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REBUTTAL TESTIMONY OF JONATHAN BURKE
FOR WILLIAMS SOLAR, LLC
BEFORE THE NORTH CAROLINA UTILITIES COMMISSION
Docket No. E-2, Sub 1220

May 19, 2020

I. WITNESS IDENTIFICATION AND QUALIFICATIONS

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is Jonathan Burke. My business address is 1447 South Tryon St, Suite 201, Charlotte, NC 28203.

Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?

A. I am the Country Manager and President of Development for GreenGo Energy US, Inc. (“GreenGo”).

Q. DID YOU PROVIDE DIRECT TESTIMONY IN THIS PROCEEDING?

A. Yes.

II. PURPOSE AND OVERVIEW OF TESTIMONY

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. My rebuttal testimony responds to several points made by Duke’s witnesses in their Direct Testimony.

Q. PLEASE SUMMARIZE YOUR REBUTTAL TESTIMONY.

A. My testimony addresses the following specific issues:

- Duke’s claims that its efforts to correct its inaccurate efforts were “proactive”;

- 1 • Duke’s misleading claims that it is a national leader in solar project
2 interconnection;
- 3 • Duke’s apparent failure to control costs;
- 4 • Duke’s failure to adequately explain the Facilities Study estimate provided
5 to Williams Solar;
- 6 • Duke’s inappropriate reliance on prior Commission orders relating to
7 overheads;
- 8 • The expenses incurred by Williams Solar as a result of DEP’s failure to
9 provide a good faith estimate of costs in the Williams Solar System Impact
10 Study report; and
- 11 • Duke’s contentions regarding the relief sought by Williams Solar in this
12 proceeding.

13 **III. REBUTTAL TESTIMONY**

14 **Q. DUKE’S WITNESSES ASSERT THAT DUKE ACTED “PROACTIVELY”**
15 **TO ADDRESS THE PROBLEM OF ESTIMATES NOT MATCHING UP TO**
16 **ACTUAL COST. DOES THE EVIDENCE SUPPORT THIS ASSERTION?**

17 A. No, it does not. I did find it notable that Duke’s witnesses repeatedly characterize
18 Duke’s efforts with respect to the estimation process as “proactive”—collectively
19 eight times according to an electronic search—apparently hoping that mere
20 repetition would make it true.

21 To my understanding, however, the term “proactive” refers to controlling a
22 situation by causing something to happen rather than responding to it after it has
23 happened. This does not describe Duke’s efforts in the least.

24 The testimony of Duke’s witnesses highlights that Duke failed to implement
25 appropriate tools to render accurate cost estimates and to control project costs and,

1 instead, reacted after the fact, with great delay, when it realized it had created a
2 serious problem. According to Duke’s own testimony, the company believed by
3 early 2018 that the actual costs it was incurring for interconnection upgrades were
4 significantly higher than what it had estimated.¹ Yet, it took Duke more than a year
5 and a half to communicate this concern to any stakeholder group or the
6 Commission, all the while it was apparently working in secret to craft a new
7 estimating process and tool to address Duke’s concerns. In the meantime, solar
8 projects, like Williams Solar, received estimates that Duke believed were flawed.
9 I am certain that if Duke were responsible for paying the ultimate interconnection
10 and upgrade costs, it would have identified, communicated, evaluated and resolved
11 this problem much more quickly once it believed there was an underlying problem.

12 **Q. DID DUKE MAKE ANY EFFORT TO “PROACTIVELY” WORK WITH**
13 **INDUSTRY ON THIS ISSUE?**

14 A. I saw no evidence of any “proactive” efforts on Duke’s part to communicate with
15 Williams Solar or industry trade associations with respect to its perceived problem
16 with the potential for faulty estimates. To the contrary, I assumed that the initial
17 SIS estimate provided by Duke to Williams Solar was a good faith estimate of what
18 Duke actually expected the upgrades to cost once completed. I trusted and relied
19 on Duke’s SIS estimate for establishing Williams Solar’s budget based on Duke’s
20 extensive experience in estimating and completing these upgrades both for third

¹ K. Jennings & Holmes Direct, at 29 lines 4-6.

1 parties and for Duke itself. In fact, Duke refers to the output of the SIS estimate as
2 budgetary in nature in the SIS report itself. At no point prior to receipt of the
3 Facilities Study email did Duke notify Williams Solar that Duke believed its SIS
4 estimate was unreliable or inaccurate.

5 Duke could have notified Williams Solar, the industry trade associations or
6 the Commission of its belief that interconnection costs were underrepresented in
7 multiple forums across this eighteen-month period that Duke says it was working
8 on the issue. The industry was engaged in active dialogue during this time period
9 on a number of issues relating to interconnection, culminating in a settlement
10 agreement, that Williams Solar is covered by, in January 2018. Furthermore,
11 during this time and thereafter, Duke engaged with the Commission in multiple
12 communications in revising and updating the North Carolina interconnection
13 standards without any mention of the issue.

14 Finally, Duke could have presented this issue to the Interconnection
15 Technical Standards Review Group (TSRG), which is but a technical working
16 group intended to provide a forum for addressing industry-wide issues relating to
17 the interconnection process. To my knowledge, however, Duke did not raise the
18 issue in this forum.

19 Duke had multiple venues and opportunities over the eighteen-month period
20 of time to make stakeholders aware of its concern, but it chose not to do so.

1 **Q. DO DUKE’S WITNESSES EXPLAIN WHY DUKE WAS UNWILLING TO**
2 **PROVIDE WILLIAMS SOLAR ANY MEANINGFUL INFORMATION**
3 **ABOUT THE DISCREPANCY IN THE COST ESTIMATES?**

4 A. No. None of Duke’s witnesses offer any explanation for why it refused to provide
5 any detailed justification for the revised estimate. As I describe in my Direct
6 Testimony at pages 18-19, at no point was Duke willing to explain to us the
7 methodology it used to arrive at the revised cost estimate, despite our repeated
8 requests for any explanation. In fact, the information Duke did provide was
9 misleading. Duke’s lawyers responded to the Williams Solar NOD by saying just
10 that it was the product of “more detailed engineering” and “extensive recent
11 experience” in completing system upgrades. I can only surmise that Duke didn’t
12 want to provide me information on the discrepancy because they knew they had no
13 good explanation for what happened or were looking for ways to avoid being
14 challenged. It is also important to note that at no point in the Duke witnesses’
15 testimony do they actually describe any Williams Solar project-specific technical
16 assumptions that changed between the System Impact Study and the Facilities
17 Study and that were derived from more detailed engineering or field visits. In the
18 end, I remain without any rational justification for Duke’s inability to render a
19 reliable estimate such that it felt it needed to unilaterally create a new estimating tool
20 using what Mr. Bolyard describes as an inappropriate “top down” estimation
21 approach used apparently for the first time on the Williams Solar project. This new
22 approach, apparently used for the first time on the Williams Solar project, resulted

1 in an estimate substantially deviating from the previous projects studied and offered
2 interconnection agreements by Duke.

