

STATE OF NORTH CAROLINA
UTILITIES COMMISSION
RALEIGH

DOCKET NO. E-7, SUB 1214

In the Matter of:)
Application by Duke Energy Carolinas, LLC,)
for Adjustment of Rates and Charges) NC WARN'S
Applicable to Electric Utility Services in) POST-HEARING BRIEF
North Carolina.)

I. INTRODUCTION

In the above-captioned docket, Duke Energy Carolinas, LLC (DEC or the Company) seeks deferral accounting treatment of expenses to be incurred pursuant to its Grid Improvement Plan (GIP). Because DEC has not carried its heavy burden of establishing that the GIP expenses are unique or extraordinary, the North Carolina Utilities Commission (the NCUC or the Commission) should reject DEC's request for deferral accounting treatment of these expenses.

DEC also seeks approval of expenses incurred during the test year in furtherance of its GIP. However, the said GIP expenses were neither reasonably nor prudently incurred, and therefore, cost recovery should be disallowed for those GIP expenses.

Finally, DEC seeks cost recovery for modifications of Cliffside Units 5 and 6 and Belews Creek Unit 1 which enabled those units to co-fire both coal and natural gas. The expenses for those modifications were neither reasonably nor prudently incurred, and therefore, cost recovery should be disallowed.

II. THE GIP

Pursuant to its Second Agreement and Stipulation of Partial Settlement with the Public Staff – North Carolina Utilities Commission (the Public Staff), DEC seeks deferral accounting treatment for the following GIP programs: Self-Optimizing Grid (SOG), Integrated Volt Var Control (IVVC), Integrated System and Operations Planning (ISOP), Transmission System Intelligence, Distribution Automation, Power Electronics, DER Dispatch Tool, and Cyber Security.

Additionally, DEC is seeking cost recovery for expenses incurred in the test year under the following GIP programs: SOG, Advanced DMS, Transformer Retrofit, LDI, Targeted Undergrounding, Transmission H&R, Enterprise Applications, Enterprise Communications, Transmission System Intelligence, Distribution Automation, and Physical and Cyber Security.

For the following reasons, the request for deferral accounting treatment and cost recovery should be denied.

A. The GIP Should Not Receive Deferral Accounting Treatment.

i. The Standard

This Commission has “historically treated deferral accounting as a tool to be allowed only as an exception to the general rule, and its use has been allowed sparingly.” Order Approving Deferral Accounting with Conditions, Docket No. E-7, Sub 874, p. 24 (March 31, 2009). The Commission has explained that deferral accounting is disfavored for the following reasons:

[The Commission] has also been reluctant to allow deferral accounting because it, typically, equates to single-issue ratemaking for the period of deferral, contrary to the well-established, general ratemaking

principle that all items of revenue and costs germane to the ratemaking and cost-recovery process should be examined in their totality in determining the appropriateness of the utility's existing rates and charges.

Id.

Given these compelling reasons against deferral accounting, the Commission's has articulated the following exacting test for deferral accounting treatment:

In order for the Commission to grant a request for deferral accounting treatment, the utility first must show that the cost items at issue are adequately extraordinary, in both type of expenditure and in magnitude, to be considered for deferral. Second, the utility has to show that the effect of not deferring such cost items would significantly affect the utility's earned returns on common equity.

Order Accepting Stipulation, Deciding Contested Issues, and Requiring Revenue Reduction, Docket No. E-7, Sub 1146, p. 148 (June 22, 2018).

- ii. DEC's Reasons for Deferral Accounting Treatment Are Not Unique to the Company or North Carolina.

In its immediately prior rate-increase case, *In re Application of Duke Energy Carolinas, LLC for Adjustment of Rates and Charges Applicable to Electric Utility Service in North Carolina*, Docket No. E-7, Sub 1146 (2017), DEC requested deferral accounting treatment for its Power Forward program. However, this Commission rejected DEC's deferral accounting request because, among other reasons:

[T]he Commission finds and concludes that the reasons DEC says underlie the need for Power Forward are not unique or extraordinary to DEC, nor are they unique or extraordinary to North Carolina.

