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Sep 14 2020

September 14, 2020

VIA Electronic Filing

Ms. Kimberley A. Campbell, Chief Clerk
North Carolina Utilities Commission
Dobbs Building
430 North Salisbury Street
Raleigh, North Carolina 27603

Re: *Docket No. E-2, Sub 1220*
Post-Hearing Brief of Duke Energy Progress, LLC

Dear Ms. Campbell:

Enclosed for filing in the above-referenced proceeding, please find Duke Energy Progress, LLC's ("Duke") *Post-Hearing Brief of Duke Energy Progress, LLC* ("Post-Hearing Brief").

Portions of Duke's Post-Hearing Brief contains confidential information, which is being filed contemporaneously under seal.

Should you have any questions, please do not hesitate to contact me. Thank you for your assistance in this matter.

Very truly yours,

/s/E. Brett Breitschwerdt

EBB:kjg

Enclosures

**STATE OF NORTH CAROLINA
UTILITIES COMMISSION
RALEIGH**

DOCKET NO. E-2, SUB 1220

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

In the Matter of)	
)	
Williams Solar, LLC,)	
)	
Complainant,)	POST-HEARING BRIEF OF
)	DUKE ENERGY PROGRESS, LLC
)	
v.)	
)	
Duke Energy Progress, LLC,)	
)	
Respondent)	

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NOW COMES Duke Energy Progress, LLC (“DEP” or “the Company”), by and through counsel, and submits this Post-Hearing Brief (“Brief”) to the North Carolina Utilities Commission (“Commission”) in the above-captioned docket. For the reasons further addressed in this Brief, Complainant Williams Solar, LLC (“Williams”) has failed to prove the allegations presented in its October 24, 2019 Verified Complaint (“Complaint”) and the Complaint should be dismissed.

I. Summary of Argument

Since 2016, DEP and Duke Energy Carolinas, LLC (“DEC” and together with DEP, “Duke” or the “Companies”) have received an unparalleled number of Interconnection Requests from utility-scale solar generators like Williams to interconnect to the Companies’ distribution systems. To meet this challenge, Duke has invested significant resources to meet the Companies’ regulatory responsibility to process and study Interconnection Requests, while continuing to meet their critically important public service responsibilities to provide reliable electric service under North Carolina’s Public Utilities Act. Duke has invested in new technology and significantly increased the resources dedicated to supporting the North Carolina interconnection process since 2015. Duke has also proactively evolved Good Utility Practice in numerous ways to ensure safe and reliable generator interconnections and, more recently, to improve its cost estimating process under the North Carolina Interconnection Procedures (“NC Procedures”). Those improved cost estimating processes were applied to Williams in a good faith, non-discriminatory manner in accordance with Good Utility Practice. Williams has failed to carry its burden of proof that Duke’s actions were not undertaken in good faith or that Duke discriminated against Williams or failed to treat Williams comparably with other Interconnection Customers, as required by the NC Procedures.

Williams is a subsidiary of GreenGo Energy US, Inc. (“GreenGo”) and one of its witnesses, a GreenGo executive, asserted a substantial number of baseless and, in some cases, irrelevant allegations concerning the motives of the Companies and its alleged personal animus towards Williams. While the vast majority of such assertions are irrelevant to the matters at hand, it is worth noting that GreenGo once again finds itself as an outlier relative to the rest of the third-party solar development community in North Carolina both in substance and tenor. The improved cost estimating tools developed by the Companies (that will be discussed further below) have been in place for over a year and no other solar developer has elected to pursue a complaint challenging the reasonableness of the Companies’ updated cost estimating tools.

While GreenGo attempts to paint Duke as a determined enemy of third-party solar interconnections, GreenGo’s rhetoric simply cannot be squared with reality. Not only has Duke achieved a nation-leading amount of utility-scale solar interconnections to its grid, but, over the past six months, Duke has also worked in an extraordinary collaboration with the majority of solar developers and the primary solar industry organizations to achieve two important consensus resolutions, one of which is directly relevant to Williams (and many other GreenGo projects).

First, as was detailed in the Joint Notice of Settlement and Petition for Waiver filed on September 3, 2020, in Docket No. E-100, Sub 101, the Companies and the major solar developers in North Carolina crafted a wholistic settlement agreement that resolves numerous pending disputes and provides an agreed upon framework for processing the remaining legacy utility-scale distribution projects (*i.e.*, projects similarly situated to Williams). While GreenGo has elected to litigate the cost estimate for a single

Interconnection Customer, Duke and the majority of the solar developers have crafted a mutually acceptable resolution whereby more than 100 Interconnection Customers that are similarly situated to Williams are able to move forward under a defined timeline and cost structure. GreenGo did not elect to join the settlement, though it remains free to do so, in which case Williams would be entitled to receive cost capping and potentially certain interconnection timeline commitments.

Second, the Companies were able to achieve a consensus approach with the major solar development organizations (NCCEBA and NCSEA) to improve the interconnection process through its “Queue Reform Proposal” as explained in detail in the Companies’ Reply Comments in Docket No. E-100, Sub 101 filed on August 31, 2020.¹ And while the Companies’ and solar industry’s consensus approach to Queue Reform is not directly relevant to this Complaint, it is instructive to note that GreenGo similarly stands as the lone outlier in that forum as well, raising baseless and irrelevant accusations while the Companies and solar industry stakeholder worked together to find a mutually acceptable compromise solution.

The factual backdrop of the Complaint is Duke’s processing of Williams’ Interconnection Request—one of **[Begin Confidential]** [REDACTED] **[End Confidential]** pending utility-scale solar Interconnection Requests submitted by GreenGo and one of hundreds of similar projects in the Companies’ queues—as well as Duke’s proactive efforts in 2018 and early 2019 to identify, track and investigate discrepancies between estimated construction costs included in recent Interconnection Agreements and post-construction

¹ See Duke Energy Carolinas, LLC’s and Duke Energy Progress, LLCs Reply Comments in Support of Queue Reform Proposal, Docket No. E-100, Sub 101 (filed Aug. 31, 2020) (presenting consensus queue reform revisions to NC Procedures supported by Duke and North Carolina’s major solar industry organizations and developer intervenors except GreenGo).

invoicing for actual project costs being charged to other Interconnection Customers. But it was not enough to simply observe cost discrepancies given that the structure of the cost estimating process assumes that the actual costs will be different than the estimate in the Interconnection Agreement. Instead, it was necessary to determine that there was a consistent pattern of substantial discrepancies, identify the root causes and develop a solution that was fully vetted and tested to ensure improved accuracy.

The solution that Duke developed—the Revised Estimating Tool or “RET”—was specifically based on Duke’s actual cost experience and reflects more accurate labor rates and hours assumptions, contractor fleet expense, and equipment costs. The RET also added contingency—which even Williams’ own witnesses accepted as appropriate (though offering a different recommendation for the contingency amount).

Contrary to Williams witnesses’ persistent disparagement of Duke’s processing of Williams’ Interconnection Request and its central narrative that the increased cost estimates delivered at the detailed Facilities Study stage were “extreme” and based upon “arbitrary calculations” designed solely to generate higher cost estimates,² the facts show that Duke exerted reasonable efforts to improve the cost estimating process for Williams and all other Interconnection Customers in manner consistent with Good Utility Practice. Furthermore, not only did Williams fail to challenge many of the key “building blocks” of the costs estimates (*e.g.*, assumed labor, vehicle or material costs), it also failed to introduce any evidence to demonstrate that the actual detailed cost estimate provided to Williams for the defined scope of work was not a reasonable estimate based on actual costs for similar scopes of work. That is, on what is one of the key questions to be answered—was DEP’s

² See *infra* Section III.a.

Facilities Study cost estimate a reasonable estimation for the given scope of work—Williams has not introduced any evidence from North Carolina or any other jurisdiction to demonstrate that the cost estimate is not reasonable as compared with actual costs for other similar scopes of work.

Williams focuses extensively on the magnitude of total percentage increase between the first cost estimate delivered in the System Impact Study report and the second cost estimate delivered in the Facilities Study report. But there are two important facts that must be understood concerning such percentage cost increase. First, when the Companies implemented the revised cost estimating processes, it did so in a non-discriminatory fashion at a particular point in time. Therefore, it was inevitable that certain Interconnection Customer would receive a substantial increase in its cost estimate where such Interconnection Customer “straddled” the two separate cost estimates—that is, they received the first System Impact Study cost estimate under the old methodology and the second Facilities Study cost estimate using the new methodology. Such a circumstance was simply inevitable for similarly situated Interconnection Customer when the Companies made the decision to implement a new cost estimating methodology and would have the same impact on similarly situated Interconnection Customer no matter when the change was implemented.

Second and perhaps more importantly, a substantial portion of the increase in cost estimate was related to factors that Williams: (i) was expressly aware were excluded from the initial estimate (taxes, overheads, metering, and commissioning); (ii) never disputes should be included (inflation) in its cost estimate; or (iii) agrees should be included (contingency) but simply disagrees with the amount. The increase in the construction cost

estimate resulting from revised cost estimating methodology was approximately 37%, accounting for substantially less than half of the total increase and well within the expected range for a Class 4 estimate (as will be discussed in more detail below). In sum, despite all Williams' bluster about the allegedly inadequate cost estimating tool (which will be addressed in substantial detail below), the increase in Williams' Facilities Study estimate was actually largely driven by items outside of the tool or items that Williams agrees should be included (though, in the case of contingency, disagrees on the appropriate amount). Duke undertook good faith efforts to evolve Good Utility Practice based upon its actual recent experience by developing an updated cost estimating methodology, as well as presenting all anticipated costs that an Interconnection Customer would be assigned if it elected to execute an Interconnection Agreement and proceed to construction.³

The uncontroverted evidence presented in this case shows that Duke's costs of completing generator interconnection construction projects have increased over the past few years relative to its estimates, and Williams has failed to present any evidence that the detailed cost estimates provided to Williams are not accurate or representative of the actual cost that Duke will incur to construct the Upgrades and Interconnection Facilities needed to interconnect Williams' generating facility or any evidence that the estimated costs are out of line with the cost of similar work in other jurisdictions.⁴

Duke's experience since introducing the RET is that the improved estimates are within an approximately 10 percent range of accuracy (actual costs coming in 10% below estimates), which Duke submits is reasonable in light of the fact that Duke's actual costs are trued up through the Interconnection Agreement's final accounting process and the

³ See *infra* Section III.b.

⁴ See *infra* Section III.d.

Interconnection Customer is only responsible for Duke's actual costs.⁵ In contrast, Williams is asking the Commission to order Duke to be held to significantly lower preliminary baseline cost estimates delivered in the System Impact Study report that both Duke and Williams knew was not a detailed cost estimate, when developed, and that Williams recognized at the time was only a baseline estimate that excluded taxes, administrative overheads and project commissioning costs (all of which Williams understood or acknowledged as properly included costs), and includes zero contingency.⁶ This request is not reasonable or consistent with the NC Procedures.

Duke has adhered to the NC Procedures, acted in good faith to evolve its cost estimating methodology and practices consistent with Good Utility Practice, and there is no basis for granting any relief to Williams. Despite Williams' unsubstantiated allegations and conspiracy theories that Duke is attempting to "thwart solar developers from interconnecting"⁷ the facts show that GreenGo, not Duke, is responsible for the complex set of factors that influence the project-specific development decision for Williams. While Williams alleges that its financial viability has been adversely impacted by Duke's processing of its Interconnection Request, Duke completed the System Impact Study and Facilities Study for Williams pursuant to the NC Procedures and any increased zoning and site control costs that GreenGo incurred in 2019, as raised in the Complaint, were the result of GreenGo's business strategy and decision-making and were not directly related to Duke's administration of the NC Procedures.⁸ It is also undisputed that Williams did not have the required authorization to construct its facility until January 2020 when the

⁵ See *infra* Section III.b.

⁶ See *infra* Section III.a.

⁷ See *infra* Section III.i.

⁸ See *infra* Section III.j.2.

Commission approved Williams' application for an amended Certificate of Public Convenience and Necessity ("CPCN") to expand the project site to accommodate the five megawatt ("MW") generating facility.⁹ And, finally, Williams has unquestionably failed to prove that any penalty is warranted under Section 310 of the Public Utilities Act.¹⁰

For all of the foregoing reasons, and as further described herein, the Commission should dismiss the Complaint.

II. **Factual Background**

The backdrop of this Complaint is the increasingly complex generator interconnection process and Duke's administration of the NC Procedures. The Commission held proceedings in 2015 and again in 2017-2019 to review and update the NC Procedures to address North Carolina's unique interconnection landscape of unparalleled numbers of utility-scale solar projects requesting interconnection to Duke's distribution system.¹¹ The Commission issued Orders revising the NC Procedures in May 2015¹² and approved the current NC Procedures on June 15, 2019.¹³

a. **Background leading to development of Revised Estimating Tool**

Since 2011, over 1,611 utility-scale solar projects (greater than 1 MW) have sought interconnection to the Companies' distribution system. Of these 1,611 projects, about 500 have been connected, over 566 have either withdrawn or were canceled and over 291 are

⁹ See *infra* Section III.j.4.

¹⁰ N.C. Gen. Stat. § 62-310(a); see *infra* Section III.j.5.

¹¹ See *generally* Docket No. E-100, Sub 101.

¹² *Order Approving Revised Interconnection Standard*, Docket No. E-100 Sub 101 (May 15, 2015) ("2015 NC Procedures Order").

¹³ See *Order Approving Revised Interconnection Standard and Requiring Testimony and Reports*, Docket No. E-100, Sub 101 (June 14, 2019) ("June 2019 Interconnection Order"). All capitalized terms not otherwise defined here shall have the meaning assigned to them in the current NC Procedures approved in the June 2019 Interconnection Order, unless otherwise specified.

currently in the interconnection process and 91 are under construction.¹⁴ Eight hundred twenty-eight of these projects have been large distribution-connected projects between 4 and 5 MW, similar to Williams. The Companies have interconnected 308 projects in this size range. This amount of larger utility-scale distribution-connected projects requesting Interconnection, especially in DEP, is simply unparalleled in the entire country.¹⁵ Since 2015, North Carolina as a State and the Companies as utilities have consistently led the nation in the number of solar generator Interconnection Customers interconnected to the grid.¹⁶

To meet these challenges, Duke has devoted substantial resources to assessing and refining its interconnection policies and procedures to administer the queue while ensuring safe and reliable delivery of power for all customers.¹⁷ Duke has invested in new technology and significantly increased the resources dedicated to supporting the North Carolina interconnection process. In early 2018, Duke formed the Distributed Energy Technologies (“DET”) organization to better manage the unparalleled volume of Interconnection Requests and increasing complexities of the generator interconnection process.¹⁸ Duke also significantly increased staffing as well as made significant investments in software platforms and new technology to improve efficiency and to enhance the Interconnection Customer’s experience in the interconnection process.¹⁹

¹⁴ Tr. Vol. 2, p 157 Line 22 – p 158 Line 5.

¹⁵ Tr. Vol. 2, p 158 Line 5.

¹⁶ Tr. Vol. 2, p 162 Line 1 – p 163 Line 5 (presenting U.S. Energy Information Administration data showing that Duke has significantly exceeded other States and utilities interconnection of distribution-connected solar projects greater than 2 MW and is simply unparalleled when focused on solar projects in the 4MW – 5 MW range).

¹⁷ Tr. Vol. 2, p 159 Lines 1-4.

¹⁸ Tr. Vol. 2, p 175 Line 21 – p 176 Line 9.

¹⁹ Tr. Vol. 2, p 160 Lines 10-14.

In 2017, Duke also received direction from the Commission to ensure that the increasing costs that Duke was incurring to support the generator interconnection process were being assigned to Interconnection Customers and not to retail customers to the greatest extent possible.²⁰ In response to this direction, Duke began to assess its ongoing generator interconnection costs, including both the direct charge study and construction costs assigned to Interconnection Customers as well as indirect administrative costs or “overheads” associated with administering the generator interconnection process (“DET Administrative Overheads”). Duke also established a new group within DET focused on process, governance, and reporting functions (“DET PGR group”). In early 2018, the DET PGR group began compiling generation interconnection cost data as distribution interconnection construction projects were completed. Through this ongoing tracking and investigation, Duke identified discrepancies between estimated construction costs and post-construction invoicing for actual project costs.

The final accounting report contemplated by the NC Procedures is the mechanism by which the most complete and accurate picture of actual costs relative to estimates is identified.²¹ Importantly, while the Companies’ investigation regarding cost discrepancies commenced in early 2018, it was not until the fourth quarter of 2018 that the Companies were in a position to begin delivering final accounting reports due to the complexity and labor-intensive nature of such effort.²²

²⁰ *Order Approving REPS and REPS EMF Rider and REPS Compliance Report*, Docket No. E-2, Sub 1109 (Jan. 17, 2017), at Ordering Paragraph 2. (“January 2017 DEP REPS Order”).

²¹ Tr. Vol. 3, p 107 Lines 5 – p 108 Line 13 (explaining that issuance of final accounting reports is optional under NC Procedures and that Duke began performing final accounting process in response to Commission’s 2017 directive to more fully recover interconnection costs from Interconnection Customers).

²² Tr. Vol. 2, p 176 Lines 1-9.

