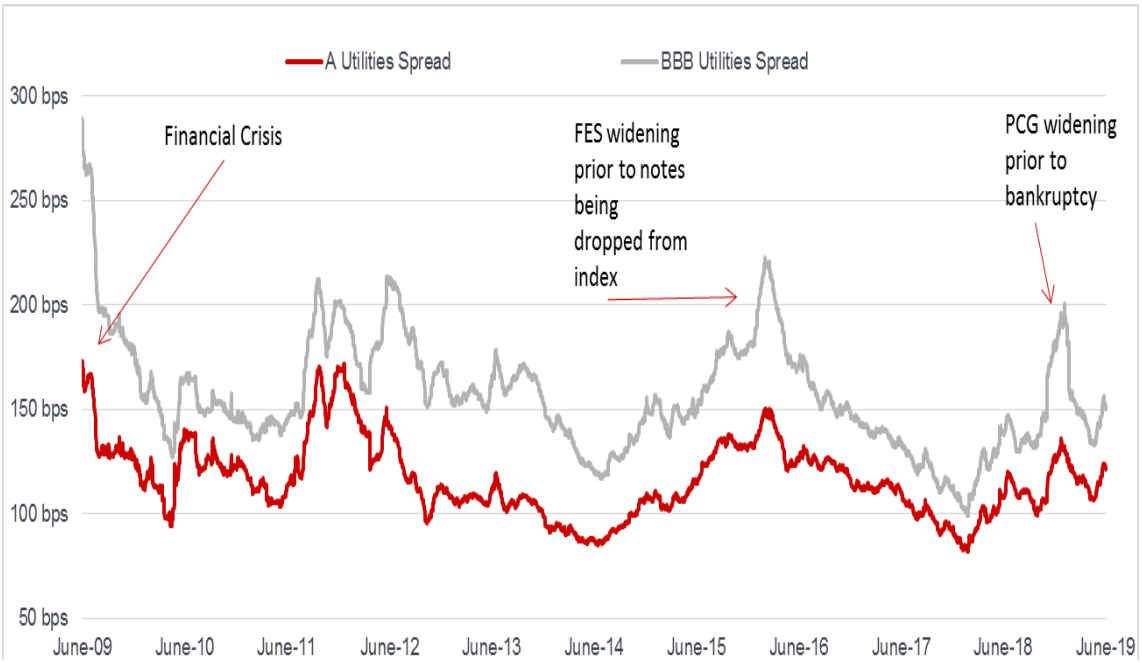
Q. DO CREDIT SPREADS DIFFER BASED ON CREDIT RATINGS?

A. Yes. Chart 2 shows that the credit spreads of BBB rated utility companies are historically wider than those of A rated utility companies, especially in times of market volatility. This chart demonstrates that although in current market

conditions the credit spread between A and BBB ratings is approximately 30 basis points, in periods of market volatility, such as June 2009, the credit spread increased dramatically, at an average spread of 100 basis points.

Chart 2

A vs. BBB Rated Utility Spreads



Q. CAN THESE IMPACTS ON COST OF DEBT AND ACCESS TO CAPITAL ALSO IMPACT CUSTOMERS?

A. Yes. The increased cost of capital is ultimately borne by customers, increasing the cost of service. For example, if the rate on the planned 2020 debt issuance rose twenty basis points, annual interest expense would increase roughly $1.7 million on the $850 million forecasted bond. If that twenty basis point increase extended to the rest of the debt issuances over time, the result would continue to increase the cost of LTD over the term of the Company's proposed multi-year rate plan, compared to the costs we have reflected in this filing. Additionally, if the Company has difficulty accessing capital, the quality

of service can be impacted if the Company cannot fund needed improvements.

Q. WHAT DO CREDIT RATING AGENCIES WEIGH IN EVALUATING REGULATED UTILITIES' FINANCIAL INTEGRITY?

A. While the rating agencies vary in their methodology (and the extent to which they explain their methodology to the public), Moody's has provided a fairly complete picture of its methodology. That methodology is useful to illustrate how rating agencies and investors evaluate financial integrity. Moody's identifies four key rating factors that are weighted as follows:

Table 4
Key Rating Factors

Factor	Weighting
Regulatory Framework	25%
Ability to Recover Costs and Earn Returns	25%
Diversification	10%
Financial Strength, Key Financial Metrics	40%
Total	100%

Source: *Regulated Electric and Gas Utilities*, Moody's, June 2017.

The "Regulatory Framework" factor is "the foundation for how all the decisions that affect utilities are made (including the setting of rates), as well as the predictability and consistency of decision-making provided by that foundation."

The second factor, the "Ability to Recover Costs and Earn Returns," is also

fundamentally dependent on Commission actions. Moody's evaluates the regulatory elements that directly affect the ability of the utility to generate cash flow and service its debt over time. Moody's views the ability to recover costs on a timely basis and to attract debt and equity capital as crucial credit considerations, and, therefore, Moody's seeks to estimate the lag between the time that a utility incurs a major construction expenditure and the time that the utility starts to earn a return of and return on that expenditure. According to Moody's, "[t]he inability to recover costs…has been one of the greatest drivers of financial stress in this sector." That is particularly true when utilities' capital expenditures exceed their cash from operations, resulting in negative cash flow, so any lack of timely recovery or an insufficiency of rates can strain access to capital markets.

The third factor is "Diversification," which considers many of the same business risk factors that S&P evaluates. Moody's evaluates the balance among businesses, geographic regions, regulatory regimes, and generating plants or fuel sources.

The fourth factor, "Financial Strength," comprises 40 percent of the Moody's rating. Moody's considers both historical and future data to calculate financial strength metrics and to analyze trends. NSPM's financial strength is necessary to attract capital at a reasonable cost to fund its utility investment and fulfill its service obligations to customers at a reasonable cost.

Q. HAVE OTHER CREDIT RATING AGENCIES COMMENTED ON THE IMPORTANCE OF THE REGULATORY FRAMEWORK IN EVALUATING A UTILITY'S FINANCIAL INTEGRITY?

A. Yes. Similar to Moody's, S&P has noted that the regulatory framework "is of critical importance when assessing regulated utilities' credit risk because it defines the environment in which a utility operates and has a significant bearing on a utility's financial performance." S&P observes further that "[w]e base our assessment of the regulatory framework's relative credit supportiveness on our view of how regulatory stability, efficiency of tariff setting procedures, financial stability, and regulatory independence protect a utility's credit quality and its ability to recover its costs and earn a timely return." The same document (Schedule 4) contains an extensive discussion regarding the importance of the regulatory environment in which the utility operates.

Q. WHY DO RATING AGENCIES PLACE SUCH IMPORTANCE ON THE REGULATORY ENVIRONMENT IN EVALUATING A UTILITY'S FINANCIAL INTEGRITY?

A. In order to provide safe, reliable and clean service, utilities require significant capital investment. When a utility is unable to recover costs on a timely basis, the utility's cash flow is adversely impacted. To cover the shortfall, the utility must issue an increased amount of debt. If debt levels increase too much with respect to cash flows from operations, the credit ratings will deteriorate and the utility's access to capital markets can become strained. The alternative would be to reduce levels of investment, which is not supportive of economic growth and development for the company.

Q. DO CAPITAL EXPENDITURE PLANS ALSO AFFECT HOW RATING AGENCIES EVALUATE CREDIT METRICS?

A. Yes. When a utility undertakes a substantial capital investment plan relative to the amount of internally generated funds that are available to support that

plan, the utility becomes subject to greater capital market risk because it needs to raise external capital regardless of the financial market conditions. Credit rating agencies expect companies that need significant amounts of external capital to maintain a strong credit profile, not just a profile that is marginal for the current credit rating, because these companies are constantly exposed to external financial market risks and they may need to raise capital under any financial market scenario.

Q. DOES A UTILITY'S INVESTMENT LEVEL AFFECT ITS DEPENDENCE ON REGULATORY DECISIONS IN RELATION TO ITS BUSINESS RISK RATING?

A. Yes. During significant capital expenditure periods, the public utility is very dependent on favorable regulatory decisions to support cost recovery. Moreover, such a utility is more vulnerable to cost recovery shortfalls as a result of inadequate interim rates or regulatory lag. A utility in this situation is also subject to the capital market risk of requiring capital when it may not be available or is too costly. For all of these reasons, a utility engaged in a substantial capital investment program depends on a favorable regulatory environment to maintain a favorable business risk rating.

Q. WHAT ARE THE COMPANY'S CURRENT CREDIT RATINGS?

A. The Company's current credit ratings are:

Table 5
NSPM Current Credit Ratings

	Fitch	**Moody's**	**Moody's S&P Equivalent**	**S&P**
Corporate Rating	A-	Aa3	A-	A-
Senior Secured	A+	Aa3	A-	A

There have been no changes in the credit ratings since the last MYRP filing.

Q. WHAT ARE THE PRIMARY FINANCIAL METRICS THAT CREDIT RATING AGENCIES ANALYZE?

A. The primary financial metrics evaluated by the major credit rating agencies include some version of the following: (i) the ratio of funds from operations or cash from operations to total debt ("FFO/Total Debt" or "CFO/Debt"); (ii) the ratio of funds from operations or cash from operations to interest ("FFO/Interest" or "CFO/Interest"); (iii) the ratio of debt to earnings before interest, taxes, depreciation, and amortization ("Debt/EBITDA"); and to a lesser extent (iv) the ratio of total debt to total capital ("Total Debt/Total Capital"). These financial metrics are a composite measure of the utility's ability to meet its financial obligations when they are due. The greater the business risk of a particular company, the stronger these financial metrics must be to provide sufficient evidence to the credit rating agencies and investors that the company can withstand the financial effect of both macroeconomic and company-specific risks.

Q. WHAT IS THE SIGNIFICANCE OF THE METRICS THE CREDIT RATING AGENCIES EVALUATE?

A. The metrics help determine whether a company will be able to service its existing debt obligations at the required level and will have the flexibility to take on incremental debt. Because strong cash flow coverage is critical to cover existing and future obligations, the equity ratio and ROE are crucial to a utility's financial integrity as both affect cash flow.

Q. HOW DO THE COMPANY'S CREDIT METRICS COMPARE TO THE S&P AND MOODY'S CRITERIA?

A. Exhibit___(SWS-1), Schedule 6, Page 1 of 4 , shows NSPM's historical and forecasted credit metrics as compared to S&P guidelines. The debt to capital ratios have historically been slightly over the benchmark and are projected to be slightly under the maximum of 50 percent for the A/A- objective. The other metrics are within the target ranges. Exhibit___(SWS-1), Schedule 6, Page 3 of 4, shows NSPM's historical and forecasted credit metrics as compared to Moody's guidelines. The main metrics are generally within these target ranges. Overall, the Company expects that its recommended capital structure and the forecasted financial metrics will continue to support its current credit ratings over the 2020 to 2022 time period.

Q. DO THE RATING AGENCIES CONSIDER IDENTICAL FACTORS IN ESTABLISHING CREDIT RATINGS?

A.

Table 6
S&P's Financial Risk Indicative Ratios

S&P's Financial Risk Indicative Ratios: Medial Volatility			
	FFO/Debt (%)	**Debt/EBITDA (x)**	**EBITDA/Interest (x)**
Modest	35 - 50	1.75 - 2.5	9 – 14
Intermediate	23 - 35	2.5 - 3.5	5 – 9
Significant	**13 - 23**	**3.5 - 4.5**	**2.75 – 5**
Aggressive	9 - 13	4.5 - 5.5	1.75 – 2.75

Q. PLEASE EXPLAIN TABLE 6.

A. Table 6 illustrates the required ratios under the medial volatility matrix (as assigned to NSPM by S&P) at the various levels of financial risk. For example, a "Significant" financial risk profile requires a company to

consistently have a FFO/Debt ratio of 13-23 (or greater), a Debt/EBITDA ratio of 3.5-4.5 (or less), and an EBITDA/Interest ratio of 2.75 or greater. This matrix stresses the importance of financial risk profile.

