



Portland General Electric Company
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May 16, 2007

Vikie Bailey-Goggins
Administrator
550 Capitol Street, N.E., Ste 215
Salem, OR 97301-2551

RE: UM 1276 Investigation Into Performance-Based Ratemaking Mechanisms

Ms. Bailey-Goggins:

Enclosed please find an original and five copies of Portland General Electric's three Final Straw Proposals: 1) Imputed Debt, 2) Income Opportunities with Contracts, and 3) Income Opportunity by Portfolio. As part of our Debt Imputation proposal, we are enclosing two S&P articles as Attachments B and C.

If you have any questions or require further information, please call me at (503) 464-7580 or Alex Tooman at (503) 464-7623. Please direct all formal correspondence and requests to the following email address pge.opuc.filings@pgn.com

Sincerely,

Patrick G. Hager
Manager, Regulatory Affairs

cc: UM 1276 Service List

Encl.

Debt Imputation Straw Proposal

Background

Rating agencies review fixed obligations/capacity payments. In particular, rating agencies impute debt from an electric utility's purchased power agreements (PPAs) when computing financial metrics. Standard & Poor's (S&P) has publicly available information and a comprehensive view on debt imputation. S&P imputes debt on purchased power to identify a utility's load serving obligations that have debt-like attributes.

S&P imputes debt only for the amount of the capacity contracts, or the capacity amount assumed in other types of contracts that include energy. A risk factor, specific to each company and determined by S&P, is applied to the totals for each category of contracts to determine the capitalized amount of the contracts. According to S&P, certain factors such as power cost adjustment mechanisms (PCAs) can reduce the risk factor. To offset the imputed debt, S&P looks to the utility to issue equity or for commissions to impute equity for ratemaking.

S&P has just issued a revised methodology for imputing debt. Its revised methodology may now include some short-term contracts (3 years or less), in addition to contracts of 3+ years currently in their calculation, if these shorter term contracts are used to meet long-term load obligations. In addition, S&P will now adjust its risk factors based more specifically on several factors, including whether there is legislatively-mandated recovery of purchased power costs, the effectiveness of a PCA and the timeliness of recovery, and whether a utility only recovers the costs in base rates. Although these were always considerations, S&P will be considering these factors to create more specific risk factors for each utility rather than more generalized risk factors. Finally, S&P will not consider contracts as imputed debt where the utility merely acts as a "conduit" between the supplier and end-user.

Proposal Overview

This straw proposal aims to neutralize the detriment to financial ratios of imputed debt by imputing an equal amount of equity for ratemaking purposes. The calculation would be made during the general rate case process and would be based on the contracts included in the utility's power cost forecast for the next calendar year. The calculation is described below but would basically follow the S&P methodology and would be subject to audit/check by OPUC Staff and other parties. An example is provided as an attachment.

Process and Recommendations

Incorporate debt imputation as part of the electric utility's general rate case proceeding. Incorporation during the general rate case would provide recovery during the same period as S&P's imputed debt calculation, at least for the first year. PPAs (including most short-term contracts) for the test year should be known and forecasted. However, some regulatory lag might occur between general rate cases as the utility rebalances and adds to

its portfolio to meet changing retail load. This approach could include an annual or bi-annual re-estimation for tracking purposes. However, it is unlikely that significant amounts of PPAs would be replaced with owned assets absent a general rate case.

Process

- Initially, review all purchased power contracts (the portfolio of contracts) forecast for the test year. Essentially, all short-term and long-term contracts will be included in the initial review. Spot purchases would not be included.
 - Note: S&P's proposed methodology has no minimum contract length that would exclude a contract from the debt imputation calculation for a utility.
 - Note: S&P indicated there may be some "carve-outs" which will be exceptions determined by S&P on a case-by-case basis. Should a utility receive any exceptions, they would be removed from the calculation.
- Types of contracts that could be included in the analysis are:
 - Short-Term and Long-Term Energy Purchase Contracts
 - Capacity Contracts
 - Hydro Contracts
 - Wind Contracts
 - Non-utility Generator Contracts
 - Transmission Contracts
- Calculation – (Should follow the revised S&P methodology (March 30, 2007))
 - Calculate the net present value (NPV) for the stream of capacity payments associated with the utility's outstanding contracts. Contracts are those:
 - included in the notes to the utility's financial statements.
 - included in the proprietary forecasts provided by the utility to S&P.
 - long-term transmission contracts that provide access to specific power plants or provide access to competitive wholesale energy markets.
 - Determine the amount of "evergreen" treatment, if any.
 - If the duration of PPAs is short, add capacity (and payments) until the desired duration/amount is reached.
 - Capacity price is derived from the cost of a new peaker.
 - The risk factor is then applied to the total present value for each category of contracts to determine the capitalized amount
 - The risk factor is specific to each company (determined by S&P)
 - Risk factors can vary depending on the company's circumstances for recovery of purchased power
 - S&P provides a lower risk factor when there is a legislatively-prescribed recovery mechanism and a higher

risk factor when the utility only recovers the costs in base rates.

