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November 4, 2020

Ms. Kimberley A. Campbell, Chief Clerk
North Carolina Utilities Commission
Dobbs Building, Fifth Floor
430 North Salisbury Street
Raleigh, North Carolina 27602

VIA E-FILE
and briefs@ncuc.net

Re: Docket No. E-7, Sub 1214; Application by Duke Energy Carolinas, LLC,
for an Adjustment of Rates and Charges Applicable To Electric Service in
North Carolina

Dear Ms. Campbell:

On behalf of Carolina Utility Customers Association, Inc. ("CUCA"), we attach
CUCA's Brief for filing in the above-referenced Docket.

Please let me know, at your early convenience, if you have any questions.

Very truly yours,

CRISP & PAGE, PLLC

/s/ Robert F. Page

Robert F. Page

RFP/scm
Enclosure

cc: Kevin Martin
Kevin O'Donnell
Parties of Record

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Nov 04 2020

**STATE OF NORTH CAROLINA
UTILITIES COMMISSION
RALEIGH**

DOCKET NO. E-7, SUB 1214

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

In the Matter of)	
Application by Duke Energy Carolinas,)	
LLC, for an Adjustment of Rates and)	BRIEF OF CAROLINA UTILITY
Charges Applicable to Electric Utility)	CUSTOMERS ASSOCIATION, INC.
Service in North Carolina)	
)	

NOW COMES, Carolina Utility Customers Association, Inc. (CUCA), pursuant to the Commission’s Order dated October 8, 2020, and files its Brief for consideration by the Commission in the above-captioned case. For its Brief, CUCA respectfully shows the Commission, as follows.

I. BACKGROUND

On September 30, 2019, Duke Energy Carolinas, LLC (DEC) filed an Application with the Commission requesting authority to adjust and increase its rates and charges for retail electric service in North Carolina. On October 29, 2019, the Commission issued an Order Establishing General Rate Case, Suspending Rates, Scheduling Hearings, and Requiring Public Notice. By various subsequent Orders, the Commission consolidated other DEC Dockets and the later-filed Duke Energy Progress, LLC (DEP) general rate case into the DEC general rate case matter. DEC and DEP, collectively, are referred to as “Duke.” Duke’s Applications included the usual Form E-1 and pre-filed testimony

and exhibits of the Duke witnesses. Because of the COVID-19 virus and various Orders from the Governor of North Carolina declaring a State of Emergency and requiring indoor meetings to be confined to a limited number of people, the Commission, at various times, rescheduled the Hearings in the matter. Duke agreed to extend the time within which it otherwise could begin charging its proposed rates under bond. By a number of Orders which are now of record in this Docket, the Commission authorized the intervention of a number of parties, including CUCA, to this proceeding. Also as shown of record herein, DEC and DEP entered into various Stipulations with many of the parties to this proceeding, including two with the Public Staff.

On June 17, 2020, the Commission issued an Order providing that the expert witness Hearings in this matter would be consolidated for Hearing beginning on Monday, July 27, 2020, at 2:00 p.m., solely for the purpose of considering testimony on topics for which the evidence is identical and equally admissible as to both DEC and DEP. The Commission's Order provided that this Hearing would be conducted on a "remote" basis (i.e. there would be no in-person hearings). Pre-filed testimony of the Intervenors was filed. In addition, Duke and the Public Staff filed rebuttal and supplemental testimony as shown in the Record.

On July 27, 2020, in response to a Joint Motion of the Public Staff, DEC and DEP, the Commission issued an Order further rescheduling the consolidated remote Hearings to begin at 2:00 p.m. on Monday afternoon, August 24, 2020. Issues to be considered at the consolidated Hearing included: (1) Capital

Structure, Rate of Return, and Return on Equity; (2) Refund to Customers of the Excess Deferred Income Tax [E.D.I.T.]; and (3) Duke's Proposal for a Grid Improvement Plan [GIP]. The Commission determined that, following the conclusion of the consolidated proceedings, sometimes referred to as Phase I of the Hearings, there would be separate proceedings for issues requiring separate consideration for DEC (Phase II) and DEP (Phase III). The Phase III Hearings concluded on Tuesday, October 6, 2020. Parties were given 30 days from and after the completion and mailing of Transcripts of the Hearing within which to file Proposed Orders and Briefs. This time was subsequently extended to November 4, 2020 for DEC and December 4, 2020 for DEP.

II. EXECUTIVE SUMMARY

CUCA brings forward five (5) issues for consideration by the Commission, as follows. First, CUCA presents its conclusions and recommendations regarding the Cost of Capital issues. CUCA opposes the Stipulation entered into by Duke and many of the initially adverse parties, including the Public Staff. CUCA and the Attorney General argue that the stipulated capital structure and return on equity (ROE) are both in excess of the levels indicated by current market conditions and, thus, will produce excessive returns which are burdensome and unfair to the ratepayers. Second, CUCA opposes the Grid Improvement Program (GIP) as proposed by Duke. The GIP Program, simply stated, is nothing but a means for Duke to inflate its rate base, and earnings, by making system grid improvements that, arguably, should have been made years ago. Much of the GIP investment is for ordinary system improvements, such as

poles, transformers, reclosers, capacitors, and the like. The Commission must be aware that, at this point, if it approves Duke's request, it will ultimately have to decide which customers will have to pay for GIP. Third, there is another issue related to the GIP Program. A portion of the "smart grid" improvements proposed by Duke involves switches for the proposed Self-Optimizing Grid (SOG). As duly noted in the testimony and cross-examination, by the end of the rate case and the time for after end-of-test-period adjustments, most of the SOG switches will not have been "fully enabled," meaning that they will only operate manually and not automatically as they were intended to operate. This calls into question whether these switches, as of the end of the Hearings in this matter, were truly "used and useful." Fourth, CUCA agrees with the Public Staff, the Attorney General, and other parties that the cost of coal ash cleanup and remediation is one which should be "shared" between Duke and the ratepayers. The CUCA proposal, a 50-50 split, reaches approximately the same result as the Public Staff and Attorney General recommendations. Finally, CUCA supports the Duke Cost of Service Study recommendations, particularly with regard to the allocation of generation plant based on Single Coincident Peak. CUCA asserts that Duke needs to do more in terms of developing attractive rates for its industrial and manufacturing customers so that valuable production (and, ultimately, good paying manufacturing jobs) are not taken away from North Carolina and shifted to other states.

