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Dec 16 2022

December 16, 2022

**VIA ELECTRONIC FILING:**

Ms. A. Shonta Dunston, Chief Clerk  
North Carolina Utilities Commission  
4325 Mail Service Center  
Raleigh, North Carolina 27699-4300

**Re: Joint Proposed Order In the Matter of Investigation of Proposed Net Energy  
Metering Policy Changes**  
Docket No. E-100 Sub 180

Dear Ms. Dunston:

In accordance with the order issued in this docket by the North Carolina Utilities Commission on December 7, 2022, I enclose for filing a Joint Proposed Order submitted on behalf of Duke Energy Carolinas, LLC, Duke Energy Progress, LLC, North Carolina Sustainable Energy Association, Vote Solar, Southern Alliance for Clean Energy, and the Solar Energy Industries Association.

If you have any questions, please do not hesitate to contact me. Thank you for your attention to this matter.

Sincerely,



J. Ashley Cooper

Enclosures

cc: Parties of Record (via email with attachments)

4878-7047-6868

CERTIFICATE OF SERVICE

I certify that a copy of the Joint Proposed Order, in Docket No. E-100, Sub 180, has been served by electronic mail, hand delivery, or by depositing a copy in the United States Mail, 1st Class Postage Prepaid, properly addressed to parties of record.

This the 16th day of December, 2022.

s/J. Ashley Cooper

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STATE OF NORTH CAROLINA  
UTILITIES COMMISSION  
RALEIGH

DOCKET NO. E-100, SUB 180

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

In the Matter of  
Investigation of Proposed Net  
Metering Policy Changes

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**JOINT PROPOSED ORDER**

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**BEFORE:** Chair Charlotte A. Mitchell, Presiding; Commissioners ToNola D. Brown-Bland, Daniel G. Clodfelter, Kimberly W. Duffley, Jeffrey A. Hughes, Floyd B. McKissick Jr., and Karen M. Kemerait

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**BY THE COMMISSION:** This matter primarily comes before the Commission pursuant to House Bill 589 (“H.B. 589”) and House Bill 951 (“H.B. 951”), which require the Commission to revise net energy metering (“NEM”) rates in North Carolina. G.S § 62-126.4. The specific parameters with which these rates must comply are found within H.B.

589, which also requires Duke Energy Carolinas, LLC (“DEC”) and Duke Energy Progress, LLC (“DEP”) and together with DEC, the “Companies”) to file revised NEM rates with the Commission for consideration and approval. G.S. § 62-126.4.

## **I. PROCEDURAL HISTORY AND JURISDICTION**

### **A. Procedural History**

The Companies filed with the Commission a Joint Application containing these revised NEM rates on November 29, 2021, pursuant to G.S. § 62-126.4 (as implemented by H.B. 589), Section 5 of H.B. 951, Rule R1-5, and other applicable rules and regulations of this Commission. Joint Application at 1. The Companies filed their Joint Application in Docket Nos. E-7, Sub 1214, E-2, Sub 1219, and E-2, Sub 1076. *See* Joint Application of Companies for Approval of Net Energy Metering Tariffs in Compliance with G.S. § 62-126.4 and House Bill 951 (“Joint Application”), dated Nov. 29, 2021, Docket Nos. E-7, Sub 1214, E-2, Sub 1219, and E-2, Sub 1076. In their Joint Application, the Companies petitioned the Commission to issue an order approving the Companies’ proposed NEM tariffs (“NEM Tariffs”) for customers who submit applications on or after January 1, 2023. Joint Application at 1-2. In the Joint Application, the Companies aver that the NEM Tariffs comply with the mandates within H.B. 589, which include (i) requiring an investigation of costs and benefits of NEM generation and (ii) ensuring that NEM customers pay their “full fixed cost of service.” Joint Application at 8. Additionally, the Companies state that the NEM Tariffs also fulfill the spirit of H.B. 951 by encouraging the addition of carbon-emission-free energy to the State. Joint Application at 9. The Companies noted that the NEM Tariffs have the added benefit of being the product of broad stakeholder engagement,

as evidenced by the Memorandum of Understanding (the “MOU”) filed with the Joint Application.<sup>1</sup> Joint Application at 14.

On January 10, 2022, the Commission issued an *Order Requesting Comments*, which permitted interested parties to file comments in response to the Joint Application no later than March 15, 2022, with reply comments due no later than April 14, 2022. *See* Order Requesting Comments, dated Jan. 10, 2022, Docket No. E-100, SUB 180. The order permitted parties to file petitions to intervene in the docket no later than March 15, 2022. *Id.*

**i. Intervention**

The North Carolina Sustainable Energy Association (“NCSEA”), represented by Peter H. Ledford, Esquire, filed a Petition to Intervene on January 13, 2022. NC WARN, represented by Matthew D. Quinn, Esquire, filed a Petition to Intervene on January 24, 2022. On January 25, 2022, the Carolina Industrial Group for Fair Utility Rates II (“CIGFUR II”) and the Carolina Industrial Group for Fair Utility Rates III (“CIGFUR III”), represented by Christina D. Cress, Esquire, filed a Petition to Intervene. Vote Solar and Southern Alliance for Clean Energy (“SACE”), represented by David L. Neal, Esquire, filed a Petition to Intervene on January 25, 2022. The North Carolina Attorney General’s Office (“AGO”), by and through Special Deputy Attorney General, Margaret A. Force, Esquire, filed a Notice of Intervention on February 2, 2022.

On February 11, 2022, the Environmental Working Group (“EWG”), represented by Catherine Cralle Jones, Esquire, and Andrea Bonvecchio, Esquire, filed a Petition to

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<sup>1</sup> As described in greater detail below, the NEM Tariffs arose from the MOU, which was executed by and among the Companies; NCSEA; SACE; SELC on behalf of Vote Solar and SACE; Sunrun, Inc.; and SEIA.

Intervene. Climate Reality Project, Raleigh Chapter, represented by Catherine Cralle Jones, Esquire, and Andrea Bonvecchio, Esquire, filed a Petition to Intervene on February 15, 2022. However, on February 18, 2022, Climate Reality Project, Raleigh Chapter, filed a Motion to Withdraw its Petition to Intervene. The Motion was granted on February 22, 2022. 350 Triangle, represented by Catherine Cralle Jones, Esquire, and Andrea Bonvecchio, Esquire, filed a Petition to Intervene on February 25, 2022. North Carolina Alliance to Protect our People and the Places We Live (“NC-APPPL”), represented by Catherine Cralle Jones, Esquire, and Andrea Bonvecchio, Esquire, filed a Petition to Intervene on February 25, 2022.

On March 1, 2022, 350 Charlotte, represented by Catherine Cralle Jones, Esquire, and Andrea Bonvecchio, Esquire, filed a Petition to Intervene. On March 7, 2022, the Solar Energy Industries Association (“SEIA”), represented by James C. “Cal” Cunningham, III, Esquire, filed its Petition to Intervene. Sundance Power Systems, Inc., Southern Energy Management, Inc., and Yes Solar Solutions (the “North Carolina Rooftop Solar Installers” or “NCRSI”), represented by Kurt J. Boehm, Esquire and C. Sanders McNew, Esquire, filed their Petition to Intervene on March 10, 2022. North Carolina Climate Solutions Coalition (“NCCSC”), represented by Matthew D. Quinn, Esquire, filed its Petition to Intervene on March 15, 2022. Donald E. Oulman, a customer of Duke Energy Carolinas, LLC, filed his Petition to Intervene on March 28, 2022. On March 29, 2022, Sunrise Movement Durham Hub (“Sunrise Durham”), represented by Matthew D. Quinn, Esquire, filed its Petition to Intervene. Lastly, the North Carolina Electric Membership Corporation (“NCEMC”), represented by Timothy R. Dodge, Esquire, filed its Petition to Intervene on March 29, 2022. There was no opposition to any of the Petitions to Intervene, and the

Commission issued Orders granting each Petition to Intervene. The Public Staff is recognized as a party of record in all proceedings before the Commission pursuant to G.S. § 62-15(D) and Commission Rule R1-19(e), and was represented by Robert B. Josey, Esquire. The Companies were represented by Jack Jirak, Esquire, Kathleen H Richard, Esquire, J. Ashley Cooper, Esquire, and Marion William Middleton, III, Esquire.

**ii. Comments**

The Commission originally required that initial comments be submitted no later than March 15, 2022. On February 23, 2022, NC WARN and the EWG filed a Joint Motion for Extension of Time, which requested that the Commission approve a 45-day extension of the March 15, 2022, deadline for initial comments. On March 2, 2022, the Companies, along with NCSEA, SACE, and Vote Solar, responded to the Joint Motion, noting that the parties would only consent to an extension of 14 days for initial comments. On March 3, 2022, the Commission granted a 14-day extension of all deadlines in this docket, which included an extension of the deadline for initial comments to March 29, 2022. On March 28, 2022, Donald E. Oulman filed Initial Comments. Public Staff's comments and the remaining comments were filed by intervenors on March 29, 2022.

On April 22, 2022, the Companies and the North Carolina Rooftop Installers filed a joint motion requesting a 14-day extension of time for all parties to file reply comments. The motion was granted on April 25, 2022, and the deadline for filing reply comments was extended to May 12, 2022.

On May 12, 2022, NC WARN, NCCSC, Sunrise Durham, EWG, NC-APPPL, 350 Triangle, 350 Charlotte, SACE, NCSEA, and Vote Solar filed Reply Comments. However, that same day, the Companies and the North Carolina Rooftop Solar Installers filed a second joint motion requesting an extension of time until May 20, 2022, to file reply

comments. In response, on May 13, 2022, NC WARN, NCCSC, Sunrise Durham, and the EWG filed a joint response to the motion for extension of time. In response to the joint motion, the respondents suggested that the Companies and North Carolina Rooftop Solar Installers only be granted a one-day extension of time to file reply comments. However, on May 13, 2022, the Commission provided a 7-day extension, making reply comments due no later than May 27, 2022, and provided the opportunity for parties who filed reply comments on May 12, 2022, to file further responsive comments on May 27, 2022.

On May 19, 2022, the Companies and North Carolina Rooftop Solar Installers filed a Stipulation (the “Bridge Rate Stipulation”) that, as discussed in more detail below, presented a transitional rate option for NEM customers in North Carolina.

On May 20, 2022, the Companies filed their Joint Reply Comments. That same day, the North Carolina Rooftop Solar Installers filed Reply Comments, and SEIA filed Reply Comments and a Statement of Support for Stipulation. The Public Staff also filed a Letter in Lieu of Reply Comments on May 20, 2022.

On May 26, 2022, the EWG filed Surreply comments. On May 27, 2022, NC WARN, NCCSC, and Sunrise Durham (collectively, the “NC WARN Parties”) filed Surreply Comments. NCSEA, SACE, Vote Solar, and Donald E. Oulman also filed responsive comments on May 27, 2022. Finally, on May 27, 2022, the Public Staff filed a Letter in Lieu of Further Responsive Comments.

### **iii. Joint Motion for Evidentiary Hearing**

On June 16, 2022, EWG, 350 Triangle, 350 Charlotte, the NC-APPPL, NC WARN, NCCSC, and Sunrise Durham filed a Joint Motion for Evidentiary Hearing (“Joint Motion for Hearing”), requesting the Commission hold an evidentiary hearing concerning the

Companies’ proposed NEM Tariffs. See Joint Motion for Hearing. On June 20, 2022, the  
JOINT PROPOSED ORDER

Commission entered an Order allowing the parties to file responses to the Joint Motion for Hearing on or before June 24, 2022. *See* Order Allowing Response to Motion, dated June 20, 2022, Docket No. E-100, SUB 180.

On June 23, 2022, the Companies filed their Response in Opposition to the Joint Motion for Hearing. Companies' Response in Opposition to Joint Motion for Hearing ("Response in Opposition"). In their opposition, the Companies maintained that the moving parties failed to provide the Commission with sufficient grounds for a hearing. Response in Opposition at 1. Specifically, the Companies stated that requiring an additional investigation, as suggested by the moving parties, would result in unwarranted administrative delays and costs. Response in Opposition at 2. In support of their argument, the Companies noted that the Commission-ordered Comprehensive Rate Design Study (the "Rate Design Study") accounted for a variety of interests and provided participants with ample time and opportunity to submit feedback and review the Companies' data—which mitigates the need for further debate and discussion in the form of an evidentiary hearing. Response in Opposition at 3-4.

On June 24, 2022, NCSEA, SACE, and Vote Solar jointly filed their Response to the Joint Motion for Hearing. *See* NCSEA, SACE, and Vote Solar Response to Joint Motion for Evidentiary Hearing ("NCSEA, SACE, Vote Solar Response"), dated June 24, 2022, Docket No. E-100, SUB 180. In their response, NCSEA, SACE, and Vote Solar noted that the "extensive paper record provides the Commission with the information that it needs to approve these groundbreaking settlements" before the Commission represented by the MOU and the Bridge Rate Stipulation. NCSEA, SACE, Vote Solar Response at 2. These parties highlighted that the settlements included a package of new proposals in



addition to the revised NEM Tariffs at issue in this docket, including the proposed new Smart Saver Solar incentive pending in Docket Nos. E-2, Sub 1287 and E-7, Sub 2 1261. *Id.* at 1. These parties further elaborated by explaining that the Companies provided “extensive information to stakeholders regarding its analyses of benefits and costs relating to net metering.” *Id.* at 2. NCSEA, SACE, and Vote Solar cited the Fast Track process in the Rate Design Study, and noted that it “accommodated different points of view and invited all participants . . . to bring forward alternative rate design ideas for consideration.” *Id.*

On November 8, 2022, the Presiding Commissioner issued an Order denying the Joint Motion for Hearing and holding that the Commission would proceed to decide on the Joint Application upon the written record compiled to date. *See* Order Denying Joint Motion for an Evidentiary Hearing and Requiring the Filing of Proposed Orders and Briefs (“Order Denying Joint Motion”), dated Nov. 8, 2022, Docket No. E-100, Sub 180 at 3. The Commission also provided the parties the opportunity to file proposed orders and any additional legal briefing related to the Joint Application by Friday, December 2, 2022. Order Denying Joint Motion at 4.

## **B. Jurisdiction**

No party has contested the fact that DEC and DEP are public utilities subject to the Commission’s jurisdiction pursuant to the Public Utilities Act, Chapter 62 of the North Carolina General Statutes. The Companies are also “electric public utilit[ies] as defined in G.S. 62-3(23) serving at least 150,000 North Carolina retail jurisdictional customers as of January 1, 2021[.]” and, therefore, are subject to H.B. 589 and H.B. 951. G.S. § 62-126.3(10). The Commission concludes that it has personal jurisdiction over the Companies and subject matter jurisdiction over the matters presented in this proceeding.

## II. SUMMARY INTRODUCTION TO COMMISSION'S DECISION

The purpose of this docket is to implement the NEM reform required by the North Carolina General Assembly through H.B. 589. The Commission first implemented an NEM policy in North Carolina in 2005, with subsequent updates. However, the last substantive order issued by this Commission on NEM-related topics occurred in 2009, and the Companies have been operating under the policy established thereunder since that time. The NEM reform required by H.B. 589 signals a shift from the Companies' currently offered NEM programs (the "Existing NEM Programs") to achieve policy goals established by the North Carolina General Assembly. These policy goals include establishing NEM tariffs that ensure each "net metering retail customer pays its full fixed cost of service." G.S. § 62-126.4(b). However, those tariffs may only be established after "an investigation of the costs and benefits of customer-sited generation." G.S. § 62-126.4(b). Importantly, to achieve these goals, H.B. 589 specifically notes that the Commission and the Companies may utilize "fixed monthly energy and demand charges." In October of 2021, the General Assembly reiterated its directive to the Commission to revise net metering rates in Section 5 of H.B. 951, a law which also establishes decarbonization requirements for the Companies.

As an initial matter, the Companies conducted the investigation required by H.B. 589 through the Commission-ordered Rate Design Study.<sup>2</sup> The Rate Design Study included interaction with, presentations by, and feedback from, a wide range of stakeholders on a number of topics. The NEM-related topics were discussed in a "Fast Track" process, meaning they were prioritized from among the various other topics that were considered in

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<sup>2</sup> The full Rate Design Study was filed with the Commission in Docket Nos. E-7, Sub 1214 and E-2, Sub 1219.

the Rate Design Study. This process allowed the Companies to present extensive confidential data, hear presentations from stakeholders, and provide responses to questions from stakeholders. The Companies' engagement with stakeholders was comprehensive and thorough, and addressed all stakeholder questions and data requests and there were no unanswered questions. Importantly, the Rate Design Study process led to productive discussions among parties interested in finding common ground. This process proved to be successful and that common ground among a diverse set of parties is memorialized by the MOU filed in this docket. Through these efforts, the Rate Design Study fostered consensus amongst a number of study participants and momentum on NEM-related topics that have typically resulted in highly contentious, adversarial proceedings in numerous other jurisdictions around the country.<sup>3</sup>

As for the Rate Design Study itself, the Companies utilized both a marginal and embedded framework to analyze the costs and benefit of customer-sited generation. Both the marginal and embedded cost perspectives are widely used in ratemaking around the country and have been previously utilized for rate designs currently in place for the Companies. Through these lenses, the Rate Design Study revealed that there is a potential for both a marginal and embedded cost cross-subsidy. The Rate Design Study revealed that this potential for cross-subsidization primarily arises when costs and benefits do not align, which typically results from: (i) volumetric rate structures and (ii) prices paid for customer generation that is exported to the grid. The Companies put forward information that showed that existing volumetric rates do not adequately capture the costs to serve NEM customers

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<sup>3</sup> The parties to the MOU continued to work with other intervenors to find common ground, and through those efforts the parties to the MOU garnered even broader support, evidenced by the Bridge Rate Stipulation filed in this docket and the corresponding "Bridge Rate."

because although NEM customers reduce their bills through self-consumption, the Companies cost to serve these customers does not necessarily decrease by the same amount. Likewise, rates paid for exported power can also contribute to the potential for cross-subsidy because such rates may not accurately reflect the power's value to the Companies' systems. In each case, there is potential for a recovery shortfall that would otherwise be recovered from all customers (including non-NEM). While this Joint Application and the rate structure is supported by parties to the MOU, not all parties agree on the extent to which cross-subsidization arises under Existing NEM programs or the programs proposed in this Joint Application.

During the course of the Rate Design Study, it was reiterated on multiple occasions that it is not possible to completely eliminate various kinds of cross subsidies in average-based ratemaking. But improvements can be made that bring rates into better alignment with cost-of-service principles and mitigate potential cross subsidies.

The Companies leveraged the results of the Rate Design Study to develop tariffs that utilize certain rate making best practices to mitigate the potential for cross-subsidization as required by H.B. 589, thereby ensuring that each customer pays its "full fixed cost of service." G.S. § 62-126.4(b). The NEM Tariffs primarily achieve these goals through innovative rate designs, which include: (i) a Monthly Minimum Bill, (ii) a Monthly Grid Access Fee for systems with a capacity larger than 15 kW-dc, (iii) Non-Bypassable Charges, (iv) Netting and Exports, and (v) TOU/CPP Rates.

H.B. 589 specifies that the NEM Tariffs are to be "established only after an investigation of the costs and benefits of customer-sited generation." This proceeding, instituted by the Commission to investigate a proposed net metering policy change, fully

satisfies the investigation requirement of H.B. 589. Through this proceeding, the Companies have submitted their analysis evaluating the cost and benefits of customer-sited generation and all parties have had full opportunity to respond to the Companies' analysis and to submit alternative analysis concerning the costs and benefits of customer-sited generation. The Commission also agrees with the Companies, in the alternative, that the Companies' analysis could have independently served to satisfy the "investigation" requirement under H.B. 589. Given the robust record in this docket and the Companies' analysis in the Rate Design Study, as noted by the Public Staff, it is unclear what additional benefit further study would provide either to this proceeding or for purposes of complying with the requirements of H.B. 589—particularly given that no other party has proffered alternative studies despite having had an opportunity to do so. As such, the Commission may rely on the analysis conducted in the Rate Design Study and this proceeding in rendering a decision under G.S. § 62-126.4.

