No. COA23-760

NORTH CAROLINA COURT OF APPEALS
****

STATE OF NORTH CAROLINA EX REL. UTILITIES COMMISSION; PUBLIC STAFF – NORTH CAROLINA UTILITIES COMMISSION, Intervenor; DUKE ENERGY PROGRESS, LLC, Petitioner; and DUKE ENERGY CAROLINAS, LLC, Petitioner, Appellees, v. ENVIRONMENTAL WORKING GROUP, Intervenor; 350 TRIANGLE, Intervenor; 350 CHARLOTTE, Intervenor; THE NORTH CAROLINA ALLIANCE TO PROTECT OUR PEOPLE AND THE PLACES WE LIVE, Intervenor; NC WARN, Intervenor; NORTH CAROLINA CLIMATE SOLUTIONS COALITION, Intervenor; SUNRISE MOVEMENT DURHAM HUB, Intervenor; and DONALD E. OULMAN, Intervenor, Appellants.	From the N.C. Utilities Commission

****

APPELLANTS' BRIEF

****

INDEX

TABLE OF CASES AND AUTHORITIES iv

ISSUES PRESENTED 2

STATEMENT OF THE CASE 2

STATEMENT OF THE GROUNDS FOR APPELLATE REVIEW 4

STATEMENT OF THE FACTS 4

I. BACKGROUND ON THE CONCEPT OF NET ENERGY METERING...4

II. PRIOR REGULATION OF NEM.................................5

III. HOUSE BILL 589 REQUIRES CHANGES TO THE REGULATION OF NEM.....................................5

IV. THE "MEMORANDUM OF UNDERSTANDING" BETWEEN THE COMPANIES AND CERTAIN SOLAR ENERGY INTEREST GROUPS.....................6

V. THE COMPANIES' JOINT APPLICATION...............7

VI. EFFECT OF THE COMPANIES' JOINT APPLICATION UPON THE MONETARY VALUE OF SOLAR SYSTEMS...10

VII. THE "STIPULATION" BETWEEN THE COMPANIES AND THE ROOFTOP SOLAR INSTALLERS 11

VIII. THE COMMISSION'S NEM ORDER........................12

ARGUMENT 13

I. THE COMMISSION APPROVED THE NEM TARIFFS WITHOUT CONDUCTING THE STATUTORILY MANDATED "INVESTIGATION" 14

A. House Bill 589 Required a Commission-Led Cost-Benefit Analysis 14

i. Legislative Intent....................................... 15

ii. Statutory Context 16

B. A Commission-led "Investigation of the Costs and Benefits of" NEM Solar Was Never Conducted.. 18

II. THE NEM TARIFFS ABOLISHED FLAT-RATE NEM CUSTOMERS AND THEREFORE VIOLATED THE REQUIREMENT THAT THE COMMISSION "SHALL ESTABLISH NET METERING RATES UNDER *ALL TARIFF DESIGNS"*............................ 22

III. THE COMMISSION FAILED TO CONSIDER MULTIPLE BENEFITS OF NEM SOLAR 26

A. The Applicable Standard of Care Requires Compliance with the NSPM-DER When Analyzing the Costs and Benefits of NEM Solar... 27

B. The Commission Failed to Analyze and Render a Conclusion Concerning Exactly Which Costs and Benefits Must Be Included in a Cost-Benefit Analysis of NEM Solar 31

C. The Companies' Embedded and Marginal Cost Study Does Not Meet the Definition of a Cost-Benefit Analysis 33

D. The Companies Failed to Analyze, and the Commission Thus Failed to Consider, Several Material Benefits of Rooftop Solar and Otherwise Failed to Comply with the NSPM-DER 36

IV. THE NON-UNANIMOUS MOU AND STIPULATION SHOULD BE GIVEN NO WEIGHT 40

CONCLUSION 42

CERTIFICATE OF COMPLIANCE 45

CERTIFICATE OF SERVICE 46

TABLE OF CASES AND AUTHORITIES

Cases:

Jackson v. Charlotte Mecklenburg Hosp. Auth.,
238 N.C. App. 351,768 S.E.2d 23 (2014)........................... 17

Lunsford v. Mils,
367 N.C. 618, 766 S.E.2d 297 (2014) 25

Rhyne v. K-Mart Corp.,
358 N.C. 160, 594 S.E.2d 1 (2004) 17

State ex rel. Utilities Comm'n v. Carolina Util. Customers Ass'n,
348 N.C. 452, 500 S.E.2d 693 (1998) 40-41

State ex rel. Utilities Comm'n v. Piedmont Nat. Gas Co.,
346 N.C. 558, 488 S.E.2d 591 (1997) 31, 33

Statutes:

N.C. Gen. Stat. §§ 7A-29(a) 4
N.C. Gen. Stat. §§ 62-1 *et seq.* 16
N.C. Gen. Stat. § 62-2(a)(5) 30
N.C. Gen. Stat. § 62-15 3
N.C. Gen. Stat. § 62-34(a).. 17
N.C. Gen. Stat. § 62-37(a).. 17
N.C. Gen. Stat. § 62-90 4
N.C. Gen. Stat. § 62-90(a)..3
N.C. Gen. Stat. § 62-126.2 6
N.C. Gen. Stat. § 62-126.4 ....*passim*
N.C. Gen. Stat. § 132-1.3 17

Other Authorities:

Session Law 2017-192, House Bill 589........................*passim*
Session Law 2021-165, House Bill 951......................... 30, 36

No. COA23-760

NORTH CAROLINA COURT OF APPEALS

****

STATE OF NORTH CAROLINA EX REL. UTILITIES COMMISSION; PUBLIC STAFF – NORTH CAROLINA UTILITIES COMMISSION, Intervenor; DUKE ENERGY PROGRESS, LLC, Petitioner; and DUKE ENERGY CAROLINAS, LLC, Petitioner, Appellees, v. ENVIRONMENTAL WORKING GROUP, Intervenor; 350 TRIANGLE, Intervenor; 350 CHARLOTTE, Intervenor; THE NORTH CAROLINA ALLIANCE TO PROTECT OUR PEOPLE AND THE PLACES WE LIVE, Intervenor; NC WARN, Intervenor; NORTH CAROLINA CLIMATE SOLUTIONS COALITION, Intervenor; SUNRISE MOVEMENT DURHAM HUB, Intervenor; and DONALD E. OULMAN, Intervenor, Appellants.	From the N.C. Utilities Commission

****

APPELLANTS' BRIEF

****

ISSUES PRESENTED

I. Did the Commission err in approving the Companies' NEM Tariffs without conducting the "investigation" required by N.C. Gen. Stat. § 62-126.4?