III. ARGUMENTS

A. The Stipulation Regarding Capital Structure and Cost of Equity is Excessive and Unjustified, and will Lead to Rates which are Unfair and Excessive for Consumers.

1. **The Stipulated Capital Structure Contains an Excessive Amount of Equity in Relation to Debt Financing.**

All of the “stipulating” parties to the various Cost of Capital Stipulations agreed that the Duke Capital Structure should be established as 52% common equity and 48% debt. However, at least two (2) of the major parties in the proceeding, CUCA and the Attorney General, did not enter into this Stipulation. Prior to the Stipulations, there was a marked and significant difference between the Duke-proposed common equity ratio of 53% and the equity ratio proposed by the other parties. The Commission should review the testimony, as originally filed, by all parties regarding Capital Structure to arrive at a fair determination of this issue. Since equity is more expensive than debt, an equity ratio that is higher than necessary will result in excessive rates.

The “cost of capital” witnesses in this case, and the parties for whom they testified, are as follows: Duke – Robert Hevert, as adopted by Dylan W. D’Ascendis; Public Staff – J. Randall Woolridge, PhD; Attorney General – Richard A. Baudino; CUCA – Kevin W. O’Donnell; Technical Companies – Kurt G. Strunk; and CIGFUR – Nicholas Phillips, Jr. The equity ratio originally recommended by witness Hevert (as adopted by witness D’Ascendis) was 53%. The equity ratio recommended by witness Woolridge was 50% (Public Staff Testimony on February 18, 2020). The equity ratio recommended by witness Baudino was 51.5%. The equity ratio recommended by witness O’Donnell was

50%. The equity ratio recommended by witness Strunk was between 49.29% (Mean) and 50.16% (Median). Witness Strunk did not make a specific recommendation but provided these two averages; however, he specifically recommended a lower risk profile relative to industry standard. Witness Strunk argued that the higher the equity ratio is set, the lower the ROE that should be allowed. The equity ratio recommended by witness Phillips was not to exceed 52%. Other than witness Hevert (adopted by witness D'Ascendis), all of the other cost of capital witnesses derive a much lower average level of the proposed equity component in the overall Capital Structure, approximately 50.75%. Since equity is far more expensive than debt, the greater the percentage of Capital Structure that is allowed as equity, the higher the overall cost of capital to be borne by consumers.

The purpose of the Commission's rate case determinations, including the cost of capital determinations, is to arrive at a level of rates which is "just and reasonable" for both Duke and the consumers. Selecting a higher equity ratio than would have been justified, in the absence of the Stipulations, is unfair to the consumers because it imposes a higher overall cost of capital (and, thus, higher rates) than they would have likely been required to pay absent the Stipulations. Each of the stipulating parties has, apparently, received a significant, meaningful benefit in return for agreeing to the Stipulation, which increases Duke's cost of capital return. However, it is unclear that the customers represented by these parties have received or will receive any such benefit by way of lower rates. That will be up to the Commission to decide.

Table 12 of CUCA witness O'Donnell's direct testimony compares Duke's requested 53% equity ratio to: (a) the average equity ratio of witness O'Donnell's "comparable" group; (b) the average equity ratio of Duke's Hevert/D'Ascendis "comparable" group; and (c) finally, a comparison to the average equity ratio approved by State regulators, such as this Commission, in general rate cases decided in 2019. In each such comparison, Duke's request is excessive and unwarranted. For these reasons, witness O'Donnell recommended that the Commission set Duke's Capital Structure at 50% common equity and 50% debt. This recommendation is much closer to the average recommendation of all of the cost of capital witnesses, other than Duke, before the Stipulations were negotiated.

2. The Rate of Return on Equity is, likewise, Excessive and Unfair to Consumers.

Just as with Capital Structure, the Stipulations produce a proposed ROE of 9.6%. But, this should be compared and contrasted to what the parties were recommending before the Stipulations. Once again, the primary witnesses regarding the ROE issue are as follows: Duke – Hevert (as adopted by witness D'Ascendis); Public Staff – Woolridge; Attorney General – Baudino; CUCA – O'Donnell; Technical Companies – Strunk; and CIGFUR – Phillips. The ROEs recommended by the non-Duke witnesses were as follows: Woolridge – 9.0%; Baudino – 9.0%; O'Donnell – 8.75%; Strunk – 9.63% mean, 9.65% median; and Phillips – not to exceed 9.73%. The Duke ROE recommendation was 10.3%.

As can be seen from the foregoing, prior to the Stipulations, there was a significant and distinct difference between the ROE recommendation of the Duke

witness and the recommendations of the other witnesses, which averaged in the area of 9.2%. Just as with the Capital Structure issues (and the percent of equity in the Capital Structure), an excessive ROE can increase rates by millions of dollars for each percentage point increase in the allowed return on equity. A one (1) percentage point increase in the allowed return on equity can mean millions of dollars in additional rates – rates which have to be paid by the consumers.

By any objective standard, as of the end of the test year in this case, the true “cost” of both equity and debt capital had decreased since the last Duke rate case. Interest rates have, effectively, fallen to 0% and have stayed there. Interest rates are the lowest they have ever been and the Federal Reserve has shown no interest in raising them. The cost of debt is, to a fairly large degree, dependent upon the “interest free” rate. Likewise, the cost of equity is equal to the cost of debt plus a “premium” amount. By these measures, witness O’Donnell concluded that an appropriate range for equity cost would be 5.0% - 7.0%. However, his other “tests” for an appropriate ROE (DCF and Comparable Earnings) were higher. Attorney General witness Baudino concluded that, compared to his recommended 9.0% ROE and 51.5% equity ratio, the Settlements regarding Cost of Capital in this case would increase revenue requirements and rates to North Carolina ratepayers by \$75.46 million for DEC and by \$48.1 million for DEP (Tr. Vol. 2, p. 132). Witness Baudino also noted that the Settlement “compromise” does not reflect the bulk of the evidence and the initial recommendations from witness Woolridge, witness O’Donnell, and

himself, all of which point to lower allowed ROEs than 9.60% and a lower equity ratio than 52% (Tr. Vol. 2, p. 133).

