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STATE OF NORTH CAROLINA
UTILITIES COMMISSION
RALEIGH

DOCKET NO. E-100, SUB 101
DOCKET NO. E-2, SUB 1159
DOCKET NO. E-7, SUB 1156

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

DOCKET NO. E-100, SUB 101 In the Matter of Petition for Approval of Generator Interconnection Standard DOCKET NO. E-2, SUB 1159 DOCKET NO. E-7, SUB 1156 In the Matter of Joint Petition of Duke Energy Carolinas, LLC, and Duke Energy Progress, LLC, for Approval of Competitive Procurement of Renewable Energy Program	)	ORDER APPROVING INTERIM MODIFICATIONS TO NORTH CAROLINA INTERCONNECTION PROCEDURES FOR TRANCHE 1 OF CPRE RFP

BY THE COMMISSION: On May 15, 2015, in Docket No. E-100, Sub 101, the Commission issued an Order Approving Revised Interconnection Standard. In Ordering paragraph 3, the Commission instructed the Public Staff – North Carolina Utilities Commission (Public Staff) to convene a stakeholder process not later than two years after the date of the order and to report recommendations from the stakeholder group within four months from the first meeting of the group.

On September 15, 2017, in Docket No. E-100, Sub 101, the Public Staff filed a Motion for Extension of Time to file a report on needed changes to the NC Interconnection Standard. In its filing, the Public Staff indicated that the Public Staff convened an initial planning meeting for the stakeholder process on May 9, 2017, followed by larger stakeholder meetings on June 1, July 14, August 8, and September 6, 2017. The Public Staff stated that due to the press of other business, the technical aspects of the subject matter and new issues being identified, the Public Staff was not in a position to develop a report on proposed revisions at that time, and requested an extension of time for filing its report to December 15, 2017, which the Commission granted along with a request that the Public Staff provide status reports.

The Public Staff provided the Commission with a status report of the stakeholder group at the Commission's Monday Staff Conference on September 19, 2017. The Public Staff indicated that the stakeholders were working diligently but areas of disagreement

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remained. The Public Staff further indicated that the passage of HB 589[1] and evolving new technologies such as storage and smart inverters have created new areas of discussion, that all parties to the process agree that certain parts on the NC Interconnection Standard need revision, and that the moderator/facilitator from Advanced Energy was helpful. The Public Staff stated that the parties would be in a position to provide a written report by December 15, 2017.

On December 15, 2017, the Public Staff filed a letter in which it stated that even though the parties had had significant discussion and identified numerous issues that merit revision, no consensus was reached regarding what revisions should be made to the Interconnection Standard. The Public Staff attached a redlined version of the NC Interconnection Standard, assembled by Advanced Energy, which identified comments and proposals from various parties.

On December 20, 2017, the Commission issued an Order Requesting Comments regarding modifications to the North Carolina Interconnection Procedures, Forms, and Agreements (collectively referred to as the NC Interconnection Standard). Comments and reply comments in response to the Commission's December order were received from the following parties: Duke Energy Carolinas, LLC (DEC), Duke Energy Progress, LLC (DEP), Dominion Energy North Carolina (DENC), North Carolina Sustainable Energy Association (NCSEA), North Carolina Clean Energy Business Alliance (NCCEBA), and Interstate Renewable Energy Council, Inc. (IREC).

On February 21, 2018, in Docket Nos. E-2, Sub 1159 and E-7, Sub 1156, the Commission issued its Order Modifying and Approving the Joint Competitive Procurement of Renewable Energy (CPRE) Program for DEC and DEP.

On March 12, 2018, reply comments regarding proposed changes to the NC Interconnection Standard were filed by IREC, NCCEBA, and NCSEA, and jointly by DEC, DEP, and Virginia Electric and Power Company d/b/a Dominion Energy North Carolina. Duke filed Additional Reply Comments on this date as well.

On May 7, 2018, Duke Energy Renewable, Inc. filed a petition to intervene in Docket No. E-100, Sub 101, which request was granted by order dated May 22, 2018.

On July 10, 2018, in Docket Nos. E-2, Sub 1159 and E-7, Sub 1156, and pursuant to Commission Rule R8-71(f)(2)(i), the Independent Administrator (IA) of the CPRE Program transmitted to the market participants the final documents to be used in the Tranche 1 CPRE RFP Solicitation. By that transmittal, the IA opened the Tranche 1 CPRE RFP Solicitation response period and established September 11, 2018, as the deadline for submission of proposals.

On July 30, 2018, in Docket No. E-100, Sub 101, DEC and DEP (the Companies or Duke or DEC/DEP) filed a Motion for Approval of CPRE-Related Modifications to North Carolina Interconnection Procedures. In its motion, DEC and DEP specifically requested Commission approval of proposed new or modified Sections 1.7.1, 1.7.3, 4.3.4, and 4.3.9 of the NC Interconnection Procedures (NC Procedures or NCIP),

[1] Session Law 2017-192.

