STEPHEN G. DE MAY
North Carolina President

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December 6, 2019

VIA Electronic Filing

Ms. Kimberly A. Campbell, Chief Clerk
North Carolina Utilities Commission
4325 Mail Service Center
Raleigh, North Carolina 27699-4300

RE: North Carolina President Letter Regarding Friesian CPCN Application
Docket No. EMP-105, Sub 0

Dear Ms. Campbell:

On behalf of Duke Energy Progress, LLC ("DEP" or the "Company" and together with Duke Energy Carolinas, LLC, the "Duke Utilities"), I would like to take this opportunity to summarize certain benefits that would result from the Network Upgrades that will be constructed at this time should the North Carolina Utilities Commission ("Commission") elect to grant a certificate of public convenience and necessity to Friesian Holdings, LLC ("Friesian") for its proposed 70-MW AC solar photovoltaic facility in Scotland County, North Carolina.

The decision facing the Commission in this proceeding presents a unique and complex set of circumstances, and the Company appreciates the uncharted nature of this decision and the significance of the costs at issue. Such decision, however, is properly viewed as the product of substantial success, as it arises due to the enormous amount of effort invested to achieve nation-leading amounts of interconnected solar resources in North Carolina. This success has now and will likely in the future introduce complex policy questions that require substantial regulatory and policy engagement. In this particular case and during this pivotal time of transition in North Carolina's energy policy, the Company believes that the Commission should consider the benefits of the Network Upgrades in rendering its decision in this proceeding. Such benefits, which are summarized in more detail in a separate letter being filed in parallel by counsel for DEP, include the following: (1) allowing for the interconnection of a substantial amount of renewable resources in the southeast portion of DEP's service territory, (2) avoiding queue paralysis and substantial delays in interconnection for certain projects, (3) and minimizing certain short-term challenges associated with the Duke Utilities' queue reform plans.

Throughout the Friesian interconnection process, the Company has invested immense resources to work collaboratively with Friesian to achieve a positive outcome, all in accordance with applicable interconnection procedures. But due to the unique

circumstances of this case, the outcome of this process will have a ripple effect on many other broader policy issues. With respect to these broader policy issues, the Duke Utilities are similarly committed to continuing to work in a collaborative fashion, engaging regulators, customers and other stakeholders as we chart a course into the energy future while balancing reliability, affordability and sustainability. We are proud of the work that we have accomplished to make North Carolina No. 2 in the nation in solar capacity and are committed to continuing to think creatively and collaboratively regarding the pathways to more sustainability in the future. Construction of the Network Upgrades in question at this time will result in benefits that will, in turn, smooth the road on the journey into the future.

Once again, the Company is also submitting a second letter that provides more details regarding the benefits of the Network Upgrade that I refer to above. Our intent is to provide useful information to the Commission as it considers the important issues presented in this proceeding.

Sincerely,

Stephen De May, North Carolina President

cc: Parties of Record

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December 6, 2019

VIA Electronic Filing

Ms. Kimberley A. Campbell, Chief Clerk
North Carolina Utilities Commission
4325 Mail Service Center
Raleigh, North Carolina 27699-4300

RE: DEP Letter Regarding Friesian CPCN Application
Docket No. EMP-105, Sub 0

Dear Ms. Campbell:

Duke Energy Progress, LLC ("DEP" or the "Company") would like to take this opportunity to submit this letter in lieu of testimony in the above-captioned docket, in which the North Carolina Utilities Commission ("Commission") is considering the application of Friesian Holdings, LLC ("Friesian") for a certificate of public convenience and necessity for a 70-MW AC solar photovoltaic facility in Scotland County, North Carolina ("Friesian Generating Facility"). In addition to this letter, the Company is also filing a letter regarding these matters from the North Carolina President, Stephen De May.