- The risk factor can be reduced because of a PCA mechanism. The amount of the reduction depends on the design of the mechanism, such as the triggers for cost recovery, its actual operation, and effectiveness for cost recovery.

- Result

- The amount of equity is imputed for a utility for ratemaking purposes in an amount equal to the imputed debt.

Implementation

This process will become a part of a utility's general rate case process. Most short- and long-term contracts for the following year will be known and forecasted by the final power cost forecast used to set rates. Therefore, that information can be used to calculate the imputed debt, and the amount which the Commission can, as part of its annual update order, impute equity for ratemaking purposes.

If, during the prudence review in the annual power cost update process, the Commission deems a contract(s) imprudent, then that contract(s) could be removed from the imputed debt calculated for this process and equity imputation only. However, because the utility must still serve its retail load, a proxy contract should replace the one deemed imprudent. Because the utility calculates and reports the imputed debt for S&P based on their specific calculations, they should use the same information and calculations for this process.

Summary Recommendations

The Commission should impute equity for ratemaking purposes equivalent to the amount of imputed debt as calculated above to mitigate the impacts of the imputed debt on financial metrics used by rating agencies as part of their ratings analysis of a utility.

The amount of imputed debt and associated imputed equity will be determined during the utility's annual power cost update process. The amount of imputed debt should be determined using the most recent information available for ratemaking purposes (i.e. the last power cost forecast used for setting rates).

The contracts in the annual power cost update are subject to prudence review by the Commission. "Imprudent" contracts would be replaced in the calculated amount by a proxy contract.

Advantages

Because the rating agencies impute debt from purchased power contracts when calculating financial ratios used as a factor in ratings decisions, equity imputation will help negate the detrimental imputed debt effect. Equity imputation would improve the credit metrics when debt imputation is calculated by the rating agencies and therefore strengthen credit quality.

This is a balanced approach. The effects of imputed debt on the company is a cost such that it could contribute to a ratings downgrade, increasing its cost of debt and decreasing investor confidence, which are costs to the customer both in dollars and possibly reliability of the utility if it cannot recover its costs. In addition, the Commission still has prudence review of contracts during the annual power cost update process. Therefore, imputing equity balances customer and company interests.

In addition, by imputing the equity, the company should be more neutral to “build versus buy” thereby minimizing any bias.

Finally, by reducing the bias, the utility will be more receptive to additional purchased power contracts. The utility’s interest could incite more market entrants and counter-parties willing to provide contracts, therefore potentially increasing competition among the providers that could have a downward effect on pricing of contracts.

Disadvantages

There could be a short-term retail rate impact because the utility will earn on a different equity level.

Attachment A
Debt Imputation
Straw Proposal Example

S&P Ratios - Adjusted for Purchased Power (Hypothetical Example)

Assumptions

Financial Forecast:

NPV	7.00%
Capacity Rate for Firm Energy	50%
Capacity Rate for Wind	90%
Risk Factor for Non PURPA	40%
Risk Factor for PURPA	40%

**Debt to Total Capitalization Ratio: Standard & Poor's
 Ratios Adjusted for Purchased Power Contracts
 (Hypothetical Example)**

2007 Benchmarks Highlighted

Benchmark "BBB" Rating	<i>currently</i>			<i>Forecast</i>	<i>Forecast</i>	<i>Forecast</i>	<i>Forecast</i>	<i>Forecast</i>
	BBB+	BBB	BBB-	2007	2008	2009	2010	2011

Imputed Debt from PPAs	235,514,019	220,106,560	205,707,065	192,249,593	179,672,517
Additional Imputed Debt from Leases (estimated)	50,000,000	50,000,000	50,000,000	50,000,000	50,000,000
Total	285,514,019	270,106,560	255,707,065	242,249,593	229,672,517

	50.0-60.0 %	50.00-53.33%	53.34-56.67%	56.68-60.00%					
Total Debt/Total Capital		50.00%			50.00%	49.78%	50.08%	50.22%	50.34%
Adjusted for PPAs and leases			55.74%		55.74%	55.16%	54.00%	53.52%	53.30%
Difference					5.74%	5.38%	3.91%	3.30%	2.96%

NOTE: S&P has outlined proposed changes to its methodology (see attached November 2006 article). S&P has not yet published its final methodology changes.

Attachment A
Debt Imputation
Straw Proposal Example

POWER CONTRACTS - CAPACITY ONLY
FORECASTED NET PRESENT VALUE BY YEAR
(Adjusted to Capacity Only Portion)
(Hypothetical Example)

	2006	2007	2008	2009	2010	2011
Capacity Contracts						
Total	\$150,000,000	\$140,186,916	\$131,015,809	\$122,444,682	\$114,434,282	\$106,947,927
Hydro Agreements						
Total	\$100,000,000	\$93,457,944	\$87,343,873	\$81,629,788	\$76,289,521	\$71,298,618
* Long Term Energy Purchase Contracts						
Total	\$300,000,000	\$280,373,832	\$262,031,618	\$244,889,363	\$228,868,564	\$213,895,854
# Wind Contracts						
Total	\$75,000,000	\$70,093,458	\$65,507,905	\$61,222,341	\$57,217,141	\$53,473,963
NUG Contracts						
Total	\$5,000,000	\$4,672,897	\$4,367,194	\$4,081,489	\$3,814,476	\$3,564,931
Net Purchases	\$630,000,000	\$588,785,047	\$550,266,399	\$514,267,662	\$480,623,984	\$449,181,293

* These contracts have blended capacity and energy payments in the price. Adjustments for the capacity calculation is 50% of the total payment.