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which establish a system impact grouping study process to more efficiently evaluate CPRE proposals within the current NCIP study process. The Companies also requested the Commission to provide any needed authorization to enable "late stage proposals"[2] to be submitted into the Companies' CPRE Tranche 1 request for proposal (RFP). In support, DEC and DEP indicated that the Commission has previously recognized the Companies' proposed CPRE-related revisions to implement a system impact grouping study as reasonable and appropriate to evaluate the grid upgrade costs of proposals submitted into the CPRE RFP process. However, the Companies stated that in order to implement the system impact grouping study for the CPRE Tranche 1 RFP, Commission approval of the proposed CPRE-related revisions is necessary at this time. The Companies asserted that such approval can and should be granted now, independent of the other non-CPRE-related interconnection modifications currently pending before the Commission. DEC and DEP indicated that the Companies contacted the Public Staff and the Public Staff did not oppose expedited Commission approval of the CPRE-related modifications to the NC Interconnection Procedures. DEC and DEP requested a ruling by August 30, 2018, due to the fact that the Tranche 1 CPRE RFP proposal submission deadline was September 11, 2018.

On August 1, 2018, NCSEA and IREC filed a joint response to Duke's motion. NCSEA and IREC stated they are sympathetic to the Companies' desire for certainty as to the interconnection study process for projects proposed in the CPRE RFP. However, NCSEA and IREC contend that proposed revisions to the NCIP should be considered in their entirety, and that the Commission should not take a piecemeal approach to revising the NCIP. NCSEA and IREC stated that there are various proposals for reform of the NCIP, and many are interrelated and could impact the group study proposal if adopted; and those issues may also inform whether and how a group study process should be adopted. NCSEA and IREC contended that the projects that could potentially move ahead under the CPRE group study proposal, if adopted, will want a clear sense of the interconnection procedures as a whole that will govern their project and thus it is important that the Commission not decide discreet interconnection-related issues separately. NCSEA and IREC noted that the first time the Companies provided specific language for the proposed CPRE-related modifications and additions was in its reply comments despite having had ample time to raise these issues during the stakeholder process. As a result, NCSEA and IREC did not have an adequate opportunity to respond to the Companies' proposal, and both organizations took issue with the non-transparent and selective process that the Companies used in developing the proposed CPRE-related modifications and additions. NCSEA and IREC requested that the Commission issue an order addressing all proposed modifications and additions to the NC Interconnection Standard on or before August 30, 2018.

On August 10, 2018, the Chairman issued an Order Scheduling Hearing, Requesting Comments, and Extending Tranche 1 CPRE RFP Solicitation Response

[2] Late-stage proposals are those that have already completed a system impact study and executed a facilities study agreement. Duke proposes that only for those that bid into Tranche 1, such projects should be given the option of retaining their queue position ahead of the utility-sponsor queue number, or instead becoming part of the utility-sponsored queue number. If they choose the former, they will be directly responsible for paying network upgrade costs.

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Deadline. The order established an evidentiary hearing to consider all of the modifications to the NC Interconnection Standard, which is now scheduled for January 28, 2019, and established an oral argument on September 17, 2018, regarding the establishment of interim modifications to the NC Interconnection Standard to accommodate Tranche 1 of the CPRE program. The Commission subsequently continued the oral argument to September 24, 2018. The August 10, 2018 order also established October 9, 2018, as the new deadline for responses to the Tranche 1 CPRE RFP Solicitation.

On August 24, 2018, Dominion Energy North Carolina filed comments stating that the Company does not oppose Duke's proposed revisions, "as long as the grouping study concept remains optional and is tied to the implementation of the CPRE RFPs." Also on August 24, 2018, comments were filed by Duke, IREC, the Public Staff, and NCCEBA.

On September 7, 2018, First Solar, Inc. (First Solar), filed a petition to intervene in this docket as well as Docket Nos. E-2, Sub 1159 and E-7 Sub 1156, which the Commission granted.

On September 19, 2018, reply comments were filed by Duke, the Public Staff, NCCEBA, IREC, NCSEA, and First Solar. On September 20, 2018, reply comments were filed by the North Carolina Pork Council.

On September 24, 2018, the parties appeared before the Commission for oral argument, with appearances made by Duke, NCSEA, IREC, North Carolina Pork Council, NCCEBA and the Public Staff. On September 28, 2018, Duke filed Post-Hearing Responses to Commission Questions in which it provided additional information relative to questions that had been raised during the oral argument.

Also on September 28, 2018, the Commission issued an order entitled Request for Clarification of Statements Made During Oral Argument in which the Commission required Duke to clarify its oral argument comments by a filing due October 1, 2018.

On October 1, 2018, Duke filed a response to the Commission's September 28 Order, as did the Public Staff.

On October 1, 2018, the Commission provided Duke with confidential questions via email, to which the Company provided confidential responses via email on October 2, 2018. Redacted versions of those documents have subsequently been placed in this docket.

Duke's Proposed Interim Changes to the Interconnection Standard to Implement CPRE Tranche 1 RFP

1. <u>Grouping Study Process</u>

Duke proposes to amend the NC Interconnection Procedures to facilitate the Step 2 evaluation process of the Tranche 1 CPRE bids. (Commission Rule R8-71(3)(iii) contains details on the Step 2 evaluation.) Duke proposes to add the ability to conduct grouping studies of the system impacts of bidding projects.

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Under the NCIP currently, when a generator files an interconnection application, it is assigned a queue number based on the date that its application is deemed complete. When the utility studies whether system upgrades are necessary in order to interconnect that generator, the utility must assume that all earlier queued interconnection requests will be built, including any required system upgrades. Duke proposes to modify the NC Interconnection Procedures to add a CPRE grouping study in order to identify and assign upgrade costs associated with the most cost-effective combinations of bids, as ranked by the IA.