Order Accepting Stipulation, Deciding Contested Issues, and Requiring Revenue Reduction, Docket No. E-7, Sub 1146, p. 146 (June 22, 2018). Similarly, the reasons cited by DEC in the present docket for the GIP are not unique to the Company or North Carolina.

DEC witness Jay W. Oliver (Oliver) testified that there are seven reasons—or “megatrends”—justifying the GIP. (Tr. vol. 11, pp. 611-12; *see also* Tr. vol. 4, p. 157.) None of those seven megatrends are unique to DEC or North Carolina.

For example, Oliver testified that the GIP is necessary because “[t]he number, severity and impact of weather events on DE Carolinas’ customers has been increasing significantly.” (Tr. vol. 11, p. 612.) However, in response to cross-examination, Oliver acknowledged that this megatrend is commonplace among the country:

Q Mr. Oliver, is it fair to say that an increase in the severity and frequency of weather events—of significant weather events is not unique to North Carolina?

A I think that is fair to say. Again, we also serve South Carolina, we also serve Florida, and we’ve seen increase in severe weather there as well.

(Tr. vol. 11, p. 159.)

In fact, in DEC’s immediately prior rate case, the Commission explicitly determined that increasingly severe weather is not a unique issue sufficient to justify deferral accounting. Order Accepting Stipulation, Deciding Contested Issues, and Requiring Revenue Reduction, Docket No. E-7, Sub 1146, p. 146 (June 22, 2018) (“Weather, customer disruption, physical and cyber security, DER,

and aging assets are all issues the Company (and all utilities) have to confront in the normal course of providing electric service.”).

Similarly, Oliver testified that the GIP is justified because “[t]he threat of physical and cyber-attacks on grid infrastructure is more sophisticated and is on the rise.” (Tr. vol. 11, p. 612.) Oliver, however, was unable to offer any evidence whatsoever that the threat of physical and cyberattacks is unique to DEC or North Carolina:

Q Mr. Oliver, do you have any evidence that the volume, complexity, or scale of the physical or cyberattacks being experienced by the companies is unique or worse than other public utilities throughout the nation?

A I can’t address what other utilities see. I can address what Duke sees.

(Tr. vol. 5, p. 15.)

Furthermore, as with the weather megatrend discussed above, this Commission has explicitly determined that physical and cyber security are not issues unique to DEC or North Carolina. Order Accepting Stipulation, Deciding Contested Issues, and Requiring Revenue Reduction, Docket No. E-7, Sub 1146, p. 146 (June 22, 2018) (“Weather, . . . [and] physical and cyber security . . . are all issues the Company (and all utilities) have to confront in the normal course of providing electric service.”).

Oliver also testified that the GIP is justified because “[t]here has been an increase in environmental commitments from the international to local level in DE Carolinas’ service territory.” (Tr. vol. 11, p. 612.) Self-evidently, changes in “international” environmental regulations are not unique to DEC.

Indeed, Oliver testified that adapting to changing environmental regulations is part of the normal business operations for any public utility:

Q Mr. Oliver, I'm sure that you would agree that environmental regulations change regularly; is that fair to say?

A I'm not an expert in environmental regulation, but I would guess that's fair to say.

Q Would you agree that complying with changing environmental regulations is a customary part of any public utility's standard business operation?

A I would generally agree with that. . . .¹

(Tr. vol. 5, p. 16.)

Hence, the reasons proffered for DEC's GIP are unique to neither the Company nor North Carolina. As a result, DEC's deferral accounting request should be rejected. Order Accepting Stipulation, Deciding Contested Issues, and Requiring Revenue Reduction, Docket No. E-7, Sub 1146, p. 146 (June 22, 2018) (rejecting deferral accounting treatment of the Power Forward program because, among other reasons, "the reasons DEC says underlie the need for Power Forward are not unique or extraordinary to DEC, nor are they unique or extraordinary to North Carolina.").

¹ In fairness, Oliver followed this answer with an explanation which purported to identify the uniqueness of DEC's environmental-regulation megatrend. (Tr. vol. 5, pp. 16-17.) However, Oliver's explanation did not contradict the notion that adapting to shifting environmental regulations is a commonplace business practice for DEC and all other public utilities.

iii. DEC's Grid Is Presently Reliable Despite Not Having Been Subject to Past Deferral Accounting Treatment.