Q. WHAT FACTORS DOES MOODY'S CONSIDER?

A. Moody's considers both business and financial risk, some of which are shown in Table 7.

Table 7
Moody's Key Ratios and Scoring Thresholds

Factor 4: Financial Strength

Weighting 40%	Sub-Factor Weighting		Aaa	Aa	A	Baa	Ba	B	Caa
CFO pre-WC + Interest / Interest	7.50%		≥ 8.0x	6.0x - 8.0x	4.5x - 6.0x	3.0x - 4.5x	2.0x - 3.0x	1.0x - 2.0x	< 1.0x
CFO pre-WC / Debt	15.00%	Standard Grid	≥ 40%	30% - 40%	22% - 30%	13% - 22%	5% - 13%	1% - 5%	< 1%
		Low Business Risk Grid	≥ 38%	27% - 38%	19% - 27%	11% - 19%	5% - 11%	1% - 5%	< 1%
CFO pre-WC - Dividends / Debt	10.00%	Standard Grid	≥ 35%	25% - 35%	17% - 25%	9% - 17%	0% - 9%	(5%) - 0%	< (5%)
		Low Business Risk Grid	≥ 34%	23% - 34%	15% - 23%	7% - 15%	0% - 7%	(5%) - 0%	< (5%)
Debt / Capitalization	7.50%	Standard Grid	< 25%	25% - 35%	35% - 45%	45% - 55%	55% - 65%	65% - 75%	≥ 75%
		Low Business Risk Grid	< 29%	29% - 40%	40% - 50%	50% - 59%	59% - 67%	67% - 75%	≥ 75%

Q. PLEASE EXPLAIN TABLE 7.

A. Table 7 illustrates the required ratios under the standard model (as assigned to NSPM by Moody's) at the various levels of financial risk. For example, in order to maintain a A rating under the standard grid profile requires a company to consistently have a CFO pre-WC/Debt ratio of 22%-30% (or greater), a CFO pre-WC + Interest/Interest ratio of 4.5x – 6.0x (or greater), a CFO pre-WC – Dividends/Debt ratio of 17%-25% (or greater) and a

Debt/Capitalization ratio of 35-45% (or lower). This matrix also stresses the importance of financial risk profile. Moody's has set a threshold specifically for NSPM for the CFO pre-WC/Debt metric and has stated that a CFO pre-WC/Debt ratio of less than 20% could result in a downgrade to NSPM's ratings Exhibit___(SWS-1), Schedule 7.

Q. PLEASE EXPLAIN THE RELATIONSHIP BETWEEN A REGULATED CAPITAL STRUCTURE AND AN ECONOMIC CAPITAL STRUCTURE.

A. Credit rating agencies focus on the economic capital structure of a utility in assessing its credit quality because the economic capital structure accurately reflects all of a company's financial obligations. The economic capital structure includes all debt and debt-like instruments and, therefore, reflects the total financial leverage of a company. Specifically, the economic capital structure includes NSPM's regulated capital structure components of STD, LTD, and common equity, but also includes the imputed debt from operating leases and power purchase agreements (PPAs). In addition, the rating agencies use public capitalization data and do not make regulatory adjustments to balances or costs. Please see Table 8.

Table 8
Regulated vs. Economic Capital Structure

Forecast 12/31/2020	Regulated				Economic			
Short Term Debt	$ 109.0	0.87%			$ 235.0	1.70%		
Off Balance Sheet Debt *	-	0.00%			574.5	4.16%		
Long Term Debt	5,857.3	46.63%	47.50%	Debt	6,074.2	43.97%	49.83%	Debt
Common Equity	6,594.5	52.50%	52.50%	Equity	6,930.4	50.17%	50.17%	Equity
	$ 12,560.8	100.00%	100.00%		$ 13,814.1	100.00%	100.00%	

*economic capital structure calculated based on S&P methodology

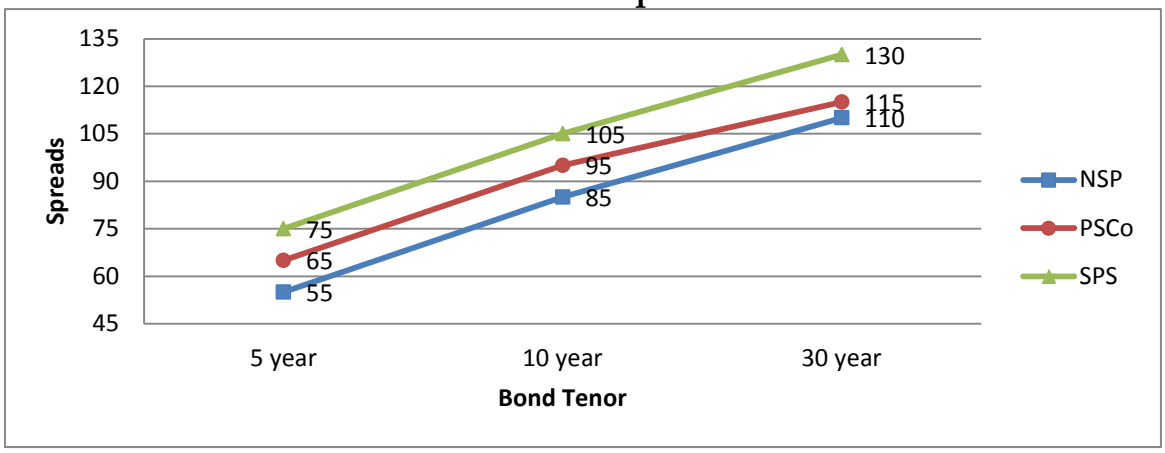
S&P includes certain debt-equivalent adjustments for PPAs and operating leases in their calculation of credit metrics for a utility's economic capital structure. As a result, there is approximately a 230 basis point differential between NSPM's economic equity ratio forecasted for the test year 2020 when these additional debt equivalent obligations (approximately $575 million for 2018, carrying through to 2020) are included in the capital structure. As a result, the 52.50 percent target for NSPM's regulated equity ratio corresponds to an S&P economic equity ratio of approximately 50.20 percent, which is the low end of S&P's guideline on this credit metric for our A- corporate rating. Years 2021 through 2022 have similar forecasted levels of off balance sheet data.

NSPM manages to its regulatory capital structure, but needs to also consider the economic capital structure because it is the capital structure that the credit rating agencies use in their financial assessment to determine NSPM's credit ratings. The Company strives to maintain an economic equity ratio of 50 to 51 percent to be consistent with the low-end of the S&P guidelines for our target objectives.

Q. WHAT IMPACT IS NSPM'S CREDIT RATING EXPECTED TO HAVE ON ITS LONG-TERM COST OF DEBT?

A. As discussed earlier in my testimony, LTD is priced based on the underlying Treasury rate plus a credit spread.. Because NSPM has been able to maintain its financial integrity, NSPM's credit spread is typically the lowest in the Xcel 'family" as shown in Chart 3 below.

Chart 3
Indicative Spreads



V. PROPOSED CAPITAL STRUCTURE, COST OF DEBT, AND RATE OF RETURN

Q. PLEASE SUMMARIZE THE MOST SIGNIFICANT POINTS YOU DISCUSS IN THIS SECTION OF YOUR DIRECT TESTIMONY.

A. The most significant points I discuss include the following:

- The components of LTD, STD, and common equity for 2020, 2021 and 2022 have been determined using the same approaches that we have used in prior rate cases.
- NSPM's proposed capital structures for 2020, 2021 and 2022 are very similar to the capital structure adopted in our last rate case.
- The costs of LTD and STD have also been determined using the same approaches that we have used in prior cases.
- The cost of LTD has declined from the level approved in the Company's last rate case.
- The size of NSPM's short term credit facility is reasonable and has not changed since the last MYRP.

- The Utility Money Pool provides public interest benefits to NSPM's customers.

Q. PLEASE SUMMARIZE THE COMPONENTS OF THE COMPANY'S RECOMMENDED CAPITAL STRUCTURE AND ROR.

A. The Company's proposed 2020, 2021 and 2022 capital structures include LTD, STD, and common equity. The Company's proposed revenue requirement for 2020 reflects an overall cost of capital or ROR of 7.42 percent, which includes the Company's average common equity ratio of 52.50 percent and a 10.20 percent ROE as recommended in Mr. Reed's Direct Testimony. The Company's proposed ROR for 2021 is 7.42 percent and for 2022 is 7.44 percent, again including the Company's average common equity ratio of 52.50 percent and the 10.20 percent ROE recommended by Mr. Reed.

Q. HOW DO THE COMPANY'S 2020, 2021 AND 2022 CAPITAL STRUCTURES COMPARE WITH THE CAPITAL STRUCTURES REFLECTED IN PAST RATE CASES?

A. The capital structures for all three years are comparable to the capital structure approved by the Commission in the Company's 2013 rate case (Docket No. E002/GR-13-868) and those reflected in the Settlement approved by the Commission in the 2015 rate case. The proposed 52.50 percent equity ratio for all three years match the equity ratios approved in those cases. The LTD ratios for years 2020 through 2022 range from 46.28 to 46.63 percent, compared to 2013 and 2015 rate case LTD ratios ranging from 45.6 to 46.41 percent. Finally, the STD ratios of 0.87 to 1.22 percent are comparable to the 2013 and 2015 ratios, which ranged from 1.09 to 1.9 percent.

Q. WHAT METHODOLOGY DID THE COMPANY USE TO DEVELOP BALANCES AND COSTS FOR THE VARIOUS COMPONENTS OF CAPITAL STRUCTURE?

A. The Company's methodology in this case is consistent with the calculations used and approved by the Commission in prior rate cases. Key points are identified below:

- Future long and short-term debt interest rates are based on the July 2019 Global Insight forecast with an added credit spread. The July 2019 Global Insight forecast is attached as Exhibit___(SWS-1), Schedule 8.
- For forecast purposes, STD is in the form of commercial paper;
- STD balances are based on the average of month end balances for the 12 months in the respective year;
- LTD balances are based on the average of month end balances for the 12 months in the respective year, and include forecasted LTD issuances and retirements during that period.
- LTD costs include the coupon rate on all bonds expected to be outstanding for each month of the respective year. In addition to the interest expense, the cost of LTD also includes amortization expense for debt issuance costs, discounts or premiums, losses on reacquired debt, gains and losses from hedging transactions, and the annual amortization of the upfront fees associated with the Company's multi-year credit agreement.
- Common equity balances represent the average of 13 month-end equity balances from December of the prior year through December of the year analyzed. The common equity balance averages the accounting month-end balances consistent with Generally Accepted Accounting Principles (GAAP) and eliminates the non-regulated investments.

1. Long-Term Debt

Q. WHAT ARE THE COMPANY'S RECOMMENDED 2020-2022 LTD BALANCES AND COSTS?

A. The Company's recommended LTD balance for 2020 is approximately $5.9 billion at a cost of 4.35 percent, as shown on Exhibit__(SWS-1), Schedule 9, Page 1 of 1.

The Company's recommended LTD balance for 2021 is approximately $6.3 billion and has a cost of 4.37 percent, as shown on Exhibit___(SWS-1), Schedule 10.

The Company's projected LTD balance for 2022 is approximately $6.6 billion, with a cost of 4.41 percent, as shown on Exhibit___(SWS-1), Schedule 11.

Q. ARE THERE ISSUANCES OR RETIREMENTS OF LTD PLANNED FOR 2020-2022?

A. Yes, NSPM plans to issue $850 million of new long-term debt in 2020, $350 million in 2021 and $500 million in 2022 and also has two $300 million debt retirements scheduled in 2020 and 2022.

Q. HOW DOES THE COMPANY DETERMINE ITS LTD ISSUANCES?

A. NSPM forecasts its financing needs over a multi-year period. NSPM generally issues LTD in years when an existing long-term bond is maturing or if existing higher coupon debt can be refinanced at a lower interest rate. In addition, NSPM will issue LTD to replace STD when the STD levels consistently approach or remain above an "index-eligible" bond size. All of these factors can affect the amount and timing of a specific bond offering.