3. The Commission Should Reject the Capital Structure and the Return on Equity Recommended in the Duke Settlements with Certain Other Parties.

As noted above, and in the original testimony of the various non-Duke witnesses, the ROE and the Capital Structure (equity component) proposed in the Stipulations would result in an overall cost of capital which is far greater than is required under the actual circumstances. The initial recommendations of the non-Duke settling parties were significantly below what they agreed to in the Stipulations. The Attorney General and CUCA did not agree to the Stipulations. Each of them represents customers who did not agree to the Stipulations. If the Stipulations are accepted, the excessive (and excessively "rich") Capital Structure and the excessively high ROE will result in ratepayers having to pay tens of millions of dollars more, in their annual rates, than would be required to provide a fair rate of return to Duke. As noted by several of the witnesses, there is an interrelationship between the equity ratio and the cost of equity. As the equity component of the Capital Structure increases, the equity becomes relatively less risky and a lower ROE should result. So, if the Commission is inclined to accept the 52%-48% Capital Structure contained in the Settlements, then the Commission should reduce the proposed 9.6% ROE contained in the Settlements. There is no credible evidence in the Record to support a finding, by the Commission, that a 50-50 (equity-debt) ratio and a 9.0% ROE will produce

results which would be deemed unreasonable according to the *Hope* and *Bluefield* decisions of the U.S. Supreme Court.

4. The Original Testimony and Methodology of Duke witness Hevert (as adopted by Duke witness D'Ascendis) has been Discredited and Debunked by State Regulatory Commissions in South Carolina and Virginia.

In recent cases, the testimony and recommendations of Duke witness Hevert have been constant and consistent “outliers,” compared to the testimony of the other Cost of Capital/Rate of Return witnesses. Typically, in cases since 2012, witness Hevert’s proposed Capital Structure was always much more heavily weighted towards equity than the proposed capital structures of the other witnesses. Likewise, witness Hevert’s Return on Equity recommendations were usually in the neighborhood of 100 – 150 basis points higher than the average ROE recommendation of the other witnesses. Based on the existing market conditions, witness Hevert would conveniently change the focus of his methodologies so as to recommend a Capital Structure and Rate of Return that were, undoubtedly, pleasing to his client. However, these recommendations did a disservice to consumers and ratepayers in North Carolina.

In his direct testimony (Tr. Vol. 20, pp. 77-86), CUCA witness O’Donnell presents a lengthy critique of all of the flaws contained in witness Hevert’s Cost of Capital and Return on Equity analyses. However, in his summary, rather than repeating each of these criticisms at length, witness O’Donnell simply calls the Commission’s attention to recent Orders issued by the Virginia State Corporation Commission and the South Carolina Public Service Commission (Tr. Vol. 3, p. 28). Each of these Orders involve testimony filed by witness Hevert – essentially

the same testimony as filed originally by witness Hevert in this case and adopted by Duke witness D'Ascendis. The final Order of the Virginia State Corporation Commission in Case No. PUR-2017-00038 contains many of the same critiques of witness Hevert's methods of analysis and his results as those contained in witness O'Donnell's pre-filed testimony. Likewise, the Orders of the South Carolina Public Service Commission, in DEC (Docket No. 2018-318-E) and DEP (Docket No. 2018-319-E) cases in South Carolina contained many of these same criticisms. The bottom line is that witness Hevert's methodologies and arguments consistently produce results which are not market based and which are punitive to customers and ratepayers. The same underlying fallacies would equally apply to witness Hevert's testimony in this case (as adopted by witness D'Ascendis). Since the Duke "starting point" for negotiations, based on witness Hevert's testimony, is unjustified and unfair to consumers, it necessarily follows that any "Stipulation" based on slightly negotiating down from those numbers is still excessive and unfair.

B. Duke's Proposed Grid Improvement Plan (GIP) is Primarily Intended to Inflate Duke's Rate Base and Increase Duke's Earnings for Shareholders at the Expense of Duke's Ratepayers.

CUCA witness O'Donnell presents testimony and tables/graphs for the DEC-proposed GIP at Tr. Vol. 14, pp. 143-168. His subsequent testimony in the DEP case is virtually identical. In his testimony, witness O'Donnell presents numerous problems which accompany Duke's request to recover certain GIP

costs in the current case and to “defer” substantial GIP costs to Duke's next general rate case. These concerns are discussed in the subsections below.

1. Witness O'Donnell argues that Duke's retail rates have been increasing substantially and rapidly during recent years. As time goes by, Duke's retail rates are edging closer and closer to the national average of retail electric rates and Duke is losing its cost advantage in rates relative to the national average. When the present and proposed future rate increases that Duke has projected are added together, the likely result is that Duke's rates will then be well-above the national average. This cost discrepancy makes life increasingly difficult for North Carolina manufacturing and industrial customers, who have to live in a competitive, rather than a regulated, environment. Just because their costs increase, industrial and manufacturing enterprises in North Carolina cannot always raise their product prices to offset the increased costs because, if they do so, they risk pricing themselves out of the market and losing sales. Duke witness De May agreed that Duke's large, manufacturing and industrial customers are vital to Duke's success (Tr. Vol. 11, p. 926). Unlike its manufacturing customers, Duke is incentivized by the North Carolina Ratemaking Statute, G.S. 62-133, to construct plant assets and invest in GIP assets. The “rate formula” in North Carolina is, basically, reasonable test year operating expenses as adjusted, plus a “profit” margin that consists of rate base times rate of return. Since, by objective standards, the actual cost of capital is declining, not increasing, the only way Duke can justify an increase in its rates and charges is to make massive “rate base” investments. Duke is not alone in its strategy to grow its earnings

and dividends through investments in rate base assets. Grid Improvement projects, such as the one proposed by Duke in this case, are taking place throughout the country.

