

PREFILED SUPPLEMENTAL REPLY TESTIMONY OF  
WHITNEY RUBIN  
ON BEHALF OF AMERICAN BEECH SOLAR LLC  
NCUC DOCKET NO. EMP-108, SUB 0

**INTRODUCTION**

**Q. PLEASE STATE YOUR NAME, TITLE, AND BUSINESS ADDRESS.**

A. My name is Whitney Rubin. I am a Development Manager with BayWa r.e. Solar Projects, LLC (“BayWa Solar”) at 17901 Von Karman Avenue, Suite 1050 in Irvine, CA 92614.

**Q. ARE YOU THE SAME WHITNEY RUBIN WHO CAUSED TO BE FILED PREFILED DIRECT TESTIMONY IN THIS MATTER ON JANUARY 27, 2020, AND PREFILED SUPPLEMENTAL TESTIMONY ON JULY 8, 2020?**

A. I am.

**Q. WHAT IS THE PURPOSE OF THIS SUPPLEMENTAL DIRECT TESTIMONY?**

A. My testimony is intended to provide additional information in response to issues and concerns raised by the Public Staff in the *Supplemental Testimony of Jay B. Lucas*, filed in this docket on July 22, 2020 (“Public Staff Supplemental Testimony”). I also provide updated information concerning potential Upgrade costs for Phase II of the Project, as well as Duke Energy Progress’s (“DEPs”) plan for constructing the Affected System Upgrade (the reconductoring of DEP’s Rocky Mount-Battleboro 115 kV line) discussed in my Supplemental Testimony.

**Q. ARE THERE ANY UPDATES TO THE INFORMATION YOU PREVIOUSLY PROVIDED ABOUT AFFECTED SYSTEM UPGRADES?**

A. Yes. In my Prefiled Supplemental Testimony I stated that “[t]o the best of the Applicant’s knowledge, there is no current plan for reconductoring DEP’s Rocky Mount-

1 Battleboro 115 kV line.” However, the Applicant has since learned that DEP has put this Upgrade  
2 in its construction queue for projects to be built and completed by the end of 2022. As neither  
3 PJM nor Duke has indicated that any project is the first to cause the need for this Upgrade, there  
4 is no clear allocation of cost responsibility for the Upgrade. The Applicant is unaware of any  
5 specific plans Duke may have to fund the Upgrade.

6 **Q. WITNESS LUCAS STATES THAT THE APPLICANT “HAS NOT**  
7 **CLEARLY INDICATED TO WHAT EXTENT DEP UPGRADES WOULD BE PAID FOR**  
8 **BY RATEPAYERS.” DOES AMERICAN BEECH HAVE ANY WAY OF KNOWING**  
9 **WHETHER AND TO WHAT EXTENT AFFECTED SYSTEM UPGRADES TO DEP’S**  
10 **SYSTEM WOULD BE PAID FOR BY RATEPAYERS?**

11 A. No. Mr. Lucas states in his Testimony that the Public Staff “was informed by DEP  
12 that the estimated \$23,204,593 in Network Upgrades will be paid for by DEP customers.” He does  
13 not explain whether this means that DEP’s retail ratepayers will bear the entire cost of this Upgrade  
14 if it is constructed, or if costs will also be allocated to transmission customers or recovered in other  
15 ways.<sup>1</sup> The Applicant has had no direct discussions with Duke regarding payment for these  
16 Upgrades, or the company’s plans for cost recovery in the event the Upgrades are constructed. (As  
17 indicated above, Applicant did discuss with Duke the fact that the Affected System Upgrades have  
18 been added to Duke’s construction queue.) To the best of the Applicant’s knowledge, neither  
19 DEP’s Open Access Transmission Tariff (“OATT”) nor any other publicly available document

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<sup>1</sup> The Applicant notes that in the recent proceedings on the Friesian project’s CPCN application, the Public Staff indicated that 60% of the cost of the proposed Upgrades to DEP’s system would have been allocated to North Carolina retail customers, 10% to South Carolina retail customers, and 30% to transmission customers. Docket No. EMP-105 Sub 0, *Pre-Hearing Brief of the Public Staff* (Aug. 26, 2019) at 10. The Applicant does not know whether Affected System Upgrades to DEP’s system would be subject to a similar allocation of costs.

clarifies how DEP would seek to allocate or recover costs for Affected System Upgrades.