3 **Q. DUKE WITNESS KEN JENNINGS PROVIDES AN EXTENSIVE**
4 **DISCUSSION OF WHAT HE CHARACTERIZES AS DUKE’S “NATION-**
5 **LEADING INTERCONNECTION SUCCESS.”² HOW DO YOU RESPOND?**

6 A. It is true that Duke has expended effort to accommodate the interconnection of new
7 renewable energy resources like solar to its grid, but not because it wanted to
8 become a national leader in adoption of utility-scale interconnection to its system.
9 Duke has interconnected utility-scale solar because it is required by state and
10 federal law to do this, not because of any altruistic motive on its part. And for this
11 reason the Commission’s continued oversight of this process remains critical.

12 It is important to acknowledge that Duke is a “competitor” in this space—
13 both in terms of its own generation facilities, regardless of fuel type, and in terms
14 of its competitive solar investments—which is why the law compels Duke to
15 interconnect and purchase power from independent generators under state
16 jurisdictional mandates.

17 Duke-owned competitive renewable energy generation activities appear to
18 be flourishing and becoming an ever-increasing share of its corporate operation
19 revenue mix. According to its latest financial report, Duke’s renewable energy
20 subsidiary—Duke Energy Renewables—“contributed \$57 million in segment

² K. Jennings & Holmes Direct, at 8.

1 earnings to the company in the first quarter. That puts the renewable division on
2 course for the \$240 million in segment earnings on the year.” *See* John Downey,
3 CHARLOTTE BUSINESS JOURNAL, “Takeaways from Duke Energy’s Q1 earnings:
4 Financial strength, Atlantic Coast Pipeline outlook and booming renewables” (May
5 13, 2020). The article goes on to note that “Duke Renewables added two major
6 solar projects, totaling 250 megawatts, and a 200-megawatt wind project in 2019,”
7 “has added another 60-megawatt solar project” in 2020, and “[b]y the end of the
8 year, it plans five more commercial solar projects totaling 496 megawatts and two
9 wind projects totaling 530 megawatts.” *Id.* Conversely, on the regulated side, Duke
10 has enhanced its bottleneck control of how, when and under what terms its
11 competitors may interconnect with its network and thereby significantly influences
12 (read restricts) wholesale competition.

13 The irony here is that Duke openly states that it is reaping the reward of
14 investing in solar at large scale in other utility footprints to create shareholder
15 wealth across the nation. However, in North Carolina, its actions suggest an
16 intention to make interconnection as difficult, time consuming and expensive as
17 possible.

18 Solar developers like Williams Solar need fairness and predictability in the
19 interconnection process. Duke’s “happy talk” about how many megawatts it has
20 already connected does not address the realities of the current interconnection
21 process or provide assurances that projects currently in the queue may achieve

1 interconnection, in a reasonable time frame, on reasonable terms and conditions
2 under Duke’s administration and leadership of interconnection processes.

3 **Q. DUKE WITNESS KEN JENNINGS DISMISSES YOUR PORTRAYAL OF**
4 **VARIOUS “TECHNICAL BARRIERS” THAT HAVE BEEN**
5 **IMPLEMENTED BY DUKE AS NECESSARY TO PROTECT THE**
6 **SAFETY, RELIABILITY AND POWER QUALITY OF SERVICE TO**
7 **OTHER CUSTOMERS. HOW DO YOU RESPOND?**

8 A. The question that is raised by Duke’s imposition of new tests, screens and standards
9 is whether these additional hurdles are reasonable and necessary in light of current
10 engineering standards. While this proceeding is not the proper proceeding for this
11 debate, there are a few points worth observing.

12 First, the specific practices in question have generally not been the subject
13 of rigorous consideration by the Commission given that the only mechanism at
14 present for such review would be a complaint proceeding. However, as Mr.
15 McNeill notes in his testimony,³ there were several disputes lodged by the solar
16 industry generally in the fall of 2017 over the unilateral shift by Duke of substation
17 nameplate transformer limits not specified under House Bill 589 and whether the
18 Method of Service Guidelines newly introduced by Duke represented Good Utility
19 Practice. These disputes resulted in a Settlement Agreement between Duke and the
20 industry in which Duke agreed, among other things, not to materially revise its then-

³ McNeill Direct, at 24, lines 14-18.

1 existing policies, screens and practices (or to introduce new ones) for a subset of
2 defined projects, including Williams Solar. As a result of Duke’s breach of this
3 agreement through its unilateral imposition of cluster-based studies for
4 “transmission impacts” by distribution projects, six GreenGo-developed projects
5 have filed a lawsuit against DEP in the North Carolina Business Court which
6 remains pending as of this date. *See Elk Solar, LLC, et al., v. Duke Energy*
7 *Progress, LLC*, Case No. 19 CVS 0012012 (filed Aug. 30, 2019).

8 Second, the progress of the Williams Solar interconnection request, as
9 described by Mr. McNeill, demonstrates the real-world impact of these issues—
10 although he omits some critical details.

- 11 • Williams Solar filed its IR in October 2016.
- 12
- 13 • Williams Solar proactively provided notice to Duke early in 2017 that it
14 should proceed with the study of its project in parallel with Project A.
15 Despite Williams Solar’s request, Duke waited to start Williams Solar
16 studies until after Project A selected a mitigation option in July 2017.⁴
17 However, the Interconnection Procedures require the Duke proceed to study
18 a Project B in parallel with Project A, not to wait until Project A is resolved.
19 Interconnection Procedures, § 1.8.2.1.
- 20
- 21 • Williams Solar’s SIS was further intentionally “delayed” by Duke for six
22 months due to the solar industry disputes regarding Duke’s unilateral
23 attempt to change the substation nameplate size definition and imposition
24 of the Method of Service Guidelines.⁵ Mr. McNeill does not explain why
25 these disputes required delay in the study of the Williams Solar request nor
26 did he mention to Williams Solar that its SIS was on hold until its resolution.
27
- 28 • Mr. McNeill claims that the SIS was resumed in “early 2018,”⁶ but there is
29 no evidence of active work and the project was again delayed for another

⁴ McNeill Direct, at 24.

⁵ *Id.*, at 24.

⁶ *Id.*, at 24, line 19.

1 seven months until July 2018, apparently while Duke conducted a
2 unilaterally imposed new “transmission impacts” analysis.

- 3
- 4 • Once the Williams Solar SIS was finally initiated sometime near the
5 beginning of July 2018, Duke took nearly five months, until December 20,
6 2018, to release the System Impact Study report results internally.⁷
7
 - 8 • Finally, Duke’s DET Account Management team shared the report to
9 Williams Solar on January 28, 2019, more than a month after it was ready
10 to be released, a delay not explained by Mr. McNeill.

11

12 That Mr. McNeill described this timeline as “typical for a preliminarily-
13 independent project” (*id.*, at 25, lines 10-11) is cold comfort. Even if one selects
14 July 2017 as the appropriate starting point, if Duke had simply performed the
15 studies it was required to perform per the NCIP standard (and that Williams Solar
16 was paying for Duke to perform), Duke would have been done with both the SIS
17 and Facilities Study reports in 2017 or early 2018—not near the end of 2019.