2. Duke does not appear to have abandoned its original Grid Modernization proposal to spend some \$13 billion in North and South Carolina, over a 10-year period, to modernize its electric infrastructure. Some of the proposed investments are for new “bells and whistles.” However, much of the proposed investment in GIP is still for rather standard, ordinary pieces of grid equipment such as lines, poles, transformers, and the like. Although Duke contends, in this case, that it is only requesting recovery (current or deferred) of some \$2-3 billion, it appears that Duke still anticipates spending the full \$13 billion amount originally proposed for grid investments. Witness O’Donnell quotes an article in the Charlotte Business Journal wherein Duke’s CEO, Ms. Lynn Good, states that the overall scale of Duke’s \$13 billion, 10-year Grid Improvement Program is still “directionally correct.” (Tr. Vol. 8, p. 45) Ms. Good, in a Q4 earnings call that took place on February 14, 2019, indicates that the \$13 billion amount is still a sum that Duke proposes to spend, whether under a rate rider cost recovery plan or a rate case cost recovery plan (Tr. Vol. 8, p. 46). It appears that Duke has simply repackaged the old “Power Forward” proposal and wrapped it in a different bow.

3. The rate increases in North Carolina that will be required to pay for Duke’s proposed grid investments are truly staggering. As shown in Table 2 of witness O’Donnell’s testimony (Tr. Vol. 20, p. 41), in order to pay for the North

Carolina portion of the full \$13 billion grid improvement program over 10 years, DEC would require the following annual rate hikes: Residential – 4.31%; Commercial – 1.18%; and Industrial – 2.65%. The comparable numbers for DEP are: Residential – 4.05%; Commercial – 3.45%; and Industrial – 0.86%. The cumulative rate hike percentages for 10 years, based upon the annual increases shown above are, for DEC, as follows: Residential – 52.50%; Commercial – 12.45%; and Industrial – 29.89%. For DEP, the comparable figures would be: Residential – 48.74%; Commercial – 40.38%; and Industrial – 8.94%. The “per customer” cost for the total program expenditure for DEC is: Residential - \$3,777.00; Commercial - \$174,982.00; and Industrial - \$11,993,265.00. Comparable figures for DEP are: Residential - \$3,726.00; Commercial - \$613,056.00; and Industrial - \$4,194,747.00. On behalf of Duke’s industrial and manufacturing (high load factor) customers, witness O’Donnell says that, in a competitive environment, they simply cannot absorb these levels of electric rate increases and remain competitive against national and international competition from other companies, as well as regional and national competition from other plants owned by their own company.

4. Duke advertises the benefits of “Smart Grid” technologies and a “Bright Energy Future.” However, Duke does not advertise the cost increases that individual customers will have to pay for this “Bright Energy Future.” Duke’s most recent survey of customers with regard to their willingness to pay for grid investments appears to have taken place in 2015. On July 6, 2015, Bellomy Research presented the findings of its marketing survey regarding Duke’s

proposed “Electric Grid Improvements.” The survey showed that while most individuals indicated they were in favor of an improved grid, the poll also found that customers did not consider Duke’s grid improvements to be very “reasonable” when the cost increases to pay for the improvements were at a level of 3% or more (Tr. Vol. 20, p. 44-45).

5. Duke’s GIP plans are also flawed in that many of its projects have not undergone an extensive Cost Benefit Analysis (CBA). Witness O’Donnell recommended that all of the GIP investments should be subjected to a proper CBA. Where no CBA has been performed, witness O’Donnell recommends that investments in these particular projects should not be allowed in Duke’s rate base. Further, if the project for which no CBA was performed is critical as a component of overall larger project which Duke has deemed to be economically feasible, then both projects should be denied because the CBA, for all components, would not have been performed in a proper manner. Second, witness O’Donnell recommends that cost recovery of the GIP assets should be contingent upon Duke meeting the reliability targets as set forth in the CBAs. Specifically, each year, the company would be granted cost recovery, if, and only if, the reliability targets are reached. Allowing cost recovery before obtaining evidence that the plant is operating “as advertised,” puts the consumers at great risk. It is the utility, and its stockholders, who should bear the risk if a rate base investment does not work. The State Corporation Commission of Virginia recently imposed a similar restriction on a solar generation asset which Dominion

Energy Virginia was trying to add to its rate base (See Case No. PUR-2018-00101).

6. Duke is unwilling to offer any guarantees that customers will actually benefit from Duke's GIP Program. One of the primary benefits asserted for the proposed GIP spending is improved system reliability (i.e. a reduction in outages). However, in response to a CUCA discovery request, Duke replied that it does not agree to make cost recovery of its GIP investments contingent upon achieving the reliability targets as represented by SAIDI and SAIFI. It is unfair to impose costs, such as the ones proposed here by Duke, for GIP investments when the assets do not work as promised or represented. In doing so, Duke seeks to have the Commission shift the entire risk of non-performing plant assets over to consumers and away from Duke. This is simply unacceptable, by any normal regulatory standard, and should be rejected. Duke should not be allowed to, in essence, sell a car to a customer without any warranty or assurance that the vehicle will even operate. If reliability is, in fact, the goal then, instead of GIP, Duke should simply offer a program to finance home battery systems for consumers which would operate in the event of any actual Duke outage. That should be 100% reliable. The benefit of a home battery system would be that it would only have to be paid by the customer one time, instead of repeatedly over the years, and the customer would benefit by the increased market value of the premises. Duke's grid modernization efforts offer no such benefits and, instead, simply charge customers an unending fee with no guarantee that plant will even operate as advertised by Duke.