This analysis reveals that the NEM Tariffs achieve H.B. 589's mandate regarding cost of service, while creating an avenue for a continued solar market in North Carolina by providing customers with the opportunity to realize savings and incent further adoption through a number of mechanisms. Specifically, the Companies propose to pair the NEM Tariffs with existing, Commission-approved TOU/CPP rates. These rates will provide pricing signals to customers that will provide opportunities to create additional bill savings under the NEM Tariffs. Likewise, the NEM Tariffs will act as a platform for the deployment of additional technologies that can provide opportunities for increased bill savings. Additionally, the NEM Tariffs are designed to work in conjunction with EE/DSM programs, such as the Smart Saver Solar program. Although the Smart Saver Solar

incentive is not part of this docket and is subject to a different statutory analysis than the NEM Tariffs, it would reduce the upfront costs of rooftop solar installations and improve the economic proposition of adding rooftop solar if the customer meets certain eligibility criteria and agrees to a long-term commitment to demand response. The ability of the NEM Tariffs to work in conjunction with the Smart \$aver Solar incentive is an important aspect of the overall consensus approach memorialized in the MOU.

In addition to the existing protections and opportunities for bill savings under the originally proposed NEM tariff options offered by the Companies, the Companies agreed via the Bridge Rate Stipulation with NCRSI to offer an alternative, long-term option (the “Proposed Bridge Rate”) for customers that eases the transition to the new NEM Tariffs for certain existing and future customers. The Proposed Bridge Rate is also the product of significant stakeholder engagement, and resulted from the Companies’ continued effort to identify consensus opportunities even after the NEM Tariffs were filed. As such, both the NEM Tariffs and the Proposed Bridge Rate are the result of significant time and good faith efforts of numerous parties to reach compromises on topics that typically result in adversarial proceedings across the country. The Commission applauds the efforts of such parties to take a constructive approach on such complex and potentially contentious issues.

Finally, the Commission is not persuaded by arguments that H.B. 589 requires the Commission to develop additional tariffs to ensure that NEM is available under “all tariff designs” (e.g., flat rate tariffs) are accounted for under H.B. 589. G.S. § 62-126.4(b). As explained below, H.B. 589 only requires that each tariff design approved by the Commission must ensure that each customer pays its “full fixed cost of service.” H.B. 589

does not require that the Commission develop NEM options under “all tariff designs.” As such, the Commission is satisfied that the NEM Tariffs fulfill H.B. 589.

For these reasons, and as more fully described herein, the Commission approves the NEM Tariffs with limited modifications, with an effective date of 60 days from today.

### **III. REQUIREMENTS FOR COMMISSION TO APPROVE REVISED NET METERING RATES**

#### **A. Legacy NEM in North Carolina**

The Commission first adopted an NEM policy for North Carolina via an order issued on October 20, 2005, in Docket No. E-100, Sub 83 (the “2005 NEM Order”). There, the Commission directed utilities in the State of North Carolina to make NEM available to North Carolina customers. 2005 NEM Order at 16. Participating customers would receive a kWh credit on their monthly bill for any excess kWh delivered to the grid in the previous month. 2005 NEM Order at 15.

On August 20, 2007, the General Assembly of North Carolina enacted Session Law 2007-397 (Senate Bill 3), which directed the Commission to: “[c]onsider whether it is in the public interest to adopt rules for electric public utilities for [NEM] of renewable energy facilities with a generation capacity of one megawatt or less.” G.S. 62-133.8(i)(6). In response, the Commission issued an Order on June 9, 2008, in Docket No. E-100, Sub 83, which requested answers to seven specific questions related to NEM on a range of topics—from the potential of cross-subsidization under NEM programs, to whether the cap on NEM capacity in the 2005 NEM Order should be increased. *See* Order Establishing Procedural Schedule, issued on June 9, 2008, in Docket No. E-100, Sub 83. After hearing testimony from the parties of record in that docket related to these questions, the Commission issued an Order in the same docket on March 31, 2009 (the “2009 NEM Order”), amending the

NEM policy in the State of North Carolina. Specifically, the 2009 NEM Order increased the eligible system capacity size up to 1 MW and held that:

[C]redit for excess electricity generated during a monthly billing period shall be carried forward to the following monthly billing period and the credit balance reset to zero at the beginning of each summer billing season.

2009 NEM Order at 15.

Additionally, the Commission held that, for customers participating in TOU rate schedules:

[E]xcess on-peak generation shall first be applied to offset on-peak consumption and excess off-peak generation to offset off-peak generation; any remaining on-peak generation shall then be applied against any remaining off-peak.

*Id.* at 15-16.

In adopting these revisions to North Carolina's NEM policies, the Commission acknowledged the potential of cross-subsidies, but decided that such potential was outweighed by the potential for non-quantified benefits and the "clearly enunciated State policy favoring development of additional renewable generation." *Id.* at 11.

## **B. House Bill 589**

H.B. 589 was signed into law by the Governor of North Carolina on July 27, 2017, and signaled a new direction for distributed energy resources in North Carolina by encouraging "leasing of and subscription to solar energy facilities," while making clear that "cross-subsidization should be avoided by holding harmless . . . customers that do not participate in such arrangements." G.S. § 62-126.2. With respect to the next generation of NEM programs in North Carolina, G.S. § 62-126.4(a) specifically requires the Companies to "file for Commission approval **revised** net metering rates for electric customers that (i) own a renewable energy facility for that person's primary use or (ii) are customer generator lessees." G.S. § 62-126.4(a). (emphasis added). In setting rates pursuant thereto, G.S. § 62-



126.4(b) requires (i) an investigation of the costs and benefits of customer-sited generation and (ii) only after such investigation, establishment of non-discriminatory rates that ensure that each NEM customer “pays its full fixed cost of service.” G.S. § 62-126.4(b). The plain language of this statute evidences an intent to address the issue of potential cross-subsidization under Existing NEM Programs, which can arise if NEM customers do not pay their full share of costs attributable to their service needs—an aspect of traditional NEM programs that can arise under the Companies’ established cost of service methodologies and that is more fully discussed below. Although H.B. 589 mandates that the Companies file revised NEM rates, it permits existing NEM customers to take service under those existing programs until January 1, 2027, in accordance with G.S. § 62-126.4(c).

**C. House Bill 951**

H.B. 951 was signed into law by the Governor of North Carolina on October 13, 2021, and addresses a broad range of topics related to North Carolina’s clean energy future. Reflecting similar principles within H.B. 589, H.B. 951 directs the Commission to “revise net metering rates.” Section 5, H.B. 951. H.B. 951 also requires implementation of a carbon emissions reduction plan for the state’s public utilities. Joint Application at 7. Although the proposed NEM Tariffs were developed prior to the enactment of H.B. 951, the Companies stated that the proposed NEM Tariffs are consistent with the spirit of H.B. 951. *Id.* Specifically, the Companies suggested that the spirit of H.B. 951 is fulfilled because the revised design of the NEM Tariffs offers a more sustainable path for continued growth of customer-sited, carbon-free power generation, and the innovative rate structure and refreshed TOU periods within the tariffs will permit this program to be utilized with future demand side management (“DSM”) and energy efficiency (“EE”) programs to further reduce carbon emissions. *Id.*

#### IV. OVERVIEW OF STAKEHOLDER PROCESS AND SETTLEMENT PROCESS

The NEM requirements enacted by the General Assembly through H.B. 589 and H.B. 951 were discussed and reviewed in several stakeholder forums, and the NEM Tariffs are the product of considerable stakeholder involvement. Joint Reply Comments of the Companies (“Duke Reply Comments”) at 1. This stakeholder involvement resulted in a broad consensus in support of the NEM Tariffs, which is represented by the MOU and the Bridge Rate Stipulation. Joint Application at 12. As described in greater detail below, throughout the development of the NEM Tariffs, and even after they were filed with the Commission, the Companies engaged stakeholders on a variety of issues. Joint Application at 11-12. These efforts helped to achieve broad consensus and a balanced approach on issues that are typically contested in litigated proceedings in other jurisdictions throughout the country. Joint Application at 10.

##### A. Stakeholder Process

Throughout the course of seven workshops, the Companies engaged in in-depth dialogue with stakeholders on NEM to investigate customer-sited generation through the Rate Design Study. Joint Application at 10. More than 20 organizations representing a wide range of interests—from clean energy and the environment to the state of North Carolina—were included in these workshops.<sup>4</sup> *Id.* The Rate Design Study and corresponding stakeholder process allowed the Companies to exchange studies, data, and modeling. Joint Application at 11. Through this process, the Companies also received and incorporated

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<sup>4</sup> Participating organizations included, but are not limited to, the Stipulating Parties, Appalachian Voices, Clean Air Carolina, Lockhart Power Company, NC Commerce Public Staff Energy Division, NC Department of Justice, NC Public Staff, NC WARN, and Sierra Club

feedback from stakeholders, including the Public Staff, that supported the Companies' efforts to comply with H.B. 589. *Id.*

The stakeholder process involved new data, and the examination of costs and benefits of NEM unique to the state of North Carolina. *Id.* The Rate Design Study served as a stakeholder forum for the Companies to develop their NEM Tariffs and discuss NEM-related topics, and to comply with the investigation requirements in H.B. 589. Duke Reply Comments at 2. To increase stakeholder participation, the Companies solicited all intervenors involved in the Companies' most recent rate cases, provided regular updates to the Commission, and invited presentations from all members of the stakeholder group. Duke Reply Comments at 3. At times, members of the stakeholder group presented competing or conflicting positions. *Id.* However, as required by H.B. 589, the Rate Design Study allowed for full participation by all stakeholders in an "investigation of the costs and benefits of customer-sited generation." *Id.*

## **B. Settlement Process and Resulting NEM Tariffs**

After extensive discussions in the stakeholder process described above, certain parties were able to reach a compromise with respect to the proposed program, rate-design structure, and North Carolina specific rates. Duke Reply Comments at 3. This compromise is memorialized in the MOU filed simultaneously in this docket with the Joint Application. *Id.* The MOU contains the overall framework for the NEM Tariffs, which is described below.<sup>5</sup>

### **i. NEM Tariffs Under the MOU**

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<sup>5</sup> As discussed in greater detail below, after the Joint Application was filed, the Companies entered into the Bridge Rate Stipulation that also contains terms and conditions relevant to the Companies' NEM program under H.B. 589.

As proposed, the NEM Tariffs would be available to customers who apply on or after January 1, 2023. Joint Application at 13. The NEM Tariffs contain the following rate mechanisms, which the Companies propose as innovative best practices that meet the NEM parameters required by H.B. 589. *Id.*

### **1. Monthly Minimum Bill**

The NEM Tariffs implement a Monthly Minimum Bill (“MMB”) that ensures recovery of costs classified as customer or demand capacity costs. Joint Application at 13. These costs are largely fixed and are allocated per customer or vary based on the demand-related costs rather than energy usage per customer. *Id.* The Companies proposed an MMB of \$22 for DEC and \$28 for DEP under the NEM Tariffs. Joint Application at 14. The MMB can be satisfied by (1) the basic customer charge or basic facilities charge in the applicable TOU-CPP Tariff (“Basic Charge”) and (ii) the portion of the monthly volumetric energy charges specific to customer and distribution costs, and riders. *Id.* If the combination of the applicable Basic Charge, specific volumetric charges, and riders is less than the amount of the applicable MMB, then the MMB charge is equal to the amount of that shortfall. *Id.* The MMB amounts for DEC and DEP are derived from the recent compliance Cost of Service Studies conducted for each of the Companies. *Id.*

### **2. Monthly Grid Access Fee**

The NEM Tariffs also implement a monthly grid access fee (“GAF”) for solar facilities with a capacity greater than 15kW-dc. *Id.* The GAF is aligned to the size of the customer’s system. Joint Application at 15. The initial DEC GAF will be \$2.05/kW – dc/month, and the initial DEP GAF will be \$1.50/kW – dc/month for each kW over 15 kW - dc for those customers over the capacity limits. *Id.*

### 3. Non-Bypassable Charges

The NEM Tariffs also utilize a non-bypassable charge. *Id.* This charge is designed to recover all costs related to DSM/EE, storm cost recovery, and cyber security. *Id.* Non-bypassable cost recovery will be a monthly charge per kW-dc of the customer-generator's system capacity. *Id.* This rate is derived from estimating the total kWh bypassed per kW-dc of solar. *Id.*<sup>6</sup>

### 4. Netting and Exports

Netting and exports are core NEM principles that remain the same in the proposed NEM Tariffs. Joint Application at 15. Customers will be permitted to generate power which can be consumed by such customer or exported to the grid in the event such generation exceeds that customer's usage. *Id.* Moreover, customers will be able to net exported energy against imports made by the utility throughout the month within each TOU pricing period. Any net imports will be billed at the rate in effect for that pricing period. Joint Application at 16. At the end of the month, customers will be credited for any net monthly exports at an annualized rate for avoided energy cost, as specified by the per kWh rates at the Companies' Commission-approved avoided cost rates. *Id.* The avoided cost rates the Companies propose to pay to NEM customers for exported power mirror Commission-approved rates that the Companies pay to utility-scale qualifying facilities under the Public Utility Regulatory Policies Act, which often generate power using renewable resources—such as solar. *Id.*

### 5. TOU/CPP Rates

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<sup>6</sup> The Companies noted that these charges ensure program expenses and non-energy charges properly associated with an NEM customer are not avoided and thereby shifted to non-participating customers. Joint Application at 15.

The innovative rate structures employed in the NEM Tariffs work in conjunction with established Time-of-Use (“TOU”) and Critical Peak Pricing (“CPP”) rate schedules to ensure customers pay their full fixed cost of service. Joint Application at 16-17. Customers enrolled in the NEM Tariffs will be served under existing, Commission-approved TOU-CPP schedules.<sup>7</sup> Joint Application at 17. The Companies developed the peak, off-peak, and discount times within the TOU-CPP Tariffs by examining the Companies’ historic marginal energy costs, loss-of-load expectations from the latest Resource Adequacy Studies, load research forecasts, and solar production forecasts.<sup>8</sup> Duke Reply Comments at 18.<sup>9</sup>

**ii. Transition Option Under the Bridge Rate Stipulation**

From the beginning of the proceeding, the Companies proposed an alternative rate option to ease the transition to the NEM Tariffs for certain existing customers. Joint Application at 17-18. After initial comments were filed in this docket, the Companies engaged in discussions with the North Carolina Rooftop Solar Installers to determine whether a compromise could be reached that provided customers with a near-term option to achieve bill savings while providing benefits to the entire system. Duke Reply Comments at 4-5. The Companies and North Carolina Rooftop Solar Installers engaged in discussions over several weeks. Duke Reply Comments at 5. As a result of these discussions, the Companies and the North Carolina Rooftop Solar Installers were able to

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<sup>7</sup> DEC customers would be served under Schedules RETC and RSTC, while DEP customers would be served under Schedule R-TOU-CPP.

<sup>8</sup> See Companies’ Joint Reply Comments, Docket No. E-100, Sub 180 at 17-18.

<sup>9</sup> Likewise, a technical report describing the methodology and logic of the new TOU periods was filed in Docket No. E-2, Sub 1280 on September 30, 2021.

reach a resolution. *Id.* This resolution is reflected in the Bridge Rate Stipulation, which was filed in this docket on May 19, 2022. *Id.*

In the Bridge Rate Stipulation, the Companies agreed to propose an additional NEM rate design, subject to annual capacity limits, known as the Proposed Bridge Rate. Bridge Rate Stipulation at 3. The Proposed Bridge Rate is an alternative to the default TOU rate for NEM proposed in the Joint Application. *Id.* The Proposed Bridge Rate will be available to all residential customers, regardless of their current rate schedule, who apply for NEM on or after January 1, 2023, until December 31, 2026. *Id.* The Bridge Rate Stipulation provides that current NEM customers may remain on their current rate until January 1, 2027. *Id.* After this date, current NEM customers have the option to transition to the Proposed Bridge Rate or may choose to move to the NEM-TOU rate in effect at the time. *Id.* Customers may remain on the Proposed Bridge Rate for 15 calendar years after the date the customers submit an interconnection application (“Bridge Rate Period”), minus the number of years they were on an alternative NEM rate structure prior to January 1, 2027. *Id.* After 15 years the customer will move to the NEM-TOU rate in effect at the end of the Bridge Rate Period. *Id.* The Proposed Bridge Rate is subject to participation caps, and the Proposed Bridge Rate Annual Capacity is available on a first come/first serve basis. Bridge Rate Stipulation at 4.

## **V. FINDINGS OF FACT**

Having considered the Joint Application, the briefs, the comments, the motions, and after careful review of all evidence in the record, the Commission hereby makes the following findings of fact:

1. The Companies are duly organized limited liability companies existing under the laws of the State of North Carolina, are engaged in the business of developing,  
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generating, transmitting, distributing, and selling electric power to the public in North and South Carolina, and are subject to the jurisdiction of the Commission as public utilities. The Companies are lawfully before this Commission based upon their applications filed pursuant to G.S. § 62-133.9.

2. The Commission first directed utilities in the State of North Carolina to offer NEM to North Carolina customers on October 20, 2005, via an order issued in Docket No. E-100, Sub 83.

3. On August 20, 2007, the General Assembly of North Carolina enacted Session Law 2007-397 (Senate Bill 3), which directed the Commission to: “[c]onsider whether it is in the public interest to adopt rules for electric public utilities for [NEM] of renewable energy facilities with a generation capacity of one megawatt or less.” G.S. 62-133.8(i)(6).

4. In response, the Commission issued an Order on June 9, 2008, in Docket No. E-100, Sub 83, which requested answers to seven specific questions related to NEM on a range of topics—from the potential of cross-subsidization under NEM programs, to whether the cap on NEM capacity in the 2005 NEM Order should be increased.

5. After hearing testimony from the parties of record in that docket related to these questions, the Commission issued an Order in the same docket on March 31, 2009, amending the NEM policy in the State of North Carolina.

6. In adopting these revisions to North Carolina’s NEM policies, the Commission acknowledged the potential of cross-subsidies, but decided that such potential was outweighed by the potential for non-quantified benefits and the “clearly enunciated State policy favoring development of additional renewable generation.”



7. As a result of those revisions, the Companies currently offer NEM to customers in North Carolina under the existing NEM framework developed by the Commission in 2009.

**B. NEM Reform**

8. The North Carolina General Assembly require the Companies to update these existing NEM programs and “file for Commission approval **revised** net metering rates for electric customers that (i) own a renewable energy facility for that person’s primary use or (ii) are customer generator lessees.” G.S. § 62-126.4(a). (emphasis added).

9. In setting rates pursuant thereto, G.S. § 62-126.4(b) requires (i) an investigation of the costs and benefits of customer-sited generation and (ii) only after such investigation, establishment of non-discriminatory rates that ensure that each NEM customer “pays its full fixed cost of service.” G.S. § 62-126.4(b).

10. The General Assembly frames these NEM-related goals against the broader mission of H.B. 589, which includes “encouraging the leasing of and subscription to solar energy facilities,” while cautioning that “cross-subsidization should be avoided by holding harmless electric public utilities’ customers that do not participate in such arrangements.” The NEM-related goals should also be considered under the declared policy of North Carolina, including the promotion of the development of renewable energy generally and the encouragement of private investment in renewable energy more specifically. G.S. § 62-2(a)(10).

11. Therefore, the General Assembly’s plain language makes clear that the Commission must address the issue of cross-subsidization under Existing NEM Programs, while appropriately accounting for the effects and recognizing the benefits of solar adoption in North Carolina.