18 **Q. DO DUKE’S WITNESSES ADDRESS EFFORTS BY DUKE TO CONTROL**
19 **OR CONTAIN THE COSTS ITS SUBCONTRACTORS CHARGE FOR**
20 **SYSTEM UPGRADES?**

21 A. No, they do not. Based on Duke’s testimony and its discovery responses, it appears
22 that Duke’s sole focus was on passing on the costs to solar developers, no matter
23 how unreasonable the costs may be. The fact is that Duke has no incentive to
24 control costs for its competition, and Duke does not appear to be doing so. For
25 Duke, uncontrolled costs charged to solar developers for installation of
26 interconnection facilities and system upgrades are a feature of the interconnection

⁷ *Id.*, at 25, lines 9-10.

1 process, not a bug. Duke treats cost overruns as a mathematical exercise—how to
2 add to estimates so they match up with the overruns rather than trying to control
3 costs in a prudent manner. There is simply no explanation for a doubling of costs
4 in a matter of a year or two unless the results were intentional or negligent or both.
5 Duke’s lack of interest in this question is extremely troubling, and I hope it will be
6 of interest to the Commission. Solar providers are forced to write a literal blank
7 check under the interconnection procedures where the expenditures are dictated by
8 a party that actively competes with them for every kWh produced.

9 **Q. WHAT SHOULD THE COMMISSION DO ABOUT THIS ISSUE?**

10 A. This is a serious, existential issue for our industry at both distribution and
11 transmission scale. But it is only tangential to this proceeding given the preliminary
12 stage of the Williams Solar project. I recommend that the Commission initiate an
13 investigation into the relationship between Duke and its subcontractors with respect
14 to the cost of installation of interconnection facilities and system upgrades and
15 whether Duke is acting in accordance with the public interest in controlling costs
16 and encouraging solar development in a non-discriminatory manner under a broad
17 definition. To me, a reasonable comparison would be to examine how Duke’s own
18 controls and best practices are implemented in both their regulated and unregulated
19 businesses as compared to that of their competition under the interconnection
20 standard as adopted by the Commission. In the absence of some third-party control
21 and supervision, one would expect that Duke’s interconnection costs will continue
22 to escalate in an unchecked fashion.

1 **Q. DO DUKE’S WITNESSES DISPUTE THAT DUKE WAS REQUIRED TO**
2 **PROVIDE AN ESTIMATE TO WILLIAMS SOLAR IN GOOD FAITH?**

3 A. No.

4 **Q. WHAT DO THEY SAY ABOUT THIS ISSUE?**

5 A. I understand their testimony to take the view, generally, that Duke was following
6 Duke’s unilaterally adopted procedures in rendering estimates to Williams Solar,
7 and that this approach constitutes good faith.

8 **Q. WHAT IS YOUR RESPONSE?**

9 A. Page after page of Duke’s testimony lauded the amount of solar power Duke has
10 connected to its system; Duke’s witnesses repeatedly proclaim Duke as the nation’s
11 leader in solar interconnection. And yet, despite all of this experience and
12 purported expertise, in January of 2019, Duke sent Williams Solar an Initial
13 Estimate that Duke claims was off by almost 100%. Given its experience with solar
14 interconnection, I simply don’t understand how Duke could have been so wildly
15 inaccurate in preparing the estimate. That Duke may have been following its
16 customary procedure does not provide any comfort; certainly, Duke’s customary
17 procedure should not include providing estimates that Duke itself does not believe
18 are accurate. According to Duke’s own witnesses, they believed that actual
19 interconnection and upgrade costs were out of control before they actually initiated
20 the SIS and furthermore Duke knew full well before it prepared the System Impact
21 Study report itself, as Duke had been studying the issue for nearly a year by this
22 time according to their witness testimony. Yet, Duke made no alterations to the

1 Williams Solar Initial Estimate and offered no disclosure of its concerns. This is
2 truly puzzling to me.

3 **Q. DUKE’S WITNESS KEN JENNINGS ASSERTS THAT WILLIAMS SOLAR**
4 **WAS NOT TREATED IN A DISCRIMINATORY FASHION BY DUKE IN**
5 **CONNECTION WITH ITS INTERCONNECTION REQUEST. WHAT IS**
6 **YOUR RESPONSE TO THIS?**

7 A. The evidence I have seen does not satisfy me on this question. For example, the
8 original electronic file title recorded in the metadata associated with the System
9 Impact Study provided by Duke to Williams Solar included the phrase “ihateyou.”
10 I understand that Duke has blamed this phrase on a rogue Pike Engineering
11 employee, but both Duke and Pike have refused to produce any documents to
12 support that assertion. I understand from my lawyers that Pike confirmed it had
13 hundreds of emails about this phrase, but both Duke and Pike refused to produce
14 any of these documents in discovery despite our discovery requests seeking those
15 documents.⁸ While Duke has apologized for the unprofessional nature of the
16 communication, given that Duke and Pike are withholding (hiding) the documents
17 that might explain what it meant, I am unable to rule out that personal animus
18 played a role in the treatment of Williams Solar’s interconnection request. In this
19 regard, the fact that the RET was applied, apparently for the first time, in connection
20 with the Williams Solar facilities study—combined with the unprofessional

⁸ JB-9, at 48.

1 statement displaying personal animus towards, presumably, the recipient of the
2 file—can hardly be a coincidence.

3 In any event, regardless whether Williams Solar was singled out in some
4 fashion, as explained by witness Bolyard, by any standard, the revised cost estimate
5 in the Facility Study provided by Duke was not properly prepared and did not reflect
6 appropriate and industry accepted practices.

7 **Q. DUKE’S WITNESSES POINT OUT THAT FACILITIES STUDY**
8 **ESTIMATES ARE BASED ON “FIELD VISITS” AND “DETAILED**
9 **ENGINEERING COST CALCULATIONS.” DOES THIS DIFFERENCE**
10 **EXPLAIN THE SUBSTANTIALLY DIFFERING ESTIMATES GIVEN TO**
11 **WILLIAMS SOLAR?**

12 A. No, it does not. While Duke’s witnesses repeatedly reference the fact that a
13 facilities study estimate is based on more detailed design and engineering based on
14 the specific specifications of the project, they do not assert that the difference in
15 estimates provided to Williams Solar was in any way related to “field visits” or
16 “detailed engineering calculations.” Duke had plenty of opportunity to do so as it
17 applied to Williams Solar. If the increase had been due to these factors, I might
18 have understood and been willing to accept the deviation (although I still might
19 have questioned the overall magnitude of costs claimed). Here Duke’s own
20 witnesses explain that the only reason for the discrepancy in estimates was Duke’s

1 adoption of a new estimating tool, which by its witness's own admission, was
2 designed to result in a higher estimate.⁹

