

**STATE OF NORTH CAROLINA
UTILITIES COMMISSION
RALEIGH**

DOCKET NO. E-7, SUB 1101

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

In the Matter of
Application of Duke Energy Carolinas, LLC)
for a Certificate of Public Convenience and)
Necessity to Construct a 6-MW Solar)
Facility in Rowan County, North Carolina)

ORDER GRANTING CERTIFICATE
OF PUBLIC CONVENIENCE AND
NECESSITY

BY THE COMMISSION: On March 2, 2016, Duke Energy Carolinas, LLC (Duke Energy Carolinas or DEC) filed an Application pursuant to G.S. 62-110.1 and Commission Rule R8-61 for a certificate of public convenience and necessity (CPCN or certificate) authorizing the construction and completion of a 6-megawatt (MW) alternating current (AC) ground mounted solar photovoltaic facility (Facility) on a portion of a 116-acre parcel owned by DEC (Woodleaf Site) in Rowan County, North Carolina.

On March 31, 2016, the Commission issued its Order Scheduling Hearings, Requiring Filing of Testimony, Establishing Procedural Guidelines and Requiring Public Notice (Scheduling Order). The Scheduling Order, among other things, scheduled a public witness hearing to be held in Salisbury, North Carolina, on May 11, 2016, at 7:00 p.m., scheduled an expert witness hearing to be held in Raleigh, North Carolina, on May 16, 2016, at 2:00, p.m., and required DEC to publish a public notice regarding its Application and the public witness hearing.

On April 18, 2016, DEC filed the direct testimony of James S. Northrup in support of DEC's Application.

On April 28, 2016, the Public Staff filed an unopposed motion for extension of time to file its testimony and exhibits. The Commission granted this motion on April 29, 2016.

On May 10, 2016, the Public Staff filed affidavits of Darlene P. Peedin, Staff Accountant, Accounting Division, and David M. Williamson, Utilities Engineer, Electric Division. Ms. Peedin's affidavit recommended that the Commission approve the CPCN Application subject to certain conditions related to avoided costs, the recovery of costs through DEC's Renewable Energy and Energy Efficiency Portfolio Standard (REPS) annual rider as opposed to base rates, and the realization of certain tax benefits, as described more fully in the affidavit and in the Public Staff's comments filed on May 3, 2016, in Docket Nos. E-7, Sub 1079 and SP-2221, Sub 1 (Rocky River/Monroe) and Docket Nos. E-7, Sub 1098 and SP-4708, Sub 1 (Toprak/Mocksville) (collectively, the 2016 DEC Solar Asset Transfers). Mr. Williamson's affidavit likewise recommended approval of the CPCN Application, subject to the following conditions: (1) that the Facility be constructed in

strict accordance with applicable laws and regulations, including any environmental requirements; (2) that no construction commence until the State Clearinghouse files its comments; and (3) that DEC provide a copy of the engineering, procurement, and construction (EPC) contract to the Public Staff once it has been finalized.

On May 11, 2016, the State Clearinghouse provided a letter with attached comments, stating, in part: "Because of the nature of the comments, it has been determined that no further State Clearinghouse review on your [the Commission's] part is needed for compliance with the North Carolina Environmental Policy Act." In addition, the final comments filed by the State Clearinghouse included comments by the North Carolina Wildlife Resources Commission (NCWRC) requesting that additional procedures for minimizing the impact of the facility be considered by DEC.

No person or agency other than the Public Staff intervened in the proceeding. Further, no person or agency opposed the granting of the CPCN Application.

A hearing for the purpose of receiving public witness testimony regarding the CPCN Application was held in Salisbury, North Carolina on May 11, 2016, as scheduled. No public witnesses appeared at the public witness hearing.

On May 11, 2016, DEC filed an Affidavit of Publication evidencing its publication of the public notice required by the Commission's Scheduling Order.

On May 12, 2016, DEC filed a motion to cancel the expert witness hearing in this matter on the grounds that DEC and the Public Staff were the only parties to the docket, no party objected to the granting of the CPCN, there did not appear to be a need for the parties' expert witnesses to present further evidence, and the parties were preparing a joint proposed order to be filed with the Commission.

By order issued May 13, 2016, the Commission canceled the expert witness hearing, accepted into the record the testimony, exhibits and affidavits presented, and directed DEC and the Public Staff to file proposed orders or a joint proposed order on or before June 10, 2016.

DEC and the Public Staff filed a joint proposed order on June 10, 2016.

Based upon DEC's verified Application, the testimony and exhibits received into evidence by Commission order, and the record as a whole, the Commission makes the following:

FINDINGS OF FACT

1. Duke Energy Carolinas is a public utility providing electric service to customers in its service area in North Carolina subject to the jurisdiction of the Commission.

