### STATE OF NORTH CAROLINA UTILITIES COMMISSION RALEIGH

DOCKET NO. E-100, SUB 101 DOCKET NO. E-100, SUB 158

### BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

DOCKET NO. E-100, SUB 101	)
In the Matter of	)
Petition for Approval of Revisions to	) ORDER APPROVING SISC
Generator Interconnection Standards	) AVOIDANCE REQUIREMENTS
	) AND ADDRESSING
DOCKET NO. E-100, SUB 158	) SOLAR-PLUS-STORAGE
	) QUALIFYING FACILITY
In the Matter of	) INSTALLATIONS
Biennial Determination of Avoided Cost	)
Rates for Electric Utility Purchases from	)
Qualifying Facilities – 2018	)

BY THE COMMISSION: On June 14, 2019, the Commission issued an Order Approving Revised Interconnection Standard and Requiring Reports and Testimony in Docket No. E-100, Sub 101, which, among other things, directed Duke Energy Carolinas, LLC (DEC), and Duke Energy Progress, LLC (DEP, and jointly with DEC, Duke) to develop, in a stakeholder process, a streamlined process for interconnecting energy storage systems to existing generation sites. In the months that followed, Duke and its stakeholders worked to develop such a process.

On September 3, 2019, Dominion Energy North Carolina (DENC) filed in Docket No. E-100, Sub 101 a report on the process for studying the addition of energy storage at existing facilities. DENC stated that it believes that the current NC Interconnection Standards provide a sufficient framework and process for DENC to study requests to add battery storage at existing sites.

On September 30, 2019, Duke filed in Docket No. E-100, Sub 101 its proposal for an expedited study process for the addition of storage at existing generation sites, which it identified as the Energy Storage System (ESS) Retrofit Study Process. Comments and reply comments were filed on Duke's ESS Retrofit Study Process by the North Carolina Clean Energy Business Alliance (NCCEBA), the North Carolina Sustainable Energy Association (NCSEA), and the Public Staff. On October 15, 2019, the Commission issued an order allowing parties to comment on Duke's proposal. On November 8, 2019, comments were filed by the Public Staff and joint comments were filed by NCCEBA and NCSEA. On October 17, 2019, the Commission issued a Supplemental Notice of Decision in Docket No. E-100, Sub 158 in which it, among other things, determined that the Duke utilities should be required to account for increased ancillary services costs when each calculates its avoided energy costs, through the imposition of a Solar Integration Services Charge (SISC) for certain solar qualifying facilities (QFs). The order also directed Duke to file with the Commission proposed guidelines for QFs to become "controlled solar generators" and thereby avoid the SISC.

On November 18, 2019, Duke filed in Docket No. E-100, Sub 158 its proposed requirements for the avoidance of the SISC. Duke proposes to establish a volatility metric whereby generators with volatility of 12% or more would be charged the full SISC. Those that achieve volatility of less than 6% would not be subject to the SISC. And those that achieve volatility of between 6% and 12% would have a 50% reduction in the SISC. Under Duke's proposal, the QF would calculate its SISC volatility metric monthly and provide it to Duke. Duke would use a separate meter with the ability to measure energy output in five-minute increments to audit the QF's SISC avoidance calculations.

On January 17, 2020, Duke filed in Docket No. E-100, Sub 101 a petition for waiver from certain provisions of the NC Interconnection Procedures in order to implement its ESS Retrofit Study Process. This process would provide for adding energy storage to an existing solar QF.

On April 15, 2020, the Commission issued an Order Establishing Standard Rates and Contract Terms for Qualifying Facilities in Docket No. E-100, Sub 158 (Sub 158 Avoided Cost Order) in which it found, among other things, that it is appropriate for Duke to impose the SISC prospectively to all new uncontrolled solar generators that commit to sell and deliver power into a Duke system on or after November 1, 2018. The Sub 158 Avoided Cost Order also, among other things: 1) found that the output of an energy storage system that is added to an existing QF should be paid at the then-current avoided cost rate; 2) required Duke to organize a virtual stakeholder process to address other issues related to the addition of energy storage systems at existing QFs; 3) required Duke to include in its next biennial avoided cost proceeding an evaluation of whether a QF that can demonstrate its ability and contractually obligates itself to provide positive ancillary service benefits at a lower cost than the utility's own conventional resources should be compensated for those benefits and to further identify mechanisms to quantify the benefits such a QF can provide; and 4) required Duke to submit the Astrapé Study methodology to an independent technical review and include the results of that review and any revisions to that methodology in its initial filing in the 2020 avoided cost proceeding.<sup>1</sup>

<sup>&</sup>lt;sup>1</sup> On October 30, 2020, the Commission issued an Order Granting Continuance and Establishing Reporting Requirements in Docket No. E-100, Sub 167 in which it established a "streamlined" 2020 avoided cost proceeding and required the utilities to address the "Sub 158 Additional Issues" by November 1, 2021. That list of additional issues includes the provision of ancillary services by QFs and the independent technical review of the Astrapé methodology.

