Public Service Commission of Wisconsin
Direct Testimony of Kenneth Detmer
Gas and Energy Division

Wisconsin Energy Corporation
Docket 9400-YO-100

January 14, 2015

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

A. My name is Kenneth J. Detmer, and my business address is Public Service Commission of Wisconsin (Commission), 610 North Whitney Way, P.O. Box 7854, Madison, Wisconsin 53707-7854. I am employed as a registered Professional Engineer. I am a 1978 graduate of the University of Illinois with a Bachelor of Science degree in Mechanical Engineering. From 1978 to November 1999, I was employed by Wisconsin Power and Light Company in various construction, operation, and maintenance projects in the power plant field. I have been employed by the Commission since November 1999 as an Advanced Engineer.

Q. What does your testimony cover?

A. I have reviewed the application of Wisconsin Energy Corporation (WEC) to acquire the stock of Integrys Energy Group Inc. (Integrys Energy) to determine whether sufficient information was introduced for large capital project management of the two now separate electric utilities, Wisconsin Electric Power Company (WEPCO) and Wisconsin Public Service Corporation (WPSC).

Q. How does your testimony relate to other staff testimony?

A. Commission witness Kevin O'Donnell discusses the overall value of a merger and the potential savings. Commission staff witness Randy Pilo discusses American Transmission Company LLC and ATC Management Inc. (ATCLLC and ATCMI, together ATC) ownership issues and other issues including, the operation of the Midcontinent Independent System Operator, Inc. (MISO) market, the loss of rivalry between WEPCO and WPSC, and the absence of retail choice as a policy threat in Wisconsin. When considering any potential savings from large capital project management of the two now separate electric utilities, there can be overlapping discussion between Randel Pilo and myself. However, I focus on long-term resource planning issues in my testimony.

Q. Did you request supplemental information from WEPCO and WPSC?

A. Yes, I engaged in an additional data request to supplement the information supplied by the applicant WEC.[1] I then reviewed the data request responses from both WEPCO and WPSC including the inputs and results of their Electric Generation Expansion Analysis System (EGEAS) work.

Q. What is your conclusion?

A. The potential savings could be upwards of $600 million for a long-term resource planning based on the combined companies' larger generation portfolio. These estimated costs are debatable in granular detail, but the overall resulting judgment is likely to remain unchanged and that is there is an advantage to combining generating resources in overall generation expansion plans.

Q. Was the response from WEPCO and WPSC sufficient?

A. Overall, WEPCO's and WPSC's responses to staff data request were insufficient for a combined company EGEAS analysis.[2] However, they provided sufficient supporting information for the purpose of my analysis and this direct testimony.

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[1] Commission staff's Data Request 06, Question 4, dated October 9, 2014 (PSC REF#: 222059).
[2] WEC's Response to Request No. PSCW-6.4 dated October 16, 2014 (PSC REF#: 222478).

The joint response filed on October 16, 2014, indicated that antitrust regulations restrictions prevented them from performing an analysis of a combined generation and expansion plan. EGEAS information was filed on October 30 by WEPCO and on October 31, 2014, by WPSC.

Q. What steps did you take in performing your analysis of the potential generation situation for the two utilities on a combined basis?

A. There are several steps to my analysis that I will describe in this testimony. First, I began with a review of the WEPCO and WPSC Planning Reserve data calculated from EGEAS which indicates significant and substantial reserves for WEPCO.[3] This level of reserves is a good indication that a combined run could reduce future capital expenditures.

I then compared the energy and load data from the most recent EGEAS filings, available in dockets 6630-CU-101 (Valley Gas Conversion) and 6690-CE-197 (Weston 3 React). In general, the load and energy filings were the same for each utility.[4] Based on this information, the load and energy information and projections the utilities (WEPCO and WPSC) provided are representative of actual based on past modeling efforts.

Q. What was the next step of your analysis?

A. In order to do any comparisons and perform a combined run there are several input parameters that must be the same for the utilities. After consideration, it was decided to use the MISO-provided EGEAS files with the parameters they provided for Load Resource Zone 2. MISO Load-Serving Entities (LSE) in this zone include Alliant Energy, Madison Gas and Electric Company, WPPI Energy, Upper Peninsula Power Company, WPSC, and WEPCO. MISO provided these files as part of its EPA § 111(d)

[3] Delayed Exhibit to follow
[4] Delayed Exhibit to follow

Clean Power Plan rule analysis to Commission staff. All of the input parameters have been reviewed by others as part of the MISO Transmission Expansion Plan for 2015 (MTEP15).