**C. Development of the NEM Tariffs**

12. The NEM Tariffs reflect broad stakeholder engagement and input and are supported by a number of stakeholders in this docket, as evidenced by the written comments, MOU, and Bridge Rate Stipulation.

13. The Companies' Rate Design Study served, in part, as a stakeholder forum for the Companies to develop these NEM Tariffs and discuss NEM-related topics over the course of seven workshops. These workshops allowed for robust and diverse stakeholder participation and extensive exchange of information.<sup>10</sup>

14. Although the NEM-related topics were discussed in the "Fast Track" process, there is no evidence that any party was denied the opportunity to be heard, and the Companies provided participants with (i) volumes of confidential data, including confidential load forecast and data regarding TOU periods and (ii) the opportunity to present to the group on topics that were important to such participants.

15. The record indicates that this Fast Track process allowed for more focused debates and discussions than other topics—which benefitted the development of the NEM Tariffs—and the Commission was provided updates throughout this process in the spirit of transparency.

16. This process led to discussions among parties interested in finding common ground with the aim of developing a consensus NEM proposal for the Commission. Those discussions were successful in identifying a consensus approach, which is memorialized in the MOU filed in this docket. Though complete consensus was not achieved, as evidenced

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<sup>10</sup> As discussed below, the Commission finds that it conducted the investigation required by H.B. 589 in this docket. However, the Companies' Rate Design Study could have independently satisfied the investigation requirement within H.B. 589 as well.

by the opposition to the NEM Tariffs by certain intervenors, no alternative NEM proposal was offered for consideration in the Rate Design Study or in this docket.

17. The parties to the MOU continued to search for common ground with other intervenors in this docket that were not party to the original MOU. Through those efforts, the NEM Tariffs garnered even broader support, evidenced by the Bridge Rate Stipulation filed in this docket and the corresponding “Bridge Rate.”

18. These efforts created consensus and momentum on NEM-related topics, which is particularly notable given that such topics typically result in highly adversarial proceedings in other jurisdictions across the country. The Companies’ customers benefited from these efforts. Taken together, the NEM Tariffs achieve the relevant requirements of H.B. 589, which are found in G.S. § 62-126.4(b) and G.S. § 62-126.2.

**D. G.S. § 62-126.4(b) – Investigation of costs and benefits**

19. This proceeding, instituted by the Commission to investigate a proposed net metering policy change, fully satisfies the investigation requirement of H.B. 589. Through this proceeding, the Commission reviewed and scrutinized the Companies’ analysis evaluating the cost and benefits of customer-sited generation and all parties have had full opportunity to respond to the Companies’ analysis and to submit alternative analysis concerning the costs and benefits of customer-sited generation. However, no party submitted alternative NEM tariff proposals for the Commission’s consideration.

20. In the alternative, the Companies’ Rate Design Study—which considered costs and benefits through both an embedded and marginal perspective—independently satisfies H.B. 589’s investigation mandate. Specifically, the results of the Rate Design Study provided a current and detailed look at the costs and benefits of serving NEM

customers under Existing NEM Programs through both a marginal and embedded cost perspective.

21. Both the marginal and embedded cost perspectives are widely used in ratemaking nationwide and have been utilized in all of the rate designs currently in place for DEC and DEP.

22. Under Existing NEM Programs, there is currently a potential for both an embedded cost cross-subsidy and a marginal cost cross-subsidy.

23. There are two primary reasons under the Existing NEM Programs that costs and benefits do not align, which results in a potential cross-subsidy: (i) volumetric rate structures and (ii) prices paid for customer generation that is exported to the grid.

24. Volumetric rate structures are not ideal for NEM customers because NEM customers can avoid certain fixed costs in volumetric rates that are properly attributable to them. This shortfall is recovered from all customers, resulting in a potential cross-subsidy.

25. A similar potential for cross-subsidy can arise when utilities overpay for the power exported to the grid by customer-generators. Where the export value for this power equals the retail rate for power, the overpayment is exacerbated because the volumetric charge for residential customers includes the recovery of certain non-energy costs, which are not necessarily reduced due to these exports. The incremental difference between the retail rate offered to customer-generators and the rates offered to utility-scale solar is a cost that is borne by non-participating retail customers.

**E. G.S. § 62-126.4(b) – “Full fixed cost of service”**

26. The Companies complied with G.S. § 62-126.4(b), as implemented by H.B. 589, in part by utilizing the results of the Companies’ Rate Design Study to create rate structures that accurately capture the current costs to serve these customers and ensure

NEM customers pay their “full fixed cost of service” in accordance with H.B. 589. G.S. § 62-126.4(b).

27. The NEM Tariffs utilize innovative rate structures that more accurately align rates so customers pay their “full fixed cost of service” as mandated by H.B. 589.

28. To capture the full fixed cost of service, the NEM Tariffs deploy a series of best practices—such as an MMB, GAF, and non-bypassable charges—to more accurately capture the costs and benefits of serving NEM customers. These measures align costs and benefits, reduce the cross-subsidy, and provide benefits to all customers in the Companies’ North Carolina service territories.

29. The NEM Tariffs also mitigate the risk of a cross-subsidy arising from an excessive credit for exports by paying NEM customers a rate equal to the Commission-approved avoided cost rates that the Companies pay to utility-scale qualifying facilities (“QFs”) under Public Utility Regulatory Policies Act of 1978 (“PURPA”). By utilizing those same avoided cost rates, the rates paid to these customers for excess exported generation accurately capture the benefits provided to the power system by customer-generation and mitigate the risk of cross-subsidy.

**F. G.S. § 62-126.4(b) – “All Tariff Designs”**

30. Finally, G.S. § 62-126.4(b) requires the Commission to develop tariffs that ensure each “net metering retail customer pays its full fixed cost of service” under “all tariff designs.” Certain intervenors argue that this “all tariff design” language requires the Commission to adopt NEM rates under all tariff designs, including “flat rate” tariffs. The record does not support such a finding, particularly when viewed in the broader context of H.B. 589. As discussed below, H.B. 589 requires the Commission to ensure that any and

all NEM Tariffs align costs with benefits so that all customers pay their full fixed cost of  
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service. In doing so, the tariffs would mitigate the potential risk of cross-subsidization cited in H.B. 589. The Companies' Rate Design Study indicated that this potential arises from simplistic tariff designs, such as "flat rate" tariff structures. Approving such NEM rate designs for such a tariff would directly conflict with the stated intent of H.B. 589.

31. Furthermore, nowhere in H.B. 589 are NEM options for a flat rate tariff mentioned, and if the General Assembly intended for the Companies to offer NEM under such a tariff, it could have mandated such.<sup>11</sup> However, it did not.

**G. G.S. § 62-126.2 – Policy Goals**

32. H.B. 589 requires the Companies to ensure that customers pay their full fixed cost of service by aligning costs with benefits. The NEM Tariffs satisfy such requirement. Additionally, although not expressly required by H.B. 589—the Commission is satisfied that the NEM Tariffs achieve these requirements in a way that continues to deliver savings to participating customers that will also encourage adoption of solar in North Carolina.

33. For example, the TOU-CPP rates have the potential to offer savings for customers who take advantage of their pricing signals. Customers may increase their bill savings by consuming power during off-peak and discount time periods when electricity costs are lower.

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<sup>11</sup> This interpretation is consistent with settled principles of statutory interpretation in North Carolina which indicate that silence does not constitute ambiguity. As such, where a statute is unambiguous, as here, it must be construed under its plain meaning. See, e.g., *Gibboney v. Wachovia Bank, N.A.*, 174 N.C.App.834, 837, 622 S.E.2d 162, 165 (Ct. App. 2005); *Edwards v. Morrow*, 219 N.C.App.452, 455, 725 S.E.2d 366, 369 (Ct. App. 2012).

34. Additionally, the Companies propose to offer the Smart Saver Solar incentive to these NEM customers, which would significantly reduce the upfront costs of rooftop solar installations and improve the economic proposition of adding rooftop solar.

35. Although the Smart Saver Solar incentive is not part of this docket and is subject to an entirely different statutory analysis than the NEM Tariffs, it is an important aspect of a global solution memorialized in the MOU. The Commission recognizes the important benefits to all customers from electric customers willing to abide by the Smart Saver Solar requirements.<sup>12</sup>

#### **H. Proposed Bridge Rate**

36. Finally, the Proposed Bridge Rate provides an alternative, long-term option for existing NEM customers that eases the transition to the NEM Tariffs required by H.B. 589 for certain customers.

### **VI. EVIDENCE AND CONCLUSIONS FOR FINDINGS OF FACT NO. 1**

This finding of fact, which is supported by the Companies' Joint Application, is essentially informational, procedural, and jurisdictional in nature, and is uncontroverted.

### **VII. EVIDENCE AND CONCLUSIONS FOR FINDING OF FACT NO. 2**

This finding of fact, which is supported by the Joint Application, the 2005 Order, and comments submitted in this docket by parties that include, but are not limited to, the Public Staff, is essentially informational, procedural, and jurisdictional in nature, and is uncontroverted.

### **VIII. EVIDENCE AND CONCLUSIONS FOR FINDINGS OF FACT NO. 3-7**

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<sup>12</sup> The Commission notes that the NEM Tariffs are designed to be a platform for emerging technologies—including smart thermostats—which can drive additional savings for customers. The Commission is encouraged by the Companies' commitment to further study these potential interactions.

The evidence in support of these findings of fact is found in the Joint Application, North Carolina statutes, the 2009 Order, and comments submitted in this docket by parties that include, but are not limited to, the Public Staff.

**A. Summary of the Evidence**

Subsequent to the Commission's 2005 Order adopting net metering in North Carolina, the General Assembly of North Carolina amended the energy policy of the State by enacting Session Law 2007-397 (Senate Bill 3) to promote the development of renewable energy in North Carolina. G.S. 62-2(a)(10). As part of the legislation, the General Assembly directed the Commission to "[c]onsider whether it is in the public interest to adopt rules for electric public utilities for net metering of renewable energy facilities with a generation capacity of one megawatt or less." G.S. 62-133.8(i)(6). On June 9, 2008, the Commission issued an Order establishing a Procedural Schedule to comply with the mandate set forth in Senate Bill 3 and noted that cross-subsidization from non-participating customers to customer-generators was the central issue in deciding whether to expand net metering to larger generators. 2009 NEM Order at 3. Furthermore, the Commission requested that the parties file testimony and exhibits addressing seven specific questions as well as any additional information for the Commission's consideration. *Id.*

After hearing testimony from the parties of record in the docket related to those questions, the Commission issued the 2009 Order, which revised the NEM policy in North Carolina. *See* 2009 NEM Order. In that Order, the Commission recognized that cross-subsidies would likely exist but stated that "the presence of cross-subsidies alone is not dispositive" and that "the evidence presented in this proceeding and the clearly enunciated



State policy favoring development of additional renewable generation support[ed] expanding net metering eligibility to renewable generation with capacity up to 1 MW.” 2009 NEM Order at 11. The Commission noted that the evidence submitted by the parties of record painted an incomplete picture of the costs and benefits afforded by additional NEM generation but decided that it would not pursue additional cost studies regarding cross-subsidies due to its concerns that further study would “unduly delay the State’s efforts to meet more of its electricity needs via renewable resources.” *Id.* The Commission ordered that the utilities should file revised tariffs that allowed net metering for any customer that owned and operated a renewable energy facility that generated electricity with a capacity of up to 1 MW. 2009 NEM Order at 16. The 2009 NEM Order was the last substantive order from the Commission addressing NEM policies until the current proceeding. Therefore, the Companies Existing NEM Programs is offered to customers under the framework developed and outlined in 2009.

#### **B. Discussion and Conclusions**

This finding of fact, which is supported by the Joint Application, the 2005 Order, the 2009 Order, and comments submitted in this docket by parties that include, but are not limited to, the Public Staff, is essentially informational, procedural, and jurisdictional in nature, and is uncontroverted.

#### **IX. EVIDENCE AND CONCLUSIONS FOR FINDINGS OF FACT NO. 8-9**

The evidence in support of this finding of fact is found in the Joint Application, North Carolina statutes, and comments submitted in this docket by parties that include, but are not limited to, the Companies, Public Staff, the NC WARN Parties, 350 Triangle, 350 Charlotte, NC-APPPL, EWG, the AGO, NCSEA, Vote Solar, SEIA, and SACE.

### **A. Summary of the Evidence**

As stated in the Companies' Joint Application, H.B. 589 was signed into law by the Governor of North Carolina on July 27, 2017. The Joint Application explained that H.B. 589 provided policy guidance with respect to distributed energy resources in North Carolina by encouraging "leasing of and subscription to solar energy facilities," while making clear that "cross-subsidization should be avoided by holding harmless . . . customers that do not participate in such arrangements." G.S. § 62-126.2. To fulfill this intent with respect to the next generation of NEM programs in North Carolina, G.S. § 62-126.4(a) specifically requires the Companies to "file for Commission approval *revised* net metering rates for electric customers that (i) own a renewable energy facility for that person's primary use or (ii) are customer generator lessees." G.S. § 62-126.4(a). (emphasis added). The Companies' Joint Application further stated that G.S. § 62-126.4(b) requires "(i) an investigation of the costs of benefits of customer-sited generation and (ii) only after such investigation, establishment of nondiscriminatory rates that ensure that each NEM customer 'pays its full fixed cost of service.'" Joint Application at 6.

### **B. Discussion and Conclusions**

As discussed below, although certain parties advanced different interpretations of these requirements, no party denied that these requirements within H.B. 589 form part of the relevant parameters within which the Commission must consider the Companies' NEM Tariffs. It is clear from the record and plain language of H.B. 589 itself that the General Assembly of North Carolina requires the Companies to file revised NEM Tariffs with the Commission. Likewise, H.B. 589 requires the Commission to review and approve NEM tariffs that comply with the parameters specified by H.B. 589. There are two mandates

within H.B. 589 that are specific to NEM, and are the primary considerations in the Commission’s analysis. The first mandate is that prior to the approval of any NEM tariffs, the Commission must ensure that an investigation has been conducted into the costs and benefits of NEM generation in North Carolina. G.S § 62-126.4(b). The second mandate is that after such an investigation is conducted, the Commission must approve NEM tariffs that ensure, in light of that investigation, that each NEM customer “pays its full fixed cost of service.” *Id.*

## **X. EVIDENCE AND CONCLUSIONS FOR FINDINGS OF FACT NO. 10-11**

The evidence in support of this finding of fact is found in the Joint Application, North Carolina statutes, and comment submitted by parties in this docket, including, but not limited to, the Public Staff, the Companies, the AGO, NCSEA, Vote Solar, SEIA, and SACE.

### **A. Summary of the Evidence**

The Companies’ Joint Application asserted that H.B. 589 provides a “new direction for distributed energy resources...by encouraging the ‘leasing of and subscription to solar energy facilities,’ while making clear that ‘cross subsidization should be avoided by holding harmless...customers that do not participate in such arrangements.” Joint Application at 6. The Joint Application further asserted that the plain language of G.S. § 62-126.4(b) evidences an intent to address the potential cross-subsidization under Existing NEM Programs, which can arise if NEM customers do not pay their share of costs attributable to their service needs. *Id.*

### **B. Discussion and Conclusions**

As discussed below, although certain parties advanced different interpretations of these requirements, no party denied that these requirements within H.B. 589 form the primary parameters within which the Commission must consider the Companies' NEM Tariffs. As such, the Commission's consideration of the NEM Tariffs must not only account for the NEM-specific directives in H.B. 589, but must consider, in tandem, the General Assembly's desire to advance these broader policy directives, which include the stated policy objective in North Carolina of encouraging private investment in renewable energy, while mitigating the potential for cross subsidization to arise under the NEM Tariffs in accordance with the specific language in H.B. 589. In the Commission's experience, as evidenced by, among other items, the 2005 Order and the 2009 Order, these objectives may conflict at times. On one hand, accelerating solar adoption in North Carolina by utilizing flat rate structures could inflate customer savings beyond the value provided to the power grid. On the other hand, these rates mean that the difference between rates paid and benefits provided could potentially be recovered from non-NEM customers, which is precisely the potential cross-subsidy which the General Assembly aims to address in these broader policy goals. As such, the Commission is required to balance the potential for cross-subsidization in a way that advances these broader policy goals, while complying with the NEM-specific mandates listed above.

#### **XI. EVIDENCE AND CONCLUSIONS FOR FINDINGS OF FACT NO. 12-18**

The evidence in support of this finding of fact is found in the Joint Application, the MOU, the Bridge Rate Stipulation, and comments submitted by parties in this docket and submitted in relation to the Rate Design Study in the last general rate case dockets, which

include the Public Staff, the Companies, the NC WARN Parties, 350 Triangle, 350 Charlotte, NC-APPPL, and the EWG, the Public Staff.

**A. Summary of the Evidence**

**i. Joint Application.**

The Companies' Joint Application explained that the Companies engaged in productive and in-depth dialogue with stakeholders on NEM within the Rate Design Study over the course of seven workshops. Joint Application at 10. The Companies stated that over several months, more than 20 organizations participated in the workshops representing a broad range of interests within the State of North Carolina. *Id.* The Companies' Joint Application stated that the Rate Design Study and the stakeholder engagement process were critical in the development of the NEM Tariffs. Joint Application at 11. The Joint Application provided that the Companies received feedback from stakeholders which informed the efforts to comply with H.B. 589. *Id.* Importantly, the Companies stated that they conducted a similar stakeholder process in South Carolina and as a result, reached an agreement with members of the solar community on a path forward. *Id.* The Joint Application explained that although the stakeholder process in North Carolina is similar to that of South Carolina, the process in North Carolina "involved new data and the examination of the costs and benefits unique to North Carolina." *Id.* The Joint Application pointed out that the stakeholder process included parties that were not part of the South Carolina process. *Id.* The Joint Application further explained that the Companies surveyed several organizations participating in the workshops and that the survey revealed 80% of the organizations were either "supportive" or "very supportive" of the Companies' NEM Proposal. *Id.*

The Joint Application also provided evidence of the success of the Companies' stakeholder engagement through the parties' agreement in executing the MOU. Joint Application at 12. The Joint Application explained that the Companies were able to reach an agreement with certain parties on the proposed program and rate design expressly for North Carolina. *Id.* The Joint Application highlighted that the MOU reflected "innovative, collaborative NEM solution in response to H.B. 589 that represents support from a broad group of stakeholders." *Id.* The Joint Application evidenced that the MOU and NEM Tariffs represent a concerted effort by the Companies to engage with stakeholders, account for various policy interests, and provide an NEM solution that is workable for all customers. *Id.*

**ii. Initial Comments.**

In response to the Joint Application, the NC WARN Parties argued that the NEM portion of the Rate Design was defective because the NEM portion of the Rate Design "was inexplicably" placed on a "fast track;" biased toward the South Carolina-based model; and "plagued by the untimely, half-hearted distribution of material information." NC WARN Parties Initial Comments ("NC WARN Initial Comments") at 20. Specifically, the NC WARN Parties claimed that the "only matters '[i]n-scope' for NEM during the Rate Design Stakeholder Process were the SC MOU, and any modest tweaks to be made in North Carolina." *Id.* Moreover, the NC WARN Parties argued that the MOU and NEM Tariffs had not garnered the broad support claimed by the Companies because the inclusion of signors to the South Carolina MOU injected bias in the survey results stated by the Companies. NC WARN Initial Comments at 22.<sup>13</sup>

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<sup>13</sup> NC WARN et al. lodged similar criticisms against the Fast Track process on November 15, 2021 in response to the Rate Design Study Quarterly Status Report for Third Quarter 2021 (Docket Nos. E-2, Sub JOINT PROPOSED ORDER

NCSEA, SACE, and Vote Solar explained that although certain stakeholders may have “different opinions about individual elements . . . there was agreement among these diverse parties that, as a package, the deal is a reasonable and constructive compromise that provides a foundation for the more widespread adoption of solar and other types of DERs in North Carolina.” Joint Initial Comments of NCSEA, SACE, and Vote Solar (“Joint Initial Comments of NCSEA and SACE et al.”), Ex. A, at 3. These parties further described the NEM Tariffs as “the product of dialogue and negotiation between the utilities and important stakeholders, including key representatives of the solar industry as well as clean energy advocates.” *Id.*, at 2. NCSEA, SACE, and Vote Solar noted that the NEM Tariffs were developed through “constructive discussions, negotiation, and compromise.” *Id.*, at 3. These parties also described the collaborative development of the NEM Tariffs as a “welcome development given that similar issues in other states have resulted in protracted litigation and public controversy.” *Id.*

The Public Staff likewise noted the stakeholder engagement that resulted in the NEM Tariffs, and explained that the “efforts undertaken by Duke and stakeholders to reach agreement on the provisions of the NEM Tariff, as reflected in the MOU . . . should substantially reduce the number of contested issues.” Initial Comments of Public Staff (“Public Staff Initial Comments”) at 24.