On April 28, 2020, in Docket No. E-100, Sub 101, the Commission issued an Order Granting Waiver and Requiring Report. The Order granted the request of Duke for a waiver from certain provisions of the NC Interconnection Procedures in order to implement the ESS Retrofit Study Process, directed Duke to open the first enrollment window for that process on May 28, 2020, and directed to Duke to file a report on the ESS Retrofit Study Process results within two months of the conclusion of that process.

On May 15, 2020, Duke and NCCEBA filed in Docket No. E-100, Sub 101 a Motion for Extension of Time to Open Enrollment Window for ESS Retrofit Study Process stating that the extension is needed because requesting QFs were not yet able to fully assess whether or not to enroll in the ESS Retrofit Study Process. Duke and NCCEBA asserted in the joint filing that the QFs would be unable to make a decision to enroll in the process until the appropriate avoided cost rates applicable to the energy storage element of an existing QF coupled with energy storage were established.

On May 27, 2020, at the parties' request, the Commission issued an order in Docket No. E-100, Sub 101 that suspended the enrollment window for the ESS retrofit study process so that issues related to the addition of energy storage systems to existing QFs could be addressed in the on-going stakeholder process in the avoided cost docket.

On June 15, 2020, the NCSEA and NCCEBA filed a Joint Motion for Reconsideration and Clarification of the Commission's April 15, 2020 Avoided Cost Order. That motion sought reconsideration of four issues, including the role of intervenors in the independent technical review of the Astrapé Study methodology. The Commission denied that motion in its July 21, 2020 Order Denying Motion for Reconsideration.

On July 10, 2020, in Docket No. E-100, Sub 158, the Public Staff filed initial comments on Duke's proposed requirements for the avoidance of the SISC, and on July 13, 2020, NCSEA, NCCEBA, and the Southern Alliance for Clean Energy (SACE) also filed initial comments (collectively, the SISC Avoidance Initial Comments). On July 31, 2020, NCSEA, NCCEBA, SACE, the Public Staff, and Duke each filed reply comments (collectively, the SISC Avoidance Reply Comments).

On August 14, 2020, Duke filed in Docket No. E-100, Sub 101, an update on the ESS Retrofit Interconnection Study Process. Duke explained that the parties were discussing "certain technical metering constraints" in the stakeholder process that was on-going in the avoided cost docket. Duke further stated that there is a need to "focus in the short term on AC-connected ESS retrofits," rather than DC-connected retrofits as originally envisioned in the ESS process. Duke stated that following resolution of the open power purchase agreement (PPA) issues, "there will likely be additional modifications needed to the ESS Retrofit study process."

On September 16, 2020, in Docket No. E-100, Sub 158, Duke and DENC filed a joint Storage Retrofit Stakeholder Meetings Report (Storage Retrofit Report) on the stakeholder meetings related to the addition of energy storage at existing QFs.

On November 5, 2020, the Commission issued an Order Allowing Comments on Storage Retrofit Stakeholder Meetings Report in Docket No. E-100, Sub 158. NCCEBA, NCSEA, and SACE filed joint comments on November 20, 2020. Duke and DENC filed joint reply comments on December 16, 2020, as did the Public Staff.

On March 29, 2021, in Dockets No. E-100, Sub 101 and E-100 Sub 158, the Commission issued an Order Requiring Additional Information in which it required Duke to explain: 1) how the Company derived the 6% and 12% volatility thresholds for SISC avoidance or reduction; and 2) what facilities will be eligible to receive meters under Duke's proposed pilot, where they will be placed, what they will measure, and how the metering arrangement will be addressed contractually. Duke was also required to explain what it intends to study and when Duke plans to charge QFs for the meters.