2. The Commission has jurisdiction over the Application. Pursuant to G.S. 62-110.1 and Commission Rule R8-61(b), a public utility must receive a CPCN prior to constructing electric generating facilities in North Carolina.

3. In compliance with G.S. 62-110.1 and Commission Rule R8-61(b), DEC properly filed its CPCN Application regarding the Facility, which will be built in 2016 on the 116-acre Woodleaf Site owned by DEC in Rowan County, North Carolina. Construction is anticipated to begin in the second quarter 2016, following receipt of the requested certificate from the Commission and all necessary permits and approvals, and commercial operation is scheduled to begin in December 2016. The anticipated useful life of the equipment is expected to be 25 years.

4. Duke Energy Carolinas has made a sufficient showing of need for this proposed Facility to help DEC meet its obligations pursuant to G. S. 62-133.8, the North Carolina REPS. The Facility size of approximately 6 MW_{AC} supports Duke Energy Corporation's (Duke Energy's) efforts to meet the 300-MW procurement goal established in the joint Request for Proposals (RFP) issued by Duke Energy Progress, LLC (DEP) and DEC, in February 2014. Additionally, the timing of the project will allow DEC to leverage the federal Investment Tax Credit (Federal ITC), which was originally set to reduce from 30% to 10% on December 31, 2016. The Facility will also allow DEC to continue to diversify its generation portfolio by incorporating additional renewable energy resources into its regulated fleet of generation assets.

5. No party filed testimony or statements objecting to the granting of the CPCN for the proposed Facility. Having carefully reviewed all of the evidence of record, the Commission finds and concludes that it is reasonable and in the public interest to grant the requested certificate as conditioned herein.

EVIDENCE AND CONCLUSIONS FOR FINDINGS OF FACT NOS. 1-2

These findings of fact are essentially informational, jurisdictional, and procedural in nature and are uncontroverted.

EVIDENCE AND CONCLUSIONS FOR FINDINGS OF FACT NOS. 3-5

The evidence supporting these findings of fact appears in DEC's CPCN application, which was verified by witness Northrup, and by the direct testimony of witness Northrup, the comments of the State Clearinghouse, and the affidavits of Public Staff witnesses Peedin and Williamson.

On March 2, 2016, DEC filed its CPCN Application requesting authorization for the construction and completion of the 6-MW_{AC} solar Facility on a portion of a 116-acre parcel owned by DEC in Rowan County, North Carolina. The Application stated that the Facility will consist of PV panels affixed to a ground mounted single-axis tracking system supported on driven piles, or other suitable racking as site soil conditions may require. The source of the Facility's power will be solar energy, and no fossil fuels will be burned

by the Facility. The Facility will interconnect on the DEC-owned 12.47-kV distribution line. The point of interconnection is on site and no access, utility, or shade easements will be required of additional landowners. The anticipated useful life of the equipment is expected to be 25 years, and the Facility is intended to produce renewable energy certificates (RECs) that are eligible for compliance with the State's REPS.

DEC's CPCN Application stated that DEC is working to comply in a cost-effective manner with renewable energy targets established in the North Carolina General Statutes. As has been noted in previous filings, DEC and DEP jointly issued a 300-MW solar RFP in February 2014 in order to leverage both state and federal tax incentives that help lower the cost of RECs. Through the RFP, DEC solicited both purchased power agreements (PPAs) and solar asset purchase proposals from projects that could be placed in-service prior to the North Carolina Energy Tax Credit (North Carolina ETC) expiring on December 31, 2015. Both DEC and DEP negotiated agreements for 278 MWs, awarding contracts for both PPAs and solar asset purchases. Eight projects were selected through the RFP, one of which was a 19-MW PPA in DEC territory. The remaining seven projects were located in DEP territory.

In addition, DEC stated that DEC and DEP continue to look for opportunities to comply with North Carolina's REPS as well as to diversify their generation portfolios by making investments in renewable energy generation sources. To support that strategy, DEC and DEP have continued to seek opportunities to invest in both PPA projects and self-develop generation facilities.

DEC further stated that it issued the Green Source Rider RFP in February 2015. The RFP solicited 50 MW_{AC} for both PPAs and solar asset purchase proposals for facilities that would be in-service by December 31, 2016. DEC received a limited response to the RFP. Only two of the sites proposed were utility scale projects greater than 5 MW_{AC} in size. Of the two, one had a problem with siting, and the other (45 MW_{AC}) was awarded a PPA that is currently under negotiation. DEC was unable to reach agreement with participating counterparties on the other asset purchase proposals (asset purchases comprised nine of the ten proposals) due to the quality of the projects and pricing. Six of the projects evaluated for ownership had "fatal flaws" that DEC identified through due diligence. Negotiations to purchase two of the projects were terminated after the developer accepted a bid from another investor who bought the project assets, including the PPA.