II. Did the Commission err in approving the Companies' NEM Tariffs notwithstanding the fact that the said tariffs eliminate the entire class of "flat-rate" residential NEM customers and therefore violate the mandate of N.C. Gen. Stat. § 62-126.4 that the "Commission shall establish net metering rates under all tariff designs"?

III. Did the Commission err in approving the Companies' NEM Tariffs without considering numerous benefits of NEM in violation of the requirement of N.C. Gen. Stat. § 62-126.4 that both the "costs and benefits" of NEM be investigated?

IV. Did the Commission err in approving the Companies' NEM Tariffs in reliance upon non-unanimous settlement agreements?

STATEMENT OF THE CASE

This matter was commenced on 29 November 2021 when Appellees Duke Energy Carolinas, LLC and Duke Energy Progress, LLC (collectively, the "Companies" or "Duke") filed a Joint Application for Approval of Revised Net Energy Metering Tariffs (the "Joint Application") with the N.C. Utilities Commission ("Commission" or "NCUC"). (R p 6).

On 10 January 2022, the Commission issued an Order Requesting Comments, which among other things, set a deadline for the filing of comments and petitions to intervene. (R p 61). The intervention of Appellee Public Staff – N.C. Utilities Commission (the "Public Staff") was automatically recognized by the Commission pursuant to N.C. Gen. Stat. § 62-15. (R p 1328). On various dates, the Commission granted the petitions to intervene of Appellants Environmental Working Group, 350 Triangle, 350 Charlotte, the North Carolina Alliance to Protect Our People and the Places We Live, NC WARN, North Carolina Climate Solutions Coalition, Sunrise Movement Durham Hub, and Donald E. Oulman (collectively, "Appellants"). (R pp 1, 1328).

On 8 November 2022, the Commission entered an Order Denying Joint Motion for an Evidentiary Hearing. (R p 923). Without the benefit of any hearing, on 23 March 2023, the Commission entered an Order Approving Revised Net Metering Tariffs (the "NEM Order"). (R p 1215).

On 20 April 2023, the Commission entered an Order Granting Extension of Time to File Notice of Appeal and Exceptions, thereby setting the deadline for notices of appeal at 22 May 2023.[1] (R p 1307). Appellants timely filed a Joint Notice of Appeal and Exceptions on 18 May 2023. (R pp 1320, 1328).

---

[1] The General Statutes empower the Commission to extend the deadline for notices of appeal. *See* N.C. Gen. Stat. § 62-90(a).

Following Appellants' Joint Notice of Appeal and Exceptions, all parties to the underlying Commission docket were given an opportunity to participate in the present Appeal. The (Proposed) Record on Appeal was timely served on counsel to the present Appeal on 30 June 2023. (R p 1328). The Record on Appeal was settled on 31 July 2023, (R p 1329), and Record on Appeal was filed with this Court on 14 August 2023. In an Order entered on 31 August 2023, this Court extended the deadline for Appellants' Brief to 13 October 2023.

STATEMENT OF THE GROUNDS FOR APPELLATE REVIEW

The Commission's Order Approving Revised Net Metering Tariffs (*i.e.*, the NEM Order) is a final judgment, and appeal therefore lies to the Court of Appeals pursuant to N.C. Gen. Stat. §§ 7A-29(a) & 62-90.

STATEMENT OF THE FACTS

I. BACKGROUND ON THE CONCEPT OF NET ENERGY METERING

The present Appeal involves the concept of "net energy metering" ("NEM"). NEM involves a utility customer who generates his/her own energy with some type of customer-sited generation system. According to the Commission's NEM Order, NEM is "a billing arrangement whereby the customer-generator is billed according to the difference over a billing period between the amount of energy consumed by the customer at its premises and the amount of energy generated by the renewable energy facility." (R p 1217).

The NEM billing arrangement allows a customer-generator to receive some type of "billing credit for excess generation delivered to the utility grid." (R p 1217).

Typically we think of NEM as involving rooftop solar systems, although the Companies' proposed NEM Tariffs in the present matter include "solar electric" as well as "wind-powered; biomass-fueled, including agricultural waste, animal waste, wood waste, spent pulping liquors, combustible residues, combustible liquids, combustible gases, energy crops or landfill methane; waste heat derived from a renewable energy resource and used to produce electricity at the customer's site; or hydro-powered generating system." (R pp 1269, 1276).

II. PRIOR REGULATION OF NEM

Over the years, NEM rates have been regulated by several sequential Commission-issued Orders. (R pp 1216-19). Prior to the NEM rates at issue in the present case, the most recent Commission Order approving NEM rates was entered on 31 March 2009. (R p 1218); *see also* Order Amending Net Metering Policy, NCUC Docket No. E-100, Sub 83 (31 March 2009).

III. HOUSE BILL 589 REQUIRES CHANGES TO THE REGULATION OF NEM

In 2017, the North Carolina General Assembly passed Session Law 2017-192, entitled *An Act to Reform North Carolina's Approach to Integration of*

Renewable Electricity Generation through Amendment of Laws Related to Energy Policy and to Enact the Distributed Resources Access Act, and commonly referred to as "House Bill 589."

In relevant part, House Bill 589 encouraged as a matter of public policy "leasing of and subscription to solar energy facilities," while also requiring that "cross-subsidization[2] should be avoided." N.C. Gen. Stat. § 62-126.2; *see also* (R pp 11, 1218). To further these goals, House Bill 589 required that "[e]ach electric public utility shall file for Commission approval revised net metering rates for electric customers" and that "[t]he rates shall be nondiscriminatory and established only after an investigation of the costs and benefits of customer-sited generation." N.C. Gen. Stat. § 62-126.4(a)-(b); (R pp 1218-19). Moreover, House Bill 589 required that "[t]he 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." N.C. Gen. Stat. § 62-126.4(b).

IV. THE "MEMORANDUM OF UNDERSTANDING" BETWEEN THE COMPANIES AND CERTAIN SOLAR ENERGY INTEREST GROUPS

After House Bill 589 was passed, the Companies consummated a "Memorandum of Understanding" ("MOU") with certain solar energy interest

[2] Generally, the term "cross-subsidization" refers to the circumstance where a customer class does not pay its full cost of service, thereby resulting in some other customer class paying more than its share of the utility's fixed costs of service. *See* (R p 1217).

groups, namely North Carolina Sustainable Energy Association, Vote Solar, Southern Alliance for Clean Energy, Sunrun, Inc., and Solar Energy Industries Association. (R p 48). As correctly stated by the North Carolina Attorney General's Office ("AGO") in the present docket, the same "[p]arties entered into a similar MOU regarding Duke's South Carolina territories on September 16, 2020." (R pp 374-75).