7. During cross-examination in the case, it was found that an exact allocation of the costs associated with the Grid Improvement Plan has not yet been determined. The concern originated from the testimony of Public Staff witness Thomas when he prognosticated that 97% of the benefits of the GIP would be received by the commercial and industrial customers. This “guess” was based on unsupported economic assumptions.

As noted by Witness O'Donnell in his cross by the Commercial Group, many manufacturers have backup generation systems already in-place and do not need Duke's GIP to maintain reliability. Other manufacturers have a process in place that allows them to be quickly interrupted at peak, without harming their products. Duke witness Hager testified that Duke does not design its rates based on an allocation of benefits. Instead, rates are based on a cost of service study (COSS) which allocates investment costs to each rate class responsible for Duke incurring these costs.

Acceptance of Duke's proposal for GIP in this case will result in a massive cost allocation fight in the next DEC and DEP rate cases that the Commission can neither ignore nor predict how the fight will turn out. This was the concern raised by Commissioner Clodfelter. Ultimately, this concern – which rate classes will end up paying for GIP – cannot be answered in this case. The only way to quell the upcoming cost allocation storm in the next case is to deny the Duke request to place any GIP costs into a deferral account for cost recovery in future cases.

C. The Commission Should Disallow Rate Base Investments that Are Not Performing as They Were Designed and Intended to Perform.

One of the Grid Improvement Program (GIP) investments that Duke seeks to have included in its rate base for the present case is its investment in certain switches necessary to operate the Self-Optimizing Grid (SOG). When fully operational, the SOG is able to sectionalize and narrow down an outage to the limited area directly affected by the problem (e.g. broken pole or crossarm, broken line, blown fuse, etc.) and quickly restore power to customers on the segments of the service line which are not directly affected by the cause of the outage. The switches for the SOG are designed to operate automatically so that, after a brief outage or blink, service is quickly restored to those customers not directly affected by the outage. When an outage event occurs, a “fault” signal goes back up the line to the substation and interacts with, among other things, recloser switches. Under current technology, if the operation of the recloser switch is not able to “clear” the fault, then the system automatically shuts off the flow of electricity through the entire affected line. The purpose of SOG is to limit the outage times for those receiving electric services from areas of the service line not directly impacted by the “fault.”

Public Staff witness Tommy Williamson (Tr. Vol. 16, pp. 69 - 71) acknowledged that, based upon his random sampling of switches in the SOG equipment that Duke wished to include in the rate base, seven (7) out of the ten (10) switches he sampled (out of a larger total that Duke seeks to include in rate base in this case) had not been properly “enabled” when he conducted his

survey. These SOG switches have to be “fully enabled” before they will allow the SOG system to operate automatically, as it was designed and intended to operate. The conclusion to be drawn is that approximately seven (7) out of ten (10) of the SOG switches that Duke seeks to have included in rate base in this case have not been fully enabled. This means that the switches will not operate automatically, as designed, but, instead, will have to be manually operated. The switches will still work, but there will be time delays for a human being to ascertain that the switches need to be manually operated and have a real person go and manually operate them. In the meantime, customers who are not supposed to be out of power are, euphemistically speaking, left in the dark.

Duke witness Jay W. Oliver agreed that these switches, at the time of the hearings in his matter, had not been “fully enabled” as described above. He stated that, once he got a “team of experts” assembled and trained, it would not take very long to do the necessary enabling work. However, it was apparent from witness Oliver’s testimony that the enabling work would not be completed (and, possibly, not even started) prior to the close of hearings in this case. Witness Oliver could not provide a date when the enabling work would be finished (Tr. Vol. 16, p. 223)

Despite the foregoing, Public Staff witness Williamson indicated that he had agreed to allow Duke to place these non-enabled switches into Duke’s rate base for this case. His testimony was that, since the switches would operate on a manual basis, it was his opinion that the switches met the statutory standard of being “used and useful” for inclusion in the rate base.

Typically, before a utility investment can be admitted into the rate base, that investment has to be determined, by the Commission, to be "...used and useful, or to be used and useful within a reasonable time after the test period..." N.C.G.S. § 62-133(b)(1). The facts of this case, therefore, call for the Commission to issue a clarifying ruling on the subject of utility investments which are, or are not, "used and useful," as described in the Statute referenced above.

In previous cases, where utility investments have been challenged on the grounds of "used and useful," the Commission has ruled: (a) that utility plant whose output was under contract from the utility to be sold to municipalities and Electric Cooperatives, on a wholesale basis, could still be considered as "used and useful" for retail customers because certain "exchange agreements" provided benefits of reliability of service in the event of an outage and also provided reduced rates at which the utility would provide substitute service during the outage. *State ex rel. Utilities Commission v. Carolina Utility Customers Association*, 314 N.C. 171, 333 S.E.2d 259 (1985). In another case, the Commission found that a nuclear power plant was 100% "used and useful," where power was being generated by the plant only at 50% of its rated capacity. This was because the nuclear plant was finishing its final testing and was expected to increase its capacity up to 100% without problems or undue delays. *State ex re. Utilities Commission v. Conservation Council of North Carolina*, 64 N.C. App. 266, 307 S.E.2d 375 (1983). The specific facts presented in this case are a matter of first impression at the Commission. It does not appear that the

Commission has previously considered either a self-operating Grid (SOG) investment or the switches necessary to operate the SOG.

The danger here is one of the camel getting its nose inside the tent. Once the Commission has accepted the general principle that an investment, although it is not operating, by the end of the rate case, the way it was designed and intended to operate, is still “used and useful,” the door is open for all manner of ingenious arguments, for example, that an investment which is only operating at 30% or 10% or 1% of its design rating/capacity should also be considered “used and useful” because some minor percentage of the investment is used and useful. CUCA proposes more of a “bright line” standard. If, by the end of the rate case wherein the utility wishes to bring the investment into rate base, it is operating at 100% of its designed and intended purpose, then it is “used and useful.” Otherwise, it is not. As an alternative position, CUCA encourages the Commission, even if it finds the SOG switches in this case to be “used and useful” (as did Public Staff witness Williamson), the Commission could and should, nonetheless, discount the original cost investment in those SOG switches which were not “fully enabled” at the end of the hearings in this case. Admittedly, based on the total rate request made by Duke in this case, the inclusion or exclusion of these SOG switches from rate base may not make a lot of difference. However, CUCA believes that the principle is important and the way in which governing principles are lost is if they are not enforced.