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1219 and E-7, Sub 1214). In response, SACE and NCSEA submitted comments to correct a mischaracterization about the work of their retained expert, Thomas Beach, in an unrelated South Carolina proceeding, and to provide additional context about the Rate Design Study process. Reply to the November 15, 2021 “Response to Duke Energy’s Rate Design Study Quarterly Status Report for the Third Quarter” submitted by NC WARN et al, Docket Nos. E-2, Sub 1219 and E-7, Sub 1214 (Dec. 15, 2021). In addition, SACE and NCSEA noted that the facilitator of the Rate Design Study had accommodated different points of view and invited participants to bring forward alternative NEM rate design proposals for consideration. But NC WARN did not bring forward an alternative NEM rate design for discussion or consideration by the Fast Track working group.

Likewise, the AGO explained its view that the parties to the MOU “thoughtfully negotiated a creative approach that balances a variety of interests.” Comments of the AGO (“AGO Initial Comments”) at 4.

**iii. Reply Comments.**

In the Companies’ Reply Comments, the Companies explained that the working group named “Fast Track” evaluated residential NEM and that “Fast Track” was simply a name referring to the high-priority topics for the Rate Design Study, not a reference to any abbreviated schedule. Duke Reply Comments at 2. The Companies characterized “Fast Track” as a designation that may have resulted in topics being heard sooner than other topics but not on a truncated timeline. *Id.* The Companies explained that as part of the “Fast Track” process, they provided modeling inputs and results in support of the NEM Tariffs, facilitated all requests for stakeholders to submit feedback, and that the Fast Track portion of the study continued until the Companies and participants exhausted all topics and requests for discussion or presentation by any party. *Id.*

The Companies explained that the Companies and interested stakeholders had the opportunity to present on various NEM topics, including “detailed and comprehensive explanations of the NEM Tariffs, the time-of-use (“TOU”) rates utilized in the NEM Tariffs, and bill impacts arising from the NEM Tariffs.” Duke Reply Comments at 2-3. The Companies stated that they solicited all intervenors in the latest DEC and DEP rate case, regularly updated the Commission, and invited presentations from the stakeholder group. Duke Reply Comments at 3. Additionally, the Companies reiterated that they were transparent sharing detailed data and studies with stakeholders. *Id.*

As stated above, the Companies contended that the NEM Tariffs arising from the



Reply Comments at 4. The Companies reiterated that the NEM Proposal amassed broad support and that the vast majority of the Rate Design Study participants supported the Proposal. *Id.* Moreover, the Companies stated that they were able to find common ground with parties outside of the parties to the MOU, as well. Specifically, the Companies referred to the Bridge Rate Stipulation filed on May 19, 2022 in this docket, which proposed a “Bridge Rate.” Duke Reply Comments at 5. Following certain initial comments by parties in this docket, the Companies engaged in a dialogue over several weeks, which resulted in the Bridge Rate Stipulation. *Id.* The Companies stated that this further reflected its continued effort to “engage stakeholders and build consensus for the Companies’ efforts to comply with H.B. 589.” *Id.*

NCSEA, SACE, and Vote Solar explained that they participated in the Rate Design Study stakeholder process and the Companies “provided information to stakeholders regarding its analyses of benefits and costs relating to net metering and the reasons why it planned to propose TOU-CPP rates as a future NEM offering.” Joint Reply Comments of SACE, Vote Solar, and NCSEA (“Joint Reply Comments of SACE et al.”) at 3.

**iv. Responsive Comments.**

In responsive comments, the NC WARN Parties primarily reiterated points from their initial comments regarding the Fast Track process and the Rate Design Study overall. Joint Surreply Comments of NC WARN, NCCSC and Sunrise Durham (“NC WARN Surreply Comments”) at 1-3. The NC WARN Parties also noted that NC WARN presented on certain NEM-related topics to the Rate Design Study stakeholder group on July 29, 2021. NC WARN Surreply Comments at 19.

NCSEA, SACE, and Vote Solar provided support for the Bridge Rate Stipulation filed by the Companies and the NCRSI that resulted from additional stakeholder efforts after the Joint Application was filed. Joint Responsive Comments of NCSEA, SACE, and Vote Solar (“Joint Responsive Comments of NCSEA and SACE et al.”) at 1. These parties also acknowledged that in addition to the stakeholder efforts related to the NEM Tariffs in this docket, as part of this process, the Companies and certain stakeholders also committed to work collaboratively on a number of other matters as a result. *Id.* at 2.<sup>14</sup>

## **B. Discussion and Conclusions**

The record reveals that the NEM Tariffs resulted from months of stakeholder engagement, interaction, and presentations that occurred over numerous forums. Comment presented by the parties—even those opposing the NEM Tariffs—revealed that the Companies provided all parties with ample time and opportunity to provide feedback on the Companies’ proposal and present diverse or opposing viewpoints at meetings that the Companies hosted. Although the NC WARN Parties argue that the stakeholder process was flawed simply because it was based upon a model utilized in South Carolina, the Commission notes that it appears that model was utilized because it was successful. Indeed, the record reveals that the model utilized in South Carolina, from which the North Carolina model was developed, resulted in a broadly-supported NEM proposal to the Public Service Commission of South Carolina which was ultimately approved and is implemented today. The Commission finds no fault in the Companies and other stakeholders utilizing a best practice in this regard. The Commission also finds that no alternative comprehensive NEM

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<sup>14</sup> As noted above, NCSEA, SACE, and Vote Solar also provided robust support for the Rate Design Study and corresponding stakeholder process in their reply to the Joint Motion for Evidentiary Hearing submitted in this docket.

proposal was brought forward in the Rate Design Study, despite ample opportunity for parties to do so.

Although the stakeholder process was modeled upon a similar, successful South Carolina process, the record is clear that the North Carolina process accounted for the interests of North Carolina customers and the nuances of North Carolina NEM reform. For example, the North Carolina process garnered broad involvement from parties representing a wide-range of North Carolina-specific interests that were not part of the South Carolina process. The Companies presented volumes of North Carolina-specific data supporting their NEM proposal.

Although certain intervenors argue that the “Fast Track” designation ascribed to the NEM portion of the Rate Design study resulted in abbreviated consideration of the NEM Tariffs, no party has provided any specific examples of how that designation adversely impacted their ability to provide input, ask questions, and even present on NEM topics within the Rate Design Study process. In fact, although the NC WARN Parties claim that the Fast Track process was meant to rush the NEM Tariffs through the stakeholder process, the NC WARN Parties admit that they were actually able to present their own perspectives, and did present, during the Rate Design Study process. The Fast Track designation actually prioritized consideration of NEM-related topics within the Rate Design Study such that more focused attention and debate could occur around these items given the mandate for NEM reform in H.B. 589. For example, during the Fast Track process, the Companies provides volumes of confidential data, invited presentations from the group, and provided regular NEM-related updates to the Commission. The Companies claim that at the end of

the NEM-related portion of the Rate Design study, there were no outstanding data requests or questions. No party disputed this fact.

The record reveals that the stakeholder engagement, interaction, and dialogue within the Rate Design Study was open and transparent—so much so that it led to the realization that certain compromises could be possible among the Companies and certain stakeholders. These compromises are evidenced within the MOU among the Companies and the Settling Parties. The MOU represents a broad set of agreements to advance clean energy on multiple fronts within North Carolina and the Commission applauds the efforts of the parties to the MOU. The Commission has on numerous recent occasions encouraged parties to attempt to achieve consensus where possible and appreciates and places weight on the fact that the settling parties were able to do so in this instance (while recognizing that consensus is not possible in all proceedings). The Commission is well-aware—as certain parties have noted—that NEM-related topics often result in hotly-contested litigated proceedings around the country. For example, the Public Staff reviewed the stakeholder process within the Rate Design Study, and cited the success of that process and the corresponding MOU in “substantially” reducing the number of issues in this docket. Public Staff Initial Comments at 24. This is an important compromise because, as acknowledged by the Public Staff, in other NEM state proceedings, “utilities and intervenors [are] at odds over nearly every aspect of proposed net metering revisions.” *Id.* The compromise represented by the MOU not only resolves these issues, but does so in the best interests of the Companies’ customers.

Furthermore, the Companies’ stakeholder engagement efforts did not end when the Joint Application was filed. As explained in greater detail below, in response to the initial

comments in this docket, the Companies and certain Settling Parties engaged in a dialogue with the NCRSI to determine whether a broader consensus could be achieved before the Commission that benefited the Companies' customers and complied with the provisions of H.B. 589. In the face of this support and broad stakeholder engagement, the Commission is not persuaded by arguments that the NEM Tariffs arose from an allegedly flawed Rate Design Study process or that basing the process off of a successful best practice in a sistering state somehow compromised the NEM Tariffs. To the contrary, the Commission is convinced that all parties in this docket had ample time and opportunity to engage in the stakeholder process and attempt to reach a compromise—if so desired. Therefore, the Commission finds that the NEM Tariffs represent a diverse range of interests—to the benefit of the Companies' customers—and encourages parties to seek such a resolution in the future on other matters where possible.

## **XII. EVIDENCE AND CONCLUSIONS FOR FINDINGS OF FACT NOS. 19-21**

The evidence in support of this finding of fact is found in the Joint Application, and comments submitted by parties in this docket, which include the Public Staff, the Companies, the NC WARN Parties, 350 Triangle, 350 Charlotte, NC-APPPL, the EWG, NCEMC, SACE, CCL, Vote Solar, NCSEA, and SEIA.

### **A. Summary of the Evidence**

#### **i. Ability of the Companies to Conduct the Investigation.**

##### **1. Joint Application.**

The Companies' Joint Application stated that “the Companies fulfilled G.S. § 62-126.4(b), as implemented by H.B. 589, by conducting an “‘investigation of the costs and benefits of customer-sited generation’ through the Companies’ Rate Design Study.” Joint Application at 7. The Joint Application claimed that the results of the Rate Design Study

provide “a current and detailed look at the costs and benefits of serving NEM customers under Existing NEM Programs.” *Id.* As discussed above, the Companies’ Joint Application outlined the process by which the Rate Design Study was conducted by the Companies—which included robust stakeholder input, feedback, and interaction with a broad range of interested parties over a number of months. Joint Application at 10-11.

## 2. Initial Comments.

In response to the Joint Application, several parties voiced general support for the Companies’ investigation of costs and benefits through the Rate Design Study in accordance with H.B. 589. Duke Reply Comments at 4. However, the NC WARN Parties, EWG, and 350 Parties (defined below) alleged that the Commission must conduct the investigation of costs and benefits, and, as such, the NC WARN Parties argued that “in no respect” had there been an investigation of customer-sited generation as required by H.B. 589. NC WARN Initial Comments at 3. Discounting the Rate Design Study and corresponding stakeholder process, the NC WARN Parties, EWG, and 350 Parties claimed that the Commission must lead a Value of Solar Study to comply with statutorily-mandated investigation pursuant to H.B. 589. *See, e.g., id.*

While acknowledging that certain intervenors call for an independent study in this docket, the Public Staff supports the Rate Design Study performed by the Companies as fulfilling the investigation requirement under H.B. 589. Public Staff Initial Comments at 30. Specifically, the Public Staff explained that such additional study would yield little benefit because the Rate Design Study “captures the majority, if not all, of the known and verifiable benefits of solar generation.” *Id.* As such, the Public Staff recommended approval of the NEM Tariffs, with limited modifications and thereby did not find that an

independent, additional investigation was required by H.B. 589. Public Staff Initial Comments at 41-42.

### 3. Reply Comments.

In response to the NC WARN Parties, EWG, and the 350 Parties, the Companies pointed to the language of H.B. 589 as evidence that the Commission is not required to conduct the investigation itself. Duke Reply Comments at 5-6. Specifically, the Companies noted that H.B. 589 expressly requires the Commission to review, approve, and establish revised NEM tariffs. Duke Reply Comments at 6. The Companies noted that there was no similar express requirement that the Commission actually conduct “an investigation of the costs and benefits of customer-sited generation.” Duke Reply Comments at 5. The Companies claimed that this is an important distinction in the plain language of the statute given that although the Commission is specifically tasked with approval of the tariffs, no specific party is similarly tasked with conducting the investigation. Duke Reply Comments at 6. The Companies characterized the NC WARN Parties’ arguments as creating an issue where none exists under a reading of the statute’s plain language. *Id.* The Companies explained that requiring additional investigation would require the Companies and stakeholders to “once again perform the same time-consuming, fact-intensive analysis [and] would waste Commission time and resources.” *Id.* Ultimately, the Companies voiced concern that the NC WARN Parties are simply trying to delay the statutorily-required NEM reform based upon an issue that, in reality, does not exist. *Id.*

In its reply comments, EWG raised for the first time that the Commission is required to lead the investigation of costs and benefits, largely citing the NC WARN Parties’ initial comments as support for its claim. EWG Reply Comments at 24. 350

Triangle, 350 Charlotte, and NC-APPPL (collectively, the “350 Parties”) advanced similar arguments, while also arguing that the Public Staff stood “alone in opposition” of the notion that the Commission must conduct the investigation. 350 Parties Reply Comments at 3.

In reply comments, the NC WARN Parties, EWG, and the 350 Parties largely reiterated arguments in their initial comments regarding the Companies’ ability to conduct the investigation required by H.B. 589. *See*, NC WARN Reply Comments, EWG Reply Comments, 350 Parties Reply Comments.

#### **4. Responsive Comments.**

In response to the Companies’ explanation that the NC WARN Parties did not consider the full context of H.B. 589—particularly that it only requires the Commission to establish tariffs, but not actually conduct the required investigation—the NC WARN Parties averred that such explanation constituted “meritless personal attacks.” NC WARN Surreply Comments at 7. The NC WARN Parties alleged that “this type of baseless ad hominem was a prominent theme within the Companies’ Reply Comments.” NC WARN Surreply Comments at 8. The NC WARN Parties also argued that although the Companies addressed the plain language of H.B. 589, they did not consider legislative intent behind that plain language, which, according to the NC WARN Parties, would effectively read-in to the statute a requirement that the Commission lead the investigation of costs and benefits. NC WARN Surreply Comments at 12. Here again, the NC WARN Parties cited the quotation utilized several times by multiple opposition parties in this docket in support of its argument that the Commission should lead the investigation<sup>15</sup> NC WARN Surreply

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<sup>15</sup> Elizabeth Ouzts, Energy News Network, “Energy Bill could see North Carolina Join national fight over net metering,” July 17, 2017, <https://energynews.us/2017/07/17/energy-bill-could-see-north-carolina-join-national-fight-over-net-metering/> (accessed on March 22, 2022) (“It’s not up to the utility to determine



Comments at 13. The NC WARN Parties advanced additional arguments that by choosing the word investigation, the General Assembly could not have meant for the Companies to “investigate themselves.” NC WARN Surreply Comments at 15. Lastly, the NC WARN Parties cited the Companies “unconscious bias toward minimizing the benefits and amplifying the costs of solar” as support for the notion that H.B. 589 requires the Commission, not the Companies, to conduct the investigation. *Id.*

**ii. Investigation Methodology**

**1. Joint Application.**

The Companies’ Joint Application noted that they fulfilled the requirements of H.B. 589 within the Rate Design Study through an analysis of both marginal and embedded costs to obtain a full picture of the costs and benefits associated with residential customer-sited generation. Joint Application at 8. The Companies explained that this approach is consistent with best practices across the industry because an embedded cost analysis looks at costs “that have already been incurred and need to be recovered” to serve NEM customers. *Id.* The Companies described the embedded cost analysis as looking at costs to serve NEM customers that “have already been incurred and need to be recovered—in other words, the utility’s revenue requirement.” *Id.* Furthermore, the Companies stated that the marginal cost perspective provides valuable insight by analyzing the “marginal system benefit” created by adding customer-sited generation to their system. *Id.* The Companies framed these benefits as the costs of the “next unit of energy . . . or next unit of capacity . . . that are not incurred due to the adoption of NEM generation.” *Id.* The Companies explained that the Rate Design Study provided a current and detailed look at the costs and

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whether net metering is good or bad,’ he said. ‘We know what that answer will be. We’re not putting the fox in charge of the hen house here. That is not the intent.’”).

benefits of serving NEM customers under Existing NEM Programs on both an embedded and marginal cost basis. Joint Application at 7.

## 2. Initial Comments.

In response to the Joint Application, the Public Staff generally supported the marginal and embedded cost studies performed by the Companies, and explained that additional investigative efforts are unnecessary at this point. Public Staff Initial Comments at 30. Specifically, the Public Staff stated that the Companies utilization of both an embedded and marginal cost approach “captures the majority, if not all, of the known and verifiable benefits of solar generation.” Public Staff Initial Comments at 30. The Public Staff cautioned that any such analysis of costs and benefits “must be based upon quantifiable benefits and costs to the utility,” and that if any additional analysis included non-quantifiable benefits, such as societal benefits, that the Companies’ payment to NEM customers for such benefits would “be passed onto all ratepayers while the benefit would not reduce ratepayer bills.” Public Staff Initial Comments at 31. As such, the Public Staff claimed that additional investigative efforts—such as a value of solar study—are simply unwarranted given the costs and benefits captured by the Companies’ studies. *Id.* Several other parties similarly voiced support for the NEM Tariffs and the Companies’ investigation conducted by and through the Rate Design Study, including NCSEA, NCEMC, SACE, Vote Solar, and SEIA. Joint Initial Comments of NCSEA and SACE et al at 13; Comments of the SEIA (“SEIA Initial Comments”) at 5.

However, the 350 Parties, the NC WARN Parties, and the EWG were aligned in their opposition to the methodologies used by the Companies to conduct the investigation of costs and benefits. *See generally* 350 Parties Initial Comments; NC WARN Initial

Comments; EWG Initial Comments.<sup>16</sup> The NC WARN Parties argued that the Rate Design Study considered the costs of customer-sited generation, but failed to consider “in any meaningful way the benefits, both societal and otherwise.” NC WARN Initial Comments at 3. (emphasis in original). Contrary to the Public Staff’s position regarding the inclusion of societal benefits, the NC WARN Parties alleged that “customer and societal impacts should be examined in every cost-benefit analysis of NEM solar.” NC WARN Initial Comments at 12. The NC WARN Parties argued that the applicable standard of care in conducting this investigation should be the National Standard Practice Manual for Benefit-Cost Analysis (“NSPM-DER”) because, in part, it recommends that certain societal impacts be included in this investigation. *Id.* The NC WARN Parties alleged that these societal impacts include items such as “health impacts” and “energy independence.” NC WARN Initial Comments at 13. Finally, the NC WARN Parties discredit the investigation as using “ancient” cost of service data, which was derived from 2018 and included the data used to set rates in the most recent general rate cases. NC WARN Initial Comments at 17.