The MOU consisted of the following two principal components:

(1) **Tariffs.** The MOU set forth the terms of a proposed billing arrangement between residential NEM customers and the Companies. (R pp 48, 56).

(2) **Incentives.** The parties to the MOU agreed to propose a set of NEM incentives to the Commission (the "Incentives"). (R pp 48, 58-59). The Incentives were addressed by the Commission in separate dockets, and on the same date as the NEM Order, the Commission entered an order declining to approve the Incentives. *See* Order Declining to Approve Proposed Smart $aver Solar Program and Requiring Development of Pilot Program, NCUC Docket Nos. E-2, Sub 1287 & E-7, Sub 1261 (23 March 2023).

V. THE COMPANIES' JOINT APPLICATION

On 29 November 2021, the Companies filed the Joint Application with the Commission. (R p 6). The Joint Application proposed a set of NEM tariffs

based upon the billing arrangement (*i.e.*, the tariffs) set forth in the MOU. (R p 17). The NEM tariffs proposed by the Companies in the Joint Application (and the MOU) included the following five rate components:

Monthly Minimum Bill. The Companies proposed a monthly minimum bill ("MMB") which would be imposed upon all NEM customers. (R pp 18-19). The Companies proposed an MMB of $22 for Duke Energy Carolinas, LLC's ("DEC") NEM customers and $28 for Duke Energy Progress, LLC's ("DEP") NEM customers. (R p 19). However, the MMB could be offset if the sum of certain other monthly charges upon the NEM customer exceed the MMB. (R p 19).

Monthly Grid Access Fee. For certain large NEM customers (*i.e.*, capacity greater than 15 kW-dc), the Companies proposed a monthly grid access fee ("GAF"). For DEP, the proposed GAF was $1.50 per kW per month. (R pp 19-20, 1221). For DEC, the proposed GAF was $2.05 per kW per month for all capacity in excess of 15 kWdc. (R pp 19-20, 1221).

Non-Bypassable Charges. Furthermore, the Companies proposed non-bypassable charges which the Companies state "are designed to recover all costs related to DSM/EE [*i.e.*, Demand-Side Management / Energy Efficiency], storm cost recovery and cyber security." (R p 20). "DEC's and DEP's proposed

non-bypassable charges are $0.36 and $0.44 per kW per month, respectively." (R p 1221).

Netting and Exports. The Companies also addressed the "netting of energy exports and energy consumption from NEM customer generating facilities." (R p 1221). This netting concept arises because NEM customers "consume the power generated from on-site," and "export power that exceeds the customer's usage to the utility's grid." (R p 1221). Under the Joint Application, "NEM customers would be credited for any net monthly exports to the utility grid at an annualized rate . . . for avoided energy costs, as specified by the per kWh rates at Duke's Commission-approved avoided cost rates." (R p 1221). Before the NEM Tariffs eventually approved in this docket, these credits were calculated based upon the rates charged by the Companies upon residential customers; conversely, in the Joint Application, the Companies proposed to calculate the credits based upon the significantly lower "avoided cost rates" that the Companies pay to utility-scale qualifying facilities under the Public Utility Regulatory Policies Act. (R p 1222).

Time-of-Use and Critical-Peak-Pricing Rates. Prior to the Joint Application, some of the Companies' NEM customers paid the same rate for electricity irrespective of the time of day that the electricity was purchased from the grid ("flat-rate customers"), whereas other customers paid different

rates depending upon the time of day that the electricity was purchased by the customer. (R pp 206 & 945-49). The Joint Application would eliminate all flat-rate NEM customers and require that all NEM customers agree to a time-of-use rate ("TOU") with critical peak pricing ("CPP"). (R pp 33, 1222).

VI. EFFECT OF THE COMPANIES' JOINT APPLICATION UPON THE MONETARY VALUE OF SOLAR SYSTEMS

Upon information and belief, there was never a dispute that the NEM tariffs proposed in the Companies' Joint Application would meaningfully reduce the value of residential rooftop solar systems statewide. For instance, Appellant NC WARN's subject-matter expert, William E. Powers ("Mr. Powers"), calculated that the proposed NEM tariffs would reduce the savings of rooftop solar systems by 29% to 31%. (R p 969).

While not parties to this Appeal, certain rooftop solar installation companies intervened within the underlying Commission docket, namely Sundance Power Systems, Inc., Southern Energy Management, Inc., and Yes Solar Solutions (collectively, "Rooftop Solar Installers"). In their comments, the Rooftop Solar Installers stated that they "downloaded data from 30 existing Duke customers with solar systems installed for over a year and analyzed their data under Duke's proposed NEM rate structures." (R p 361). According to the Rooftop Solar Installers' analysis, there will be "a reduction in value to the customer of 20% - 35% over the life of the solar system" due to the reduced

savings from solar systems resulting from the tariffs proposed in the Joint Application. (R p 361).

Appellee Public Staff reached similar conclusions. In fact, the Public Staff concluded that the average monthly bill for residential NEM customers under the Companies' Joint Application could increase by as much as 118.53%:

> Based on the data provided by the Companies, the Public Staff analyzed the impacts of the proposed NEM Tariffs on quartiles of residential customers. The customer data was separated based on solar generation in kWh as a percent of load in kWh. The top quartile of customers on average generates 102.84% of their electricity needs, leading to a current average bill of $26.38. **Under the proposal, their bill would on average increase to $57.65.** On the other end of the spectrum, the bottom quartile of customers only generates 50.3% of their electricity needs, leading to an average monthly bill of $100.77. **Under the proposal, their average bill would increase to $117.49. The first quartile percent change in bill would be 118.53% while the last quartile would increase by 16.59%.**

(R pp 110-11 (emphasis added)). These increased bills would obviously be expected to reduce the incentive to purchase rooftop solar systems.

VII. THE "STIPULATION" BETWEEN THE COMPANIES AND THE ROOFTOP SOLAR INSTALLERS

On 19 May 2022, the Companies filed with the Commission a "Stipulation" between the Companies and the Rooftop Solar Installers. (R p 632). While entitled a "Stipulation," the document is clear that it represents a

non-binding set of proposals: "This Stipulation reflects certain non-binding understandings reached by the Stipulating Parties . . . ." (R p 636). Under the Stipulation, the Companies offered a "Bridge Rate" that, for a four-year eligibility period, would provide an alternative to the NEM proposal set forth in the Joint Application, although the Bridge Rate could terminate early for some or all customers under various scenarios. (R pp 637-38, 1224).

VIII. THE COMMISSION'S NEM ORDER

On 23 March 2023, the Commission entered the NEM Order. (R p 1215). The Commission made slight modifications to a few components of the NEM tariffs proposed by the Companies. (R p 1251). For example, the Commission modified the Companies' proposal so that it no longer offsets exported energy during the CPP period with consumption during the CPP period. (R p 1252). Further, the Commission deferred decision on certain details of the net excess energy credit calculation. (R pp 1252-53). However, the Commission's NEM Order, in all material respects, approved the Companies' Joint Application and the short-term Bridge Rate set forth in the Stipulation. (R pp 1251, 1255-56).