3 **Q. DUKE'S WITNESS KEN JENNINGS TESTIFIES THAT "GREENGO'S**
4 **SOLAR DEVELOPMENT BUSINESS AND INVESTMENT STRATEGY**
5 **RELIES UPON ITS BUSINESS JUDGMENT AND IS ONLY INDIRECTLY**
6 **AND INCIDENTALY RELATED TO DUKE'S ADMINISTRATION OF**
7 **NC PROCEDURES." DO YOU AGREE WITH THAT STATEMENT?**

8 A. No. Ultimately, solar developers like GreenGo are at the mercy of Duke and its
9 control of the interconnection process. Interconnection is on the critical path to
10 delivery and financing of renewable energy projects. To say that our business "is
11 only indirectly and incidentally related to Duke's administration of NC Procedures"
12 is akin to saying that the enjoyment of the passengers on the Titanic was only
13 indirectly and incidentally related to the captain's navigation decisions. Williams
14 Solar—by necessity—relied on the good faith of Duke to provide an Initial
15 Estimate and Revised Estimate that were connected to reality. Mr. Jennings is
16 essentially saying that Williams Solar should never have trusted Duke in the first
17 place.

18 More broadly, as I testified previously, Duke has continued to place
19 roadblock after roadblock in the path of solar developers to thwart and delay the
20 interconnection process and speed. Each additional day that it takes to interconnect

⁹ K. Jennings & Holmes Direct, at 10 lines 19-20.

1 a competitive project like Williams Solar costs the solar developer money and
2 increases Duke's profit.¹⁰

3 **Q. WHAT IS YOUR REACTION TO DUKE'S TESTIMONY CONCERNING**
4 **THE PROCESS BY WHICH THE REVISED ESTIMATE FOR WILLIAMS**
5 **SOLAR WAS PREPARED?**

6 A. I was very troubled by the testimony. Duke admitted that the end result of its
7 eighteen-month analysis of the estimating process was simply to start with what
8 Duke's subcontractors had been charging Duke for interconnection and upgrade
9 work (whether reasonable or not, but certainly uncontested by Duke) and then work
10 backward to create a Rube Goldberg-like set of spreadsheets that would produce an
11 estimate that matched those intended cost targets.

12 In short, rather than spending eighteen months to determine why the actual
13 costs being charged for upgrade work were so dramatically out of line with what
14 industry standard estimating software determined it should cost, Duke spent its time
15 on a "multivariate analysis" designed to spit out a predetermined result deviating
16 from any form of good utility practice.

17 **Q. WITH REGARDS TO DUKE'S INCLUSION OF "OVERHEAD"**
18 **CHARGES IN THE ESTIMATES, WHAT IS YOUR REACTION TO MR.**
19 **KEN JENNINGS' STATEMENT THAT THE MAJORITY OF**

¹⁰ Burke Direct, at 29-30

1 **INTERCONNECTION CUSTOMERS HAVE DISPUTED THESE**
2 **ASSESSMENTS AND HAVE REFUSED TO PAY?**¹¹

3 A. This seems logical and does not surprise me in the least. I would expect this to be
4 the case because Duke’s unilateral imposition of these charges has never been
5 vetted by the Commission and Duke has rolled it out in ways that are seemingly
6 arbitrary and contrary to industry’s understanding of pre-existing rules and
7 contracts.

8 To this point, Duke’s recitation of the history on this issue in its testimony
9 is completely inconsistent with my understanding—and, to my knowledge, the
10 understanding of industry members—of what actually has transpired.

11 To illustrate how heavy-handedly Duke treats its interconnection
12 Customers, just last week I received the document attached as JB Rebutal Exhibit
13 1 from Duke for one of GreenGo’s other projects, 1035 Lee Landing Solar, LLC.
14 In this email, Duke transmits for execution the standard form System Impact Study
15 Agreement but in its transmittal of this document it states as copied below:

Administrative Overhead Costs:

Attached for your record is a copy of the Administrative Overhead and Commissioning Costs table.
Execution of the SISA confirms your acceptance of administrative charges associated with the processing
of your interconnection project.

16 And immediately following the form System Impact Study Agreement is copied a
17 schedule of Administrative Overhead and Commission Costs. In other words, Duke
18 is saying to GreenGo that if it signs and returns the System Impact Study

¹¹ K. Jennings/Holmes Direct, at 39, lines 20-21.

1 Agreement, it is agreeing to, and presumably waiving its right to challenge, Duke's
2 unilateral imposition of charges that have not been approved or reviewed by the
3 Commission.

4 To be clear, I have no issue with the adoption of a standardized list of
5 charges so that Interconnection Customers are informed of Commission-approved
6 and vetted charges, but I do have an issue with Duke unilaterally imposing these
7 charges without seeking the approval of the Commission or involving industry in
8 the development and alignment of these costs. To me, it is outrageous that Duke
9 would effectively seek to modify the Commission-approved System Impact Study
10 Agreement by unilaterally including language in its transmittal of this document
11 imposing charges that the Commission has never approved. This episode perfectly
12 illustrates Duke's approach to the overheads issue generally.

13 **Q. WHAT IS YOUR RESPONSE TO MR. JENNINGS' EXTENDED**
14 **DISCUSSION OF THE PURPORTED BASIS FOR THESE CHARGES?**

15 A. Mr. Jennings cites to the Commission's January 17, 2017, REPS compliance report
16 order, as well as the 2019 Interconnection Procedures Order as the bases for Duke's
17 unilateral imposition of overheads charges. *See* K. Jennings/Holmes Direct
18 Testimony, at 38 n.18. Neither of these orders does what Mr. Jennings implies.

19 In its 2017 REPS order, the Commission held that:

20 DEP shall continue to refine its interconnection cost allocation
21 procedures to ensure that interconnection costs are not recovered
22 through the REPS rider charges and more interconnection costs are
23 recovered from the developer or interconnection customer through
24 Commission approved interconnection charges. DEP shall work

1 with the Public Staff in making these refinements and shall submit
2 a report on these efforts to the Commission no later than March 1,
3 2017, ***such that the information gathered can be utilized in future***
4 ***discussions or proceedings related to potential modifications of the***
5 ***North Carolina Interconnection Procedures in Docket No. E-100,***
6 ***Sub 101.*** In its future REPS rider applications, DEP shall be more
7 transparent regarding the inclusion of costs as “other incremental
8 costs” and shall file detailed worksheets and testimony explaining
9 the discrete costs that the Company includes as “other incremental
10 costs,” listing separately labor and non-labor costs. The Public Staff
11 shall continue to provide testimony discussing its review of those
12 items in future REPS rider proceedings.