When determining the maturity of a new bond, the Company considers the existing debt portfolio maturity profile, market conditions, investor demand, the life of the underlying asset portfolio, and the effects on the cost of LTD. We review the existing debt portfolio maturity profile and identify potential years where maturities will not stack on top of each other. The Company staggers new LTD maturities to mitigate the risk of having large future maturities in any one year that could be exposed to capital market volatility and the associated interest rate risk.

Q. PLEASE EXPLAIN THE TERM "INDEX ELIGIBLE" AND WHY IT IS IMPORTANT.

A. To be included in the Barclays Capital Aggregate Bond Index, a bond must be a minimum size of $300 million. Bonds that trade as a component of the index are more liquid and will generally be priced at a lower credit risk premium over prevailing U.S. Treasury rates than less liquid bonds.

Q. DOES THE COMPANY CONSIDER THE POSSIBILITY OF EARLY RETIREMENT OF COMPONENTS OF ITS LTD PORTFOLIO?

A. Yes. For example, in 2017, NSPM retired a bond that had provisions that allowed the Company to "call" the bonds without incurring significant added financial obligations known as "make whole" redemption obligations. The bonds currently in the NSPM debt portfolio either: (i) have no call options; (ii) are only callable at par value 3 to 6 months prior to maturity; or (iii) have make whole redemption provisions that are too expensive to exercise because they result in very large premium payments to existing debt holders. The economics of a make whole redemption feature are generally unfavorable and are provided primarily as a last resort means of retiring debt (such as in connection with a corporate merger transaction that may require retirement of

debt). To date, the Company has taken advantage of the refinancing opportunities that could result in lower customer costs.

Q. HOW DO THE PROJECTED LTD BALANCE AND COSTS COMPARE TO THE LAST ELECTRIC RATE CASE?

A. The projected $5.9 billion average LTD balance for the 2020 test year is approximately $1.3 billion higher than the LTD balance in the Company's 2016 test year in its last rate case, reflecting increased capital investment levels. The 4.35 percent rate for 2020 is 36 basis points lower than the cost in the 2016 test year. NSPM's financial strength and strong credit ratings have contributed to this significant decline. NSPM has also benefited from a lower interest rate environment over the last several years.

Q. HOW WERE THE PROPOSED COSTS OF LTD DETERMINED?

A. As shown on Exhibit___(SWS-1), Schedule 9, the overall 4.35 percent cost of LTD for 2020 includes the coupon rate on all bonds expected to be outstanding for each month of 2020 and the amortizations discussed above.

The overall cost of LTD of 4.37 percent, as shown on Exhibit___(SWS-1), Schedule 10, includes the coupon rate on all bonds expected to be outstanding for each month of 2021 and the amortization expense.

As shown on Exhibit___(SWS-1), Schedule 11, the overall 4.41 percent cost of LTD includes the coupon rate on all bonds expected to be outstanding for each month of 2022 and amortization of related bond features.

Q. WHAT FACTORS LED TO THE DECREASE IN 2020 LTD COSTS COMPARED TO 2016 LTD COSTS?

A. Treasury rates have declined considerably over the period and market expectations are that rates continue to decline in the near term. The forecasted long-term debt rates for the 2016 – 2018 issuances were in the range of 4.625 percent to 5.25 percent based on interest rate forecasts at the time. Actual treasury rates for 2016 – 2018 averaged 2.86 percent (based on the 30-year treasury yield) due to market conditions.

Q. HAVE NSPM'S FINANCIAL STRENGTH AND CREDIT RATINGS HAD A POSITIVE EFFECT ON ITS COST OF LTD AND ITS RECENT LTD ISSUANCES?

A. Yes. NSPM's historical financial strength and credit ratings have had a positive effect on both NSPM's weighted cost of LTD and the rates for its recent LTD issuances. These effects confirm that customers and investors have a common interest in maintaining NSPM's financial strength. Maintaining a strong balance sheet and credit metrics, and otherwise meeting financial expectations, has enabled NSPM to secure more favorable borrowing costs, which lowers overall costs for customers and provides substantial long run benefits to ratepayers.

2. Short-Term Debt

Q. WHAT IS THE COMPANY'S RECOMMENDED 2020-2022 STD BALANCES AND ASSOCIATED COSTS?

A. The Company's forecasted 2020 test year STD balance is approximately $109 million and a cost of 2.97 percent as shown on Exhibit__(SWS-1), Schedule 12. The 2021 plan year STD balance is approximately $165 million and has a cost of 2.99 percent as shown on Exhibit__(SWS-1), Schedule 13. And finally,

the 2022 Company forecast of STD balance is approximately $152 million and a cost of 3.04 percent as shown on Exhibit__(SWS-1), Schedule 14.

Q. HOW WAS THE 2020-2022 COST OF STD DETERMINED?

A. The 2.97 percent cost of STD in 2020 includes 2.51 percent interest expense for commercial paper and 0.46 percent financing fee for the fixed annual commitment fees associated with the Company's June 2019 "Amended and Restated Credit Agreement."

The 2.99 percent cost of STD in 2021 includes a 2.69 percent interest expense for commercial paper and the 0.30 percent monthly financing fees associated with having a credit facility to provide back-up liquidity for the commercial paper program.

The 3.04 percent cost of STD in 2022 includes 2.70 percent interest expense for commercial paper and the 0.34 percent for the monthly financing fees for the credit facility.

Q. HOW DOES THE PROJECTED STD COST COMPARE TO THE LAST ELECTRIC RATE CASE?

A. The 2020 short-term debt cost is forecasted at 2.97 percent. The STD cost from the 2016 case was 1.84 percent. The increase is driven by the recent rise in short term interest rates as well as the higher forecasted interest rates as shown by Global Insights in Exhibit___(SWS-1), Schedule 8.

Q. HOW DOES THE PROJECTED 2021 STD BALANCE AND COST COMPARE TO THE 2020 TEST YEAR?

A. The projected $165 million STD 12-month average balance for 2021 year is approximately $55 million higher than the STD balance in 2020 test year. The cost is 2 basis points higher than the cost in 2020 due to Global Insight projection of higher interest rates.

Q. HAS THE SIZE OF THE CREDIT FACILITY CHANGED SINCE THE PRIOR CASE?

A. No. NSPM's credit facility remains at the $500 million level. To determine the size of NSPM's credit facility, we consider factors that significantly impact liquidity requirements to evaluate the amount of short term credit capacity required, such as: (i) the total capital commitments over the life of the revolving credit agreement, including projected capital investment and scheduled LTD maturities; (ii) the projected level and volatility of fuel purchase requirements; (iii) and the liquidity required to manage variability in operating cash flow due to changes in sales and operating expenses. Currently, these factors support the sizing of our credit facility at $500 million; however, the size of the credit facility may need to be reassessed if these factors change.

Q. DOES NSPM'S USE OF COMMERCIAL PAPER REDUCE THE REQUIRED LEVEL OF NSPM'S CREDIT FACILITY?

A. No. NSPM expects to have continued access to the capital and commercial paper markets, but it is necessary to have adequate back up liquidity in the event of a capital market disruption. For example, the 2008 capital market crisis caused commercial paper to become unavailable for a period of time. If a comparable event occurred again, or commercial paper required unreasonable terms or costs, NSPM would be reliant on its credit facility for its liquidity needs.

Q. DOES NSPM PARTICIPATE IN A UTILITY MONEY POOL WITH OTHER OPERATING UTILITY SUBSIDIARIES OF XEI?

A. Yes. The Utility Money Pool is a short-term intercompany revolving credit facility that allows for coordination and provision of some short-term cash and working capital for NSPM, Public Service Company of Colorado (PSCo) and Southwestern Public Service Company (SPS).

Q. HAS THE COMMISSION REVIEWED AND APPROVED NSPM'S PARTICIPATION IN THE UTILITY MONEY POOL?

A. Yes. The Commission's July 9, 2004 Order in Docket No. E002/AI-04-100 approved our participation in the Utility Money Pool, and required NSPM to demonstrate in future rate cases that NSPM's participation in the Utility Money Pool continues to be consistent with the public interest. NSPM has submitted the required information in this case and in all prior rate cases since 2004. NSPM also submits information regarding its participation in the Utility Money Pool for Commission review and approval in its annual capital structure filings.

Q. IS THE UTILITY MONEY POOL CONSISTENT WITH THE PUBLIC INTEREST?

A. Yes. The Utility Money Pool provides additional flexibility and allows for potential cost savings and efficiencies without limiting access to existing financing. Participants are not obligated to lend to or borrow from the Utility Money Pool. However, it is available for use when it is most efficient, in situations when it provides benefits such as a lower cost of borrowing, or more flexibility regarding the terms of borrowing. NSPM's lending limits are also subject to approval by both the Commission and the Federal Energy Regulatory Commission.

Q. DOES THE UTILITY MONEY POOL PROVIDE A SUBSTITUTE FOR THE NSPM CREDIT FACILITY IN RELATION TO NEEDED LIQUIDITY?

A. No. Since there is no obligation for any participant to provide funds to the Utility Money Pool, it does not provide the assurance of available cash that is needed by NSPM, and thus does not provide a substitute source of liquidity for NSPM's credit facility and commercial paper program.

Q. DOES THE UTILITY MONEY POOL IMPOSE RISKS ON NSPM OR ITS CREDIT FACILITY?

A. No. The borrowings under the Utility Money Pool are payable on demand. Further, the other two participants in the Utility Money Pool (PSCo and SPS) are also A- rated by S&P. NSPM's credit facility is limited to NSPM and its own subsidiaries, and does not place NSPM at risk for any default by other affiliates, including XEI, NSP-Wisconsin, PSCo, or SPS.

Q. HAVE YOU PREPARED A SCHEDULE SHOWING BORROWING AND LENDING BETWEEN NSPM AND THE UTILITY MONEY POOL?

A. Yes. Exhibit___(SWS-1), Schedule 15 provides a record of Utility Money Pool activity, including lending to and borrowing from the Utility Money Pool from January 2017 through June 2019.

3. Common Equity

Q. HOW DID YOU DETERMINE NSPM'S 2020-2022 COMMON EQUITY BALANCES?

A. The proposed test year common equity balance reflects the average of 13 month-end equity balances from December 2019 through December 2020 and eliminates the non-regulated investments. Exhibit___(SWS-1), Schedule 16 shows the test year equity balance by month.

Consistent with prior year and rate case methodology, the proposed 2021 common equity balance reflects the average of 13 month-end equity balances from December 2020 through December 2021 as shown on Exhibit___(SWS-1), Schedule 17.

The proposed 2022 common equity balance reflects the average of 13 month-end equity balances from December 2021 through December 2022. Exhibit___(SWS-1), Schedule 18 shows the test year equity balance by month.

Q. HOW DOES THE 2020 COMMON EQUITY BALANCE COMPARE TO THE BALANCE IN THE LAST RATE CASE?

A. The nearly $6.6 billion common equity balance for 2020 is approximately $1.4 billion greater than the $5.2 billion balance in the test year of our last rate case.

Q. HAS XEI ISSUED COMMON STOCK IN THE LAST FEW YEARS?

A. Yes. In September 2018, XEI issued approximately $225 million of common stock through a $300 million SEC-registered "At the Market" program under which XEI issued common stock to the public from time to time at then-prevailing market prices. XEI entered into a forward equity agreement for approximately $460 million in November 2018, which was settled on August 29, 2019

Q. HAVE YOU PROVIDED INFORMATION REGARDING FLOTATION COSTS FOR PUBLIC AND NON-PUBLIC EQUITY ISSUANCES BY XEI?

A. Yes. Information regarding flotation costs for public and non-public offerings by XEI is included in Exhibit___(SWS-1), Schedule 19. This information was used by Mr. Reed in calculating his flotation cost adjustment.