Additionally, the Commission's NEM Order rejected Appellants' arguments, described below, that the Companies failed to comply with N.C. Gen. Stat. § 62-126.4, and furthermore, the Commission rejected Appellants'

arguments that the Companies failed to evaluate numerous *benefits* of NEM solar. (R pp 1246-51).

On 3 April 2023, the Companies filed the NEM tariffs approved in the Commission's NEM Order (the "NEM Tariffs").[3] (R p 1257).

ARGUMENT

As described below, the NEM Tariffs should be rejected for several reasons. For example, the NEM Tariffs were approved without the "investigation of costs and benefits" required by N.C. Gen. Stat. § 62-126.4(b). Further, the NEM Tariffs eliminated the "flat-rate" class of customers and therefore violated the provision of N.C. Gen. Stat. § 62-126.4(b) that the "Commission shall establish net metering rates under all tariff designs."

Moreover, the Commission was presented with substantial evidence concerning the mandatory scope of benefits which must be considered in any cost-benefit analysis of NEM solar. Obviously, a precondition to analyzing the costs and benefits of NEM solar is determining *which* costs and *which* benefits should be considered. Nonetheless, the Commission failed to address this issue and instead blindly accepted a study of NEM solar conducted internally by the Companies. However, the Companies' in-house study failed to analyze, and

[3] Some technical corrections were made to the NEM Tariffs in a filing dated 6 April 2023. (R p 1286).

therefore the Commission failed to analyze, several material *benefits* of NEM solar, in violation of the mandate in N.C. Gen. Stat. § 62-126.4 that "the costs and benefits" of NEM solar be evaluated.

For these reasons, and the others discussed below, the Commission should be reversed, and the Court of Appeals should remand this matter and direct the Commission to lead an investigation of the costs and benefits of NEM solar.

I. THE COMMISSION APPROVED THE NEM TARIFFS WITHOUT CONDUCTING THE STATUTORILY MANDATED "INVESTIGATION."

House Bill 589 required a Commission-led cost-benefit analysis of NEM solar. Instead, the Commission approved the NEM Tariffs based upon the Companies' own in-house Embedded and Marginal Cost Study and a superficial "Rate Design Study" stakeholder process. These breezy undertakings do not satisfy the requirement of an "investigation," and therefore, the Joint Application should have been denied pending a Commission-led cost-benefit analysis, including a value of solar study.

A. <u>House Bill 589 Required a Commission-Led Cost-Benefit Analysis</u>

House Bill 589 prohibited the establishment of new NEM tariffs until after a Commission-led cost-benefit analysis was conducted regarding customer-sited generation. The applicable statute states:

> **§ 62-126.4. Commission to establish net metering rates.**
>
> . . . .
>
> (b) **<u>The rates shall be nondiscriminatory and established only after an investigation of the costs and benefits of customer-sited generation</u>**. 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. . . .

N.C. Gen. Stat. § 62-126.4(b) (second emphasis added). The key language is that the NEM rates "shall be nondiscriminatory **<u>and established only after an investigation of the costs and benefits</u>** of customer-sited generation." *Id.* (emphasis added).

The fact that this statute requires a Commission-led cost-benefit analysis as part of the mandatory "investigation" is supported by the legislative intent and overall statutory context of N.C. Gen. Stat. § 62-126.4.

i. Legislative Intent

The legislative intent behind N.C. Gen. Stat. § 62-126.4 makes clear that the **<u>Commission</u>** must lead an independent cost-benefit analysis into customer-sited generation. The chief author of House Bill 589, Rep. John Szoka (R-Cumberland), was interviewed and characterized as follows in an article appearing in *Energy News Network*:

> **<u>Szoka is adamant the Commission will conduct the cost-benefit study.</u>**

> "It's not up to the utility to determine 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."

(R pp 936-37 (emphasis added)). Clearly, the General Assembly did not intend for the Companies to satisfy N.C. Gen. Stat. § 62-126.4 by performing an internal study—indeed, such a study would be akin to "the fox in charge of the hen house." (R pp 936-37).

ii. Statutory Context

Further, the pertinent statutory language, in the context of both N.C. Gen. Stat. § 62-126.4 and the overall Public Utilities Act (the "Act"), N.C. Gen. Stat. §§ 62-1 *et seq.*, show that a Commission-led process is mandatory.

Nearly every aspect of this statute requires that the **Commission**, not the Companies, take lead on the establishment of new NEM tariffs. For instance, the title of the statute is, "**Commission** to establish net metering rates." N.C. Gen. Stat. § 62-126.4. Subsection (a) of the statute states that "**Commission** approval" is required. *Id.* § 62-126.4(a). Subsection (b) states that "[t]he **Commission** shall establish net metering rates." *Id.* § 62-126.4(b). In other words, the Commission is the prime mover regarding the establishment of new NEM tariffs, and the Commission should therefore lead the mandatory cost-benefit analysis. Indeed, comments filed in the underlying proceeding clearly

establish that it is common for state utility commissions to lead investigations into the costs and benefits of NEM solar. (R p 263).

The words "investigate" and "investigation" are used repeatedly throughout the Act, and in each instance, it is clear that the investigating authority is a third party such as the Commission or the Public Staff – not the utility. For instance, the Act provides that "[t]he Commission shall from time to time visit the places of business and investigate the books and papers of all public utilities," N.C. Gen. Stat. § 62-34(a), and furthermore, the Act empowers the Commission to "investigate and examine the condition and management of public utilities," N.C. Gen. Stat. § 62-37(a).

An important principle of construction is that, in general, statutory provisions "must be construed consistently with other provisions of the" same statutory act. *Jackson v. Charlotte Mecklenburg Hosp. Auth.*, 238 N.C. App. 351, 358, 768 S.E.2d 23, 28 (2014) ("Further, N.C. Gen. Stat. § 132-1.3 must be construed consistently with other provisions of the Public Records Act." (*quoting Rhyne v. K-Mart Corp.*, 358 N.C. 160, 188, 594 S.E.2d 1, 20 (2004) (holding that "this Court does not read segments of a statute in isolation"; "[r]ather, we construe statutes *in pari materia*, giving effect, if possible, to every provision"))). Consistent with the remainder of the Act, the

word "investigation" in House Bill 589 should be interpreted as requiring that the Commission conduct the investigation.

