STATE OF NORTH CAROLINA
UTILITIES COMMISSION
RALEIGH

DOCKET NO. E-100, SUB 157

In the Matter of 2018 Biennial Integrated Resource Plans and Related 2018 REPS Compliance Plans	))))	NC WARN'S REPLY COMMENTS

NOW COMES NC WARN Inc. ("NC WARN"), through the undersigned attorneys, with its reply comments concerning the 2018 Integrated Resource Plans ("IRPs") of Duke Energy Carolinas, LLC ("DEC") and Duke Energy Progress, LLC ("DEP") (collectively "Duke").

INTRODUCTION

NC WARN respectfully requests that the North Carolina Utilities Commission ("Commission") reject Duke's IRPs. Duke's IRPs fail to meet the standards under N.C. Gen. Stat. § 62-2(3a) and Commission Rule R8-60 to formulate a resource plan with the least-cost mix of generation to the utilities and their customers. Instead, Duke plans to add a combined amount of nearly 9,000 MW in gas-fired generation by 2032,[1] despite the fact that battery storage has been shown to be the current least-cost option and superior in other ways.[2]

The national trend in the energy industry has shown utilities aggressively decreasing their use of fossil fuel resources and increasing their generation from renewable energy resources not only because it reduces greenhouse gas emissions but

[1] NC WARN Initial Comments E-100 Sub 157 at p. 5
[2] Southern Alliance for Clean Energy, the Sierra Club, and the National Resources Defense Council Initial Comments E-100 Sub 157 at p. 11

because it has become the most cost-effective option.[3] There is no valid reason for Duke to defy these trends and invest millions of dollars of ratepayer funds in more costly and more polluting energy generation in coming years.

NC WARN, Southern Alliance for Clean Energy ("SACE"), the Sierra Club, Natural Resources Defense Council ("NRDC"), 16 North Carolina legislators and hundreds of customers have requested that the Commission schedule an evidentiary hearing on Duke's 2018 IRPs before determining whether they should be amended. The Commission has not held an evidentiary hearing in an IRP docket since 2007. This year, it is more critical than ever that the Commission schedule an evidentiary hearing so that intervenors can examine Duke's representatives concerning the IRPs and proffer expert testimony on important pertinent subjects, such as the failure of Duke's IRPs to comply with the requirement to provide the least-cost mix of generation for its customers.

REPLY COMMENTS

NC WARN agrees with the concerns raised in the comments of a number of other intervenors regarding Duke's IRPs, including the following:

A. In his initial comments, the Attorney General ("AG") explained that Duke's IRPs, and specifically Duke's plan to expand fracked gas resources, is not the least-cost mix of generation going forward. To reduce demand during peak times and to generate electricity at the lowest cost to the utilities and their customers, the AG encouraged the utilities to thoroughly evaluate solar energy resources paired with battery storage.[4] The AG further argued that Duke should refrain from its heavy reliance on fossil fuel resources and consider the associated risk including the cost

[3] NC WARN Initial Comments E-100, Sub 157 at pp. 2-3
[4] Attorney General Initial Comments 2018 IRP Docket No. E-100 Sub 157 at p. 3-7

of fuel, transmission and distribution costs, price volatility, the cost associated with carbon regulations and the environmental impacts of using fracked gas, such as climate change.[5] The AG also encouraged Duke to evaluate the climate change costs of generating electricity from fossil fuel and identify the benefits of generation from renewable energy.[6]

B. SACE, the Sierra Club, and NRDC (collectively "SACE et al.") also demonstrated that Duke's IRPs failed to provide the least-cost mix of resources.[7] SACE et al. stated that Duke would save customers billions while also reducing greenhouse gas emissions if Duke planned to implement more renewable energy and energy efficiency resources.[8] SACE et al. argued that Duke's IRPs relied heavily on fossil fuel technology, which is more costly and will raise energy bills while producing more carbon pollution.[9] SACE et al. proved storage paired with renewable energy will be the most cost-effective and the least-cost option in the future, with contracted prices as low as $0.030 to $0.032/kWh from Xcel Energy Colorado.[10]

C. The North Carolina Sustainable Energy Association ("NCSEA") also asked the Commission to reject Duke's IRPs and order the Companies to refile a plan that incorporates more renewable energy beyond what is legislatively mandated.[11] NCSEA found Duke's resource mix "overly expensive" because Duke's plan heavily relies on fossil fuel generation and fails to consider cost-effective clean

[5] Id. at p. 7-11
[6] Id. at p. 8
[7] SACE, the Sierra Club, NRDC Initial Comment at p. 2, 3
[8] Id.
[9] Id. at p. 3-5
[10] Id. at p. 10-11
[11] NCSEA Initial Comments, E-100, Sub 157 at p. 27

energy alternatives. [12] NCSEA argued that Duke's IRPs are inconsistent with current trends to aggressively shift to renewable energy paired with battery storage.[13]

COMMENTS IN RESPONSE TO DUKE'S RELIANCE ON FRACKED GAS GENERATION

DEC proposes to add 3,582 MW in gas-fired generation by 2032, and DEP proposes to add 5,018 MW in gas-fired generation by 2032.[14] Particularly given that cost-savings and environmental factors are leading other utilities toward renewable generation and away from gas-fired generation, Duke's proposed increased reliance on gas-fired generation is likely motivated in large part by Duke Energy Corporation's ("Duke Energy") investment in the Atlantic Coast Pipeline ("ACP").