As described by Duke in its initial comments, its reply comments, and during the oral argument, Duke's CPRE program requires all bidders to file an NC Interconnection Application prior to the bid deadline. Those applications (hereinafter individually referred to as interconnection request, project, or Interconnection Customer) will be filed on a variety of dates. Under the current NCIP, applications filed earlier would have an earlier queue position, and subsequent interdependent projects would not be studied until after the prior interconnection requests are studied. The earlier queued project would also have priority of available capacity on the system. Under Duke's CPRE proposal, once a project bids into CPRE RFP, the project will give up its previously assigned queue number and will become part of a "Utility-Sponsored Queue Number." Therefore, all of the bidding project will have the same queue position and will be studied in combinations, as single projects, or not at all if the project is not ranked competitively by the IA. The one exception is that a late-stage proposal may choose to maintain its queue position.

As explained by Duke, in Step 1 of the CPRE evaluation process, the IA will rank bids based on price and other factors and then provide Duke's T&D (transmission and distribution) Sub-Team with the most competitively-ranked projects, whose aggregate nameplate capacity add up to about three times the solicited procurement amounts (which are 600 MW for DEC and 80 MW for DEP). In Step 2 of the CPRE RFP evaluation process, Duke will start with a system baseline model and add projects to the model, starting with those that are most highly ranked by the IA, until the procurement amount is reached. Duke's T&D Sub-Team would then identify whether the interconnections of those highly ranked projects are likely to be interdependent, in which case Duke would study them together, as a group. For each potential combination of competitive tier projects, the T&D Sub-Team will evaluate the network upgrades triggered by the combined projects and will estimate the costs associated with those network upgrades. If the Sub-Team determines that the most competitively ranked proposals can achieve the procurement amount without triggering any network upgrades, they would conclude this step in the evaluation process.

If the most competitive bids do trigger network upgrade costs, the Sub-Team will provide the IA a written explanation and an assignment of those upgrade costs to the projects. The IA will then modify the competitive tier ranking, folding in the network upgrade costs and deliver a revised list of competitive tier proposals to the T&D Sub-Team for another round of study. This iterative process would continue, under the direction of the IA, until the IA determines that the total capacity sought by the

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procurement is satisfied in the most cost-effective manner, after taking into account the assignment of network upgrade costs.

In its initial comments, the Public Staff expressed concern that the system baseline will include many earlier queued projects (unrelated to the CPRE procurement) and their associated system upgrades, some of which won't actually come to fruition. The withdrawal of a previously queued project requiring system upgrades could result in additional system upgrade costs being borne by retail customers in order to interconnect the winning CPRE bidders, and possibly in excess of the avoided cost cap established by the General Assembly. In its reply comments, Duke stated that its T&D Sub-Team would manage this complexity by providing "contingency evaluations" of competitive tier projects "to identify the risk of phantom grid upgrades and other contingencies for the IA." To do this, the Sub-Team would modify the system baseline model by removing grid upgrades associated with prior queued projects that have not yet been built and which have a low probability of being built. The Sub-Team would study the competitive projects with the updated baseline model, which would allow them to provide the IA with system upgrade costs that reflect the possibility that speculative earlier-queued projects do not move ahead. During the September 24, 2018 oral argument, Duke stated that the IA should have the authority to remove any project from consideration in the competitive tier that may appear cost-effective in the initial full system baseline study, but is then determined to be at risk of incurring significant upgrades if an earlier queued project withdraws. Similarly, during the oral argument the Public Staff stated that, "First, the most cost effective projects that pose the least risk to customers of upgrade costs that may be reassigned should be selected." Further, "…if a project raises a risk of exceeding the avoided cost cap as part of the contingency evaluation, it should be eliminated from consideration."

With the addition of the "contingency evaluations," the Public Staff stated that it generally supports Duke's proposal to revise the NC Interconnection Procedures for Tranche 1 and asserts information gained during Tranche 1 can inform the process for future CPRE tranches. The Public Staff provided an amended version of Duke's proposed changes to the NC Interconnection Procedures with its reply comments. Duke indicated that the Public Staff's proposed changes were acceptable.

IREC expressed concern that losing bidders would become subordinate to those winning bidders that remain part of the utility-sponsored queue number. IREC stated that Duke should be required to "explain why subordinating queued-ahead projects that bid into the RFP and fail to the utility-sponsored queue position is not unduly discriminatory." IREC also expressed concern that the CPRE grouping study process would cause delays for non-CPRE interconnection requests. IREC stated that the Commission should require that all interconnection requests that are queued ahead of the CPRE group should have their studies completed and should receive an interconnection agreement from Duke before the group study is conducted.

In its reply comments, IREC stated further that another option would be for Duke to open the group study process to all projects in the queue. "…[T]his would avoid any

unfairness or undue discrimination because all projects – not just CPRE projects – could enjoy the cost-sharing benefits of group studies."

In its reply comments, Duke clarified that its proposed CPRE grouping study proposal would preserve serial queue position priority of interconnection requests that elect not to bid into Tranche 1. Further, Duke stated that any interconnection request that has established a queue position ahead of the utility-sponsored queue number, and is not a Tranche 1 bidder, would be studied serially and maintain its queue position ahead of the utility-sponsored queue number. Later-queued interconnection requests would remain subordinate to the utility-sponsored queue number and would be studied serially.

