Docket No. 11-0279/0282
(Cons.)
ICC Staff Exhibit 18.0

Direct Testimony

Of

David Brightwell
Economic Analyst

Policy Program
Energy Division
Illinois Commerce Commission

Proposed General Increase in Electric and Natural Gas Rates

Ameren Illinois Company d/b/a Ameren Illinois

Docket Nos. 11-0279 and 11-0282 (Cons.)

June 29, 2011

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I. Witness Qualifications

Q. Please state your name, job title and business address.

A. My name is David Brightwell. I am an Economic Analyst in the Policy Program of the Energy Division of the Illinois Commerce Commission ("Commission"). My business address is 527 East Capitol Avenue, Springfield, Illinois 62701.

Q. Please describe your educational background.

A. I received a Ph.D. in economics from Texas A&M University in 2008. My major fields of study were industrial organization and labor economics, and my minor field was econometrics. I received a bachelor's degree in political science in 1992 and a master's degree in applied economics in 2002, both from Illinois State University.

Q. Please describe your work background.

A. I have been employed as an Economic Analyst with the Commission since June 2008. I have focused on energy efficiency and smart grid related issues at the Commission. From 2002-2008, I attended Texas A&M University, where I served as a teaching assistant or an instructor for various courses. From 2000-2002, I served as a graduate assistant for David Loomis at Illinois State University.

Q. Have you previously testified before the Commission?

A. Yes. I have.

II. Review of Electric and Natural Gas Forecasts

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

A. The Ameren Illinois Company ("Ameren," "AIC" or the "Company") is using a future test year with rates based on forecasts for the number of customers and usage by

customer class. I reviewed the forecasts generated by the Company. The forecasts for electric customers and usage appear to be reasonable. Further review is needed to reach the same conclusion for the forecasts of the number of gas customers and gas usage. I will address my concerns with the forecasts on the electric side in direct testimony and attempt to resolve the concerns with respect to the gas forecasts in my rebuttal testimony.

Q. What concern would you have about the forecasts generated by the Company?

A. The Company has an incentive to generate forecasts that predict fewer customers or lower usage than is actually expected. Doing so sets higher rates and allows the Company earnings in excess of its revenue requirement. For example, suppose fixed costs are $1,125,000 with $900,000 collected through fixed charges. If the Company expects to have 1000 customers, it would collect $900 from each customer for a total of $900,000 with an accurate forecast. If instead the Company generated a forecast that predicted 900 customers, it would collect $1000 from each customer. If it actually expects 1000 customers, the expected total collection would be $1,000,000 ($1000/customer X 1000 customers). The same reasoning applies to predicting the usage.

Q. How did you conclude the forecasts were reasonable?

A. First, for the forecasts of customers, I compared the actual number of electric customers to the predicted number of electric customers for each rate class in each

rate zone. Although, the test year period has not occurred and it is impossible to know the quality of the forecasts for the test year, the Company provided the actual number of customers and usage from May 2010 through March 2011, the time for which the data are available after the forecasts were created. Using the actual numbers and usage, I evaluated how well the forecasts predicted what would occur in the 11 months after they were created. The Company provided this information in response to Staff data request ("DR") PL 9.11 (listed as attach 1 in the DR response).

Second, for the forecasts of the usage, I compared weather normalized actual usage to weather normalized predicted usage over the same 11 months. The Company also provided this information in response to Staff DR PL 9.11 (listed as attach 2 in the DR response).

Q. What did you find with respect to the number of customers?

A. Overall, I found that the number of actual customers during the May 2010 to March 2011 period was lower than the number of predicted customers. The largest fluctuation percentage wise was in the industrial customer classes. In Rate Zone 3, there was a cumulative over prediction of about 6.9% and in Rate Zone 1, there was a cumulative under prediction of 2.25%. Overall, 161 fewer Rate Zone 3 and 159 more Rate Zone 1 industrial customers occurred than were predicted. Most of the forecasts for other rate classes were within 1% of what actually occurred and,

with the exception of the industrial customers mentioned, all other forecasts were within 2% of what actually occurred.

Q. Why did you evaluate weather normalized use?

A. The predicted usage was weather normalized. Evaluating predictions based on normal weather compared to outcomes based on actual weather is not useful. It only indicates how far off the prediction is due to weather fluctuations. There are two approaches that can be used to compare the forecasts. The first approach is to adjust actual usage by calculating what usage would be expected in normal weather. This approach implicitly assumes that the model accurately predicts the impact of weather and that deviations between actual and predicted use are the result of inaccurately predicting other factors such as energy efficiency or economic impacts. If the model does not accurately account for weather, this approach will not detect that shortcoming. This is the comparison I performed because it was the data provided by the Company. The second approach, which I intend to perform prior to rebuttal testimony, is to compare what the forecast would predict with the actual weather that occurred. This approach provides a more holistic evaluation because it no longer assumes that the response to weather is correctly measured. It evaluates how well the model measures weather, economic, and market variables.

Q. What did you find with respect to the electric usage models?

A. Overall, the models seem to significantly over predict usage. This is contrary to the economic incentive I elaborated earlier in my testimony. However, the cumulative effect of the predictions underestimated residential usage. This occurred in each of the three rate zones and actual usage ranged from 1.85% to 5.5% higher than predicted by the models. Ameren made top-side adjustments to the data that it did not include in the predictions I was provided. These adjustments likely reduce the gap between actual and predicted usage.

Q. Please explain the top-side adjustments.

A. My understanding is that Ameren supplemented their forecasts with information about growth that was not easily quantifiable. These adjustments increased predicted usage (Company Responses to Staff DRs PL 9.02 and PL 9.03).

Q. What did you find with respect to the gas forecasts?

A. The Company provided the information on gas customers and usage in response to Staff DR PL 9.11 attach 3. The models for the number of customers seem to provide reasonable estimates for the residential and commercial classes. The cumulative predicted number of residential customers was within 1% of the actual cumulative number of customers in each of the three rate zones. In each rate zone, the cumulative predicted number of commercial customers was more than the actual cumulative number of commercial customers, which is contrary to the economic incentive to under predict. The cumulative predictions varied from actual by 1.9% to 4% in the three rate zones. The models did not accurately predict the numbers of industrial customers. The cumulative number of industrial customers

was under predicted by 11.5% in Rate Zone 1, 23.2% in Rate Zone 2, and 36.1% in Rate Zone 3. The industrial class predictions are problematic and need more investigation.

Q. Did you analyze the gas usage forecasts?

A. No. It was unclear in the information provided by the Company whether the actual gas usage data was weather normalized. Without weather normalizing actual usage or substituting actual weather into the predictive model, any analysis will be unreliable. I intend to investigate further and report my findings in rebuttal testimony.

III. Summary and Conclusions

Q. Please summarize your testimony.

A. My testimony evaluates the forecasts of the number of customers and usage models that Ameren performed for each rate class in each rate zone for its electric and gas rate cases. I explain that there is a financial incentive to produce forecasts that predict fewer customers and/or less usage than is actually expected to occur. I find no evidence that this occurs in the electric forecasts but that the cumulative number of predicted industrial gas customers is between 11.5% and 36.1% less than the actual number of customers in the 11 months since the forecasts were produced. Further investigation is needed on the usage of gas and electric customers and will be reported in rebuttal testimony.

Q. Does this conclude your prepared direct testimony?

A. Yes.