



**NORTH CAROLINA  
PUBLIC STAFF  
UTILITIES COMMISSION**

July 29, 2020

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

Re: Docket No. EMP-109, Sub 0 – Application for a Certificate of Public Convenience and Necessity to Construct a 20-MW Solar Facility in Camden County, North Carolina

Dear Ms. Campbell:

In connection with the above-referenced docket, we transmit herewith for filing on behalf of the Public Staff the supplemental testimony of Jay B. Lucas, Utilities Engineer, Electric Division. By copy of this letter, we are forwarding a copy to all parties of record by electronic delivery.

Sincerely,

/s/ Megan Jost  
Staff Attorney  
[megan.jost@psncuc.nc.gov](mailto:megan.jost@psncuc.nc.gov)

MJ/cla

Attachment(s)

<b>Executive Director</b> (919) 733-2435	<b>Communications</b> (919) 733-5610	<b>Economic Research</b> (919) 733-2267	<b>Legal</b> (919) 733-6110	<b>Transportation</b> (919) 733-7766
<b>Accounting</b> (919) 733-4279	<b>Consumer Services</b> (919) 733-9277	<b>Electric</b> (919) 733-2267	<b>Natural Gas</b> (919) 733-4326	<b>Water</b> (919) 733-5610

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Jul 29 2020

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

DOCKET NO. EMP-109, SUB 0

In the Matter of	)	
Application of Camden Solar LLC for a	)	SUPPLEMENTAL
Certificate of Public Convenience and	)	TESTIMONY OF
Necessity to Construct a 20-MW Solar	)	JAY B. LUCAS
Facility in Camden County, North	)	PUBLIC STAFF – NORTH
Carolina	)	CAROLINA UTILITIES
	)	COMMISSION

**BEFORE THE NORTH CAROLINA UTILITIES COMMISSION**

**DOCKET NO. EMP-109, SUB 0**

**Supplemental Testimony of Jay B. Lucas**

**On Behalf of the Public Staff**

**North Carolina Utilities Commission**

**July 29, 2020**

1 **Q. PLEASE STATE YOUR NAME AND ADDRESS FOR THE**  
2 **RECORD.**

3 A. My name is Jay B. Lucas. My business address is 430 North  
4 Salisbury Street, Raleigh, North Carolina.

5 **Q. WHAT IS YOUR POSITION WITH THE PUBLIC STAFF?**

6 A. I am an engineer in the Electric Division of the Public Staff  
7 representing the using and consuming public.

8 **Q. WOULD YOU BRIEFLY DISCUSS YOUR EDUCATION AND**  
9 **EXPERIENCE?**

10 A. Yes. My education and experience are outlined in Appendix A of my  
11 supplemental testimony.

12 **Q. WHAT IS THE PURPOSE OF YOUR SUPPLEMENTAL**  
13 **TESTIMONY IN THIS PROCEEDING?**

1 A. The purpose of my supplemental testimony is to make further  
2 recommendations to the Commission on the request for a certificate  
3 of public convenience and necessity (CPCN) filed by Camden Solar  
4 LLC (Applicant), to construct a 20-megawatt AC (MW<sub>AC</sub>) solar  
5 photovoltaic (PV) merchant electric generating facility near Camden,  
6 in Camden County, North Carolina (the Facility).

7 Specifically, my supplemental testimony responds to the  
8 Commission's Order Cancelling Expert Witness Hearing and  
9 Requiring Additional Testimony issued on June 22, 2020 (June 22,  
10 2020 Order), and the supplemental testimony of the Applicant's  
11 witness, Whitney Rubin, filed on July 15, 2020.

12 **Q. PLEASE PROVIDE A BRIEF HISTORY THE APPLICATION.**

13 A. On August 1, 2017, the Commission granted the Applicant a CPCN  
14 for the Facility in Docket No. SP-8831, Sub 0, under Commission  
15 Rule R8-64. On April 1, 2020, the Applicant applied for a CPCN to  
16 operate the Facility as a merchant electric plant in Docket No. EMP-  
17 109, Sub 0, and included the direct testimony of witness Rubin. The  
18 Facility will connect to the existing Elizabeth City distribution line  
19 owned by Virginia Electric and Power Company d/b/a Dominion  
20 Energy North Carolina (DENC), which must upgrade this line from  
21 13.2 kilovolts (kV) to 34.5 kV to allow interconnection of the Facility.