D. The Costs Attendant to Cleanup of Coal Ash Basins, as Ordered by DENR and DWQ, Should Be Shared Between Duke and its Ratepayers

While the Federal Government was still considering, and before it finally decided and promulgated its Coal Combustion Residuals Rules (CCR Rules), on February 2, 2014, DEC spilled a large amount of coal ash into the Dan River. This spill made both the State and National press. This spill was a direct result of Duke's negligence and oversight. The Federal plea deal entered into by Duke, in which it pled guilty to several environmental crimes, revealed that engineers at the Dan River plant twice requested a small amount of budget funding to pay for video equipment to run a scope through the pipe which subsequently failed and resulted in the Dan River spill. Duke denied this request. Later in 2014, in response to this spill, the North Carolina General Assembly passed the Coal Ash Management Act (CAMA) requiring the closure of existing coal ash ponds, as well as conversion from wet ash to dry ash handling. CAMA was the first such coal ash management law in the United States and its enactment also preceded, by several months, final issue of the Federal CCR Rules. CAMA divided the coal ash basins into three (3) categories of priority – High; Intermediate; and Low. The "High" risk basins were required to be closed by 2019 pursuant to CAMA.

When the Federal CCR Rules were issued on December 19, 2014, the Federal Rules were designated as "self-implementing," meaning that a utility (such as Duke) was not under any Federal requirement to act UNLESS it was sued by a State entity and lost that lawsuit.

On May 14, 2015, DEC, DEP, and Duke Energy Business Services pled guilty to nine (9) violations of the Clean Water Act. As a result, Duke was fined \$102.0 million by the Federal Courts. Some of the issues to which Duke admitted guilt included: (1) failure to properly maintain and inspect the storm water pipes underneath the primary coal ash basins at the Dan River Steam Station, resulting in the unlawful discharge of approximately 27 million gallons of coal ash wastewater and 30,000 - 39,000 tons of coal ash into the Dan River; (2) failure to maintain the riser structures in two [2] of the coal ash basins at the Cape Fear Steam Electric Plant, resulting in the unauthorized discharge of leaking coal ash wastewater into the Cape Fear River; and (3) additional discharge of coal ash pollutants from basins throughout North Carolina by way of “seeps” into adjacent waters of the United States. A United States EPA Official said the following: “Duke management failed in their responsibility to the people of North Carolina. Their criminal negligence is what caused this disaster.” (Tr. Vol. 14, p. 170)

Various versions of the CAMA legislation, as it was working its way through the General Assembly, clearly linked the necessity of passing this legislation directly to the Dan River spill. The CAMA legislation did not allow Duke the luxury of “self-determination” of coal ash cleanup as the Federal CCR Rules did. By subsequent ruling, DENR/DWQ required Duke to clean up and close all of the coal ash basins, even at plants that had previously been rated as “Intermediate Risk” or “Low Risk.” This resulted in an increase in the estimated costs of cleanup from approximately \$5.0 billion to approximately \$8.5 billion. As

Duke witness Stephen G. De May noted, the maximum amount would have been \$10.0 million but for the fact that Duke was able to negotiate a “settlement” of the DENR Decision rather than relying on a Court Appeal of that Decision. It is readily apparent that the “cost” of coal ash cleanup is much greater under CAMA than under the Federal CCR Rules. Indeed, Mr. Mark McIntyre, Director of Environmental Policy at Duke conceded this point in a widely read internet publication (Tr. Vol 20, pp. 64-65).

Duke has created Asset Retirement Obligations (AROs) in recognition of future liabilities. Comparing the Duke AROs to those of other utilities across the country, DEP and DEC stand at position Numbers 2. and 3., respectively. Combined, their ARO liability is \$3.0 million higher than the individual liability for the utility (Georgia Power) rated as Number 1. in amount of ARO. In South Carolina, the SCPSC ruled that Duke’s consumers should only pay for the Federal CCR costs and not for the higher cost of the CAMA legislation. In South Carolina, DEC had a total coal ash cleanup cost request of \$876.2 million of coal ash expenses. The SCPSC disallowed \$469.9 million, a disallowance proportion of approximately 53.6% of the total requested. As of the time of these hearings, the SCPSC Decision was on appeal by Duke. The SCPSC also ruled, in the most recent DEP rate case in South Carolina that South Carolina ratepayers should only pay for the CCR-related coal ash costs and not for the additional cost imposed due to CAMA. CUCA witness O’Donnell recommended (Tr. Vol. 14, p. 268) that, to the extent the Commission approves any cost recovery to be paid by consumers, such cost recovery should follow the formula approved in Duke’s last

fuel case. Such an allocation is based on the premise that coal ash is a residual of coal burned as a fuel. As such, the allocation of coal ash should follow the allocation of all fuel costs as set in the last Duke fuel case (Tr. 14, pp. 268-270).

Based on the foregoing body of evidence, CUCA requests that any cost recovery which is granted to Duke in this case be amortized over an extended period of time without any carrying costs, interest, or rate of return on the deferred expenses. In addition, CUCA recommends that Duke not be allowed to recover any coal ash expenses associated with any plant which is subject to CAMA but is no longer subject to the CCR Rules (for example, a plant that has been closed and is no longer receiving coal ash). Finally, CUCA recommends that the allocation of coal ash costs follow the allocation as set in the most recent fuel case. The “net” result of these recommendations is that Duke will receive approximately 50% of the total recovery dollars requested in this case. CUCA believes that this roughly 50-50 split in cost responsibility between the utilities and the customers is consistent with the end results recommended by both the Public Staff and the coal ash witnesses offered by the Attorney General.

E. While CUCA, in General, Supports the Duke Cost of Service Study and its Methodology, Duke Needs to Address Issues of Great Concern Regarding Hourly Pricing Issues with its Large Manufacturing Customers.