During his direct testimony, Oliver admitted that DEC's grid is reliable: "Our system has performed well, and we have continued to provide safe, reliable, and affordable electric service to our customers." (Tr. vol. 11, p. 603.) Obviously, DEC has achieved this reliable grid without the assistance of deferral accounting treatment:

Q And would you agree that the achievement of this reliable and well-maintained grid, that that was achieved without deferral accounting treatment—without the deferral accounting treatment sought by the companies in this docket or in these dockets?

A I would agree with that.

(Tr. vol. 5, p. 17.)

Given that DEC contends that its grid is already reliable, and that DEC admittedly achieve that reliable grid without the assistance of deferral accounting, it is quite doubtful that deferral accounting is necessary now.

iv. The GIP Is Substantially Similar to Power Forward, and this Commission Should Reject Deferral Accounting Treatment of GIP Expenses for the Same Reasons that it Rejected Deferral Accounting Treatment of Power Forward Expenses.

In its immediately prior rate-increase case, DEC sought deferral accounting treatment of Power Forward expenses. This Commission, of course, rejected DEC's request for deferral accounting treatment. Order Accepting Stipulation, Deciding Contested Issues, and Requiring Revenue Reduction, Docket No. E-7, Sub 1146, pp. 146-49 (June 22, 2018). The two programs—the GIP and Power Forward—are substantially similar and should receive the same treatment.

For example, DEC in the present case seeks deferral accounting treatment of its Cyber Security program within the GIP. Similarly, Power Forward involved expenses related to “physical and cyber security.” *Id.* at 146; see *also* (Tr. vol. 5, pp. 20-21.) Moreover, DEC sought deferral accounting treatment in both Power Forward and the GIP for a SOG program. (Tr. vol. 5, p. 20.)

The GIP is Power Forward, but modestly repackaged. Just as deferral accounting was inappropriate for Power Forward, deferral accounting is inappropriate for the GIP.

B. DEC’s GIP Expenses Were Not Reasonably and Prudently Incurred.

i. The Standard

In order to recover costs, DEC must establish the following three essential elements:

The utility must show that the costs it seeks to recover are (1) “known and measurable”; (2) “reasonable and prudent”; and (3) where included in rate base “used and useful” in the provision of service to customers.

Order Accepting Stipulation, Deciding Contested Issues, and Requiring Revenue Reduction, Docket No. E-7, Sub 1146, p. 258 (June 22, 2018).

As to the second element—the “reasonable and prudent” requirement—the Commission must analyze “whether management decisions were made in a reasonable manner and at an appropriate time on the basis of what was reasonably known or reasonably should have been known at that time.” Order Granting Partial Increase in Rates and Charges, Docket No. E-2, Sub 537, p. 14 (Aug. 5, 1988).

ii. The GIP Expenses Incurred in the Test Year Were Not Reasonable and Prudent.

In addition to its deferral accounting request, DEC also seeks cost recovery for certain GIP expenses already incurred. NC WARN's witness, William E. Powers (Powers), testified in detail that these GIP expenses were unreasonable and imprudent and should not have been incurred. (Tr. vol. 16, pp. 35-51.)

By way of example, Powers explained in detail the unreasonableness of DEC's Targeted Undergrounding expenses, both past and present. (Tr. vol. 16, pp. 38-42.) Oliver testified that Targeted Undergrounding was necessary to prevent outages. However, as noted by Powers, DEC failed to analyze other viable options for reducing outages—such as improvements to its vegetation management program. (Tr. vol. 16, pp. 38-40.) In fact, Powers testified to the practicality of improving DEC's vegetation management and thereby obviating the need for more expensive Targeted Undergrounding expenses within the GIP. (Tr. vol. 16, pp. 40-41.)

Similarly, Powers testified that, rather than incurring extravagant Targeted Undergrounding expenses, “[i]t would be practical and less costly to put battery storage in every home along a proposed distribution line undergrounding route.” (Tr. vol. 16, p. 41.) Based on similar projects in other states, Powers estimated that “it would cost about \$300,000 per mile to equip every home in a North Carolina neighborhood with a Tesla Powerwall.” (Tr. vol. 16, p. 42.) The advantages of this approach are striking: “\$300,000 per mile to assure reliability during outages in every home along a distribution line pathway is a small fraction of the more than

\$2 million per mile for an overhead-to-underground distribution line conversion along the same route.” (Tr. vol. 16, p. 42.)