NCCEBA stated that it supports Duke's proposed grouping study concept, but only if late-stage proposals that are allowed to bid in Tranche 1 will be grandfathered so that they can elect whether to maintain their queue priority or to participate in a grouping study and can avoid paying for network upgrades. Duke stated in its reply comments that this is acceptable but only for Tranche 1 "as an accommodation during the transition from a serial study process to the CPRE Grouping Study process…." However, because Duke intends to provide late-stage proposals certain allowances only in Tranche 1, the Company stated that it is not appropriate or necessary to modify the NC Interconnection Procedures in this regard. Duke stated that the Tranche 1 RFP documents and the Companies' filings adequately document the Companies' commitment to grandfather late-stage proposals.

NCSEA stated that Interconnection Customers should be allowed to keep their serial queue position rather than being forced into a grouping study as a requirement of bidding. "While Duke may call this an "opt-in" program, it is clearly not optional if it is mandatory for all interconnection customers bidding into Tranche 1 of the CPRE." NCSEA further expressed concern that Duke would be able, at its discretion, to remove a project from the group and study it separately.

First Solar recommended that the Commission approve Duke's proposal by October 9, 2018, on a temporary basis, so that it can be used for the Tranche 1 RFP, and that the Commission should attempt to ensure that the grouping study process in North Carolina is consistent with the one adopted in South Carolina. In addition, First Solar seeks for projects throughout each of Duke's balancing authority areas in North and South Carolina to compete on an equal footing in the CPRE RFP solicitation. First Solar asserted that the Commission should address broader interconnection issues in the January 2019 hearing.

The Pork Council stated that it was unclear how the grouping study process would work and that it is unclear whether resources that otherwise would be dedicated to interconnection review will be diverted to the CPRE grouping studies, creating further delays. Further, the Pork Council asserted that Duke's proposed grouping study for CPRE RFP projects could conflict with the General Assembly's mandate to expedite reviews for swine and poultry waste-to-energy projects.

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Discussion and Decision

The Commission has carefully considered parties' written comments, as well as the information gained during the September 24, 2018 oral argument, and the Duke and Public Staff submittals received subsequent to the oral argument. Because of the need to evaluate the CPRE RFP bids from the vantage of a common system baseline, as well as the need to estimate system impact costs for competitive tier bids and re-rank bids to assure compliance with the CPRE avoided cost cap, Duke's proposal to modify the NC Interconnection Procedures to provide for a grouping study is reasonable.

Further, Duke's proposal to allow late-stage proposals to bid into Tranche 1 and have the option of retaining their queue position and paying their own system upgrade costs or joining the utility-sponsored queue number and to potentially share in an imputed allocation of system upgrade costs is reasonable. The Commission allows for this temporary one-time modification to the NCIP via this order and disagrees with NCCEBA that the actual language of the NCIP needs revision to accommodate this allowance for late-stage proposals that bid into Tranche 1 of CPRE RFP.

Duke's reply comments, as well as commitments made during the oral argument, have assured the Commission that interconnection customers that do not participate in the CPRE RFP will retain their queue positions, both ahead of and behind the utility-sponsored queue number, as appropriate. CPRE bidders that do not win in Tranche 1 and choose not to bid in subsequent tranches will be given queue positions immediately subordinate to the utility sponsored queue number and will retain any relative position they might have held with each other prior to the bidding process. The Commission advises Duke to, if it has not already done so, establish measures in its allocation of interconnection resources to ensure that non-CPRE participants are not disadvantaged by further delay.

The Public Staff submitted an amended version of Duke's initial proposal, and Duke stated during the oral argument that it finds the Public Staff's language to be acceptable. The Commission will adopt for purposes of Tranche 1 CPRE bid evaluations the amendments as shown in Appendices A and B of this Order.

In order to manage the issue of phantom upgrades, the Commission hereby requires the Duke T&D Sub-Team to identify contingent projects for competitive tier bids, and communicate that information, along with cost estimates for their network upgrades, to the IA. The IA shall have the authority to remove any bidding project from the competitive tier that appears cost-effective in the initial full system baseline study, but is then determined to be at risk of incurring significant network upgrades if an earlier queued project were to withdraw.

2. Milestone Payment under Section 4.3.9/ Financial Security

Duke seeks approval of Section 4.3.9. This new milestone payment provision will require Interconnection Customers that trigger transmission network upgrades to commit to a non-refundable prepayment or provide financial security for these upgrades earlier in

the interconnection process. Duke's proposed Section 4.3.9 requires affected Interconnection Customers to either make a financial commitment to move ahead or withdraw their interconnection requests. Duke stated that it is motivated by the need to establish a baseline system model that is as accurate as possible prior to analyzing the system impacts of proposed CPRE projects.

Pursuant to Duke's proposal, for solar interconnection customers, this prepayment or financial security would be due 60 calendar days after Duke provides the facilities study agreement for signature, other Interconnection Customers would have 180 calendar days to make the prepayment or provide the financial security.

The applicable portion of Duke's proposal states:

> This payment or Financial Security shall be held by the Utility as a non-refundable prepayment for the estimated cost of Network Upgrades to be designed by the Utility in the Section 4.4 Facilities Study. The preliminary Network Upgrade prepayment amount shall be trued up by the Utility in the Detailed Estimated Upgrade Charges included in a future Interconnection Agreement or shall be forfeited to the Utility to construct the Network Upgrades if the Interconnection Request is subsequently withdrawn by the Interconnection Customer.