In 2014, Atlantic Coast Pipeline, LLC ("ACP, LLC") estimated the costs to construct the ACP would be about $4.5-5 billion.[15] Now, ACP, LLC estimates the cost of the project to be nearly $7.8 billion, excluding financing costs and its 14% rate of return.[16] Therefore the ACP project would be 73% over-budget plus millions more from financing charges.

Duke Energy will recover the cost of the ACP through the price of fuel, leaving DEC and DEP customers responsible for 59% or $4.6 billion, including cost overruns.[17]

[12] Id. at p. 4-5
[13] Id.
[14] DEP IRP at p. 63-66; DEC IRP at p. 66-68
[15] Staunton News Leader, "Atlantic Coast Pipeline Delayed Amid Price Increase," February 6, 2019, https://www.newsleader.com/story/news/2019/02/06/atlantic-coast-pipeline-delayed-amid-price-increase/2793937002/
[16] FERC Order Issuing Certificates, Docket No. CP15-554-000, October 13, 2017, at p. 41, https://www.ferc.gov/CalendarFiles/20171013192035-CP15-554-000.pdf
[17] Institute for Energy Economics and Financial Analysis, The Vanishing Need for the Atlantic Coast Pipeline, January 2019, p. 3, http://ieefa.org/wp-content/uploads/2019/01/Atlantic-Coast-Pipeline_January-2019.pdf

Consequently, fuel prices for monopoly-captive customers will be far higher than market pricing, especially since cost overruns are likely to increase over time, with reportedly only 5% of the project construction complete.[18] The construction delay is costing ACP, LLC $20 million a week.[19] Furthermore, changes in the market are rapidly showing that gas cannot compete with renewables paired with battery storage. The ACP is stalled indefinitely; it is unclear whether the pipeline route will change due to the rescission of multiple environmental permits.

The combination of these cost overruns and the uncertainty of successful completion of the ACP render Duke's proposed increased reliance on gas-fired generation risky and inappropriate. Hence, Duke's IRPs should be rejected, or, at minimum, the Commission should hold an evidentiary hearing to consider these matters.

Virginia's State Corporation Commission ("SCC") rejected Dominion Energy's 2018 IRP because of inflated demand projections.[20] Dominion predicted an expansion in energy demand and therefore planned 8-13 new gas power plants, claiming that the ACP was needed to help supply the demand for natural gas.[21] In response to the SCC's decision rejecting the initial IRP, Dominion revised its IRP, reducing its demand

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[18] Duke contracted for 725,000 Dth/day of capacity on the Atlantic Coast Pipeline. At the ACP's approved rate of $1.72 / Dth (plus $0.16 / Dth for the Supply Header Project), this translates to an annual cost of $497million per year. (See FERC order approving ACP at paragraphs 97, 104, 106). If ACP's rate is increased by even 50% to reflect cost overruns on the project, the cost to Duke electric utilities would be $746 million per year. Meanwhile, rates on expansions to the Transco pipeline are substantially less expensive, in the range of $0.35 to $0.77 per Dth. At an assumed cost of $0.55 per Dth for shipping on Transco, 725,000 Dth/day would cost Duke electric ratepayers $146 million per year. In 2018, total sales for Duke's electric utilities were 162,000 GWh. Thus the rate impact for the Atlantic Coast pipeline (at original cost) is 0.31 cents/kWh or up to 0.46 cents/kWh (incorporating budget overruns), compared to 0.09 cents/kWh for shipping on Transco.

[19] Charlotte Business Journal, "Timing of Federal Case Could Add $1B to Atlantic Coast Pipeline Costs," January 15, 2019, https://www.bizjournals.com/charlotte/news/2019/01/15/timing-of-federal-case-could-add-1b-to-atlantic.html

[20] Virginia Mercury, "A Revised Generation Plan Leaves Dominion's Case for its Pipeline in Shambles," March 20, 2019, https://www.virginiamercury.com/2019/03/20/a-revised-generation-plan-leaves-dominions-case-for-its-pipeline-in-shambles/

[21] Id.

projections and calling for only 4-7 small gas combustion peaker units, diminishing the need for the ACP.[22]

Like Virginia's SCC, this Commission should carefully review Duke's energy demand projections and its plan to meet demand using mostly resources from fracked gas. The demand for fracked gas in North Carolina will most likely fade away due to the growth in renewable energy technologies and the declining cost in battery storage.[23] As a matter of fact, battery storage has already been proven the better option to replace gas combustion peaker units.[24]

Furthermore, the Indiana Utility Regulatory Commission ("IURC") rejected a request by the utility Vectren to build an 850 MW gas power plant and directed the utility to outline alternatives in its next IRP.[25] The IURC feared the new gas plant would become a stranded asset given changes in customer demand and declining costs of renewable energy.[26] Similarly, this Commission should reject Duke's proposal to add over 9,000 MW in fracked gas and direct Duke to seek renewable energy alternatives.