During the fourth quarter of 2018, Duke completed 12 final accounting reports, and identified a growing trend of actual construction costs significantly exceeding initial study process estimated costs previously included in recently-constructed projects' Interconnection Agreements.²³ In response to this trend, the DET PGR group in coordination with the Distribution Planning engineering and Distributed Generation engineering organizations began developing a generator interconnection-specific estimating tool for use during the detailed Facilities study. An initial "beta version" of this interconnection-specific cost estimating tool was developed by the end of 2018 using the data collected by the DET PGR group. This new tool came to be referred to as the Revised Estimating Tool or the "RET."²⁴

The RET began to be shared within DET, Distribution Planning engineering, and Distributed Generation engineering for review and approvals in early 2019. After several months of review, the tool was approved for implementation, which occurred in July 2019.²⁵ The RET accounts for increased future costs of generator construction projects by projecting inflation-impacted labor, material and equipment costs, modeling more likely resourcing and equipment requirements specific to generator interconnections, and adding a 20% contingency factor for the potential for unforeseen events, which Duke has identified as often being a contributing cause to cost increases on recent generator interconnection projects.²⁶

²³ Tr. Vol. 2, p 176 Lines 11-16; *see also* Tr. Vol. 3, p 94 Line 5 – p 95 Line 12 (identifying that Duke delivered 12 final accounting reports in the fourth quarter of 2018 and none earlier in the year).

²⁴ Tr. Vol. 2, p 176 Lines 16-19; *see also* Tr. Vol. 3, p 31 Line 24 – p 32 Line 7 (explaining that while an initial "beta version" of the RET was developed by the end of 2018, it had not undergone review and was not ready for use until 2019).

²⁵ Tr. Vol. 2, p 176 Line 18-20.

²⁶ Tr. Vol. 2, p 240 Lines 9-14.

The RET began to be used as part of the Facilities Study cost estimating process for all Interconnection Customers beginning July 30, 2019, in DEP and August 2, 2019, in DEC.²⁷ In addition to implementing the new RET cost estimating tool prospectively, Duke also re-ran cost estimates for projects in construction during the third quarter of 2019, and delivered revised cost estimates to all such projects in the fourth quarter of 2019.²⁸

b. Processing of Williams' Interconnection Request

Complainant Williams entered the queue in October 2016 as an interdependent Project B. Williams subsequently became a Project A in July 2017, allowing Duke to commence the System Impact Study.²⁹ After providing initial mitigation options to Williams in July 2018, and receiving further direction from the customer,³⁰ the Duke Distributed Generation organization completed the System Impact Study on December 20, 2018, and the DET Account Manager issued the System Impact Study report to Williams on January 28, 2019.³¹ In the email transmitting the System Impact Study report, DEP's Account Manager advised Williams that "these preliminary costs are based on a grid program" and reflect only "the baseline costs to connect the facility to the grid . . ."³² DEP also requested Williams to make a determination whether to continue to move forward with the Interconnection Request by executing the Facilities Study Agreement or to withdraw.³³

²⁷ Exhibit JB-9, at p 29 ("the planners began to use the updated cost estimate tool for all distribution project facility studies in DEP (starting July 30, 2019) and DEC (starting August 2, 2019)").

²⁸ Exhibit JB-9, at p 29 ("Shortly after the updated cost estimate tool was approved for use during the facility study phase of the interconnection process . . . [Duke] collected pertinent study and cost data for DEP and DEC distribution projects in construction and applied the updated cost estimate tool to those projects.").

²⁹ Tr. Vol 2, p 137 Lines 6, 12-15.

³⁰ Tr. Vol. 2, p 137 Line 12 – p 138 Line 12.

³¹ Tr. Vol. 2, p 138 Lines 15-16; Exhibit JB-1 (transmittal email); Exhibit JB-2 (System Impact Study Report).

³² Exhibit JB-1.

³³ This request is consistent with the NC Procedures requirement for Interconnection Customers to notify the Utility if they intend to withdraw their Interconnection Request after System Impact Study. See NC Procedures Section 4.3.8 ("After receipt of the System Impact Study Report(s), the Interconnection

The baseline costs identified in the results section of the January 30, 2019 System Impact Study report included a non-binding budgetary interconnection facilities estimate of \$60,000 and a non-binding budgetary System Upgrades estimate of \$774,000, for a total preliminary estimate of \$834,000.³⁴

Internal correspondence also dated January 30, 2019, between GreenGo's President of Development, Mr. Jon Burke and other GreenGo employees responsible for development of Williams shows that GreenGo was aware that the System Impact Study report presented pre-tax baseline costs: "expected metering costs, overhead costs, etc. [are] not included in the Report. Furthermore, the \$834k is a pretax estimate."³⁵

The direct cost DEP charged to Williams to complete the System Impact Study was \$16,797.30.³⁶

Williams executed a Facilities Study Agreement on February 22, 2019,³⁷ and DEP completed the Facilities Study and delivered a Facilities Study report to Williams on July, 30, 2019.³⁸ The Facilities Study consisted of initial detailed design and engineering of the Upgrades and Interconnection Facilities identified in the System Impact Study report, including approximately 2.5 miles of new line construction and reconductoring of existing distribution lines as well as system protection upgrades. The Facilities Study report identified the estimated installed costs for System Upgrades of \$1,388,374.26 (including applicable tax at 7%) and presented the following detailed Interconnection Facilities and related costs:

Customer shall inform the Utility in writing if it wishes to withdraw the Interconnection Request and to request an accounting of any remaining deposit amount pursuant to Section 6.3.”)

³⁴ Exhibit JB-2, p 17.

³⁵ K. Jennings/Holmes Exhibit 4.

³⁶ DEP Late-Filed Exhibit 2.

³⁷ Tr. Vol. 2, p 245 Line 1.

³⁸ Exhibit JB-4.

Estimated Construction Cost: ¹	\$116,490.13
Estimated Metering Cost: ¹	\$24,791.30
DET Administrative Overhead Cost: ¹	\$20,000.00
Estimated Commissioning Cost: ²	\$24,000.00
Total:	\$196,495.13

- 1) Noted to include applicable 7% taxes
- 2) Noted not to be subject to applicable 7% taxes

The direct cost DEP charged to Williams to complete the Facilities Study was \$24,202.28.³⁹

Williams was one of the earliest projects where DEP utilized the RET to develop the detailed Upgrade and Interconnection Facilities cost estimates. The detailed cost estimates were significantly higher than the previously-issued System Impact Study baseline cost estimate as a function of 1) the RET’s updates to labor, vehicle and equipment costs; 2) inclusion of 20% contingency adjustment on baseline Upgrade and Interconnection Facilities cost estimates; 3) inclusion of 3% inflation adjustment, assumed for two years; and 4) inclusion of metering, DET Administrative Overhead, and Commissioning costs. After receipt of the Facilities Study report on July, 30, 2019, a GreenGo employee requested an explanation of the increased costs from Duke. Duke’s account manager responded to GreenGo within one business day, confirming the scope of Upgrades from the initial System Impact Study estimate had not changed and providing a breakdown of Upgrade costs but declining to “provide a detailed cost breakdown of every item in the [Scope of Work]” as requested by GreenGo.⁴⁰ Duke’s account manager further explained that after evaluating true ups completed on similar projects that “initial costs that were provided historically (both ballpark costs, and detailed estimates) to be significantly

³⁹ DEP Late-Filed Exhibit 2.

⁴⁰ Exhibit JB-6, p 3.

underestimated. Therefore we have applied a new formula [the RET] to ensure that the upfront costs more closely align with the final true up numbers.”⁴¹

Subsequent to receipt of the Facilities Study report in late July and this initial correspondence, Mr. Burke could not identify that GreenGo raised any further concerns with the Facilities Study cost estimates during the construction planning process.⁴² However, on September 9, 2019, Williams submitted a notice of dispute alleging the “new [Facilities Study] estimate appears to be an unreasonable and unsupportable obstacle to interconnection” and “does not reflect reasonable estimated costs.”⁴³ Counsel for Duke responded in writing on October 2, 2019, defending the accuracy of the Facilities Study estimates and explaining that Duke has refined its cost estimating process using “actual cost data to refine the Upgrade cost estimates to ensure that such estimates better reflect actual costs being incurred in the field” and highlighting that “a number of factors have contributed to escalating actual costs, including increased labor and equipment costs.”⁴⁴

On October 10, 2019, Duke delivered an Interconnection Agreement to Williams, which was developed based upon the detailed Upgrades and Interconnection Facilities cost estimates presented in the Facilities Study report.⁴⁵ Williams had 10 business days to sign and return the Interconnection Agreement per the NC Procedures.⁴⁶ Instead of doing so, Williams filed the Complaint on October 20, 2019.

⁴¹ Exhibit JB-6, p 4 (“[Request 3: Please clarify the reasons for the increase in cost. [Duke Account Manager Response:] After several true-ups that we have conducted on similar projects, we have found the initial costs that were provided historically (both ballpark costs, and detailed estimates) to be significantly underestimated. Therefore we have applied a new formula to ensure that the upfront costs more closely align with the final true up numbers.”).

⁴² Tr. Vol. 1, pp 88-89.

⁴³ Exhibit JB-7.

⁴⁴ Exhibit JB-7, p 2.

⁴⁵ Tr. Vol. 2, p 216 Lines 7-8.

⁴⁶ See NC Procedures 5.2.2.

c. GreenGo's development of Williams project

GreenGo and its President of Development, Mr. Burke, are responsible for project development activities and assessing commercial viability of the GreenGo portfolio of projects, including Williams.⁴⁷ Since its formation in 2016, GreenGo has developed a significant number of solar projects in the DEC and DEP queues, and currently has **[Begin Confidential]** [REDACTED] **[End Confidential]** projects in queue.⁴⁸ Many of GreenGo's projects entered the queue in 2016, and, like Williams, were interdependent with earlier queued projects causing complexities and delays in the interconnection process (as has been explained extensively by Duke in its recent testimony in Docket No. E-100, Sub 101).⁴⁹ However, due to Duke's good faith and diligent efforts administering the NC interconnection process, GreenGo currently has 20 projects that executed IAs in 2019 and 2020, including 12 projects that have nearly completed construction.⁵⁰

Mr. Burke's responsibilities include evaluating and procuring prospective sites for solar project assets, like Williams, and obtaining all necessary governmental authorizations, including zoning approvals, amongst other activities.⁵¹ In the case of Williams, Mr. Burke and GreenGo made the decision to develop a 4.992 MW solar facility in Johnston County on a very narrow 28-acre parcel of property that could not accommodate the generating facility at its full requested size even after downsize allowed

⁴⁷ Tr. Vol. 1, p 18 Line 18 – p 19 Line 8.

⁴⁸ Tr. Vol. 2, p 194 Lines 13-23.

⁴⁹ Tr. Vol. 2, pp 193-94.

⁵⁰ Tr. Vol. 1 p 93 Lines 1-13.

⁵¹ Tr. Vol. 1. P 19 Lines 2-8.

under the NC Procedures⁵² without a variance to the County’s zoning ordinance.⁵³ GreenGo requested interconnection of the 4.992 MW Generating Facility and demonstrated site control as part of its Interconnection Request in 2016; however, GreenGo apparently took no action to pursue a variance from the Johnston County Board of Adjustment (“Johnston County BOA”) until January 2019 (weeks before receiving the System Impact Study report). The Johnston County BOA denied Williams’ variance petition in February 2019 (after Williams had executed the Facilities Study Agreement).⁵⁴ Williams and its legal counsel then appealed the denial in Superior Court, which Williams also lost in July 2019 (prior to receiving the Facilities Study report).⁵⁵

In parallel with the appeal, Williams pursued an option to purchase the neighboring parcel of land to expand the proposed development site as a fallback in case the appeal failed.⁵⁶ The appeal did, in fact, fail and Williams paid an initial option payment of **[Begin Confidential]** ██████████ **[End Confidential]** in July 2019 to acquire rights to purchase a second, adjacent 30 acre parcel of property for a total purchase price of **[Begin Confidential]** ██████████ **[End Confidential]** (“Additional Property”).⁵⁷ In December 2019, GreenGo entered into an amended offer to purchase to extend the due diligence period by agreeing to pay an additional (non-refundable) **[Begin Confidential]** ██████████ **[End Confidential]** towards the cost of the Additional Property.⁵⁸

⁵² NC Procedures Section 1.5.1 addressing “Material Modifications” allows an Interconnections Customer to reduce the AC output of the Generating Facility by up to 10% as a minor modification that would not require a new Interconnection Request and loss of queue position.

⁵³ Tr. Vol. 2, p 205 Lines 16 – p 206 Line 5; Tr. Vol. 1, p 33 Lines 2-4 (“If these zoning setbacks were enforced and no variance was allowed, Williams could not be constructed at full size even after down-sizing within NCIP limits.”).

⁵⁴ Tr. Vol. 1, p 33 Lines 4-8; Tr. Vol 2, p 205 Lines 1-15.

⁵⁵ Tr. Vol. 1, p 33 Lines 8-12; Tr. Vol 2, p 205 Line 16 – p 207 Line 29.

⁵⁶ Tr. Vol. 1, p 33 Lines 4-8; Tr. Vol 2, p 208 Lines 1-13.

⁵⁷ Tr. Vol 2, p 208 Lines 1-13; Jennings/Holmes Exhibit 2, Supplemental DR 1-6.

⁵⁸ Tr. Vol 2, p 208 Lines 4-7.

In November, 2019, Williams petitioned the Commission to amend its CPCN to allow Williams to construct the proposed solar generating facility on both the original 28-acre parcel and the Additional Property. The Commission granted the amended CPCN on January 24, 2020.⁵⁹ Despite Mr. Burke’s criticism of Duke’s processing of Williams’ Interconnection Request, Williams did not have legal authorization to construct the project until the amended CPCN was issued on January 24, 2020.

Williams alleges that GreenGo spent external development costs of approximately \$56,213.80 between receipt of its System Impact Study report and Facilities Study report to pursue the zoning appeal and to acquire the Additional Property.⁶⁰ All such costs were caused by GreenGo’s project development decision to site the project on the original very narrow 28-acre parcel of property that could not accommodate the proposed project without a zoning variance, which was denied. In other words, a risky project development decision over which Duke had no control was the sole cause of the additional development costs incurred by Williams subsequent to receiving the System Impact Study report.

III. Legal Standard

The Public Utilities Act provides for complaints against public utilities for taking actions “. . . in violation of any provision of law or of any order or rule of the Commission, or that any rate, service, classification, rule, regulation or practice is unjust and unreasonable.”⁶¹ Complainant Williams has the burden of proof.⁶²

Williams’ Complaint is grounded solely in allegations that Duke has not acted in good faith in administering NC Procedures and, specifically, in estimating cost to

⁵⁹ *Order Issuing Amended Certificate*, Docket No. SP-8274, Sub 0 (Jan. 24, 2020).

⁶⁰ Tr. Vol. 1, p 35 Lines 4-9; Confidential Exhibit JB-5.

⁶¹ N.C. Gen. Stat. § 62-73.

⁶² N.C. Gen. Stat. § 62-75.

interconnect Williams while completing the System Impact Study and Facilities Study pursuant to the NC Procedures.⁶³ Good faith is a term used in the NC Procedures, but is not further defined and is also not expressly used in the Section 4.3/4.4 study process or in the Attachment 7 System Impact Study Agreement or Attachment 8 Facilities Study Agreement to address cost estimating. Notwithstanding, Duke accepts that, even though not expressly used in these sections of NC Procedures, the Commission should have a reasonable expectation that Duke will dutifully undertake and administer its responsibilities to implement the NC Procedures for Interconnection Customers—like it undertakes its responsibilities to all other customers—in good faith. Duke also recognizes, and the Commission has held, that parties to contracts have reasonable expectations that duties will be administered in good faith.⁶⁴

The Commission’s analysis of whether DEP’s efforts to process Williams’ System Impact Study and Facilities Study were undertaken in good faith should also be informed by standards actually prescribed by the Commission for Duke to follow in administering the NC Procedures. First, the NC Procedures prescribe, and the Commission has recently recognized, that Duke should follow “Good Utility Practice” in administering the generator interconnection process.⁶⁵ Good Utility Practice consists of actions that “could have been expected to accomplish the desired result at a reasonable cost consistent with good business

⁶³ See Verified Complaint, at 1 (“Respondent has failed to undertake and comply with its obligations under the [NC Procedures], together with the Impact Study Agreement and Facilities Study Agreement, in good faith”).

⁶⁴ See *Order Establishing Standard Rate and Contract Terms for Qualifying Facilities*, at 37 Docket No. E-100, Sub 148 (Oct. 11, 2017) (holding that “both parties to a negotiated PPA are under an obligation to act in good faith in the negotiation, execution, and performance of their contract obligations”). Courts have implied an expectation that parties will “act in good faith and make reasonable efforts to perform his obligations under an agreement. See e.g., *Maglione v. Aegis Family Health Ctrs.*, 168 N.C. App. 49, 51, 607 S.E.2d 286, 288, (2005)(“ a party who enters into an enforceable contract is required to act in good faith and to make reasonable efforts to perform his obligations under the agreement”).

