Indiana Utility Regulatory Commission Technical Staff's Statewide Energy Study Under HEA 1278 (2019)

INDIANA OFFICE OF UTILITY CONSUMER COUNSELOR'S SEPTEMBER 9, 2019 COMMENTS

The Indiana Office of Utility Consumer Counselor ("OUCC") appreciates the opportunity to provide input in response to the August 23, 2019 e-mail from Ryan Heater, Executive Director of the Indiana Utility Regulatory Commission's ("IURC" or "Commission") External Affairs Division. As Mr. Heater's e-mail discussed, the IURC Technical Staff is seeking comments from all interested stakeholders on matters discussed during a public meeting conducted on August 22, 2019 concerning the cost models, procedures and methodology the IURC Technical Staff will utilize in studying statewide energy issues identified by the Indiana General Assembly in HEA 1278 (2019), which requires the Commission to conduct:

> ". . . a comprehensive study of the statewide impacts, both in the near term and on a long term basis of:
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> (1) transitions in the fuel sources and other resources used to generate electricity by electric utilities; and
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> (2) new and emerging technologies for the generation of electricity, including the potential impact of such technologies on local grids or distribution infrastructure;
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> on electric generation capacity, system reliability, system resilience, and the cost of electric utility service for consumers. In conducting the study required by this subsection, the commission shall consider the likely timelines for the transitions in fuel sources and other resources described in subdivision (1) and for the implementation of new and emerging technologies described in subdivision (2);

From its involvement in various public stakeholder proceedings in Indiana investor owned electric utilities' development of Integrated Resource Plans ("IRP") and in other interactions with those utilities and other interested stakeholders, the OUCC believes that this is a useful time for the General Assembly to reflect on the changes occurring in electric generation technologies, the economics of those changes and the implications of those changes for Indiana's electric utilities and the rates that Indiana consumers pay for their electricity. Based upon recent IRP results and the consensus that appears to be arising in electric industry literature, renewable resources such as wind and solar have gotten to a point where they can start to compete with fossil-fueled alternatives based on economics alone. Ongoing low natural gas prices make gas-fired generation the only fossil-fueled generating resource that utilities consider for generation at this time. Based on these economics, and relatively flat electricity demand, Indiana has seen its utilities close older and smaller coal-fired units and announce plans to close larger units earlier than previously expected. These major changes call for study of the implications of these transformations and whether our

system of regulation in Indiana is positioned to avoid related threats and take advantage of opportunities.

The OUCC believes that the reason the General Assembly is asking for the Commission to complete this report is because of concern that the analyses that are contained in the utility-specific IRPs and related Certificate of Public Convenience and Necessity ("CPCN") applications may miss a bigger picture of the end result of all of those "siloed" analyses and thereby lead to an unexpected and less-than-optimal result for the state as a whole, specifically, that the interrelationship between how these choices impact reliability and affordability could be missed.

What might those utility-specific plans be missing? The state's utilities are all capable of presenting technically sound analyses of the retirement and investment choices they face under varying scenarios of the future. But they all assume that their individual choices do not affect the reliability of the grid or the market prices against which their generation dispatches. The retirement and investment choices that NIPSCO made in its 2018 IRP will not by themselves move the electricity markets or MISO's reliability-related rules, but if all utilities in Indiana came to the same conclusions and made the same kinds of decisions, MISO might feel the need to respond to that situation by changing its rules to maintain reliability, and wholesale electricity prices would likely be affected by such similar decisions of other utilities as well.

Looking beyond Indiana, if all utilities in the Midwest came to the same conclusions, the pressure on MISO to implement any related changes to its reliability-related rules would grow further, and the effect on wholesale market prices would be even greater. Any reading of industry literature makes clear the movement of many utilities across the United States toward early coal retirements, with large amounts of intermittent resources expected to replace that capacity. While the legislature is rightly concerned about Indiana's utility industry, the kind of study envisioned will not give the General Assembly a full picture unless the decisions of utilities in other states are also considered.