13 Order Approving REPS and REPS EMF Rider and REPS Compliance Report,
14 Docket No. E-2, Sub 1109 (Jan. 17, 2017), at Decretal ¶ 2 (emphasis supplied). In
15 response to this order, Duke advised the Commission that both DEC and DEP
16 would work with the Public Staff to ensure “that more interconnection costs are
17 recovered from the developer or interconnection customer ***through Commission-***
18 ***approved interconnection charges.***” Letter from Robert W. Kaylor, Docket Nos.
19 E-100, Sub 101, E-2, Sub 1109, and E-7, Sub 1131 (March 1, 2017) (emphasis
20 supplied). With this letter, Duke provided the Commission an initial report “to be
21 utilized in future discussions or proceedings related to potential modifications of
22 the North Carolina Interconnection Procedures in Docket No. E-100, Sub 101.” *Id.*

23 In other words, what Duke was directed to do, and what Duke promised to
24 do, was to work with the Public Staff on a proposal, which would be considered by
25 the Commission in connection with Docket E-100, Sub 101, for recovering these
26 additional costs from Interconnection Customers. The order did not direct Duke to

1 unilaterally impose these costs on the solar community without their opportunity to
2 participate and without Commission oversight.

3 Mr. Jennings further claims that the administrative charges were
4 implemented “beginning April 1, 2018 after consultation with the Public Staff” (K.
5 Jennings/Holmes Direct, at 39 lines 2-3), but this doesn’t tell us anything. What
6 exactly did the Public Staff say? What information did the Public Staff have before
7 it? Did the Public Staff purport to speak for the Commission with respect to the
8 imposition of charges on Interconnection Customers? Is it Duke’s practice to seek
9 approval of charges to be imposed on Interconnection Customers from the Public
10 Staff rather than the Commission, and without seeking the input of the affected
11 industry members? How does this comply with the Commission’s directive, and
12 Duke’s corresponding promise, to make a formal proposal on the issue in Docket
13 E-100, Sub 101?

14 Mr. Jennings also suggests that the Commission approved the charges in its
15 June 2019 interconnection procedures order, but this is also not accurate. I would
16 point out that Mr. Jennings testified that Duke unilaterally imposed the charges
17 beginning April 1, 2018 (page 39 line 2), more than a year before Duke implies the
18 Commission “approved” the charges. More substantively, while the order does
19 have language directing Duke to seek to recover its costs from Interconnection
20 Customers, this statement of policy should not have been read to endorse the
21 unilateral imposition of new costs on Interconnection Customers outside of normal
22 Commission processes. Certainly, the Commission did not have in front of it at

1 that time the specific charges sought to be imposed by Duke nor did it have any
2 specific request from Duke to approve the imposition of overhead charges. Indeed,
3 in this proceeding Duke’s witnesses did not provide any information relating to
4 overhead costs for interconnection requests for projects sized greater than 2 MW in
5 the proceeding leading to the 2019 order. *See, e.g.*, Rebuttal Exhibit JWR-3,
6 Rebuttal Testimony and Exhibits of Jeff Riggins (Jan. 8, 2019).

7 On February 28, 2020, Duke did provide the Commission with an Internet
8 link to its Administrative Overhead and Commission Costs fee schedule—albeit in
9 the context of a Commission-required report on “interconnection-related expenses
10 and revenues associated with fee-related work for the prior year” and without any
11 request for action on the schedule. *See* “Interconnection Fee-Related Work and
12 Post-Commercial Operation Inspection Report,” Docket No. E-100, Sub 101 (Feb.
13 28, 2020). To my knowledge, this Internet link is the first time Duke provided the
14 Commission any visibility into its newly minted “overheads” policy, and here only
15 because the Commission required disclosure of current fees.

16 For Mr. Jennings to now imply that the Commission has directed it to
17 impose these charges when Duke has never sought approval of them, it has never
18 submitted studies seeking to justify the charges sought, and the specific charges
19 have never been before the Commission for approval, is misleading.

20 **Q. WHAT WOULD YOU REQUEST THAT THE COMMISSION DO WITH**
21 **RESPECT TO OVERHEADS IN THIS PROCEEDING?**

1 This is obviously a multifaceted issue affecting many different stakeholders,
2 including Williams Solar, and it is likely precedential in nature. As alluded to by
3 Duke in its testimony, it is the subject of numerous Notice of Disputes by
4 interconnecting parties and is raised in the numerous pending complaints before the
5 Commission. *See also* Burke Direct, at 31.

6 First, the issue relevant to this case is the appropriate amount of overheads
7 to be included in a cost estimate and at what stage. I would simply ask the
8 Commission to conclude that Duke’s approach to overheads as reflected in the RET
9 is not an acceptable, good faith method of estimating costs.

10 Second, an issue not presented by this case, despite Mr. Jennings’ pages of
11 testimony, is the appropriate amount of overheads that can actually be assessed and
12 invoiced by Duke to an interconnection customer. To this point, Duke has
13 attempted to bill for overheads in ways which are inexplicable and compounding.
14 For example, DEP has invoiced Glenfield Solar \$3,000 in “overhead” costs where
15 the invoice states that DEP had incurred \$242.50 in “study expenses,” no overhead
16 costs relating to any study, and \$3,000.00 in unrelated and unexplained “Overhead
17 Costs.” JB Rebuttal Exhibit 2. GreenGo has other similar examples of inexplicable
18 assessment of generalized overheads seemingly unconnected to any actual work
19 done by Duke.

20 While these charges are not directly in issue in this case, this is a good
21 example of why the solar industry is disputing these charges as they are (1)
22 unexplained, (2) unrelated to any actual work done, and (3) disproportionate to the

1 study charges imposed. These specific charges do not involve large sums of money,
2 but they illustrate the larger problem at work when Duke feels free to implement
3 rules and policies as it sees fit. Duke concedes that interconnection is “fully
4 regulated” by the Commission, yet it acts as if it is able to unilaterally impose
5 charges that have not been vetted or approved.

6 I would urge the Commission to investigate Duke’s assessment of these
7 charges as this is a matter cutting across all interconnection customers and also
8 impacts ratepayers as well.

9 **Q. HOW DO YOU RESPOND TO MR. JENNINGS’ CONTENTIONS**
10 **REGARDING THE SETBACK VARIANCE SOUGHT BY WILLIAMS**
11 **SOLAR?**

12 A. Mr. Jennings attempts to characterize the expenses incurred by Williams Solar in
13 seeking the variance and otherwise dealing with Johnson County’s setback
14 requirements as part of Williams Solar’s business plan and, therefore, not
15 attributable to DEP’s cost estimates. Although he spends pages discussing the
16 timing and procedure of Williams Solar’s variance request, Mr. Jennings misses the
17 point. Williams Solar did not incur significant costs in seeking the variance until
18 *after* it received the System Impact Study estimate that DEP has since attempted to
19 disown. Williams Solar directly relied on the System Impact Study estimate in
20 determining whether to pursue the variance, and later, a purchase option,
21 throughout 2019. The decisions to incur these expenses were made *after* Williams
22 Solar received the System Impact Study and *before* Williams Solar received the

1 Facilities Study estimate. As I stated in my direct testimony, Williams Solar would
2 not have incurred those expenses if, in January 2019 or earlier, DEP had provided
3 a substantiated cost estimate as high as the Facilities Study estimate.

