

September 9, 2019

By electronic mail

Indiana Utility Regulatory Commission
ATTENTION Ryan Heater
101 West Washington Street, Suite 1500E
Indianapolis, IN 46204
urccomments@urc.in.gov

RE: Indiana Coal Council's Comments and Scenarios for Generation Resource Study

Dear Ryan,

The Indiana Coal Council (ICC) appreciates the opportunity to offer comments and scenarios for the generation resource study that will be performed by the Indiana State Utility Forecasting Group (SUFG) and the Indiana Utility Regulatory Commission (IURC). We would also like to express our appreciation to Dr. Gotham and Mr. Thomas for their informative presentations during the first stakeholder meeting. As you are no doubt aware, the Aurora model that the SUFG and IURC have chosen for this process is heavily data driven, and the specific assumptions that are included in the modeling can have a significant impact on the results and on the creation of specific scenarios to model. Although the stakeholder presentation provided some general information about the assumptions that are being used, not enough specific detail was provided, for example, the parties were not informed of the desired format for the submission of scenarios and input assumption data. With this in mind, please accept the following comments and suggestions. The ICC remains appreciative of the open stakeholder process contemplated by the SUFG and IURC, and we look forward to continuing communication, both individually and with the other stakeholders, as the process moves forward.

The ICC's proposed scenarios are summarized in ICC Table 1 at the end of this letter and are described in detail below.

Fuel Prices

During the Stakeholder presentation, Mr. Gotham stated that SUFG would be using fuel prices from the Annual Energy Outlook (AEO). It is not exactly clear what AEO prices the SUFG intends to use or how such prices will be used. The single, largest variable cost for power

plants is the fuel cost; therefore, the accuracy and reliability of this assumption is crucial. The SUFG should be using specific fuel costs for each plant included in the model; we propose a scenario which includes the following:

- Delivered coal prices to each coal-fired station from the appropriate coal supply region(s); and
- Henry Hub prices adjusted for the appropriate basis differential for each gas-fired plant.

In addition, we have noticed a trend in utility IRP modeling to correlate coal and gas prices, which is not supported by a historical analysis of fuel pricing. We propose that the customized fuel price forecast include at least one scenario with high natural gas prices and low coal prices.

Dispatch Methodology

The ICC requests a scenario where coal-fired plants are dispatched based solely on their respective commodity prices (i.e. no transportation and no variable operating costs are recovered by the utility in base rates). The purpose of this scenario, in part, is to provide consistency when comparing coal-fired generation with gas-fired plants that do not include Firm Transportation in their dispatch offers. This is also consistent with the sound practice of not including costs that are recovered in base rates in the dispatch offer.

Retirement Methodology

The ICC requests a scenario with no future coal plant retirements except for the following: Culley Unit 2, the remaining Gallagher units, and Rockport Unit 1. The scenario should assume that the following plants are not retired: Rockport Unit 2, AB Brown Units 1 and 2, Culley Unit 3, and the existing units at Cayuga, Gibson, Schahfer, Michigan City, Petersburg, and Merom.

Renewables

The stakeholder presentation did not clearly define what assumptions are being made with respect to renewable resources. If the SUFG is assuming the continuation of the Production Tax Credit, the ICC requests a scenario without the Production Tax Credit. The ICC also requests some sensitivity analysis related to renewable capital costs that reflect that the current administration's tariffs and trade negotiations are dramatically increasing the capital costs of both solar and wind. Finally, the ICC requests a scenario with the appropriate MISO or PJM UCAP assumptions for renewables if the SUFG has not already included those figures in its modeling assumptions.

Transmission

The stakeholder presentation stated with respect to transmission assumptions: that “All utilities are interconnected by lines that have a small cost hurdle and no flow limits;” that “economic trade is allowed among utilities;” and that the MISO and PJM markets are not being modeled separately. These assumptions do not represent the current state of transmission constraints, nor are they consistent with the high integration costs that utilities are incurring. The ICC requests a scenario that incorporates the transmission expansion expenses and congestion expenses. The ICC also requests that the MISO and PJM markets be modeled separately.