As the Commission is aware, Duke's IRPs will have a huge impact on ratepayers. Duke uses its IRPs to justify the need to build unnecessary power plants and pipelines.[27] Through Executive Order 80, North Carolina has the goal of reducing its greenhouse gas emissions, which will require increased electric generation from renewable energy.

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[22] Id.

[23] Institute for Energy Economics and Financial Analysis, The Vanishing Need for the Atlantic Coast Pipeline, January 2019, p. 2, http://priceofoil.org/content/uploads/2019/01/IEEFA-OCI-No-Need-For-Atlantic-Coast-Pipeline_January-2019-Final.pdf

[24] S&P Global, "Amid Global Battery Boom, 2019 Marks New Era for Energy Storage," January 11, 2019, https://www.spglobal.com/marketintelligence/en/news-insights/trending/9GIYsd7qF8tNpiopwH7KSg2

[25] Utility Dive, "Indiana Regulators Reject Vectren Gas Plant Over Stranded Asset Concern," April 25, 2019, https://www.utilitydive.com/news/indiana-regulators-reject-vectren-gas-plant-over-stranded-asset-concerns/553456/

[26] Id.

[27] Duke Energy Carolinas, LLC's and Duke Energy Progress, Inc.'s Advance Notice Pursuant to Regulatory Condition No. 3.1, Request for Approval to Enter Into Contracts with an Affiliated, and Petition for Limited Waiver of Code of Conduct Provisions. Docket No. E-7, Sub 1062; E-2, Sub 1052

Various counties and cities in the State have renewable energy goals to generate 100% of their energy using renewable energy resources. Duke's IRPs do not move in a direction to accommodate these state and local goals. Instead of aggressively planning toward a clean energy future, Duke is moving aggressively in the wrong direction with its plan to actually increase the fossil fuel portion of its generation mix over the next 15 years.

CONCLUSION

Duke's proposal to expand fracked gas by building gas-fired power plants and pipelines will not be the least-cost option for its customers. The ACP alone is a significant risk, leaving customers obligated to pay $4.6 billion or more due to cost overruns. Renewables paired with storage is already more affordable than gas generation. Because of the transforming energy sector, public utility commissions throughout the nation are rejecting IRPs with proposals to add excessive resources from fracked gas and directing utilities to seek renewable alternatives. As described above, many intervenors found Duke's IRPs uneconomic and presented alternative plans that are more cost-effective, proving Duke's IRPs inconsistent with the requirement to provide the least-cost generation mix.

NC WARN's Reply Comments have been reviewed and adopted by Appalachian Voices. Attached to these comments is their letter of support.

WHEREFORE, for the reasons mentioned above, among others, NC WARN urges the Commission to reject Duke's IRPs, or, at minimum, grant the requests for an evidentiary hearing.

Respectfully submitted, this the 20th day of May, 2019.

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CERTIFICATE OF SERVICE

I hereby certify that a true and exact copy of the foregoing NC WARN's Reply Comments has been duly served upon all persons on the Commission's docket service list by either depositing a true and exact copy of same in a depository of the United States Postal Service, first-class postage prepaid, and/or by electronic delivery.

This the 20th day of May, 2019.

Kristen Wills

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May 6, 2019

Chairman Edward S. Finley, Jr.
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430 N. Salisbury Street
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Re: In the Matter of 2018 Biennial Integrated Resource Plans and Related 2018 REPS Compliance Plans, Docket No. E-100, Sub 157

Dear Members of the North Carolina Utilities Commission:

Appalachian Voices brings people together to protect the land, air, and water of Central and Southern Appalachia and advance a just transition to a generative and equitable clean energy economy.

Appalachian Voices reviewed NC WARN's Initial and Reply Comments in Commission Docket No. E-100, Sub 157. In their Initial and Reply Comments, NC WARN urges the Commission to reject the Integrated Resource Plans (IRP) of Duke Energy Carolinas (DEC) and Duke Energy Progress (DEP) because the utilities' resource plan fails to meet North Carolina's requirement to present a plan with the least-cost mix of generation to its customers. DEC and DEP's 15-year plan only calls for 8% renewables by 2033 while many other utilities in the United States are already above 30%.

DEC and DEP's 15-year plan adds nearly 10,000 MW of new fracked gas resources by building gas-fired power plants and the Atlantic Coast Pipeline (ACP). This is unnecessary and uneconomic. Not only is the ACP stalled because of environmental challenges, but it is also experiencing major cost overruns. The project is 73% over budget, not including millions more in financing charges. DEC and DEP's IRP should include more generation from renewable resources such as solar combined with battery storage. Solar with storage is already outperforming gas-fired power plants on cost and reliability.

Appalachian Voices support NC WARN's request to reject DEC and DEP's IRP for the reasons mentioned above. In addition, we ask the Commission to carefully review DEC and DEP's IRP and grant NC WARN's request for an evidentiary hearing in this matter.

Respectfully submitted,

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