STATE OF NORTH CAROLINA
UTILITIES COMMISSION
RALEIGH

DOCKET NO. EMP-107, SUB 0

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

In the Matter of Application of Halifax County Solar LLC for a Certificate of Public Convenience and Necessity to Construct an 80-MW Solar Facility in Halifax County, North Carolina	)))))	ORDER ON RECONSIDERATION

BY THE COMMISSION: On June 11, 2020, in the above-captioned proceeding, the Commission issued an order granting a certificate of public convenience and necessity (CPCN) pursuant to N.C. Gen. Stat. § 62-110.1(a) and Commission Rule R8-63 to Halifax County Solar LLC (Applicant) for the construction of an 80-MW_{AC} solar photovoltaic (PV) generating facility (Facility) to be located in Halifax County, North Carolina, and to be operated as a merchant plant. The Facility will be interconnected with the Dominion Energy North Carolina (DENC) transmission system, which is operated as a part of the PJM Interconnection, L.L.C. (PJM), regional transmission organization. In its June 11, 2020 order, the Commission made the following finding:

> Finally, based on the testimony of Applicant witness Killenberg and Public Staff witness Lucas, the Commission finds that the Applicant does not expect to fund any costs for transmission network upgrades and that any potentially necessary network upgrade costs paid by the Applicant to PJM would not be eligible for reimbursement. The evidence indicates that the possibility the Facility will require any transmission network upgrades is remote because the Applicant will be constructing a new substation on the 115-kV transmission line to which it will be connected, and that substation will be for the sole use of the Facility.

Order Issuing Certificate for Merchant Generating Facility, *Application of Halifax County Solar LLC for a Certificate of Public Convenience and Necessity to Construct an 80-MW Solar Facility in Halifax County, North Carolina*, No. EMP-107, Sub 0, at 3 (N.C.U.C. June 11, 2020). The CPCN issued to the Applicant is expressly subject to all orders, rules, regulations, and conditions as are now or may hereafter be lawfully made by the Commission. *Id.* at App. A.

On July 13, 2020, the Public Staff filed a Motion for Reconsideration requesting that the Commission exercise its authority pursuant to N.C. Gen. Stat. § 62-80 to reopen the record for the receipt of additional evidence on the issue of affected system upgrade costs and if the Commission deems it necessary, to reconsider its June 11, 2020 Order granting the Applicant a CPCN for construction of the Facility. In its motion the Public

Staff states that after it filed its letter recommending that the Commission grant the Applicant a CPCN for its proposed Facility, but before the Commission issued its order on June 11, 2020, the Public Staff learned that Duke Energy Progress, LLC (DEP), had conducted an affected system interconnection study for PJM Interconnection Cluster AC1 (AC1 Cluster), which includes the Applicant's proposed Facility. *See* DEP Generator Interconnection Affected System Study Report — PJM Interconnection Cluster AC1 (May 6, 2020) (DEP AC1 Cluster Study). That study determined that the Applicant's proposed Facility, together with the other projects included in the AC1 Cluster, would cause an overloading issue that would require a full reconductor/rebuild of DEP's Rocky Mount-Battleboro 115 kV Line at an estimated cost to DEP of approximately $23 million. The Public Staff states that this information is not consistent with the information available to the Public Staff when witness Lucas filed his original testimony or when the Public Staff recommended granting the requested CPCN. Further, the Public Staff states that this information was not available to the Commission when it issued the order and argues that this new information raises questions as to whether the public convenience and necessity requires that the CPCN be granted.

On July 29, 2020, the Commission issued an Order requiring the Applicant to file a response to the Public Staff's motion on or before August 3, 2020.

On August 3, 2020, the Applicant filed a brief in opposition to the Public Staff's motion and the supporting affidavit of Christopher Killenberg, who previously testified on the Applicant's behalf in this proceeding, analyzing the levelized cost of transmission (LCOT) associated with the Facility.

On August 13, 2020, the Commission issued an Order Granting Motion, Reopening Record, Receiving Additional Evidence into the Record, Requiring Public Staff Recommendation, and Providing Notice of Timeline for Issuance of Final Order. In that order the Commission reopened the record in this proceeding to receive additional evidence regarding the current information on affected system upgrade costs that were raised by the Public Staff in its July 13, 2020 motion. The Commission admitted into the record the verified affidavit of Mr. Killenberg attached to the Applicant's August 3, 2020 brief. The Commission also requested that the Public Staff file a recommendation in this docket and any supplemental supporting testimony addressing these issues.