⁶⁵ NC Procedures, Attachment 1 Definitions, Good Utility Practice.

practices, reliability, safety and expedition. Good Utility Practice is not intended to be limited to the optimum practice, method, or act to the exclusion of all others, but rather to be acceptable practices, methods, or acts generally accepted in the region.” In the *June 2019 Interconnection Order*, the Commission recognized in the context of applying Good Utility Practice to ensure reliability is not degraded or adversely impacted due to new generator interconnections, that “Utilities should continue to evolve Good Utility Practice, when needed . . .”⁶⁶ Accordingly, the Commission should assess whether Williams has proven that Duke has failed to act reasonably⁶⁷ and consistent with Good Utility Practice to evolve its cost estimating practices as applied to Williams.

The Commission should also evaluate whether Duke has treated Williams fairly and consistently with other similarly situated Interconnection Customers. Section 6.7 of the NC Procedures establishes a “Comparability” standard requiring utilities to “use the same reasonable efforts in processing and analyzing Interconnection Requests from all Interconnection Customers, whether the Generating Facility is owned or operated by the Utility, its subsidiaries or affiliates, or others.”⁶⁸

In sum, Williams has the burden to prove that Duke has not acted in good faith by showing that Duke has not undertaken reasonable efforts to evolve Good Utility Practice or has discriminated against Williams by not treating it comparably to other Interconnection Customers.

⁶⁶ *June 2019 Interconnection Order*, at 50.

⁶⁷ Reasonable efforts are also required by the NC Procedures. *See* NC Procedures, Attachment 1 Definitions, Reasonable Efforts.

⁶⁸ *See* NC Procedures 6.7.

IV. Argument

a. Williams’ central narrative—that its estimated cost essentially doubled between System Impact Study and Facilities Study based upon arbitrary adjustments—mischaracterizes the facts and fails to support Williams’ argument that DEP has not acted in good faith

The central narrative of Williams’ Complaint is that Duke’s preliminary baseline level cost estimates delivered in the January 2019 System Impact Study report were “wildly inaccurate”⁶⁹ and that the cost increases between the System Impact Study report and Facilities Study report were “extreme” due to “intentional manipulation”⁷⁰ by Duke and, further, that the detailed Facilities Study cost estimates were “based on an arbitrary set of calculations applied by DEP for the sole purpose of generating a higher cost estimate.”⁷¹ These assertions are at the heart of Williams’ allegation that Duke has not acted in good faith towards Williams.

However, the facts do not support these assertions. Contrary to the Williams witnesses’ allegations, the evidence shows that Duke undertook reasonable steps to evolve its generator interconnection cost estimating process 1) by introducing the RET to more accurately develop detailed baseline costs in Facilities Study based upon Duke’s extensive recent experience constructing generator interconnection Upgrades and Interconnection Facilities; 2) incorporated a contingency factor to address recently experienced risks and increased costs during generator interconnection construction projects; and 3) improved transparency at the Facilities Study detailed estimate stage by evolving the cost estimates from showing only baseline costs to presenting the non-construction related costs to be

⁶⁹ Tr. Vol. 4, p 117 Line 14.

⁷⁰ Tr. Vol. 1, p 52, Line 4.

⁷¹ Tr. Vol. 1, p 48.

incurred if an Interconnection Customer proceeds to execute an Interconnection Agreement.

Numerous aspects of Williams' story are simply not supported by facts. For example, the RET is not based upon an arbitrary⁷² or even an overly complex set of adjustments.⁷³ As explained by Duke Witness S. Jennings, the "primary adjustments made by the RET account for increased future costs by projecting inflation-impacted labor, material and equipment costs, modeling more likely resourcing and equipment requirements specific to generator interconnections, and adding a 20% contingency factor for the potential for unforeseen events, which Duke has identified as often being a contributing cause to cost increases."⁷⁴ Duke also provided a detailed breakdown of how the RET was applied to Williams in discovery, identifying the labor, vehicle, and material cost components (as well as discretionary cost categories such as flagging and tree trimming not applicable to Williams) and providing a thorough explanation of the how the RET is applied.⁷⁵ Williams has not challenged the basic labor, vehicle and material cost assumptions that were utilized by the RET.⁷⁶

The underlying adjustments to the Maximo system average cost estimates are certainly not arbitrary. Duke Witness S. Jennings describes how the RET adjusts labor rates and hours assumptions, contractor fleet expense, and equipment costs that were not

⁷² Tr. Vol. 1, p 48 Lines 4-6 (Mr. Bolyard characterizing the RET as "applying an arbitrary set of "plus up" calculations to the estimated costs calculated by DEP's Maximo software platform").

⁷³ Tr, Vol. 3, p 68 Lines 17-24 ("... the type of analysis that was performed is not incredibly complex. Again, I'm just trying to explain what we have done, is, again, taking these estimates down to their individual components, as you've stated: material, labor, equipment, et cetera. Taking a sampling, grouping of completed projects and, you know, averaging those results to understand, on average, what kind of variation we were seeing between Maximo estimate and cost actuals on those projects.").

⁷⁴ Tr. Vol. 2, p 240 Lines 9-14.

⁷⁵ See CEB-12.

⁷⁶ Tr. Vol. 3, p 87 Lines 2-19.

being fully captured for generator interconnection project work scopes in Maximo, along with project-specific cost adjustment categories such as environmental, tree trimming, and right of way costs that may or may not be required for a specific project.⁷⁷ Witness S. Jennings further explains that interconnecting a 5 MW_{AC} solar project like Williams is a significant work scope requiring heavier equipment and construction crews capable of completing heavy line construction and other more complex work, as compared to Duke's average distribution construction work across the system to provide retail service to new residential and commercial customers or to replace aging poles and other equipment as part of ongoing grid modernization efforts.⁷⁸ This experience resulted in adjustments within the RET to labor, vehicles and equipment costs to recognize the higher labor costs being incurred for generator interconnection projects in excess of the system average costs in Maximo. Witness S. Jennings also identified that DEP has utilized a similar two-step cost estimating process for North Carolina Department of Transportation ("DOT") projects for a number of years.⁷⁹

The inclusion of contingency was similarly not arbitrary. Even though the initial System Impact Study is principally a modeling study and produces only preliminary cost estimates, Mr. Burke was "shocked" that these initial baseline System Impact Study estimates did not already include contingency.⁸⁰ At the more detailed Facilities Study phase, both Mr. Burke and Mr. Bolyard testified that including contingency was reasonable. The RET incorporates 20% contingency based upon Duke's recent

⁷⁷ Tr. Vol. 2, p 241.

⁷⁸ Tr. Vol. 2, p 236 Lines 6-9.

⁷⁹ Tr. Vol. 2, p 241 Lines 1-8; *see also* Tr. Vol. 4, p 119 Lines 6-15 (confirming zero contingency in System Impact Study estimates).

⁸⁰ Tr. Vol. 4, p 140 Lines 7-16.

experience.⁸¹ While Williams' witnesses disputed that a 20% contingency adjustment is appropriate, both Mr. Burke⁸² and Mr. Bolyard⁸³ supported a 10% contingency adjustment for a more detailed cost estimate and Mr. Bolyard suggested somewhere in the range of 20% to 25% contingency at System Impact Study would be appropriate.⁸⁴ And while Williams refused to provide any information regarding contingency applied by other utilities in response to Duke's discovery,⁸⁵ during the hearing, Witness Bolyard volunteered that he has seen other utilities include 20% contingency or higher at early stages of the cost estimating process.⁸⁶ His hearing testimony also showed that he had little experience or understanding of the generator interconnection study process under the NC Procedures, as he wrongly assumed that all design and engineering work is completed during the Facilities Study.⁸⁷

Including a somewhat higher level of contingency in the Facilities Study cost estimates is also not arbitrary when one considers that Interconnection Customers are only responsible for the actual costs of completing the Upgrades and Interconnection Facilities and will be refunded any funds not used by the Utility.⁸⁸ In other words, while

⁸¹ Tr. Vol. 2, p 263 Lines 11-17 (“ . . . RET includes a standard contingency amount of 20% in recognition of the fact that the Company has identified that some historic cost overruns were caused by factors not identified until after IA execution, such as right of way challenges and unforeseen site conditions requiring both additional material and labor costs, such as the need to replace additional poles, manage construction within existing rights of way, or construct lines in sub-optimal environments such as wet areas requiring specialized equipment”).

⁸² Tr. Vol. 1, p 61, Lines 9-11.

⁸³ Tr. Vol. 2, p 92 Lines 1-10.

⁸⁴ Tr. Vol. 2, p 103 Lines 5-13 (“So with the Class 2, in my opinion, the contingency and appropriate contingency based on the definition of the project would be **10 percent** added on. At the Class 4, if there was a contingency to be added then I would expect that a Class 4 that contingency might be appropriate **somewhere in the range of 20 to 25 percent**, again depending upon what the scope definition of the project is.”).

⁸⁵ Tr. Vol. 2, p 182 Lines 4-6, fn 16.

⁸⁶ Tr. Vol. 2, p 102, Lines 8-17.

⁸⁷ Tr. Vol. 4, p 173 Line 6 – p 180 Line 10.

⁸⁸ Tr. Vol. 2, p 165 Lines 16-23 – p 166 Lines 1-3.

DEP stands behind its conclusion that a 20% contingency is an appropriate amount in light of what is known at the time of the estimate, Williams will only pay the actual costs regardless of whether a 10% or a 20% contingency is included in the estimate—therefore, this is a disputed issue that has no practical consequence.

Williams does not actually challenge the RET’s inflation assumption as arbitrary. The RET incorporates a 3%/year inflation assumption over two years based upon Duke’s experience that timing from Facilities Study report to completing construction is often approximately 2 years.⁸⁹ Neither of Williams’ witnesses challenge how the RET accounts for inflation in a forward-looking cost estimate, even after the Commission questioned Witness Bolyard on the topic and he agreed that inflation is not covered by contingency.⁹⁰

Finally, the inclusion of other non-baseline cost categories in the detailed Facilities Study estimate is also not arbitrary. It is undisputed that Interconnection Customers are responsible for other non-baseline costs of the interconnection process under the NC Procedures and Interconnection Agreement. Internal emails on the day GreenGo received the System Impact Study recognized that Williams would be responsible for additional metering costs, overheads, and taxes.⁹¹ It is also well established that Interconnection Customers are responsible for commissioning costs, which are direct-charged. Further, as discussed in Section III.c below, the NC Procedures approved in 2019 clearly memorialize that Interconnection Customers are responsible for overheads costs.⁹² Therefore, when the

⁸⁹ Tr. Vol. 2, p 263 Lines 6-10 (“the time period between cost estimates and actual construction for routine distribution work is much shorter than for interconnection distribution work, which in some cases can be a year or more. Therefore, an inflation factor was also utilized to capture the escalation in costs that has been occurring over time”).

⁹⁰ Tr. Vol. 1, p 83 Lines 7-12 (“Q Okay. So the contingency does not cover the passage of time . . . it's not intended to cover cost increases that are expected to occur due to the passage of time? A. Generally not.”).

⁹¹ K. Jennings/Holmes Exhibit 4.

⁹² See NC Procedures, § 1.4.1.2; *June 2019 NC Procedures Order* at 18 (directing “the Utilities, to the greatest extent possible, to continue to seek to recover from Interconnection Customers all expenses

RET is broken down into its component parts, Williams' allegations that it is arbitrary are not credible.

A second, equally important, aspect of Williams' story that is not supported by the facts is that the level of increased interconnection costs caused by the RET was "extreme."⁹³ Indeed, Witness Burke takes every opportunity to criticize the increased Facilities Study cost estimate as extreme. He testifies: "[t]here is simply no explanation for a doubling of costs in a matter of a year or two unless the results were intentional or negligent or both."⁹⁴ He makes similar statements between his pre-filed and hearing testimony no less than six times.⁹⁵ However, a fair evaluation of the facts shows that the RET adjustments to costs were not extreme or arbitrary, as applied to Williams, and a majority of the cost increase was not due to the assumed labor and material costs in the RET, but, instead, were either foreseeable to Williams at the time the System Impact Study report was received or the result of application of contingency, which Williams' own witnesses concede was reasonable (though they assert the percentage of contingency should be lower).

As explained by Duke Witness S. Jennings and as shown in Figure 1, the apples-to-apples baseline construction costs increased only 37% between System Impact Study and Facilities Study based upon the adjusted labor, vehicle, and materials assumptions incorporated into the RET.⁹⁶

(including reasonable overhead expenses) associated with supporting the generator interconnection process under the NC Interconnection Standard.") (emphasis added).

⁹³ See e.g., Tr. Vol. 1, p 35 Lines 17-18.

⁹⁴ Tr. Vol. 4, p 116 Lines 3-4.

⁹⁵ Tr. Vol. 1, p 38 Line 24, 26; p 56 Lines 3-4; p 57 Line 4; p 92 Lines 6, 11; p 103 Line 14; Tr. Vol. 4, p 116 Line 3; Tr. Vol. 4, p 133 Line 20.

⁹⁶ Tr. Vol. 4, p 56 Lines 8-13 ("If you just look at the direct construction cost estimate delta between the SIS and then the Facility Study, that was in the range of 37 percent increase. That's just an apples to apples how much money we would expect the base construction to cost").

Figure 1⁹⁷

System Impact Study Estimate Delivered Jan. 28, 2019		Facilities Study Estimate Delivered July 30, 2019	
Interconnection Facilities	\$60,000.00	Interconnection Facilities	\$93,600.65
System Upgrades	\$774,000.00	System Upgrades	\$1,053,780.03
Total	\$834,000.00	Total	\$1,147,380.68
<u>Total Base Estimate Percentage Increase: 37.6%</u>			

In other words, for all of the bluster and over-the-top criticisms of the RET by Williams, the increase in cost estimate resulting from the application of the RET was less than 40%, well within expected accuracy range of a Class 4 estimate (and close to the expected accuracy range of a Class 3 estimate) under generally-accepted Association for the Advancement of Cost Engineering (“AACE”) cost estimating guidance, as discussed further in Section III.g below.

The evidence also shows that GreenGo understood that the cost estimates presented in the System Impact Study were only a preliminary budgetary estimates of baseline Upgrade and Interconnection Facilities costs and did not include taxes, metering, overhead costs.⁹⁸ The remainder of the cost categories accounting for the overall increase were all items that Williams expressly understood were not included or accept should be included (though differ on the appropriate amount). Figure 2 breaks down the detailed Facilities Study cost increase and identifies the discrete categories of costs added to the baseline Upgrade and Interconnection Facilities costs presented in the Facilities Study report.

⁹⁷ Attachment 1 provides additional documentation to support Figure 1.

⁹⁸ K. Jennings/Holmes Exhibit 4; Tr. Vol. 2, p 17 Line 15 – p 18 Line 14.

Figure 2⁹⁹

Discrete Items Added in Facilities Study		
	Interconnection Facilities	System Upgrades
Contingency	\$16,228.69	\$170,320.01
Inflation	\$6,589.76	\$73,446.00
Metering Estimate	\$24,791.30	
Administrative Overhead	\$20,000.00	
Commissioning Estimate	\$24,000.00	
Sales Tax	\$11,284.73	\$90,828.22
Discrete Items Total:	\$102,894.48	\$334,594.23

Despite initially criticizing Duke’s adjustments to its baseline cost, Witness Burke conceded that it is reasonable for Duke to identify and incorporate experienced changes in costs between the preliminary System Impact Study estimate and detailed Facilities Study estimate, including changes in equipment costs,¹⁰⁰ increases in labor costs,¹⁰¹ or increased vehicle costs¹⁰² based upon Duke’s experience constructing generator interconnection projects.

In sum, Williams attempts to lump all the detailed cost components together to suggest the detailed total \$1,584,869.39 Facilities Study estimate “doubled” the \$834,000

⁹⁹ Attachment 1 provides additional documentation to support Figure 2.

¹⁰⁰ Tr. Vol. 2, p 15 Lines 6-16 (“So they have included a \$100 estimate for a pole in the System Impact Study cost report. If subsequent to the System Impact Study cost – the System Impact Study cost estimate prior to the point in time for which the Facility Study cost estimate is delivered the cost for poles goes up and it’s now \$120 for a pole. Can Duke change its cost estimate in the Facility Study cost estimate based on that fact?

A Yes.”).

¹⁰¹ Tr. Vol. 2, p 16 Lines 6-14 (“And if [Duke] determines that additional labor hours are needed to perform that work because of information that’s gathered in between the point in time at which it delivered the System Impact Study and when it delivered the Facility Study cost estimate, can it take that fact into account in determining a revised estimate?”). A Yes, I believe that would be prudent.”).

¹⁰² Tr. Vol. 2, p 16 Lines 16-21 (“And if [Duke] determines that vehicle costs have gone up between the assumptions that were made at the time of the System Impact Study report and the time of the Facility Study cost report, can it take that change in cost into account? A Yes, as long as they are reasonable.”).

preliminary baseline delivered in the System Impact Study report. However, this characterization is extremely misleading. As Witness K. Jennings succinctly explained: “[w]hile it is true that the overall cost estimates delivered to Williams increased substantially between System Impact Study and Facilities Study, a substantial portion of the increase was foreseeable to Williams and a further substantial portion of the increase that relates to a simple policy disagreement regarding the level of contingency that is appropriate to be included in a Facilities Study cost estimate.”¹⁰³

Simply put, Williams’ central narrative that Duke’s improvements to the cost estimating process were arbitrary or extreme is not supported by the facts. Furthermore, undisputed evidence demonstrates that the scope of the cost estimate increase was reasonable both because it reflects the Company’s actual experience of increasing costs and incorporates discrete cost items that Williams does not fundamentally contest. Accordingly, Williams has failed to persuasively show that Duke’s improvements to the cost estimating methodology are inconsistent with Good Utility Practice or that the increase in cost estimate between System Impact Study and Facilities Study was the result of bad faith on the part of Duke.

b. The evidence shows that the RET is consistent with Good Utility Practice

Despite heavily criticizing the new RET tool as an arbitrary “series of mathematical multipliers [applied] solely to get to a higher number”¹⁰⁴ and “divorced from any actual consideration of the expected costs associated with the Williams project,”¹⁰⁵ Williams fails to present any meaningful evidence that the RET is not reasonable and reflective of DEP’s

¹⁰³ Tr. Vol. 2, p 181 Lines 6-13.