EWG similarly attacked the Companies’ investigation of costs and benefits, arguing that an evaluation that looked at “marginal costs and embedded costs does not equal an investigation of the value or benefits of customer-sited generation.” Initial Comments of EWG (“EWG Initial Comments”), pg. 8. EWG points to New York, Minnesota, and Rhode Island as jurisdictions after which the Commission should model any such investigation. EWG Initial Comments at 16. The EWG also took issue with the Companies’ inclusion of lost revenue as a cost of service in the Rate Design Study, alleging

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<sup>16</sup> As explained throughout the Order, although the NCSRI initially filed comments in opposition to the NEM Tariffs, the NCSRI and the Companies later entered in to the Bridge Rate Stipulation in support of the NEM Tariffs, with particular focus on the Proposed Bridge Rate.

that if “lost revenues were considered costs, then all customers would be required to pay the average *bill* for their respective class.” EWG Initial Comments at 9. (emphasis added).

The 350 Parties echoed the refrain of the NC WARN Parties and EWG by claiming that the Companies’ investigation is deficient because it did not evaluate societal benefits, which include, among other things, “enhancing the local economy.” Joint Initial Comments of 350 Triangle, 350 Charlotte, and NC-APPPL (“350 Parties Initial Comments”) at 12. The 350 Parties claimed that solar’s societal value is evident in the potential benefits of microgrids, which “can help to improve overall national security by ensuring that power stays on during attacks designed to target power sources as well as weather events that can knock out a centralized system.” 350 Parties Initial Comments at 17.

Finally, the AGO noted that a full investigation of potential benefits of customer-sited generation may not be possible until there is “clarity on what role residential rooftop solar will play in meeting our state’s carbon goals.” AGO Initial Comments at 5.

### **3. Reply Comments.**

In the Companies’ Reply Comments, they re-iterated that the marginal and embedded cost analysis underpinning the Rate Design Study is not only “widely-accepted in North Carolina,” but also in the industry at large. Duke Reply Comments at 7. The Companies explained that this general acceptance of these methodologies was one of the primary reasons the Companies utilized the same, averring that it would be inappropriate to “utilized methodologies or count benefits that do not have legal or regulatory basis in North Carolina.” *Id.* The Companies pointed to the comments of Public Staff in support of their position, which stated that the marginal and embedded cost studies performed by the

Companies “capture the bulk of the known and verifiable benefits.”<sup>17</sup> *Id.* In response to the request by certain intervenors in this docket that the Commission conduct a “Value of Solar” study, the Companies noted that this would unnecessarily stall these proceedings—particularly given that those studies utilize the same embedded and marginal analysis utilized in the Rate Design Study. Duke Reply Comments at 8. Although the EWG claimed that the Companies’ approach runs contrary to national standards, the Companies explained that, to the contrary, the marginal and embedded approach is actually endorsed by the National Association of Regulatory Commissioners (“NARUC”) and “have been utilized in all of the retail rate designs currently place for the Companies.” *Id.* The Companies explained that, on the other hand, the recommendations to utilize the NSPM-DER actually conflict with widely-accepted standard given that, as of the date of filing, the NSPM-DER has “**only been applied in three states.**” Duke Reply Comments at 9. (emphasis in original). The Companies stated that the NC WARN Parties’ characterization of the 2018 data as “ancient” fundamentally misunderstands the nature of ratemaking. *Id.* Specifically, the Companies explained that the 2018 test year was used in the compliance cost-of-service studies that currently serve as the basis for all of the Companies current rates, and the historical use of a test year has “extensive precedent in North Carolina.” Duke Reply Comments at 9-10.

With respect to the EWG’s claim that lost revenues should not be categorized as a cost of service, the Companies explained that, in fact, lost revenues “must” be included to determine “how lost revenues put upward pressure on rates.” Duke Reply Comments at 10. Again, the Companies cited an extensive history of this practice in North Carolina, and

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<sup>17</sup> Note Duke’s agreement to track in response to the PS.

noted that even the NSPM-DER—the standard of care advocated for by the EWG and others—includes lost revenues as a cost of service. *Id.*

In response to allegations from certain intervenors that the Companies did not consider any benefits in its investigation, the Companies highlighted that, in fact, the Companies did recognize benefits in both the Companies’ marginal and embedded cost studies, which the Companies filed in this docket. Duke Reply Comments at 11. Finally, the Companies explained that including other, non-quantifiable benefits, such as societal, in this evaluation is inappropriate—particularly given that “societal benefits have never been identified or quantified in North Carolina in this context.” Duke Reply Comments at 12. The Companies described the difficulties in even ascertaining a value for these benefits, if they even exist at all, noting that they are “no actual direct costs of providing service.” *Id.*

SACE, Vote Solar, and NCSEA maintained their general support for the NEM Tariffs and noted that to the extent the Commission deems it appropriate to conduct “further study of the benefits and costs of rooftop solar,” that further study should not delay or hinder the NEM Tariffs in this docket. Joint Reply Comments of SACE et al. at 3.

In their reply comments, the NC WARN Parties, EWG, and the 350 Parties reiterated the positions advanced in their initial comments. The NC WARN Parties stated that the Companies’ investigation failed because, in part, the Companies failed to follow the NSPM-DER—the standard of care recommended by the NC WARN Parties. Joint Reply Comments of NC WARN, NCCSC and Sunrise Durham (“NC WARN Reply Comments”) at 8. With respect to the Public Staff’s support of the NEM Tariffs, the NC WARN Parties characterized that support as a “curious” development and re-iterated their

position that the Public Staff is “incorrect that the Companies adequately analyzed the benefits of solar.” NC WARN Reply Comments at 9-10. The NC WARN Parties argued that the Public Staff’s “flawed conclusions” are apparently driven by “misguided reliance” upon a report prepared by a consultant for the Public Service Commission of South Carolina regarding NEM. NC WARN Reply Comments at 13. As such, the NC WARN Parties alleged that the Public Staff’s position results primarily from an “ill-advised citation to a completely unreliable source.” NC WARN Reply Comments at 14.

The 350 Parties similarly attacked the Public Staff’s support of the NEM Tariffs and, in particular, its support of the Companies’ investigation. 350 Parties Reply Comments at 4. Specifically, the 350 Parties noted that the Public Staff “erroneously concludes that Duke Energy’s embedded and marginal cost studies satisfy the requirement” of H.B. 589. *Id.* EWG similarly attacked the Public Staff’s position, claiming that the Public Staff “stands alone” in their support of the Companies’ investigation. EWG Reply Comments at 2. Finally, EWG again called for a study that complies with the NSPM-DER—in-line with recommendations made by the 350 Parties and the NC WARN Parties. EWG Reply Comments at 6.

#### **4. Responsive Comments.**

In their responsive comments, the NC WARN Parties, the 350 Parties, and the EWG re-iterated many of their previous comments regarding the Companies’ investigation of costs and benefits. *See generally* NC WARN Surreply Comments; 350 Parties Joint Reply Comments; Surreply Comments of EWG (“EWG Surreply Comments”). The NC WARN Parties noted that—contrary to the position taken by other parties, including NCSEA, SACE, and Vote Solar—there is additional time to conduct this investigation

given that H.B. 589 only requires NEM reform by January 1, 2027. NC WARN Surreply Comments at 22. The NC WARN Parties acknowledged the Companies' statement that the NSPM-DER is only adopted in three states, but claimed that this is purely a result of the fact that it was only recently developed, and a handful of other states have adopted as well. NC WARN Surreply Comments at 25. On the other hand, the NC WARN Parties noted that utilization of NARUC principles is inappropriate because the manuals cited by the Companies are nearly 30 years old. *Id.*

## **B. Discussion and Conclusions**

### **i. H.B. 589's Investigation Requirement.**

H.B. 589 specifies that the NEM rates are to be "established only after an investigation of the costs and benefits of customer-sited generation." This proceeding was instituted by the Commission to investigate the Companies' proposed NEM Tariffs and corresponding analysis of the costs and benefits of customer-sited generation. The record reveals that all parties have had full opportunity to respond to the Companies' analysis and to submit alternative analysis concerning the costs and benefits of customer-sited generation. As such, this docket has provided the Commission, with participation from the parties of record in this docket, an opportunity to conduct the investigation required by H.B. 589. Given the robust record developed in this docket, which provided all parties the opportunity to review and evaluate the underlying analysis the Companies used to develop the NEM Tariffs, it is unclear what further investigation would provide either to this proceeding or for purposes of complying with the requirements of H.B. 589.

Furthermore, in the alternative, the Commission finds reasonable the Companies' position in comments that the investigation of costs and benefits of customer-sited generation conducted in the Rate Design Study could independently satisfy the



investigation requirement and serve as a sufficient evidentiary basis on which the Commission may rely, in part, in rendering this decision. H.B. 589 only expressly requires the Commission to review and approve revised net metering tariffs, but H.B. 589 does not similarly require that the Commission conduct the formal technical analysis. Taken together with the robust record in this docket, the Commission is satisfied that H.B. 589's requirement has been fulfilled in this regard.

The Commission is not convinced by intervenors that suggest the Companies cannot conduct the investigation because they maintain an “unconscious bias toward minimizing the benefits and amplifying costs of solar.” These arguments ignore the setting within which the Companies’ detailed technical analysis was conducted. As described above, the analysis was conducted within the Rate Design Study, which was an open and transparent forum in which multiple intervenors with various interests participated. Even if the Companies harbor some sort of unconscious bias, the Commission is satisfied that Rate Design Study and the investigation conducted in this docket provided sufficient guardrails. This is further supported by the fact that no other parties—except those limited intervenors that oppose the NEM Tariffs—have complained about the Rate Design Study’s consideration of the NEM Tariffs.

Therefore, for the reasons explained above, the Commission is satisfied that it fulfilled H.B. 589’s requirement to investigate the costs and benefits of customer-sited generation in this docket. Alternatively, as discussed above, the Companies’ Rate Design Study likewise could independently fulfill such requirement.

## **ii. Investigation Methodology**

The record reveals that the Companies’ investigation into the costs and benefits of customer-sited generation utilized a methodology that has been commonly-accepted not

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only in North Carolina, but also in jurisdictions across the country. Specifically, the Companies' utilization of marginal and embedded cost methodologies is consistent with best practices in this industry and provides two important perspectives when it comes to ratemaking. First, the embedded cost is necessary to determine the costs already incurred that must be recovered, while the marginal costs look to the cost of the next unit of energy or capacity to serve that customer, the cost of which must also be recovered. Although certain intervenors fault this approach for focusing solely upon costs, the Commission finds no evidence in the record that the Companies only focused upon the "costs" of customer-generation in the Rate Design Study. Although the approaches utilized by the Companies are colloquially referred to as the marginal and embedded "cost" studies, these studies also considered corresponding benefits. In fact, the Companies specifically cited the benefits included in the marginal and embedded studies that were filed with the Commission. Finally, several parties supported the Companies' methodology, including NCSEA, Public Staff, SACE, Vote Solar, and SEIA.

The Companies' marginal and embedded cost analysis, including those quantifiable benefits therein, is consistent with practice in North Carolina—as evidenced by the fact that this approach was utilized for all of the Companies' rates in North Carolina, and there is no evidence in H.B. 589 that the General Assembly intended the Commission to diverge

from these practices in establishing the NEM Tariffs.<sup>18</sup> Furthermore, this approach is endorsed by NARUC and is utilized in jurisdictions across the country.<sup>19</sup>

Importantly, the investigation in this docket does not foreclose additional investigation of the costs and benefits of NEM in North Carolina. To the contrary, several of the parties have committed to continued evaluation of these costs and benefits. However, given the exhaustive stakeholder engagement, the industry-wide principles employed by the Companies, and the mandates of H.B. 589, the Commission finds no reason to delay implementation of the NEM Tariffs on this point because it is unclear what marginal benefits, if any, would be provided by additional study.

### **XIII. EVIDENCE AND CONCLUSIONS FOR FINDINGS OF FACT NOS. 22-25**

The evidence in support of this finding of fact is found in the Joint Application, and comments submitted by parties in this docket, which include the Public Staff, the Companies, the NC WARN Parties, the 350 Parties, the EWG, SACE, CCL, Vote Solar, NCSEA, and SEIA.

#### **A. Summary of the Evidence.**

##### **i. Joint Application.**

The Companies' Joint Application explained that one of the primary consideration of H.B. 589's NEM reform mandate is the express requirement that "cross-subsidization should be avoided" and that NEM Tariffs ensure each NEM customer "pays its full fixed

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<sup>18</sup> As mentioned below, the Commission has addressed the issue of quantifiable costs in the context of developing avoided cost rates under PURPA, and has expressly stated that costs are only avoidable where they are "known and verifiable." 2020 Sub 167 Order at 7, 33 (recognizing that "ratepayers should not bear speculative or uncertain costs that are not avoided through purchase of power from a QF through the avoided cost rates that they ultimately pay.").

<sup>19</sup> Although the NC WARN Parties chide the Companies' 2018 data as "ancient," the Companies actually followed Commission precedent by utilizing the most recent compliance cost of service data, which underlies all of the Companies' existing rates and enjoys extensive precedent in North Carolina.

cost of service.” Joint Application at 6. The Companies noted that as a result of H.B. 589’s mandates, one of the primary intended outcomes of the Rate Design Study was to determine to whether and to what extent customers were paying their full fixed cost of service under the Existing NEM Programs. Joint Application at 8. The Companies stated that those results would be instructive as the Companies designed tariffs to eliminate cross-subsidization under H.B. 589. Joint Application at 10. The Companies explained that the Rate Design Study revealed that the potential for cross-subsidy arises from simplistic rate designs under Existing NEM Programs. Joint Application at 9. As a result, the Rate Design Study revealed that there is a potential for both an embedded and marginal cost cross-subsidy in both DEC and in DEP. *Id.* at 8. The Companies explained that the results of these analyses were shared with stakeholders and members of Public Staff that participated in the Rate Design stakeholder process. *Id.* at 8-9. While this Joint Application and the rate structure is supported by parties to the MOU, not all parties agree on the extent to which cross-subsidization arises under Existing NEM programs or the programs proposed in this Joint Application. *Id.* at 8.

In order to meet the goals of H.B. 589, the Companies were required to address the misalignment in the cost to serve customers. Joint Application at 9. With respect to the cost to serve customers, the Companies noted that the Existing NEM Programs rely upon a simple two-part rate design—which is a rate with a basic monthly fixed charge and fixed volumetric monthly energy charges. *Id.* The Companies explained that this simplistic rate design does not sufficiently ensure cost alignment under Existing NEM Programs, according to the Rate Design Study. *Id.* Although the Companies stated that a simplistic two-part rate design may generally be adequate to recover the cost of service for non-NEM

customers, the addition of rooftop solar under NEM complicates this analysis. *Id.* Specifically, the Companies explained that NEM customers are able to reduce their demand from the Companies through self-supply, but such self-supply may not be available at peak times, so the Companies must plan and build their systems for these customers much as they would for non-NEM customers. *Id.* The Companies noted that a simple two-part rate design results in NEM customers having larger bill reductions than are justified by the smaller reduction in the cost to serve them. *Id.* The Companies explained that the net revenue shortfall arising from volumetric rates is socialized and collected from all customers after each rate proceeding. *Id.* With respect to exports, the Companies stated that aligning the costs and benefits of power put to the grid is a key part of ensuring that the mandates within H.B. 589 are fulfilled such that the Companies do not pay an inflated value for power that must be recovered from other customers. Joint Application at 14.

**ii. Initial Comments.**

In the parties' initial comments to the Joint Application, NCSEA, SACE, and Vote Solar described that the Commission has been interested in the issue of cross-subsidization under NEM programs for a number of years. Joint Initial Comments of NCSEA and SACE et al. at 2. Specifically, NCSEA, SACE, and Vote Solar explained that the Commission "directed the utilities to examine and produce the value of any cross-subsidization that existed" for certain NEM customers in 2001. *Id.* However, NCSEA, SACE, and Vote Solar explained that ultimately, the Commission "held that the utilities had not produced an adequate report on cross-subsidization." Joint Initial Comments of NCSEA et al. at 3.

NCEMC acknowledged the potential for cross-subsidization—as revealed by the Rate Design Study—under Existing NEM Programs, and noted that the existing rate design "can result in increasing cost shifts over time." Petition to Intervene and Initial Comments

of NCEMC (“NCEMC Initial Comments”) at 5.

The Public Staff explained that in response to discovery issued by the Public Staff, the Companies stated that the NEM Tariffs focus only upon residential customers because the concerns for cross-subsidization in the non-residential class are not as pronounced because “residential NEM customers do not have the . . . more sophisticated rate designs that are applied to most non-residential NEM customers.” Public Staff Initial Comments at 23. In response, the Public Staff noted its agreement with the Companies that “the cross-subsidy issue is not as critical for non-residential NEM as it is for residential NEM.” *Id.* The Public Staff further explained that it “reviewed Duke’s study methodology and inputs, including the DSMore output files supporting Duke’s analysis, and generally finds the methodology and results to be a reasonable analysis of the cost, benefits, and cross-subsidies associated with NEM.” Public Staff Initial Comments at 25. (internal citations omitted).

The NC WARN Parties claimed that the alleged cross-subsidy should be put in perspective because the Companies’ residential customers currently overpay the Companies approximately \$1,000,000,000 per year. NC WARN Initial Comments at 28. The NC WARN Parties further alleged that the Companies’ cross-subsidy analysis is “flawed [and] unreliable” because it only focused upon residential customers. *Id.* The EWG similarly disputed the Companies’ estimate of cross-subsidization, noting that “[i]ndependent studies” have shown the opposite of the Companies’ analysis to be true. EWG Initial Comments at 12.

### **iii. Reply Comments.**

In reply, the Companies provided further justification for their estimated cross-subsidization numbers. Duke Reply Comments at 13. Specifically, the Companies again  
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noted that “it is generally accepted that volumetric rates do not fully capture the cost to serve NEM customers,” which is why the potential for cross-subsidization occurs under the Existing NEM Programs. *Id.* The Companies elaborated by noting that under volumetric rates, as a customer reduces its consumption, it also reduces its bill charge, therefore avoiding costs related to serve that customer—such as generation, transmission, and distribution costs. *Id.* The Companies explained that NEM customers have different usage profiles than other customers, which is a primary driver of the potential for cross-subsidization arising under volumetric rates. Duke Reply Comments at 14. For example, the Companies described a situation where an NEM customer may consume less from the Companies on a summer day, but that customer would still rely on the Companies to supply their full power requirements if a thunderstorm moves through on that same summer day because their panels would not be producing power. *Id.* Because of the reduced energy consumption, the Companies stated that the customer’s bill is lower. *Id.* However, because the Companies must have the infrastructure to serve and must actually serve the customer at peak times, the Companies explained that their cost to serve that customer does not similarly diminish, resulting in under recovery which must be socialized to other customers in the form of a cross-subsidy. *Id.*

The Companies noted that a similar “unwarranted cross-subsidy can arise when utilities overpay for the power exported to the grid by customer-generators.” *Id.* Retail rates are volumetric rates that include non-energy costs. *Id.* Therefore, whenever NEM Customers receive a rate for exported energy that equals retail rates charged to customers, a cross-subsidy can arise “because the volumetric charge for residential customers includes the recovery of non-energy costs, which are not necessarily reduced due to these exports.”

*Id.* As such, the Companies noted that the delta between those numbers is socialized and recovered in the form of a cross-subsidy. *Id.* Although the Companies acknowledged that non-residential customers were not examined as part of the Rate Design Study, the Companies stated that the risk of cross-subsidization with non-residential customers is mitigated because they “are already on more complex rate structures . . . that more closely track the costs to serve those customers.” Duke Reply Comments at 16.

The NC WARN Parties re-iterated their previous criticisms of the Rate Design Study overall, and continued to assert that “the true cost-shift is in favor of non-NEM customers.” NC WARN Reply Comments at 15. The EWG maintained a similar line of logic, noting that the “Companies have provided no proof that a cost-shift from solar to non-solar residential customers actually exists.” EWG Reply Comments at 8. Several other intervenors—including the NCRSI, NCSEA, SACE, Vote Solar—and Public Staff submitted reply comments in support of the Bridge Rate Stipulation and NEM Tariffs. EWG Reply Comments at 8-9.