1 PJM Interconnection, LLC (PJM), also must study interconnection of  
2 the Facility to the grid since DENC is one of its members.

3 On May 15, 2020, I filed direct testimony recommending that the  
4 Commission approve the application subject to certain conditions.

5 Because of the increase in the number of merchant plant  
6 applications, the Commission issued its June 22, 2020 Order  
7 requiring that the Applicant and the Public Staff file additional  
8 testimony on the following items:

- 9 1. Provide the Levelized Cost of Transmission (LCOT)  
10 information for any required transmission system upgrades or  
11 modifications.
- 12 2. Provide any interconnection study received for the proposed  
13 facility. If you have not received a study, provide a date by when the  
14 study is expected to be completed.
- 15 3. Are you aware of any system other than the studied system  
16 that is or will be affected by the interconnection? If yes, explain the  
17 impact and basis.
- 18 4. If the Applicant proposes to sell energy and capacity from the  
19 facility to a distribution utility regulated by the Commission, provide a  
20 discussion of how the facility's output conforms to or varies from the  
21 regulated utility's most recent IRP.

1           5.     If the Applicant proposes to sell energy and capacity from the  
2           facility to a distribution utility not regulated by the Commission but  
3           serving retail customers in North Carolina (e.g., a co-op or muni),  
4           provide a discussion of how the facility’s output conforms to or varies  
5           from the purchasing distribution utility’s long-range resource plan.

6           6.     If the Applicant proposes to sell energy and capacity from the  
7           facility to a purchaser who is subject to a statutory or regulatory  
8           mandate with respect to its energy sourcing (e.g., a REPS  
9           requirement or Virginia’s new statutory mandate for renewables),  
10          explain how, if at all, the facility will assist or enable compliance with  
11          that mandate. Provide any contracts that support that compliance.

12          7.     Provide any PPA agreements, REC sale contracts, or  
13          contracts for compensation for environmental attributes for the  
14          output of the facility.

15          On July 15, 2020, the Applicant filed the supplemental testimony of  
16          its witness, Whitney Rubin, addressing the items requested by the  
17          June 22, 2020 Order.

18   **Q.     HAVE YOU REVIEWED THE SUPPLEMENTAL TESTIMONY AND**  
19   **EXHIBITS FILED BY WITNESS RUBIN?**

20   A.     Yes. I have reviewed the testimony and exhibits of witness Rubin.  
21          The exhibits are identified as her Attachments A through G.

1 **Q. PLEASE SUMMARIZE WITNESS RUBIN'S SUPPLEMENTAL**  
2 **TESTIMONY.**

3 A. Witness Rubin provided additional testimony and exhibits regarding  
4 interconnection of the Facility and a response to the requirements of  
5 the June 22, 2020 Order. Her Attachments A through D are PJM and  
6 DENC interconnection studies. The DENC queue number for the  
7 Facility is NC16035, and the PJM queue number for the Facility is  
8 AB2-022. The prefix for the PJM queue number, "AB2", indicates  
9 which cluster study the project is a part of. Cluster studies group  
10 multiple projects together so they can be studied collectively by the  
11 interconnecting utility. A cluster study has the potential for projects  
12 to be studied more quickly and to be interconnected with lower total  
13 costs than if they had been studied separately. Projects that jointly  
14 trigger Network Upgrades can be assigned a portion of the cost  
15 based upon their contribution to the need for the upgrades.

16 Witness Rubin's Attachment E is the North Carolina Interconnection  
17 Agreement for the Facility, and Attachment F contains minor  
18 modifications to this agreement. Attachment G is the Wholesale  
19 Market Participation Agreement between PJM, DENC, and the  
20 Applicant's representative.