1. CUCA Supports the Duke Cost of Service Study (COSS).

The primary difference between the various parties offering their own COSS to the Commission dealt with the allocation of generation plant resources. The Duke study relied, for this plant allocation, as it has in its last several rate

cases, on the Single Coincident Peak (1CP) allocation methodology. The Public Staff offered an alternative COSS and allocation methodology. The Public Staff relied upon what is commonly referred to as the Summer Winter Peak and Average (SWPA) methodology for allocating costs of generating plant. The primary difference between these two methodologies is that the Duke (1CP) methodology recognizes that generating plant is built for the purpose of serving all of the utility's customers at peak, with a reasonable reserve margin. That is, the Duke COSS allocation methodology for generating plant is a "demand based" methodology. On the other hand, the Public Staff (SWPA) methodology argues that generating plant should be allocated not only on the basis of peak demand but also on average annual energy consumption. Stated another way, the Public Staff methodology gives "energy" about as much weight as it gives "demand" in its SWPA methodology.

The Duke panel of witnesses (Michael J. Pierro, Lon Huber, and Janice Hager) stated that their COSS methodology does not require or use an "energy" component. This is because generating plant, and plant additions, are designed to allow the utility to meet its peak "demand" (or power) requirements. If the utility has a sufficient amount of generating capacity to meet its peak, whether that peak is in the Summer or the Winter, then by definition, it will be able to generate enough energy to provide 100% of its energy demands. So, there is no reason to include an energy component. Electric systems are not designed and built to meet energy needs. Instead, they designed and built to meet power (or "demand") needs.

Members of the Duke panel of witnesses defended their selection and use of the 1CP methodology to allocate generating plant assets. They made it clear that they did not agree with the Public Staff's SWPA methodology. The primary reason for this, once again, is that electric systems are designed to meet their peak demand loads. If the peak demand load is met, there will be more than enough generation available to meet the energy load. The Duke panel also criticized the idea of selecting particular criteria for conducting a COSS which would be, apparently, designed to produce a certain pre-ordained result, such as the shifting of costs from one rate class to another. (Tr. Vol. 11, pp. 1314-1316)

For many years, the Public Staff has opposed the 1CP methodology for allocating generating plant assets. Apparently, the Public Staff believes that using the 1CP allocates too much of the costs of generating plant resources to the Residential class. The Public Staff criticizes large manufacturing customers who are either "interruptible" or who have, at their own expense, added their own standby generating equipment. The simple fact of the matter is that these customers, even though they consume enormous amounts of power and energy throughout the year (and, in the process, pay millions of dollars in rates towards Duke's "fixed cost"), are not adding to the "peak demand" for which the electric system must be designed if they are not, in fact, using any power or energy at peak.

Another way of saying this is to observe that the 1CP tends to allocate relatively more of the demand costs, at peak, to "temperature sensitive" customers. However, industrial and manufacturing customers who are using

power and energy at peak are allocated their fair share of the peak demand costs. To CUCA, it is patently obvious that the Public Staff's preference for the SWPA is purely a result-oriented preference. To put it bluntly, using SWPA would reduce the cost share of the temperature sensitive customers, including residential customers, and would increase the cost share of many large, manufacturing and industrial customers, even if they are not directly contributing to the peak. CUCA members are not opposed to paying their "fair share." However, they are opposed to paying the share of other customers who are online at peak when they are not.

2. In Order to Help High Load Factor, Industrial and Manufacturing Customers, Duke Needs to Offer More Creative Real-Time and Interruptible Rates.

In his testimony (Tr. Vol. 20, pp. 29-33), CUCA witness O'Donnell argues that, in view of Duke's retail rate movements and trends, which are growing increasingly closer to the national electric average, if manufacturing and industrial customers are going to continue to be able to do business in North Carolina, in a competitive market, they will have to receive the benefit of intelligently designed rates which will allow them to save some of their current and projected electric power costs in North Carolina. The first area deals with real-time hourly prices or rates. At present, Duke offers hourly price rates which are used by industrial and manufacturing customers to save money. The problem is, however, that Duke's hourly price rates do not stack up well with similar rates found in other parts of the country, and specifically with the State of Georgia, which has lower hourly priced rates. In witness O'Donnell's opinion,

compared to other prices being offered in other parts of the country (with which North Carolina competes for manufacturing load and production), Duke's rates are just too high. One of the problems is that Duke operates a "closed system" (as it relates to hourly prices) by which Duke will only offer the lowest marginal hourly or real time price for one of its own generating plants. While Duke offers only marginal cost power rates at retail, Duke also operates in competitive wholesale power markets where opportunity purchases and sales are being made. Although there are doubtless some times, throughout the year, when Duke's marginal cost of power is less than the price that would be available for a similar amount of power in the open marketplace, since Duke operates a "closed system," during the times when the market prices are lower than Duke's marginal cost, manufacturers are paying higher costs for their electricity than are necessary. By failing to take advantage of lower cost power available in the marketplace, Duke is unnecessarily operating its higher cost generating plants, thereby leading to higher fuel costs for all consumers, not just industrial and manufacturing consumers. Witness O'Donnell recommended that Duke's hourly pricing, under the RTP rates, should be set at the lower of Duke's marginal cost or the price set by the open marketplace, adjusted for transmission costs and line losses. Adoption of this principle would save production costs for manufacturers in North Carolina, making them more competitive regionally and nationally, while not costing any significant amount of money to Duke.