On August 24, 2020, the Public Staff filed its recommendation and the supplemental testimony of Jay B. Lucas. Witness Lucas responds to the statements included in witness Killenberg's affidavit, stating that the Public Staff does not disagree with witness Killenberg's calculations, "but still has some concerns regarding application of the LCOT analysis on network upgrade costs identified in an affected system study resulting in costs being borne by another utility's ratepayers who do not see a direct benefit." Citing to the Commission's June 11, 2020 order in Docket No. EMP-105, Sub 0 denying the application by Friesian Holdings, LLC (Friesian), for a CPCN for a merchant generating facility, witness Lucas states that an LCOT calculation that only includes the network upgrades required by an affected system to which a generating facility is not directly interconnected would be distorted by the fact that: (1) energy flows occur that provide no direct benefit to

DEP customers, (2) network upgrades on the DENC system, whose costs may be borne by the interconnection customer or DENC's customers, may also be required, and (3) the projected need for the Facility and any network upgrades is not driven by DEP. In support of his view, witness Lucas includes a report from the PJM. Witness Lucas further states that he does not believe the LCOT alone is an adequate analysis for evaluating the Applicant's Facility in relation to the affected system upgrades it causes. In addition, he explains that he modified the assumptions for the Applicant's specific LCOT analysis to reflect the confidential production information provided by the Applicant as well as the additional network upgrade costs assigned by PJM to the Facility in the July 22, 2020 Interconnection Service Agreement Among PJM Interconnection, L.L.C., and Halifax County Solar LLC and Virginia Electric and Power Company for PJM Queue #AC1-208, which he attached to his testimony as Lucas Exhibit 3.

Witness Lucas then describes the comparison that he made between these LCOT calculations to the 2019 Lawrence Berkeley National Laboratory interconnection cost study (LBNL Study) to place the LCOT calculations in perspective with data from other balancing authorities. He further explains that the LBNL Study uses publicly available interconnection studies to calculate the costs associated with bulk network upgrades (similar to the term "Network Upgrades" as used in his testimony) and point of interconnection upgrades necessary to connect these resources. He then testifies that based on his analysis "it is clear" that if the Applicant's Facility is constructed by itself, the upgrade costs are higher than the average for those projects reviewed in the LBNL Study; however, if the costs were allocated between some or all projects in the original AC1 Cluster, the LCOT would fall within the range of those projects reviewed in the LBNL Study. Witness Lucas notes that the Public Staff emphasizes that the upgrade costs found in the LBNL Study are being used here as a guide to help put the Facility's network upgrade costs in context.

Witness Lucas then addresses cluster studies more broadly and how cluster studies have impacted the Public Staff's review of CPCN applications, stating that determining the total cost to the using and consuming public of multiple generator projects in multiple cluster studies is difficult because of the fluid nature of generator projects. He then states that the Public Staff has the following concerns: (1) an affected system could build network upgrades that go unused for extended periods of time because some interconnection projects withdraw from the queue late in the review process; and (2) network upgrades necessitated by the AC1 Cluster could soon be inadequate due to the needs of future facilities in PJM's North Carolina queue, and could be replaced by even larger transmission capacity long before the end of its normal service life (40-60 years) making the upgrade costs "wasted." Summarizing the Public Staff's concerns with affected system upgrade costs associated with merchant generation, witness Lucas states that the Public Staff is concerned that a utility could incur significant network upgrade costs to accommodate merchant generating capacity and energy that does not provide its customers with any significant benefits. Further, while in the past the Public Staff has been able to review each CPCN application individually and make recommendations to the Commission on an individual basis, this process has become more complicated because of the interdependency and high network upgrade costs being

triggered by groups of projects applying for CPCNs. In closing, witness Lucas states that the Public Staff recommends that the Commission consider this issue as part of the current interconnection reform process in Docket No. E-100, Sub 101, refrain from issuing decisions in the following CPCN applications: EMP-103, Sub 0, EMP-110, Sub 0, EMP-111, Sub 0, EMP-112, Sub 0, and EMP-102, Sub 1, and "hold future CPCN applications with a capacity greater than 20 MW in the DENC territory in abeyance until the issue of affected system upgrades . . . is resolved by the Commission."

Notwithstanding these concerns, witness Lucas testifies that after reviewing the Applicant's brief and other evidence in the record the Public Staff recommends that the Commission approve the application and grant the certificate, subject to the following conditions:

(1) The Applicant shall construct and operate the Facility in strict accordance with applicable laws and regulations, including any local zoning and environmental permitting requirements;

(2) The CPCN shall be subject to Commission Rule R8-63(e) and all orders, rules and regulations as are now or may hereafter be lawfully made by the Commission;

(3) The Applicant shall file with the Commission in this docket a progress report on the construction of the Facility on an annual basis; and

(4) The Applicant shall file with the Commission in this docket any revisions in the cost estimates for the construction of the Facility or any network upgrades within 30 days of becoming aware of such revisions.