These wind contracts have blended capacity and energy payments in the price. Adjustments for the capacity calculation is 90% of the total payment.

Integration services are not included in these costs

Contracts under 3 years in duration are not included in the calculations. Values are as of January 1 of the given year.

Capitalization of Hypothetical Purchased Power Contracts and Leases

		<i>Forecast</i>	<i>Forecast</i>	<i>Forecast</i>	<i>Forecast</i>	<i>Forecast</i>
	2006	2007	2008	2009	2010	2011
Long Term Energy Purchase Contracts	300,000,000	280,373,832	262,031,618	244,889,363	228,868,564	213,895,854
Capitalization @	40.0%	40.0%	40.0%	40.0%	40.0%	40.0%
Capitalization amount	120,000,000	112,149,533	104,812,647	97,955,745	91,547,425	85,558,342
Capacity contracts	150,000,000	140,186,916	131,015,809	122,444,682	114,434,282	106,947,927
Capitalization @	40.0%	40.0%	40.0%	40.0%	40.0%	40.0%
Capitalization amount	60,000,000	56,074,766	52,406,324	48,977,873	45,773,713	42,779,171
Hydro electric generator operating agreements	100,000,000	93,457,944	87,343,873	81,629,788	76,289,521	71,298,618
Capitalization @	40.0%	40.0%	40.0%	40.0%	40.0%	40.0%
Capitalization amount	40,000,000	37,383,178	34,937,549	32,651,915	30,515,808	28,519,447
Wind Contracts	75,000,000	70,093,458	65,507,905	61,222,341	57,217,141	53,473,963
Risk Factor	40.0%	40.0%	40.0%	40.0%	40.0%	40.0%
Cap Amount	30,000,000	28,037,383	26,203,162	24,488,936	22,886,856	21,389,585
Non-utility generator contracts	5,000,000	4,672,897	4,367,194	4,081,489	3,814,476	3,564,931
Capitalization @	40.0%	40.0%	40.0%	40.0%	40.0%	40.0%
Capitalization amount	2,000,000	1,869,159	1,746,877	1,632,596	1,525,790	1,425,972
Total Long-Term Contracts Capitalized	252,000,000	235,514,019	220,106,560	205,707,065	192,249,593	179,672,517
Operating Leases (estimated)	50,000,000	50,000,000	50,000,000	50,000,000	50,000,000	50,000,000

Calculation of Key Financial Ratios

Ratios Adjusted for Hypothetical Purchased Power Contracts + Leases

(Dollars in 000's)

Total Debt/Total Capital

	<i>Forecast 2007</i>	<i>Forecast 2008</i>	<i>Forecast 2009</i>	<i>Forecast 2010</i>	<i>Forecast 2011</i>
Long term debt + (2)	1,000,000	1,100,000	1,500,000	1,700,000	1,800,000
Long term debt current +	100,000	0	0	0	0
Notes payable +	0	20,000	5,000	15,000	25,000
Capitalized purchased power contracts	285,514	270,107	255,707	242,250	229,673
Capital lease obligation	0	0	0	0	0
Preferred Stock	0	0	0	0	0
Total Debt	1,385,514	1,390,107	1,760,707	1,957,250	2,054,673
Long term debt + (2)	1,000,000	1,100,000	1,500,000	1,700,000	1,800,000
Long term debt current +	100,000	0	0	0	0
Notes payable +	0	20,000	5,000	15,000	25,000
Capital lease obligation	0	0	0	0	0
Capitalized purchased power contracts	285,514	270,107	255,707	242,250	229,673
Common stock equity +	1,100,000	1,130,000	1,500,000	1,700,000	1,800,000
Preferred stock +	0	0	0	0	0
ESOP	0	0	0	0	0
Total Capital	2,485,514	2,520,107	3,260,707	3,657,251	3,854,675
	50.00%	49.78%	50.08%	50.22%	50.34%
Total debt/total capital	55.74%	55.16%	54.00%	53.52%	53.30%

Request For Comments: Imputing Debt To Purchased Power Obligations

Publication date: 01-Nov-2006

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Standard & Poor's Ratings Services is requesting comments from market participants about one specific element of its refined methodology for imputing debt to purchased power obligations involving utility companies.

Proposal Summary

Standard & Poor's is abandoning its practice of not imputing debt for purchased power agreements (PPA) with terms of three years or less. In addition, where there is a high probability that the utility will have an ongoing obligation to serve load beyond the nominal tenor of short-term contracts, which is almost always the case, Standard & Poor's is contemplating providing evergreen treatment to PPA obligations to reflect the long-term load serving obligations borne by utilities. Unless an electric utility faces a declining population or real prospects of customer migration to other suppliers, both of which are rare, any near-term or intermediate power supply contracts will need to be renewed or replaced with contracted or self-built capacity to continue to meet load obligations.