Under the current NCIP, an Interconnection Customer is not required to make a financial commitment relative to network upgrades until much later in the process, after they have received a facilities study report and are ready to sign an Interconnection Agreement. Duke's proposed change would not affect CPRE Tranche 1 bidders. This change would affect projects that are already in the queue, and that join the queue in the future outside the context of the Tranche 1 bidding and evaluation procedures.

The Public Staff did not initially take a position on Duke's proposal to require earlier prepayments for network upgrades, although the Public Staff did express many concerns about the challenges of developing a meaningful system baseline model for the group study process. Other parties expressed concerns with Duke's proposal. IREC stated that it is problematic to require non-refundable prepayments based only on the system impact study. IREC stated that it is not uncommon for the subsequent facilities study to identify costs that are substantially higher than those in the system impact study. If that were to occur and the Interconnection Customer ultimately decided not to build the project, the Interconnection Customer would forfeit the prepayment. In its reply comments, IREC advocated that the Commission eliminate Duke's proposal to require non-refundable early payment of network upgrade costs, "or revise it to ensure there is a reasonable assurance that costs will not substantially exceed the estimate provided with the System Impact Study." During the oral argument, IREC stated that if Duke's proposed amendment were approved Duke also should be required to commit that network upgrade costs could not increase by more than 20% after the system impact study prepayment was made.

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NCCEBA did not oppose Duke's proposal; instead NCCEBA expressed concerns related to the financial security and argued that Duke be required to accept a "revocable surety bond" as security for both network upgrades and interconnection facilities. Duke stated that while it will "consider a surety bond as an acceptable form of short term Financial Security [for purposes of Section 4.3.9]..., the Companies have consistently emphasized to NCCEBA that all surety bonds must be irrevocable and negotiated on terms acceptable to Duke Energy('s) credit and risk management department …." During the oral argument, NCCEBA indicated that "we are now willing to accept Duke's request that the bond be irrevocable, however, we have not received any information from Duke about what those specific terms would be."

NCCEBA introduced a new concern during the comments on the interim procedures necessary to implement the CPRE Tranche 1 RFP regarding allowing a surety bond for financial security relating to interconnection facilities. Duke expressed frustration that NCCEBA wants to interject a new issue, prepayments for interconnection facilities, into the debate about what changes are needed to move ahead with Tranche 1 of CPRE RFP. Duke contends that surety bonds for interconnection facilities is outside the scope of the issues before the Commission at this time and the issue is more appropriately reserved for the Commission's consideration via the hearing scheduled for January in this docket.

During the oral argument, Duke stated that there currently are no interconnection customers in the queue that would be immediately impacted by this proposed change. However, in its September 28, 2018 Order, the Commission asked the Company to confirm this information and to explain whether its request to expedite prepayments for network upgrades could wait for further discussions during the hearing scheduled for January in this docket. In its October 1, 2018 response, Duke stated that after further review, the Companies determined that two DEP Interconnection Customers and three DEC Interconnection Customers would be subject to providing the prepayments, and "should the Commission elect not to approve the requested interim Milestone Commitment modifications to Section 4.3.9, the potential for phantom upgrades would be increased." In its October 1, 2018 filing, the Public Staff recommended that the Commission accept the revision "in order to protect ratepayers from potential phantom upgrades."

In response to the Commission's October 1, 2018 questions, Duke stated that it had spoken with the Public Staff and that both agree that the Commission should require Interconnection Customers currently in the facilities study phase to make the prepayment within a reasonable period of time. "Duke and the Public Staff support a timeframe of 30 business days from the date of the Commission's Order … in light of the Step 2 Evaluation processing commencing on December 3, 2018." Specifically, the Public Staff and Duke made the following recommendation to the Commission:

> For the avoidance of doubt, [Duke and the Public Staff] support requiring Interconnection Customers in Facilities Study today to make the Milestone Commitment and do not view this as improper or "retroactive" application of this provision. Establishing this requirement as applicable to Interconnection

Customers in Facilities Study today would be similar to the Commission's approval of the increased study deposits for both new Interconnection Requests as well as all Interconnection Requests in the study process in the May 15, 2015 Order.

Discussion and Decision

Based upon a review of all of the parties' submittals, comments during the oral argument and subsequent clarifying submittals, the Commission finds that Duke's proposal to require Interconnection Customers to make a non-refundable prepayment for network upgrades at an earlier stage in the interconnection process, as estimated in the system impact studies, is a necessary step in order to develop a system baseline model that is as accurate as possible: 1) to ensure that the CPRE process works as intended; 2) to prevent potential cascading restudies or reallocation of grid upgrades; and 3) to protect retail customers. Although the Commission recognizes the concerns of IREC, all of the other parties in the docket, those of which were heavily involved in the interconnection stakeholder process and the CPRE process, either strongly support the change to Section 4.3.9 or, at the very least, have not expressed opposition to the change. Duke and the Public Staff strongly support the change. NCCEBA supports the change of the irrevocable prepayment for purposes of network upgrades and, as of the oral argument, only opposes the method of financial security being accepted for interconnection facilities, which will be addressed in the full review of all NCIP changes. First Solar, NCSEA, and the North Carolina Pork Council did not express opposition to the proposed Section 4.3.9.