It is difficult to believe that the General Assembly, in selecting the word "investigation," intended for the Companies to investigate themselves via an in-house study. The word "investigation," given its natural, plain meaning, indicates that the investigation should be performed by a third party, namely the Commission. As stated by the chief author of House Bill 589, Rep. Szoka, "putting the fox in charge of the hen house" was "not the intent." (R pp 936-37).

B. <u>A Commission-led "Investigation of the Costs and Benefits of" NEM Solar Was Never Conducted.</u>

Throughout the underlying proceeding, the Companies argued that the requirement of an "investigation" was satisfied in two ways: (1) the Companies performed an internal Embedded and Marginal Cost Study and (2) the Companies led a series of stakeholder meetings on residential NEM during a "Rate Design Study" process. In their own words, the Companies stated their argument as follows:

> However, H.B. 589 does <u>**not**</u> require the Commission to actually conduct this investigation. . . .
>
> Although H.B. 589 clearly tasks the utilities with filing, and the Commission with approving NEM tariffs, H.B. 589 does not task a specific party with the

> investigation of the costs and benefits of customer-sited generation.
>
> As such, the Companies can, **<u>and did</u>**, conduct such an investigation in conjunction with stakeholders through both an embedded and marginal cost analysis in the Rate Design Study.

(R pp 665-66 (emphasis in original)). In short, the Companies contend that they were permitted under House Bill 589 to investigate themselves.

As discussed in Section I.A *supra*, House Bill 589 required a Commission-led investigation. Hence the Companies cannot simply investigate themselves, and accordingly, neither the Embedded and Marginal Cost Study nor the stakeholder portion of the Duke-led Rate Design Study can constitute an "investigation." Short descriptions of the Embedded and Marginal Cost Study and the stakeholder process suffice to show that neither constitute an *investigation*.

The numerous flaws of the Embedded and Marginal Cost Study are discussed *infra* in Section III, as the said study failed to consider the *benefits* of NEM solar. However, even were the study not so profoundly flawed, it could not constitute an *investigation*. The Embedded and Marginal Cost Study was an in-house study conducted directly by the Companies and not outside consultants. (R pp 325, 666-67, 706-12). This study was a mere seven pages, lacked a narrative description of the methodology and conclusions, omitted any

identification of underlying assumptions, and provided almost no recitation of data inputs. (R pp 706-12). Far from an investigation, the Companies' internal Embedded and Marginal Cost Study is quintessentially the fox guarding the hen house.

The stakeholder portion of the Duke-led "Rate Design Study" likewise does not satisfy the requirement of a Commission-led investigation. In fact, this stakeholder process was merely a series of working groups spearheaded by the Companies and involving some NEM stakeholders. (R p 881). Indeed, the Companies' argument that the stakeholder process constituted an "investigation of the costs and benefits" of NEM solar was addressed and rejected by the following eleven intervenors to the underlying Commission proceeding:

- The Attorney General's Office, (R p 373);
- Sundance Power Systems, Inc., Southern Energy Management, Inc., and Yes Solar Solutions, (R pp 359-61);
- Appellants 350 Triangle, 350 Charlotte, and North Carolina Alliance to Protect Our People and the Places We Live, (R p 335);
- Appellant Environmental Working Group, (R pp 386-89); and
- Appellants NC WARN, North Carolina Climate Solutions Coalition, and Sunrise Movement Durham Hub, (R pp 216-21).

The Companies are likely to argue that the stakeholder portion of the Rate Design Study was a substantive discussion which evaluated costs and benefits and thereby resulted in a compromise NEM proposal for North Carolina. Yet the record does not support any such conclusion. The stakeholder process occurred **after** the South Carolina Public Service Commission approved a "Memorandum of Understanding" governing the Companies' NEM tariffs in South Carolina. (R p 942). If the stakeholder process was a genuine "investigation," one would expect some changes to the South Carolina model. To the contrary, there is no material difference between the NEM proposal set forth in the South Carolina "Memorandum of Understanding" and the North Carolina NEM MOU at issue in the present docket. *E.g.*, (R p 900). Instead, the stakeholder process was simply the Companies' attempt to convince attendees of the supposed prudence of adopting the South Carolina approach in North Carolina. (R pp 218-19).

With exception of the Companies and Public Staff, there has always been widespread agreement in this proceeding that the stakeholder portion of the Rate Design Study was not a meaningful "investigation of the costs and benefits" of NEM solar. Therefore, Appellants urge the Court of Appeals to disregard any notion that the Rate Design Study stakeholder process satisfied the requirements of N.C. Gen. Stat. § 62-126.4(b).

II. THE NEM TARIFFS ABOLISHED FLAT-RATE NEM CUSTOMERS AND THEREFORE VIOLATED THE REQUIREMENT THAT THE COMMISSION "SHALL ESTABLISH NET METERING RATES UNDER *ALL TARIFF DESIGNS*."

The Commission approved a "one size fits all" approach to NEM. For instance, the NEM Tariffs approved by the Commission force all residential NEM customers onto a Time-of-Use ("TOU") rate with Critical Peak Pricing ("CPP"), thereby eliminating all flat-rate NEM customers.[4] By requiring all residential NEM customers to participate in TOU with CPP, the Commission has eliminated the class of "flat-rate" NEM customers who paid the same rate for electricity purchased at any time of day.[5]

This mandatory participation in TOU rates with CPP is a significant sea change in NEM policy. In fact, the Commission, in an Order on NEM entered in 2009, stated that "the requirement that customer-generators switch to a TOU-demand rate is a deterrent and has actually inhibited the installation of

---

[4] For instance, the NEM Tariff for DEC includes the following language: "Customers receiving service under this Rider must be served under a residential rate schedule with time of use (TOU) and critical peak pricing (CPP) . . . ." (R p 1269).

[5] In the Commission proceedings below, there was never a dispute that the Companies' Joint Application would eliminate these flat-rate NEM customers. That said, the NEM Tariffs clearly establish this fact. For instance, DEP's expiring NEM tariff (which tariff "is closed to new residential participants on and after July 1, 2023," (R p 1276)) discussed that there previously was "electric service under a standard schedule without time-of-use rates" for residential NEM customers, (R p 1277).

renewable generation." (R p 945); *see also* Order Amending Net Metering Policy, NCUC Docket No. E-100, Sub 83, pdf p 12 (31 March 2009).

This uniform approach to NEM reform violates House Bill 589, which explicitly required that the "Commission shall establish net metering rates **under *all* tariff designs**." N.C. Gen. Stat. § 62-126.4(b) (emphasis added). Since a significant and important class of residential NEM customers previously included flat-rate customer, the Companies were statutorily required to provide an NEM option for those customers with the flat-rate tariff. The Companies' effort to eliminate an entire class of customers—namely, flat-rate NEM customers—violates this mandate of House Bill 589.