We acknowledge that the process of providing evergreen treatment to outstanding contracts is imprecise. Uncertainties surround the level of capacity prices that should be assumed and the duration for which contracts should be extended to reflect the load-serving obligation. Therefore, we welcome input on evergreen-related issues as we refine these aspects of the criteria.

Response Deadline

Please submit your comments on this proposal through Dec. 15, 2006, to criteriacomments@standardandpoors.com

Imputation Is Important For Credit Analysis

Standard & Poor's has for many years considered PPAs as financial obligations that electric utilities incur when they elect to purchase rather than build their own capacity, and this obligation has affected our view of utilities' creditworthiness. Standard & Poor's has historically applied a "risk factor" of 0% to 100% to the net present value (NPV) of the PPA capacity payments, and capitalized this amount. The risk factor's role is to calibrate the stringencies of

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debt imputation relative to our evaluation of the certainty of recovery of power purchase costs by virtue of regulatory and legislative protections. The imputation of debt and debt service is important to our credit analysis because the resulting financial adjustments affect several key credit metrics used when we assess credit quality.

The risk factor acts as a proxy for the proportion of risk borne by the utility. At 100%, all risk related to contractual obligations rests on the company with no mitigating regulatory or legislative support. Conversely, a 0% risk factor indicates that the burden of the contractual payments rests solely with ratepayers.

Reviewing Existing Criteria--And A Few Refinements

From time to time, Standard & Poor's has revisited the methodology employed for making the financial adjustments that incorporate the obligations created by PPAs in its credit evaluations. This article discusses the most recent refinements. It also includes a discussion of additional areas that are under consideration as potential future refinements to our ratings methodology. While we expect very modest, if any, rating changes to result from these modifications, the proposed modifications are being disseminated in this article in the interest of ensuring the ongoing transparency of our rating methodology.

Standard & Poor's published its original PPA criteria in 1991, and provided updates in 1993 and 2003. During this time, the industry has established a very strong track record of demonstrating the viability and effectiveness of the various recovery mechanisms that state regulators have established for costs associated with contracted generation capacity. Recovery mechanisms have largely performed as intended, and related write-offs have proven to be very low. These results justify the continued application of risk factors that serve to temper, often substantially, the amount of debt imputation. Ensuring meaningful comparability in the financial commitments among utilities that are building and those that are purchasing capacity to satisfy load obligations is the rationale for our imputation of debt and debt service for PPAs. PPAs essentially represent substitutes for direct, debt-financed, capital investments. In a sense, a utility that has entered into a PPA has contracted with a supplier to make the financial investment on its behalf. The analytical goal of our financial adjustments for PPAs is to reflect the fixed obligation in a way that depicts any credit exposure that is added by the presence of PPAs. That said, a PPA also shifts various risks to the supplier, such as construction risk and most of the operating risk. As a result, the principal risk borne by a utility that relies on PPAs is the recovery of the financial obligation in rates. While it is the utility that must of course make these payments, however, to the extent that regulators and, in certain cases, legislatures, have structured recovery to assign the burden to ratepayers, the utilities' risk diminishes.

Refinements To The Methodology

With only modest liberalization of the treatment of PPAs, we are perpetuating the current ratings criteria. Current guidelines for utilities whose capacity payments are recovered in base rates provides for the application of a 50% risk factor to the NPV of the capacity payments. This approach will continue. The NPV is calculated using the utility's average cost of debt (excluding securitization debt), rather than the standardized 10% discount rate used previously. For purposes of adjusting cash flow measures, implied interest expense is calculated on the imputed debt amount. This is accomplished by applying the average cost of debt to the relevant year's imputed debt level.

To date, where PPA capacity costs were recovered through a fuel adjustment clause (FAC), as compared with base rate recovery, a risk factor of 30% has been generally used in lieu of the 50% risk factor. We view the recovery of the capacity component of a PPA through a FAC as providing greater certainty and timeliness than recovery through a base rate mechanism. (The base rate mechanism generally has greater potential for under-recovery due to variations in volume sales and fluctuations in fuel prices over time.) Based on the effectiveness of FAC

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mechanisms, we will adjust modestly the risk factor of 30% down to 25%.

We recognize that there are certain jurisdictions that have true-up mechanisms that are more favorable and frequent than the review of base rates, but still do not amount to pure FACs. Some of these mechanisms are triggered when certain financial thresholds are met or after prescribed periods of time have passed. In these instances, a risk factor between the revised 25% FAC risk factor and the 50% risk factor will be employed in calculating adjusted ratios.

In those instances where recovery of PPA-related capacity costs is guaranteed by a legislative mechanism, the level of the risk factor will be determined by the timeliness provided by the legislative true-up mechanism. The strength of the mechanism can result in risk factors as low as 0% because legislatively prescribed recovery mechanisms are viewed as providing utilities with a greater level of protection than that provided by regulatory orders.