**Q. MR. LUCAS’S TESTIMONY DESCRIBES THE RESULTS OF HIS  
LEVELIZED COST OF TRANSMISSION (“LCOT”) ANALYSIS. DO YOU AGREE  
WITH THE RESULTS OF MR. LUCAS’S LCOT ANALYSIS?**

A. In part. Mr. Lucas states that he calculated an LCOT of \$.90/MWh for the combined five projects in the original AC1 queue described in the May 2020 Affected System Study (Attachment K to my Prefiled Supplemental Testimony) (“the AC1 Projects”), and \$5.58/MWh if no other projects were constructed that would benefit from the proposed Upgrade to the Rocky Mount-Battleboro transmission line. I do not take issue with Mr. Lucas’s calculation methodology. However, when considering the LCOT for this Upgrade, I believe that it is appropriate to consider all of the projects that will be facilitated by the Upgrade, not just those in the AC1 cluster. The analysis should include not only the AC1 Projects, but also projects in the AC2, AD1, and subsequent clusters (to the extent they have been identified) that would rely on this Upgrade.<sup>2</sup> In addition, a complete LCOT analysis should also take account of the projects with prior Queue positions that originally caused the overload on the Rocky Mount-Battleboro 115 kV line, as described in PJM’s January 2020 System Impact Study Report (Attachment D to my Supplemental Prefiled Testimony) and discussed on page 6 of my Supplemental Prefiled Testimony. If the entire universe of projects that benefit from this Upgrade were considered, the LCOT would likely be much lower than that \$.90/MWh calculated by Mr. Lucas (which itself is well below the benchmark LCOT figures reviewed by the Public Staff).

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<sup>2</sup> Mr. Lucas notes in his testimony that Sweetleaf Solar LLC, a proposed 94 MW project that is being studied in the AD1 cluster and is seeking a CPCN in Docket No. EMP-111 Sub 0, might also rely on the proposed Upgrade.

1 Similarly, although I don't take issue with Mr. Lucas's calculation of a \$5.58/MWh LCOT  
2 if American Beech were the only project that would benefit from the Upgrade, this figure is simply  
3 not relevant because it is abundantly clear (even if some of the other AC1 Projects were not  
4 constructed) that American Beech will not be the only project to benefit from this Upgrade.

5 **Q. MR. LUCAS CAUTIONS THAT "UNNEEDED UPGRADES DO NOT**  
6 **SERVE THE USING AND CONSUMING PUBLIC NO MATTER HOW MUCH ENERGY**  
7 **THE PROJECTS NECESSITATING THE UPGRADES PRODUCE." DO YOU**  
8 **DISAGREE?**

9 A. I do not disagree with this statement. However, I strongly disagree with any  
10 implication that the Affected System Upgrade to DEP's system is "unneeded." As discussed  
11 above, PJM has identified an existing overload on the Rocky Mount-Battleboro 115 kV line under  
12 certain contingency conditions, and many projects in the AC1 and later clusters will rely on this  
13 Upgrade. It may also be that improving this transmission tie line between DEP and Dominion  
14 would have other system benefits, such as facilitating lower-cost reserve sharing or delivery of  
15 firm capacity from PJM into DEP.