Witness O'Donnell also recommended that Duke should re-examine its interruptible rates so as to offer a higher credit to large manufacturing customers

who have the ability to go offline at times of peak demand. As noted heretofore, manufacturers in North Carolina are in competition with plants from around the country and Duke's rates are on a steep upward trajectory which shows no signs of slowing down. If manufacturing loads are not encouraged, and their use of electricity falls off, the fixed costs for those lost sales will have to be made up in residential and commercial rates. Duke's current interruptible rate of approximately \$3.50 per KW is significantly lower, for example, than the IP-30 rate offered by TVA. The difference between the Duke rate and the TVA rate, for the ability to interrupt, would be approximately \$90,000.00 per month for a customer with a 40 MW load. On an annual basis, the difference between the TVA credit and the Duke credit would equal slightly more than \$1.0 million (Tr. Vol. 20, p. 155). If productivity shifts to other states or, worse, if a plant shuts its doors entirely, North Carolina will lose not only the jobs but substantial State and local tax revenues as well. Since Duke recovers its transmission and distribution costs (similar to its generating costs) by using a fixed component in the rates (e.g. the demand rate), offering a proper credit to manufacturers who are able to interrupt their production schedules at peak will reduce costs not only for generating plants but also the cost of transmission and distribution plant and Duke's GIP Program. Load resources such as interruptible manufacturing customers who are capable of being interrupted quickly can provide Duke additional non-spinning reserves. This will reduce Duke's costs for all customers. The Southeastern Electric Reliability Council has recognized that interruptible loads can provide non-spinning reserves for the utility. Duke's current

interruptible rider requires Duke to provide 30 minutes notice before a curtailment is called. However, 30 minutes is too long a time for a “spinning reserve.” Since the time requirement for a spinning reserve is shorter than 30 minutes, and should be priced accordingly, then the credit which Duke currently offers for interruptible manufacturing load should be increased. Witness O’Donnell recommended that the Commission require Duke to immediately convene meetings with the companies’ large customers in order to ascertain and offer new interruptible rates to its large customers by early 2021.

IV. CONCLUSIONS

CUCA recommends and requests that the Commission deny the Cost of Capital Stipulations entered into between Duke and some of the Intervenors, including the Public Staff. Neither CUCA nor the Attorney General joined in these Stipulations. The pre-Stipulation testimony of those Intervenors who did join the Stipulations was much closer to the testimony of the CUCA and Attorney General witnesses than they were to Duke’s pre-filed testimony. Apparently, the stipulating Intervenors received something of value in return for their Capital Structure and ROE Stipulations. It remains to be seen whether the consumer groups which they represent will receive comparable benefits.

CUCA also recommends that the Commission understand that Duke’s GIP Program is largely intended not so much as a grid improvement as it is a revenue and earnings improvement for Duke. The statutory “rate formula” only allows Duke to increase its level of profitability, in today’s market conditions, by adding additional rate base investments. CUCA has offered evidence tending to show

that the first set of GIP investments by Duke is only the “tip of the iceberg.” CUCA recommends that any proposed GIP investment, for which no Cost Benefits Analysis (CBA) has been performed, not be allowed into Duke’s rate base for ratemaking purposes. In addition, since the primary purpose of the GIP Program is to increase reliability (i.e. decrease outage times), rate recovery on GIP investments allowed in the rate base should be allowed, for any given year, only if the investment measures up to what was provided in the CBA. CUCA also notes that no one knows, at this time, how GIP costs will ultimately be passed on, and to which customers, in rates. If the Commission accepts the Duke request to place any costs into a deferral account for disposition in a later case, it will be setting up a major fight amongst the intervenors on cost allocation in future cases. To avoid such contentious arguments, CUCA recommends Duke’s request for GIP deferral treatment be denied.

On a related issue, it is unclear whether the SOG switches which were not “fully enabled” as of the close of hearings in this matter should be treated as “used and useful” for ratemaking purposes. This is a policy choice for the Commission to make. However, CUCA urges that investments which are not operating, as of the close of hearings, in the manner in which they were designed and intended to operate, should not be considered as “used and useful.” Since Duke refuses to accept responsibility for the promised performance of the GIP investments and since allowing the GIP investments to be placed in a deferred account will create a massive fight in the future, CUCA recommends that the Commission disallow all GIP investments in this case and not allow any such

costs to be placed in a deferred account. Simply put, Duke has not carried the burden of proof in this case and all GIP costs should be disallowed.

CUCA agrees with the Public Staff, the Attorney General, and others who argue that the cost of coal ash cleanup should be split between Duke and its customers. Had the Dan River spill not occurred, and Duke was subject only to the Federal CCR Rules, and not subject to the CAMA (which was enacted solely as a result of the Dan River spill), then the costs to be imposed on Duke and the consumers would be much less. South Carolina only allowed those costs directly due to the CCR Rules to be recovered by Duke. The South Carolina PSC refused to allow the higher cost of CAMA compliance to be recovered in rates in South Carolina. Although their methodologies are somewhat different, the bottom line result of recommendations by CUCA, the Public Staff, and the Attorney General are that there should be, basically, a 50-50 split in coal ash cleanup costs between Duke and the customers.

CUCA agrees with and supports the Duke Cost of Service Study (COSS). For the reasons provided by the Duke witnesses, CUCA believes that the 1CP method of allocating generating costs is far superior, as a matter of sound engineering, accounting and economics, to the Public Staff's proposed SWPA allocation methodology. Although Duke offers both Real Time Pricing (RTP) rates and Interruptible rates for manufacturing and industrial (high load factor) customers, these offerings need to be improved if they are going to successfully offset Duke's ever-increasing retail power rates for large customers. These customers exist in a competitive environment and, as Duke's rates go up, these

customers in North Carolina become less and less competitive with other nearby states, such as Tennessee and Georgia. The loss of production, plant capacity and jobs to other states, as a result of high electric prices, will have a devastating impact on North Carolina's economy. In addition, lost industrial and manufacturing production in North Carolina means that fixed costs of electricity, currently allocated to those large industrial customers, will have to be reallocated to residential and commercial customers, thereby raising rates for the remaining customer classes.

Respectfully submitted, this 4th day of November, 2020.

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CERTIFICATE OF SERVICE

I, the undersigned counsel for CUCA, do hereby certify that a copy of the foregoing Brief of Carolina Utility Customers Association, Inc. was served upon all parties of record in this proceeding, or their legal counsel, by electronic mail.

This the 4th day of November, 2020.

/s/ Robert F. Page

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