Pursuant to its obligations under its Federal Energy Regulatory Commission-approved Joint Open Access Transmission Tariff ("OATT"), the Company has devoted considerable resources to the interconnection process for the Friesian Generating Facility, including engaging in extensive evaluation, negotiation and engineering in connection with the substantial upgrades to the transmission network that are needed to safely and reliably interconnect the Friesian Generating Facility (such upgrades, the "Friesian Network Upgrades"). The Company has worked collaboratively with Friesian over the past year to meet Friesian's commercial objectives, all within the framework of the OATT.

As has been discussed at length in this proceeding, the need for the Friesian Network Upgrades is driven by the fact that the transmission capacity of the lines at issue has been fully consumed by the substantial amount of solar generation already connected by the Company in the southeast portion of the DEP service territory. Specifically, in the geographic area in the southeast portion of the DEP service territory in which the Friesian Generating Facility is located, there are over 100 in-service or under construction solar generating facilities totaling 1,347 MW. To put this in perspective, the amount of solar generation that is installed in this one portion of the DEP service territory exceeds the

amount of solar generation installed in the states of Kentucky, Tennessee, Mississippi, Alabama, Arkansas and Louisiana combined.

Under the existing serial study process, the first generating facility to trigger the need for a Network Upgrade is assigned the total cost of the Network Upgrade. And much like the addition of generating capacity, the addition of transmission capacity is "lumpy," meaning that the next increment of transmission capacity added typically exceeds the exact amount needed to accommodate the particular generating facility. Thus, such Network Upgrades typically provide transmission network capacity that is in excess of what is needed by the triggering interconnection request, which additional capacity may be utilized by later-queued projects.

While the cost of the Friesian Network Upgrades and the rate impact on retail customers is significant, there are benefits that will arise from completion of the project, including the following.

1. Interconnection of Additional Renewable Generating Resources

As the Commission is aware, the comprehensive planning process for the DEP and Duke Energy Carolinas, LLC ("DEC" and together with DEP, the "Duke Utilities") 2018 IRP and 2019 IRP Updates demonstrates that a combination of renewable resources, demand-side management and energy efficiency programs, and additional base load, intermediate and peaking generation are required over the next fifteen years to reliably meet customer demand. Additionally, in mid-September 2019, Duke Energy Corporation announced its new, enterprise-wide climate strategy, including updating its CO_2 reduction goals to at least 50% reduction by 2030 (from 2005 levels) and achieving net-zero for electricity generation by 2050. For the Duke Utilities, the base case in both the 2018 IRP and the 2019 IRP Update plans achieves at least 50% CO_2 reduction by 2030. However, DEC and DEP plan to work with regulators, customers and other stakeholders to determine how best to achieve reductions greater than 50% by 2030 and ultimately achieve net-zero emission by 2050 in a manner that balances reliability, affordability and sustainability. In a similar vein, the recently released North Carolina Clean Energy Plan from the North Carolina Department of Environmental Quality establishes a goal of 70% greenhouse gas emissions ("GHG") reductions by 2030 and carbon neutrality by 2050.

Regardless of the precise GHG emissions target, substantial amounts of new renewable resources will be needed. For instance, the base case from the 2019 IRP Update—which achieves 51% CO_2 reduction by 2030—requires 3,000+ MW of additional solar resources over current amounts. Substantial Network Upgrades will undoubtedly be needed to accommodate the addition of a substantial amount of new grid resources. While the Company's analysis to date has not attempted to identify what specific Network Upgrades will be needed, the Friesian Network Upgrades are representative of the types of Network Upgrades that may be required in the future to achieve CO_2 reduction targets.

The Friesian Network Upgrades will provide sufficient transmission capacity to allow the interconnection of additional solar generating facilities in the southeast portion

of the DEP service territory. In other words, later-queued projects[1] will be able to utilize the Friesian Network Upgrades until the next transmission overload is identified. The Company estimates that the Friesian Network Upgrades could accommodate the interconnection of more than 1,000 MW of additional solar resources in the southeast portion of the DEP service territory (though additional distribution capacity may be needed in the case of distribution-connected projects). All things being equal, these additional solar generating resources will contribute towards achieving emissions reduction targets. While there are many different paths by which the Duke Utilities could achieve various levels of CO_2 emissions reductions, the additional solar resources accommodated by the Friesian Network Upgrades will move the Duke Utilities closer to the various targets.