4 The fact is, the Facilities Study estimate is, by itself, high enough to justify
5 canceling the Williams Solar project. However, based on the information provided
6 by DEP prior to and during this proceeding, the Facilities Study estimate has not
7 been substantiated and is not a reliable predictor of costs. Williams Solar has spent
8 additional funds to keep the project alive during the pendency of the informal
9 dispute process and this complaint proceeding with the hope that Williams Solar
10 will ultimately receive from DEP what Williams Solar was owed under the NC
11 Procedures and the parties' System Impact Study Agreement and Facilities Study
12 Agreement: an actual, good faith estimate of what it will cost to interconnect the
13 Williams Solar project, and remedies for DEP's failure to meet its obligations.

14 **Q. MR. JENNINGS DEVOTES NEARLY 25 PAGES OF HIS TESTIMONY TO**
15 **RESPONDING TO WILLIAM SOLAR'S REQUESTS FOR RELIEF IN**
16 **THIS PROCEEDING. WHAT IS YOUR RESPONSE TO THAT**
17 **TESTIMONY?**

18 A. Most of that testimony appeared to be making legal arguments, not testifying about
19 facts. Because I am not a lawyer, I am not in a position to respond to Mr. Jennings's
20 legal analysis. My assumption is that that Commission has ample authority to
21 provide appropriate relief, including, among other things, remedial orders, the
22 refund of amounts charged by Duke for studies not properly conducted, and an

1 accounting of costs incurred in reliance on the bad faith estimates provided by Duke
2 and an order to pay. Williams Solar has produced to Duke substantial
3 documentation of those expenses, and they cannot reasonably be disputed.

4 **Q. ARE YOU ASKING COMMISSION TO OVERRIDE THE GENERAL**
5 **ASSEMBLY?**

6 Of course not. But my understanding is that Duke is free to offer power purchase
7 agreements or interconnection agreements with terms that differ from its baseline
8 legal requirements. I don't believe Duke disputes this. While I am not a lawyer,
9 again it is my understanding that the Commission has broad authority to supervise
10 public utilities like Duke and to fashion appropriate relief when Duke breaches its
11 legal obligations.

12 **Q. DOES THIS COMPLETE YOUR REBUTTAL TESTIMONY?**

13 A. Yes. Thank you.

INDEX OF EXHIBITS

<u>Exhibit No.</u>	<u>Description</u>
JB Rebuttal Exhibit 1	Transmittal of System Impact Study Agreement for 1035 Lee Landing Solar, LLC
JB Rebuttal Exhibit 2	Invoice for Glenfield Solar, LLC

May 14, 2020

Legal Entity: 1035 Lee Landing Solar, LLC
Facility Name: Lee Landing Solar
Facility Address: 7634 NC Highway 55, New Bern, NC 28560
Size: 4032 KWAC
OPCO: Duke Energy Progress
Queue Number: NC2016-02822

Dear 1035 Lee Landing Solar, LLC,

This letter is to inform you that pursuant to North Carolina Interconnection Procedures (NCIP) Section 1.8.1, your Interconnection Request is now ready to enter the Section 4.3 System Impact Study (SIS) process as a Project B, upon execution of a SIS Agreement.

Attached to this document is your SIS Agreement. According to Sections 1.4.1.2 and 4.3.1 of the NCIP, to retain your queue position and proceed with the SIS process, it is necessary that you sign and return this SIS Agreement within **15 business days** of receiving this letter.

As a Project B, Duke Energy will complete SIS with a first scenario assuming the interdependent Project A will sign an Interconnection Agreement and proceed to construction and interconnection, and a second scenario assuming Project A is withdrawn and not constructed.

Scoping Meeting:

NCIP Section 4.2 contemplates a Scoping Meeting to be held in connection with the Interconnection Request. However, in the interest of efficiency, Duke Energy is providing below the information that would normally be provided to you during a Scoping Meeting. You may still request a Scoping Meeting, but such request will delay commencement of your project's SIS. If you would nevertheless prefer to have this meeting, please submit your request by emailing **DERContracts@duke-energy.com** within **10 business days** of receiving this letter. If you do not make this request in writing and return a signed SIS Agreement, Duke Energy will proceed with the Section 4.3 SIS Evaluation and your right to a Scoping Meeting under Section 4.2 shall be deemed waived.

The information below is an initial scoping evaluation relevant to the proposed Generating Facility and Point of Interconnection identified in the Interconnection Request and, as discussed above, provides the initial scoping information that would be identified during a Scoping Meeting:

Interdependency Designation: Substation B
Substation Name: Bayboro
Substation Voltage: 230 kV
Substation Capacity (MVA) : 24 MVA
Feeder Number: T4050B02

Feeder Nominal Voltage: 24kV

Confirm coordinates of customer POI to be studied: 35.134931, -76.894732

Other Projects on Substation: (includes projects in operation and active in the queue)

Queue Number	Size (MW)	Interdependency designation
NC2016-00046	4.998	Approved
NC2016-02787	5	Project A
NC2016-02822	4.032	Project B
Queue Number	Size (MW)	Interdependency designation

Impacted by existing voltage regulating devices between the proposed Point of Interconnection and the substation/area? Yes

Coordinates of LVR: 35.136470, -76.861266

Electrical distance between LVR and POI: 1.99 miles

Electrical distance between substation and POI: 5.57 miles

Distance from POI to 3Ø line: 0 miles

(The impact of planned voltage regulating devices will be determined and communicated during the System Impact Study process.)

System Impact Study Agreement:

If you elect to not request a Scoping Meeting, please complete the required fields of the SIS Agreement, sign and return this Agreement by **June 4, 2020**, to: **DERContracts@duke-energy.com**

Once a completed and signed Agreement is received, Duke Energy will countersign the agreement and send a fully executed copy back to you for your records.

Queue Status:

Due to the significant volume of interconnection requests that have applied for interconnection study under the NCIP, Duke Energy may experience delays in the study process. Duke Energy will use all reasonable efforts to process all Interconnection Customers' requests in Queue Position priority order and to meet the study timeframe identified in the enclosed SIS Agreement. For the most up-to-date information on the status of your Interconnection Request, the Company maintains a queue status report, which is updated bimonthly, at: <https://www.duke-energy.com/business/products/renewables/generate-your-own/interconnection-queue>.

Administrative Overhead Costs:

Attached for your record is a copy of the Administrative Overhead and Commissioning Costs table. Execution of the SISA confirms your acceptance of administrative charges associated with the processing of your interconnection project.

Questions:

We appreciate the opportunity to provide quality customer service to you. During the Study phase of the Interconnection Process, Customer Support has transitioned from the Renewable Service Center (RSC) to the Duke Energy Technology - Interconnection Customer Account Specialist (CAS) team. If you

have questions regarding the processing of your Interconnection Request, you may contact me or email **DERContracts@duke-energy.com**.

