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August 26, 2019

VIA ELECTRONIC FILING

Chief Clerk's Office
North Carolina Utilities Commission
4325 Mail Service Center
Raleigh, North Carolina 27699-4300

**RE: Duke Energy Progress, LLC's Initial Pre-Hearing Brief
Application of Friesian Holdings, LLC for a Certificate of Public
Convenience and Necessity
Docket No. EMP-105, Sub 0**

Dear Chief Clerk:

Enclosed for filing with the North Carolina Utilities Commission is Duke Energy Progress, LLC's Initial Pre-Hearing Brief in the above-referenced proceeding.

If you have any questions, please do not hesitate to contact me. Thank you for your assistance with this matter.

Sincerely,


Jack E. Jirak

Enclosures

cc: Parties of Record

OFFICIAL COPY

Aug 26 2019

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

DOCKET NO. EMP-105, SUB 0

In the Matter of the)
Application of Friesian Holdings, LLC for a) **DUKE ENERGY PROGRESS,**
Certificate of Public Convenience and) **LLC INITIAL PRE-HEARING**
Necessity) **BRIEF**

I. PROCEDURAL BACKGROUND

1. On May 15, 2019, Friesian Holdings, LLC (“Friesian”) filed an application for a certificate of public convenience and necessity for a 70-MW AC solar photovoltaic facility in Scotland County, North Carolina (“Friesian Generating Facility”).

2. On June 13, 2019, the Commission issued an *Order Scheduling Hearings, Requiring Filing of Testimony, Establishing Procedural Guidelines, and Requiring Public Notice* in which the Commission ordered that any person having an interest in this proceeding may file a petition to intervene on or before August 5, 2019.

3. On July 23, 2019, Duke Energy Progress, LLC (“DEP” or the “Company”) filed a Petition to Intervene and on August 2, 2019, the Commission granted DEP’s intervention.

4. On August 5, 2019, the Commission issued its *Order Suspending Procedural Deadline and Allowing Filing of Pre-Hearing Briefs* (“Order”), in which the Commission suspending certain procedural deadlines and allowed for the filing Pre-Hearing Briefs.

II. COMMENTS

Pursuant to the Commission's Order, the Company hereby provides the following limited policy-related comments. The Company intends to review the initial briefs of other parties and will determine whether more detailed briefing is necessary in the reply briefing contemplated by the Commission's Order.

1. *Allocation of Network Upgrade Costs*

One of the issues identified in the Order was as follows:

Whether the allocation of costs associated with interconnecting the Friesian project and any resulting additional capacity made available that is then utilized by State-jurisdictional interconnection projects is consistent with the Commission's guidance provided in the Commission's June 14, 2019, *Order Approving Revised Interconnection Standard and Requiring Reports and Testimony*, issued in Docket No. E-100, Sub 101, in which the Commission directed the utilities as follows: "to the greatest extent possible, to continue to seek to recover from Interconnection Customers all expenses ... associated with supporting the generator interconnection process under the NC Interconnection Standard."¹

Any interconnecting generating facility that is not assigned the cost of Network Upgrades² is, at a general level, not bearing all of the costs associated with its interconnection. This is because all interconnecting generating facilities that are not assigned the cost of Network Upgrades utilize pre-existing distribution and transmission capacity that was built at a cost borne by others. For instance, a generating facility that

¹ Order at 2.

² For purposes of this brief, the term "Network Upgrades" encompasses both "Network Upgrades" as defined in the FERC OATT and "Upgrades" as defined under the North Carolina Interconnection Procedures ("NCIP"). Under the NCIP, "Upgrades" include both "Network Upgrades" (*i.e.*, "Additions, modifications, and upgrades to the Utility's Transmission System required to accommodate the interconnection of the Generating Facility to the Utility's System") and "Distribution Upgrades" (*i.e.*, "The additions, modifications, and upgrades to the Utility's Distribution System at or beyond the Point of Interconnection to facilitate interconnection of the Generating Facility and render the service necessary to allow the Generating Facility to operate in parallel with the Utility and to inject electricity onto the Utility's System"). Simply stated, Network Upgrades include any additions to the capacity of the Company's distribution or transmission network to accommodate the interconnection of generating facility.

interconnects to a particular distribution circuit is consuming capacity on the distribution circuit that was constructed and paid for by retail customers. Assuming that the Company determines that sufficient capacity exists on the distribution circuit to safely and reliably interconnect the generating facility, then the generating facility is not required to pay for the distribution (and potentially transmission) capacity on which it relies. The same principal holds true for transmission-connected projects as well.