On April 13, 2021, Duke filed its Response to Order Requiring Additional Information (Duke Additional Information). On that same date DENC filed a letter stating that because the questions posed in the Commission's March 29, 2021 Order were specific to Duke, it did not have any comments at that time. On April 27, 2021, SACE and NCSEA filed comments in response to the Duke Additional Information and the Carolinas Clean Energy Business Association (CCEBA)<sup>2</sup> filed a letter stating that it agreed with the comments filed by SACE and NCSEA.

## DISCUSSION AND CONCLUSIONS

In both Docket No. E-100, Sub 101 and Docket No. E-100, Sub 158, the Commission directed the parties to identify and to develop solutions for technical, regulatory, and commercial barriers to the integration of energy storage with existing generating facilities. The work undertaken by the parties across these two dockets has been extensive. With this Order the Commission resolves those issues, with the exception of the issues (the Sub 158 Additional Issues) listed in the October 30, 2020 Order Granting Continuance and Establishing Reporting Requirements in E-100, Sub 167. The Commission concludes that it is appropriate to open an enrollment window for Duke's ESS Retrofit Study Process upon approval of waivers of provisions of the NC Interconnection Procedures as necessary.

## **Technical Issues**

## Auditing the SISC Avoidance Process

In its SISC Avoidance Initial Comments, the Public Staff recommended that in future fuel rider proceedings, DEC and DEP specifically address the SISC avoidance process in their prefiled direct testimony, identify the specific facility(ies) and amount of SISC avoided in supporting exhibits and work papers, and report on any audits performed

<sup>&</sup>lt;sup>2</sup> On March 15, 2021, the Carolinas Clean Energy Business Association (CCEBA) filed a notice in Docket No. E-100, Sub 101 that it was the successor in interest to NCCEBA.

on QFs seeking to avoid the SISC. In their SISC Avoidance Reply Comments, DEC and DEP agreed with this recommendation.

Thus, the Commission directs DEC and DEP, in future fuel and fuel-related charge adjustment proceedings conducted pursuant to N.C. Gen. Stat. § 62-133.2, to address the SISC avoidance process in their prefiled direct testimony, identify the specific facility(ies) and amount of SISC avoided in supporting exhibits and work papers, and the results of any audits performed on QFs seeking to avoid the SISC.

#### Establishing the Volatility Thresholds for SISC Avoidance

NCCEBA and NCSEA assert that the methodology used to develop the SISC avoidance volatility thresholds lacks transparency. NCCEBA, SACE, and NCSEA assert that Duke's approach "does not recognize that the solar fleet has grown significantly" since the underlying data were collected and that the larger future solar fleet, in aggregate, will have less short-term variability. They further argue that the Commission should direct Duke to update its short-term variability analysis, focus on total power system variability, and recognize the geographic smoothing benefits that naturally occur as the solar fleet grows.

In the Duke Additional Information, Duke provided an explanation of the methodology used to calculate volatility thresholds. Specifically, Duke explained that it analyzed the volatility for fifteen sites from the dataset used by Astrapé for the SISC study, using actual five-minute interval data from October 2016 to October 2017. The volatility calculated ranged from 18% to 28% percent with a median of 24%. From this median result of 24%, Duke established two thresholds for reducing the SISC charge: 12% and 6%. Duke explained that the 12% threshold represents a 50% reduction in site volatility and that if all the sites on DEC's and DEP's systems were to reduce their volatility by 50%, it would reduce the system volatility by 50%. Duke further explained that, therefore, a reduction of the SISC by 50% would be appropriate. Additionally, Duke explained that the 6% threshold represents a 75% reduction in site volatility. If all sites on the Companies' system reduced their volatility by 75%, it would reduce the system volatility from 4% to 1%, which is near the clear-sky volatility as calculated from National Renewable Energy Laboratory (NREL) data. While a QF that achieves the 6% threshold still causes system volatility, Duke determined that a full concession of the SISC would nevertheless be appropriate for such sites.

The Commission finds that the concerns raised by NCCEBA, SACE, and NCSEA regarding the proposed SISC avoidance volatility thresholds relate more to the establishment of the SISC itself, rather than to Duke's proposal for SISC avoidance. The Commission approved the SISC in its October 17, 2019 Supplemental Notice of Decision and will not reconsider that decision at this time. The Commission has required that the Astrapé methodology, from which the SISC is calculated, be subjected to independent technical review for the 2021 avoided cost proceeding, which will provide the appropriate forum for further consideration of the SISC itself. No party has raised substantive concerns with Duke's proposed 6% and 12% thresholds for SISC avoidance, and as Duke explains, the Commission has already approved their use for bidders in the Competitive

Procurement of Renewable Energy (CPRE) program. Duke's explanation of the proposed thresholds is reasonable. Therefore, the Commission approves Duke's proposed SISC avoidance volatility thresholds.