VI. INVESTOR RELATIONS EXPENSES

Q. CAN YOU PLEASE ALSO DISCUSS THE COMPANY'S INVESTOR RELATIONS EFFORTS AND THE EXPENSES YOU EXPECT TO INCUR IN THE 2020 TEST YEAR AND IN THE 2021 AND 2022 PLAN YEARS?

A. Yes. We will incur investor relations expenses in 2020 through 2022 due to the need to keep the credit rating agencies fully informed regarding NSPM's business and financing plans and to maintain strong investor demand for NSPM's LTD securities. The Investor Relations team also incurs costs for shareholder services. These efforts will enable NSPM to issue LTD securities at favorable costs, as evidenced by NSPM's very low cost of LTD. Additionally, the Investor Relations group will continue to support the Company's equity program, and customers receive the benefit of improved proceeds as a result of obtaining favorable prices from the issuance of stock.

Q. ARE THESE DISCRETIONARY EXPENSES?

A. No. A company with publicly-traded equity must engage in investor relations activities, including but not limited to: (i) the listing of shares of XEI on the National Association of Securities Dealers Automated Quotations (NASDAQ); (ii) stock transfer agent services associated with the issuance of new common shares to investors, providing shareholders online access to accounts, and maintaining the list of registered shareholders; and (iii) an annual shareholders meeting.

Q. IS IT APPROPRIATE TO INCLUDE THESE EXPENSES AS PART OF THE COMPANY'S COST OF PROVIDING ELECTRIC SERVICE TO MINNESOTA RATEPAYERS?

A. Yes. These are unavoidable, just and reasonable expenses that should be

included in the Company's cost of service for ratemaking purposes. The Company incurs these expenses as a necessary part of providing cost-effective service to its customers; they are not expenses incurred to benefit shareholders.

Q. BUT ISN'T THE COMPANY REQUESTING RECOVERY OF ONLY HALF OF THESE EXPENSES?

A. Yes. Company witness Mr. Benjamin C. Halama's testimony, and the Company's rate request, reflects recovery of only 50 percent of these expenses in this case. We have removed 50 percent of these expenses, given past Commission decisions on this topic and due to our desire to minimize controversy in this proceeding. However, we continue to view these as just, reasonable and necessary expenses.

VII. SUMMARY AND RECOMMENDATIONS

Q. PLEASE SUMMARIZE YOUR RECOMMENDATIONS.

A. I recommend that the Commission approve NSPM's proposed 2020 test year capital structure with 52.50 percent common equity and an overall rate of return of 7.42 percent, as follows:

2020 Test Year
Recommended Capital Structure Ratios and Costs (NSPM)
(as presented in Table 1 on Page 4)

	Percent of Total Capital	Cost	Weighted Cost
Short-Term Debt	0.87%	2.97%	0.03%
Long-Term Debt	46.63%	4.35%	2.03%
Common Equity	52.50%	10.20%	5.36%
Total Capital	100.00%		7.42%

I also recommend that the Commission approve a proposed 2021 capital structure with 52.50 percent common equity and an overall rate of return of 7.42 percent, as follows:

2021
Recommended Capital Structure Ratios and Costs (NSPM)
(as presented in Table 2 on Page 4)

	Percent of Total Capital	**Cost**	**Weighted Cost**
Short-Term Debt	1.22%	2.99%	0.04%
Long-Term Debt	46.28%	4.37%	2.02%
Common Equity	52.50%	10.20%	5.36%
Total Capital	100.00%		7.42%

And, I recommend that the Commission approve a proposed 2022 capital structure with 52.50 percent common equity and an overall rate of return of 7.44 percent, as follows:

2022
Recommended Capital Structure Ratios and Costs (NSPM)
(as presented in Table 3 on Page 5)

	Percent of Total Capital	Cost	Weighted Cost
Short-Term Debt	1.08%	3.04%	0.03%
Long-Term Debt	46.42%	4.41%	2.05%
Common Equity	52.50%	10.20%	5.36%
Total Capital	100.00%		7.44%

The Company's proposed capital structures and overall costs of capital are reasonable and meet the Commission general standards of reasonableness used in decision making. The capital structures reflect the actual capital structure NSPM uses to fund its utility investment. These capital structures are market based and consistent with prior Commission decisions for NSPM and with capital structures of other comparable companies. The capital structures will support the Company's financial integrity as demonstrated through strong bond ratings and lower costs of debt, while simultaneously enabling NSPM to make substantial capital investments in the utility infrastructure. The Company has not materially changed its capital structure since 2009 and the Commission has reviewed and approved its equity ratio in the past four electric rate case proceedings. Finally, the proposed capital structures will continue to provide long-term benefits to our customers, as evidenced by the Company's cost of LTD improvement from 6.31 percent in 2010 to 4.35 percent projected for 2020.

I also recommend that the Commission allow partial recovery of investor relations costs in rates as the Company has proposed.

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes, it does.

Statement of Qualifications

Schedule 1

Sarah W. Soong

Education:

Master of Business Administration, Finance – 1997

The Wharton School, University of Pennsylvania

Master of Arts – Western European and French Studies - 1997

Lauder Institute, University of Pennsylvania

Bachelor of Arts, Government – 1992

College of William and Mary

Employment:

Xcel Energy Inc., Minneapolis, MN **2018- Present**
Vice President and Treasurer

ONCOR Electric Delivery Company, LLC, Dallas, TX **2017-2018**
Vice President and Treasurer

Hunt Consolidated Inc., Dallas TX **2005 – 2017**

2012 - 2017	*Vice President, Project Finance*
2010 – 2012	*Director, Project Finance*
2005 – 2010	*Manager, Project Finance*

The Neiman Marcus Group Inc., Dallas TX **2004- 2005**
Manager, Corporate Finance

Exodus Energy, LLC., Houston, TX **2003**
Director

Enron Corporation, Houston, TX **1997 - 2002**
Manager, Global Finance and Treasury

ABN Amro Bank, Netherlands, Czech Republic **1993 - 1995**
Relationship Manager, Global Clients

N.M. Rothschild and ČESKOSLOVENSKÁ OBCHODNÍ BANKA (ČSOB), Prague, Czech Republic **1993**
Financial Advisor and Consultant to N.M. Rothschild on behalf Of ČSOB

PROPOSED TEST YEAR 2020 COST OF CAPITAL

Capitalization:	($000's) Amount	Percent of Total Capitalization	Cost of Capital	Weighted Cost of Capital*
Long-Term Debt	$5,857,314	46.63%	4.35%	2.03%
Short-Term Debt	$108,986	0.87%	2.97%	0.03%
			26.00%	
Total Debt	$5,966,300	47.50%		2.06%
Net Common Equity	$6,594,458	52.50%	10.20%	5.36%
Total Capitalization	$12,560,758	100.00%		7.42%

Short Term Debt and Long Term Debt Amounts are 12 Month Average Balances.
Equity Amounts are 13 Month Average Balances.

PROPOSED ADDITIONAL PLAN YEAR 2021 COST OF CAPITAL

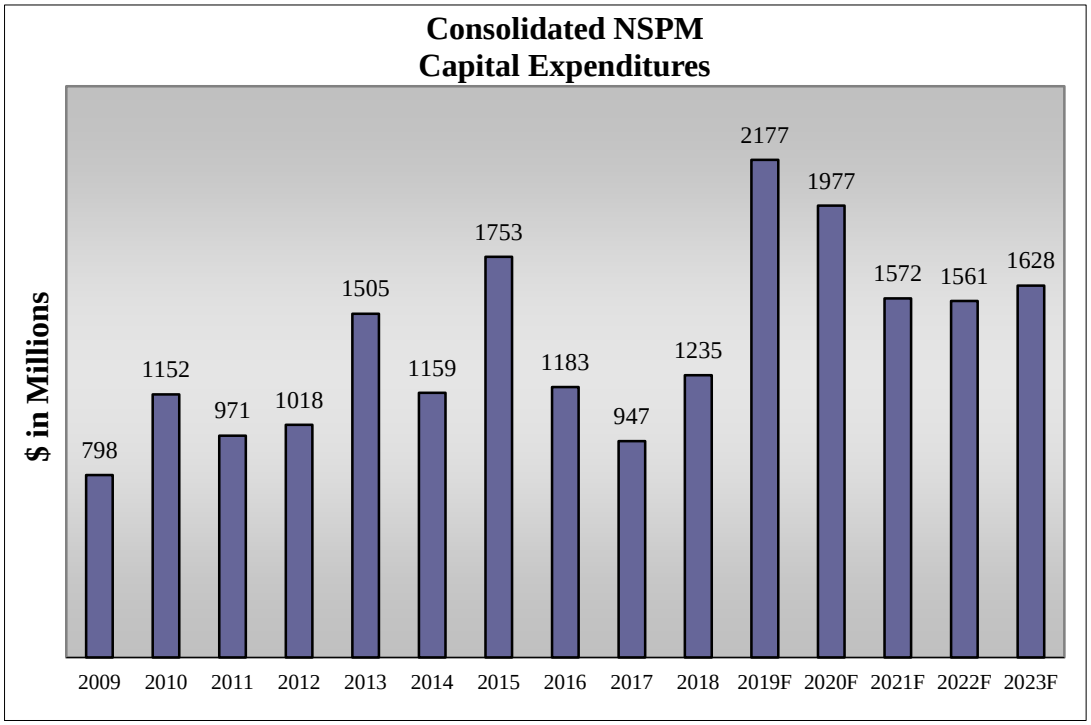
Capitalization:	($000's) Amount	Percent of Total Capitalization	Cost of Capital	Weighted Cost of Capital*
Long-Term Debt	$6,267,923	46.28%	4.37%	2.02%
Short-Term Debt	$165,327	1.22%	2.99%	0.04%
Total Debt	$6,433,250	47.50%		2.06%
Net Common Equity	$7,109,797	52.50%	10.20%	5.36%
Total Capitalization	$13,543,047	100.00%		7.42%

Short Term Debt and Long Term Debt Amounts are 12 Month Average Balances.
Equity Amounts are 13 Month Average Balances.

PROPOSED ADDITIONAL PLAN YEAR 2022 COST OF CAPITAL

Capitalization:	($000's) Amount	Percent of Total Capitalization	Cost of Capital	Weighted Cost of Capital*
Long-Term Debt	$6,552,021	46.42%	4.41%	2.05%
Short-Term Debt	$151,836	1.08%	3.04%	0.03%
Total Debt	$6,703,857	47.50%		2.08%
Net Common Equity	$7,409,590	52.50%	10.20%	5.36%
Total Capitalization	$14,113,447	100.00%		7.44%

Short Term Debt and Long Term Debt Amounts are 12 Month Average Balances.
Equity Amounts are 13 Month Average Balances.



(a) 2009 - 2018 actual 10 year expenditures = $11.7B, average spend per year = $1,172M

(b) 2014 - 2018 actual 5 year expenditures = $6.3B, average spend per year = $1,255M

(c) 2019 - 2023 forecast 5 year expenditures = $8.9B, average spend per year = $1,783M

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Key Credit Factors For The Regulated Utilities Industry

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RELATED CRITERIA AND RESEARCH

Criteria | Corporates | Utilities:

Key Credit Factors For The Regulated Utilities Industry

***(Editor's Note:** This criteria article supersedes "Key Credit Factors: Business And Financial Risks In The Investor-Owned Utilities Industry," published Nov. 26, 2008, "Assessing U.S. Utility Regulatory Environments," Nov. 7, 2007, and "Revised Methodology For Adjusting Amounts Reported By U.K. GAAP Water Companies For Infrastructure Renewals Accounting," Jan. 27, 2010.)*

1. Standard & Poor's Ratings Services is refining and adapting its methodology and assumptions for its Key Credit Factors: Criteria For Regulated Utilities. We are publishing these criteria in conjunction with our corporate criteria (see "Corporate Methodology, published Nov. 19, 2013). This article relates to our criteria article, "Principles Of Credit Ratings," Feb. 16, 2011.

