



Vectren  
Po Box 209  
Evansville, IN 47702

September 9, 2019

Indiana Utility Regulatory Commission  
c/o Ryan Heater  
101 W. Washington St., Ste. 1500E  
Indianapolis, Indiana 46204  
[URCComments@urc.in.gov](mailto:URCComments@urc.in.gov)

**Re: Response to August 23, 2019 Request for Comments on Key Scenario Variables and Sensitivities for the Commission's HEA 1278 Study**

Dear Mr. Heater,

Vectren, a CenterPoint Energy Company ("Vectren"), appreciates the opportunity to provide feedback to the Indiana Utility Regulatory Commission (Commission) regarding its study of the state-wide impacts on certain generation portfolio scenarios. Due to the tight timeline that exists for this important study to be completed, Vectren acknowledges that the Commission may need to limit the parameters of the study. However, Vectren submits these comments to the Commission to highlight some concerns regarding how certain limitations on the inputs and assumptions may cause flaws in the resulting analysis.

### **Indiana as an Island**

One of the proposed limitations on the study modeling is that the generation scenarios will begin with the assumption that Indiana is an "island" of sorts and thus must meet its load needs by generation located solely within the state. Since Indiana has access to generation and transmission assets provided by its utilities' membership in either the Mid-Continent Independent System Operator (MISO) or Pennsylvania, Jersey, Maryland (PJM) regional transmission operators (RTOs), use of such an assumption may greatly impact the resulting analysis.

One of the paramount benefits of being a member of an RTO is the concept of "Footprint Diversity." Transmission interconnection to an RTO such as MISO that has a vast geographic footprint provides that different regions in MISO will experience peak load conditions at different times throughout the day, thus enabling different parts of the system to send energy to areas that are experiencing higher load. This allows for Planning Reserve Margins, the amount of generation needed to ensure NERC loss of load planning requirements, to decrease and less investment is needed in generation or is deferred.

Another benefit of being a member of an RTO and not operating as an island is access to the wholesale energy market which provides economic dispatch of generation. Economic dispatch ensures that the lowest cost generation is called online to serve load and helps prevent more costly and inefficient generation from driving up energy prices.

Due to the large benefits of Indiana not operating as an island, a study that fails to account for the broader RTO market will likely mask the uneconomic dispatch of energy and create a higher PRM, which may result in preservation of uneconomic units or overbuild of resources.

## **Modeling**

Vectren presents the following modeling recommendations for the Commission's consideration:

### Resource Costs

In the presentation titled *SUFG Indiana Forecasting Modeling System* conducted by Doug Gotham at the IURC State Impacts Assessment Stakeholder Meeting on August 22, 2019, it was mentioned on slide 32 that SUFG intends to utilize EIA as the source for new unit characteristics, including capital costs with NREL's projected cost declines. Vectren recommends instead that NREL's overnight capital cost with their forecast of future cost declines be utilized rather than utilizing EIA's overnight capital costs. EIA's overnight capital costs are overstated, particularly for solar and storage resources. For example, NREL's latest ATB estimate for 2018 overnight capital is approximately \$1,450/kWac<sup>1</sup> compared to EAI's latest estimate of approximately \$1,880/kWac. By applying NREL's cost curve to a high overnight capital cost, costs will be inflated by about 30%.

### Risk Analysis

Vectren feels that there is benefit in running a robust risk analysis to capture a broad range of possible risks, including examining the impact of a range of low, mid, and high coal prices, gas prices, market energy prices, capacity prices, CO2 prices, etc. on various portfolios. Additionally, the NREL ATB could be used to provide a range of low, mid, and high resource cost forecasts, which could also be taken into consideration for this analysis. It is our understanding that the Commission will not conduct stochastic modeling to test portfolios against the full probabilistic range; however, well-constructed, fully integrated scenarios will help provide boundary conditions for possible future states. Utilizing the full range of inputs included in 2018 EIA AEO can help provide guidance in the range of inputs. A balanced scorecard approach can help to highlight how portfolios perform against other key measures, such as CO2 output, reliance on the market, flexibility, etc.

## **Summary**

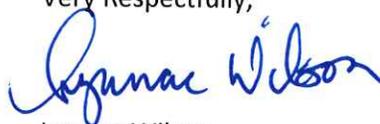
Vectren recognizes the challenges of planning for resource scenarios in an ever-changing world and the limitations that scenarios and modeling ultimately present. However, Vectren believes it is important for this study to yield results that are reasonable and that are indicative of a likely future. Modeling Indiana as an island will impact the study results and could lead to inflated costs and lowered reliability. Furthermore, Vectren recommends a resource cost analysis based on NREL's overnight capital cost coupled with a more robust risk analysis based on various portfolios.

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<sup>1</sup> Utilizes a 1.3 DC-to-AC ratio-or inverter loading ratio (ILR), for Chicago/Kansas City Mid.  
<https://atb.nrel.gov/electricity/2019/index.html?t=su>

Again, thank you for the opportunity to participate and provide input at this important stage of the process. Please let us know if you have any questions or comments.

Very Respectfully,

A handwritten signature in blue ink that reads "Lynnae Wilson". The signature is fluid and cursive, with the first name "Lynnae" written in a larger, more prominent script than the last name "Wilson".

Lynnae Wilson

Chief Business Officer