There are a number of utilities to which Standard & Poor's does not impute any PPA-related debt. Specifically, Standard & Poor's does not impute debt for supply arrangements if a utility acts merely as a conduit for the delivery of power (e.g., because it has been transformed into a pure transmission and distribution utility by regulators or legislation that has directed the divestiture of all generation assets). For example, in New Jersey, the vertically integrated utility companies were transformed into pure transmission and distribution utilities. The state commission, or an appointed proxy, leads an annual auction in which suppliers bid to serve the state's retail customers, and the utilities are protected from supplier default. In New Jersey, the power supply function of the state's utilities has essentially been reduced to the delivery of power and the collection of revenues from retail customers on behalf of the suppliers. Therefore, while Standard & Poor's has continued to impute debt to New Jersey's utilities for qualifying facility and exempt wholesale generator contracts to which the utilities are parties, we do not do so for other electricity supply contracts where the utilities merely act as conduits between the winners of the regulator's supply auction and the end-user, retail customers.

Finally, Standard & Poor's is abandoning the practice of not imputing debt for contracts with terms of three years or less. In addition to abandoning our historical three-year rule, we are contemplating applying an evergreen mechanism for short-term contracts. Because expiring contracts must be replaced with either debt-financed capacity additions or replacement PPAs for regulated utilities to meet load serving obligations, Standard & Poor's must look beyond the termination of near-term and intermediate-term contracts to approximate the fixed obligations that will succeed the current contracts in evaluating a utility's financial profile.

The process of providing evergreen treatment to outstanding contracts is imprecise. Uncertainties surround the level of capacity prices that should be assumed and the duration for which contracts should be extended to reflect the load-serving obligation. Therefore, we welcome input on evergreen-related issues as we refine these aspects of the criteria over the next 45 days.

Adjusting Financial Ratios

Standard & Poor's determines the debt equivalence that it will add to a utility's balance sheet as a result of being a party to a PPA by calculating the NPV of the annual capacity payments over the life of the contract because it is the capacity payment that represents the vehicle that funds the recovery of the supplier's investment in the generation asset.

Where the PPA contract price is stated as a single, all-in energy price, Standard & Poor's will use a proxy capacity charge, stated in dollars per kilowatt-year, and multiply that figure by the number of kilowatts under contract. This number will be updated from time to time to reflect prevailing costs for the development and financing of the marginal unit, a combustion turbine. This is a departure from the historical practice of simply halving all-in energy payments and

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methodology will also be applied to generation with extremely low variable costs whose price is stated as an all-in energy price, such as nuclear and wind generation.

The discount rate used in calculating an NPV, imputed debt, and imputed interest expense is the utility's average interest rate on its outstanding debt (excluding securitization related debt). Standard & Poor's multiplies the NPV of the stream of capacity payments by the appropriate risk factor, which will generally be 25% for capacity payments that are recovered through fuel adjustment clauses and 50% for capacity payments that are recovered in base rates. This amount is added to a utility's reported debt to calculate adjusted debt. Similarly, Standard & Poor's imputes an associated interest expense by multiplying a given year's NPV of PPA-related capacity payments by the risk factor and the company's average interest rate on outstanding debt. The resulting number is added to reported interest expense to calculate adjusted interest coverage ratios.

Key ratios affected include:

- Balance sheet debt is increased by the calculated NPV of the stream of capacity payments, after the application of the risk factor, which is added to the numerator and denominator in calculating an adjusted debt-to-capitalization ratio;
- The implied interest expense derived from applying the average interest rate to the NPV figure is simultaneously treated as a reduction in power purchase expenses and added to interest expense for the calculation of the adjusted funds from operations (FFO) to interest ratio; and
- The FFO to total debt ratio is adjusted by adding the NPV of capacity payments, after the application of the risk factor, to debt in the denominator and an implied depreciation expense is added to FFO.

The depreciation expense adjustment, the last element of the principal financial adjustments cited above, represents a new element within the context of financial adjustments for PPAs (though it has been a long-standing component of the analytical adjustments for leases). Adding an implied depreciation expense to FFO is another element that aligns the analytical treatment of PPAs with the concept of purchased power as a substitute for self-build. The depreciation expense adjustment is a vehicle for capturing the ownership-like attributes of the contracted asset and has the effect of mitigating some of the ratio impact of debt imputation.

The mechanics of these adjustments are illustrated in the table.

Download Table

Adjustments To Ratios						
(Mil. \$)	Year 1	Year 2	Year 3	Year 4	Year 5	Thereafter
Funds from operations	2,500					
Interest expense	650					
Directly issued debt	10,000					
Shareholders' equity	9,000					
Fixed capacity commitments	500	500	500	500	500	4,000
NPV of fixed capacity commitments						
Using a 6.5% discount rate	4,079					
Applying a 25% risk factor	1,020					
Unadjusted ratios						
FFO/interest (x)	4.9					
FFO/total debt (%)	25					
Debt/capitalization (%)	53					
Ratios adjusted for debt imputation						
FFO/interest (x)*	4.6					

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FFO/total debt (%)¶	23
Debt/capitalization (%)§	55

*Adds implied interest to the numerator and denominator. Also adds implied depreciation to the numerator. ¶Adds implied depreciation to the numerator and adds implied debt to total debt. §Adds implied debt to both the numerator and the denominator.