When Duke initially proposed the SISC, its proposal included updating or adjusting the charge every two years to reflect most accurately the costs that Duke incurs as additional variable generation is integrated. In the SISC Stipulation, the Public Staff and Duke reached an agreement that included the two-year adjustment, subject to a cap on the charge. While the Commission declined to adopt the proposed adjustment in the integration services charge and required Duke to implement a fixed integration charge for the duration of a QF's contract, the Commission directed Duke to provide sufficient data for Commission review in future biennial avoided cost proceedings. Thus, the Commission anticipates that the SISC will be updated each biennium.<sup>3</sup> In the context of those updates, it is reasonable to include a review of the volatility thresholds. While the Commission will continue to require that the SISC and the SISC avoidance protocols be fixed over the term of a QF's contract, the Commission expects the SISC avoidance protocols to be monitored and adjusted as necessary each biennium and to be applicable to those QFs that commit to sell and deliver power into the DEC and DEP systems on or after the filing date initiating that biennium.

## Installing Two Meters for Assessing Volatility

In the Duke Additional Information, Duke explained that as part of the development of the methodology that allows QFs to avoid the SISC, it recognized that five-minute interval data is necessary to calculate meaningful intrahour volatility. Duke explained further that the current revenue quality meters at QFs collect 15-minute interval data and that it is not possible to collect both five-minute and 15-minute interval data from the same meter. For this reason, a second revenue quality meter to capture the five-minute production data would be required. The meter would be located close to the current revenue meter, on the AC side of inverter.

Duke further explained that while both the QF and Duke will collect 5-minute interval data, the second meter is necessary to audit the volatility results that the QF provides to Duke. Because Duke does not anticipate a significant number of QFs to elect to control their volatility at this time, Duke proposes not to charge the cost of the second meter to the QF. Duke proposes to study this methodology, including the second meter, for a period of two years in order to evaluate whether the data collection process and data resolution are adequate or if changes should be made to this approach.

SACE and NCSEA take issue with Duke's position that multiple meters are necessary and argue that the Commission should not accept the need for multiple meters as an excuse for inaction or delay.

At this time, particularly given that Duke has agreed to provide the second meter at no charge, the Commission accepts Duke's proposal and directs Duke to complete a

<sup>&</sup>lt;sup>3</sup> Sub 158 Avoided Cost Order at 90.

two-year study and report to the Commission, as follows. Beginning the first month that intrahour volatility is measured by a QF and for two years thereafter, Duke shall conduct an independent measurement of volatility at the QF on a monthly basis. At the end of the two-year period, Duke shall compare the quality of data provided by each QF with the data independently measured by Duke and calculate any difference in SISC avoidance that would have occurred if each QF's data had been relied upon for billing purposes rather than Duke's. Within three months of the conclusion of the two-year study, Duke shall file a report in the then current biennial avoided cost docket that summarizes the analysis undertaken by Duke and includes recommendations regarding whether Duke's five-second interval billing quality meters remain necessary going forward. During the two-year period when both the QF and Duke are metering data, absent any showing of meter error or malfunction, Duke's metering data shall be used for purposes of determining compliance with SISC avoidance protocols in the event of an inconsistency between the two meters.

### **Regulatory and Commercial Issues**

The extensive work of the parties produced consensus on several issues,<sup>4</sup> but failed to produce consensus on the critical issue of fixed-price term.<sup>5</sup>

### Amendment to CPCN

First, the parties agree that the addition of energy storage to an existing generating facility should require written notice to the Commission to update the applicable certificate of public convenience and necessity (CPCN) or report of proposed construction but should not require a new CPCN.

Given the consensus of the parties and that no concerns with this approach have been identified, the Commission concludes that a new CPCN is not required for the addition of storage in this context, but that the facility shall file with the Commission written notice of the amendment to either the applicable CPCN or the report of proposed construction consistent with Commission Rules R8-64 and R8-65.

## PPA

Second, the parties agree that the addition of energy storage to an existing generating facility should be accomplished by amending the PPA for the generating facility rather than by executing a new PPA. The PPA amendment would include a description the storage installation and the contract price for the storage output, and it would address any operational or meter concerns associated with the storage addition. Other PPA terms would remain unchanged.