¹⁰⁴ Tr. Vol. 4, p 156 Lines 14-17.

¹⁰⁵ Tr. Vol. 1, p 45 Line 15-17.

good faith effort to evolve Good Utility Practice in administering the detailed Facilities Study cost estimating process.

As introduced above, the Good Utility Practice standard under NC Procedures includes “[a]ny of the practices, methods and acts engaged in or approved by a significant portion of the electric industry during the relevant time period, or any of the practices, methods and acts which, in the exercise of reasonable judgment in light of the facts known at the time the decision was made, could have been expected to accomplish the desired result at a reasonable cost consistent with good business practices, reliability, safety and expedition.” The NC Procedures further recognize the need for flexibility for each utility to implement “acceptable practices” such that Good Utility Practice “is not intended to be limited to the optimum practice”¹⁰⁶ The RET is undoubtedly consistent with Good Utility Practice.

Duke’s Witnesses K. Jennings and S. Jennings describe how the RET was developed based upon Duke’s actual cost experience and recent investigation into discrepancies between pre-construction cost estimates and post-construction invoices for completed interconnection work.¹⁰⁷ Witness S. Jennings explains how Maximo provides system-average equipment and labor costs that were not reflective of Duke’s recent extensive recent experience completing generator interconnection construction projects.¹⁰⁸ He further described Duke’s experience that generator interconnection projects require more complex scopes of work and higher cost labor resources capable of completing heavy

¹⁰⁶ NC Procedures, Att. 1 Definitions, Good Utility Practice.

¹⁰⁷ Tr. Vol. 2, p 176, Lines 3-9.

¹⁰⁸ Tr. Vol. 2, p 264, Lines 10-12 (“the RET is utilized to tailor the system-average materials and labor compatible unit costs generated in Maximo to interconnection-specific work scopes based upon Duke’s actual cost experience constructing these scopes of work”).

line construction and other more complex work.¹⁰⁹ Based on this experience, the RET recognizes the higher equipment and labor costs being incurred for generator interconnection projects in excess of the system average costs in Maximo as well as adjusts for inflation to recognize that generator interconnection costs will be incurred years into the future.

Each component of the RET has been vetted through Duke's internal investigation and determined to be a reasonable component of a detailed estimate being developed specifically for the purpose of establishing generator interconnection cost estimates to be included in an Interconnection Agreement. As discussed above,¹¹⁰ there is no dispute that it is appropriate to recognize inflation for forward-looking cost projections or to include an appropriate contingency, although Duke and Williams dispute whether 20% or 10% is appropriate at the Facilities Study stage. Williams' witnesses also do not dispute that Duke should be allowed to recover its reasonable DET Administrative Overhead costs,¹¹¹ which the Commission affirmed through the *June 2019 Interconnection Order*.¹¹² Similarly, Williams has failed to offer any testimony purporting to show that such costs are unreasonable. Williams also does not dispute (and, indeed, recognized at the time it received its System Impact Study report) that it would be responsible for metering costs,

¹⁰⁹ Tr. Vol. 2, p 236, Lines 1-21.

¹¹⁰ Tr. Vol 3, p. 102, Lines 11-21 (“Q. And do you believe that the implementation of the RET was a prudent decision consistent with good utility practice to improve the cost estimates delivered to customers the Facility Study process?

A. I do. We have tried to take what I would consider, again, an average baseline estimating system in Maximo, take our experience learned doing a specific type of work, and apply that to developing a tool that can produce more accurate estimates, and that absolutely has occurred in good faith and consistent with good utility practice.”).

¹¹¹ Tr. Vol. 4, p 123 Lines 4-6.

¹¹² See *June 2019 Interconnection Order*, at 15, 16, 18 (detailing testimony by Duke and Interstate Renewable Energy Council on administrative overheads and “direct[ing] the Utilities, to the greatest extent possible, to continue to seek to recover from Interconnection Customers all expenses (*including reasonable overhead expenses*) associated with supporting the generator interconnection process under the NC Interconnection Standard”) (emphasis added).

commissioning costs, and taxes are all accepted as reasonable costs to include in detailed cost estimate as such costs are the Interconnection Customer's responsibility under the NC Procedures and Interconnection Agreement. Contrary to Williams' generalized complaints, Duke's recently-evolved business practice to present all of these non-construction related costs to Interconnection Customers in a detailed Facilities Study estimate (versus only identifying the baseline construction costs of Upgrades and Interconnection Facilities) reflects Good Utility Practice and has been undertaken in good faith.

Witness S. Jennings also effectively rebuts Witness Bolyard's testimony that Duke should have updated Maximo versus introducing a two-step cost estimating process utilizing both Maximo and the RET. Mr. S. Jennings explains that Maximo is designed to develop system average cost estimates, particularly for retail customer scopes of work¹¹³ across the Duke Energy enterprise.¹¹⁴ Due to the complexity of updating Maximo, Witness S. Jennings testified that it was more expedient to develop the RET to target generator interconnection-specific work scopes, while continuing to assess opportunities to update the Maximo platform.¹¹⁵ He also made clear that the

“fact that our new Facilities Study cost estimating methodology relies on a two-step process whereby Maximo is used to generate certain baseline projections of labor hours and labor costs, which are then adjusted by the RET, does not mean that Maximo is flawed or that the Facilities Study

¹¹³ Tr. Vol. 3, p 64 Line 15-22 (“The intent with Maximo, the implementation of that system is to develop - - provide an average baseline cost estimate . . . that is representative of the entire portfolio of distribution construction work that we perform. It is, I would say, very focused on achieving repeatable, accurate results, particularly as it relates to our work for our retail customers”).

¹¹⁴ Tr. Vol.4, p. 62 Line 22 – p 63 Line 12 (“Maximo is used by around 6,000 employees in distribution. . . . So when we implement changes, when we add CUs [compatible units], when we do those types of activities to Maximo, it requires training and education for 6,000 users, and it takes time to adjust those variables within the tool. And so that's why, you know, it's not something easily undertaken, but it is something we are absolutely working towards. But as I described, in the meantime, we feel like the RET provides a very valuable, you know, tool to help us in the interim”).

¹¹⁵ Tr. Vol. 3, p 238 Lines 12-23 – p 239 Lines 1-15.

estimates are invalid. Instead, the two tools work together to produce an estimate that Duke believes to be substantially more accurate than estimates previously provided.”¹¹⁶

Witness K. Jennings succinctly summarized Duke’s position on the reasonableness of the two-step cost estimating process and why Witness Bolyard’s criticisms should be disregarded:

“Duke is confident that the two step process utilizing the Maximo outputs as adjusted by the RET provides an accurate forecast of potential costs that will be incurred based upon DEP’s recent experience completing a substantial number of generator interconnection projects. Ultimately, what matters most is whether the estimate is reasonably accurate and not whether Duke’s current solution involves a two-step process.”¹¹⁷

It is also notable that in addition to introducing the RET, Duke has continued to make refinements to Maximo and the RET in an effort to continue to improve the accuracy of the cost estimating process for Interconnection Customers.¹¹⁸ This continuing effort also reflects Good Utility Practice.

The Good Utility Practice standard additionally contemplates that “acceptable practices” are informed by “practices, methods, or acts generally accepted in the region.” Witness S. Jennings discusses his extensive experience with distribution cost estimating and benchmarking with other utilities, including SCE&G and the legacy Duke utilities.¹¹⁹ He also described his efforts to benchmark across the practice of other utilities and work with consultants experienced in implementing cost estimating tools with electric utilities across the country. He also highlights that DEP utilizes a similar two-step process for DOT projects.¹²⁰

¹¹⁶ Tr. Vol. 2, p 264, Lines 12-20.

¹¹⁷ Tr. Vol. 2, p 178, Lines 14-19.

¹¹⁸ Tr. Vol. 3, p 242.

¹¹⁹ Tr. Vol. 3, p 244, Lines 1-15.

¹²⁰ Tr. Vol. 2, p 241, Lines 1-8.

In contrast, Williams’ witnesses did not identify any specific example of a different cost estimating methodology used by another utility in the interconnection study process, essentially failing to provide any evidence the Companies’ methodologies are not consistent with Good Utility Practice (*i.e.*, did not establish that the Companies cost estimating methodologies are not consistent with “[a]ny of the practices, methods and acts engaged in or approved by a significant portion of the electric industry during the relevant time period”¹²¹). In fact, Williams refused to disclose any information regarding its experience in interconnection processes administered by other utilities.¹²² Williams also failed to present any evidence that Duke’s generator interconnection costs are higher than similar scopes of work (*i.e.*, distribution interconnections) for other utilities, or that the inputs to the RET are unreasonable when compared to the cost estimating process used by other utilities.¹²³ Williams also failed to introduce any evidence that the Facilities Study cost estimate was unreasonable compared to actual project cost for similar scopes of work (as discussed in more detail below).¹²⁴ Williams’ cost estimating expert, Mr. Bolyard, details his long career and extensive experience critiquing cost estimates; however, he fails to present any direct experience with Duke’s generator interconnection process, distribution system cost estimating or experience with other utilities’ generator interconnection cost estimating processes.

Finally, and perhaps most importantly, introducing the RET has “accomplish[ed] the desired result . . .” under the Good Utility Practice standard, which is to generate more

¹²¹ NC Procedures, Attachment 1, Glossary of Terms.

¹²² Tr. Vol. 2, p 174, Lines 11-15, p 193, Fn. 23; Jennings/Holmes Exhibit 3, p. 3 (noting that Williams refused to provide any discovery responses related to GreenGo’s other affiliated companies or GreenGo’s development activities, including any information about similar cost estimates for distribution reconductoring work received from any utility other than DEP or DEC).

¹²³ Tr. Vol. 2, p 192 Lines 12-18 – p 193 Lines 1-9.

¹²⁴ Tr. Vol. 4, p 138, Line 24 – p 139 Line 5.

accurate, detailed cost estimates for Interconnection Customers at the Facilities Study stage. As Duke Witnesses K. Jennings and Holmes explain, DEP's benchmarking analysis over the period since the RET was implemented shows that the updated cost estimating methodology aligns with the actual costs Duke is experiencing, explaining that "[t]he RET may be leaning a little bit on the high side, but with[in] probably about a 10 percent high average accuracy rate, which we feel very good about."¹²⁵ In other words, the updated RET cost estimating methodology reasonably correlates with Duke's actual costs.

Therefore, contrary to Williams' allegations, the introduction of the RET into the Facilities Study cost estimating process reflects Good Utility Practice and has been undertaken in good faith.

c. Duke's assignment of overhead costs to Williams is reasonable and non-discriminatory

As detailed above, the inclusion of anticipated corporate overheads and the addition of a line item for DET Administrative Overheads contributed to the increased Facilities Study estimate from the preliminary baseline cost estimate. Williams' Witness Burke alleges, without providing any specific evidence, that "overheads included in the Facilities Study cost estimate are excessive"¹²⁶ and suggests that "to [his] knowledge, DEP has not substantiated the calculation of overheads applied . . . to interconnection customers like Williams, whether at the study stage or after actual construction" which he "fear[s] is an uncontrolled and undocumented allocation of soft costs (overheads and not actuals) by DEP outside of regulatory supervision to improve its profit margin by removing

¹²⁵ Tr. Vol. 3, p 88 Lines 7-15; *see also* Tr. Vol. 4, p 67 Lines 6-14 ("With regards to the -- actually comparing the RET tool to actuals, on average, our estimates from the RET tool come out about 10 percent higher than the actual. So, in reality, if we were using the RET tool all the time, my expectation would be that I would be giving 10 percent of the money back to developers on a regular basis.").

¹²⁶ Tr. Vol. 1, p 46 Line 6-8.

unallocated or ‘stranded’ costs.”¹²⁷ Such cursory and unsupported assertions are insufficient and should be rejected, particularly given the fact that Williams bears the burden of proof in this proceeding.

Contrary to Mr. Burke’s criticisms and unsubstantiated “fears” (which Williams was unable to substantiate through discovery or otherwise), K. Jennings testifies that Duke’s approach to assigning overheads represents a “commonly accepted practice to allocate certain indirect expenses to capital projects in recognition of the fact that such expenses are incurred, in part, to support such capital projects.”¹²⁸ Witness K. Jennings further breaks down “overheads” into general corporate overheads included in the RET and DET Administrative Overheads.

In first addressing general corporate overheads, K. Jennings explains that “[d]istribution interconnection projects require the same support from management, resource management, work management and finance as all other distribution work. Therefore, it is appropriate that the interconnection work receive its equitable portion of the costs of these support functions.”¹²⁹ Witness K. Jennings further explains that Duke applies the same methodology to allocate general corporate overheads to retail distribution projects and distribution interconnection projects,¹³⁰ and further confirms that corporate overheads were reasonably and fairly applied to Williams: “[o]verheads were applied to the [Williams] Facilities Study cost estimate in a manner consistent with the Companies’ established practice and consistent with the manner in which overhead costs are actually

¹²⁷ Tr. Vol. 1, p 46 Line 15-17.

¹²⁸ Tr. Vol. 2, p 182 Lines 15-21 – p 183 Lines 1-3.

¹²⁹ Tr. Vol. 2, p 187 Lines 12-15.

¹³⁰ Tr. Vol. 2, p 187 Lines 19-21, p 188 Lines 1-5.

assigned to both retail and interconnection-related distribution work.”¹³¹ He also explained that Duke has not allocated the full general corporate overhead burden to the contingency amount in recognition of the fact that it is not certain that the entire amount of contingency will be used.¹³² Witness K. Jennings also affirmed that general corporate overheads are not designed to improve Duke’s “profit margin” (as was alleged by Williams) and further stated that, if constructed, Williams would only be responsible for the actual general corporate overheads assigned to it in accordance with the Companies’ established practices.¹³³

The assignment of DET Administrative Overheads is also reasonable and in no way intended to “improve Duke’s profit margin,” as alleged (without any evidence) by Witness Burke. Witness K. Jennings describes in detail how DET Administrative Overheads are comprised of labor (including accounting, technical standards, data management and reporting) and technology costs, including Salesforce enhancement project costs, that Duke incurs to support the interconnection process that are not otherwise direct charged to Interconnection Customers.¹³⁴ K. Jennings further explained that DET Administrative Overheads were implemented beginning April 1, 2018, after consultation with the Public Staff, and based upon the Commission’s direction to recover all interconnection-related cost from Interconnection Customer to the greatest extent possible.¹³⁵

There is also no basis to allege that Duke’s assignment of DET Administrative Overheads is discriminatory. DET Administrative Overheads are assigned consistently to

¹³¹ Tr. Vol. 2, p 182 Lines 15-21, p 183 Lines 1-3.

¹³² Tr. Vol. 2, p 189 Lines 16-21.

¹³³ Tr. Vol. 2, p 188 Line 15 – p 189 Line 3.

¹³⁴ Tr. Vol. 2, p 184 Lines 9-19.

¹³⁵ Tr. Vol. 2, p 184 Lines 3-8, p 185 Lines 1-8.

all Section 4 Interconnection Customers in a step manner as the Interconnection Customer progresses through each phase of the Interconnection process, such that Duke assigns less DET Administrative Overheads to projects that withdraw early in the process and an increasing allocation as the interconnection progresses from System Impact Study to Facilities Study to an executed Interconnection Agreement.¹³⁶ The current schedule of DET Administrative Overheads is available on Duke’s website and was also filed by Witness Burke.¹³⁷

In rebuttal, Mr. Burke criticizes the process that Duke undertook to develop and apply the DET Administrative Overheads, arguing that it is misleading to suggest that the Commission directed Duke to recover these costs from Interconnection Customers and that Duke should have sought Commission approval to implement the DET Administrative Overheads.¹³⁸ However, Witness K. Jennings rightly explained that Duke consulted with the Public Staff subsequent to the 2017 REPS docket about development of the DET Administrative Overhead charges, informed Interconnection Customers about the administrative overhead costs by posting them on Duke’s interconnection website, and communicated about the charges through the E-100 Sub 101 interconnection docket.¹³⁹ It is also clear from the Commission’s Order in the 2017 REPS dockets that the Commission recognized both that “[e]fforts . . . are underway to review and potentially revise the mechanism for establishing fees and deposits the renewable generator should pay” and that “[e]fforts should be made to match the costs to the appropriate recovery mechanism based on

¹³⁶ Tr. Vol. 2, p 186 Lines 1-22.

¹³⁷ Tr. Vol. 2, p 185 Lines 3-8; JB Rebuttal Exhibit 1, at 12.

¹³⁸ Tr. Vol. 4, p 125 Lines 16-19.