Before the Commission, the Companies provided the following defense of their "one size fits all" NEM tariff proposal:

> H.B. 589 mandates that "[t]he 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." N.C.G.S. § 62-126.4(b). The plain language of this provision ensures that each tariff established by the Commission pursuant to H.B. 589 achieves the primary goal of NEM reform thereunder—reducing the cross-subsidy by ensuring each customer "pays its full fixed cost of service."

(R p 695).

At the outset, it should be noted that the Companies, in the above quotation, inaccurately summarized N.C. Gen. Stat. § 62-126.4(b). Contrary to

the Companies' summary, that statute does **not** say "each tariff established by the Commission pursuant to H.B. 589." (R p 695). The statute actually says, "**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." N.C. Gen Stat. § 62-126.4(b). The statute is clearly mandating that a NEM rate be established for "all tariff designs." If the Companies were correct that the General Assembly merely required that customers pay their cost-of-service for any NEM rate adopted pursuant to House Bill 589, then the Commission could have complied with the statute by simply taking no action at all. Surely that is not what the statute was designed to allow.

In fact, the Companies' argument boils down to the following: the words "pays its full fixed cost of service" somehow overshadow or eliminate the words "under all tariff designs." The Companies' argument is erroneous as a matter of law. If the General Assembly wanted N.C. Gen. Stat. § 62-126.4(b) to merely require all NEM customers to pay their full fixed cost of service, the General Assembly could have easily accomplished this purpose without including the words "under all tariff designs." To illustrate this point, here is what the pertinent statutory provision would state if the words "under all tariff designs" were excised:

> The Commission shall establish net metering rates [excised words here] that ensure that the net metering retail customer pays its full fixed cost of service.

The only difference between the actual statute and the above hypothetical sentence is the removal of the words "under all tariff designs," yet the above hypothetical sentence has the exact same meaning being proposed by the Companies.

But that is **not** what the statute states. Instead, the pertinent statute, N.C. Gen. Stat. § 62-126.4(b), states as follows:

> 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.

In other words, the Companies' recommended interpretation of House Bill 589, which the Commission adopted in the NEM Order (R p 1248), reads the words "under all tariff designs" right out of the statute. In so doing, the Companies have violated a cardinal rule of statutory construction: "it is a fundamental principle of statutory interpretation that courts should evaluate a statute as a whole and . . . not construe an individual section in a manner that renders another provision of the same statute meaningless." *Lunsford v. Mils*, 367 N.C. 618, 628, 766 S.E.2d 297, 304 (2014) (internal quotation marks omitted).

Under the Companies' and the Commission's proffered interpretation of N.C. Gen. Stat. § 62-126.4(b), the words "under all tariff designs" have no meaning whatsoever. Hence, as a matter of law, the Commission's NEM Order should be reversed. As required by mandatory principles of statutory construction, the Commission should be required to give meaning to every word of the statute, including the requirement that the "Commission shall establish net metering rates **under *all* tariff designs**."

III. THE COMMISSION FAILED TO CONSIDER MULTIPLE MATERIAL BENEFITS OF NEM SOLAR.

The Commission was presented with substantial evidence about which costs and benefits, under the applicable standard of care, must be considered in any cost-benefit analysis of NEM solar. Instead of grappling with this issue and identifying which costs and benefits should be factored into the cost-benefit analysis, the Commission blindly accepted, without analysis, that the costs and benefits analyzed in the Companies' internal Embedded and Marginal Cost Study were sufficient. The Commission's failure to analyze and make conclusions about this crucial issue – *i.e.*, about exactly *which* costs and *which* benefits are relevant – renders the Commission's decision, in violation of N.C. Gen. Stat. § 62-94(b)(6), arbitrary and capricious.

In fact, the centerpiece of the Companies' evidentiary support for their proposed NEM tariffs was an in-house, one-sided, deeply flawed Embedded

and Marginal Cost Study which did not consider numerous material benefits of NEM solar, as required by the applicable standard of care. For these reasons and others, the Companies' Embedded and Marginal Cost Study did not appropriately analyze the costs *and benefits* of NEM solar, and therefore, the Court of Appeals should reverse and remand this matter for a full investigation of both the costs *and benefits* of NEM solar.

A. The Applicable Standard of Care Requires Compliance with the NSPM-DER When Analyzing the Costs and Benefits of NEM Solar.

As noted, House Bill 589 required "an investigation of the costs **and benefits** of customer-sited generation." N.C. Gen. Stat. § 62-126.4(b). Presumably, a precondition to conducting this cost-benefit analysis is ascertaining *which* costs and benefits must be considered. Without a reasoned determination of *which* costs and benefits should be considered, any cost-benefit analysis would by its very nature be arbitrary and capricious because uncomfortable costs or benefits could be removed from the analysis according to the analyst's personal tastes and interests.

For this reason, Appellants presented substantial evidence concerning the applicable standard of care for cost-benefit analyses of NEM solar. Appellant Environmental Working Group ("EWG") sponsored subject-matter expert Karl Rábago ("Mr. Rábago"), a nationally recognized expert in electric

utility regulation, operations and rate making, and the co-author of the *National Standard Practice Manual for Benefit-Cost Analysis of Distributed Energy Resources* ("NSPM-DER"). According to Mr. Rábago, the NSPM-DER "compiled best practices guidance through an intentionally inclusive process of drafting, commenting, and revising supported by a range of authors and reviewers." (R p 400). The NSPM-DER involved "decades of work invested in sound BCA [*i.e.*, benefit-cost analysis]" which "yielded a consensus among leading practitioners as to the elements of best-practices BCAs." (R p 421). The resulting document "sets out detailed guidance for establishing a benefit-cost analysis framework that can support jurisdictionally-specific evaluations of all manner of distributed energy resources." (R p 399).

Similarly, Appellant NC WARN's subject-matter expert, William E. Powers ("Mr. Powers"), authored a report in this docket stating that, "[i]t is this Manual [*i.e.*, the NSPM-DER] that should be utilized by the Commission to evaluate the costs and benefits of NEM solar." (R p 262). In summary, the NSPM-DER represents the standard of care for conducting cost-benefit analyses of distributed generation, including NEM solar.

Accompanying Mr. Rábago's initial report in this docket was a Summary of the NSPM-DER, (R pp 480-99), including but not limited to its "guiding principles, the standard five-step process, and impacts to be considered,

including utility system, customer, and societal impacts." (R p 422). Among other things, the NSPM-DER recommends a detailed analysis of benefits, including both customer and societal impacts, during every cost-benefit analysis of NEM solar—*i.e.*, a value of solar study is recommended by the NSPM-DER. (R pp 480-99). According to the NSPM-DER, at least the following societal issues should be examined: low-income customer non-energy impacts, greenhouse gas emissions, incremental economic development and job impacts, health impacts, energy imports and energy independence, etc. (R p 491).