16 **Q. MR. LUCAS TESTIFIES THAT "THE PUBLIC STAFF IS CONCERNED**  
17 **THAT A LARGE AMOUNT OF INTERCONNECTION COSTS FOR A SOLAR**  
18 **FACILITY COULD BE BORNE BY RATEPAYERS WITHOUT PROVIDING THEM**  
19 **WITH ANY SIGNIFICANT BENEFIT." DO YOU THINK THIS CONCERN IS WELL-**  
20 **FOUNDED?**

21 A. Not in these circumstances. As discussed above, the proposed Upgrade would  
22 benefit a large number of projects and could potentially have other benefits to DEP's system.  
23 Furthermore, the fact that DEP will not be purchasing the output of the Project does not mean that

1 there are no benefits to ratepayers or to the citizens of North Carolina. Merchant plants (whether  
2 they operate in Dominion's territory or in Duke's) often sell to customers other the interconnecting  
3 utility, but the Commission has never concluded that this means they provide no benefit to the  
4 public or to ratepayers. For example, the NTE Kings Mountain and NTE Reidsville combined-  
5 cycle natural gas plants approved by the Commission in docket nos. EMP-76 Sub 0 and EMP-92  
6 Sub 0, respectively, interconnected to the Duke Energy Carolinas transmission grid, incurring  
7 significant Upgrade costs that will be reimbursed by ratepayers. They sold their output to  
8 wholesale customers other than Duke. In both instances, the Commission concluded that the  
9 applicants had demonstrated a need for the facility and did not conclude that there were no benefits  
10 to ratepayers even though the projects would sell their output to wholesale customers other than  
11 Duke Energy Carolinas.

12 **Q. MR. LUCAS EXPRESSES CONCERN ABOUT ADDITIONAL UPGRADE**  
13 **COSTS FOR PHASE II OF THE PROJECT. ARE THERE LIKELY TO BE**  
14 **SIGNIFICANT CHANGES TO THE INTERCONNECTION COST FIGURES**  
15 **PROVIDED IN THE SYSTEM IMPACT STUDY FOR PHASE II?**

16 A. Some categories of interconnection costs may change significantly, while others  
17 will not change at all. But even if costs increase, the Project will not receive reimbursement and  
18 ratepayers will not bear any costs unless PJM concludes that the Upgrades are required to resolve  
19 existing reliability issues not caused by the Project.

20 As discussed in my Prefiled Supplemental Testimony, Phase I (queue no. AC1 098/099)  
21 and Phase II (queue no. AC2 083/084) of the Project share a single Point of Interconnection. This  
22 means that the two Phases of the Project share Attachment Facilities, Direct Connection Upgrades,  
23 and Non Direct Connection Upgrades, the costs of which are addressed in the Interconnection

1 Service Agreement for Phase I. The interconnection of Phase II of the Project will not require  
2 additional costs in these categories.

3 Costs for New System Upgrades and Previously Identified Upgrades for Phase II are not  
4 shared with Phase I, and they are likely to change as the interconnection process moves forward  
5 and other projects withdraw from the queue or system conditions change. It is not possible at this  
6 time to provide an estimate of the final Upgrade costs for Phase II, as conditions may continue to  
7 change prior to a final ISA being issued. However, as a general matter American Beech will be  
8 fully responsible for all allocated Upgrade costs and will not receive reimbursement of its Upgrade  
9 costs.

10 Utility customers will only be allocated costs if PJM reclassifies any of the Upgrades listed  
11 in the SIS as a “baseline upgrade.” A baseline upgrade is one that PJM concludes, in its annual  
12 Regional Transmission Expansion Plan (“RTEP”) update, is necessary to resolve an existing  
13 system reliability criteria violation (*i.e.*, one that is not triggered by the Project). These system  
14 reliability criteria may include planning criteria from PJM, North American Reliability  
15 Corporation, ReliabilityFirst, or transmission owners such as Dominion.<sup>3</sup>

16 Since issuing the SIS Report for Phase II in August 2018, PJM has reclassified one of the  
17 Upgrades detailed in the report, upgrade b3121 (rebuilding the Clubhouse-Lakeview 230 kV line  
18 in Virginia), as a baseline upgrade.<sup>4</sup> This means that PJM has concluded that the need for that  
19 Upgrade was triggered by existing reliability criteria violations and not by American Beech Phase  
20 II or other projects in the AC2 cluster. It is the Applicant’s understanding that the costs of baseline  
21 upgrades may be allocated to retail customers, wholesale customers, and transmission customers

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<sup>3</sup> <https://www.pjm.com/planning/rtep-upgrades-status/construct-status.aspx>

<sup>4</sup> *Id.*

1 of PJM or its participating utilities. The Applicant does not know whether and to what extent costs  
2 for the b3121 baseline would be allocated to North Carolina retail ratepayers.