¹³⁹ Tr. Vol. 3, p 481 Lines 9-14.

the function of the service provided.”¹⁴⁰ Duke followed this direction by introducing adjusted interconnection fees that were specifically reviewed in the 2018 interconnection stakeholder process, addressed in testimony, and approved by the Commission in the *June 2019 Interconnection Order*.¹⁴¹

Duke disagrees with Mr. Burke that the Commission ordered Duke to file the DET Administrative Overheads with the Commission for approval prior to assigning these overheads to Interconnection Customers under the interconnection process. Overheads are fundamentally different from fees or charges specifically prescribed in the NC Procedures.¹⁴² For the same reasons that the Commission does not prescribe the cost of a pole or an hour of contractor labor expense or the corporate overhead burdens charged to Interconnection Customers, DET Administrative Overheads are indirect costs incurred specifically to support the generator interconnection process and, therefore, should be assigned to and recovered from Interconnection Customers. Williams is not correct that the Commission directed Duke to file the DET Administrative Overheads prior to beginning to charge these costs to Interconnection Customers, and K. Jennings’ testimony on this issue is certainly not misleading. Moreover, Witness Burke’s position cannot be reconciled with the NC Procedures and the Commission’s *June 2019 Interconnection Order*.¹⁴³ The NC Procedures direct the Companies to recover overhead costs from

¹⁴⁰ *January 2017 DEP REPS Order*, at 17-18.

¹⁴¹ *June 2019 Interconnection Order*, at 17 (“Utilities’ adjusted fees are reasonably designed to allow the Utilities to recover those costs more fully from Interconnection Customers”).

¹⁴² The Commission has recognized that Utilities may impose certain charges as “rates” subject to the Commission’s jurisdiction even though the method for calculating such payments is not specifically addressed in a tariff approved by the Commission. *See Order Ruling on Complaint*, at 8 Docket No. E-7, Sub 726 (Apr. 22, 2004) (asserting jurisdiction over a termination payment calculated by Duke under a Commission-approved rate schedule where the Commission approved the rate schedule and form of contract at issue, but the method for calculating a termination payment was not specifically addressed in either the tariff or the contract).

¹⁴³ *June 2019 Interconnection Order*, at 18 (“The Commission also directs the Utilities, to the greatest extent possible, to continue to seek to recover from Interconnection Customers all expenses (including

Interconnection Customers but make no reference to the need for such overhead costs to be filed with or approved by the Commission. Witness Burke's view regarding overheads can only be correct if one were to believe that the Commission would have directed the Companies to do something (i.e., recover reasonable overheads) but then simultaneously not allow them to implement such directive by failing to establish a schedule of charges (or even identify the need to establish a schedule of charges). This position is nonsensical.

Further, to promote transparency and as discussed in the Companies' May 15, 2020 Queue Reform Proposal in Docket No. E-100, Sub 101, Duke has agreed to annually report to the Commission on the DET Administrative Overhead charges being assigned to Interconnection Customers.¹⁴⁴

Finally, despite having the opportunity to gather more information through discovery, Williams has failed to even attempt to identify any specific flaw in the methodology used by Duke to determine its general corporate overheads or DET Administrative Overheads or to challenge the categories of costs included in such allocation. For instance, while Witness K. Jennings described the specific costs included in DET Administrative Overheads ("DET Administrative Overheads are primarily comprised of labor and technology costs incurred specifically to support the interconnection process that are not otherwise direct charged"), Williams made no attempt to argue that such costs are not appropriately allocated to Interconnection Customers or that Duke is calculating such allocations improperly.¹⁴⁵ In other words, Williams has

reasonable overhead expenses) associated with supporting the generator interconnection process under the NC Interconnection Standard").

¹⁴⁴ Duke Energy Carolinas, LLC's and Duke Energy Progress, LLC's Queue Reform Proposal, at 37-38, Docket No. E-100 Sub 101 (filed May 15, 2020) (Committing to file Duke's current schedule of DET overhead costs with the Commission on March 1 annually, along with the Company's current reporting of fee-related cost information, as required by the *June 2019 Interconnection Order*).

¹⁴⁵ Tr. Vol. 2, p 184 Lines 6-8.

woefully failed to carry its burden of proof to show that Duke's DET Administrative Overhead costs are not reasonable or reflective of Duke's actually-incurred indirect costs to support the generator interconnection process.

In sum, the general corporate overheads and DET Administrative Overheads assigned to Williams in the Facilities Study estimate are reasonable and appropriate and Mr. Burke's "fears" and completely unsubstantiated opinion testimony that these assigned costs are excessive and intended to promote Duke's profit margin has no basis in fact.

d. Williams presents no credible evidence that the detailed Facilities Study cost estimate is not accurate or was not delivered by DEP in good faith

A critical evidentiary building block for Williams to prove that Duke has not acted in good faith is its allegation that the Facilities Study cost estimate is not a more accurate and appropriately detailed estimate based upon Duke's actual recent experience and efforts to improve its cost estimating process. Williams has failed to present any credible testimony to support its allegations that the revised estimate delivered to Williams is inaccurate or not appropriate.

Witness Burke testified to his "belief" that "SIS estimate appeared to be high but is much closer to Williams's expectation than the facilities study estimate."¹⁴⁶ But he fails to provide any information to support his "expectations" and "beliefs" except generalized statements about his past experience. Witness Burke also relied on generalized comparisons of interconnection costs between different projects without any attempt to assess the dramatically differing scopes of work that can be required to interconnect particular projects.¹⁴⁷ It makes no sense to compare the "interconnection cost" for one

¹⁴⁶ Tr. Vol. 1, p 51 Lines 16-17.

¹⁴⁷ Tr. Vol. 1, p 92 Lines 1-20.

project that is located directly next to a substation and requires no Upgrades to the “interconnection cost” of a second project that is located five miles from the substation and requires extensive Upgrades. Mr. Burke’s simplistic approach to assessing interconnection costs is analogous to developing a generalized expectation of what an airplane flight should cost based on past experience booking flights between Raleigh and Atlanta and then being surprised that a flight from Raleigh to Japan is more expensive. During the hearing, Duke Witness K. Jennings similarly testified that each generator interconnection construction project is comprised of unique technical requirements, often on widely variable terrain, and is “furthest thing from a strip-house development.”¹⁴⁸

Other testimony from Duke and Mr. Burke himself also undercut his generalized expectations and experience. Witness K. Jennings highlighted Duke’s experience that the increasing penetrations of solar generators on the DEP system has resulted in increasing distribution and transmission upgrades as well as increasingly complex and costly solutions to connect additional utility scale generating facilities over new rights of way.¹⁴⁹ K. Jennings also pointed out that other developers have recently testified to the Commission about the “dramatic increases in interconnection costs across the industry” over the past few years.¹⁵⁰ Mr. Burke also conceded that the solar industry in North Carolina began recognizing increased costs in the study process in 2017,¹⁵¹ but that he could provide no information to the Commission on the actual costs increases being

¹⁴⁸ Tr. Vol. 3, p 39 Line 15 – p 40 Line 2 (“the furthest thing from a strip-house development is interconnection work. Not one interconnection project is the same, and in some instances one that could be the same one day is not the same the next day, because it rains, because we have a hurricane, something else happens. So I just don't think that housing -- you know, strip housing, especially, where you are just -- you're basically plowing down a field, cutting all the trees down, and building a bunch of houses that all cost the same, that's nothing like what we're doing with interconnection.”).

¹⁴⁹ Tr. Vol. 2, p 191 Lines 11-12.

¹⁵⁰ Tr. Vol. 2, p 192 Lines 7-11.

¹⁵¹ Tr. Vol 1, p 106.

experienced by other developer between Facilities Study and final accounting because he did not to participate in industry conversations on those issues as GreenGo had not received any final accounting reports until early 2020.¹⁵²

In response to questions from Commissioner Clodfelter, Witness Burke admitted that he could not provide any evidence regarding whether Duke's Facilities Study estimate is reasonable.¹⁵³ Williams also specifically refused to provide information requested by Duke in discovery describing its interconnection cost experience with other utilities in other jurisdictions.¹⁵⁴

Williams' other witness, Mr. Bolyard, specifically testified that he has "not independently formed an opinion regarding what the 'right' number should be" to construct the Upgrades and Interconnection Facilities for Williams. He further conceded that he did "not independently evaluate[], information provided in discovery by DEP relating to actual construction costs it incurred in connection with other interconnection projects."¹⁵⁵

In contrast to Williams' complete lack of credible testimony on this issue, Duke has consistently supported the detailed Facilities Study cost estimate as an accurate and appropriate estimate for inclusion in Williams' Interconnection Agreement issued in October 2019.¹⁵⁶

Finally, it is important to reiterate K. Jennings' testimony that Section 6.1.2 of the form Interconnection Agreement provides that the Interconnection Customer is 100% responsible for the actual costs of the Upgrades and Interconnection Facilities, which are

¹⁵² Tr. Vol. 1, p 108 Lines 18-24.

¹⁵³ Tr. Vol. 4, p 138 Line 24 – p 139 Line 5 ("Q. Right. But on the record that we have in front of us today, we really don't have any evidence to know whether or not an actual set of invoices for \$1,500,000 would or would not be reasonable; we don't have the evidence on that? A. That's right.")

¹⁵⁴ Tr. Vol. 2, p 192 Lines 12 – p 192 Line 9.

¹⁵⁵ Tr. Vol. 2, p 49 Lines 7-15.

¹⁵⁶ Tr. Vol. 3, p 70 Line 15 – p 71 Line 22.

charged prospectively at the time the Interconnection Agreement is executed and are then tried up through the final accounting process after construction is completed. Therefore, it would not be reasonable (or in the best interest of Williams) to require DEP to include a lower cost estimate in the Interconnection Agreement that does not reflect DEP's current best estimate of Interconnection Facilities and Upgrade costs to interconnect Williams.¹⁵⁷

In sum, Williams has failed to present any credible evidence that the detailed Facilities Study cost estimate is not accurate or was not delivered by DEP in good faith.

e. All Interconnection Customers have been treated comparably since Duke evolved its cost estimating methodology

As part of the Commission's assessment of whether Duke has delivered the detailed cost estimates to Williams in good faith, the Commission should consider whether Duke has treated Williams comparably to all other Interconnection Customers. Duke Witnesses K. Jennings and S. Jennings testify that the updated cost estimating methodology has been applied in a reasonable and non-discriminatory manner and uniformly to all DEP Interconnection Customers that have received Facilities Study reports since July 30, 2019.¹⁵⁸ These witnesses' testimony shows that DEP treated all projects like Williams that straddled the change in cost estimating practice in a consistent manner.¹⁵⁹ After beginning to use the RET for pending Facilities Studies, Duke also undertook further good faith efforts by applying the RET to projects in construction and providing those Interconnection Customers with updated cost notices prior to issuing post-construction final accounting reports.¹⁶⁰

¹⁵⁷ Tr. Vol. 2, p 214 Lines 7-18 (citing Interconnection Agreement, Sections 6.1.1 and 6.1.2).

¹⁵⁸ Tr. Vol. 2, p 255, Lines 5-7; p 264, Lines 1-2.

¹⁵⁹ Tr. Vol. 2, p 164, Line 7-8; p 255, Lines 5-7, p 256, Lines 6-8; p 264, Lines 1-2.

¹⁶⁰ Exhibit JB-8, at p 29.

Mr. Burke also could not present any evidence that Duke has treated Williams or GreenGo's numerous other Interconnection Customers differently than similarly situated Interconnection Customers that straddled the change.¹⁶¹ In contrast, Duke Witness K. Jennings unequivocally explains that Duke has "applied its revised cost estimating methodology in a reasonable and non-discriminatory manner uniformly across all similarly situated interconnection requests in the Duke interconnection queue."¹⁶² "[W]hen improvements are identified, they are implemented at a single point in time but will, in some cases, have differing impacts on different projects depending on the interconnection status of each project."¹⁶³ This is neither unreasonable nor discriminatory to Williams, but, instead, is a rational result of the significant volume of Interconnection Requests progressing through Duke's interconnection process. Thus, Williams' experience is not unique, as Duke has treated all Interconnection Customers comparably since evolving its cost estimating methodology

f. Williams presents only innuendo and unsubstantiated allegations that Duke's cost estimating process, as applied to Williams, was discriminatory

In addition to treating Williams comparably to all other Interconnection Customers, there is also no evidence to support Mr. Burke's allegation of discriminatory treatment. Mr. Burke suggests "the possibility" that DEP's 'low estimates are accurate for its own projects, but inaccurately low for solar developers . . .'" who Mr. Burke suggests are DEP's "independent power producing competitors."¹⁶⁴ However, Williams provides no support for these allegations, which are not supported by any facts.

¹⁶¹ Tr. Vol. 1, p 95 Line 11 – p 96 Line 6; p 109 Lines 3-9.

¹⁶² Tr. Vol. 2, p 255 Lines 5-7.

¹⁶³ Tr. Vol. 2, p 155 Lines 16-18.

¹⁶⁴ Tr. Vol. 1, p 51 Lines 7-11.

Williams looked hard for potential discriminatory treatment, but came up empty. In discovery, Williams asked DEP to “describe any difference between DEP’s process for estimating costs of constructing upgrades necessary for interconnection of independent generation (*i.e.*, PURPA qualified facilities) and DEP’s process for estimating DEP’s own construction costs (*i.e.*, for system modifications including for interconnection of DEP’s own generation facilities or other system modifications undertaken by DEP)”¹⁶⁵ In response, Duke explained that the Company “utilizes the same design and cost estimating process (use of Maximo and common design standards) for all Distribution construction projects that is used for estimating costs of construction upgrades necessary for interconnection of independent generation (*i.e.* PURPA qualifying facilities) and DEP’s own construction costs (*i.e.*, for system modifications including for interconnection of DEP’s own generation facilities or for customer addition, reliability improvement or other system modifications undertaken by DEP).”¹⁶⁶ Duke further explained that the Company “utilizes Maximo for both independent generation and DEP-owned projects,” and has “integrated a generator interconnection-specific Revised Estimating Tool as part of the Facilities Study process.”¹⁶⁷ DEP even supplemented its response at Williams’ request to definitively confirm that “DEP has used the same methodology to estimate the cost of parts, labor and overheads for all construction projects (DEP-owned generation subject to the NC Interconnection Procedures, 3rd party generation as well as retail, commercial, industrial and governmental load customers.”¹⁶⁸

¹⁶⁵ Exhibit JB-9, at 17.

¹⁶⁶ Exhibit JB-9, at 17-18.

¹⁶⁷ Exhibit JB-9, at 17-18.

¹⁶⁸ Exhibit JB-10, at 13.

Witness Burke also raises some unfortunate circumstances related to a third-party contractor employee's conduct to suggest "I am unable to rule out that personal animus played a role in the treatment of Williams's interconnection request" in order to question whether Williams was treated in a discriminatory fashion by Duke.¹⁶⁹ Witness K. Jennings addresses the "ihateyou" phrase embedded in metadata created by a third-party contractor employee without Duke's knowledge or involvement and is unequivocal that metadata "resulted from the poor judgment of a single contractor and is not evidence of any personal animus towards Williams or GreenGo."¹⁷⁰ Mr. Burke also recognizes that Duke personnel apologized to Mr. Burke for the unprofessional nature of the communication.¹⁷¹

In sum, Williams has failed to present any evidence suggesting that Duke is disadvantaging Williams or otherwise treating QFs differently than other Interconnection Customers because the Company is not.

g. Williams' detrimental reliance argument should be rejected

Williams Witness Burke argues that he "trusted and relied on Duke's SIS estimate for establishing Williams's budget . . ." ¹⁷² Based upon this assertion of reliance, he later argues that "DEP should be held, at the most, to the results of the initial SIS estimate"¹⁷³ and specifically asks the Commission to "require[e] DEP to promptly render a revised facilities study estimate capped at DEP's initial SIS estimate, adopting a rebuttable presumption that any actual costs exceeding 110% of the revised estimate are unreasonable."¹⁷⁴

¹⁶⁹ Tr. Vol. 4, p 118 Lines 17-18.

¹⁷⁰ Tr. Vol. 2, p 255 Lines 8-17.

¹⁷¹ Tr. Vol. 4, p 118 Line 15.

¹⁷² Tr. Vol. 1, p 108 Lines 18-20.

¹⁷³ Tr. Vol. 1, p 52 Lines 2-3.

¹⁷⁴ Tr. Vol. 1, p 52 Lines 13-16.

However, it was not reasonable for Williams to assume that the preliminary cost estimates delivered in the System Impact Study would not change—and potentially significantly—if Williams elected to continue to proceed through the interconnection process. It would also be wholly inconsistent with the NC Procedures to mandate that preliminary cost estimates (which had historically only included estimated construction costs and not other non-construction cost items) be used as the final detailed cost estimates or to impose the presumption requested, particularly given the numerous cost items that Williams understood were not included in the System Impact Study estimate and the fact that it was only a preliminary baseline cost estimate.