Is the modeling exercise proposed by Commission staff going to result in the kind of broad understanding necessary to make good policy decisions? Storage is one response to the reliability challenge posed by intermittent resources, but it was made clear that the model being used by the Commission will not be able to select the building of storage. The OUCC also understands that the model will not be able to consider economic retirements of existing units, which may underrepresent the amount of intermittent resources in future years. Having a model that incorporates reliability needs, with selection of related storage and/or spinning resources and that is also able to solve for economic retirement dates would be the ideal. Unfortunately, there is likely no model out there capable of solving for all of those and other variables endogenously, especially considering that many variables are not amenable to formal modeling, such as state and federal regulatory decisions made in response to economic and technological forces. A second best solution is to assume some alternative assumptions in alternative scenarios, as suggested by Commission staff, such as accelerated or extended retirement dates or adders to the cost of

intermittent resources to reflect the storage/spinning/demand-side requirements to conform to reliability needs as the share of intermittent resources increases in the region.

Is that kind of a bootstrapped model adequate to give the legislature a reasonable depiction of what the individual decisions of utilities will together produce in the coming decades? It is not clear to the OUCC that the proposed modeling exercise will provide results that are useful to the General Assembly's purpose. The OUCC is worried that the information that would be more helpful to the General Assembly will be buried in the parameter and scenario decisions that are made, while the vast majority of the work will be spent on setting up and running the complex model using those assumptions. That may be the best that can be done in the time available, but the OUCC would propose a method that steps back from that formal modeling exercise to present a study that focuses on the key questions that may not require formal modeling but that could give the legislature the kind of understanding that could be more helpful to their policy decisions. Taking time now to think deliberately about how best to respond to the legislature's mandate in HEA 1278 could likely lead to more useful results as the future becomes more predictable.

MISO has begun working on understanding the reliability implications of its future generation mix through its Resource Availability and Need ("RAN") initiative, among other work it is conducting. There are many other academic and institutional efforts going on to understand the future of generation mix and the role of storage and other resources in making large amounts of intermittent resources more tractable. One part of the Commission's study that responds to the General Assembly's request in HEA 1278 could be to present a report gathering together and making sense of that research as it pertains to Indiana's future, along with targeted engineering-economic analysis of aspects of the problem specifically related to Indiana. Some questions could be targeted in organizing that work, such as:

1) Can coal-fired plants compete against natural gas fired plants based solely on the operations and maintenance ("O&M") expenses of running coal plants vs. the all-in cost of building and running natural gas fired plants? How different are Indiana coal plants in terms of their ability to compete on this basis?

2) Can coal-fired plants and gas-fired plants compete against renewable resources on cost today? Would the answer be the same if you include storage/spinning/demand response needed to make the system reliable? Is there public data available to give a sense of how Indiana's coal and natural gas plants currently compete?

3) What does the equilibrium world of generation look like as the most efficient fossil-fueled plants come to the end of their useful lives and what will that world cost? How much stranded cost will be created in Indiana as that world develops?

4) Is there a risk that the equilibrium world of the future will make the transmission and distribution ("T&D") upgrades that are currently being built less useful than currently

expected (i.e., stranded) due to the distributed nature of new resources? Is there a way to make sure they are as useful as possible no matter how the future of generation unfolds? The recently initiated NARUC-NASEO Task Force on this subject may provide some useful data.

5) What does the transition path from Indiana's current fleet of generating units look like, assuming that generation retirement/build decisions are made only on the basis of economics moving forward?

Again, the OUCC is not suggesting that the kind of modeling envisioned by Commission staff would have no value in responding to the mandate of HEA 1278 or to answering the questions just posed, rather, that recognizing the difficulty of doing the kind of modeling that will give useful information may motivate an approach with less formalized modeling but more targeted analysis of the kinds of questions that are hard to model but central to good policy decisions.

The OUCC welcomes the opportunity to participate and provide input in whatever approach the Commission chooses in responding to the mandate of HEA 1278 and hopes that the thoughts presented in these comments have some use as the IURC Technical Staff and its consultants move forward on that work.

Respectfully submitted by the Indiana
Office of Utility Consumer Counselor