The need to consider the benefits, including the societal benefits, of NEM solar—as recommended by the NSPM-DER—is illustrated by examining cost-benefit analyses performed in North Carolina by other independent consultants. For instance, on 18 October 2013, R. Thomas Beach ("Mr. Beach") and Patrick G. McGuire ("Mr. McGuire") of Crossborder Energy issued a report entitled *The Benefits and Costs of Solar Generation for Electric Ratepayers in North Carolina*. (R p 951). In that study, Mr. Beach and Mr. McGuire performed a detailed analysis of both the *costs* and *value* of solar. For instance, the Beach/McGuire study examined factors such as "Avoided Emissions," environmental issues, and other societal benefits of solar generation. (R p 951). Notably, several of the solar interest groups that signed the MOU also

sponsored a report by Mr. Beach and Mr. McGuire in the present docket. (R p 146).

Several statutes and executive orders likewise support the notion that a cost-benefit analysis of NEM solar should consider certain societal benefits, including the follows:

- Governor Cooper's Executive Order No. 246 recommended that the Commission consider the federal social cost of greenhouse gas emissions in its decision-making processes, (R p 954);[6]

- Governor Cooper's Executive Order No. 80 directed the development of a Clean Energy Plan, including certain greenhouse gas emissions reduction goals, (R p 954);[7]

- The Public Utilities Act expressly declares that it is "the policy of the State of North Carolina . . . [t]o encourage and promote harmony between public utilities, their users and **the environment**," N.C. Gen. Stat. § 62-2(a)(5) (emphasis added)"; and

- House Bill 951 "requires implementation of a carbon emissions reduction plan for the State's public utilities," (R p 12).

---

[6] *Executive Order No. 246*, 7 January 2022, p 3, at https://governor.nc.gov/media/2907/open (accessed on 11 October 2023) (emphasis added).

[7] *Executive Order No. 80*, 29 October 2018, at https://files.nc.gov/governor/documents/files/EO80-%20NC%27s%20Commitme nt%20to%20Address%20Climate%20Change%20%26%20Transition%20to %20a%20Clean%20Energy%20Economy.pdf (accessed on 11 October 2023).

B. <u>The Commission Failed to Analyze and Render a Conclusion Concerning Exactly Which Costs and Benefits Must Be Included in a Cost-Benefit Analysis of NEM Solar.</u>

As described above, Appellants offered substantial evidence that the NSPM-DER dictates which costs and benefits should be included in the mandatory cost-benefit analysis. No doubt, the Companies contested Appellants' position that the NSPM-DER constitutes the standard of care for cost-benefit analyses of NEM solar. Unfortunately, however, the Commission did not address or resolve this dispute. *See* (R pp 1246-55). By failing to deliberate over which costs and benefits must be considered, the Commission committed error.

Under the Act, this Court should reverse the Commission where its "findings, inferences, conclusions or decisions are: . . . Arbitrary or capricious." N.C. Gen. Stat. § 62-94(b)(6). "To be arbitrary and capricious, the Commission's order would have to show a lack of fair and careful consideration of the evidence or fail to display a reasoned judgment." *State ex rel. Utils. Comm'n v. Piedmont Nat. Gas Co.*, 346 N.C. 558, 573, 488 S.E.2d 591, 601 (1997).

In the NEM Order, the Commission failed to conduct an analysis or render a conclusion concerning *which* costs and *which* benefits must be considered. (R pp 1246-55). Instead, the Commission included only the following terse sentence about the scope of a proper cost-benefit analysis: "The

analyses in the embedded and marginal cost studies that Duke conducted as part of its Rate Design Study capture the majority, if not all, of the known and verifiable benefits of solar generation." (R 1249). Beyond this superficial sentence, the NEM Order included literally no other discussion of which costs and benefits must be analyzed.

Indeed, this superficial sentence cannot possibly constitute an *analysis* or *conclusion* concerning which costs and benefits must be considered. In fact, in a prior Order from 2009, the Commission identified a litany of solar benefits which were not part of the Companies' internal study[8] but which do echo the analysis required by the NSPM-DER. In an Order from 31 March 2009, the Commission described such benefits as potentially including "environmental benefits, create[ing] jobs, reduce[d] energy losses on the distribution and transmission systems, and provid[ing] sources of emergency power" as well as "energy independence; local job creation; reduced emissions; line loss reductions; improved voltage; diminished land use effects; lower right-of-way acquisition costs; reduced capacity, transmission and distribution costs; reduced congestion; and reduced vulnerability of the system to terrorism." (R p 375 n.7); *see also* Order Amending Net Metering Policy, NCUC Docket No.

---

[8] *See* Section III.D *infra* for a discussion of the costs and benefits which were and were not considered.

E-100, Sub 83, at 4-6 (31 March 2009). The Commission's NEM Order failed to explain why the scope of the Companies' Embedded and Marginal Cost Study is supposedly sufficient for present purposes yet omits numerous material benefits explicitly identified by the Commission in 2009.

It is impossible for the Commission to approve a cost-benefit analysis of NEM solar without resolving *which* costs and *which* benefits should be part of the analysis. Yet the Commission did precisely that—the Commission blindly approved the Companies' Embedded and Marginal Cost Study without deciding which costs and benefits must be included in that study.

Accordingly, in violation of N.C. Gen. Stat. § 62-94(b)(6), the NEM Order was arbitrary and capricious because it "show[s] a lack of fair and careful consideration of the evidence" and a "fail[ure] to display a reasoned judgment." *Piedmont Nat. Gas Co.*, 346 N.C. at 573, 488 S.E.2d at 601. The Commission should therefore be reversed.

C. The Companies' Embedded and Marginal Cost Study Does Not Meet the Definition of a Cost-Benefit Analysis.

The Companies did not conduct a genuine cost-benefit analysis—much less an analysis consistent with the NSPM-DER. Instead, the Companies passed off an Embedded and Marginal **Cost** Study as a "cost-benefit analysis."

At the outset, it should be noted that the Companies' Embedded and Marginal Cost Study is superficial at best. The Court will note that the said

study is a mere seven (7) pages, lacks a narrative description of the methodology and conclusions, omits any identification of underlying assumptions, and provides almost no recitation of data inputs. (R pp 706-12). Further, the Companies admitted that these studies must "be monitored and updated." (R p 668). In short, the Companies' Embedded and Marginal Cost Study is barebones and represents a halfhearted effort at ascertaining the costs and benefits of rooftop solar. This skimpy study, which lacks any meaningful detail, is insufficient to justify the profound change in NEM policy approved by the Commission.