The NC Procedures clearly explain the limited purpose of the initial estimates delivered in the System Impact Study report is to provide a non-binding “preliminary indication” of the costs to construct the Upgrades and Interconnection Facilities if the IC elects to continue through the study process.¹⁷⁵ Commissioner McKissick questioned whether the changes to the description of cost estimates between the 2015 version of the procedures and the 2019 NC Procedures changed the level of detail included in the preliminary System Impact Study estimates. As explained by Duke Witness K. Jennings, the currently-approved 2019 NC Procedures further clarified that the preliminary System Impact Study cost estimates would be “developed using high level estimates” and that Duke did not view the change in language to change the level of detail or precision of the preliminary cost estimate being provided.¹⁷⁶ And, for the avoidance of doubt, the Williams

¹⁷⁵ See *June 2019 Interconnection Order*, Appendix A, NCIP Section 4.3.5 and NCIP Section 4.3.6, Attachment 1 Definitions Preliminary Estimated Interconnection Facilities Charge and Preliminary Estimated Upgrades Charge (showing redlines of revisions to NCIPs from prior 2015 standard when Williams was in SIS and currently-operative 2019 standard).

¹⁷⁶ Tr. Vol. 3 p 30 Lines 3-13 (“A. I think you’re correct. I’m just not exactly sure what the distinction between preliminary and high-level would be.

Q. In your mind, is there any distinction between the two?

System Impact Study estimate was developed using “unit costs” as was required under the then applicable NC Procedures as is described in the testimony of DEP Witness McNeill.¹⁷⁷ Furthermore, the 2015 version of the NC Procedures applicable at the time of the Williams System Impact also identified the fact that the System Impact Study estimate was not based on “field visits” or “detailed engineering cost calculations” (this requirement is unchanged in the 2019 version).¹⁷⁸ Based upon the language of the then-applicable version of NC Procedures, providing that these estimates were preliminary in nature and did not represent the more refined estimate that would be developed through more detailed design and engineering that occurs during Facilities Study, it was not reasonable for Williams (or any other Interconnection Customer) to rely upon such preliminary estimates as binding or unlikely to change. This was particularly true for Williams, as GreenGo was already aware that the project was approaching its own threshold for cost effectiveness and would require additional investments to obtain a variance from Johnston County (or the purchase of additional property) to construct the facility.

Duke Witness Holmes further explained the preliminary nature of these estimates under the AACE cost estimating guidance,¹⁷⁹ which Witness Bolyard also recognized as an

A. Well, without having them defined, no. I would think preliminary means that -- I mean, in my opinion, it means that I don't have a lot of information to make that estimate.”).

¹⁷⁷ Tr. Vol. 2, p 131 Lines 9-12; p 139 Lines 3-6.

¹⁷⁸ There was also discussion during the hearing regarding whether the fact that the 2019 version of NC Procedures included a new requirement to post security subsequent to System Impact Study (Section 4.3.9) for assigned Network Upgrade costs somehow altered the Companies’ defined obligations regarding the System Impact Study cost estimate. *See e.g.*, Tr. Vol 3, p 41-42. As discussed by Witness K. Jennings, this additional requirement (see Section 4.3.9 of the NC Procedures) is irrelevant in this proceeding, as it is only applicable to Network Upgrades and Williams was not assigned any Network Upgrades. Tr. Vol. 4, p 96-98. Furthermore, the addition of Section 4.3.9 was intended to solve transmission level interdependency issues and not a reflection of a differing expectation regarding the level of cost estimate provided during System Impact Study. *Id.*

¹⁷⁹ *See* K. Jennings/S. Holmes Exhibit 1, Association for the Advancement of Cost Engineering Cost Estimate Classification System – As Applied in Engineering, Procurement and Construction for the Power Transmission Line Infrastructure Industries” (“AACE Cost Estimating Framework”).

appropriate authority on cost estimating practices.¹⁸⁰ Mr. Holmes testified that “cost estimates become more certain (and have less potential variability) as further project development work occurs” and explained how the AACE Cost Estimating Framework groups costs estimates by “class,” ranging from Class 5 to Class 1 and specifies that the “maturity level of project definition is the sole determining (i.e., primary) characteristic of class.”¹⁸¹ Witness Holmes explained that, assuming proper contingency is included in a cost estimate, the AACE classifications identify the expected accuracy range at an 80% confidence level that a cost estimate will be accurate within the Class’s prescribed range based upon the maturity level of project definition at the point the estimate is developed.¹⁸²

Applying the AACE Cost Estimating Framework’s guidelines and principles, Witness Holmes testified that “[a]t the time of production of the System Impact Study cost estimate, Duke does not have detailed design engineering for the interconnection, a definitive materials list, or a construction schedule nor has it conducted a site assessment or any field engineering or right of way investigation (where necessary). As such, the System Impact Study cost estimate in most cases would be at a Class 5 estimate, which per AACEI [sic], would have an expected variation of actual costs of up to +100% on top of any necessary contingency.”¹⁸³

Witness Bolyard disputes that the System Impact Study is a Class 5 estimate, instead, arguing that the level of project maturity in a System Impact Study report is more appropriately a Class 4 estimate, which has an expected accuracy range on the low side of

¹⁸⁰ Tr. Vol. 4, p 147 Lines 1-11.

¹⁸¹ Tr. Vol. 2, p 168 Line 16 – p 169 Line 12.

¹⁸² Tr. Vol. 2, p 169 Line 21 – p 170, Line 12.

¹⁸³ Tr. Vol. 2, p 171 Lines 1-9.

-15% to -30% and an expected accuracy range on the high side of +20% to +50%,¹⁸⁴ after appropriate contingency “somewhere in the range of 20 to 25 percent.”¹⁸⁵

Based on Duke Witness Holmes testimony and even the testimony of Williams’ own expert, Mr. Bolyard, it was not reasonable for Williams to assume that the preliminary System Impact Study cost estimate would not change significantly—as much as 50% or 100%—even after including appropriate contingency. Said differently, even applying the AACE Cost Estimating Framework Class 4 expected accuracy range recommended by Williams Witness Bolyard as well as his recommended contingency at System Impact Study to the initial System Impact Study baseline cost estimates (which did not include contingency), a conceivable outcome within the 80% confidence interval would have been cost deviations within a range of \$366,000¹⁸⁶ to \$729,750,¹⁸⁷ resulting in the potential for total costs within a range of \$1,200,000 to \$1,563,750.¹⁸⁸ Thus, even under the scenarios presented by Williams’ own expert, there was still significant risk that the cost estimates provided to Williams during the System Impact Study could change, further showing why it was unreasonable for Mr. Burke to assume that there was no possibility that the preliminary System Impact Study estimates could change substantially.

¹⁸⁴ While Mr. Bolyard’s pre-filed testimony suggested that the System Impact Study report cost estimates at Class 4, are “likely in the range of -15% to +20% of actual costs,” Tr. Vol. 4, p 150 Line 4, he testifies repeatedly during the hearing that he “misspoke” and that “[a]t the Class 4, it would be plus 50 [percent].” Tr. Vol. 2, p 101, Line 15-16; p 102 Lines 2-3; *see also* Tr. Vol. 2, p 101 Lines 15-19 (“that may well be an error on my part in speaking, because it should be at the – the Class 4 should be at the higher percentage. And I didn’t realize that I had spoke to both of them at plus 20.”).

¹⁸⁵ Tr. Vol. 2, p 103 Lines 10-13.

¹⁸⁶ Assumes Bolyard’s lower 20% contingency and lower Class 4 upper variance of 20%: $(\$834,000 \times 1.2 \times 1.2) - \$834,000 = \$366,960$.

¹⁸⁷ Assumes Bolyard’s higher 25% contingency and the higher Class 4 upper variance of 50%: $(\$834,000 \times 1.25 \times 1.5) - \$834,000 = \$366,960$.

¹⁸⁸ Calculated using the preliminary \$834,000 baseline estimate delivered in Williams’ System Impact Study.

h. The record does not support Williams' argument that Duke should have informed Williams of the potential for future increased cost estimates at the time the System Impact Study was issued

In an effort to support its theory that Duke has not acted in good faith, Williams Witness Burke argues that Duke should have informed Williams if Duke “believed its SIS estimate was unreliable or inaccurate.”¹⁸⁹ Witness Bolyard goes even further to suggest that the System Impact Study estimate “was not provided honestly, as DEP believed at the time the estimate was provided to Williams that its estimates were inaccurate.”¹⁹⁰ However, the record does not support Williams' arguments that Duke had formed an actionable belief that its preliminary cost estimates delivered to Williams were not reasonably accurate at the time the System Impact Study report was completed and issued.

Duke Witness Jack McNeill explains that Duke completed the technical portion and preliminary cost estimation process of the System Impact Study on or before December 20, 2018,¹⁹¹ and the System Impact Study report was subsequently finalized and delivered to Williams on January 28, 2019.¹⁹² Witness K. Jennings describes the detailed investigation that Duke undertook since first becoming aware of cost exceedances during the first quarter of 2018 as Duke began to receive invoicing and close out recently completed generator interconnection construction projects.¹⁹³ Mr. K. Jennings highlights that “[i]n 2018 and into early 2019, Duke devoted substantial resources to fully assessing the cost exceedances that were occurring and understanding the scope and primary drivers.”¹⁹⁴

¹⁸⁹ Tr. Vol. 1, p 109 Lines 1-4.

¹⁹⁰ Tr. Vol. 4, p 145 Lines 8-11.

¹⁹¹ See Exhibit JB-2, SIS Report dated December 20, 2018.

¹⁹² See Exhibit JB-2, SIS Report transmittal email from L. Winters dated January 28, 2019.

¹⁹³ Tr. Vol. 2, p 175 Lines 1-6.

¹⁹⁴ Tr. Vol. 2, p 175 Lines 19-20.

However, the most crucial data points needed to fully understand and assess the issue was the completion of final accounting reports, which first began to be issued in small numbers in late 2018. At the time that the Williams Facility Study estimate was delivered in early 2019, there was simply not a large enough data set of final accounting reports to have full certainty that the revised estimating tool should be implemented or that the Companies' tool was sufficiently fine-tuned to meaningfully improve the accuracy of the cost estimating process. During the hearing, Witness K. Jennings confirmed this, explaining that at the end of 2018—the time the Williams System Impact Study report was being finalized—that Duke did not have sufficient data to identify whether there was actually a systemic problem, let alone to be sure that the solution being developed would accurately address the issue.¹⁹⁵ Mr. K. Jennings testified that Duke had only completed 12 final accounting reports by year-end 2018, and stated unequivocally that the Company did not have enough information to actually conclude that there was a systemic issue in the cost estimating process based upon the final accounting reports that had been completed.¹⁹⁶

Moreover, even based upon all information Duke has developed as of the date of the hearing, many projects analyzed had experienced relatively minor cost variances between estimated construction costs and actual construction costs. Witness K. Jennings testified that 55% of the 93 projects analyzed had experienced total variance less than \$100,000.¹⁹⁷ The fact that a majority of cost exceedances experienced by projects were

¹⁹⁵ Tr. Vol. 3, p 14 Lines 4-18 (“In early 2019, we began to look at those things more closely, and it wasn't until then that we started to receive a lot of projects from 2018 that we could actually use. And the reason that is because most of our projects get connected in the fourth quarter of a year. So, in early 2019, we begin to see more projects, we begin to create more final accounting reports, and we actually then began to identify a pattern that we could actually then identify the issues and create a solution, and that's where we got the RET, the Revised Estimating Tool.”).

¹⁹⁶ Tr. Vol. 3, p 95 Line 17 – p 96 Line 8.

¹⁹⁷ DEP Late Filed Exhibit 1, Table 2.

small in absolute dollars supported the Companies' approach of carefully assessing the root causes and only implementing a solution after thorough vetting and testing.

Contrary to Mr. Bolyard's allegation that Duke was "not honest" with Williams, Mr. K. Jennings testified that as of the time the Williams System Impact Study report was being issued he was not aware of the magnitude of the issues and had "no idea" that it would potentially affect Williams¹⁹⁸ nor was he aware that the estimate was not accurate at the time it was sent to Williams.¹⁹⁹

Despite the criticisms lodged by Williams' witnesses, Mr. K. Jennings explained that "I do believe that Duke undertook a reasonable process to first investigate the cost discrepancies that were starting to arise between pre-construction cost estimates and post-construction invoices for completed interconnection work, all while continuing to meet all other regulatory obligations and process more generator interconnection requests than any other utility in the country. In these circumstances, a one and a half year time period to identify a major trend of cost discrepancies, assess the causes for such discrepancies, develop accurate and intentionally designed solutions to them, and implement such solutions on a Duke-wide basis is not unreasonable in my opinion."²⁰⁰ Mr. S. Jennings further confirmed that while the RET had been preliminarily developed by the end of late 2018 and at the time of the Williams System Impact Study cost estimate, the Companies did not have enough information to make such a fundamental change to its cost estimating methodologies.²⁰¹

¹⁹⁸ Tr. Vol. 3, p 15 Lines 19-24 ("So I would say that I was – I was actively examining issues, and I – and yes, I probably knew that there were -- there were issues. I had no idea what the magnitude of the problem was or that it would even affect the estimate that was prepared for Williams.").

¹⁹⁹ Tr. Vol. 3, p 40 Line 7 ("I did not know it was wrong at the time.").

²⁰⁰ Tr. Vol. 2, p 177 Lines 5-14.

²⁰¹ Tr. Vol. 4, p 96 Lines 1-9.

It is also important to recognize that Duke had no obligation between issuing the System Impact Study report and Facilities Study report to advise Williams that it was evolving its cost estimating methodology and that its preliminary estimates may change. Estimates routinely change, sometimes significantly,²⁰² between System Impact Study and Facilities Study and neither Duke nor Williams was bound by those preliminary estimates.²⁰³ As Witness K. Jennings testified, it was also questionable whether there would be any benefit to providing preliminary information that cost estimates might change prior to fully developing a solution and obtaining internal approvals required to modify the cost estimating process.²⁰⁴

Duke has often been criticized in the past regarding its transparency and communication related to interconnection issues. On the one hand, Duke has identified numerous ways in which it can improve communications both with individual Interconnection Customers and with the third-party solar development community as a whole. On the other hand, however, it should also be recognized that there are often countervailing reasons why certain decisions are not susceptible to full stakeholder input and participation, and the Commission itself has recognized the divergent priorities and perspectives of Duke as compared with solar developers and the inherent challenges of requiring “decision by committee,” particularly with respect to highly technical issues or issues requiring some level of subjective judgment.²⁰⁵ Furthermore, many aspects of

²⁰² Tr. Vol. 4, p 37 Line 11-14.

²⁰³ Tr. Vol. 4, p 52 Lines 3-17.

²⁰⁴ Tr. Vol. 4, p 73 Lines 10-21.

²⁰⁵ *June 2019 NC Procedures Order*, at 51 (“while Utilities have long-term responsibility to serve customers reliably and safely, DER developers are often transitory and potentially have little or no long-term commitment to the electric system whose design they would like to influence. . . . Because the Commission will continue to hold North Carolina’s Utilities to high operational standards, it is not appropriate for the Commission to hobble them with a requirement to make important System design decisions by committee.”).

interconnection process are dictated by the NC Procedure and, one-off, unique communications always run the risk of being contrary to the NC Procedures or failing to treat all Interconnection Customers on a comparable basis. When the Companies implement changes to the interconnection process, Duke is required to do so across the entire interconnection queue and attempts to avoid situations where it is advising one Interconnection Customer in a manner that is unique relative to other Interconnection Customers.

As it relates to the Companies' implementation of revised cost estimating methodologies, one could speculate regarding different approaches the Companies could have taken as it worked in early 2019 towards a solution. It certainly would have been possible to simply pause all further studies until the issues was resolved, but such an approach would have been met with extreme opposition.²⁰⁶ The Company could have also immediately applied a blunt adjustment to the Facilities Study estimates but, ultimately, did not elect that approach partially in light of the fact that many of the cost exceedance were not substantial in absolute dollars, opting instead to spend the time necessary to develop and test a new tool and only implement once it had a high degree of confidence in such tool.²⁰⁷

In sum, the facts do not support GreenGo's allegations that the Company believed its System Impact Study estimate was unreliable or inaccurate at the time it was sent or that Duke was "not honest with Williams." Duke continues to support its good faith efforts to investigate, confirm, analyze, and develop a solution for the growing discrepancy between cost estimates and actual costs, in less than a year, and to then further review, obtain

²⁰⁶ Tr. Vol. 3, p 16 Lines 6-9.

²⁰⁷ Tr. Vol. 3, p 103 Lines 8-15.

internal approvals and to implement that solution within an approximately six month period.²⁰⁸

i. Williams' baseless allegations and conspiracy theories regarding Duke's motives show that its other arguments are not credible.

While not directly relevant to the specific question of whether Duke's preliminary System Impact Study and detailed Facilities Study cost estimates were provided to Williams in good faith, Mr. Burke also repeatedly questions Duke's motives and disparages its broader efforts to administer the generator interconnection process. While these mischaracterizations, baseless allegations, and unsubstantiated conspiracy theories should be disregarded in deciding the issues raised by the Complaint, they also call into question the credibility of Mr. Burke's testimony in this proceeding.

First, Witness Burke attempts to paint Duke as administering the interconnection process with the goal of thwarting solar developers from developing projects in North Carolina to avoid competition, alleging that "Duke has enhanced its bottleneck control of how, when and under what terms its competitors may interconnect with its network and thereby significantly influences (read restricts) wholesale competition."²⁰⁹

Such conspiratorial allegations are irreconcilable with Duke's broader good faith efforts and unparalleled success in processing thousands of interconnection requests on behalf of dozens of third-party developers under NC Procedures. Witness K. Jennings' testimony unquestionably shows that Duke is a national leader in processing utility scale solar Interconnection Requests. Since 2015, Duke has led the nation in interconnecting

²⁰⁸ Tr. Vol. 2, p 176 Lines 19-23.