<sup>&</sup>lt;sup>4</sup> Areas of consensus, as identified by NCCEBA, SACE, and NCSEA in Reply Comments filed Nov. 20, 2020, at 3-4, and as acknowledged by the Public Staff in Reply Comments filed Dec. 16, 2020, at 3.

<sup>&</sup>lt;sup>5</sup> Public Staff Reply Comments filed Dec. 16, 2020, at 4-8.

Given the consensus of the parties and that no concerns with this approach have been identified, the Commission concludes that the addition of energy storage to an existing generating facility requires the amendment of the existing PPA and does not require the execution of a new PPA.

# **DC-Coupled Systems**

Third, the parties have agreed that DC-coupled energy storage systems should be allowed once revenue grade meters are available. NCCEBA, NCSEA, SACE, and the Public Staff comment that the utilities "should ensure that there will not be unnecessary delays in their efforts to request DC meters from the manufacturers and test the meters" once the American National Standards Institute standard is approved and the meters are available. The Public Staff reports that it understands the utilities to be willing to make such reports. In the interim, the Public Staff comments that it is appropriate for DEC and DEP to revise their ESS Retrofit Study Process to permit AC-connected storage before any DC meter is approved, giving developers additional time to consider both options.

The Commission finds the agreement of the parties to be reasonable, approves the agreement, and directs the utilities to provide an update to the Commission on the status of the availability of DC meters in its initial filing in the 2021 biennial avoided cost proceeding.

## Streamlined Interconnection Process for DC- and AC-Coupled Systems

Fourth, the parties agree that the storage retrofit streamlined interconnection study process should be available for both DC-connected storage retrofits and AC-connected storage retrofits for facilities interconnected to Duke. As such, Duke intends to update its waiver request in Docket No. E-100, Sub 101 to specify that the streamlined interconnection study requirements will be applicable to both DC-connected and AC-connected storage retrofits.

The Commission finds the agreement between the parties on this issue to be reasonable and approves it accordingly.

## Ancillary Services

Fifth, the parties agree that valuing the ancillary services that solar QFs retrofitted with storage can provide would facilitate deployment of additional storage. The Public Staff noted in its December 16, 2020 comments that the provision and compensation of ancillary services by QFs is specifically listed as an issue to be addressed in future avoided cost proceedings. To the extent the Storage Retrofit Report suggests that QFs not subject to the SISC charge are eligible to earn a SISC credit if they are able to reduce their volatility, that issue will be addressed in the broader ancillary services review in the 2021 biennial avoided cost proceeding in Docket No. E-100, Sub 175, which is anticipated to begin in November of this year.

### Term for Energy Storage Output

The parties were unable to reach agreement on the appropriate fixed-price term that should be made available for the energy storage output.

The Storage Retrofit Report recommended that because the preexisting PPA defines the maximum capacity of the facility, the capacity of the facility should determine the retrofit storage's eligibility for a fixed-price term under current law. Per the report, the retrofit storage would be eligible for a fixed-price term that is the lesser of that term (10 years for facilities less than or equal to 1 MW and therefore eligible for standard offer, or 5 years for facilities greater than 1 MW and therefore not eligible for the standard offer) or the remaining term of the PPA. The utilities view this as a compromise if the retrofitted QF continues to be limited to the MW output that was originally contemplated in the PPA. Instead of terminating the existing PPA, the utilities would amend the existing solar PPA to add a new rate and term for the retrofit storage. The Public Staff agrees with this approach.<sup>6</sup>

NCCEBA, NCSEA, and SACE disagree with the approach set forth in the Storage Retrofit Report and take the position that the term offered for the energy storage output should be the remainder of the PPA term, such that the fixed-price term available to the retrofit storage would be available for as long as the term remaining available to the generating facility. In support of their position, NCCEBA, NCSEA, and SACE argue that the addition of storage to existing facilities amounts to an equipment upgrade, similar in nature to many other equipment upgrades to solar facilities that may adjust a generating facility's production profile but does not increase the nameplate capacity of the facility.<sup>7</sup>

In the Sub 158 Avoided Cost proceeding the Public Staff proposed a compromise with respect to the rates at which retrofit storage would be compensated for its output. This compromise was accepted by the Commission and would allow the facility to continue to receive compensation at the rates established in its PPA for the existing generating facility but would receive compensation for the output of the energy storage system at the avoided cost rate current at the time the energy storage added. The Public Staff views limiting the term over which the energy storage retrofit receives compensation to the lesser of a five-year or 10-year term (depending on eligibility for standard offer) or the remaining PPA term as being consistent with this compromise, as well as consistent with its understanding of the legislative intent expressed by House Bill 589.