But the DEP's and Duke Energy Carolinas, LLC's ("DEC" and together with DEP, the "Companies") transmission and distribution system have a finite capacity to transmit electricity. Due to the Companies' nation-leading success in interconnecting projects,³ the existing capacity of certain portions⁴ of the Companies' transmission and distribution system have been fully consumed by interconnecting generating facilities.⁵

³ See Mr. Gary Freeman's pre-filed direct testimony in Docket No. E-100, Sub 101 at Pgs. 8-9: "The facts undeniably show that the Companies have continued their nation-leading track record of interconnecting larger utility-scale solar projects. Data from the U.S. Energy Information Administration ("EIA") tracking state-by-state growth in installed utility-scale solar shows North Carolina as a state, and the Companies by themselves, as national leaders in interconnecting utility-scale solar to the grid. No matter how the data is sliced, the Companies have, by any measure, achieved remarkable success at interconnecting utility-scale solar generating facilities...The EIA data shows that North Carolina as a state, and even the Companies by themselves, have interconnected more than twice the total amount of solar projects in this size range than the next closest state of California. The Companies' success is even more stark when compared to other leading states. For instance, Texas has interconnected the tenth largest amount of 2 MW to 20 MW projects. And yet, DEC and DEP together have interconnected 17 times more utility-scale solar PV projects in this size range than Texas even though Texas has nearly 3 times the population of North Carolina."

⁴ Mr. Freeman also specifically noted the amount of generation interconnected in the geographic area in which the Friesian Generating Facility is located. See pre-filed direct testimony at Pg. 19: "This congested area in DEP East has over 100 in-service or under construction solar generating facilities totaling 1,347 MW. This includes 16 transmission-connected projects totaling 898 MW and 99 distribution-connected solar projects totaling 449 MW."

⁵ See Mr. Freeman's pre-filed direct testimony in Docket No. E-100, Sub 101 at Pg. 15-18: "Many areas across the Companies' distribution systems, especially in DEP, are already heavily saturated with utility-scale solar generating facilities. In such areas, the only functional and feasible solution for interconnection of additional utility-scale projects will involve either major infrastructure 'Upgrades,' such as additions to local substations and distribution systems, and/or massive redesign of the distribution system as a whole....And as will be discussed in more detail later, the cumulative impact of both transmission- and distribution-connected projects mostly located in the eastern part of the state is overloading several critical transmission facilities and is triggering the need to spend several hundred million dollars on transmission network upgrades to continue to interconnect additional solar generating facilities.... As penetration levels have increased, areas of the Companies' transmission networks have reached or are close to reaching the limits of current transmission capacity availability and capability to interconnect additional generating

Under the existing serial study process, the first generating facility to trigger the need for a Network Upgrade (*i.e.*, an increase in distribution and transmission capacity) is assigned the total cost of the Network Upgrade. And much like the addition of generating capacity, the addition of distribution and transmission capacity is “lumpy,” meaning that the next increment of distribution or transmission capacity added will likely exceed the exact amount needed to accommodate the particular generating facility and will create surplus capacity that may be used by later-queued projects.

The vast majority of interconnections to date have consumed transmission and distribution capacity paid for by others. In the case of the Friesian Generating Facility, the required Network Upgrades being constructed (“Friesian Network Upgrades”) will provide sufficient transmission capacity to allow the interconnection of additional generating facilities in the area.⁶ In other words, later-queued projects (whether Federal Energy Regulatory Commission- (“FERC”) or state-jurisdictional) will be able to utilize the additional transmission capacity constructed for the Friesian Generating Facility (and ultimately paid for by all customers) and therefore such later-queued projects will not be required to bear any such costs until the next transmission overload is identified (though additional distribution capacity may be needed in the case of distribution-connected projects).⁷

facilities and transmit the energy from these generators to the Companies’ customer load centers that are far away.”

⁶ These particular Network Upgrades were also discussed at a general level in Mr. Freeman’s pre-filed direct testimony in Docket No. E-100, Sub 101 at Pg. 19: “Through the interconnection study process, DEP has determined that significant transmission network upgrades will be needed to interconnect additional generation in the southeastern North Carolina area of DEP East. These upgrades have been triggered by the cumulative amount of generation located in southeastern North Carolina, where the need for the increased generation to flow northwest toward the large load centers, such as Wake County, has caused several transmission line segments to now reach their power flow limits.”