²⁰⁹ Tr. Vol. 4, p 112 Lines 9-12.

projects 2 MW – 20 MW to its distribution system.²¹⁰ The record also shows that GreenGo’s numerous projects are progressing through the Duke interconnection process, with 8 projects executing interconnection agreement and commencing construction in 2019 and an additional 12 doing so in 2020.²¹¹ In sum, the Commission should give substantial weight to K. Jennings’ testimony that “Duke has exerted extraordinary efforts to process over 1,100 utility-scale solar Interconnection Requests . . . [and these] ongoing efforts and overall accomplishments in studying and interconnecting an unparalleled number of utility-scale solar Interconnection Customers undercut Williams’ generalized allegations that Duke’s actions in this case were not undertaken in good faith and were allegedly intended to serve as a barrier to interconnection of third-party QF generation”²¹²

Witness Burke’s second equally dubious conspiracy theory is that Duke has repeatedly “rais[ed] technical barriers” in the study process and “place[d] roadblock after roadblock in the path of solar developers to thwart and delay the interconnection process and speed”²¹³ with the “intention to make interconnection as difficult, time consuming, and expensive as possible.”²¹⁴ In discovery, Mr. Burke spoke even more candidly about his beliefs that “DEP uses its monopoly control of the interconnection study process, among many others means, to thwart solar developers from interconnecting, or to maximize the costs of interconnecting, and thereby to maximize DEP’s profit.”²¹⁵

²¹⁰ Tr, Vol. 2 p 161 Line 8 – p 164 Line 14. Williams’ Cross Exhibit 3 is inapposite because projects less than 2 MW likely do not proceed through full System Impact Study and Facilities Study process. Even accepting Williams’ alternative presentation of Energy Information Administration data, North Carolina is still unquestionably shown to be the national leader in interconnecting projects between 1MW and 20 MW and Duke alone has still interconnected more projects than 48 other States, including California, in this expanded size range over the period 2015 to 2019.

²¹¹ Tr. Vol. 1, p 93 Lines 2-13.

²¹² Tr. Vol. 2, p 164 Lines 1-14.

²¹³ Tr. Vol. 4, p 120 Lines 18-20.

²¹⁴ Tr. Vol. 4, p 112 Lines 15-17.

²¹⁵ Jennings/Holmes Exhibit 3, at 11 DR 2-15.

Again, these allegations are baseless and simply lay bare that Mr. Burke has an ax to grind over Duke’s administration of the generator interconnection process. As Witness K. Jennings explains, what Witness Burke characterizes as technical barriers are, in actuality, Duke’s reasonable study methodologies and practices to ensure that the safety, reliability and quality of service to other customers is maintained. While it is true that Duke has unilaterally implemented such policies, it also true that Duke is unilaterally responsible for ensuring reliable service to all customers. The Commission has consistently recognized the differing perspective of the utility, on the one hand, which is responsible for long-term reliability and solar developers, on the other hand, whose primary focus is achieving interconnection irrespective of long-term grid impacts.²¹⁶

As early as November, 2016, about the time Williams entered the interconnection queue, the Commission found that Duke is “taking appropriate steps to ensure electric service to retail customers is not degraded due to the operations of newly interconnected generation facilities,”²¹⁷ and Duke has continued to evolve technical standards, when needed, consistent with Good Utility Practice to ensure that power quality and reliable service is maintained for all customers as increasing penetrations of new solar generators—including GreenGo’s significant number of projects that have completed the interconnection study process and remain in study today—are being interconnected to the grid. Contrary to Mr. Burke’s allegations that Duke is exerting “monopoly control of the interconnection study process, among many others means, to thwart solar developers” the Commission recognized after the extensive proceeding in 2018 and 2019 that “Duke has

²¹⁶ *June 2019 NC Procedures Order*, at 51.

²¹⁷ *Order Regarding Duke Settlement Agreement With Generation Interconnection Customers*, Docket No. E-100, Sub 101 (Nov. 1, 2016).

applied reasonable judgment and has taken appropriate steps in light of the facts known to establish the Method of Service Guidelines and other technical standards, as a reasonable implementation of Good Utility Practice.²¹⁸

The Commission also rejected arguments that “the Commission has not exercised oversight over Good Utility Practice since its 2015 Order,” instead noting that the Commission is “holding the Utilities to high operational standards” and directing Duke to “continue to take a conservative view when evaluating impacts of generator interconnections and assigning costs associated with Interconnection Requests . . . [to] ensure that electric service is not degraded or adversely impacted.”²¹⁹

The Commission also responded to challenges to Duke’s technical standards and an alleged lack of oversight by the Commission by “not[ing] that not a single complaint has been filed with the Commission relative to the question of “Good Utility Practice. . .”²²⁰ It is telling that while Mr. Burke testifies so harshly about Duke’s efforts to evolve its technical standards and maligns the Company’s application of Good Utility Practice under the NC Procedures (a subject exclusively within the jurisdiction and oversight of the Commission), GreenGo “has filed a lawsuit against DEP in the North Carolina Business Court” over technical standards versus bringing its case to the Commission where it belongs.²²¹

In sum, as Witness Burke acknowledges, “this [complaint] proceeding is not the proper proceeding for this debate”;²²² however, Mr. Burke’s conspiratorial allegations and unquestionably biased views on these issues—which are 180 degrees polar opposite of the Commission’s repeated findings—should inform the Commission’s assessment of the

²¹⁸ *June 2019 NC Procedures Order*, at 50.

²¹⁹ *Id.*

²²⁰ *Id.*

²²¹ Tr. Vol. 4, p 114 Lines 1-7.

²²² Tr. Vol. 4, p 113 Lines 10-11.

credibility of Mr. Burke’s allegations that Duke has not acted in good faith in administering the interconnection process for Williams.

j. The Commission should not grant any of Williams’s requested relief

Williams has failed to prove that Duke has not performed all of its obligations under the NC Procedures—including its specific obligations to provide costs estimates to Williams—in good faith and in accordance with the requirements of the NC Procedures. Both cost estimates were produced in a manner consistent with DEP’s treatment of all other Interconnection Customers and based on the estimating tools reasonably utilized at that time.²²³ Therefore, there is no basis to provide any of Williams’ requested relief. For completeness, Duke also responds to certain aspects of the relief request by Williams in its Complaint, as well as by Witness Burke in his testimony.

1. The Commission should deny Williams’ request that DEP be required to refund Facilities Study costs

DEP’s costs direct charged to Williams for completing the Facilities Study were \$24,202.28. Williams requests that the Commission order DEP to refund these charges.²²⁴ This request should be denied, however, as there is no basis for this requested relief given that DEP has performed its obligations under the NC Procedures diligently and in good faith.

Witness K. Jennings testifies that “[t]he Facilities Study costs reflect the actual cost incurred by DEP to perform the study requested by Williams and required by the NC Procedures.”²²⁵ He further testified that “DEP stands by the Upgrades and Interconnection

²²³ Tr. Vol. 2, p 168 Lines 8-13.

²²⁴ See Complaint, at 9 Prayer for Relief 2 (requesting Commission to “Order [DEP] to refund all charges incurred by Williams in connection with the Facilities Study . . .”). Williams’ request for a “refund” is not an accurate characterization as these charges have not yet been fully paid by Williams, to the extent they exceed the initial study deposit submitted at the time of Williams’ Interconnection Request.

²²⁵ Tr. Vol. 2, p. 198 Lines 14-22.

Facilities cost estimates developed during Facilities Study as having been developed in good faith and representing DEP's best estimate of the costs to safely and reliably interconnect the proposed Williams Generating Facility at the time the cost estimates were delivered.²²⁶ Williams has failed to prove otherwise, and there is no basis for the requested relief.

2. Williams' request that Commission issue an Order requiring "an accounting of unnecessary costs incurred by Williams" should also be denied

Williams' Complaint requests the Commission require DEP to "issue an accounting Order for all monetary losses caused by [DEP's] breach of its obligation of good faith"²²⁷ and Witness Burke's testimony explains that Williams "seeks whatever relief the Commission may give within its authority, including . . . a declaration that DEP failed to provide a good faith cost estimate to Williams, with an accounting of unnecessary costs incurred by Williams as a result."²²⁸ Setting aside that Williams has failed to show that Duke has not undertaken its interconnection responsibilities under the NC Procedures in good faith, this request should be denied for two other reasons.

First, Williams has had ample opportunity in this proceeding to identify any allegedly unnecessary costs or damages (which, in any case, are beyond the Commission's authority to award²²⁹) that Williams believes it has incurred as an alleged result of Duke's conduct. As explained by Witness Burke, Confidential Exhibit JB-5 already details

²²⁶ Tr. Vol. 2, p 198 Lines 14 – p 199 Line 10.

²²⁷ Complaint, at 9, Prayer for Relief 2.

²²⁸ Tr. Vol. 1, p 52, Lines 8-13.

²²⁹ See e.g., *In the Matter of Alexandria Scott, 25 Adler Court, Franklinton, North Carolina 27525, Complainant v. Duke Energy Progress, LLC, Respondent, Recommended Order Dismissing Complaint*, at 6-7, Docket No. E-2, Sub 1203 (Apr. 9, 2020) (citing *State ex rel. Utils. Comm'n v. Thrifty Call, Inc.*, 154 N.C. App. 58, 571 S.E.2d 622 (2002); *N.C. Corp. Comm'n v. S. Ry. Co.*, 147 N.C. 483, 61 S.E. 271 (1908)).

“external development costs” in the amount of \$56,213.80 that Williams incurred between receipt of the System Impact Study report and receipt of the Facilities Study results.²³⁰ Witness K. Jennings explains that Confidential Exhibit JB-5 is generally consistent with information produced in discovery in response to DEP Data Request 1-7, which categorizes these development costs as relating to legal and other services for “Permitting and Zoning” (\$35,541.75) and maintaining “Site Control” of the project site (\$25,974.62).²³¹ Witness Burke’s rebuttal testimony fails to provide any additional clarity regarding what further “accounting” is needed, except to state that “Williams has produced to Duke substantial documentation of [its] expenses, and they cannot reasonably be disputed.”²³²

Putting aside whether the documentation produced in discovery was reasonable to detail the expenses incurred by Williams or whether the expenses—the vast majority of which GreenGo paid to two law firms to advance its development interests—can be disputed, the threshold point is that there is no basis on the current record to suggest a further “accounting” of costs incurred by Williams is needed or appropriate.

Turning to the costs actually identified by Williams, regardless of whether the Commission finds that Duke acted in good faith in processing Williams’ Interconnection Request and producing cost estimates, it is unreasonable and inconsistent with the NC Procedures and contrary to sound regulatory policy to suggest that Duke should be potentially liable for the ongoing development expense of Williams along with those of all Interconnection Customers.

²³⁰ Tr. Vol. 1, p 35 Lines 4-7.

²³¹ Tr. Vol. 2, p 200, Line 16 – p 201 Line 1.

²³² Tr. Vol. 4, p 130 Lines 2-3.

First, as described by Witness K. Jennings, Section 6.13 of the NC Procedures, entitled Limitation of Liability, provides:

Each Party's liability to the other Party for any loss, cost, claim, injury, liability, or expense, including reasonable attorney's fees, relating to or arising from any act or omission hereunder, shall be limited to the amount of direct damage actually incurred. In no event shall either Party be liable to the other Party for any indirect, special, incidental, consequential, or punitive damages of any kind.

This section expressly limits the liability of Utilities administering the NC Procedures (as well as Interconnection Customers requesting interconnection under the NC Procedures) to "direct damages actually incurred" that may result from acts or omissions of the other Party.²³³ This section is clear that "in no event shall either Party be liable to the other Party for any *indirect, special, incidental, consequential*, or punitive damages of any kind." (emphasis added). Witness Burke does not challenge Duke Witness K. Jennings' assessment that direct costs incurred under the NC Procedures (such as study costs) are distinct from GreenGo's other ongoing business efforts to develop the Williams project that may be indirectly or incidentally related to the generator interconnection process but that are occurring independently of the interconnection process and solely under GreenGo's direction. Indeed, the costs Mr. Burke has identified in Confidential Exhibit JB-5 are comprised almost exclusively of GreenGo's Permitting and Zoning and Site Control related development costs, and were incurred as part of GreenGo's project development activities that are in no way related to the generator interconnection process or subject to the Commission's oversight or authority.²³⁴ Such business activities (and the investments made and costs incurred by developers to pursue such activities) are only

²³³ Tr. Vol. 2, p 200 Lines 1-7.

²³⁴ Tr. Vol. 2, p 201 Line 3—p 202 Line 11.

indirectly related to interconnection process, and, therefore, are not direct damages under the NC Procedures.

The Commission's inclusion of this provision is also based upon sound regulatory policy. While the Commission has full regulatory authority to oversee the interconnection process, the Commission does not have authority or ability to regulate the numerous other aspects of GreenGo's solar project development business, including how GreenGo raises debt and equity capital to fund the development business, how GreenGo deploys capital in pursuit of developing projects, whether GreenGo elects to lease or purchase the project site for a given development project, GreenGo's business strategies for obtaining required permitting and zoning approvals, or the business decisions GreenGo makes relating to the selection of and contracting for equipment, procurement, and construction of a proposed generating facility.²³⁵ All of these independently-undertaken business activities—specifically including GreenGo's investment decisions to extend site control and pursue a variance from zoning requirements—are independent of and only indirectly related to the interconnection process regulated by the Commission under the NC Procedures.

Moreover, if the Commission were to accept Williams' legal position that an Interconnection Customer's ongoing project development costs could be accounted for and then recovered from Duke as damages directly associated with the interconnection process, then there would effectively be no limit to the types of development costs that a solar developer could argue that Duke is responsible for under the interconnection process. Put more directly, if a solar developer can successfully argue to the Commission that investments to extend a lease option and acquire additional property as well as to hire legal

²³⁵ Tr. Vol. 2, p 202 Lines 1-11.

counsel to pursue (unsuccessfully) a variance from a county's land use regulations were directly caused by Duke's administration of the NC Procedures then seemingly any development-related costs could be pursued by an Interconnection Customer for any alleged violation of the NC Procedures.²³⁶ As Witness K. Jennings explains, such a determination by the Commission would introduce significant risk for Duke that other future changes to the interconnection process to evolve other aspects of Good Utility Practice could be viewed as directly damaging an Interconnection Customer's project development investment.²³⁷

Finally, Williams has failed to show that Duke's System Impact Study estimate was the cause of GreenGo incurring the additional Zoning and Permitting and Site Control costs. As Witness Burke testifies, GreenGo is responsible for all of Williams' development activities and decision-making, including "*evaluating and procuring prospective sites* for solar projects, *obtaining all necessary* governmental authorizations, *zoning*, engineering, procurement, construction management and limited financing of the facilities, and achieving interconnection with the incumbent electric utility."²³⁸ GreenGo is also responsible for "maximizing the potential profitability for its investors . . . [and] designed its projects based on projected costs in accordance with its and its employees' development experience, along with publicly available information."²³⁹ Thus, Mr. Burke's own testimony shows that GreenGo relied upon his experience and business judgement in developing the Williams project and the timing and execution of that strategy was only indirectly and incidentally related to Duke's administration of NC Procedures.

²³⁶ Tr. Vol. 2, p 204 Lines 4-19.

²³⁷ Tr. Vol. 2, p 204 Lines 4-19.

²³⁸ Tr. Vol. 1, p 20 Lines 2-6; (emphasis added).

²³⁹ Tr. Vol. 2, p 203 Lines 11-25.

For example, GreenGo waited over two years after receiving a CPCN to pursue the required zoning variance. In 2019, GreenGo elected to continue to make investments in the Williams project when Witness Burke admits, it was, at best, a “marginal project” even based upon the preliminary System Impact Study cost estimates that was “close to the economically viable line for GreenGo.”²⁴⁰ Indeed, the vast majority of Williams’ expenses in 2019 were caused by GreenGo’s business decision to site the proposed facility on a very narrow 28-acre parcel of land that did not allow the proposed 5 MW_{AC} Williams project to be constructed to meet Johnston County’s mandatory solar project setback requirements.²⁴¹ Witness Burke testifies that “[i]f these zoning setbacks were enforced and no variance was allowed, Williams could not be constructed at full size even after down-sizing within NCIP limits.”²⁴² Therefore, it was GreenGo’s original development planning that put Williams in the position of either withdrawing and refileing its Interconnection Request or pursuing a variance from the zoning regulation from the Johnston County BOA.

If these facts were in any doubt at all, the findings of the Johnston County BOA and the Superior Court on appeal of the variance denial further inform who was directly responsible for Williams’ development decisions. Williams had the burden of proof to show the Johnston County BOA that the setback requirement created an unnecessary hardship that did not result from the Applicant’s own actions. Williams failed to prove its case. The Court succinctly explains that Johnston County BOA denied the variance because they essentially found that hardship was “the result of [GreenGo’s] own action and “personal circumstances,” which specifically included “the lack of consideration given by

²⁴⁰ Tr. Vol. 2, p 205 Lines 11-14.

²⁴¹ Tr. Vol. 2, p 205 Lines 16-21.