3 **Q. WITNESS LUCAS STATES IN HIS SUPPLEMENTAL TESTIMONY**  
4 **THAT “WITNESS RUBIN HAS NOT STATED WHETHER COSTS FOR PHASE II WILL**  
5 **BE PAID FOR BY RATE PAYERS.” WILL UPGRADE COSTS FOR PHASE II BE PAID**  
6 **BY RATEPAYERS?**

7 A. No. As with Phase I of the Project, any PJM Upgrade costs allocated to Phase II of  
8 the Project will also be paid by the Applicant and will not be reimbursed, except to the extent they  
9 are considered baseline upgrades that PJM considers necessary to resolve existing reliability  
10 criteria violations.

11 **Q. MR. LUCAS TESTIFIES THAT “THE PUBLIC STAFF HAS FURTHER**  
12 **CONCERNS ABOUT THE POTENTIAL FOR NETWORK UPGRADE COSTS TO**  
13 **INCREASE AFTER RECOMMENDING APPROVAL OF THE CPCN APPLICATION**  
14 **DUE TO PJM’S ISA FOR PHASE II, OTHER PJM CLUSTER STUDIES, OR OTHER**  
15 **AFFECTED SYSTEM STUDIES BY DEP.” HOW DO YOU RESPOND TO THESE**  
16 **CONCERNS?**

17 A. First, as discussed above, any increase in Upgrade costs on PJM’s system as a result  
18 of the Phase II study will be borne entirely by the Project and would not be reimbursed unless PJM  
19 concludes that the Upgrades are “baseline upgrades” required to resolve existing reliability  
20 problems.

21 Second, it is not clear what the Public Staff means by “other PJM cluster studies,” but  
22 cluster studies other than AC2 would have no bearing on the Upgrade costs for Phase II of the  
23 Project (or at least would be unlikely to cause them to increase, especially if they are in a later

1 cluster). Consequently it does not seem possible that other PJM cluster studies could result in  
2 increased costs to retail ratepayers.

3 Finally, it is not likely that other Affected System Studies by DEP would identify additional  
4 costs associated with the Project. Although PJM's process for coordinating with Duke as an  
5 Affected System is not completely transparent, it is the Applicant's understanding that PJM  
6 contacts neighboring transmission owners (such as DEP) to about Affected System impacts only  
7 when PJM's system impact studies identify a specific potential impact to the neighboring system.  
8 In other words, only those impacts to Affected Systems that are identified in the PJM SIS Report  
9 may trigger an Affected System Study (and they often do not).

10 The overload on the Rocky Mount-Battleboro 115 kV line is the only potential impact to  
11 an Affected System identified in the SIS Reports for Phase I or Phase II of the Project. *See* SIS  
12 Report for AC1-098/99 (Nov. 2017) (Att. C) at 22; Updated SIS Report for AC1-098/99 (Jan.  
13 2020) (Att. D) at 19; SIS Report for AC2-083/84 (Aug. 2018) (Att. G) at 24. So there is no reason  
14 to expect that any additional Affected System Studies will be initiated in relation to Phase I or  
15 Phase II of the Project.

16 **Q. DOES THIS CONCLUDE YOUR TESTIMONY?**

17 **A. Yes.**



**CERTIFICATE OF SERVICE**

This is to certify that the undersigned has this day served the foregoing **PREFILED**  
**SUPPLEMENTAL REPLY TESTIMONY OF WHITNEY RUBIN** upon the following by  
electronic mail as follows:

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This the 29th day of July, 2020.

/s/ \_\_\_\_\_

Benjamin L. Snowden