#### **iv. Responsive Comments.**

In responsive comments, the NC WARN Parties and the EWG largely re-iterated arguments previously advanced in prior comments. *See generally* NC WARN Surreply Comments; EWG Surreply Comments. The NC WARN Parties maintained that the Companies’ analysis of cross-subsidization “is flawed” because it only focused upon residential customers. NC WARN Surreply Comments at 27. The NC WARN Parties continued to argue that the true cost-shift is in favor of non-NEM customers. *Id.*

#### **B. Discussion and Conclusions**

The record reveals that customers under Existing NEM Programs may not pay their full fixed cost of service as a result of two primary components of those programs: (i)



misalignment of costs to serve NEM customers and (ii) overvaluation of exports. When this occurs, there is a potential for cross-subsidization. The results of the Companies' Rate Design Study are instructive on these points. The results of that investigation—which utilized approaches that are considered settled precedent before this Commission—revealed that there is a potential embedded cost cross-subsidy and marginal cost cross-subsidy in current residential NEM bills. H.B. 589 requires the Commission to address these issues, and mandates that the tariffs approved by the Commission ensure that each customer pays its “full fixed cost of service.”

Based upon a review of the record, it is clear that the primary drivers of cross-subsidization are the simplistic volumetric rates under Existing NEM Programs and the undifferentiated retail rates paid to customers for NEM exports. As for the volumetric rates, they result in a revenue shortfall to the utility because they do not accurately capture the usage profile of an NEM customers. This was demonstrated in the Companies' Rate Design Study and this shortfall would otherwise most likely be recovered from non-NEM customers. As for the export rate, the rate paid under Existing NEM Programs does not align with the benefits provided to the system by that export, resulting in a potential overpayment that must be recovered from other customers (*i.e.*, cross-subsidy). The Companies' marginal and embedded cost studies analyze these points in detail and demonstrate the potential for a cross-subsidy under Existing NEM Programs. While this Joint Application and the rate structure is supported by parties to the MOU, not all parties agree on the extent to which cross-subsidization arises under Existing NEM programs or the programs proposed in this Joint Application.

However, the Commission has long been aware of the potential for cross-subsidization under NEM programs, and first addressed the issue in 2008.<sup>20</sup> Additionally, the record reveals that the Companies' were correct in focusing the initial cross-subsidy analysis on residential customers. Most non-residential customers are already on more complex rate designs that more closely align costs with benefits.<sup>21</sup>

The record reveals that the Companies' analysis of the potential cross-subsidy has the support of parties, which includes the Public Staff and NCEMC. However, a limited subset of intervenors disputes the analysis. However, no parties presented firm, new analyses adequately refuting the Companies' marginal and embedded cost analysis in this proceeding. For example, although the NC WARN Parties did not conduct their own independent investigation of the costs and benefits of customer-sited generation, they did, however, completely discount the Companies' estimate of the potential cross-subsidy as determined through the Rate Design Study. Yet, the record reveals that for the Commission to adopt certain of the NC WARN Parties' recommendations and analyses regarding the issue of cross-subsidy, it would have to account for various unquantifiable benefits for the first time in the Commission's history<sup>22</sup> and adopt novel and inequitable ratemaking

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<sup>20</sup> See Order Establishing Procedural Schedule, issued on June 9, 2008, in Docket No. E-100, Sub 83. (The Commission issued a series of questions, some of which related to cross-subsidization under NEM programs.)

<sup>21</sup> Nonetheless, the Commission is encouraged by the Companies' commitment to continued evaluation of this issue in the non-residential class.

<sup>22</sup> The Commission has addressed the types of costs that are avoidable in setting avoided cost rates under PURPA in a number of recent biennial proceedings, including the most recent Order in Docket No. E-100, Sub 175. In short, costs are only avoidable where they are "known and verifiable." 2020 Sub 167 Order at 7, 33 (recognizing that "ratepayers should not bear speculative or uncertain costs that are not avoided through purchase of power from a QF through the avoided cost rates that they ultimately pay."); see also Order Setting Avoided Cost Input Parameters, Docket No. E-100, Sub 140 at 8 (Finding of Fact No. 14), 42-44 (Dec. 31, 2014). Likewise, the Federal Energy Regulatory Commission ("FERC") has held that only "real costs" that are actually avoidable by a utility and its customers when the utility purchases QF power are properly accounted for and included in a utility's avoided costs. See e.g., Cal. Pub. Utility Comm'n, 132 FERC ¶ 61,047, 61,267-68 (Jul. 15, 2010).

models in North Carolina, such as the NSPM-DER. Adopting such an approach undermine the significant efforts of the majority of the parties in this docket to align costs with benefits in a way that is consistent with Commission-approved practice in North Carolina.

As such, the Commission finds good cause to adopt the Companies' analysis of the potential for cross-subsidization in this docket, which is widely supported and based upon sound analytical precedent.

#### **XIV. EVIDENCE AND CONCLUSIONS FOR FINDINGS OF FACT NOS. 26-29**

The evidence in support of this finding of fact is found in the Joint Application, North Carolina statutes, prior Commission orders, and the comments submitted by parties in this docket, which include the Public Staff, the Companies, the NC WARN Parties, the 350 Parties, the EWG, SACE, CCL, Vote Solar, NCSEA, and SEIA.

##### **A. Summary of the Evidence.**

###### **i. Joint Application.**

The Companies' Joint Application explained that in requiring NEM reform in North Carolina, the North Carolina General Assembly mandated that such reform should ensure that NEM customers pay their "full fixed cost of service." Joint Application at 6. The Companies noted that NEM programs are susceptible to under-recovery given the unique usage profile of these customers (as described in greater detail above). Joint Application at 9. The Companies cited a long history of Commission interest in this topic, which included orders issued as far back as 2005 addressing the issue of under-recovery from these customers, which results in the potential cross-subsidization discussed above. Joint Application at 4-5. The Companies explained that they leveraged the results of the Rate Design Study to mitigate the potential for cross-subsidization under the Existing NEM Programs—thereby ensuring the customers pay their full fixed cost of service pursuant to

H.B. 589. Joint Application at 10. The Companies explained that innovative rate structures are required to ensure NEM customers pay their full fixed cost of service because—unlike simplistic volumetric rates—these rate structures better align costs and benefits of serving these customers. Joint Application at 9-10. As a result, the Companies stated that customers under the NEM Tariffs would pay rates that accurately account for the Companies’ cost to serve those customers, thereby mitigating the potential of under-recovery and corresponding cross-subsidization arising therefrom. Joint Application at 13.

The Companies explained that these issues have been addressed in several other jurisdictions already, and that the Companies analyzed best practices from those jurisdictions to determine whether they could be utilized to address the mandates within H.B. 589. Joint Application at 10. The Companies stated that jurisdictions such as “Arizona, California, Georgia, Hawaii, Indiana, Louisiana, Massachusetts, Nevada, New Hampshire, New York, and Utah have implemented innovative rate structures to align the costs and benefits of serving NEM customers in a manner similar to what is required by H.B. 589. *Id.* The Companies explained that the survey of those jurisdictions, along with the detailed NEM-related findings from the Rate Design Study, culminated in the rate structure in the NEM Tariffs. *Id.* The Joint Application included a detailed explanation of each rate-making tool included in the NEM Tariffs. Joint Application at 13-17.

### **1. Monthly Minimum Bill.**

The Companies explained that the MMB plays a critical role in fulfilling the mandates within H.B. 589 by ensuring “recovery of costs related to the distribution system—costs that are largely fixed.” Joint Application at 13. The Companies stated that this fixed monthly charge more accurately aligns costs with benefits of serving these

customers because distribution costs are allocated “per customers or vary based on the demand-related costs to serve rather than energy usage per customer.” *Id.* The Companies explained that the MMB ensures that these costs are properly recovered from customers creating such costs. Joint Application at 14. The Companies proposed an MMB of \$22 for DEC and \$28 for DEP. *Id.* Importantly, these amounts were derived from the Companies’ recent compliance Cost of Service Studies. *Id.* The Companies explained that these amounts can be satisfied through other charges on the customer’s bill as well, such as basic customer charges, certain volumetric charges, and certain riders. *Id.* Taken together, the Companies stated that these aspects of the MMB align costs to serve these customers in accordance with H.B. 589 by “recovering the maximum fixed costs to serve a customer. . . regardless of their usage.” *Id.*

## **2. Monthly Grid Access Fee**

The Companies explained that the GAF helps mitigate this risk by discouraging oversizing and encouraging participants to install systems designed to meet their needs. Joint Application at 15. The GAF also ensures recovery of distribution demand costs, all in accordance with H.B. 589’s mandate. *Id.* The Companies explained that the NEM Tariffs also incorporate a monthly GAF for solar facilities with a capacity greater than 15 kW-dc. Joint Application at 14. According to the Joint Application, the initial GAF will be applied as follows for all capacity in excess of 15 kW-dc:

- DEC GAF: \$2.05/kW - dc/month
- DEP GAF: \$1.50/kW - dc/month

Joint Application at 15.

The Companies claimed that the GAF is an important tool to align costs and benefits under

H.B. 589 because customers with large system sizes represent the greatest potential for under-recovery. *Id.*

### 3. Non-Bypassable Charges

The Companies stated that a non-bypassable charge was included in the NEM Tariffs because they are designed to recover all costs related to DSM/EE, storm cost recovery, and cyber security. Joint Application at 15. Non-bypassable charges have been successfully deployed in other jurisdictions to align costs to serve with customer rates. *Id.* Non-bypassable cost recovery will be a monthly charge per kW-dc of the customer-generator's system capacity.<sup>23</sup> The Companies explained that without these charges, program expenses and non-energy linked costs would be avoided by NEM customers and ultimately collected inappropriately from non-solar customers. *Id.*

### 4. Netting and Exports

The Companies noted that although the NEM Tariffs include innovative rate structures to fulfill the reform mandated within H.B. 589, certain core NEM principles will remain. *Id.* The Companies noted that these core principles include allowing customers under the NEM Tariffs to generate power which can be consumed by such customer (and thereby reduce energy imports from the Companies) or exporting excess energy to the grid which will be netted against the customer's energy usage. *Id.* Although those core principles (self-consumption, exporting and netting) would remain available to customers under the NEM Tariffs, the Companies explained that certain modifications are required to fulfill the mandates within H.B. 589. Joint Application at 16.

The Companies stated that under the NEM Tariffs, customers would be able to net

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<sup>23</sup> The Joint Application noted that this rate is derived from estimating the total kWh bypassed per kW-dc of solar.

exported energy against imports made by the utility over the month within each TOU pricing period, with any net imports billed at the rate in effect for that pricing period. *Id.* The Companies explained that at the end of the month, the Companies would credit the customer for any net monthly exports at an annualized rate (weighted average rate for all hours assuming a fixed block of energy) for avoided energy cost, as specified by the per kWh rates at the Companies' Commission-approved avoided cost rates.<sup>24</sup> *Id.*

Additionally, the Companies stated that the rates paid to a customer for exported power must be updated to better align costs with benefits under H.B. 589. *Id.* Specifically, the Companies explained that NEM customers would be paid for exported power at the Commission-approved rates that the Companies pay to utility-scale QFs under PURPA. *Id.* The Companies stated that, although these avoided cost rates are currently paid to utility-scale QFs, they are appropriate in the NEM context as well given that these NEM customers are deemed QFs under PURPA and deliver solar produced energy to the grid just as the utility-scale projects. *Id.* The Companies noted that by utilizing these rates for solar exports, the NEM Tariffs accurately capture the benefits provided to the power system by this customer-generation (solar) and aligns the costs and benefits of serving these customers in accordance with H.B. 589 and reflect the findings of the Rate Design Study. *Id.*

## 5. TOU/CPP Rates

The Companies noted that to achieve the cost to serve requirements of H.B. 589, customers enrolled in the NEM Tariffs would also be served under the existing, Commission-approved TOU-CPP Tariffs. Joint Application at 17. The Companies noted

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<sup>24</sup> The Companies' Commission-approved avoided cost rates are defined in DEC Purchased Power Schedule PP and DEP Purchased Power Schedule PP.

that these rates are important to fulfilling H.B. 589’s requirements because they incentivize load to be shifted to low-cost times when the Companies’ cost of service is lower because the TOU customer’s price of electricity is also lower during that time. *Id.*<sup>25</sup> Together, the Companies claimed that these approved TOU-CPP rates, when paired with the innovative rate structures that are the subject of this proceeding, ensure rates paid by customers are more reflective of costs and will play a key role in reducing the potential for cross-subsidization. *Id.*

**ii. Initial Comments.**

In the parties’ initial comments to the Joint Application, NCSEA, SACE, and Vote Solar noted their support for the Companies’ proposed rate structures under the NEM Tariffs. *See generally* Joint Initial Comments of NCSEA and SACE et al. Among other things, these parties stated that the “requirement that Solar Choice customers take service under a TOU-CPP rate schedule can provide significant benefits for both customer-generators and the grid.” Joint Initial Comments of NCSEA et al. at 10. Specifically, these parties explained that the “sharply-differentiated TOU-CPP rates will also provide savings for customer-generators who incorporate on-site storage to use excess solar output to reduce on-peak usage, savings that are not available to a customer-generator on a flat rate schedule.” Joint Initial Comments of NCSEA et al. at 10-11. NCSEA, SACE, and Vote Solar noted that the NEM Tariffs also include components such as the “MMB that will encourage ‘right-sizing’ of solar systems and discourage ‘over-building.’” Joint Initial Comments of NCSEA et al. at 12. NCSEA, SACE, and Vote Solar explained that the GAF will play an important role as well by recovering “additional revenue from the largest

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<sup>25</sup> The Companies explained that peak and CPP prices similarly ensure proper cost recovery for higher cost peak periods by sending proper price signals to customers.



residential customers ‘who may have the roof space, available land, or financial means to install very large systems.’” *Id.* Finally, these parties stated that the MMB and non-bypassable riders “ensure that solar customers contribute a certain amount each month.” *Id.*

SEIA re-iterated similar support in its initial comments, explaining that the rate structure of the NEM Tariffs does “introduce new rate components . . . [but] retains monthly netting and avoids draconian fixed charge increases.” SEIA Initial Comments at 2. SEIA noted that the NEM Tariffs strike a balance and “retains some aspects of successful net metering policies, such as easy-to-understand netting periods, while trading for more complex rate components.” *Id.* Specifically, SEIA explained that the MMB is “a guard rail and does not guarantee revenue.” *Id.* As such, SEIA noted that the MMB “does not dampen the price signal in volumetric rates; the price signal that supports customer decisions to install solar and/or engage in energy efficiency.” *Id.* SEIA also explained that it is critical for the Commission to also approve the Smart Saver Program to achieve increased benefits related to the NEM Tariffs. *Id.*

As for the Public Staff, it explained that the NEM Tariffs “appear to offer straightforward reform of the structure of the NEM program that comply with the requirements of HB 589 and HB 951 and should reduce the cross-subsidization of NEM customers by non-NEM ratepayers.” Public Staff Initial Comments at 14. The Public Staff noted that the “primary purpose” of the NEM Tariff is to “reduce the cross-subsidy borne by non-NEM customers, which the proposed modifications . . . largely achieve.” Public Staff Initial Comments at 25. The Public Staff explained that “it is impossible to absolutely eliminate any cross-subsidy,” but that the NEM Tariffs reduce the existing cross-subsidy

“within an appropriate band of reasonableness.” Public Staff Initial Comments at 27. The Public Staff also noted that quantifying the “full fixed cost of service is often a highly debated topic within general rate proceedings,” and even in this proceeding, certain intervenors have “asserted that the utilities have little to no fixed cost to service customers.” Public Staff Initial Comments at 28. However, the Public Staff explained that these costs “do exist, particularly costs that are related to the demand and customer functions of utility service.” *Id.* However, the Public Staff also made certain limited recommendations with respect to the rate structures utilized by the Companies, including that exports during the CPP periods should be netted within the CPP period rather than netted against imports within the on-peak period. Public Staff Initial Comments at 33. The Public Staff explained that it “views exports during a CPP period to be more valuable than exports during non-CPP on-peak periods.” Public Staff Initial Comments at 34. The Public Staff also recommended that the Companies modify the export credit paid to customers to (i) reflect a solar generation profile, (ii) differentiated between seasons (rather than an annualized rate), and (iii) reflect a 5-year avoided cost rate (rather than 2-year). *Id.* However, the Public Staff noted that these modifications are outside the scope of this docket, and are more appropriately addressed in the Companies’ biennial avoided cost proceeding. Public Staff Initial Comments at 34-35. Finally, with respect to the NEM Tariffs, the Public Staff claimed utility ownership of RECs associated with NEM generation has historically been a tool designed to “mitigate the cost shift from NEM customers to non-NEM customers.” Public Staff Initial Comments at 36. The Public Staff explained that although the Companies propose to retain ownership of these RECs, the NEM Tariffs “essentially eliminate the embedded cost shift and reduce the marginal cost shift.” *Id.* As such, the

Public Staff recommended an “opt-out” process that would provide an avenue for customer ownership of RECs if such customer desired to do so. Public Staff Initial Comments at 37.

NCEMC submitted initial comments in support of the NEM Tariffs’ rate structure as well, noting that the NEM Tariffs “include several components that work together to minimize the risk of cross-subsidization,” including the MMB, TOU-CPP rates, non-bypassable, and netting and exporting mechanisms. NCEMC Initial Comments at 5. NCEMC voiced its support for the NEM Tariffs, noting that NCEMC “generally agrees with Duke that a combination of these approaches can provide a framework to more appropriately capture the benefits provided to the power system . . . and provides tools and flexibility to better align the cost and benefits of serving these customers.” NCEMC Initial Comments at 6. Taken together, NCEMC explained that aligning costs with benefits in this way is critical to ensure that “costs [the Companies incur] are properly allocated to customers consistent with cost causation principles in order to continue to provide safe, reliable, and affordable electric service.” NCEMC Initial Comments at 7.

The NC WARN Parties and EWG voiced general opposition to the rate structure within the NEM Tariffs. The NC WARN Parties noted that the NEM Tariffs “impose extravagant Minimum Monthly Bills upon NEM customers.” NC WARN Initial Comments at 2. Additionally, the NC WARN Parties argued that the Companies’ TOU-CPP rates are based upon “where the summer peak might be in 2026” and that the Companies have “not provided any evidentiary basis for this projected shift in summer peak.” NC WARN Initial Comments at 4. With respect to the MMB, the NC WARN Parties claimed that the amount of the MMB proposed by the Companies is “unnecessarily extravagant and should therefore be treated with great skepticism.” NC WARN Initial

Comments at 25. The NC WARN Parties cautioned that although the Companies claim there are offsets to the MMB, these offsets are “largely illusory.” NC WARN Initial Comments at 26. With respect to the TOU-CPP rates, the NC WARN Parties argued that “the proposed TOU windows are extremely disadvantageous to solar customers, who would be forced to pay the highest rate for power exactly when their solar systems stop generating power” because of the placement of on-peak windows. NC WARN Initial Comments at 33. Likewise, the EWG went on to state that the NEM Tariffs are in “clear violation of the law” because they discriminate against residential customers and solar generating customers by proposing rate structures that impose unreasonably high rates on these customers. EWG Initial Comments at 7.

Finally, Donald E. Oulman submitted initial comments, stating that the TOU-CPP rates have a “disproportionate impact” on NEM customers. Initial Comments of Donald E. Oulman (“Oulman Initial Comments”) at 3. Intervenor Oulman claimed that the “reason for this reduction in financial return is that the proposed NEM rate structure primarily amounts to month-to-month net metering vs annual net metering.” *Id.* Intervenor Oulman further argued that, according to their analysis, the on-peak windows proposed by the Companies “did not line up with the actual peak energy demand.” Oulman Initial Comments at 4. As such, Intervenor Oulman ultimately recommended that the Commission reject the NEM Tariffs. Oulman Initial Comments at 6.