Similarly, Powers testified that SOG expenses are neither reasonable nor prudent. (Tr. vol. 16, pp. 43-47.) Powers correctly noted that, while touting the supposed benefits of the SOG, DEC failed to examine practical alternatives. (Tr. vol. 16, p. 44.)

In fact, practical and more cost-effective alternatives to the SOG are available. According to Powers, “Installing rooftop solar with battery storage in homes and businesses can achieve the same purpose.” (Tr. vol. 16, p. 44.) Powers cited and analyzed a 2017 California study which concluded, among other things, that “the addition of battery storage with the rooftop solar would negate the need for progressively more expensive grid optimization upgrades.” (Tr. vol. 16, p. 46.)

However, DEC’s SOG program involves “grid optimization measures that will become redundant if battery storage is integrated with rooftop solar.” (Tr. vol. 16, p. 46.) In summary, battery storage “could prove much more cost-effective in the long run particularly given the other functions that are available from distributed energy storage.” (Tr. vol. 16, pp. 46-47.)

The expenses incurred by DEC pursuant to its GIP were neither reasonable nor prudent. Cost recovery should therefore be denied.

III. MODIFICATIONS OF CLIFFSIDE UNITS 5 AND 6 AND BELEWS CREEK UNIT 1

In the present rate case, DEC seeks cost recovery for modifications of Cliffside Units 5 and 6 and Belews Creek Unit 1. (Tr. vol. 12, pp. 82-82.) Prior to

the subject modifications, these units could burn only coal. However, after these modifications, Cliffside Units 5 and 6 and Belews Creek Unit 1 are capable of co-firing various combinations of coal or natural gas. (Tr. vol. 12, p. 83.) For these modifications, DEC seeks “approximately \$125 million,” and “then about another \$120 million associated with the capital pipelines.” (Tr. vol. 12, p. 83.)

The expenses associated with these modifications were neither reasonably nor prudently incurred. Significantly, it was obvious that these expenses were imprudent when actually incurred. As noted, the analysis of the prudence of an expense focuses on what was “reasonably known or reasonably should have been known at” the time that the expense was incurred. Order Granting Partial Increase in Rates and Charges, Docket No. E-2, Sub 537, p. 14 (Aug. 5, 1988).

During cross-examination, DEC witness Steve Immel (Immel) acknowledged the “trend in the public utility industry moving away from coal and toward other forms of electricity generation.” (Tr. vol. 12, p. 85.)² Immel also acknowledged that this trend has been ongoing for at least five years. (Tr. vol. 12, p. 85.)³ Despite this long-term trend, Immel admitted that, at the time that “construction was undertaken at Cliffside Unit 5, this trend we discussed a moment ago, moving away from coal, had already begun.” (Tr. vol. 12, p. 86.)⁴

² Q: “. . . would you agree with me there is a trend in the public utility industry moving away from coal and toward other forms of electricity generation?” A: “Yes, sir, I would agree with that.” (Tr. vol. 12, p. 86.)

³ Q: “And that trend’s been going on for several years now; is that fair?” A: “Yes, sir.” Q: “Okay. Is it fair to say it’s been going on for five years?” A: “It’s probably fair to say that. Gradually been increasing; yes, sir.” (Tr. vol. 12, p. 85.)

⁴ Q: “So would you, then, agree that, at least at the time that this DFO project was undertaken, construction was undertaken at Cliffside unit 5, this trend we discussed a moment ago, moving away from coal, had already begun; is that

In fact, Cliffside Unit 5 was a particularly bad investment. In response to cross-examination, Immel agreed that, “at the time that the business decision was made to implement the DFO project at Cliffside Unit 5, the projected retirement date for that unit was 2032.” (Tr. vol. 12, p. 86.)⁵ However, subsequent to the expenditure of millions of dollars at Cliffside Unit 5, DEC requested “that the retirement date of that unit be shortened to 2026.” (Tr. vol. 12, pp. 86-87.)⁶ Accordingly, ratepayers are receiving six years fewer from the modification of Cliffside Unit 5 than was expected when the modification began. (Tr. vol. 12, p. 87.)