2. This criteria article supersedes "Key Credit Factors: Business And Financial Risks In The Investor-Owned Utilities Industry," Nov. 26, 2008, "Criteria: Assessing U.S. Utility Regulatory Environments," Nov. 7, 2007, and "Revised Methodology For Adjusting Amounts Reported By U.K. GAAP Water Companies For Infrastructure Renewals Accounting," Jan. 27, 2010.

SCOPE OF THE CRITERIA

3. These criteria apply to entities where regulated utilities represent a material part of their business, other than U.S. public power, water, sewer, gas, and electric cooperative utilities that are owned by federal, state, or local governmental bodies or by ratepayers. A regulated utility is defined as a corporation that offers an essential or near-essential infrastructure product, commodity, or service with little or no practical substitute (mainly electricity, water, and gas), a business model that is shielded from competition (naturally, by law, shadow regulation, or by government policies and oversight), and is subject to comprehensive regulation by a regulatory body or implicit oversight of its rates (sometimes referred to as tariffs), service quality, and terms of service. The regulators base the rates that they set on some form of cost recovery, including an economic return on assets, rather than relying on a market price. The regulated operations can range from individual parts of the utility value chain (water, gas, and electricity networks or "grids," electricity generation, retail operations, etc.) to the entire integrated chain, from procurement to sales to the end customer. In some jurisdictions, our view of government support can also affect the final rating outcome, as per our government-related entity criteria (see "General Criteria: Rating Government-Related Entities: Methodology and Assumptions," Dec. 9, 2010).

SUMMARY OF THE CRITERIA

4. 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 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.

IMPACT ON OUTSTANDING RATINGS

5. These criteria could affect the issuer credit ratings of about 5% of regulated utilities globally due primarily to the introduction of new financial benchmarks in the corporate criteria. Almost all ratings changes are expected to be no more than one notch, and most are expected to be in an upward direction.

EFFECTIVE DATE AND TRANSITION

6. These criteria are effective immediately on the date of publication.

METHODOLOGY

Part I--Business Risk Analysis

Industry risk

7. Within the framework of Standard & Poor's general criteria for assessing industry risk, we view regulated utilities as a "very low risk" industry (category '1'). We derive this assessment from our view of the segment's low risk ('2') cyclicality and very low risk ('1') competitive risk and growth assessment.

8. In our view, demand for regulated utility services typically exhibits low cyclicality, being a function of such key drivers as employment growth, household formation, and general economic trends. Pricing is non-cyclical, since it is usually based in some form on the cost of providing service.

Cyclicality

9. We assess cyclicality for regulated utilities as low risk ('2'). Utilities typically offer products and services that are essential and not easily replaceable. Based on our analysis of global Compustat data, utilities had an average peak-to-trough (PTT) decline in revenues of about 6% during recessionary periods since 1952. Over the same period, utilities had an average PTT decline in EBITDA margin of about 5% during recessionary periods, with PTT EBITDA margin declines less severe in more recent periods. The PTT drop in profitability that occurred in the most recent recession (2007-2009) was less than the long-term average.

10. With an average drop in revenues of 6% and an average profitability decline of 5%, utilities' cyclicality assessment calibrates to low risk ('2'). We generally consider that the higher the level of profitability cyclicality in an industry, the higher the credit risk of entities operating in that industry. However, the overall effect of cyclicality on an industry's risk profile may be mitigated or exacerbated by an industry's competitive and growth environment.

Competitive risk and growth

11. We view regulated utilities as warranting a very low risk ('1') competitive risk and growth assessment. For competitive risk and growth, we assess four sub-factors as low, medium, or high risk. These sub-factors are:

- Effectiveness of industry barriers to entry;
- Level and trend of industry profit margins;
- Risk of secular change and substitution by products, services, and technologies; and
- Risk in growth trends.

Effectiveness of barriers to entry--low risk

12. Barriers to entry are high. Utilities are normally shielded from direct competition. Utility services are commonly naturally monopolistic (they are not efficiently delivered through competitive channels and often require access to public thoroughfares for distribution), and so regulated utilities are granted an exclusive franchise, license, or concession to serve a specified territory in exchange for accepting an obligation to serve all customers in that area and the regulation of its rates and operations.

Level and trend of industry profit margins--low risk

13. Demand is sometimes and in some places subject to a moderate degree of seasonality, and weather conditions can significantly affect sales levels at times over the short term. However, those factors even out over time, and there is little pressure on margins if a utility can pass higher costs along to customers via higher rates.

Risk of secular change and substitution of products, services, and technologies--low risk

14. Utility products and services are not overly subject to substitution. Where substitution is possible, as in the case of natural gas, consumer behavior is usually stable and there is not a lot of switching to other fuels. Where switching does occur, cost allocation and rate design practices in the regulatory process can often mitigate this risk so that utility profitability is relatively indifferent to the substitutions.

Risk in industry growth trends--low risk

15. As noted above, regulated utilities are not highly cyclical. However, the industry is often well established and, in our view, long-range demographic trends support steady demand for essential utility services over the long term. As a result, we would expect revenue growth to generally match GDP when economic growth is positive.

B. Country risk

16. In assessing "country risk" for a regulated utility, our analysis uses the same methodology as with other corporate issuers (see "Corporate Methodology").

C. Competitive position

17. In the corporate criteria, competitive position is assessed as ('1') excellent, ('2') strong, ('3') satisfactory, ('4') fair, ('5') weak, or ('6') vulnerable.

18. The analysis of competitive position includes a review of:

- Competitive advantage,
- Scale, scope, and diversity,
- Operating efficiency, and
- Profitability.

19. In the corporate criteria we assess the strength of each of the first three components. Each component is assessed as either: (1) strong, (2) strong/adequate, (3) adequate, (4) adequate/weak, or (5) weak. After assessing these components, we determine the preliminary competitive position assessment by ascribing a specific weight to each component. The applicable weightings will depend on the company's Competitive Position Group Profile. The group profile for regulated utilities is "National Industries & Utilities," with a weighting of the three components as follows: competitive advantage (60%), scale, scope, and diversity (20%), and operating efficiency (20%). Profitability is assessed by combining two sub-components: level of profitability and the volatility of profitability.

20. "Competitive advantage" cannot be measured with the same sub-factors as competitive firms because utilities are not primarily subject to influence of market forces. Therefore, these criteria supersede the "competitive advantage" section of the corporate criteria. We analyze instead a utility's "regulatory advantage" (section 1 below).

Assessing regulatory advantage

21. The regulatory framework/regime's influence is of critical importance when assessing regulated utilities' credit risk because it defines the environment in which a utility operates and has a significant bearing on a utility's financial performance.

22. We base our assessment of the regulatory framework's relative credit supportiveness on our view of how regulatory stability, efficiency of tariff setting procedures, financial stability, and regulatory independence protect a utility's credit quality and its ability to recover its costs and earn a timely return. Our view of these four pillars is the foundation of a utility's regulatory support. We then assess the utility's business strategy, in particular its regulatory strategy and its ability to manage the tariff-setting process, to arrive at a final regulatory advantage assessment.

23. When assessing regulatory advantage, we first consider four pillars and sub-factors that we believe are key for a utility to recover all its costs, on time and in full, and earn a return on its capital employed:

24. Regulatory stability:

- Transparency of the key components of the rate setting and how these are assessed
- Predictability that lowers uncertainty for the utility and its stakeholders
- Consistency in the regulatory framework over time

25. Tariff-setting procedures and design:

- Recoverability of all operating and capital costs in full
- Balance of the interests and concerns of all stakeholders affected
- Incentives that are achievable and contained

26. Financial stability:

- Timeliness of cost recovery to avoid cash flow volatility
- Flexibility to allow for recovery of unexpected costs if they arise
- Attractiveness of the framework to attract long-term capital
- Capital support during construction to alleviate funding and cash flow pressure during periods of heavy investments

27. Regulatory independence and insulation:

- Market framework and energy policies that support long-term financeability of the utilities and that is clearly enshrined in law and separates the regulator's powers
- Risks of political intervention is absent so that the regulator can efficiently protect the utility's credit profile even during a stressful event

28. We have summarized the key characteristics of the assessments for regulatory advantage in table 1.

Table 1

Preliminary Regulatory Advantage Assessment

Qualifier	What it means	Guidance
Strong	The utility has a major regulatory advantage due to one or a combination of factors that support cost recovery and a return on capital combined with lower than average volatility of earnings and cash flows.	The utility operates in a regulatory climate that is transparent, predictable, and consistent from a credit perspective.
	There are strong prospects that the utility can sustain this advantage over the long term.	The utility can fully and timely recover all its fixed and variable operating costs, investments and capital costs (depreciation and a reasonable return on the asset base).
	This should enable the utility to withstand economic downturns and political risks better than other utilities.	The tariff set may include a pass-through mechanism for major expenses such as commodity costs, or a higher return on new assets, effectively shielding the utility from volume and input cost risks.
		Any incentives in the regulatory scheme are contained and symmetrical.
		The tariff set includes mechanisms allowing for a tariff adjustment for the timely recovery of volatile or unexpected operating and capital costs.
		There is a track record of earning a stable, compensatory rate of return in cash through various economic and political cycles and a projected ability to maintain that record.
		There is support of cash flows during construction of large projects, and pre-approval of capital investment programs and large projects lowers the risk of subsequent disallowances of capital costs.
		The utility operates under a regulatory system that is sufficiently insulated from political intervention to efficiently protect the utility's credit risk profile even during stressful events.
Adequate	The utility has some regulatory advantages and protection, but not to the extent that it leads to a superior business model or durable benefit.	It operates in a regulatory environment that is less transparent, less predictable, and less consistent from a credit perspective.
	The utility has some but not all drivers of well-managed regulatory risk. Certain regulatory factors support the business's long-term stability and viability but could result in periods of below-average levels of profitability and greater profit volatility. However, overall these regulatory drivers are partially offset by the utility's disadvantages or lack of sustainability of other factors.	The utility is exposed to delays or is not, with sufficient certainty, able to recover all of its fixed and variable operating costs, investments. and capital costs (depreciation and a reasonable return on the asset base) within a reasonable time.
		Incentive ratemaking practices are asymmetrical and material, and could detract from credit quality.
		The utility is exposed to the risk that it doesn't recover unexpected or volatile costs in a full or less than timely manner due to lack of flexible reopeners or annual revenue adjustments.
		There is an uneven track record of earning a compensatory rate of return in cash through various economic and political cycles and a projected ability to maintain that record.

Table 1

Preliminary Regulatory Advantage Assessment (cont.)

		There is little or no support of cash flows during construction, and investment decisions on large projects (and therefore the risk of subsequent disallowances of capital costs) rest mostly with the utility.
		The utility operates under a regulatory system that is not sufficiently insulated from political intervention and is sometimes subject to overt political influence.
Weak	The utility suffers from a complete breakdown of regulatory protection that places the utility at a significant disadvantage.	The utility operates in an opaque regulatory climate that lacks transparency, predictability, and consistency.
	The utility's regulatory risk is such that the long-term cost recovery and investment return is highly uncertain and materially delayed, leading to volatile or weak cash flows. There is the potential for material stranded assets with no prospect of recovery.	The utility cannot fully and/or timely recover its fixed and variable operating costs, investments, and capital costs (depreciation and a reasonable return on the asset base).
		There is a track record of earning minimal or negative rates of return in cash through various economic and political cycles and a projected inability to improve that record sustainably.
		The utility must make significant capital commitments with no solid legal basis for the full recovery of capital costs.
		Ratemaking practices actively harm credit quality.
		The utility is regularly subject to overt political influence.

29. After determining the preliminary regulatory advantage assessment, we then assess the utility's business strategy. Most importantly, this factor addresses the effectiveness of a utility's management of the regulatory risk in the jurisdiction(s) where it operates. In certain jurisdictions, a utility's regulatory strategy and its ability to manage the tariff-setting process effectively so that revenues change with costs can be a compelling regulatory risk factor. A utility's approach and strategies surrounding regulatory matters can create a durable "competitive advantage" that differentiates it from peers, especially if the risk of political intervention is high. The assessment of a utility's business strategy is informed by historical performance and its forward-looking business objectives. We evaluate these objectives in the context of industry dynamics and the regulatory climate in which the utility operates, as evaluated through the factors cited in paragraphs 24-27.