NCCEBA, NCSEA, and SACE commented that "there is no reason to believe that any QF can finance an addition of storage device to its facility with only five years of price certainty."<sup>8</sup> Additionally, in the Sub 158 Avoided Cost Proceeding, NCSEA testified that five-year avoided cost rates are not economically viable and 10-year avoided cost rates would be needed to finance a facility with energy storage. Witness Norris testified for

<sup>&</sup>lt;sup>6</sup> Public Staff Reply Comments, Dec. 16, 2020, at 4-8.

<sup>&</sup>lt;sup>7</sup> NCCEBA, SACE, and NCSEA Reply Comments, Nov. 20, 2020, at 5-10.

<sup>&</sup>lt;sup>8</sup> NCCEBA, SACE, and NCSEA Reply Comments, Nov. 20, 2020, at 9.

NCSEA that a five-year avoided cost rate would "undercut or fully eliminate the capacity value of the storage equipment and make it wholly unfinanceable." <sup>9</sup>

At present, the Commission is persuaded by the position of the NCCEBA, NCSEA, and SACE that the utilities' recommendation on term for retrofit energy storage is not commercially reasonable. Therefore, the Commission agrees with NCCEBA, NCSEA, and SACE that offering storage the term that remains on the PPA is reasonable at this time. The Commission recognizes the need to guard against the risk of overpayment by ratepayers but balances this against the potential value that a generating facility coupled with storage could provide to the utilities' systems.

While the Commission had intended to address all remaining barriers to the implementation of storage with this order, the parties have not addressed the procedure for how and the point in time at which a facility secures eligibility for a specific avoided cost rate or methodology when adding energy storage. For this reason, the Commission directs the parties to address this final issue for resolution by the Commission.

Like the Public Staff, the Commission recognizes that energy storage can provide benefits to ratepayers by enabling more dispatchable solar facilities, shifting energy from off-peak to on-peak hours, avoiding new peaking capacity, and reducing solar intermittency. Similarly, with the exception of compensation for dispatchability, a solar plus storage facility would presumably be compensated for those benefits through rate structures and tariffs, including, for example, higher on-peak pricing, capacity payments, and the avoidance of the SISC charge. The Commission encourages the parties to continue to investigate these issues, including term and rate design, to incent the addition of storage to uncontrolled generating facilities in the interest of providing value to the utilities' systems. Further, the Commission directs the utilities and interested parties to address this issue in their filings in the 2021 biennial avoided cost proceeding, Docket No. E-100, Sub 175, so that the Commission may revisit the issue, if necessary.

IT IS, THEREFORE, ORDERED as follows:

1. That Duke shall file information regarding its SISC avoidance process, the facilities that are able to avoid the SISC, and any related audits in its annual fuel rider proceedings;

2. That the 6% and 12% volatility thresholds are reasonable, at this time, and shall be updated biennium to biennium;

3. That, for solar QFs that add storage and commit to avoid the SISC, Duke shall provide a second meter, at no cost to the QF, for the purpose of collecting five-minute interval data, and as further detailed in this Order, Duke shall file a report in the then current biennial avoided cost docket within three months after the end of the two-year data collection period;

<sup>&</sup>lt;sup>9</sup> Sub 158 Avoided Cost Order, April 15, 2020, at 127.

4. That the areas of consensus regarding regulatory and commercial issues reached by the parties are approved as set forth herein;

5. That the term for retrofit energy storage shall be the same as the term that remains on the PPA for the facility; and

6. That Duke shall file, on or before September 15, 2021, in both Docket No. E-100, Sub 101 and E-100, Sub 158: 1) a comprehensive waiver request reflecting all waivers that are needed from the North Carolina Interconnection, in order to comply with the Commission's directive to move ahead with an enrollment window for the ESS Retrofit Study Process; and 2) the procedure for how a QF establishes eligibility for the avoided cost rate or methodology applicable to the output of the energy storage addition. Parties may comment on Duke's filing on or before September 30, 2021, and Duke may respond to those comments on or before October 14, 2021.

ISSUED BY ORDER OF THE COMMISSION.

This the 17th day of August, 2021.

NORTH CAROLINA UTILITIES COMMISSION

a. Shink Dunchm

A. Shonta Dunston, Chief Clerk