2. *Avoidance of Interconnection Queue Paralysis*

If the Friesian Generating Facility is not granted a CPCN and is therefore not constructed, the need for the Friesian Network Upgrades will not go away. Under the current serial process, the Company will be required to assign the Friesian Network Upgrades (or a portion thereof) to the next project in the interconnection queue (as determined in accordance with the required study processes). Because the vast majority of the later-queued projects are state-jurisdictional and, in many cases, smaller projects, it is highly unlikely that any single project will be able to absorb the cost of the Friesian Network Upgrades. Therefore, the most likely outcome in the short term would be a cascading series of withdrawals resulting in complete paralysis of the interconnection queue in this portion of DEP's service territory.[2]

3. *Timing Issues*

If the Friesian Network Upgrades are not constructed at this time, there will be a further substantial delay in the interconnection of any additional generating facilities in this area of DEP. More specifically, due to the scope of the Friesian Network Upgrades and the small window in the spring and fall during which the Company is able to construct the project while maintaining reliability, the Company projects that it will take 4-5 years to complete the construction process. And the construction timeline does not account for any additional time needed to negotiate with a new counterparty and refresh engineering and cost estimates (approximately 1-2 years). Therefore, even if another project can be found that has the ability to absorb the cost of the Friesian Network Upgrades (which is highly unlikely except in the case of later-queued combined cycles),[3] such upgrades will likely not be completed until 2026 or 2027 at the earliest.

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[1] For the sake of clarity, there are two proposed Duke-owned combined cycle generating units located in Cumberland County in the interconnection queue after the Friesian Generating Facility. The first of the two is not dependent on the Friesian Network Upgrades but the second unit is interdependent on the Friesian Network Upgrades.

[2] Though neither of the combined cycle generating units identified in FN 1 have been certified, it is theoretically possible that the Friesian Network Upgrades could ultimately be constructed in connection with the second unit, in which case retail customers would bear a portion of the cost of such upgrades.

[3] See FN 1 and 2.

4. Queue Reform Transition

The Company is working diligently to develop a cluster study process that will allocate future necessary Upgrades in a more equitable manner. However, one of the key challenges of implementation of such queue reform will be successfully navigating the period of transition from the serial study process to the cluster study process. If the Friesian Network Upgrades are not constructed at this time, the transition process will be much more complex and the transition process may be delayed.

Conclusion

In conclusion, the Company recognizes the benefits of completion of the Friesian Network Upgrades at this time, while also acknowledging that this is a complex policy question to be decided by the Commission. It should also be noted, however, that this is a unique set of circumstances. While it is true that additional substantial Network Upgrades may be required in the future due to the Duke Utilities' nation-leading interconnection success, there will likely be additional options in the future for addressing such potential Network Upgrades. For instance, the Company's queue reform proposal, if implemented, will provide an alternative pathway that would permit the allocation of such Network Upgrades costs across many projects. The current competitive procurement framework also provides another structure by which Network Upgrades are identified and funded. Alternatively, other policy approaches may be deemed appropriate or necessary in the future in order to most efficiently solve similar transmission capacity constraints. The bottom line is that there is not necessarily a "one size fits all" approach to these issues and the Company is committed to continuing to explore all potential pathways, but believes that the Commission should, in this case and given these unique circumstances, consider the broader benefits associated with the Friesian Network Upgrades.

Thank you for your consideration of these comments and please do not hesitate to let me know if you have any questions.

Sincerely,

Jack E. Jirak

cc: Parties of Record
Stephen De May

CERTIFICATE OF SERVICE

I certify that a copy of Duke Energy Progress, LLC's North Carolina President Letter Regarding Friesian CPCN Application and Letter Regarding Friesian CPCN Application, in Docket No. EMP-105, Sub 0, has been served by electronic mail, hand delivery or by depositing a copy in the United States mail, postage prepaid to parties of record.

This the 6th day of December, 2019.

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Associate General Counsel
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