Furthermore, the modifications of Cliffside Units 5 and 6 and Belews Creek Unit 1 actually reduce the efficiency of those units. Powers testified that “[b]urning natural gas in steam boilers formerly fired on coal reduces the thermal efficiency of the steam boiler combustion process by 3 to 5 percent.” (Tr. vol. 16, p. 53.) Immel agreed with Powers that these modifications reduce efficiency. (Tr. vol. 12, pp. 83-85.) This is significant because, according to Powers, “[t]he coal-fired

correct?” A: “Yes. And as you describe a trend—if I could maybe comment on that trend. What creates the trend is the continued lower price of natural gas, which, of course, is a benefit to our customers, and also the continued improvement in technology efficiencies of combustion turbines. . . .” (Tr. vol. 12, p. 86.)

⁵ Q: “. . . Mr. Immel, would you also agree with me that, at the time that the business decision was made to implement the DFO project at Cliffside unit 5, the projected retirement date for that unit was 2030?” A: “Yes, sir. The time that we pursued this would have been in the late 2016 time frame; yes, sir.” (Tr. vol. 12, p. 86.)

⁶ Q: “. . . Now, obviously, Duke Energy Carolinas is requesting that the retirement date of that unit be shortened to 2026 in this docket, correct?” A: “That is correct.” (Tr. vol. 12, pp. 86-87.)

steam boiler is already a relatively low efficiency power generation process compared to a combined cycle power plan.” (Tr. vol. 16, p. 53.)

Instead of installing the extravagantly expensive modifications of Cliffside Units 5 and 6 and Belews Creek Unit 1, DEC had available practical and cost-effective alternatives. For example, Powers testified that “lower-cost regional power supplies” were available. (Tr. vol. 16, p. 54.) Similarly, “the addition of battery storage to the nearly 6,000 MW of utility-scale solar in North Carolina” could “achieve the same objective as adding gas-firing capability at the Belews Creek and Cliffside coal plants.” (Tr. vol. 16, p. 56.)

Accordingly, the modifications of Cliffside Units 5 and 6 and Belews Creek Unit 1 were not reasonable and prudent, and those expenses should therefore not be recovered by DEC.

IV. CONCLUSION

For all of the above-described reasons, among others, the Commission should reject DEC’s deferral accounting request concerning GIP expenses, and the Commission should disallow cost recovery of GIP expenses already incurred, and the Commission should disallow cost recovery of expenses affiliated with DEC’s modifications of Cliffside Units 5 and 6 and Belews Creek Unit 1.

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This the 4th day of November, 2020.

/s/ Matthew D. Quinn

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CERTIFICATE OF SERVICE

The undersigned hereby certifies that on today's date a copy of the foregoing document was served by electronic mail on all parties to this docket.

This the 4th day of November, 2020.

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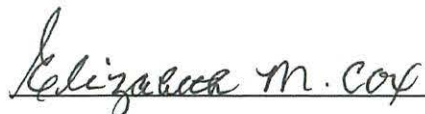
In the Matter of:)
Application by Duke Energy Carolinas, LLC,) VERIFICATION
for Adjustment of Rates and Charges) REGARDING
Applicable to Electric Utility Services in) NC WARN'S POST-
North Carolina.) HEARING BRIEF

I, Matthew D. Quinn, counsel for NC WARN, and pursuant to the N.C. Utilities Commission's Order Granting NC WARN's Motion to File Post-Hearing Brief Out of Time Subject to Conditions, entered on November 10, 2020, hereby verifies that (i) NC WARN's Post-Hearing Brief in the above-mentioned docket was timely served on all other parties before 5:00 pm on November 4, 2020, and (ii) NC WARN's preceding Post-Hearing Brief has not been revised after November 4, 2020.

This the 10th day of November, 2020


Matthew D. Quinn

Sworn to and subscribed before me,
this the 10th day of November, 2020.


Notary Public



My commission expires: June 6, 2023

CERTIFICATE OF SERVICE

The undersigned hereby certifies that on today's date a copy of the foregoing Verification Regarding NC WARN's Post-Hearing Brief was served by electronic mail on all parties to this docket.

This the 10th day of November, 2020.

/s/ Matthew D. Quinn

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