### **iii. Reply Comments.**

In reply, the Companies explained that H.B. 589 mandated that the Companies achieve certain goals with the NEM Tariffs, and that these innovative rate structures are required to achieve those goals. Duke Reply Comments at 17. Specifically, with respect to the TOU-CPP rate schedules, the Companies noted that these schedules are (i) the product

of significant stakeholder engagement, (ii) currently active in both of the Companies' service territories, (iii) the result of a separate docketed proceeding before the Commission that was complete with intervention and comment. *Id.* As such, the Companies stated that interested parties had significant time and opportunity to provide comment and input on these rates. *Id.* In response to comments in opposition to the peak periods in the rates, the Companies explained that the rates do accurately reflect peak and off-peak periods, and these periods were developed "by examining the Companies' historic marginal energy costs, loss-of-load expectations from the latest Resource Adequacy Studies, load research forecasts, and solar production forecasts." Duke Reply Comments at 18. The Companies noted that the TOU-CPP requirement is critical to "improving the cost causation of NEM programs and policies" because it the costs to serve customers varies seasonally and even hourly, which means these rates are able to adjust in a similar manner and reflect those variations—whether through increased or decreased rates. Duke Reply Comments at 18. Furthermore, the Companies agreed to implement the Public Staff's recommendation by modifying the NEM Tariffs in a way that permits customers to "allow exports during critical peak periods to offset imports within that same critical peak period." Duke Reply Comments at 19.<sup>26</sup>

With respect to the MMB, the Companies explained that the amounts of the MMB reflect "the compliance customers unit costs under the Companies' most recent compliance cost-of-service studies and were derived in accordance with Commission-approved methodologies." Duke Reply Comments at 21. Contrary to the arguments advanced by certain intervenors in this docket, the Companies stated that the MMB is not punitive and,

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<sup>26</sup> NCSEA, SACE, and Vote Solar submitted reply comments in support of this modification as well.

in fact, only represents the “minimum cost to serve these NEM customers—a requirement of H.B. 589.” *Id.* Although the NC WARN Parties characterized the potential offsets to the MMB as “illusory,” the Companies noted that, in reality, the MMB would only “increase the average NEM bill by roughly \$1 per month in DEC and \$3 per month in DEP.” *Id.* The Companies also proposed to accept several other of the Public Staff’s recommendation with respect to the net export energy credit, including basing the credit on a 5-year term with energy and capacity credits based upon a rooftop solar production profile. Duke Reply Comments at 24. The Companies noted that these modifications will help ensure that these rates “accurately reflect the average value of energy and capacity from NEM customers over time-of-use periods and across months.” *Id.* Finally, the Companies acknowledged that the rate mechanisms required by H.B. 589 require the Companies to utilize more complex rate design tools. Duke Reply Comments at 23. Therefore, to assist customers in understanding the rate impacts of the NEM Tariffs, the Companies committed to developing a bill calculator that would model these rate structures such that customers can more easily understand anticipated rate impacts of moving to the NEM Tariffs. *Id.*

The NC WARN Parties submitted comments that argued the complexity of the rate structures within the NEM Tariffs “adds magnitudes of complication” to the NEM Tariffs such that it is difficult to estimate “actual solar benefits.” NC WARN Reply Comments at 23. The NC WARN Parties acknowledged that NEM customer-generators are QFs under PURPA, and argued that the rate structure discriminates against both residential and solar customers, which means that the NEM Tariffs would violate federal law applicable to these QFs under PURPA. NC WARN Reply Comments at 25. As such, the NC WARN Parties argued that “the provisions of PURPA provide yet more basis for the Commission to reject

the Companies' proposed NEM tariffs." NC WARN Reply Comments at 26.

The EWG similarly attacked the rate structure of the NEM Tariffs, claiming that because NEM customers are likely subsidizing non-NEM customers under Existing NEM Programs, the addition of fixed charges such as the MMB and GAF is discriminatory and results in double recovery from these customers. EWG Reply Comments at 18. With respect to the Public Staff's support of the rate structure, the EWG claimed that the structure should "raise alarm bells for Public Staff, not sympathy and complicity." EWG Reply Comments at 13. The EWG went on to argue that the NEM Tariffs violate PURPA in numerous ways. EWG Reply Comments at 21. With respect to the rate structure within the NEM Tariffs, the 350 Parties submitted Reply Comments that supported certain "positions and assertion by the initial comments of other intervenors." Among other items, these positions and assertions included a characterization of the NEM Tariffs as which included a general characterization of the rate structure within the NEM Tariff as "overly complex" and "unfair." 350 Parties Reply Comments at 12.

#### **iv. Responsive Comments.**

In responsive comments, NCSEA, SACE, and Vote Solar noted that they "particularly support the exemption from the minimum monthly bill requirement for low-income and vulnerable households." Joint Responsive Comments of NCSEA and SACE et al. at 2. The NC WARN Parties and EWG largely focused on the Companies' investigation of costs and benefits in their Responsive Comments, but also re-iterated the arguments made in prior comments regarding the rate structure of the NEM Tariffs. *See generally* NC WARN Surreply Comments; EWG Surreply Comments.

### **B. Discussion and Conclusions**

The record reveals that the NEM Tariffs utilize innovative rate structures—each representing industry best-practices—to fulfill H.B. 589’s requirement that each NEM customer pay its “full fixed cost of service.” Initially, it is clear that the Companies conducted an “investigation of the costs and benefits of customer-sited generation” in the Rate Design Study.<sup>27</sup> The Companies then utilized the results of that investigation as the foundation for developing the proposed rate structures, which create alignment of costs and benefits by addressing the primary drivers of the potential for cross-subsidization—volumetric rates and export rates. Additionally, these rate structures are generally supported in this docket by several parties, including parties to the MOU, parties to the Bridge Rate Stipulation, Public Staff, and NCEMC. Finally, and importantly, H.B. 589 expressly authorized the use of “fixed monthly energy and demand charges” to achieve the goals set forth therein, which the Companies’ have utilized in the NEM Tariffs. These rate mechanisms are addressed individually as follows:

**i. Monthly Minimum Bill.**

The Monthly Minimum Bill seeks to recover distribution costs that are typically fixed and not dependent upon energy usage. The MMB provides symmetry in this manner because, unlike with volumetric rates, customers cannot avoid fixed costs attributable to them simply by consuming less energy. In this way, the MMB contributes toward H.B. 589’s requirement that each customer pay its “full fixed cost of service.” Although certain parties, such as the NC WARN Parties, dispute the amount of the MMB, the record indicates that the MMB was developed utilizing sound ratemaking principles that have

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<sup>27</sup> As discussed above, although the Commission finds that it satisfied the investigation requirement of H.B. 589 through developing the robust record in this docket, the Companies’ investigation could have independently satisfied that requirement as well.



been incorporated in many, if not all, of the Companies' other rate structures. Specifically, the MMB was developed utilizing the Companies' most recent cost-of-service studies, and the Commission notes that the MMB is only designed to recover certain minimum costs to serve that were revealed utilizing those cost of service studies. Additionally, it is important to note that the MMB is not simply a punitive measure—rather, the customer may be able to offset the MMB to the extent it contributes to the Companies' costs to serve through other avenues, such as riders, other non-bypassables, and excess net exports. This flexibility is key to not only ensuring alignment of costs and benefits, but also that the Companies do not double-recover from these customers—a concern voiced by certain intervenors in this docket, but alleviated by the eligible offsets to the MMB. Although certain intervenors claimed that these offsets are “illusory,” the Companies provided specific examples of the ways in which these offsets would work, and, in fact, they will work to the customer's benefit. In this way, the MMB is flexible enough to ensure that the rates paid by customers accurately reflect the costs to serve the same.<sup>28</sup>

## **ii. Monthly Grid Access Fee**

The record reveals that the GAF adds an important element to the NEM Tariffs because it is tied to system size—with only larger systems being required to pay the GAF. This is critical because the record reveals these larger systems have the greatest potential for creating cross-subsidy. For example, the larger the system, the more the customer can consume from its own system, thereby lowering its bill to a greater extent than smaller systems. Although the Companies' cost to serve these customers can remain largely the same, the shortfall in recovery from these customers is even greater than from those with

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<sup>28</sup> The Commission notes that in sum, the average bill would increase by roughly no more than \$3 for DEP and no more than \$1 for DEC.

smaller systems. As such, these customers disproportionately contribute to the potential for cross-subsidization. The GAF mitigates that risk by ensuring that these larger system sizes contribute to the Companies' recovery under the NEM Tariffs on par with smaller system sizes when accounting for this increased consumption. Although certain intervenors claim that the GAF and MMB are duplicative, as discussed above, there are certain offsets to the MMB that alleviate that risk. The GAF is clearly designed to close the recovery gap for only these larger customers that create additional concerns due to increased consumption.

Additionally, fixed charges such as the GAF are expressly contemplated by H.B. 589, have been utilized with success in other jurisdictions, and enjoy broad support in this docket. Therefore, the GAF plays an important role in achieving the reform mandates within H.B. 589.

### **iii. Non-Bypassable Charges**

Similarly to the GAF, the non-bypassable charges within the NEM Tariffs are tied to a customer's system size, which provides flexibility under the NEM Tariffs and more accurately aligns costs with benefits. The record reveals that these non-bypassables seek to recover costs related to DSM/EE, storm costs, and cybersecurity that are properly attributable to these customers, but are not otherwise accounted for in the NEM Tariff rate structure. Importantly, the non-bypassable charges on a customer's bill will offset the MMB to some extent, illustrating how these rate structures work in concert to ensure costs and benefits are accurately aligned under the NEM Tariffs.

### **iv. Netting and Exports**

The rate structures mentioned above primarily seek to mitigate the risk of under recovery due to volumetric rates—a risk that was revealed through the Companies' Rate Design Study. However, the second primary risk arises from the misalignment of the export

value paid to customers. Customers under the NEM Tariffs maintain the ability to consume self-generated power and export any excess generation to the Companies' grid for compensation. However, H.B. 589's "full fixed cost of service" mandate required modifications to the Existing NEM Programs to ensure that these aspects of the programs do not contribute to the potential for cross-subsidization through the misalignment of costs and benefits. As such, the NEM Tariffs permit customers to net exported energy against imports made by the utility within each TOU and CPP pricing period, with any net imports billed at the rate in effect for that period.<sup>29</sup> This modification provides symmetry by ensuring that values reflect the actual values to the Companies' system at the time such import or export is made, further aligning costs with benefits under H.B. 589.

The NEM Tariffs also propose to compensate customers for exported solar power (as well as any net monthly exports) at the Commission-approved rates paid to utility-scale QF solar generators. This proposal is well-supported by the record. These rates are the product of separate docketed proceedings before the Commission in which the Commission considered the value of solar generation to the Companies' grid. Those proceedings resulted in Commission-approved avoided cost rates that are defined in DEC Purchased Power Schedule PP and DEP Purchased Power Schedule PP. Here, the Commission is tasked with evaluating the same question—what is the value of solar generation put to the Companies' grid by QF solar generators? To be clear, these rooftop generators are QFs under PURPA and therefore, the Commission finds good cause for these QF NEM generators to be paid for their solar power on par with other QF solar generators on the Companies' system. In the context of H.B. 589, these avoided cost rates will ensure that

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<sup>29</sup> As explained below, the Companies proposed to modify certain of these netting provisions to accommodate recommendations by the Public Staff.

the rates paid for this power accurately reflect the Commission-determined value of the power to the Companies' system—thereby aligning costs with benefits.

**v. TOU/CPP Rates**

The Companies further align costs with benefits by pairing the NEM Tariffs with existing, Commission-approved TOU/CPP rate schedules. These TOU/CPP rates vary daily and seasonally to reflect the value of power to the Companies' system during those time periods. This rate structure provides flexibility to maneuver and align costs with benefits under the NEM Tariffs as the same change over a given time period. Although certain intervenors voiced opposition to the specific values and timeframes within the TOU/CPP Tariffs, the record reveals that these TOU/CPP Tariffs are existing, Commission-approved tariffs that are the product of separate dockets. Importantly, these rates are currently in service in both of the Companies' service territories. In this manner, the TOU/CPP Tariffs are similar to the Companies' existing avoided cost rates, which are also incorporated into the NEM Tariffs, but not subject to negotiation in this proceeding. As such, the only matter before the Commission is whether these existing TOU/CPP Tariffs are appropriately incorporated into the NEM Tariffs—not whether those TOU/CPP Tariffs should be modified. For the reasons set forth above, incorporation of the existing TOU/CPP Tariffs ensures that rates reflect the costs and benefits to the Companies' systems at any given time, which further aligns benefits in furtherance of the goals within H.B. 589. As such, these rates are appropriately incorporated into the NEM Tariffs.

**vi. Rate Structure Overall**

Taken together, the rate structures within the NEM Tariffs appropriately align costs with benefits to ensure that customers pay their “full fixed cost of service,” while mitigating the potential for cross-subsidization. These rate structures utilize several existing,

Commission-approved rate structures and methodologies. Certain of these rate structures are specifically envisioned by H.B. 589 and have been utilized across multiple jurisdictions to align costs with benefits. However, as acknowledged by the Public Staff, it is likely impossible to eliminate all potential for cross-subsidization. As such, the Commission deems it is appropriate for the Companies to maintain the RECs generated by these NEM customers to offset whatever potential for cross-subsidization remains. Although these rates are only applicable to residential customers, the record reveals that this class has the highest potential to contribute toward the cross-subsidization against which H.B. 589 cautions. Moreover, the values of these rates are based upon the Companies' most recent compliance cost-of-service study—a well-settled principle of rate-making in North Carolina. As such, intervenor characterizations of these NEM Tariffs as discriminatory and in violation of the law are simply incorrect.

As such, the Commission deems the rates within the NEM Tariffs as just, reasonable, and in compliance with H.B. 589.

## **XV. EVIDENCE AND CONCLUSIONS FOR FINDINGS OF FACT NOS. 30-31**

The evidence in support of this finding of fact is found in the Joint Application, North Carolina statutes, prior Commission orders, and the comments submitted by parties in this docket, which include the Public Staff, the Companies, the NC WARN Parties, the 350 Parties, the EWG, SACE, CCL, Vote Solar, NCSEA, and SEIA.

### **A. Summary of the Evidence.**

#### **i. Joint Application.**

The Companies' Joint Application explained that the Companies submitted the NEM Tariffs pursuant to G.S. § 62-126.4(b), which states, in part, that the Commission

must ensure that each NEM customer “pays its full fixed cost of service . . . under all tariff designs” Joint Application at 6.

**ii. Initial Comments.**

In response to the Joint Application, several parties voiced support for the NEM Tariff designs advanced by the Companies, while a few intervenors argued that the tariff designs violated H.B. 589 given that no flat rate tariff was proposed. *See, e.g.*, Public Staff Initial Comments, NC WARN Initial Comments.

Specifically, the NC WARN Parties argued that the phrase “under all tariff designs” set forth in H.B. 589 requires the Companies to include an NEM option for “flat-rate” tariffs in their NEM proposal. NC WARN Initial Comments at 2. The NC WARN parties claimed that H.B. 589 required the Commission to “establish net metering rates under all tariff designs,” which implies that the Companies must propose a variety of tariff designs, including an option for existing flat-rate tariffs. NC WARN Initial Comments at 9. The NC WARN Parties claim that the NEM Tariffs are “not only inequitable and unfair, [they] also violate[] House Bill 589.” *Id.* The EWG advanced a similar argument as the NC WARN Parties, noting that the NEM Tariffs are in violation of H.B. 589 because they do not permit customers to choose a “flat rate” tariff similar to what is available under the Existing NEM Programs. EWG Initial Comments at 6.

**iii. Reply Comments.**

In their reply comments, the Companies responded that nothing in H.B. 589 requires that they propose a “flat rate” NEM Tariff option. Duke Reply Comments at 36. The Companies stated that when read in context, the reference to “all tariff designs” ensures that each approved tariff requires each NEM customer pay for the “full fixed cost of service”—however, this language does not require that the Commission approve all

possible types of tariffs. *Id.* The Companies explained that the primary goal of H.B. 589 was to reduce the cross-subsidy by ensuring that each NEM Customer “pays its full fixed cost of service.” *Id.* The Companies explained that the current “flat-rate” regime created the circumstances in which current NEM Customers are not paying their full fixed cost of service. Duke Reply Comments at 35. The Companies noted that the NC WARN Parties’ interpretation would require the Commission to approve an NEM option for existing flat rate tariffs, which would conflict with the express goals of H.B. 589 by contributing to the potential of cross-subsidization. Duke Reply Comments at 35-36. The Companies further explained that if H.B. 589 intended to mandate a specific tariff option, such as an option to pair with a flat-rate tariff, then it could have done so. Duke Reply Comments at 36.

The Public Staff explained that it “agrees with Duke that the statute’s intent is to ensure that net metering customers pay at least their full fixed cost of service and not that there should be a net metering option under all rate designs.” Letter in Lieu of Reply Comments (“Public Staff Letter”) at 2. As such, the Public Staff requested that the Commission reject the NC WARN Parties’ interpretation “and find that Duke has met its statutory requirement.” *Id.*

On the other hand, the 350 Parties and the EWG advanced the NC WARN Parties position with respect to the flat rate tariff design, arguing that the Companies’ failure to offer a flat rate tariff means that the NEM Tariffs violate H.B. 589. *See generally* 350 Parties Reply Comments; EWG Reply Comments.

#### **iv. Responsive Comments.**

The NC WARN Parties reiterated their position in responsive comments, arguing that because residential customers “are now served under a flat-rate tariff, the Companies are statutorily mandated to provide a NEM option for that tariff.” NC WARN Surreply

Comments at 9. The NC WARN Parties further alleged that the Commission is required by H.B. 589 to establish NEM tariffs for “all tariff designs” and that the Companies argument to the contrary is “erroneous as a matter of law.” NC WARN Surreply Comments at 10. The NC WARN Parties argue that various principles of statutory construction require the statute to be read in context, and, when that occurs, H.B. 589 clearly requires that the Commission approve “all tariff designs.” NC WARN Surreply Comments at 10-11.

### **B. Discussion and Conclusions**

The record reveals that G.S. § 62-126.4(b) does not require the Commission to approve “all tariff designs.” This language must be viewed in context with one of the primary NEM-related directives in H.B. 589:

The Commission shall establish net metering rates under all tariff designs that **ensure that the net metering retail customer pays its full fixed cost of service.**

G.S. § 62-126.4(b). (emphasis added).

There is no evidence, in the statute or in the record in this docket, that the Commission is required to approve a tariff for each “tariff design.” Rather, the Commission is persuaded by the plain language and express goal of H.B. 589. Specifically, if the General Assembly intended for the Commission to develop an NEM option for all tariff designs, including flat-rate tariffs, it would have specifically required such. Instead, the operative requirement expressly advanced by the General Assembly is to ensure that NEM customers pay their “full fixed cost of service.” Through that lens, the Commission is satisfied that it is under no requirement to approve an NEM option under “all tariff designs”—particularly given that the current flat-rate options have the potential to contribute to cross-subsidization in violation of H.B. 589. Rather, it only must ensure that all tariff designs it does approve



requires each NEM customer to pay its full fixed cost of service, thereby advancing the primary goals of H.B. 589.

## **XVI. EVIDENCE AND CONCLUSIONS FOR FINDINGS OF FACT NOS. 32-35**

The evidence in support of this finding of fact is found in the Joint Application, North Carolina statutes, prior Commission orders, and the comments submitted by parties in this docket, which include the Public Staff, the Companies, the NC WARN Parties, the 350 Parties, the EWG, SACE, CCL, Vote Solar, NCSEA, and SEIA.