Carbon Pricing

The stakeholder presentation did not clearly set forth the carbon pricing assumptions being used. If the model assumes regulation beyond or different than the Affordable Clean Energy (ACE) rule, then the ICC requests a scenario in which carbon pricing is limited to the ACE rule.

Regulations

The stakeholder presentation did not clearly list what, if any, other environmental regulations are being modeled or how such regulations are incorporated into the model. The model should consider a broad range of regulatory assumptions in as separate scenarios or in the sensitivity analysis. The ICC requests, at a minimum, that the model include a scenario of as-they-exist-today regulatory assumptions and a scenario that assumes currently proposed rule replacements and modifications are adopted. However, without having a list of the specific assumptions being used, it is difficult for the ICC to suggest specific alternative scenarios.

Regional Analysis

The stakeholder presentation did not clearly set forth what geographical area will be modeled. The ICC requests that model consider the PJM and MISO regions in their entirety. If the entire PJM and MISO regions are not being modeled, then the ICC requests that the model include at least the surrounding areas of Illinois, Ohio, and Michigan. The scenario should incorporate the same inputs for plants and transmission in these surrounding areas as well as other relevant factors such as any applicable renewable performance standards in surrounding states.

Outputs

The ICC requests that the SUFG and IURC report certain outputs from the modeling results. Specifically, the ICC requests that the following outputs for each modeling result be reported to the stakeholders: the 5- and 20-year net present value calculations; the annual rate impacts by customer class; the life cycle analysis of carbon emissions; and the annual impact on utility earnings.

Once again, we appreciate the opportunity to provide comments and to propose scenarios for the generation resource study. Based on our experience participating in recent IRP processes and the decade of experience that our consultant, Energy Ventures Analysis (EVA) has working with Aurora, we understand that the SUFG and IURC have a daunting task ahead of them, made even more complicated by opening the process up for stakeholder input and comments. However, as the IURC is well aware and has continually stressed in the context of the IRP process, this open dialogue with stakeholders is critical to the success of the study because the modeling results are only meaningful if the inputs and modeling methodology are well reasoned.

The ICC welcomes the opportunity to meet individually or with other stakeholders with the SUFG or IURC to further discuss our comments and scenarios and to provide any further data requested for the modeling inputs. We also renew the offer from EVA, shared in a previous communication, to share EVA's decade of experience in assisting the SUFG and IURC to effectively and efficiently use the Aurora model.

Very truly yours,



Jeffery A. Earl

PROPOSED SCENARIOS

Variable	SUFG	ICC Base	ICC High Gas Price
Fuel Prices	AEO – No details provided	Delivered fuel prices to each plant based upon logical sourcing and appropriate basis differentials	Same as base with delivered natural gas prices 50 percent higher than ICC base levels
Region(s)	Indiana only	MISO Central region and PJM western zones	MISO Central region and PJM western zones
Carbon Regulations	Not specified	Affordable Clean Energy (ACE)	Affordable Clean Energy (ACE)
Renewables	Unknown	<ul style="list-style-type: none"> • No PTC extension • 15% Increase in Capital Costs • Congestion Costs 	<ul style="list-style-type: none"> • No PTC extension • Congestion Costs
Transmission	No constraints	Full Integration Costs for Renewables	Full Integration Costs for Renewables
Coal Plant Retirements	Retirements in preferred IRP cases for each utility	Only Culley 2, Rockport 1, and Gallagher	Only Culley 2, Rockport 1, and Gallagher
UCAP Assumptions	Unknown	Consistent with PJM and MISO guidelines	Consistent with PJM and MISO guidelines
Dispatch Methodology	Hourly or “more/less temporal”*	Hourly excluding costs recovered in base rates	Hourly based only on commodity prices for coal and natural gas

*unknown what this means

Metrics	Life Cycle Carbon Emissions	5- and 20- Year Net Present Values	Annual Estimated Rate Impacts by Customer Class	Estimated Utility Earnings

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