21 On page 3, of her supplemental testimony, witness Rubin describes  
22 the interconnection costs for the Facility. She states, "the Project is  
23 not eligible to receive reimbursement of any of these costs. The

1 Project does not require any Network Upgrades.” Network Upgrades  
2 are defined in the North Carolina Interconnection Procedures as  
3 “Additions, modifications, and upgrades to the Utility's Transmission  
4 System required to accommodate the interconnection of the  
5 Generating Facility to the Utility's System. Network Upgrades do not  
6 include Distribution Upgrades.”

7 **Q. WHAT IS YOUR OPINION ON THE SUPPLEMENTAL**  
8 **TESTIMONY OF WITNESS RUBIN?**

9 A. I believe witness Rubin has adequately answered the seven items in  
10 the Commission's Order. She has also allayed Public Staff concerns  
11 that the using and consuming public would have to pay for any  
12 Network Upgrades to address issues related to the interconnection  
13 and operation of the Facility.

14 On page 4, lines 11 through 14, of her supplemental testimony,  
15 witness Rubin responded as follows to the Commission's question  
16 regarding the effect of the Facility on any system other than the  
17 studied system:

18 No. Neither the System Impact Study Report, the  
19 Facilities Study Report, nor the Interconnection  
20 Agreement identify any impacts that the Project might  
21 have on an Affected System (*i.e.*, one other than  
22 Dominion). In fact, the interconnection studies do not  
23 identify any impact that the Project may have even on  
24 Dominion's transmission system.



1 In a different docket, witness Rubin provided a copy of an affected  
2 system study report completed in December 2016 (2016 Report) by  
3 Duke Energy Progress, LLC (DEP). The 2016 Report is Attachment  
4 J to witness Rubin's supplemental testimony filed on July 9, 2020, in  
5 Docket No. EMP-108, Sub 0. The 2016 Report found that generator  
6 projects in PJM's AB2 cluster could affect DEP's portion of the Rocky  
7 Mount – Battleboro 115 kV line. DEP's estimated cost for Network  
8 Upgrades caused by the AB2 cluster is \$15,000,000.

9 The 2016 Report lists 39 generator projects totaling approximately  
10 3,700 MW and includes three large natural gas fired plants. It is the  
11 Public Staff's understanding based on information from DEP that the  
12 projects included in the original AB2 cluster have changed, and the  
13 Network Upgrades originally identified in the 2016 Report are no  
14 longer needed to accommodate the AB2 cluster. DEP re-evaluated  
15 those Network Upgrades and made them part of its May 2020  
16 affected system study of the AC1 cluster.

17 **Q. WHAT IS THE PUBLIC STAFF'S RECOMMENDATION ON THE**  
18 **APPLICATION FOR A CPCN?**

19 A. The Public Staff recommends that the Commission approve the  
20 application and grant the certificate, subject to the following  
21 conditions:

- 1           1.     The Applicant shall construct and operate the Facility in strict  
2                     accordance with applicable laws and regulations, including  
3                     any local zoning and environmental permitting requirements;
- 4           3.     The CPCN shall be subject to Commission Rule  
5                     R8-63(e) and all orders, rules and regulations as are now or  
6                     may hereafter be lawfully made by the Commission;
- 7           4.     The Applicant shall file with the Commission in this docket a  
8                     progress report on the construction of the Facility on an  
9                     annual basis; and
- 10          5.     The Applicant shall file with the Commission in this docket any  
11                     revisions in the cost estimates for the construction of the  
12                     Facility or any Network Upgrades within 30 days of becoming  
13                     aware of such revisions.

14   **Q.     DOES THIS CONCLUDE YOUR SUPPLEMENTAL TESTIMONY?**

15   A.     Yes, it does.

Jay B. Lucas

I graduated from the Virginia Military Institute in 1985, earning a Bachelor of Science Degree in Civil Engineering. Afterwards, I served for four years as an engineer in the Air Force performing many civil and environmental engineering tasks. I left the Air Force in 1989 and attended the Virginia Polytechnic Institute and State University (Virginia Tech), earning a Master of Science degree in Environmental Engineering. After completing my graduate degree, I worked for an engineering consulting firm and worked for the North Carolina Department of Environmental Quality in its water quality programs. Since joining the Public Staff in January 2000, I have worked on utility cost recovery, renewable energy program management, customer complaints, and other aspects of utility regulation. I am a licensed Professional Engineer in North Carolina.