The Commission, therefore, approves the language developed by Duke and the Public Staff, which requires an Interconnection Customer whose project triggers network upgrades to commit to fund these network upgrades earlier in the interconnection study process prior to commencing the facilities study. The Commission has made an additional change to Section 4.3.9, for clarification purposes and to conform to the recommendation of the Public Staff and Duke, to cover those interconnection requests that have passed through the system impact study stage of the interconnection process and are at the interconnection process stage of the facilities study or beyond. Thus, the Commission has added clarifying language to Section 4.3.9, so that those Interconnection Customers currently in the facilities study process, whose requests require network upgrades, will be required to make the prepayment within 30 business days of this order to retain their queue position, as shown in Appendices A and B. The Commission notes to Duke that if prepayments are made pursuant to this section that are not ultimately used for networks upgrades, those funds shall be treated similar to Contributions in Aid of Construction in the rate-making process.

The Commission will not address the issue of financial assurance for interconnection facilities at this time because it is not necessary for the narrow purpose of moving ahead with the CPRE Tranche 1 RFP. As Duke indicated in oral argument, the milestone payment in Section 4.3.9 only applies to network upgrades and not interconnection facilities. Duke also asserted that pursuant to the current NCIP, no obligation exists to fund interconnection facilities until after an Interconnection Agreement has been executed which is much later in the process under Section 5.2.4. The Commission agrees that the issue of financial

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security for interconnection facilities does not need to be addressed at the present time. The Commission encourages parties to continue efforts to resolve this issue prior to the hearing scheduled for January 28, 2019.

Quarterly Interconnection Queue Performance and Status Reports

In its August 24, 2018 comments, the Public Staff recommended that Duke identify CPRE projects, and their tranches, in the Companies' quarterly Interconnection Queue Performance and Status Reports that are filed in Docket No. E-100, Sub 101A. The Public Staff stated that this would provide transparency to the interconnection queue and allow the Commission to monitor CPRE implementation. In its reply comments, Duke agreed that these additional reporting requirements are reasonable and committed to identify in its quarterly queue reports those projects that bid in each CPRE tranche as well as those that are selected as winning proposals. The Commission will require this additional reporting.

Future CPRE Tranches

Parties' submittals and the dialogue during the September 24, 2018 oral argument elucidated some issues with the current CPRE construct. The current CPRE construct, as interpreted by Duke, and as set forth in the RFP for Tranche 1, allows Duke to impute grid upgrade costs to bidding projects, but the successful bidder (Interconnection Customer) does not actually incur these costs. Rather, Duke incurs the grid upgrade costs and has the ability to seek recovery of these costs in a future rate case. Under the current two-step bid evaluation process, the initial bid by the CPRE bidder (Interconnection Customer) and the imputed grid upgrade costs for the project must be below the avoided cost cap established in HB 589. Several parties stated that grid upgrade costs may increase after the system impact study sometimes by more than 20 percent. Further, when considering the bid prices being experienced in similar processes in other states, and the North Carolina avoided cost prices, there is the potential that significant grid upgrade costs could be part of bids that win or are considered competitive in future CPRE tranches. Based upon submissions and statements by the parties, the most competitive projects with the likelihood of winning in the Tranche 1 RFP should be in locations with "sufficient capacity that minor, if any, grid upgrades, are required to interconnect the facilities." Duke further indicated that "there would not be material upgrades" in Tranche 1, due to available capacity on both the DEP and DEC system. The Commission finds that the issue of cost allocation of grid upgrades warrants further consideration for future tranches of CPRE.

The Commission has previously stated that it anticipates potentially revising the CPRE rules and Duke's CPRE plan for future tranches after it gains experience through Tranche 1. Based upon the record as discussed in this order, the Commission will consider the following issues with respect to future tranches where an increased likelihood exists that successful projects will require grid upgrade costs to interconnect: 1) change the CPRE program plan to remove the ability of Duke to recover grid upgrade costs in base rates; 2) change the CPRE program plan to require the initial bid to contain all of the Interconnection Customer's costs; 3) revise the CPRE process to allow

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competitive bidders to refresh their bids based upon the assessment of grid upgrades identified in Step Two of the CPRE RFP bid evaluation process; and 4) explore options for Duke to more specifically direct generators to locations on the system that will not involve major network upgrades. While the Commission understands the benefit of moving forward with the first tranche of bidding and obtaining results from the Tranche 1 RFP, as expressed by many of the parties, the Commission places parties on notice of its interest in revising the CPRE rules and Duke's CPRE plan prior to the next tranche. The Commission will consider parties' comments on or before November 5, 2018, as to whether changes of this nature should be pursued immediately via a round of submittals, or whether we should wait for further lessons from Tranche 1, before initiating the necessary revisions.

The Commission appreciates that almost all of the parties indicated support with the interim changes to the NCIP necessary to move forward with Tranche 1 to gain knowledge for any necessary changes for future tranches. Parties are welcome to file additional comments for the Commission's consideration when it considers other revisions to the NCIP via the comments and hearing scheduled for Docket No. E-100, Sub 101.

IT IS, THEREFORE, ORDERED as follows:

1. That the NC Interconnection Standard is modified as shown in Appendices A and B of this Order.

2. That Interconnection Customers affected by Section 4.3.9. that are currently in the facilities study stage of the NCIP shall have 30 business days from the date of this Order to submit a prepayment for network upgrades. For a given Interconnection Request, if no such payment is received, the Interconnection Request shall be removed from the interconnection queue.