### **A. Summary of the Evidence**

#### **i. Joint Application.**

In the Joint Application, the Companies stated that the proposed NEM Tariffs will offer a path for “continued growth of customer-sited, carbon-free power generation, and the innovative rate structure and refreshed TOU periods within the tariffs will permit this program to be utilized with future DSM and EE programs to further reduce carbon emissions.” Joint Application at 7.

Additionally, the Companies explained that the proposed NEM Tariffs are designed to work in conjunction with the Companies’ TOU-CPP Tariffs that have been approved by the Commission in a separate docket and other incentive programs provided by the Companies. Joint Application at 13. Specifically, the Companies stated that the TOU-CPP Tariffs would provide price signals to customers such that customers can manage electricity usage and consume at times when the “TOU customer’s price of electricity is lower.” Joint Application at 17. In this way, the NEM Tariffs would create savings for customers and ease the transition required by the NEM reform mandates within H.B. 589. Joint Application at 9. As stated above, the Companies explained that TOU rates

“incentivize load to be shifted to low-cost times” and CPP prices “ensure proper cost recovery for higher cost peak periods by sending proper price signals to customers.” Joint Application at 17. The Companies stated that pairing of TOU-CPP Tariffs with the proposed NEM rate and tariff mechanisms would result in more cost-reflective rates and would play a key role in reducing potential cost shifts. *Id.*

**ii. Initial Comments.**

In the initial comments, the Public Staff stated that based on its review of consumer statements there appeared to be “some misconceptions as to the cross-subsidy issue being addressed or the impact of the modifications on the economics of net metering.” Public Staff Initial Comments at 25. The Public Staff further acknowledged that the Companies’ “proposal will not do away with or prohibit net metering” but appears to “offer straightforward reform of the structure of the NEM program” in accordance with H.B. 589 and H.B. 951. *Id.*

NCEMC generally supported the Companies’ assertion regarding the TOU-CPP Tariffs role in reducing potential cost shifts and noted that appropriately designed TOU and CPP rates can “provide price signals [to customers] considering investing in [behind-the-meter] generation.” NCEMC Initial Comments at 6.

In response to the Joint Application, NCSEA, SACE, and Vote Solar noted that in addition to the TOU-CPP Tariffs, the Smart Saver Solar Program could provide potential for additional bill savings for solar customers. Joint Initial Comments of NCSEA and SACE et al. at 9. Specifically, the parties stated that Smart Saver Solar, when combined with the TOU-CPP Tariffs, would mitigate the impact of any reduced bill savings as a result of the NEM reforms required by H.B. 589. Joint Initial Comments of NCSEA and

SACE et al. at 9. Lastly, Thomas Beach and Patrick McGuire of Crossborder Energy noted  
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in their report, “the bill savings from solar adoption are similar to those available under existing NEM, but only if the Smart Saver Solar incentive is included.” Joint Initial Comments of NCSEA and SACE et al. at 10.

On the other hand, the NC WARN Parties claimed that the Companies proposed NEM Tariffs will reduce the savings from rooftop solar by approximately 30%, thereby discouraging customers from installing rooftop solar. NC WARN Initial Comments at 22. The EWG argued that the NEM Tariffs are “confiscatory” and would discourage investment in solar in North Carolina. EWG Initial Comments at 14.

**iii. Reply Comments.**

In the Companies’ reply comments, the Companies explained that “these reforms are necessary to align with H.B. 589, while coming up with solutions that permit expansion and integration of [solar] resources in a way that drives value for all customers.” Duke Reply Comments at 33. The Companies stated that the proposed NEM Tariffs were developed “to be a platform from which to encourage adoption of emerging technologies that would drive increased savings for NEM customers.” *Id.* While smart thermostats would be the main complementary technology to be bundled with rooftop solar under the NEM Tariffs, the Companies noted that the NEM Tariffs provide opportunities for DERs and other technology to be bundled in a similar manner, such as customer-sited energy storage. Duke Reply Comments at 33-34. Specifically, the Companies explained that “customer-sited energy storage...like electric vehicles, could be deployed...[to] reduce[] the amount of energy the customer consumes from the grid,” thereby creating savings for these customers and accelerating adoption of these technologies. Duke Reply Comments at 33.

measures to further realize cost savings. Duke Reply Comments at 30-31. The Companies explained that while the modeling shows that annual savings will be reduced by roughly 30% based on the proposed NEM Tariffs, this estimate does not account for the Companies' programs that provide incentives to eligible NEM customers. Duke Reply Comments at 30. The Companies re-iterated the savings available to customers through the TOU-CPP Tariffs for customers who take advantage of [the] pricing signals. Duke Reply Comments at 31. The Companies explained that TOU-CPP rates allow customers to consume power during "off-peak and discount time periods when electricity costs are lower" or alternatively, allow customers to export power during critical peak time periods when power is more valuable. *Id.* The Companies stated that this mechanism allows customers to respond to pricing signals, maximize savings, and also provide additional benefits to all retail customers. *Id.* Moreover, the Companies stated that the TOU-CPP Tariffs "may also encourage developers and customers to site and install solar in ways that maximize the value to the grid rather than aggregate solar production, creating additional benefits." *Id.*

In its reply comments, the Companies also explained Smart Saver Solar's importance to the NEM Tariffs. *Id.* The Companies stated that Smart Saver Solar "would significantly reduce the upfront costs of rooftop solar installations and improve the economic proposition of adding rooftop solar." *Id.* The Companies explained that customer must agree to participate in the Companies' Winter BYOT offering for a period of 25 years and allow third-party control over the BYOT to receive the Smart Saver Solar. Duke Reply Comments at 32. The Companies stated that the Winter BYOT programs drive benefits to all customers through this third-party control by shifting demand to reduce costs on the

system during peak times. *Id.*

The Companies further explained that Smart Saver Solar incentive may provide more value to customers than bill savings because it provides (1) an upfront incentive with low risk to the customer, (2) an upfront incentive at the time of installation, and (3) a marketing benefit of having a lower initial cost. *Id.*

In reply, the NC WARN Parties continued to argue that the required mandates of H.B. 589, as proposed in the Companies' NEM Tariffs, would decrease customer bill savings and disincentivize solar when compared to the Existing NEM Programs. NC WARN Reply Comments at 20-21. The EWG and 350 Parties similarly attacked the NEM Tariffs as disincentivizing solar in North Carolina due to the additional complex rate design tools incorporated into the NEM Tariffs. EWG Reply Comments at 17; 350 Parties Reply Comments at 2. Specifically, the 350 Parties noted that if the Smart Saver Solar Program is not adopted by the Commission, but the NEM Tariffs are approved, bill savings would "drop significantly." 350 Parties Reply Comments at 13.

#### **iv. Responsive Comments.**

In their responsive comments, NCSEA, SACE, and Vote Solar applauded the parties' commitments in the MOU and Bridge Rate Stipulation to develop certain additional incentives to pair with the NEM Tariffs that would create additional savings for NEM customers. Joint Responsive Comments of NCSEA and SACE et al. at 2. Specifically, NCSEA, SACE, and Vote Solar explained that exempting certain income-eligible households from the MMB is a "creative way to help make sure that the bill-savings benefits of rooftop solar will be available for lower-income households." *Id.* Additionally, these parties noted their support for the Companies' commitment to develop an incentive for gas-heated households that cannot participate in Smart Saver Solar, calling

it a “welcome addition to the innovative package of new solar proposals that are reflected in” the MOU and Bridge Rate Stipulation.” *Id.*

## **B. Discussion and Conclusions**

H.B. 589 requires NEM reform in North Carolina that better aligns costs with benefits. Additionally, although not expressly required by H.B. 589, the Commission recognizes the value created by the NEM Tariffs achieving this alignment while providing reasonable opportunities for NEM customers to achieve bill savings in a way that encourages adoption of solar in North Carolina. Specifically, the TOU/CPP Tariffs provide customers with pricing signals that are not present under the Existing NEM Programs. These pricing signals will permit customers to make informed decisions regarding power usage and provide them with an opportunity to achieve bill savings by consuming power during low-cost time periods. This pathway to savings was recognized by several parties in this docket, including the Public Staff, NCSEA, SACE, Vote Solar, and NCEMC. Additionally, the record reveals that the NEM Tariffs were designed in a way that permits customers to simultaneously take advantage of other incentives and technologies to increase potential bill savings. For example, although not the subject of this docket, the Smart Saver Solar Program would allow eligible customers to pair the NEM Tariffs with a long-term DR program (smart thermostats) in a way that creates additional benefits for these customers and the general body of customers. Additionally, certain other innovative technologies, such as customer-sited storage could be deployed in the future to create not only additional bill savings, but also system-wide benefits. From this perspective, the NEM Tariffs must be viewed not only as an H.B. 589 program, but also as a platform from which additional future benefits can be created for customers.

Certain intervenors attack the NEM Tariffs as dampening the market for solar in North Carolina because of the potential for decreased savings under the NEM Tariffs. However, the Companies' analysis—as well as the Public Staff's—indicate that this is not the case. Instead, there is a potential for bill savings that make the NEM Tariffs a viable option for customers going forward, while creating additional benefits to the Companies' systems.

## **XVII. EVIDENCE AND CONCLUSIONS FOR FINDINGS OF FACT NOS. 36**

The evidence in support of this finding of fact is found in the Joint Application, North Carolina statutes, prior Commission orders, and the comments submitted by parties in this docket, which include the Public Staff, the Companies, the NC WARN Parties, the 350 Parties, the EWG, SACE, CCL, Vote Solar, NCSEA, and SEIA.

### **A. Summary of the Evidence**

#### **i. Joint Application.**

In the Joint Application, the Companies noted that H.B. 589 envisions a transition to new rates for existing NEM customers on January 1, 2027. Joint Application at 17. The Companies explained that to avoid causing financial harm to legacy NEM customers, the Companies proposed an alternative NEM rate option for legacy NEM customers that would provide those customers a “glidepath to the NEM Tariffs, which reflects the ratemaking best practice of gradualism.” Joint Application at 18. The Companies proposed to provide existing customers with the following: (i) a monthly bill credit at avoided cost for net excess, (ii) a small non-bypassable charge, and (iii) a monthly minimum bill of \$10 more than the basic facilities charge. *Id.* The Companies stated that they would offer this option for 15 years from the effective date of the proposed NEM Tariffs, i.e., December 31, 2037.

*Id.*

**ii. Initial Comments.**

In response to the Joint Application, the Public Staff explained that “the proposed treatment of Legacy NEM customers strikes an appropriate balance between reducing the cost cross-subsidy and providing additional financial assurances to customers who made the investment to install solar PV at their homes.” Public Staff Initial Comments at 35. The Public Staff acknowledged that although the NEM Tariffs would “slightly increase the cost cross-subsidy . . . this compromise avoids causing significant financial harm to customers who made their investment decision before the revised NEM Tariffs were proposed.” *Id.*

NCSEA, SACE, and Vote Solar explained that bill savings for legacy NEM customers “are similar to those available under the existing NEM paradigm, but only if the Smart Saver Solar Program incentive is included.” Joint Initial Comments of NCSEA and SACE et al. at 10.

The NCSRI argued that the Companies’ proposal would unreasonably devalue solar in North Carolina when compared to current rates and harm existing customers by decreasing financial returns. Comments of Sundance Power Systems, Inc., Southern Energy Management, Inc., and Yes Solar Solutions (“NCRSI Initial Comments”) at 3. NCRSI claimed that the Companies’ proposed NEM Tariffs “will have a chilling effect on the rooftop solar industry” primarily due to “financial disadvantages of sizing a system closer to a home’s actual annual energy usage.” NCRSI Initial Comments at 3. NCRSI further claimed that the proposed NEM Tariffs would “reduce financial returns for homeowners who want a significant portion of their energy offset with rooftop solar” and that the proposed rate design would result in a “substantial reduction in the average size of new installations.” *Id.*

**iii. Reply Comments.**



In response to initial comments, the Companies explained that they engaged with the NCRSI to develop an alternative NEM option presented by the Companies in the Joint Application. Duke Reply Comments at 4-5. The Companies stated that they agreed to a Proposed Bridge Rate, an alternative rate design that includes “monthly netting at applicable avoided cost rates and the same MMB and non-bypassable charge as the NEM Tariffs.”<sup>30</sup> Duke Reply Comments at 26. The Companies provided that the Proposed Bridge Rate would be available to residential customers who apply for NEM on or after January 1, 2023, until December 31, 2026 and that current NEM customers could remain on the current rate until January 1, 2027 at which point the customers either transition to the Proposed Bridge Rate or choose to move to the NEM-TOU rate.<sup>31</sup> *Id.* Moreover, the Companies explained that customers could remain on the Proposed Bridge Rate for 15 calendar years less the number of years they were on an alternative NEM rate prior to January 1, 2027. *Id.* After, the customers would move to the NEM-TOU rate in effect at the time. *Id.*

The Companies stated that the Bridge Rate Stipulation provides a “gradual transition option from the Existing NEM Programs for eligible customers, while creating additional future benefits for all of the Companies’ customers.” Duke Reply Comments at 27. The Companies noted that the Bridge Rate Stipulation represents a “collaborative effort to account for a broad range of interests, while also adhering to the NEM directives and timelines within H.B. 589.” *Id.* NCRSI’s reply comments recommended the Commission approve the Proposed Bridge Rate because if approved, it would mitigate the devaluation

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<sup>30</sup> The Proposed Bridge Rate does not include a GAF or mandatory TOU-CPP rates.

<sup>31</sup> After January 1, 2027, customers will transition to Proposed Bridge Rate or may choose to move to NEM-TOU rate in effect at that time.

of solar “by ensuring that all rooftop solar customers, subject to caps, can opt-out of the more onerous TOU rates unless a Smart Saver, or other equivalent, is approved....” Reply Comments of Sundance Power Systems, Inc., Southern Energy Management, Inc., and Yes Solar Solutions (“NCRSI Reply Comments”) at 2. NCRSI explained that the Bridge Rate Stipulation was an improvement to the proposed NEM Tariffs that would “allow rooftop solar developers to serve North Carolinians that want to invest in solar through 2026.” *Id.*

The Public Staff explained it “generally supports the [Bridge Rate] Stipulation” and the Proposed Bridge Rate. Public Staff Letter at 1-2.

**iv. Responsive Comments.**

In response to the Bridge Rate Stipulation and Proposed Bridge Rate, NCSEA, SACE, and Vote Solar agreed that the Proposed Bridge Rate “provides additional customer choice for a defined time period, addresses the concerns about the proposed Smart Saver Solar incentive being unavailable for customers with gas-heated homes, and eases the transition to the TOU-CPP rates. Joint Responsive Comments of NCSEA and SACE et al. at 1-2. NCSEA, SACE, and Vote Solar also supported the exemption from the MMB requirement for low-income and vulnerable household included in the Stipulation as a way to ensure “the bill-saving benefits of rooftop solar will be available to lower-income households.” Joint Responsive Comments of NCSEA and SACE et al. at 2.

The Public Staff reiterated its support by noting that it “has no objection to the [Bridge Rate] Stipulation or the ‘bridge rate’ as proposed in the [Bridge Rate] Stipulation.” Public Staff Letter in Lieu of Responsive Comments at 1. The Public Staff further stated that it “commends the parties for coming to a resolution on this issue.” *Id.*

On the other hand, the NC WARN Parties alleged that the Proposed Bridge Rate “is both temporary and conditional and is therefore completely insignificant in

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comparison” to the long-term NEM Tariffs. NC WARN Surreply Comments at 12. The NC WARN Parties argued that their opposition to the Proposed Bridge Rate arises, in part, because the “treatment given to the Public Staff was much more fair, reasonable, and consideration than that granted to NC WARN” given that the Public Staff was seemingly given notice of the Bridge Rate Stipulation. NC WARN Surreply Comments at 29.

The EWG took a similar approach, noting that the Proposed Bridge Rate “is further piece meal ratemaking, administratively inefficient, and unreasonably discriminatory.” EWG Surreply Comments at 3. The EWG argued that the Proposed Bridge Rate is, “like the original proposal, the product of private, secret negotiations between a limited number of parties.” EWG Surreply Comments at 18.

#### **B. Discussion and Conclusions**

The record reveals that the Proposed Bridge Rate—although not required by H.B. 589—deploys certain rate-making best practices, such as gradualism, and is the product of a wide-ranging compromise. Importantly, the Commission notes that the Companies proposed an alternative transition option for legacy NEM customers in its Joint Application that was supported by several other parties, including the Public Staff. However, the Proposed Bridge Rate is the product of additional stakeholder engagement after the initial filing to improve upon an existing option that was already widely-supported. Although the Proposed Bridge Rate is temporary, the Commission finds no flaw in that aspect of the Proposed Bridge Rate. Importantly, parties opposing the Proposed Bridge Rate ignore that H.B. 589 does not require any such mechanism. Rather, the Companies have recommended this Proposed Bridge Rate to ease the transition for certain customers as a result of the NEM Tariffs. Although intervenors such as the NC WARN Parties, the EWG, and the 350

Parties argued so vehemently against the NEM Tariffs, they also failed to put forward a meaningful alternative proposal.

The Proposed Bridge Rate is a reasonable compromise that reflects meaningful attempts by parties to achieve consensus. As such, the Commission applauds the effort of certain parties in this docket to seek common ground. The record reveals that the Proposed Bridge Rate will benefit customers, while still permitting the NEM Tariffs to be implemented within the timeline required by H.B. 589.

### **XVIII. ORDERING PARAGRAPHS**

IT IS, THEREFORE, ORDERED as follows:

- 1) Based upon the Joint Application, comments, motions, and the entire record of the proceeding in this docket, the Commission hereby adopts each and every finding of fact and conclusion of law enumerated herein.
- 2) Any motions not expressly ruled upon herein are denied.
- 3) DEC shall offer Rider NM (NC) and Rider RSC (NC) for eligible North Carolina residential customers that submit applications for NEM on or after the date that is 60 days from today.
- 4) DEP shall offer Rider NM-5 and Rider RSC-2 for eligible North Carolina residential customers that submit applications for NEM on or after the date that is 60 days from today.
- 5) The Companies shall offer the Proposed Bridge Rate, in accordance with the terms and conditions of the Bridge Rate Stipulation, to eligible North

Carolina residential customers that submit applications on or after the date that is 60 days from today, until December 31, 2026.<sup>32</sup>

- 6) The rate structures for the NEM Tariffs shall remain unchanged until at least December 31, 2033.
- 7) The Companies shall update the values for the (i) net excess energy credit (ii) and the non-bypassable charge in the NEM Tariffs no later January 1<sup>st</sup> every year. All other rate values in the NEM Tariffs will be updated through the Companies' base rate cases.<sup>33</sup>
- 8) The NEM Tariffs and Proposed Bridge Rate shall be offered in accordance with the Joint Application and Bridge Rate Stipulation. Additionally, in response to the Public Staff's recommendation, the Companies shall offset imports with exports during the same CPP period.<sup>34</sup>
- 9) RECs arising from customer-generators under the NEM Tariffs shall be maintained by the Companies.
- 10) This Order shall remain in full force and effect until further Order of the Commission.

IT IS, THEREFORE, SO ORDERED.

ISSUED BY ORDER OF THE COMMISSION.

This the \_\_\_\_ day of \_\_\_\_\_, 2022.

NORTH CAROLINA UTILITIES COMMISSION

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<sup>32</sup> However, the Proposed Bridge Rate will expire upon any of the early termination events listed in Article III of the Bridge Rate Stipulation.

<sup>33</sup> The Commission understands that this approach is consistent with the MOU, the Bridge Rate Stipulation, and the corresponding process in South Carolina.

<sup>34</sup> The Public Staff also made certain recommendations for the calculation of the net energy export credit, which will be addressed and calculated in the Companies' avoided cost dockets.

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A. Shonta Dunston, Chief Clerk

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Dec 16 2022