Clearly, the higher the risk factor, the greater the effect on adjusted financial ratios. The NPV of the PPA will typically decrease as the maturity of the contract approaches, but on a portfolio basis, the overall NPV may remain somewhat static as old contracts roll off and new ones are executed.

Conclusion

Absent legislative assurance of recovery, or an obligation that is little more than a fiduciary role for a transmission and distribution utility, PPAs constitute a financial risk by adding fixed obligations, though history is clearly on the side of full recovery. There is ample evidence that utility regulators and commissions have intended these costs to be for the account of the ratepayer, which justifies the continued use of risk factors. The modest revisions to our methodology seek to perpetuate our use of financial adjustments that reflect the legislative and regulatory protections that mitigate regulated utilities' exposure to the fixed obligations created by PPAs.

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Attachment C

STANDARD
& POOR'S

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RESEARCH

Credit FAQ:

Imputed Debt Calculation For U.S. Utilities' Power Purchase Agreements

Publication date: 30-Mar-2007
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In November 2006, Standard & Poor's Ratings Services invited members of the U.S. electric industry and interested parties to provide us with comments on our proposal to incorporate evergreen treatment in the debt equivalents we calculate to reflect the fixed obligations created by power purchase agreements (PPAs). Evergreen treatment would, for analytical purposes, assume an extension of the life of some short- and intermediate-term PPAs, so as to achieve comparability in the financial metrics of companies with supply arrangements of varying durations.

We received comments from every sector of the power industry--utilities, independent power producers, trade organizations, consultants, investors, and regulators. Based on the comments received, we have reached a number of conclusions regarding the application of evergreen treatment to PPAs in our analysis. We have also made a number of clarifications and refinements to our rating methodology. This discussion supplements our Nov. 1, 2006 article "Request for Comments: Imputing Debt to Purchased Power Obligations," which is available on RatingsDirect.

Frequently Asked Questions**How is evergreen treatment applied in Standard & Poor's credit analysis?**

Standard & Poor's adjusts reported financial metrics to capitalize portions of the costs of PPAs. The intent of these adjustments is to capture fixed PPA obligations that have debt-like attributes because they fund the recovery of third-party power suppliers' capital investments in generation assets. These fixed obligations merit inclusion in a utility's financial metrics as though they are part of a utility's permanent capital structure. Evergreen treatment would extend the tenor of short- and intermediate-term contracts to reflect the long-term obligation of electric utilities to meet their customers' demand for electricity.

We have concluded that there is a limited pool of utilities whose portfolios of existing and projected PPAs do not meaningfully correspond to long-term load serving obligations. Although evergreen treatment will be applied selectively in those cases where the portfolio of existing and projected PPAs is inconsistent with long-term load-serving obligations, a blanket application of evergreen treatment is not warranted.

The net present value (NPV) of the fixed obligations associated with a portfolio of short-term or intermediate-term contracts can lead to distortions in a utility's financial profile relative to the NPV of the fixed obligations of a utility with a portfolio of PPAs that is made up of longer-term commitments. Where there is the potential for such distortions, rating committees will consider evergreen treatment of existing PPA obligations as a scenario for inclusion in the rating analysis.

What are the mechanics of PPA debt imputation and evergreen treatment?

A starting point for calculating the debt to be imputed for PPA-related fixed obligations can be found among the "commitments and contingencies" in the notes to a utility's financial statements. An NPV is calculated for the stream of capacity payments associated with the outstanding contracts included in the

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financial statements. The notes to the financial statements report capacity payments for the succeeding five years and a "thereafter" period.

While we have access to proprietary forecasts that show the detail underlying the costs that are amalgamated beyond the five-year horizon, others, for purposes of calculating an NPV, can divide the amount reported as "thereafter" by the average of the capacity payments in the preceding five years to derive an approximate tenor of the amounts combined as the sum of the obligations beyond the fifth year.

In calculating debt equivalents, we also include new contracts that will commence during the forecast period and aren't reflected in the notes to the financial statements. For this group of contracts, debt imputation will not commence until the year that energy deliveries are to begin under the anticipated contract.

How is NPV calculated?

The NPV is calculated using a discount rate equivalent to the company's average cost of debt, net of securitization debt. Once we arrive at the NPV, we apply a risk factor to reflect the benefits of regulatory or legislative cost recovery mechanisms (see "Request for Comments: Imputing Debt to Purchased Power Obligations," (cited above) for a discussion of risk factors).

How does evergreen treatment alter the PPA debt adjustment?

If evergreen treatment is warranted, we would extend the expiration of existing contracts and those that are slated to commence during the five-year horizon. Based on our analysis of several companies, we have determined that any evergreen extension of the tenor of existing contracts and anticipated contracts should extend those contracts to 12 years beyond the relevant forecast year.

To decide whether to apply evergreen treatment, we would start with an examination of actual capacity payments scheduled during the five-year horizon and the period represented as the thereafter period in the financial statements. If we conclude that the duration of PPAs is short relative to our targeted tenor, we would then add capacity payments until the targeted tenor is achieved. The price for the capacity that we add will be derived from new peaker entry economics.