DISCUSSION AND CONCLUSIONS

Pursuant to N.C.G.S. § 62-80:

> The Commission may at any time upon notice to the public utility and to the other parties of record affected, and after opportunity to be heard as provided in the case of complaints, rescind, alter or amend any order or decision made by it. Any order rescinding, altering or amending a prior order or decision shall, when served upon the public utility affected, have the same effect as herein provided for original orders or decisions.

The Commission's decision to rescind, alter, or amend an order upon reconsideration under N.C.G.S. § 62-80 is within the Commission's discretion. *State ex rel. Utils. Comm'n v. MCI Telecomms. Corp.*, 132 N.C. App. 625, 630, 514 S.E.2d 276, 280 (1999). However, the Commission cannot arbitrarily or capriciously rescind, alter, or amend a prior order. Rather, there must be some change in circumstances or a misapprehension or disregard of a fact that provides a basis for the Commission to rescind, alter, or amend a prior order. *State*

ex rel. Utils. Comm'n v. N.C. Gas Serv., 128 N.C. App. 288, 293-94, 494 S.E.2d 621, 626, *rev. denied*, 348 N.C. 78, 505 S.E.2d 886 (1998).

Based upon the foregoing and the entire record herein the Commission finds good cause to affirm its June 11, 2020 order granting a CPCN to the Applicant. Although the Public Staff brought the result of the DEP AC1 Cluster Study to the Commission so that affected system upgrade costs could be entered in the record and taken into consideration, its recommendation on the issuance of the CPCN remained unchanged by the study results. The Commission agrees with the Public Staff's recommendation that the CPCN should be modified. Based upon the facts of record, and in balancing the equities involved, the Commission does not find that the results of the DEP AC1 Cluster Study require it to rescind its prior order granting a CPCN to the Applicant.

With regard to the conditions recommended by the Public Staff, the Commission notes that the certificate issued on June 11, 2020, presently states that it is "subject to all orders, rules, regulations and conditions as are now or may hereafter be lawfully made by the North Carolina Utilities Commission." Commission Rule R8-63(e), pursuant to which the certificate was granted, further provides that the certificate is subject to revocation if the Applicant fails to obtain or comply with any "federal, state, or local licenses or permits." Further, pursuant to Rule R8-63(f), the Applicant is required to submit annual progress reports and any revisions in cost estimates until construction is complete. Moreover, pursuant to Rule R8-63(e)(3), the certificate must be renewed if the Applicant does not begin construction within three years after the date of the Commission order granting the certificate, which in this case is June 11, 2020. However, due to the uncertainty of affected system upgrade costs, as expressed by the Public Staff, the Commission will accept the Public Staff's recommendation and further condition the certificate in this matter by requiring the Applicant to file with the Commission in this docket any revisions in the cost estimates for the construction of the Facility itself, interconnection facilities, or any network upgrades within 30 days of becoming aware of such revisions. The Commission will proceed as it deems appropriate upon notice of such revisions.

Finally, the Commission determines that this Order is based on the precise facts and circumstances that are unique to the matter now before it. This Order cannot and shall not be relied upon by the Commission to support the Commission's decisions or actions in any other matter or proceeding, except that it may be relied upon solely in this docket as part of the law of the case.

IT IS, THEREFORE, ORDERED as follows:

1. That the certificate attached to the Commission's June 11, 2020 order in this docket shall be modified to add an additional condition;

2. That the Applicant shall file with the Commission in this docket any revisions in the cost estimates for the construction of the Facility, interconnection facilities, network

upgrades, affected system upgrades, or any other significant change in costs within 30 days of becoming aware of such revisions; and

3. That this Order is based on the unique facts and circumstances involved in this docket, and the Commission shall not be bound by it as precedent in any other proceeding.

ISSUED BY ORDER OF THE COMMISSION.

This the 2nd day of September, 2020.

NORTH CAROLINA UTILITIES COMMISSION

Kimberley A. Campbell

Kimberley A. Campbell, Chief Clerk

Chair Charlotte A. Mitchell concurs.

Chair Charlotte A. Mitchell, concurring:

I concur in the result reached by the Commission in this case. I write separately to emphasize that the levelized cost of transmission (LCOT) analysis presented by affiant Killenberg and Public Staff witness Lucas is but one factor relied upon in reaching this decision.