Sincerely,

Sheran Fogg
Customer Account Specialist
Duke Energy Progress

System Impact Study Agreement

THIS AGREEMENT ("Agreement") is made and entered into this ____ day of _____ by _____ and _____ between _____ a 1035 Lee Landing Solar, LLC _____, a Limited Liability Company organized and existing under the laws of the State of North Carolina _____, ("Interconnection Customer,") and Duke Energy Progress _____, a Limited Liability Company existing under the laws of the State of North Carolina _____, ("Utility"). The Interconnection Customer and the Utility each may be referred to as a "Party," or collectively as the "Parties."

RECITALS

WHEREAS, the Interconnection Customer is proposing to develop a Generating Facility or generating capacity addition to an existing Generating Facility consistent with the Interconnection Request completed by the Interconnection Customer, 06/16/16, Dated and received by the Utility on 06/23/16; and

WHEREAS, the Interconnection Customer desires to interconnect the Generating Facility with the Utility's System; and

WHEREAS, the Interconnection Customer has requested the Utility to perform a system impact study to assess the impact of interconnecting the Generating Facility with the Utility's System, and of any Affected Systems;

NOW, THEREFORE, in consideration of and subject to the mutual covenants contained herein the Parties agree as follows:

- 1.0** When used in this Agreement, with initial capitalization, the terms specified shall have the meanings indicated or the meanings specified in the North Carolina Interconnection Procedures.
- 2.0** The Interconnection Customer elects and the Utility shall cause to be performed a system impact study consistent with the North Carolina Interconnection Procedures.
- 3.0** The scope of the system impact study shall be subject to the assumptions set forth in Appendix A to this Agreement.

- 4.0** A system impact study will be based upon the technical information provided by Interconnection Customer in the Interconnection Request. The Utility reserves the right to request additional technical information from the Interconnection Customer as may reasonably become necessary consistent with Good Utility Practice during the course of the system impact study.
- 5.0** In performing the study, the Utility shall rely, to the extent reasonably practicable, on existing studies of recent vintage. The Interconnection Customer shall not be charged for such existing studies; however, the Interconnection Customer shall be responsible for charges associated with any new study or modifications to existing studies that are reasonably necessary to perform the feasibility study.
- 6.1** The System Impact Study Report shall provide the following analyses for the purpose of identifying any potential adverse system impacts that would result from the interconnection of the Generating Facility as proposed:
 - 6.2** Initial identification of any circuit breaker short circuit capability limits exceeded as a result of the interconnection;
 - 6.3** Initial identification of any thermal overload or voltage limit violations resulting from the interconnection;
 - 6.4** Initial review of grounding requirements and electric system protection.
- 7.0** The System Impact Study shall model the impact of the Generating Facility regardless of purpose in order to avoid the further expense and interruption of operation for reexamination of feasibility and impacts if the Interconnection Customer later changes the purpose for which the Generating Facility is being installed.
- 8.0** The study shall include the feasibility of any interconnection at a proposed project site where there could be multiple potential Points of Interconnection, as requested by the Interconnection Customer and at the Interconnection Customer's cost.
- 9.0** A System Impact Study shall consist of a short circuit analysis, a stability analysis, a power flow analysis, voltage drop and flicker studies, protection and set point coordination studies, and grounding reviews, as necessary.

- 10.0** The System Impact Study will also include an analysis of distribution and transmission impacts as may be necessary to understand the impact of the proposed Generation Facility on electric system operation.
- 11.0** A System Impact Study shall state the assumptions upon which it is based, state the results of the analyses, and provide the requirement or potential impediments to providing the requested interconnection service.
- 12.0** The System Impact Study will provide the Preliminary Estimated Upgrade Charge, which is a preliminary indication of the cost and length of time that would be necessary to correct any System problems identified in those analyses and implement the interconnection
- 13.0** The System Impact Study will provide the Preliminary Estimated Interconnection Facilities Charge, which is a preliminary indication of the cost and length of time that would be necessary to provide the Interconnection Facilities.
- 14.0** A system impact study shall provide the information outlined in Section 1.2.3 of the Interconnection Procedures.
- 15.0** A distribution System Impact Study shall incorporate a distribution load flow study, an analysis of equipment interrupting ratings, protection coordination study, voltage drop and flicker studies, protection and set point coordination studies, grounding reviews, and the impact on electric system operation, as necessary.
- 16.0** Affected Systems may participate in the preparation of a System Impact Study, with a division of costs among such entities as they may agree. All Affected Systems shall be afforded an opportunity to review and comment upon a System Impact Study that covers potential adverse system impacts on their electric systems, and the Utility has 20 additional Business Days to complete a system impact study requiring review by Affected Systems.
- 17.0** The Utility shall have an additional 15 days from the time set forth in Section 19.0 the System Impact Study Agreement to complete the dual scenario System Impact Study reports for a Project B.

18.0 If the Utility uses a queuing procedure for sorting or prioritizing projects and their associated cost responsibilities for any required Network Upgrades, the System Impact Study shall consider all generating facilities (and with respect to paragraph 8.3 below, any identified Upgrades associated with such higher queued interconnection) that, on the date the system impact study is commenced –

18.1 Are directly interconnected with the Utility’s electric system; or

18.2 Are interconnected with Affected Systems and may have an impact on the proposed interconnection; and

18.3 Have a pending lower queued Interconnection Request to interconnect with the Utility’s electric system.

19.0 The System Impact Study shall be completed within a total of 65 Business Days if transmission system impacts are studied, and 50 Business Days if distribution system impacts are studied, but in any case, shall not take longer than a total of 65 Business Days unless the study involves Affected Systems per Section 16.0 or the studied Interconnection Request is a Project B per Section 17.0.

20.0 Any study fees shall be based on the Utility’s actual costs and will be deducted from the Interconnection Facilities Deposit made by the Interconnection Customer at the time of the Interconnection Request. After the study is completed, the Utility shall deliver a summary of professional time.

21.0 The Interconnection Customer must pay any study costs that exceed the Interconnection Request Deposit without interest within 20 business days of receipt of the invoice. If the deposit exceeds the invoiced fees and the Interconnection Customer withdraws the Interconnection Request, the Utility shall refund such excess within 40 business days of the notification of termination without interest.

22.0 Governing Law, Regulatory Authority, and Rules

The validity, interpretation and enforcement of this Agreement and each of its provisions shall be governed by the laws of the State of North Carolina, without regard to its conflicts of law principles. This Agreement is subject to all Applicable Laws and Regulations. Each Party expressly reserves the right to seek changes in, appeal, or otherwise contest any laws, orders, or regulations of a Governmental Authority.

23.0 Amendment

The Parties may amend this Agreement by a written instrument duly executed by both Parties.

24.0 No Third-Party Beneficiaries

This Agreement is not intended to and does not create rights, remedies, or benefits of any character whatsoever in favor of any persons, corporations, associations, or entities other than the Parties, and the obligations herein assumed are solely for the use and benefit of the Parties, their successors in interest and where permitted, their assigns.

25.1 Waiver

25.2 The failure of a Party to this Agreement to insist, on any occasion, upon strict performance of any provision of this Agreement will not be considered a waiver of any obligation, right, or duty of, or imposed upon, such Party.