DEC witness Northrup testified that DEC has a significant long-term need for RECs to comply with the requirements of the REPS. Pursuant to G.S. 62-133.8, DEC, as an electric supplier, is required to comply with the overall REPS requirement of RECs equivalent to 6% of North Carolina retail sales in 2015, 10% in 2018, and 12.5% in 2021 and thereafter. Witness Northrup testified that to meet its long-term, overall REPS obligation of 12.5% in 2021 and thereafter, DEC must procure approximately an additional 670,000 RECs in 2019, with that amount growing to three million RECs by 2020. DEC's current and projected future compliance position already accounts for utilization of

cost-effective energy efficiency savings and out-of-state RECs to meet portions of that future compliance need.

Witness Northrup also testified that the DEC 2015 Integrated Resource Plan specifies that DEC fully expects solar resources to contribute to its REPS compliance efforts beyond the solar set-aside minimum threshold for REPS. Through DEC's compliance procurement efforts to date, it will be able to meet its long-term solar set-aside requirements. Solar resources, however, are cost-competitive with other renewable resources in the general requirements category. According to witness Northrup, DEC continues to procure solar RECs to meet its long-term overall REPS obligation due to that relative cost-effectiveness. Additionally, the CPCN Application also stated that the current 30% investment tax credit benefit from the Federal ITC will reduce the overall cost to customers for solar PV projects, allowing solar PV to compete as a cost-effective REPS compliance resource in North Carolina.

DEC's CPCN Application concludes that the project economics of the Woodleaf Facility are favorable given the availability of the 30% Federal ITC. DEC seeks to leverage these incentives to the benefit of its customers by lowering the overall cost of the projects. DEC asserts that the total installed project cost is a cost-effective source of RECs for DEC and its customers, and such cost compares favorably to the recently approved DEP utility-owned facilities total installed cost under construction: Fayetteville, Elm City, Warsaw, and Camp Lejeune.¹ The Company's CPCN Application states that the Woodleaf Facility also compares favorably with the recently filed 2016 DEC Solar Asset Transfers. The Application also states that the Woodleaf Facility is a prudent opportunity to secure a long-term REC supply from a facility located within DEC's territory and advances the implementation of utility-scale solar projects (i.e., greater than 5 MWs) in DEC's service territory by providing the benefits of economies of scale solar energy projects to DEC's customers.

The Public Staff submitted the affidavits of Darlene Peedin and David Williamson. Ms. Peedin stated that in the course of her investigation she identified three areas of particular concern to ratepayers, having to do with DEC's analysis of the cost-effectiveness of the Woodleaf Facility as it relates to actual revenue requirements associated with the facility. These areas of concern are (1) how DEC's avoided costs will be determined for purposes of allocating the revenue requirements for the Facility between the REPS rider and base rates; (2) the costs associated with the Woodleaf project relative to the price DEC offered for RECs at the time of the Application; and (3) the possibility that DEC may be unable to take advantage of all the tax benefits currently available to the Woodleaf Facility. These are the same concerns the Public Staff raised regarding the 2016 DEC Solar Asset Transfers. The applications in those dockets were approved by the Commission on May 16, 2016, subject to conditions recommended

¹ See Docket Nos. E-2, Subs 1054, 1055, 1056, and 1063.

by the Public Staff and agreed to by DEC addressing the Public Staff's concerns. Ms. Peedin stated that to address the same concerns in this docket, the Public Staff recommends and DEC has agreed to the following conditions:

- 1) That in the appropriate REPS rider and general rate case proceedings, DEC will separately itemize the actual monetization of all the tax benefits listed above within its calculation of the levelized revenue requirement per megawatt-hour for the Facility so that it may be compared with the monetization of such tax benefits within DEC's revenue requirement analysis of the Facility. To the extent that DEC's actual monetization of all the tax credits, except the federal ITC, is less than the full realization reflected in DEC's revenue requirement analysis, a presumption will be created that the costs associated with the additional revenue requirement were unreasonable and imprudently incurred. In that event, DEC will have the opportunity in the proceeding to rebut the presumption with evidence supporting the reasonableness and prudence of its actual monetization of the tax credits. To the extent that DEC's actual monetization of the federal ITC tax benefit is less than the full realization reflected in DEC's revenue requirement analysis, no presumption of unreasonableness or imprudence will be created and no adjustment will be made to the revenue requirement for that reason. The additional revenue requirement that results from DEC's less than full realization of the ITC, however, will be recovered only in base rates. Ms. Peedin also recommended that within 180 days of completion of construction of the project, DEC should file a final cost accounting report for the Facility with the Commission and provide a copy to the Public Staff (Condition No. 1).
- 2) To address the concerns regarding the prices that DEC was offering for RECs to other qualifying facilities (QFs) at the time of the Application, the incremental costs DEC will be allowed to recover through the REPS rider will be capped by developing an appropriate percentage to limit the recovery of its costs based on the standard REC offer price that DEC was offering to QFs at the time the purchase agreement was executed for the facility, as computed in the revenue requirements model provided in response to Public Staff data requests. The additional revenue requirements that exceed avoided costs and the REPS cost cap will be recovered only in base rates, based on the reasonableness and prudence of the additional costs (Condition No. 2).
- 3) That the costs associated with each facility that are recovered in bases rates will be allocated among jurisdictions and customer classes in the same manner as any other plant in DEC's generation portfolio, and no portion of any of the costs that are directly assigned, allocated, or otherwise attributable to another jurisdiction will be recovered from North Carolina retail customers, even if recovery of those costs are disallowed or denied, in whole or in part, in another jurisdiction (Condition No. 3).

