December 6, 2019

Dr. Bradley Borum, Director of Research, Policy, and Planning
Mr. M. Bob Pauley, Chief Technical Advisor of Research, Policy, and Planning
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*Electronically delivered*

Re: Joint Submission of Comments on Duke Energy Indiana's 2018 IRP

Dear Director Borum, Chief Technical Advisor Pauley, and Assistant General Counsel Comeau,

Pursuant to the Indiana Utility Regulatory Commission's ("IURC" or "Commission") Integrated Resource Planning Rule, 170 Ind. Admin. Code 4-7, Citizens Action Coalition of Indiana ("CAC"), Energy Matters Community Coalition ("EMCC"), Earthjustice, Carmel Green Initiative, Environmental Working Group ("EWG"), Indiana Distributed Energy Alliance ("IndianaDG"), Sierra Club, and Valley Watch (collectively, "Commenters") hereby submit the attached public versions of the following reports on the Duke Energy Indiana 2018 Integrated Resource Plan ("IRP"):

1. Report on Duke Energy Indiana's 2018 IRP by Energy Futures Group and Applied Economics Clinic with accompanying transmission review by Mott MacDonald; and
2. Incorporating the Costs of Climate Change in Duke Energy Indiana's 2018 Integrated Resource Plan by Synapse Energy Economics, Inc.

Please note that Commenters filed their unredacted versions under seal in IURC Cause No. 45174, because the filing contained information deemed confidential by Duke and protected as confidential per the Order issued in that Cause. Commenters respectfully reserve the right to challenge Duke's confidential designation of the information.

Commenters highlight the following points from their reports:

1. DEI's 2018 IRP is fatally flawed in multiple respects:

   A. DEI applies its reserve margin requirement to all months of the year rather than just the MISO coincident peak;
   B. DEI requires the model to self-supply capacity in all months of the year rather than purchasing from other utilities;

C. DEI tries to solve the problem of unrealistic market purchases by imposing a hurdle rate on purchases, but this is a band-aid on the problem and an imperfect one at that;
D. Coal unit retirements are unnecessarily limited to 2024 or later and only to DEI's existing pulverized coal units;
E. DEI's energy efficiency bundles are unreasonably high in cost and suffer from other flaws that prevent the selection of the optimal portfolio of energy efficiency measures;
F. Capital costs for renewables are higher than is justifiable;
G. Capital costs for combined cycles are lower than is justifiable;
H. Wind and battery storage is limited to 250 MW per year without basis;
I. A $5/MWh adder for new solar resources is based on a study for DEI's Carolina service territory that has no relevance to Indiana and was rejected by the North Carolina Utilities Commission;
J. DEI refused to provide copies of the System Optimizer and Planning and Risk model manuals except in person despite having done so in its prior IRP;
K. DEI did not deliver the modeling files required for the Technical Appendix in Indiana's IRP rule;
L. DEI's pre-IRP stakeholder process was frustrating in a number of respects including the tendency of DEI to push stakeholder recommendations off to the next IRP filing; and
M. Despite DEI's claims that it was necessary to prohibit pre-2024 retirements due to transmission upgrades and "regulatory filings and design, permitting, and construction of replacement resources", Gibson Units 1, 2, and 5 were identified as available for retirement in 2023 with no additional transmission upgrade costs, and Noblesville Units 1, 2, 3, 4, and 5 were identified as available for retirement in 2023 with no additional transmission upgrade costs.

2. DEI's 2018 IRP fails to adequately incorporate the impacts of climate change into its resource planning based on current best practices. While it is now too late to make the IRP framework and modeling changes required to correct this failing in the 2018 IRP, we urgently recommend that DEI include the following elements in all of its future resource planning, beginning before its 2021 IRP:

    A. DEI should include a scenario that incorporates a reasonable estimate of the social cost of carbon, which is likely to exceed the expected regulatory cost of carbon, at least within the IRP planning period.
    B. DEI should include at least one scenario and corresponding optimized portfolio with reference case technology costs that results in rapid reductions in carbon emissions, in line with Intergovernmental Panel on Climate Change ("IPCC") recommendations.
    C. As part of a deep decarbonization scenario, DEI should include increases in load due to electrification in the transportation and buildings sectors that will be necessary for achieving economy-wide deep decarbonization.

D. DEI should make sure that reference case IRP assumptions incorporate a reasonable estimate of the carbon price associated with expected future regulations.
E. DEI should include sensitivity scenarios that vary carbon prices in a symmetrical manner. The 2018 IRP includes a scenario without any carbon price (including a "Reference Case without Carbon Legislation") but not optimized cases with correspondingly higher carbon prices. While the "High Technology" scenario does include a slightly higher carbon price, it also includes changes to other assumptions (including lower fossil fuel prices) that counteract the effect of the carbon price.

3. The near-term action plan proposed in the 2018 DEI IRP does not include a provision for an all-source request for proposal ("RFP") or request for information ("RFI") at any point in time. This is a critical omission because one of the serious flaws in the 2018 IRP is that it does not include timely, market-based costs for renewable resources (with and without storage) able to serve load within the DEI service territory. This is also a critical omission because another of the serious flaws in the 2018 IRP is that it excludes categorically any baseload coal generating unit retirements prior to 2024 for reasons that are not valid. The experience of the Northern Indiana Public Service Company with including an all-source RFP in its 2018 IRP is a dramatic illustration of the difference that following this best practice can make in both a IRP and a near-term action plan. Accordingly, DEI should be directed to include an all-source RFP/RFI at a strategic point in the near-term action plans in its 2018 IRP and all its subsequent IRPs, beginning with its 2021 IRP.

4. Duke is in the process of choosing a new electric planning model. We recommend Duke employ a process similar to that used recently by the Minnesota utilities to implement an RFI process with Commission staff and interested stakeholders to jointly evaluate alternatives to Strategist and System Optimizer and vet those alternatives as a group. An inclusive RFI process enables the utility to consider a broad universe of potential software choices, has the potential to educate stakeholders on the complex topic of modeling, and can help instill confidence that the new model will be capable of simulating the resource choices available to the utility and provide transparency while doing so. We would strongly encourage Duke to employ this process in selecting its replacement for System Optimizer.

Thank you very much for this opportunity. We look forward to the issuance of and opportunity to comment on the Director's Draft Report. Please feel free to contact Jennifer Washburn, Counsel at Citizens Action Coalition, with any questions or concerns.

Respectfully,

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