25.3 Any waiver at any time by either Party of its rights with respect to this Agreement shall not be deemed a continuing waiver or a waiver with respect to any other failure to comply with any other obligation, right, duty of this Agreement. Termination or default of this Agreement for any reason by Interconnection Customer shall not constitute a waiver of the Interconnection Customer's legal rights to obtain an interconnection from the Utility. Any waiver of this Agreement shall, if requested, be provided in writing.

26.0 Multiple Counterparts

This Agreement may be executed in two or more counterparts, each of which is deemed an original but all constitute one and the same instrument.

27.0 No Partnership

This Agreement shall not be interpreted or construed to create an association, joint venture, agency relationship, or partnership between the Parties or to impose any partnership obligation or partnership liability upon either Party. Neither Party shall have any right, power or authority to enter into any agreement or undertaking for, or act on behalf of, or to act as or be an agent or representative of, or to otherwise bind, the other Party.

28.0 Severability

If any provision or portion of this Agreement shall for any reason be held or adjudged to be invalid or illegal or unenforceable by any court of competent jurisdiction or other Governmental Authority, (1) such portion or provision shall be deemed separate and independent, (2) the Parties shall negotiate in good faith to restore insofar as practicable the benefits to each Party that were affected by such ruling, and (3) the remainder of this Agreement shall remain in full force and effect.

29.1 Subcontractors

Nothing in this Agreement shall prevent a Party from utilizing the services of any subcontractor as it deems appropriate to perform its obligations under this Agreement; provided, however, that each Party shall require its subcontractors to comply with all applicable terms and conditions of this Agreement in providing such services and each Party shall remain primarily liable to the other Party for the performance of such subcontractor.

29.2 The creation of any subcontract relationship shall not relieve the hiring Party of any of its obligations under this Agreement. The hiring Party shall be fully responsible to the other Party for the acts or omissions of any subcontractor the hiring Party hires as if no subcontract had been made; provided, however, that in no event shall the Utility be liable for the actions or inactions of the Interconnection Customer or its subcontractors with respect to obligations of the Interconnection Customer under this Agreement. Any applicable obligation imposed by this Agreement upon the hiring Party shall be equally binding upon, and shall be construed as having application to, any subcontractor of such Party.

29.3 The obligations under this article will not be limited in any way by any limitation of subcontractor's insurance.

30.1 Reservation of Rights

The Utility shall have the right to make a unilateral filing with the Commission to modify this Agreement with respect to any rates, terms and conditions, charges, or classifications of service, and the Interconnection Customer shall have the right to make a unilateral filing with the Commission to modify this Agreement; provided that each Party shall have the right to protest any such filing by the other Party and to participate fully in any proceeding before the Commission in which such modifications may be considered. Nothing in this Agreement shall limit the rights of the Parties except to the extent that the Parties otherwise agree as provided herein.

IN WITNESS WHEREOF, the Parties have caused this Agreement to be duly executed by their duly authorized officers or agents on the day and year first above written.

Duke Energy Progress, LLC

1035 Lee Landing Solar, LLC

Signed _____

Signed _____

Name (Printed):

Name (Printed):

Jeffrey W. Riggins

Title Director, DET Interconnection

Title _____

Please complete the following page.

NC/SC DEC and DEP Administrative Overhead and Commissioning Costs - February 2019 - Non-Fast Track

Duke Energy is incorporating appropriate interconnection-related administrative overhead and commissioning costs into Interconnection Agreements and the Final Accounting True-Up of existing Interconnection Agreements. In summary, the appropriate pro-rata share of costs not already direct-charged or covered by fees includes, but is not limited to:

- Costs to manage the interconnection application process
- Non-direct charged Distribution or Transmission study-related costs
- Duke Energy costs to support and manage the integration and construction of distributed generation projects
- Software costs required to support the interconnection and on-going support of distributed generation projects
- Commissioning costs (Currently applies to Distribution projects only)

This table is intended to cover most scenarios; however, Duke Energy reserves the right to address situations on a case by case basis.

Study-Related Costs Applied by Trigger	Trigger for Administrative Charges
\$500	Interconnection Request Application Form & Study Deposit received, but project is withdrawn prior to Queue Number assignment
\$2,500	Queue Number is assigned
\$3,000	System Impact Study Agreement executed
\$6,000	System Impact Study completed
\$6,000	Facility Study completed
\$18,000 Subtotal of Above	Study-Related Costs represent total aggregate administrative costs plus actual direct-charged study costs
Construction-Related Costs Applied	Trigger for Administrative Charges
\$20,000	IA Executed and project with construction required begins
Construction-Related Cost is \$20,000 Administrative plus actual direct-charged construction costs	
Commissioning-Related Costs Applied	Trigger for Charges
\$24,000 Estimated Cost	Distribution connected projects only – interconnection inspection and commissioning testing required prior to facilities generating continuously at full output
Total study, construction and commissioning costs are matched against total payments received from the Customer with invoice or refund based on calculated difference	

Table illustrates that Administrative charges increase as a project moves through the stages of processing. True Up will occur following the final stage for each project.

- If project is withdrawn / cancelled during study, study-related administrative and direct-charged costs are matched against the study deposit received and an invoice or payment is issued for the difference.
- If project constructs & interconnects, total actual study costs are summed with total actual construction and commissioning costs and matched against total payments received. An invoice or payment will be issued for the difference. Estimated interconnection facilities costs to be paid monthly will also be adjusted up or down based on actual costs.
- Duke Energy DET began including construction-related administrative and estimated commissioning costs in Interconnection Agreement (IA) best-estimated costs starting July 1, 2018. Study costs are not included in the IA estimated costs.
- Administrative costs will be reviewed regularly and adjusted based on total costs to be recovered, volume of projects and scope of work.
- Sales tax will be added based on state taxation requirements.



Duke Energy Progress
400 South Tryon
Mail Code ST14A
Charlotte, NC 28202

True Up Invoice for:	Glenfield Solar, LLC	NC2016-02923	Invoice Date:
	c/o Green Go Energy - Jessica Robbins		10/23/2019
	2610 Wycliff Road, Suite 410		Invoice Number:
	Raleigh, NC 27607		SOL-0000000313

Facility Description:	4.99 MW AC		
	1800 Glenfield Road		
	Snow Hill		28580
	NC		DEP

Study Summary			
Item Description	Payments Received (A)	Actual Costs (B)	
Study Deposit	\$25,000.00		
Overhead Costs (processing, technology, oversight, management)			
Study Expenses		\$242.50	

Study Deposit	Actual Study Costs
\$25,000.00	\$242.50

Total Invoice Amount			
Deposits	\$25,000.00		
Overhead Costs (processing, technology, oversight, management)		\$3,000.00	
Study / SI / IF Expenses		\$242.50	

Total Deposits Received	Total Costs	Refund Due Customer
\$25,000.00	\$3,242.50	(\$21,757.50)

Refund Due by	11/22/2019	(\$21,757.50)
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