- 4) That the reasonableness and prudence of DEC's costs associated with the Facility and the methodology for recovering those costs should be addressed in future REPS rider and general rate case proceedings (Condition No. 4).

Witness Williamson testified regarding the technical aspects of the Facility. He noted that at the time of the filing of his affidavit, comments from the State Clearinghouse had not been received. Mr. Williamson recommended that the Commission's approval of the application be subject to the condition that no construction commences until the State Clearinghouse files comments indicating that no further review action by the Commission is required for compliance with the North Carolina Environmental Policy Act. The Commission notes that on May 11, 2016, the State Clearinghouse filed comments with the Commission stating that the environmental impact information concerning the Woodleaf Facility "has been reviewed through the State Clearinghouse under the provisions of the North Carolina Environmental Policy Act," and that "[b]ecause of the nature of the comments, it has been determined that no further State Clearinghouse review action on your part is needed for compliance with the North Carolina Environmental Policy Act." Therefore, this condition has since been satisfied.

Witness Williamson further testified that the Public Staff recommends that the Commission approve the CPCN Application and issue the certificate of public convenience and necessity, subject to the following conditions recommended by the Public Staff and agreed to by DEC: (1) that the Facility be constructed in strict accordance with applicable laws and regulations, including any environmental requirements (Condition No. 5); and (2) that DEC provide a copy of the EPC contract to the Public Staff once it has been finalized for the Public Staff's review and comment, if necessary (Condition No. 6).

Having carefully reviewed the CPCN Application, and based on all the evidence of record, the Commission concludes that DEC has made a sufficient showing of need for the proposed 6-MW_{AC} facility in Rowan County, North Carolina. Moreover, the Commission concludes that although DEC has made a sufficient showing that it has considered the environmental impacts of the proposed facility, DEC should consider the recommendations of the NCWRC, to the extent applicable and practicable, when constructing the Facility.

Therefore, the Commission finds and concludes that it is reasonable and in the public interest to grant the requested certificate as conditioned herein.

IT IS, THEREFORE, ORDERED as follows:

1. That the Application by Duke Energy Carolinas, LLC, for a certificate of public convenience and necessity to construct a 6-MW_{AC} solar photovoltaic generating facility at the intersection of NC Highway 801 and Old U.S. 70 near the town of Barber, in Rowan County, North Carolina, is hereby approved.

2. That this approval is subject to Condition Nos. 1 through 6 proposed by the Public Staff and accepted by Duke Energy Carolinas, LLC, as set forth expressly in the body of this Order.

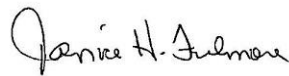
3. That this approval shall not preclude any party from contesting the reasonableness and prudence of the costs associated with this Facility and the methodology for recovering those costs in future REPS rider, general rate case, and other appropriate proceedings.

4. That Appendix A shall constitute the certificate of public convenience and necessity.

ISSUED BY ORDER OF THE COMMISSION.

This the 16th day of June, 2016.

NORTH CAROLINA UTILITIES COMMISSION

A handwritten signature in cursive script that reads "Janice H. Fulmore".

Janice H. Fulmore, Deputy Clerk

**STATE OF NORTH CAROLINA
UTILITIES COMMISSION
RALEIGH**

DOCKET NO. E-7, SUB 1101

Duke Energy Carolinas, LLC
550 South Tryon Street
Charlotte, North Carolina 28201

is hereby issued this

**CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY
PURSUANT TO G.S. 62-110.1**

for a 6-MW_{AC} solar photovoltaic electric generating facility

located

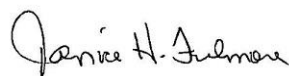
at the intersection of NC Highway 801 and Old U.S. 70
near the town of Barber, Rowan County, North Carolina

subject to all orders, rules, regulations and conditions as are now or may hereafter be
lawfully made by the North Carolina Utilities Commission.

ISSUED BY ORDER OF THE COMMISSION.

This the 16th day of June, 2016.

NORTH CAROLINA UTILITIES COMMISSION



Janice H. Fulmore, Deputy Clerk