3. That Duke shall, within 3 business days, serve, via registered mail, return receipt requested, a copy of this Order on those Interconnection Customers who are now subject to the requirement to make a prepayment for network upgrades due to Section 4.3.9 within 30 business days.

4. That Duke shall allow late-stage projects that bid into the CPRE Tranche 1 RFP the option of maintaining their queue position or of participating in the system impact grouping study as discussed and approved in this Order.

5. That Duke's T&D Sub-Team shall conduct contingency studies and the IA shall have authority to remove any bidding projects from the competitive tier that appear cost-effective in the initial full system baseline study, but are then determined to be at risk of causing significant network upgrades if an earlier queued project were to withdraw.

6. That Duke shall include information in its quarterly interconnection queue status reports filed in Docket No. E-100, Sub 101A regarding the status of CPRE projects.

7. That parties may file comments relative to the timing of revisions to the CPRE rules and Duke's CPRE plan for future tranches on or before November 5, 2018, in Docket

Nos. E-100, Sub 150, E-2, Sub 1159 and E-7, Sub 1156.

8. That further changes to the NCIP shall be considered via direct and rebuttal testimony that are due November 19, 2018, and December 17, 2018, respectively, to be followed by an evidentiary hearing on January 28, 2019, in Docket No. E-100, Sub 101. Parties are encouraged to conduct settlement negotiations in order to reduce the number of issues in dispute.

9. That the Chief Clerk shall serve copies of this Order on parties to Docket No. E-100, Sub 150.

ISSUED BY ORDER OF THE COMMISSION.

This the 5th day of October, 2018.

NORTH CAROLINA UTILITIES COMMISSION

Janice H. Fulmore, Deputy Clerk

Commissioner James G. Patterson did not participate in this decision.

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APPENDIX A

Modifications to the NCIP

1.7 Queue Number

1.7.1 The Utility shall assign a Queue Number pursuant to Section 1.4.2. Subject to an Interconnection Customer's election to participate in an optional System Impact Grouping Study, as described in Section 4.3.4, the Queue Number of each Interconnection Request shall be used to determine the cost responsibility for the Upgrades necessary to accommodate the interconnection. Subject to Section 1.7.3, 1.8, and Section 4.3.4, the Queue Number of each Interconnection Request shall also determine the order in which each Interconnection Request is studied.

1.7.2 Subject to the provisions of Sections 1.4, 1.5, and 1.6, Generating Facilities shall retain the Queue Number assigned to their initial Interconnection Request throughout the review process, including where moving through the processes covered by Sections 2, 3, and 4.

1.7.3 A Queue Number established for purposes of administering a Competitive Resource Solicitation under Section 4.3.4 shall not be subject to the Interdependency provisions of Section 1.8. Any Interconnection Customer that elects to participate in the System Impact Grouping Study and is selected through the Competitive Resource Solicitation shall complete the Section 4 Study process based upon the Queue Position designated to administer the Competitive Resource Solicitation and the Interconnection Customer's cost responsibility shall be determined based upon the terms of the Competitive Resource Solicitation. Any Interconnection Customer that elects to participate in the System Impact Grouping Study established in Section 4.3.4 but is not selected through the Competitive Resource Solicitation shall be deemed subordinate to the designated Competitive Resource Solicitation Queue Number or an Interconnection Customer that has completed System Impact Study and committed to Upgrades under Section 4.3.9, but shall maintain its original Queue Position for purposes of determining cost responsibility for Upgrades in relation to (i) other Interconnection Customers that elected to participate in the System Impact Grouping Study, but were not selected through the Competitive Resource Solicitation; and (ii) projects that were assigned a Queue Number after the date on which the Queue Number was designated by the Utility to administer the System Impact Grouping Study.

...

4.3 System Impact Study

4.3.4 At the Utility's option, and solely for purposes of administering a Commission-approved Competitive Resource Solicitation, a Utility may designate a Queue Number and act as authorized representative for Interconnection Customer(s) proposing a Generating Facility requesting to interconnect to the Utility's System for evaluation through the Solicitation.

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The Utility shall evaluate combinations of such Interconnection Requests for purposes of conducting the System Impact Grouping Study(ies) of combinations of Generating Facilities within the Queue Number in order to achieve the resource need identified in the Competitive Resource Solicitation. Such studies in connection with a Competitive Resource Solicitation shall be implemented based upon the Queue Number relative to the Queue Position of all other Interconnection Requests. The Utility may also study an Interconnection Request separately to the extent provided for under the terms of the Competitive Resource Solicitation or if otherwise warranted by Good Utility Practice such as to evaluate the locational remoteness of a proposed Generating Facility.

Through completing the System Impact Grouping Study(ies) of the requested combinations of Interconnection Requests, the Utility must select one of the studied combinations that achieves the capacity solicited through the Competitive Resource Solicitation prior to the start of any Interconnection Facilities Study. While conducting the Interconnection Facilities Study(ies) for the selected combination of resources, the Utility may suspend further study of the Interconnection Customers that have opted in to the System Impact Grouping Study that are not included in the selected combination and such customers may elect during this period to return to their original Queue Position, subject to 1.7.3, or participate in a new Competitive Resource Solicitation, if available.