We use empirical data to establish the cost of developing new peaking capacity and will reflect regional differences in our analysis. 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.

Does customer choice curb the need for evergreen treatment?

Several comments submitted to us observed that over the long term there is the potential that customers may switch to third-party providers, thereby undermining the rationale for an evergreen adjustment. We acknowledge that the introduction of customer migration would alter the long-term obligation to serve. At the same time, it must be noted that our rating methodology already addresses this concern. Customer choice typically goes hand in hand with the transformation of a utility into a pure transmission and distribution system. We have previously stated that we won't impute debt for those utilities whose role--as a result of either regulatory orders or legislation--is limited to that of a conduit between suppliers and retail customers. Therefore, utilities whose customers have retail choice aren't generally exposed to debt imputation and, in turn, we won't apply evergreen treatment to their supply obligations.

Have there been revisions to the analytical treatment of short-term PPAs?

For many years, Standard & Poor's didn't calculate debt equivalents for the fixed costs of power supply arrangements whose tenor was three years or less. We recently announced our abandonment of this exception to our debt imputation criteria. However, we understand that there are some utilities that use short-term PPAs of approximately one year or less as gap fillers pending either the construction of new capacity or the execution of long-term PPA contracts. To the extent that such short-term supply arrangements represent a nominal percentage of demand and serve the purposes described above, we will neither impute debt for such contracts nor provide evergreen treatment to such contracts.

Are accommodations made for PPAs that are treated as leases in the financial statements?

Several utilities have reported that their accountants dictate that certain PPAs need to be treated as leases for accounting purposes due to the tenor of the PPA or the residual value of the asset upon the PPA's expiration. We have consistently taken the position that companies should identify those capacity charges

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that are subject to lease treatment in the financial statements so that we can accord PPA treatment to those obligations, in lieu of lease treatment. That is, PPAs that receive lease treatment for accounting purposes won't be subject to a 100% risk factor for analytical purposes as though they were leases. Rather, the NPV of the stream of capacity payments associated with these PPAs will be reduced by the risk factor that is applied to the utility's other PPA commitments.

How is the depreciation expense related to PPAs calculated?

We noted in our November article that we now add an implied depreciation expense to funds from operations (FFO) to align the analytical treatment of PPAs with the concept of purchased power as a substitute for self-build. We observed that we calculate imputed depreciation expense in conformity with the methodology used for calculating a depreciation adjustment as an offset to debt equivalents created by leases.

The imputed depreciation expense is calculated for any given year by taking the scheduled fixed capacity payment commitment for that year and subtracting from it the implied interest expense calculated from the NPV of the stream of capacity payments associated with that year. The calculated depreciation proxy is added to FFO in the numerator as part of the calculation of both the FFO-to-interest and FFO-to-debt ratios.

What adjustments are made for tolling contracts?

We will assign a 100% risk factor when imputing debt to an unregulated energy company that has entered into a tolling agreement for a power plant's output. This is done because of the absence of a regulatory mechanism for the recovery of the fixed costs presented by the tolling arrangement.

Are transmission contracts treated differently than PPAs?

In recent years, some utilities have entered into long-term transmission contracts in lieu of building generation. In some cases, these transmission contracts provide access to specific power plants, while other transmission arrangements provide access to competitive wholesale electricity markets. We have concluded that these types of transmission arrangements represent extensions of the power plants to which they are connected or the markets that they serve. Irrespective of whether these transmission lines are integral to the delivery of power from a specific plant or are conduits to wholesale markets, we view these arrangements as exhibiting very strong parallels to PPAs as a substitute for investment in power plants. Consequently, we will impute debt for the fixed costs associated with long-term transmission contracts.

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Income Opportunities with Contracts

Overview:

The utility receives an adder on each mid- to long-term purchased power contract. The adder would depend on the specific contract type, such as “medium-term fixed-price,” “medium-term tolling” and “long-term share the costs and output.” Necessary components of the adder are the utility’s authorized rate of return (ROR), the capacity component of the contract, and the terms of the contract with respect to price(s) and term.

For contracts that are of shorter duration and require little management (e.g., fixed price, 24x7), the adder would be small. For contracts that are of longer duration and/or require more management (e.g., medium term tolling), the adder would be larger. Initially, the different groups would have to be identified and then each contract would have to be evaluated. Each year, the newer contracts would have to be evaluated.

Advantages for Customers:

The Commission has found that, under current practices, the utility is disincented to acquire contractual resources. This potentially could lead to a utility building a resource when a contract might be a better choice for customers. Income opportunities are a means to make the utility indifferent between owned resources and contracts. Under this structure, contracts will provide advantages to utilities as they acquire the portfolio of resources that best meets customer needs.

Contracts have a number of advantages relative to owned resources. They can serve short- and medium-term requirements, whereas owned resources are long-term commitments. Contracts can be sized to meet a utility's need, which might be less than the size of a comparable owned resource. Fixed-price contracts alleviate the risk of power cost changes better than do most owned resources. Tolling agreements can be based on any time period and heat rate agreed to, whereas an owned combustion turbine generally is a long-term commitment to one heat rate. Without the income opportunity structure, these advantages might be lost.