30. We modify the preliminary regulatory advantage assessment to reflect this influence positively or negatively. Where business strategy has limited effect relative to peers, we view the implications as neutral and make no adjustment. A positive assessment improves the preliminary regulatory advantage assessment by one category and indicates that management's business strategy is expected to bolster its regulatory advantage through favorable commission rulings beyond what is typical for a utility in that jurisdiction. Conversely, where management's strategy or businesses decisions result in adverse regulatory outcomes relative to peers, such as failure to achieve typical cost recovery or allowed returns, we adjust the preliminary regulatory advantage assessment one category worse. In extreme cases of poor strategic execution, the preliminary regulatory advantage assessment is adjusted by two categories worse (when possible; see table 2) to reflect management decisions that are likely to result in a significantly adverse regulatory outcome relative to peers.

Table 2

Determining The Final Regulatory Advantage Assessment

	--Strategy modifier--			
Preliminary regulatory advantage score	**Positive**	**Neutral**	**Negative**	**Very negative**
Strong	Strong	Strong	Strong/Adequate	Adequate
Strong/Adequate	Strong	Strong/Adequate	Adequate	Adequate/Weak
Adequate	Strong/Adequate	Adequate	Adequate/Weak	Weak
Adequate/Weak	Adequate	Adequate/Weak	Weak	Weak
Weak	Adequate/Weak	Weak	Weak	Weak

Scale, scope, and diversity

31. We consider the key factors for this component of competitive position to be primarily operational scale and diversity of the geographic, economic, and regulatory foot prints. We focus on a utility's markets, service territories, and diversity and the extent that these attributes can contribute to cash flow stability while dampening the effect of economic and market threats.

32. A utility that warrants a Strong or Strong/Adequate assessment has scale, scope, and diversity that support the stability of its revenues and profits by limiting its vulnerability to most combinations of adverse factors, events, or trends. The utility's significant advantages enable it to withstand economic, regional, competitive, and technological threats better than its peers. It typically is characterized by a combination of the following factors:

- A large and diverse customer base with no meaningful customer concentration risk, where residential and small to medium commercial customers typically provide most operating income.
- The utility's range of service territories and regulatory jurisdictions is better than others in the sector.
- Exposure to multiple regulatory authorities where we assess preliminary regulatory advantage to be at least Adequate. In the case of exposure to a single regulatory regime, the regulatory advantage assessment is either Strong or Strong/Adequate.
- No meaningful exposure to a single or few assets or suppliers that could hurt operations or could not easily be replaced.

33. A utility that warrants a Weak or Weak/Adequate assessment lacks scale, scope, and diversity such that it compromises the stability and sustainability of its revenues and profits. The utility's vulnerability to, or reliance on, various elements of this sub-factor is such that it is less likely than its peers to withstand economic, competitive, or technological threats. It typically is characterized by a combination of the following factors:

- A small customer base, especially if burdened by customer and/or industry concentration combined with little economic diversity and average to below-average economic prospects;
- Exposure to a single service territory and a regulatory authority with a preliminary regulatory advantage assessment of Adequate or Adequate/Weak; or
- Dependence on a single supplier or asset that cannot easily be replaced and which hurts the utility's operations.

34. We generally believe a larger service territory with a diverse customer base and average to above-average economic growth prospects provides a utility with cushion and flexibility in the recovery of operating costs and ongoing investment (including replacement and growth capital spending), as well as lessening the effect of external shocks (i.e.,

extreme local weather) since the incremental effect on each customer declines as the scale increases.

35. We consider residential and small commercial customers as having more stable usage patterns and being less exposed to periodic economic weakness, even after accounting for some weather-driven usage variability. Significant industrial exposure along with a local economy that largely depends on one or few cyclical industries potentially contributes to the cyclicality of a utility's load and financial performance, magnifying the effect of an economic downturn.

36. A utility's cash flow generation and stability can benefit from operating in multiple geographic regions that exhibit average to better than average levels of wealth, employment, and growth that underpin the local economy and support long-term growth. Where operations are in a single geographic region, the risk can be ameliorated if the region is sufficiently large, demonstrates economic diversity, and has at least average demographic characteristics.

37. The detriment of operating in a single large geographic area is subject to the strength of regulatory assessment. Where a utility operates in a single large geographic area and has a strong regulatory assessment, the benefit of diversity can be incremental.

Operating efficiency

38. We consider the key factors for this component of competitive position to be:

- Compliance with the terms of its operating license, including safety, reliability, and environmental standards;
- Cost management; and
- Capital spending: scale, scope, and management.

39. Relative to peers, we analyze how successful a utility management achieves the above factors within the levels allowed by the regulator in a manner that promotes cash flow stability. We consider how management of these factors reduces the prospect of penalties for noncompliance, operating costs being greater than allowed, and capital projects running over budget and time, which could hurt full cost recovery.

40. The relative importance of the above three factors, particularly cost and capital spending management, is determined by the type of regulation under which the utility operates. Utilities operating under robust "cost plus" regimes tend to be more insulated given the high degree of confidence costs will invariably be passed through to customers. Utilities operating under incentive-based regimes are likely to be more sensitive to achieving regulatory standards. This is particularly so in the regulatory regimes that involve active consultation between regulator and utility and market testing as opposed to just handing down an outcome on a more arbitrary basis.

41. In some jurisdictions, the absolute performance standards are less relevant than how the utility performs against the regulator's performance benchmarks. It is this performance that will drive any penalties or incentive payments and can be a determinant of the utilities' credibility on operating and asset-management plans with its regulator.

42. Therefore, we consider that utilities that perform these functions well are more likely to consistently achieve determinations that maximize the likelihood of cost recovery and full inclusion of capital spending in their asset bases. Where regulatory resets are more at the discretion of the utility, effective cost management, including of labor, may allow for more control over the timing and magnitude of rate filings to maximize the chances of a constructive outcome such as full operational and capital cost recovery while protecting against reputational risks.

43. A regulated utility that warrants a Strong or Strong/Adequate assessment for operating efficiency relative to peers generates revenues and profits through minimizing costs, increasing efficiencies, and asset utilization. It typically is characterized by a combination of the following:

- High safety record;
- Service reliability is strong, with a track record of meeting operating performance requirements of stakeholders, including those of regulators. Moreover, the utility's asset profile (including age and technology) is such that we have confidence that it could sustain favorable performance against targets;
- Where applicable, the utility is well-placed to meet current and potential future environmental standards;
- Management maintains very good cost control. Utilities with the highest assessment for operating efficiency have shown an ability to manage both their fixed and variable costs in line with regulatory expectations (including labor and working capital management being in line with regulator's allowed collection cycles); or
- There is a history of a high level of project management execution in capital spending programs, including large one-time projects, almost invariably within regulatory allowances for timing and budget.

44. A regulated utility that warrants an Adequate assessment for operating efficiency relative to peers has a combination of cost position and efficiency factors that support profit sustainability combined with average volatility. Its cost structure is similar to its peers. It typically is characterized by a combination of the following factors:

- High safety performance;
- Service reliability is satisfactory with a track record of mostly meeting operating performance requirements of stakeholders, including those of regulators. We have confidence that a favorable performance against targets can be mostly sustained;
- Where applicable, the utility may be challenged to comply with current and future environmental standards that could increase in the medium term;
- Management maintains adequate cost control. Utilities that we assess as having adequate operating efficiency mostly manage their fixed and variable costs in line with regulatory expectations (including labor and working capital management being mostly in line with regulator's allowed collection cycles); or
- There is a history of adequate project management skills in capital spending programs within regulatory allowances for timing and budget.

45. A regulated utility that warrants a weak or weak/adequate assessment for operating efficiency relative to peers has a combination of cost position and efficiency factors that fail to support profit sustainability combined with below-average volatility. Its cost structure is worse than its peers. It typically is characterized by a combination of the following:

- Poor safety performance;
- Service reliability has been sporadic or non-existent with a track record of not meeting operating performance requirements of stakeholders, including those of regulators. We do not believe the utility can consistently meet performance targets without additional capital spending;
- Where applicable, the utility is challenged to comply with current environmental standards and is highly vulnerable to more onerous standards;
- Management typically exceeds operating costs authorized by regulators;
- Inconsistent project management skills as evidenced by cost overruns and delays including for maintenance capital spending; or
- The capital spending program is large and complex and falls into the weak or weak/adequate assessment, even if

operating efficiency is generally otherwise considered adequate.

Profitability

46. A utility with above-average profitability would, relative to its peers, generally earn a rate of return at or above what regulators authorize and have minimal exposure to earnings volatility from affiliated unregulated business activities or market-sensitive regulated operations. Conversely, a utility with below-average profitability would generally earn rates of return well below the authorized return relative to its peers or have significant exposure to earnings volatility from affiliated unregulated business activities or market-sensitive regulated operations.

47. The profitability assessment consists of "level of profitability" and "volatility of profitability."

Level of profitability

48. Key measures of general profitability for regulated utilities commonly include ratios, which we compare both with those of peers and those of companies in other industries to reflect different countries' regulatory frameworks and business environments:

- EBITDA margin,
- Return on capital (ROC), and
- Return on equity (ROE).

49. In many cases, EBITDA as a percentage of sales (i.e., EBITDA margin) is a key indicator of profitability. This is because the book value of capital does not always reflect true earning potential, for example when governments privatize or restructure incumbent state-owned utilities. Regulatory capital values can vary with those of reported capital because regulatory capital values are not inflation-indexed and could be subject to different assumptions concerning depreciation. In general, a country's inflation rate or required rate of return on equity investment is closely linked to a utility company's profitability. We do not adjust our analysis for these factors, because we can make our assessment through a peer comparison.

50. For regulated utilities subject to full cost-of-service regulation and return-on-investment requirements, we normally measure profitability using ROE, the ratio of net income available for common stockholders to average common equity. When setting rates, the regulator ultimately bases its decision on an authorized ROE. However, different factors such as variances in costs and usage may influence the return a utility is actually able to earn, and consequently our analysis of profitability for cost-of-service-based utilities centers on the utility's ability to consistently earn the authorized ROE.

51. We will use return on capital when pass-through costs distort profit margins--for instance congestion revenues or collection of third-party revenues. This is also the case when the utility uses accelerated depreciation of assets, which in our view might not be sustainable in the long run.

Volatility of profitability

52. We may observe a clear difference between the volatility of actual profitability and the volatility of underlying regulatory profitability. In these cases, we could use the regulatory accounts as a proxy to judge the stability of earnings.

53. We use actual returns to calculate the standard error of regression for regulated utility issuers (only if there are at least

seven years of historical annual data to ensure meaningful results). If we believe recurring mergers and acquisitions or currency fluctuations affect the results, we may make adjustments.

Part II--Financial Risk Analysis

D. Accounting

54. Our analysis of a company's financial statements begins with a review of the accounting to determine whether the statements accurately measure a company's performance and position relative to its peers and the larger universe of corporate entities. To allow for globally consistent and comparable financial analyses, our rating analysis may include quantitative adjustments to a company's reported results. These adjustments also align a company's reported figures with our view of underlying economic conditions and give us a more accurate portrayal of a company's ongoing business. We discuss adjustments that pertain broadly to all corporate sectors, including this sector, in "Corporate Methodology: Ratios And Adjustments." Accounting characteristics and analytical adjustments unique to this sector are discussed below.