…

4.3.9 At the time the System Impact Study Report is provided to the Interconnection Customer, the Utility shall also deliver an executable Facilities Study Agreement to the Interconnection Customer. After receipt of the System Impact Study Report and Facilities Study Agreement, when the Interconnection Customer is ready to proceed with the design and construction of the Upgrades and Interconnection Facilities, the Interconnection Customer shall return the signed Facilities Study Agreement to the Utility in accordance with Section 4.4 and shall also submit payment or Financial Security reasonably acceptable to the Utility equal to the cost of any Network Upgrades identified in the Preliminary Estimated Upgrade Charge, as set forth in the System Impact Study Report, that would be borne by the Interconnection Customer under a future Interconnection Agreement. This payment or Financial Security shall be held by the Utility as a non-refundable prepayment for the estimated cost of Network Upgrades to be designed by the Utility in the Section 4.4 Facilities Study. The preliminary Network Upgrade prepayment amount shall be trued up by the Utility in the Detailed Estimated Upgrade Charges included in a future Interconnection Agreement or shall be forfeited to the Utility to construct the Network Upgrades if the Interconnection Request is subsequently withdrawn by the Interconnection Customer. For Interconnection Customers that have

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already received their system impact studies, and have proceeded to the facilities study phase, the non-refundable pre-payment for network upgrades shall be due within 30 business days of this requirement being adopted by the Commission. Failure to timely make such pre-payments will result in the Utility removing the Interconnection Request from the queue.

ATTACHMENT 1 – Glossary of Terms

…

Competitive Resource Solicitation – A competitive generation procurement process through which a Utility solicits, or Utilities jointly solicit, new Generating Facilities offering to deliver energy to the Utility for purpose of meeting the requirements of applicable laws or regulations, including but not limited to G.S. § 62-110.8.

…

Queue Number - The number assigned by the Utility that establishes a Customer's Interconnection Request's position in the study queue relative to all other valid Interconnection Requests. A lower Queue Number will be studied prior to a higher Queue Number, except in the case of Interdependent Projects and Interconnection Requests participating in a Competitive Resource Solicitation. The Queue Number of each Interconnection Request shall be used to determine the cost responsibility for the Upgrades necessary to accommodate the interconnection.

Study Process - The procedure for evaluating an Interconnection Request that includes the Section 4 scoping meeting, System Impact Study, including optional System Impact Grouping Study(ies), and Facilities Study.

ATTACHMENT 7 – System Impact Study Agreement

…

18. The System Impact Study shall be completed within a total of 65 Business Days if transmission system impacts are studied, and 50 Business Days if distribution system impacts are studied, but in any case, shall not take longer than a total of 65 Business Days unless the study involves Affected Systems per Section 16.0 or the studied Interconnection Request is a Project B per Section 17.0 or the System Impact Study is a Grouping Study implemented pursuant to Section 4.3.4 of the Interconnection Procedures, which shall be completed during the timeframe of the Competitive Resource Solicitation. The period of time for the Utility to complete the System Impact Study shall be tolled during any period that the Utility has requested information in writing from the Interconnection Customer necessary to complete the Study and such request is outstanding.

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APPENDIX B

Modifications to the NCIP

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1.7.2 Subject to the provisions of Sections 1.4, 1.5, and 1.6, Generating Facilities shall retain the Queue Number assigned to their initial Interconnection Request throughout the review process, including where moving through the processes covered by Sections 2, 3, and 4.

1.7.3 A Queue Number established for purposes of administering a Competitive Resource Solicitation under Section 4.3.4 shall not be subject to the Interdependency provisions of Section 1.8. Any Interconnection Customer that elects to participate in the System Impact Grouping Study and is selected through the Competitive Resource Solicitation shall complete the Section 4 Study process based upon the Queue Position designated to administer the Competitive Resource Solicitation and the Interconnection Customer's cost responsibility shall be determined based upon the terms of the Competitive Resource Solicitation. Any Interconnection Customer that elects to participate in the System Impact Grouping Study established in Section 4.3.4 but is not selected through the Competitive Resource Solicitation shall be deemed subordinate to the designated Competitive Resource Solicitation Queue Number or an Interconnection Customer that has completed System Impact Study and committed to Upgrades under Section 4.3.9, but shall maintain its original Queue Position for purposes of determining cost responsibility for Upgrades in relation to (i) other Interconnection Customers that elected to participate in the System Impact Grouping Study, but were not selected through the Competitive Resource Solicitation; and (ii) projects that were assigned a Queue Number after the date on which the Queue Number was designated by the Utility to administer the System Impact Grouping Study.

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interconnect to the Utility's System for evaluation through the Solicitation. The Utility shall evaluate combinations of such Interconnection Requests for purposes of conducting the System Impact Grouping Study(ies) of combinations of Generating Facilities within the Queue Number in order to achieve the resource need identified in the Competitive Resource Solicitation. Such studies in connection with a Competitive Resource Solicitation shall be implemented based upon the Queue Number relative to the Queue Position of all other Interconnection Requests. The Utility may also study an Interconnection Request separately to the extent provided for under the terms of the Competitive Resource Solicitation or if otherwise warranted by Good Utility Practice such as to evaluate the locational remoteness of a proposed Generating Facility.

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...

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Interconnection Customer. For Interconnection Customers that have already received their system impact study, and have proceeded to the facilities study phase, the non-refundable prepayment for Network Upgrades shall be due within 30 business days of this requirement being adopted by the Commission. Failure to timely make such prepayments will result in the Utility removing the Interconnection Request from the Queue.

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