I examined more than 200 individual units within EGEAS and compared the unit data MISO provided to the data of the two utilities. I made several changes to make the modeling more representative of the WEPCO and WPSC systems.[5]

Q. What was the next step of your analysis?

A. The peak and energy for WEPCO and WPSC were placed into the EGEAS ORTHOG files and all units not tied to WPSC and WEPCO were switched to a "Generic" setting for the runs in the EDIT files. The peak and energy changes made in this run, WEPPS3, were for the older load files from previous WEPCO and WPSC analyses. In the next step of the analysis, in run WEPPS 4, the recent load and energy files supplied were inserted. There was little difference in expansion plans between the older load files and the most recent load files in WEPPS 4 runs.

Q. What was the next step of your analysis?

A. I retired additional units such as Presque Isle Units 5 through 9 and Pulliam Units 7 and 8 in the EGEAS run labeled WEPPS5, the results of which had little impact on capital expenditures. Retirement of these units however does have an impact on the overall PVRR[6] (present value revenue requirements) but these retirements appear to have little effect on the difference in capital expenditures between runs WEPPS 4 and WEPPS5.

Q. Do you consider this a good or complete analysis of unit retirement?

[5] The unit changes made and analysis was performed in modeling run identified as WEPPS2 that analyzed generating unit changes on a Load Resource 2 footprint.
[6] Delayed Exhibit to follow.

A. No, with the increased retirements in run WEPPS 5, the PVRR increases indicating retirement should be avoided. However, there may be additional adjustments for fixed costs for operation, future plant refurbishments, how a specific plant operates in the MISO market, and how the remaining book value will be recovered that have not been included.

Q. What does the retirement run in WEPPS 5 indicate?

A. That older generation has value to utilities by reducing the need for new generation in particular to meet reserve margins. As modeled, the PVRR increases when these units are retired earlier. However, the difference in capital expenditures remains roughly the same for a post-merger, combined analysis in the WEPPS 4 and the WEPPS 5 run with additional retirements.

Q. What was the next step in your analysis?

A. I took a closer look at the reserve capacity values entered in the EGEAS EDIT file from MISO and compared it to the estimates furnished by WEPCO and WPSC.

Q. What changed as a result of reviewing the projected reserve margins?

A. The analysis revealed the largest difference was in interruptible load resources MISO included within its modeling.

Q. Is this significant?

A. Yes, potentially. In the past, Wisconsin utilities have seldom utilized interruptible load as a supply side resource within EGEAS modeling.

Q. What about other changes to capacity within EGEAS?

A. Changes to capacity needs further review in the future in upcoming filings for all utilities. For instance, interruptible load has seldom been called upon because, generally speaking, Wisconsin utilities have sufficient supply side resources. With recent and pending retirements, expansion plans are beginning to show that could change. As it stands today, Wisconsin's requirements for capacity are more stringent than MISO's requirement, which is one year into the future.

There are several requirements, however, that need to be reconciled with expansion plans—which I have not analyzed—to keep costs for the customers at a minimum: (1) further understanding of the load needs and the reporting requirements with MISO Resource Adequacy (Module E) reporting; (2) the peak load as reported in the annual reports; (3) required sales as opposed to opportunity sales; (4) the five-year load forecasts as part of the Strategic Energy Assessment; and (5) the utilities' Planning Reserve Margin filings with the Commission..

Q. What was the last part of your analysis?

A I broke out the Capital Expenditures from the EGEAS analysis[7] which indicates Capital Expenditure savings, assuming no additional retirements in the WEPPS 4 run, are $603.4 million. With additional retirements in the WEPPS 5 run, those savings are $594.4 million. This is the $600 million that I referred to at the start of my testimony?

Q. Are you precluding an analysis of specific generation plants that proposed in the future by the individual utilities?

A. No, I do not believe so. An application for a combined-cycle plant in particular may have several advantages and meet other needs. If the utilities operate separately or the merger is not approved, the individual needs need to be examined further. A proposed plant site located on a brownfield site with good infrastructure including existing transmission,

[7] Delayed Exhibit to follow.

water, and gas supplies may offer advantages, especially if Wisconsin needs to meet the more stringent requirements of the proposed EPA § 111(d) carbon dioxide emission rule. Wisconsin utilities may need to commence constructing new combined-cycle generating units to meet future requirements.

Q. Are there operating savings from a combined company?

A. Potentially, but EGEAS is not a good tool to estimate those savings within the confines of the market. A PROMOD analysis of the combined company would provide a more reasonable estimate, as that programming model focuses on the companies' production costs and the likely scope of market participation by that particular utility.

Q. In light of your analysis, do you have a proposal for a potential condition, if the Commission were to approve the acquisition at issue?

A. If the Commission approves the merger, the utilities shall submit a joint integrated resource plan (IRP) based on EGEAS modeling that analyzes various generating alternatives similar to the individual utility filings recently filed with the Commission. This IRP should be filed within 90 days of the date of closing.

Q. In meeting the two utilities' energy demands jointly, have you considered cost-effective and technically-feasible options based on the priorities identified in Wis. Stat. § 1.12?

A. Yes. This review was supplied in the form of the EGEAS results.

Q. Does this conclude your direct testimony?

A. Yes, it does.

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