Accounting characteristics

55. Some important accounting practices for utilities include:

- For integrated electric utilities that meet native load obligations in part with third-party power contracts, we use our purchased power methodology to adjust measures for the debt-like obligation such contracts represent (see below).
- Due to distortions in leverage measures from the substantial seasonal working-capital requirements of natural gas distribution utilities, we adjust inventory and debt balances by netting the value of inventory against outstanding short-term borrowings. This adjustment provides an accurate view of the company's balance sheet by reducing seasonal debt balances when we see a very high certainty of near-term cost recovery (see below).
- We deconsolidate securitized debt (and associated revenues and expenses) that has been accorded specialized recovery provisions (see below).
- For water utilities that report under U.K. GAAP, we adjust ratios for infrastructure renewals accounting, which permits water companies to capitalize the maintenance spending on their infrastructure assets (see below). The adjustments aim to make those water companies that report under U.K. GAAP more comparable to those that report under accounting regimes that do not permit infrastructure renewals accounting.

56. In the U.S. and selectively in other regions, utilities employ "regulatory accounting," which permits a rate-regulated company to defer some revenues and expenses to match the timing of the recognition of those items in rates as determined by regulators. A utility subject to regulatory accounting will therefore have assets and liabilities on its books that an unregulated corporation, or even regulated utilities in many other global regions, cannot record. We do not adjust GAAP earnings or balance-sheet figures to remove the effects of regulatory accounting. However, as more countries adopt International Financial Reporting Standards (IFRS), the use of regulatory accounting will become more scarce. IFRS does not currently provide for any recognition of the effects of rate regulation for financial reporting purposes, but it is considering the use of regulatory accounting. We do not anticipate altering our fundamental financial analysis of utilities because of the use or non-use of regulatory accounting. We will continue to analyze the effects of regulatory actions on a utility's financial health.

Purchased power adjustment

57. We view long-term purchased power agreements (PPA) as creating fixed, debt-like financial obligations that represent substitutes for debt-financed capital investments in generation capacity. By adjusting financial measures to incorporate PPA fixed obligations, we achieve greater comparability of utilities that finance and build generation capacity and those that purchase capacity to satisfy new load. PPAs do benefit utilities by shifting various risks to the electricity generators, such as construction risk and most of the operating risk. The principal risk borne by a utility that relies on PPAs is recovering the costs of the financial obligation in rates. (See "Standard & Poor's Methodology For Imputing Debt for U.S. Utilities' Power Purchase Agreements," May 7, 2007, for more background and information on the adjustment.)

58. We calculate the present value (PV) of the future stream of capacity payments under the contracts as reported in the financial statement footnotes or as supplied directly by the company. The discount rate used is the same as the one used in the operating lease adjustment, i.e., 7%. For U.S. companies, notes to the financial statements enumerate capacity payments for the coming five years, and a thereafter period. Company forecasts show the detail underlying the thereafter amount, or we divide the amount reported as thereafter by the average of the capacity payments in the preceding five years to get an approximation of annual payments after year five.

59. We also consider new contracts that will start during the forecast period. The company provides us the information regarding these contracts. If these contracts represent extensions of existing PPAs, they are immediately included in the PV calculation. However, a contract sometimes is executed in anticipation of incremental future needs, so the energy will not flow until some later period and there are no interim payments. In these instances, we incorporate that contract in our projections, starting in the year that energy deliveries begin under the contract. The projected PPA debt is included in projected ratios as a current rating factor, even though it is not included in the current-year ratio calculations.

60. The PV is adjusted to reflect regulatory or legislative cost-recovery mechanisms when present. Where there is no explicit regulatory or legislative recovery of PPA costs, as in most European countries, the PV may be adjusted for other mitigating factors that reduce the risk of the PPAs to the utility, such as a limited economic importance of the PPAs to the utility's overall portfolio.The adjustment reduces the debt-equivalent amount by multiplying the PV by a specific risk factor.

61. Risk factors based on regulatory or legislative cost recovery typically range between 0% and 50%, but can be as high as 100%. A 100% risk factor would signify that substantially all risk related to contractual obligations rests on the company, with no regulatory or legislative support. A 0% risk factor indicates that the burden of the contractual payments rests solely with ratepayers, as when the utility merely acts as a conduit for the delivery of a third party's electricity. These utilities are barred from developing new generation assets, and the power supplied to their customers is sourced through a state auction or third parties that act as intermediaries between retail customers and electricity suppliers. We employ a 50% risk factor in cases where regulators use base rates for the recovery of the fixed PPA costs. If a regulator has established a separate adjustment mechanism for recovery of all prudent PPA costs, a risk factor of 25% is employed. In certain jurisdictions, true-up mechanisms are more favorable and frequent than the review of base rates, but still do not amount to pure fuel adjustment clauses. Such mechanisms may be triggered by financial thresholds or passage of prescribed periods of time. In these instances, a risk factor between 25% and 50% is

employed. Specialized, legislatively created cost-recovery mechanisms may lead to risk factors between 0% and 15%, depending on the legislative provisions for cost recovery and the supply function borne by the utility. Legislative guarantees of complete and timely recovery of costs are particularly important to achieving the lowest risk factors. We also exclude short-term PPAs where they serve merely as gap fillers, pending either the construction of new capacity or the execution of long-term PPAs.

62. Where there is no explicit regulatory or legislative recovery of PPA costs, the risk factor is generally 100%. We may use a lower risk factor if mitigating factors reduce the risk of the PPAs on the utility. Mitigating factors include a long position in owned generation capacity relative to the utility's customer supply needs that limits the importance of the PPAs to the utility or the ability to resell power in a highly liquid market at minimal loss. A utility with surplus owned generation capacity would be assigned a risk factor of less than 100%, generally 50% or lower, because we would assess its reliance on PPAs as limited. For fixed capacity payments under PPAs related to renewable power, we use a risk factor of less than 100% if the utility benefits from government subsidies. The risk factor reflects the degree of regulatory recovery through the government subsidy.

63. Given the long-term mandate of electric utilities to meet their customers' demand for electricity, and also to enable comparison of companies with different contract lengths, we may use an evergreening methodology. Evergreen treatment extends the duration of short- and intermediate-term contracts to a common length of about 12 years. To quantify the cost of the extended capacity, we use empirical data regarding the cost of developing new peaking capacity, incorporating regional differences. The cost of new capacity is translated into a dollars-per-kilowatt-year figure using a proxy weighted-average cost of capital and a proxy capital recovery period.

64. Some PPAs are treated as operating leases for accounting purposes--based on the tenor of the PPA or the residual value of the asset on the PPA's expiration. We accord PPA treatment to those obligations, in lieu of lease treatment; rather, the PV of the stream of capacity payments associated with these PPAs is reduced to reflect the applicable risk factor.

65. Long-term transmission contracts can also substitute for new generation, and, accordingly, may fall under our PPA methodology. We sometimes view these types of transmission arrangements as extensions of the power plants to which they are connected or the markets that they serve. Accordingly, we impute debt for the fixed costs associated with such transmission contracts.

66. Adjustment procedures:

- Data requirements:
- Future capacity payments obtained from the financial statement footnotes or from management.
- Discount rate: 7%.
- Analytically determined risk factor.

- Calculations:
- Balance sheet debt is increased by the PV of the stream of capacity payments multiplied by the risk factor.
- Equity is not adjusted because the recharacterization of the PPA implies the creation of an asset, which offsets the debt.
- Property, plant, and equipment and total assets are increased for the implied creation of an asset equivalent to the

debt.

- An implied interest expense for the imputed debt is determined by multiplying the discount rate by the amount of imputed debt (or average PPA imputed debt, if there is fluctuation of the level), and is added to interest expense.
- We impute a depreciation component to PPAs. The depreciation component is determined by multiplying the relevant year's capacity payment by the risk factor and then subtracting the implied PPA-related interest for that year. Accordingly, the impact of PPAs on cash flow measures is tempered.
- The cost amount attributed to depreciation is reclassified as capital spending, thereby increasing operating cash flow and funds from operations (FFO).
- Some PPA contracts refer only to a single, all-in energy price. We identify an implied capacity price within such an all-in energy price, to determine an implied capacity payment associated with the PPA. This implied capacity payment is expressed in dollars per kilowatt-year, multiplied by the number of kilowatts under contract. (In cases that exhibit markedly different capacity factors, such as wind power, the relation of capacity payment to the all-in charge is adjusted accordingly.)
- Operating income before depreciation and amortization (D&A) and EBITDA are increased for the imputed interest expense and imputed depreciation component, the total of which equals the entire amount paid for PPA (subject to the risk factor).
- Operating income after D&A and EBIT are increased for interest expense.

Natural gas inventory adjustment

67. In jurisdictions where a pass-through mechanism is used to recover purchased natural gas costs of gas distribution utilities within one year, we adjust for seasonal changes in short-debt tied to building inventories of natural gas in non-peak periods for later use to meet peak loads in peak months. Such short-term debt is not considered to be part of the utility's permanent capital. Any history of non-trivial disallowances of purchased gas costs would preclude the use of this adjustment. The accounting of natural gas inventories and associated short-term debt used to finance the purchases must be segregated from other trading activities.

68. Adjustment procedures:

- Data requirements:
- Short-term debt amount associated with seasonal purchases of natural gas devoted to meeting peak-load needs of captive utility customers (obtained from the company).

- Calculations:
- Adjustment to debt--we subtract the identified short-term debt from total debt.

Securitized debt adjustment

69. For regulated utilities, we deconsolidate debt (and associated revenues and expenses) that the utility issues as part of a securitization of costs that have been segregated for specialized recovery by the government entity constitutionally authorized to mandate such recovery if the securitization structure contains a number of protective features:

- An irrevocable, non-bypassable charge and an absolute transfer and first-priority security interest in transition property;
- Periodic adjustments ("true-up") of the charge to remediate over- or under-collections compared with the debt service obligation. The true-up ensures collections match debt service over time and do not diverge significantly in the short run; and,
- Reserve accounts to cover any temporary short-term shortfall in collections.

70. Full cost recovery is in most instances mandated by statute. Examples of securitized costs include "stranded costs" (above-market utility costs that are deemed unrecoverable when a transition from regulation to competition occurs) and unusually large restoration costs following a major weather event such as a hurricane. If the defined features are present, the securitization effectively makes all consumers responsible for principal and interest payments, and the utility is simply a pass-through entity for servicing the debt. We therefore remove the debt and related revenues and expenses from our measures. (See "Securitizing Stranded Costs," Jan. 18, 2001, for background information.)

71. Adjustment procedures:

- Data requirements:
- Amount of securitized debt on the utility's balance sheet at period end;
- Interest expense related to securitized debt for the period; and
- Principal payments on securitized debt during the period.

- Calculations:
- Adjustment to debt: We subtract the securitized debt from total debt.
- Adjustment to revenues: We reduce revenue allocated to securitized debt principal and interest. The adjustment is the sum of interest and principal payments made during the year.
- Adjustment to operating income after depreciation and amortization (D&A) and EBIT: We reduce D&A related to the securitized debt, which is assumed to equal the principal payments during the period. As a result, the reduction to operating income after D&A is only for the interest portion.
- Adjustment to interest expense: We remove the interest expense of the securitized debt from total interest expense.

- Operating cash flows:
- We reduce operating cash flows for revenues and increase for the assumed interest amount related to the securitized debt. This results in a net decrease to operating cash flows equal to the principal repayment amount.

Infrastructure renewals expenditure

72. In England and Wales, water utilities can report under either IFRS or U.K. GAAP. Those that report under U.K. GAAP are allowed to adopt infrastructure renewals accounting, which enables the companies to capitalize the maintenance spending on their underground assets, called infrastructure renewals expenditure (IRE). Under IFRS, infrastructure renewals accounting is not permitted and maintenance expenditure is charged to earnings in the year incurred. This difference typically results in lower adjusted operating cash flows for those companies that report maintenance expenditure as an operating cash flow under IFRS, than for those that report it as capital expenditure under U.K. GAAP. We therefore make financial adjustments to amounts reported by water issuers that apply U.K. GAAP, with the aim of making ratios more comparable with those issuers that report under IFRS and U.S. GAAP. For example, we deduct IRE from EBITDA and FFO.