²⁴² Tr. Vol. 1, p 33 Lines 2-4.

[GreenGo] to the construction of a smaller solar farm on the property despite it being possible to do so under the required setbacks.”²⁴³

Further, after losing its zoning appeal, Williams elected to expend more project development funds in July 2019 to enter into a purchase agreement to acquire an interest in a second, adjacent 30 acre parcel of property (“Additional Property”). Williams’ costs to extend the land lease on the original parcel and to acquire the Additional Property are the other major category of development expenses incurred by Williams in 2019.²⁴⁴ As Witness Burke testifies, Williams invested in the option to purchase “as a fallback in case the appeal failed.”²⁴⁵ The appeal did, in fact, fail, and, therefore, the additional Site Control expenses that Williams has incurred related to the Additional Property were caused by Williams’ own business decision to site the project on the original parcel upon which it could not be constructed without a zoning variance.

In sum, GreenGo is directly responsible for Williams’ development plans to construct the proposed generating facility on the original parcel as proposed in its Interconnection Request as well as its decision to buy the Additional Property. These decisions were made independently of and are not directly related to Duke’s administration of the generator interconnection process.

3. Williams’ request that Commission order DEP to issue an updated Facilities Study Report and new Interconnection Agreement may be reasonable, but not based upon the conditions requested by Williams

Williams’ Complaint requests that the Commission “require [DEP] to promptly render a revised cost estimate and executable interconnection agreement within seven

²⁴³ Tr. Vol. 2, p 206 Line 18 – p 207 Line 29.

²⁴⁴ Tr. Vol. 2 p 208 Lines 1-13.

²⁴⁵ Tr. Vol. 1, p 33 Lines 11-12.

business days of the order.”²⁴⁶ Witness Burke’s testimony expands this request for relief, testifying that the Commission should issue an “order requiring DEP to promptly render a revised facilities study estimate capped at DEP’s initial SIS estimate, adopting a rebuttable presumption that any actual costs exceeding 110% of the revised estimate are unreasonable, requiring DEP to provide an executable interconnection agreement with a projected in-service date within six months after posting of required funds.”²⁴⁷

Considering that over a year has passed since the detailed cost estimates were developed in the Facilities Study, ordering DEP to update the Facilities Study and issue a revised cost estimate may be reasonable.²⁴⁸ Alternatively, as Witness K. Jennings testified, DEP has delivered an executable Interconnection Agreement to Williams after completing the construction planning process, as required by the NC Procedures.²⁴⁹ Williams can proceed with interconnection at any time.

Other than updating Duke’s detailed cost estimates, Duke otherwise disagrees with the conditions that Williams proposes be imposed on a prospective Interconnection Agreement, as unjust and unreasonable for a number of reasons. First, capping Upgrade and Interconnection Facilities costs at Duke’s initial System Impact Study estimate would obviously require DEP to enter into an Interconnection Agreement that does not reflect DEP’s more detailed and current best estimate of costs as required to be included in the

²⁴⁶ Complaint, at 10.

²⁴⁷ Tr. Vol. 1, p 52 Lines 13-17.

²⁴⁸ For the avoidance of doubt, DEP continues to support K. Jennings’ testimony that “DEP has never wavered from its position that such cost estimate was reasonably accurate and appropriate for inclusion in the Interconnection Agreement.” Tr. Vol. 2 p 213, Line 21 – p 214 Line 2. However, as recognized by Witness S. Jennings at the hearing, Duke has continued to make process improvements to Maximo and the RET cost estimating process. Tr. Vol. 2 p 71, Lines 11-17. Due to the overall passage of time and the more recent updates to Duke’s cost estimating process, DEP does not oppose re-running the Facilities Study cost estimating process and delivering an updated Facilities Study Report to Williams.

²⁴⁹ Tr. Vol. 2, p 214 Lines 2-5.

Interconnection Agreement. The more detailed Upgrades and Interconnection Facilities Charges developed in Facilities Study are the cost estimates required to be included in the Interconnection Agreement, as prescribed under the NC Procedures. And, as described in Section III.g above, it was also not reasonable for Mr. Burke and Williams to definitively rely upon the preliminary System Impact Study estimates as the final detailed cost estimates and to assume that they would not change as a result of further detailed analysis during Facilities Study or due to unforeseen issues that could arise during construction. Witness Burke's proposal would also inequitably exclude a number of categories of costs that Williams knew at the time the System Impact Study was issued would also have to be paid under a future Interconnection Agreement, including metering costs, overhead costs, and taxes that were not included in the preliminary System Impact Study cost estimate. Finally, this proposal would require Duke to treat Williams differently than all other Interconnection Customers in violation of the comparability provisions in Section 6.7 of the NC Procedures.

As discussed in the introduction, the Companies recently executed and filed with the Commission a settlement agreement with the majority of the major solar developers in North Carolina (as well as South Carolina). Among other things, the settlement provides timing and cost certainty to dozens of Interconnection Customers that are similarly situated to Williams. While GreenGo has elected not to join this settlement agreement, any GreenGo projects meeting the relevant eligibility criteria would be permitted to avail itself of the settlement, including the cost bounding provisions. Once again, the Companies' and the solar developers' efforts in connection with the settlement demonstrate the value of a collaborative resolution to these complex and interrelated issues rather than an alternative

strategy of endless litigation concerning, for instance, the particular details of each of the hundreds of cost estimates issued by the Companies in the ordinary course of the interconnection process.

Witness K. Jennings also addresses why Williams' proposal to mandate that construction be completed within six months after posting of required funds would not be reasonable.²⁵⁰ He explains: "six months to complete construction of approximately 2.5 miles of line reconductoring work as well as Interconnection Facilities would be unreasonably short even if Williams was the first project in line for Upgrade construction."²⁵¹ Williams completed construction planning and received an Interconnection Agreement on October 10, 2019. Williams is now, in effect, asking to be put at the front of the line in the construction queue because GreenGo elected to file a Complaint on October 24, 2019, instead of signing the Interconnection Agreement and proceeding to construction. It would be inconsistent with DEP's standard business practices and unfair to the numerous other Interconnection Customers that have timely signed their Interconnection Agreements and already paid the Upgrade and Interconnection Facilities costs to move Williams ahead of them to the front of the construction queue.²⁵² It is also extremely unreasonable for GreenGo to demand a revised Interconnection Agreement based upon unreasonably low preliminary System Impact Study cost estimates, and then to also demand that DEP expedite construction of the Williams project ahead of other projects.²⁵³

²⁵⁰ Tr. Vol. 2, p 216 Lines 4-23.

²⁵¹ *Id.*

²⁵² Tr. Vol. 2, p 216 Lines 4-16.

²⁵³ Tr. Vol. 2, p 217 Lines 1-3.

4. There is no basis to modify any prospective power purchase arrangements between Duke and Williams

Mr. Burke also requests that the Commission require Duke to provide Williams with a standard offer Power Purchase Agreement “subject to preservation of the economic benefits of the entire 15-year term afforded by HB 589.”²⁵⁴ The Commission should decline this requested relief for a number of reasons.

First, as Witness K. Jennings explains, interconnection of a QF generator and entering into a PPA are separate processes administered under different rules and requirements established by the Commission.²⁵⁵ The Commission-approved form of Interconnection Agreement also is clear on this point. Section 1.3 of the Interconnection Agreement entitled “No Agreement to Purchase or Deliver Power or RECs” makes clear that the interconnection process culminating in the Interconnection Agreement is focused on ensuring that a proposed Generating Facility is safely and reliably interconnected to the Utility’s System and “does not constitute an agreement to purchase or deliver the Interconnection Customer’s power . . .” Williams’ request should be rejected on that basis alone.

Second, the requested relief exceeds the Commission’s authority under law.²⁵⁶ Section 1.(c) of HB 589 provided, in pertinent part, that certain QFs that otherwise would be eligible for the rate schedules and PPA terms and conditions approved by the Commission in Docket No. E-100, Sub 140 (“Sub 140 Agreement”), but have failed to

²⁵⁴ Tr. Vol. 1, p 52 Lines 18-21.

²⁵⁵ Tr. Vol. 2, p 217 Lines 9-21.

²⁵⁶ *State ex rel. Utilities Comm'n v. Carolina Water Serv., Inc. of N.C.*, 225 N.C. App. 120, 133–34, 738 S.E.2d 187, 196 (2013) (The Commission's authority exists under chapter 62 of the North Carolina General Statutes...) *State ex rel. Comm'r of Ins. v. N.C. Rate Bureau*, 300 N.C. 381, 399, 269 S.E.2d 547, 561 (1980) (“The powers and authority of administrative officers and agencies are derived from, defined and limited by constitution, statute, or other legislative enactment.”).

commence delivery of power to DEC or DEP on or before September 10, 2018, would, despite that failure, remain eligible for a Sub 140 Agreement “unless the nameplate capacity of the generation facility when taken together with the nameplate capacity of other generation facilities connected to the same substation transformer exceeds the nameplate capacity of the substation transformer.” While Duke does not dispute that Williams is a “Covered Project” for purposes of meeting the “below nameplate of the substation transformer” grandfathering requirement of Section 1.(c) of HB 589,²⁵⁷ the General Assembly also clearly directed in Section 1.(c) that “[t]he term of a power purchase agreement eligible for such rate schedules and terms and conditions pursuant to this section *shall commence* on September 10, 2018, and *shall end* on the date that is 15 years after the commencement date.” (emphasis added) Therefore, the Commission does not have authority to modify and extend the old Sub 140 Agreement terms under HB 589, as requested by Witness Burke.

Even if the Commission did have that authority, the remedy would not match the alleged harm, even if proven by Williams, as the undisputed record shows that Williams did not have authority to construct the proposed facility due to GreenGo’s own delays in requesting a variance until January 2019, its failed zoning appeal in July 2019, and then delays in seeking an amended CPCN from the Commission to construct the Facility on the Additional Property, which was not granted until January 2020. Therefore, Williams was definitively not in a position to begin delivering power on September 10, 2018, as required by HB 589 to receive a 15-year term agreement, even if DEP had already provided

²⁵⁷ As described by Witness K. Jennings, Duke and a number of Interconnection Customers, including Williams, agreed in the Settlement Agreement filed with the Commission on January 2, 2018, in Docket No. E-100, Sub 101, regarding eligibility as a “Covered Project” pursuant to the provisions of Section 1.(c) of HB 589. Tr. Vol. 2, p 218 Lines 14-18.

Williams an Interconnection Agreement.²⁵⁸ Like so many other aspects of this case, the facts show that Williams' demands are unreasonable and that it alone was responsible for its own business decisions outside of the interconnection process.

Finally, as Witness K. Jennings explains, extending the Section 1.(c) PPA term would also be unreasonable for DEP's customers because the 15-year fixed term avoided cost rates approved in the 2014 Sub 140 proceeding were approximately 60% higher than DEP's current avoided cost rates.²⁵⁹ Therefore, any further extension of these now very stale rates would unjustly increase costs to DEP's customers who ultimately pay for QF energy and capacity through the annual fuel clause.

5. There is no basis to impose penalties on DEP even if the Commission were to find that DEP did not fully meet its responsibilities under the NC Procedures

Williams also requests the Commission enforce the "maximum \$1,000 per day penalty" on DEP for "non-compliance with the [NC Procedures] as allowed by § N.C.G.S. 62-310(a)."²⁶⁰ Putting aside again that Williams has failed to prove non-compliance with the NC Procedures, by the plain text of the statute, a penalty is allowable only where a public utility (i) violates a provision of Chapter 62 or (ii) "*refuses* to conform to or obey any rule, order or regulation of the Commission..."²⁶¹

The Commission has repeatedly interpreted a public utility's "refus[al]" to equate to intentional or willful defiance of a specific Commission directive in assessing whether a penalty should be sanctioned.²⁶² Williams' allegation that the Company has not met a

²⁵⁸ Tr. Vol. 2, p 219 Lines 13-23.

²⁵⁹ Tr. Vol. 2, p 219 Lines 1-9.

²⁶⁰ Complaint, at 10.

²⁶¹ N.C.G.S. § 62-310(a) (emphasis added).

²⁶² See e.g. *Order Issuing Declaratory Ruling*, at 28-30, Docket No. SP-100, Sub 31 (Apr. 15, 2016) (finding that "NC WARN willfully undertook to provide public utility service" where the Commission had recently "stated unequivocally that third-party sales are unlawful in North Carolina"); *Order Denying*

generalized obligation of good faith in developing cost estimates during the Section 4 study process fails to show that DEP has intentionally or “willfully” acted in defiance of a specific Commission directive. Moreover, as the evidence shows, DEP at all times acted in accordance with the NC Procedures and provided Williams cost estimates in good faith. Accordingly, a penalty in this case is not statutorily authorized or warranted under the terms of the Public Utilities Act.

Application for Certificate of Exemption and Assessing Civil Penalties, at 7, 10, Docket No. T-4463, Sub 0 (Jun. 28, 2013) (citing entity’s knowing and willful violation of July 2012 letter from the Commission stating he needed a certificate to operate and a September 2012 Order containing the same prohibition). The Commission has generally not sought to impose sanctions absent evidence of willful defiance of a specific, recent directive from the Commission. *See Recommended Order Dismissing Complaint and Ruling on Show Cause Proceeding*, at 7, Docket No. T-4445, Sub 2 (Sept. 26, 2012) (Accepting recommended order where hearing examiner found noncompliance with prior Commission Order “was not willful but the result of excusable neglect,” the entity “should not be subject to sanctions or penalties as provided by G.S. 62-310(a)”).

V. Conclusion

WHEREFORE, the Company has, at all times, acted in good faith and in accordance with the NC Procedures in delivering Williams its System Impact Study and Facilities Study cost estimates and therefore requests the Commission to deny all relief requested in the Complaint.

Respectfully submitted this 14th day of September, 2020.

/s/E. Brett Breitschwerdt

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ATTACHMENT 1

Support for Calculations Presented in Figure 1

Figure 1

System Impact Study Estimate Delivered Jan. 28, 2019		Facilities Study Estimate Delivered July 30, 2019	
Interconnection Facilities ¹	\$60,000.00	Interconnection Facilities ²	\$93,600.65
System Upgrades ¹	\$774,000.00	System Upgrades ³	\$1,053,780.03
Total	\$834,000.00	Total	\$1,147,380.68
<u>Total Base Estimate Percentage Increase: 37.6%</u>			

- 1) Exhibit JB-2, p 17 of 20.
- 2) Exhibit CEB-10, p 1: \$93,600 plus 20% contingency (\$16,228.69) and 6% inflation (\$6,589.76) equals Facilities Study System Upgrades Estimate (\$116,419.10).
- 3) Exhibit CEB-11, p 3: \$1,053,780.03 plus 20% contingency (\$170,320.01) and 6% inflation (\$73,446.00) equals Facilities Study System Upgrades Estimate (\$1,297,546.04).

Support for Calculations Presented in Figure 2

Figure 2

Discrete Items Added in Facilities Study		
	Interconnection Facilities	System Upgrades
Contingency ¹	\$16,228.69	\$170,320.01
Inflation	\$6,589.76 ²	\$73,446.00 ³
Metering Estimate ⁴	\$24,791.30	
Administrative Overhead ⁵	\$20,000.00	
Commissioning Estimate ⁶	\$24,000.00	
Sales Tax ⁷	\$11,284.73	\$90,828.22
Discrete Items Total:⁸	\$102,894.48	\$334,594.23

- 1) Exhibit CEB-12, p 7: (\$180,539.21) adjusted to show inflation separately. 20% Contingency on total base estimate \$170,320.01 plus 6% Inflation (\$10,219.20) = \$180,539.21. \$1,053,780.03 times 6% inflation (\$63,226.80) plus 20% Contingency on inflation and baseline estimate (\$180,539.21) equals System Upgrades Estimate (\$1,297,546.04).
- 2) Exhibit CEB-10, p 1: \$116,419.01 minus \$116,419.01 divided by (1 plus 6% inflation equals) \$6,589.76.
- 3) CEB-12, p 3-5: \$73,446 = \$1,297,546.04 minus \$1,297,546.04 (Labor Cost plus Vehicle Cost plus Equipment/Materials Cost) divided by 1.06.
- 4) Exhibit JB-4, p 1.
- 5) Exhibit JB-4, p 1.
- 6) Exhibit JB-4, p 1.
- 7) Exhibit JB-4, p 1: \$196,495.13 includes 7% Sales Tax (\$11,284.73) which is 7% Sales tax times the total referenced construction cost (\$116,419.10) plus metering cost (\$24,971.30) plus overhead cost (\$20,000). \$161,210.40 times 7% Sales Tax equals \$11,284.73. \$196,495.13 equals \$161,210.40 plus \$11,284.73 plus \$24,000 (Commissioning Estimate).
- 8) The Figure 2 Discrete Items total plus the Figure 1 Base Estimate totals equal the total Interconnection Facilities and System Upgrades Costs identified in the Facilities Study Report. (\$1,147,380.68 + \$102,894.49 + \$334,594.23 = \$1,584,869.40) See Exhibit JB-6, p 2.

CERTIFICATE OF SERVICE

I hereby certify that copies of the foregoing Post-Hearing Brief of Duke Energy Progress, LLC as filed in Docket No. E-2, Sub 1220 were served electronically or via U.S. mail, first-class, postage prepaid, upon all parties of record.

This, the 14th day of September, 2020.

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