Ultimately, as stated by the Commission in *Friesian*, states retain authority to approve the siting of electric generating facilities, even if the power generated by those facilities is being sold into the wholesale market.[1] As such, as the Commission found in

[1] In its order in that case, the Commission stated:

> It is well-established that states have traditionally assumed jurisdiction and authority over the generation of electricity, and thus over decisions addressing the need for and the siting of all necessary facilities. *See Pacific Gas & Elec. Co. v. State Energy Resources Conservation and Development Comm'n*, 461 U.S. 190, 194, 75 L. Ed. 2d 752, 760 (1983); *see also FERC v. Elec. Power Supply Ass'n [(EPSA)]*, 577 U.S. ___, ___, 193 L. Ed. 2d 661, 668 (2016). Similarly, "states have traditionally assumed all jurisdiction [over the approval or denial of] permits for the siting and construction of electric transmission facilities." *Piedmont Environmental Council v. FERC*, 558 F.3d 304, 310 (4th Cir. 2009), *cert. denied*, 558 U.S. 1147, 175 L. Ed. 2d 972 (2010); *see also Promoting Wholesale Competition Through Open Access Non-Discriminatory Transmission Services by Public Utilities; Recovery of Stranded Costs by Public Utilities and Transmitting Utilities*, Order No. 888, 75 F.E.R.C. ¶ 61,080, P.433 n.543, 61 Fed. Reg. 21,540, 21,626 n.543 (1996) ("Among other things, Congress left to the States authority to regulate generation and transmission siting."). . . .
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> Later, FERC issued Order No. 1000 in an effort to manage electric transmission grids on a regional level. *See Transmission Planning & Cost Allocation by Transmission Owning & Operating Pub. Utils.*, Order No. 1000, 136 F.E.R.C. ¶ 61,051 (2011). Therein, FERC recognized that States could continue to regulate electric transmission lines, explicitly stating:
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> > We acknowledge that there is longstanding state authority of certain matters that are relevant to transmission planning and expansion, such as matters relevant to siting, permitting, and construction. However, nothing in this Final Rule involves an exercise of siting, permitting, and construction authority. The transmission planning and cost allocation requirements of this Final Rule . . . are associated with the processes used to identify and evaluate transmission system needs and potential solutions to those needs. In establishing these reforms, the Commission is simply requiring that certain processes be instituted. This in no way involves an exercise of authority over those specific substantive matters traditionally reserved to the states, including integrated resource planning, or authority over such transmission facilities. For this reason, we see no reason why this Final Rule should create conflicts between state and federal requirements.
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> Order No. 1000 at ¶ 107; *see also MISO Transmission Owners v. FERC*, 819 F.3d 329, 336 (7th Cir. 2016) (it was a "proper goal" for FERC "to avoid intrusion on the traditional role of the States in regulating the siting and construction of transmission facilities"), *cert. denied*,

Friesian the LCOT provides a useful benchmark to assess the reasonableness of siting a facility in a specific location. *Friesian* at 6 (Finding of Fact No. 12). In *Friesian*, the Public Staff used a 2019 study by Lawrence Berkeley National Laboratory (LBNL Study) to compare the network upgrade costs associated with that project to the average network upgrade costs associated with other solar projects in the MISO and PJM regional transmission organizations and nationwide. In its calculations, LBNL attempted to estimate the overall costs of transmission needed to integrate variable renewable energy onto the grid.

In using the LBNL Study and the LCOT benchmarks provided therein in other proceedings, such as this, it is important to compare apples to apples and to consider the total network upgrade costs when making the comparison. Thus, in making the LCOT calculation, the total network upgrade costs must be included, not only the cost of the network upgrades on affected systems. Witness Lucas found that after doing so in this case it did not change the Public Staff's recommendation that the project be allowed to go forward.

However, there are other factors that are also to be considered in deciding whether to grant a certificate of public convenience and necessity to a merchant generating facility in individual cases. Prior to the Federal Energy Regulatory Commission's open access transmission rule, Order No. 888, and the formation of regional transmission organizations, the Commission would not approve siting of a true merchant plant. When the Commission adopted Rule R8-63 and opened the door for the construction of merchant generating facilities, it was assumed that the developer of a facility would bear all of the financial risk and that no costs would be imposed upon retail ratepayers other than those costs that would flow from the purchase of power from the facility by a utility under least cost principles. When that is still the case, the LCOT analysis is less important. Whatever costs are caused are borne by the developer and recovered through the sale of power, which is bounded either by such least costs principles if in a traditional bilateral wholesale power market such as most of this State or by the market clearing price in a restructured market, such as PJM. When that is not the case, it is the Commission's role and obligation to protect retail ratepayers from unreasonable costs.

/s/ Charlotte A. Mitchell

Chair Charlotte A. Mitchell

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137 S. Ct. 1223, 197 L. Ed. 2d 463 (2017). It makes little sense then that the Commission would continue to have authority over the siting, permitting, and construction of all generation and transmission facilities — including for integrated resource planning purposes — but would not have the authority to consider all information that might impact the propriety of siting and constructing those facilities.

Order Denying Certificate of Public Convenience and Necessity for Merchant Generating Facility, *Application of Friesian Holdings, LLC, for a Certificate of Public Convenience and Necessity to Construct a 70-MW Solar Facility in Scotland County, North Carolina*, No. EMP-105, Sub 0, at 18-20 (N.C.U.C. June 11, 2020) (notice of appeal filed Aug. 10, 2020).