73. IRE does not always consist entirely of maintenance expenditure that would be expensed under IFRS. A portion of IRE can relate to costs that would be eligible for capitalization as they meet the recognition criteria for a new fixed asset set out in International Accounting Standard 16 that addresses property, plant, and equipment. In such cases, we may refine our adjustment to U.K. GAAP companies so that we only deduct from FFO the portion of IRE that would not be capitalized under IFRS. However, the information to make such a refinement would need to be of high quality, reliable, and ideally independently verified by a third party, such as the company's auditor. In the absence of this, we assume

that the entire amount of IRE would have been expensed under IFRS and we accordingly deduct the full expenditure from FFO.

74. Adjustment procedures:

- Data requirements:
- U.K. GAAP accounts typically provide little information on the portion of capital spending that relates to renewals accounting, or the related depreciation, which is referred to as the infrastructure renewals charge. The information we use for our adjustments is, however, found in the regulatory cost accounts submitted annually by the water companies to the Water Services Regulation Authority, which regulates all water companies in England and Wales.

- Calculations:
- EBITDA: Reduced by the value of IRE that was capitalized in the period.
- EBIT: Adjusted for the difference between the adjustment to EBITDA and the reduction in the depreciation expense, depending on the degree to which the actual cash spending in the current year matches the planned spending over the five-year regulatory review period.
- Cash flow from operations and FFO: Reduced by the value of IRE that was capitalized in the period.
- Capital spending: Reduced by the value of infrastructure renewals spending that we reclassify to cash flow from operations.
- Free operating cash flow: No impact, as the reduction in operating cash flows is exactly offset by the reduction in capital spending.

E. Cash flow/leverage analysis

75. In assessing the cash flow adequacy of a regulated utility, our analysis uses the same methodology as with other corporate issuers (see "Corporate Methodology"). We assess cash flow/leverage on a six-point scale ranging from ('1') minimal to ('6') highly leveraged. These scores are determined by aggregating the assessments of a range of credit ratios, predominantly cash flow-based, which complement each other by focusing attention on the different levels of a company's cash flow waterfall in relation to its obligations.

76. The corporate methodology provides benchmark ranges for various cash flow ratios we associate with different cash flow leverage assessments for standard volatility, medial volatility, and low volatility industries. The tables of benchmark ratios differ for a given ratio and cash flow leverage assessment along two dimensions: the starting point for the ratio range and the width of the ratio range.

77. If an industry's volatility levels are low, the threshold levels for the applicable ratios to achieve a given cash flow leverage assessment are less stringent, although the width of the ratio range is narrower. Conversely, if an industry has standard levels of volatility, the threshold levels for the applicable ratios to achieve a given cash flow leverage assessment may be elevated, but with a wider range of values.

78. We apply the "low-volatility" table to regulated utilities that qualify under the corporate criteria and with all of the following characteristics:

- A vast majority of operating cash flows come from regulated operations that are predominantly at the low end of the utility risk spectrum (e.g., a "network," or distribution/transmission business unexposed to commodity risk and with very low operating risk);
- A "strong" regulatory advantage assessment;

- An established track record of normally stable credit measures that is expected to continue;
- A demonstrated long-term track record of low funding costs (credit spread) for long-term debt that is expected to continue; and
- Non-utility activities that are in a separate part of the group (as defined in our group rating methodology) that we consider to have "nonstrategic" group status and are not deemed high risk and/or volatile.

79. We apply the "medial volatility" table to companies that do not qualify under paragraph 78 with:

- A majority of operating cash flows from regulated activities with an "adequate" or better regulatory advantage assessment; or
- About one-third or more of consolidated operating cash flow comes from regulated utility activities with a "strong" regulatory advantage and where the average of its remaining activities have a competitive position assessment of '3' or better.

80. We apply the "standard-volatility" table to companies that do not qualify under paragraph 79 and with either:

- About one-third or less of its operating cash flow comes from regulated utility activities, regardless of its regulatory advantage assessment; or
- A regulatory advantage assessment of "adequate/weak" or "weak."

Part III--Rating Modifiers

F. Diversification/portfolio effect

81. In assessing the diversification/portfolio effect on a regulated utility, our analysis uses the same methodology as with other corporate issuers (see "Corporate Methodology").

G. Capital structure

82. In assessing the quality of the capital structure of a regulated utility, we use the same methodology as with other corporate issuers (see "Corporate Methodology").

H. Liquidity

83. In assessing a utility's liquidity/short-term factors, our analysis is consistent with the methodology that applies to corporate issuers (See "Methodology And Assumptions: Liquidity Descriptors For Global Corporate Issuers," Nov. 19, 2013) except for the standards for "adequate" liquidity set out in paragraph 84 below.

84. The relative certainty of financial performance by utilities operating under relatively predictable regulatory monopoly frameworks make these utilities attractive to investors even in times of economic stress and market turbulence compared to conventional industrials. For this reason, utilities with business risk profiles of at least "satisfactory" meet our definition of "adequate" liquidity based on a slightly lower ratio of sources to uses of funds of 1.1x compared with the standard 1.2x. Also, recognizing the cash flow stability of regulated utilities we allow more discretion when calculating covenant headroom. We consider that utilities have adequate liquidity if they generate positive sources over uses, even if forecast EBITDA declines by 10% (compared with the 15% benchmark for corporate issuers) before covenants are breached.

I. Financial policy

85. In assessing financial policy on a regulated utility, our analysis uses the same methodology as with other corporate issuers (see "Corporate Methodology").

J. Management and governance

86. In assessing management and governance on a regulated utility, our analysis uses the same methodology as with other corporate issuers (see "Corporate Methodology").

K. Comparable ratings analysis

87. In assessing the comparable ratings analysis on a regulated utility, our analysis uses the same methodology as with other corporate issuers (see "Corporate Methodology").

Appendix--Frequently Asked Questions

Does Standard & Poor's expect that the business strategy modifier to the preliminary regulatory advantage will be used extensively?

88. Globally, we expect management's influence will be neutral in most jurisdictions. Where the regulatory assessment is "strong," it is less likely that a negative business strategy modifier would be used due to the nature of the regulatory regime that led to the "strong" assessment in the first place. Utilities in "adequate/weak" and "weak" regulatory regimes are challenged to outperform due to the uncertainty of such regulatory regimes. For a positive use of the business strategy modifier, there would need to be a track record of the utility consistently outperforming the parameters laid down under a regulatory regime, and we would need to believe this could be sustained. The business strategy modifier is most likely to be used when the preliminary regulatory advantage assessment is "strong/adequate" because the starting point in the assessment is reasonably supportive, and a utility has shown it manages regulatory risk better or worse than its peers in that regulatory environment and we expect that advantage or disadvantage will persist. An example would be a utility that can consistently earn or exceed its authorized return in a jurisdiction where most other utilities struggle to do so. If a utility is treated differently by a regulator due to perceptions of poor customer service or reliability and the "operating efficiency" component of the competitive position assessment does not fully capture the effect on the business risk profile, a negative business strategy modifier could be used to accurately incorporate it into our analysis. We expect very few utilities will be assigned a "very negative" business strategy modifier.

Does a relatively strong or poor relationship between the utility and its regulator compared with its peers in the same jurisdiction necessarily result in a positive or negative adjustment to the preliminary regulatory advantage assessment?

89. No. The business strategy modifier is used to differentiate a company's regulatory advantage within a jurisdiction where we believe management's business strategy has and will positively or negatively affect regulatory outcomes beyond what is typical for other utilities in that jurisdiction. For instance, in a regulatory jurisdiction where allowed returns are negotiated rather than set by formula, a utility that is consistently authorized higher returns (and is able to earn that return) could warrant a positive adjustment. A management team that cannot negotiate an approved capital spending program to improve its operating performance could be assessed negatively if its performance lags behind peers in the same regulatory jurisdiction.

What is your definition of regulatory jurisdiction?

90. A regulatory jurisdiction is defined as the area over which the regulator has oversight and could include single or multiple subsectors (water, gas, and power). A geographic region may have several regulatory jurisdictions. For example, the Office of Gas and Electricity Markets and the Water Services Regulation Authority in the U.K. are considered separate regulatory jurisdictions. In Ontario, Canada, the Ontario Energy Board represents a single jurisdiction with regulatory oversight for power and gas. Also, in Australia, the Australian Energy Regulator would be considered a single jurisdiction given that it is responsible for both electricity and gas transmission and distribution networks in the entire country, with the exception of Western Australia.

Are there examples of different preliminary regulatory advantage assessments in the same country or jurisdiction?

91. Yes. In Israel we rate a regulated integrated power utility and a regulated gas transmission system operator (TSO). The power utility's relationship with its regulator is extremely poor in our view, which led to significant cash flow volatility in a stress scenario (when terrorists blew up the gas pipeline that was then Israel's main source of natural gas, the utility was unable to negotiate compensation for expensive alternatives in its regulated tariffs). We view the gas TSO's relationship with its regulator as very supportive and stable. Because we already reflected this in very different preliminary regulatory advantage assessments, we did not modify the preliminary assessments because the two regulatory environments in Israel differ and were not the result of the companies' respective business strategies.

How is regulatory advantage assessed for utilities that are a natural monopoly but are not regulated by a regulator or a specific regulatory framework, and do you use the regulatory modifier if they achieve favorable treatment from the government as an owner?

92. The four regulatory pillars remain the same. On regulatory stability we look at the stability of the setup, with more emphasis on the historical track record and our expectations regarding future changes. In tariff-setting procedures and design we look at the utility's ability to fully recover operating costs, investments requirements, and debt-service obligations. In financial stability we look at the degree of flexibility in tariffs to counter volume risk or commodity risk. The flexibility can also relate to the level of indirect competition the utility faces. For example, while Nordic district heating companies operate under a natural monopoly, their tariff flexibility is partly restricted by customers' option to change to a different heating source if tariffs are significantly increased. Regulatory independence and insulation is mainly based on the perceived risk of political intervention to change the setup that could affect the utility's credit profile. Although political intervention tends to be mostly negative, in certain cases political ties due to state ownership might positively influence tariff determination. We believe that the four pillars effectively capture the benefits from the close relationship between the utility and the state as an owner; therefore, we do not foresee the use of the regulatory modifier.

In table 1, when describing a "strong" regulatory advantage assessment, you mention that there is support of cash flows during construction of large projects, and preapproval of capital investment programs and large projects lowers the risk of subsequent disallowances of capital costs. Would this preclude a "strong" regulatory advantage assessment in jurisdictions where those practices are absent?

93. No. The table is guidance as to what we would typically expect from a regulatory framework that we would assess as "strong." We would expect some frameworks with no capital support during construction to receive a "strong" regulatory advantage assessment if in aggregate the other factors we analyze support that conclusion.

RELATED CRITERIA AND RESEARCH

- Corporate Methodology, Nov. 19, 2013
- Group Rating Methodology, Nov. 19, 2013
- Methodology: Industry Risk, Nov. 19, 2013
- Corporate Methodology: Ratios And Adjustments, Nov. 19, 2013
- Ratings Above The Sovereign--Corporate And Government Ratings: Methodology And Assumptions, Nov. 19, 2013
- Methodology And Assumptions: Liquidity Descriptors For Global Corporate Issuers, Nov. 19, 2013
- Collateral Coverage And Issue Notching Rules For '1+' And '1' Recovery Ratings On Senior Bonds Secured By Utility Real Property, Feb. 14, 2013
- Methodology: Management And Governance Credit Factors For Corporate Entities and Insurers, Nov. 13, 2012
- General Criteria: Principles Of Credit Ratings, Feb. 16, 2011
- General Criteria: Rating Government-Related Entities: Methodology And Assumptions, Dec. 9, 2010

These criteria represent the specific application of fundamental principles that define credit risk and ratings opinions. Their use is determined by issuer- or issue-specific attributes as well as Standard & Poor's Ratings Services' assessment of the credit and, if applicable, structural risks for a given issuer or issue rating. Methodology and assumptions may change from time to time as a result of market and economic conditions, issuer- or issue-specific factors, or new empirical evidence that would affect our credit judgment.