Example: Fixed-Price Contract:

Term:	5 years
Size:	25 MW (24 x 7)
Price:	\$50/MWh
	Energy Component: \$30/MWh
	Capacity Component: \$20/MWh
ROR:	8.29%

Per MWh Income Opportunity: $1/3 * \text{ROR} * \text{Capacity Component}$, or
 $1/3 * 8.29\% * \$20/\text{MWh} = 2.76\% * \$20/\text{MWh}$, or
\$0.55/MWh

Annual Income Opportunity: $\text{Per MWh Opportunity} * \text{MW} * \text{Hours/Year}$, or
 $\$0.55 * 25 * 8,760 = \$120,450$

Income Opportunity Basis: For this contract, we use 1/3 of the ROR because the commitment is medium term and relatively little contract management is required.

Example: Tolling Contract:

Term: 5 years
Size: 25 MW (24 x 7 availability)
Fuel: Gas
Heat Rate: 7500 mmbtu/MWh
Reservation Fee: \$8/kW-mo.
ROR: 8.29%

Annual Income Opportunity: $\frac{2}{3} * ROR * kWh * Fee/Month * Months/Year$, or
 $\frac{2}{3} * 8.29\% * 25,000 * \$8/kW-mo. * 12$, or
 $5.53\% * 25,000 * 8 * 12 = \$132,720$

Income Opportunity Basis: For this contract, we use 2/3 of the ROR because the utility's commitment is medium term and the contract requires active management (same as for any gas-fired resource).

Example: Long-Term Contract:

Term: 20 years
Size: 25 MW (average)
Price: \$15/MWh
Fixed Component: \$10/MWh
Variable Component: \$5/MWh
ROR: 8.29%

Per MWh Income Opportunity: $ROR * Fixed Component$, or
 $8.29\% * \$10/MWh = \$0.83/MWh$

Annual Income Opportunity: $Per MWh Opportunity * MW * Hours/Year$, or
 $\$0.83 * 25 * 8,760 = \$181,770$

Income Opportunity Basis: For this contract, we use the entire ROR because the utility's commitment is long term, and, in the case of hydro resources (such as those tied to Mid-Columbia dams), the utility must assure that the resources are run in a way that maximizes value.

Income Opportunity by Portfolio

Background:

Under the current regulatory structure, utility-owned plants determine income opportunity levels, whereas contracts do not. This makes contracts less favorable when compared to owned resources and contributes to the build-versus-buy bias.

Overview:

A portfolio management fee concept is similar to the management fee of a mutual fund or that of an actively managed stock portfolio. The management fee compensates the utility for effectively managing its performance in providing safe, reliable power at a reasonable price and for the earnings opportunity loss from not building. The management fee would be structured as a percentage of the net cost of contracts that are held by the utility.

Process and Recommendation:

The management fee is a simple mechanism that encourages utilities to enter into more contracts than it would otherwise. While this incentive is not directly tied to performance-based ratemaking, these contracts must be diverse, prudent, and part of providing reliable service at a reasonable price or they may be disallowed.

The fee is set as a percentage of the net cost of contracts. The fee can be applied to: 1) net mid- to long-term contracts,¹ or 2) the entire net portfolio of contracts.

Example: Net Mid- to Long- Term Contracts:

Management Fee: 5% (on a smaller portfolio of contracts)

Net Mid- Long-Term Cost: \$96,580,000

Annual Income Opportunity: Net Mid- to Long-Term Contract Costs * 5%, or
\$96,580,00 * 0.05 = \$4,829,000

Example: Net Contract Portfolio:

Management Fee Basis: 3% (on the total net purchased power contract portfolio)

Net Portfolio Cost: \$389,709,000

Annual Income Opportunity: Net Contract Portfolio Costs * 3%, or
\$389,709,000 * 0.03% = \$11,691,000

¹ Mid-term is three to five years and long-term is five years or longer

Advantages for Customers:

The portfolio management fee benefits customers by assisting the utilities to optimize their portfolio. Contracts must be part of a least cost plan; this approach helps offset the negative impact of contracts on earnings and helps contracts compare favorably to owned resources. The primary benefit of the income opportunity approach is the flexibility and optionality from the diverse portfolio. In addition, this approach keeps costs lower in the long-run.

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Public Utility Commission

eDockets

Docket Summary

Docket No: UM 1276

Docket Name: INVESTIGATION INTO PERFORMANCE-BASED RATEMAKING MECHANISMS

[Print Sum](#)

In the Matter of THE PUBLIC UTILITY COMMISSION OF OREGON Staff's request to open an investigation regarding performance-based ratemaking mechanisms to address potential build-vs.-buy bias. Filed by Steve W. Chriss. (Staff re August 22, 2006...

Filing Date: 8/22/2006

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Law Judge: PATRICK POWER

Phone:

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<u>ACTIONS</u>		<u>SERVICE LIST (Parties)</u>		<u>SCHEDULE</u>	
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