⁷ The projects impacted by these Network Upgrades were also discussed at a general level in Mr. Freeman’s pre-filed direct testimony in Docket No. E-100, Sub 101 at Pg. 21 “Until the identified Network Upgrades

But this outcome is consistent with past practice and, more importantly, is the inevitable result of a serial study process⁸ in which projects consume pre-existing transmission and distribution capacity until the need for new capacity is “triggered.” Once the need is triggered, the next-queued project is responsible for paying for the Network Upgrade. If the triggering project is a state-jurisdictional project, the project must pay for such Network Upgrade and does not receive reimbursement. If the triggering project is a FERC-jurisdictional project (as is the case with the Friesian Generating Facility), the project pays for the Network Upgrade but is then reimbursed (as described above), meaning that all customers ultimately end up paying⁸ for the Network Upgrade.

Finally, it is worth noting that if the Friesian Generating Facility is not constructed, the Friesian Network Upgrades (or a portion thereof) will, pursuant to the serial study process, be assigned to the next generating facility in the queue located in the geographic area that is impacted by the transmission constraint. If such project is a state-jurisdictional interconnection request, then such project would be required to pay for the cost of the Network Upgrade but would not receive reimbursement (as is further described below in Section 2). Due to the magnitude of the cost of the Friesian Network Upgrades, it is unlikely that a state-jurisdictional project could absorb such costs.⁹ In practical terms, this would likely result in a cascading series of withdrawals as the Friesian Network Upgrades

are placed in service, the other projects in the congested area remain interdependent with these Upgrades and cannot be interconnected in a safe and reliable manner in accordance with Good Utility Practice. The need for these upgrades are impacting more than 500 MW of distribution projects and 3,000 MW of transmission projects, none of which can be interconnected until these upgrades are constructed.”

⁸ One benefit of a potential transition to a full cluster study is the ability to allocate Network Upgrades among multiple projects.

⁹ In fact, a number of generating facilities queued earlier than the Friesian Generating Facility did, in fact, withdraw when assigned all or a portion of the Friesian Network Upgrades.

(or a portion thereof) are assigned to particular projects that must pay for such costs or withdraw.¹⁰

2. Retail Rate Impact of the Friesian Generating Facility

The Company's primary interest in this proceeding is ensuring that the Commission is made aware of the retail rate impact that will result from the construction and interconnection of the Friesian Generating Facility.¹¹

As this Commission is aware, interconnection jurisdiction is a matter of law. Generating facilities such as the Friesian Generating Facility that intend to make wholesale sales are required to obtain interconnection under the FERC Joint Open Access Transmission Tariff ("OATT") (including the Large Generator Interconnection Agreement ("LGIA")). Friesian will be required to pay for cost of the Interconnection Facilities and Network Upgrades assigned to it under the terms of the Friesian LGIA. However, once the Friesian Generating Facility achieves commercial operation, DEP is obligated to refund to Friesian the cost of the Network Upgrades (approximately \$224 million) plus interest at the FERC interest rate (approximately \$25 million).

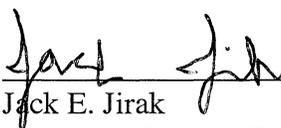
When Friesian is repaid, the cost of the Friesian Network Upgrades (and interest rate) will become a capital asset in rate base. The resulting revenue requirement (including

¹⁰ See Mr. Freeman's pre-filed direct testimony in Docket No. E-100, Sub 101 at Pg. 31: "Generally, when the interconnection queue was small and no major transmission network upgrades were being triggered, the serial study process was workable. However, as larger transmission network upgrades are now increasingly being triggered, the serial study process is untenable and could result in further paralysis of the queue due to the large upgrade costs being assigned to one project and developers being unable to achieve funding of these particular network upgrades."

¹¹ It is important to note all prior wholesale generators constructed in North Carolina that were assigned Network Upgrades have had or will have a retail rate impact on retail customers. For instance, the NTE Carolinas II, LLC proposed combined cycle gas generation facility to be located in Rockingham County, North Carolina [NTE project] that was certificated by the Commission in Docket No. EMP-92, Sub 0 (Jan. 19, 2017) was assigned approximately \$59 million in Network Upgrade costs under the FERC OATT. If that project achieves commercial operation, the cost recovery of the Network Upgrades will occur in the same manner as is described Section 2 of this Brief.

depreciation expense, O&M costs, a calculation rate of return on plant-in-service and interest charges) will be recovered from North Carolina retail customers through base rates (approximately 60%), South Carolina retail customers through base rates (approximately 10%) and wholesale customers through FERC transmission formula rate (approximately 30%). DEP projects an estimated 0.5% increase on North Carolina retail rates and an estimated 11% increase on wholesale transmission rates.

Respectfully submitted, this the 26th day of August, 2019.



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ATTORNEY FOR DUKE ENERGY PROGRESS, LLC

CERTIFICATE OF SERVICE

I certify that a copy of Duke Energy Progress, LLC's Initial Pre-Hearing Brief, 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 26th day of August, 2019.



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