In addition to being short on detail and analysis, the Companies' Embedded and Marginal Cost Study focuses almost exclusively on **costs** to the exclusion of **benefits**. Appellant NC WARN served the following data request upon the Companies: "Provide any value-of-solar studies completed by the Companies in the last ten years for distributed (rooftop) solar." (R p 323). In response, the Companies stated: "The Company has calculated the value of solar through both embedded and marginal lenses. These studies are provided through question 2 in the Public Staff's Data Request sent December 22, 2021." (R p 323). The Companies' response to "question 2 in the Public Staff's Data Request" described these studies exclusively in terms of **costs**: "Attached, please see the final versions of the embedded and marginal **cost** studies and

supporting modeling, which are updated and vary slightly from those **<u>cost</u>** studies shared previously in an informal data request." (R pp 319-20 (emphasis added)). The Companies failed to respond with any reference to how their in-house study analyzed the **<u>benefits</u>** of NEM solar. The reason is simple: the Companies failed to meaningfully analyze the benefits of NEM solar.

Indeed, Appellee Public Staff also served data requests in this docket which cast doubt upon the supposed notion that the Companies conducted a study of the value of solar. For instance, the Public Staff asked the Companies to: "Please explain why the Companies declined to perform a Value of Solar Study to assist in developing the proposed Rider RSC." (R p 325). In response, the Companies went into extensive detail about their examination of the **<u>cost</u>** of NEM solar. For instance, the Companies explained that "Duke Energy provided embedded and marginal cost analyses." (R p 325). However, the Companies were able to offer only a single alleged example of the evaluation of the **<u>value</u>** of NEM solar: "While the Companies did not retain a third party to perform a Value of Solar Study (VOSS), as part of the Comprehensive Rate Review stakeholder process, the Companies did perform a VOSS, which was shared with stakeholders." (R p 325). Upon information and belief, the "VOSS" referenced by the Companies was merely the Embedded and Marginal Cost Study discussed above.

D. The Companies Failed to Analyze, and the Commission Thus Failed to Consider, Several Material Benefits of Rooftop Solar and Otherwise Failed to Comply with the NSPM-DER.

Appellant EWG's subject-matter expert, Mr. Rábago, stated that the "Companies' proposals in this proceeding fail to align with the best practices guidance from the NSPM-DER in several important ways." (R p 422). Mr. Rábago identified a substantial number of deficiencies, but in broad strokes, he identified the following failures of the Companies' purported cost-benefit analysis:

> 1) fails to treat customer-sited generation as a utility system resource; 2) fails to account for alignment of the proposal, which predates HB 951, to Carbon Plan emission reduction goals; 3) fails to ensure symmetry by prioritizing utility profits over a competitive market for DG;[9] 4) fails to account for the full range of utility impacts from DG; 5) fails to align with the 25+ years of benefit that customer-sited generation can produce; 6) fails to prove that the proposal avoids double counting of impacts; 7) fails to ensure transparency; and 8) fails to conduct the benefit cost analysis separately from rate impact analysis.

(R pp 393-94).

---

[9] "DG" refers to "distributed generation," which includes NEM solar. *E.g.*, (R p 388 ("Based upon nationwide studies and the recommendations of the National Energy Screening Project, customer-sited energy generation, also called 'distributed generation' ('DG') contribute a number of benefits to the utility system.")).

The only intervenor to support the fulsomeness of the Companies' cost-benefit analysis was Appellee Public Staff. (R pp 109-10). In its Initial Comments, the Public Staff stated: "the [Companies'] studies included with this filing and reviewed by the Public Staff capture the bulk of the known and verifiable benefits." (R p 110). This about-face is curious, given that the Public Staff, during the discovery phase of this docket, served data requests upon the Companies which implicitly admitted that the value of solar was not adequately analyzed. For instance, the Public Staff propounded the following data request upon the Companies: "Please explain why the Companies declined to perform a Value of Solar Study to assist in developing the proposed Rider RSC." (R p 325).

In any event, the Public Staff is incorrect that the Companies adequately analyzed the benefits of solar. In fact, as described below, the Companies have ignored many of the known and verifiable benefits of NEM, and the Companies under-value benefits that they did quantify.

Following his analysis, subject-matter expert Mr. Powers prepared Table 2 appearing below, which summarizes the deficiencies with the Companies' purported cost-benefit analysis and the Public Staff's Initial Comments. According to Mr. Powers,

> The following Table 2 compares (1) the scope of the elements in a VOSS as identified by the Public Staff

> and the Public Staff's appraisal of Duke Energy's adherence to those elements, (2) NC WARN *et al.*'s assessment of the completeness and accuracy of Duke Energy's treatment of those VOSS line items, (3) the VOSS elements – and the magnitude of those elements – in the 2013 North Carolina NEM cost-benefit assessment conducted by NCSEA *et al.*'s expert, Tom Beach of Crossborder Energy, and (4) the VOSS elements included in the National Standard Practice Manual for cost-benefit analysis of NEM.

(R p 533).

Table 2 from Mr. Powers' report[10] appears on the following page. As the Court will see, Mr. Powers identified numerous benefits of NEM solar which were not evaluated by the Companies, and therefore were not considered by the Commission:

---

[10] (R p 534).

Table 2. Universe of NEM Benefits and Those Included in Duke Energy's NEM Cost-Shift Analysis

Universe of DER Benefits Listed in PS Initial Comments (citing to 2015 SC report)	PS Initial Comments on Whether DER Benefit Is Included in Duke's NEM Cost-Shift Calculation	NC WARN Assessment Whether DER Benefit Included in Duke's NEM Cost-Shift Calculation	DER Benefits Included in Crossborder Energy NC Study, 2013 (cited in 2015 SC report)	National Standard Practice Manual for Cost-Benefit Analysis of DERs, 2020 (Tables S3, S4, S5)
Avoided Energy	Yes	Yes (fuel cost and O&M only)	Yes	Yes
Avoided Fuel Hedge	Yes – in avoided energy	No (NCSEA comments, Ex. A, p. 6)	Yes	Yes
Avoided Capacity	Yes – under proposed NEEC	Yes – but very low (one-tenth the value estimated by Crossborder in 2013, p. 3)	Yes	Yes
Avoided Losses	Yes – in avoided energy and capacity	Yes – but low (see Crossborder 2013, p. 5)	Yes	Yes
Avoided or Deferred T&D	Yes/No	Yes/No	Yes	Yes
Avoided Ancillary Services	No	No	Yes	Yes
Market Price Reduction	No	No	Yes	Yes
Avoided Renewables Procurement	No	No	Yes	Yes
Monetized Environmental	Yes – in avoided energy (NO_x and SO2 only)	Yes (see Crossborder 2013, p. 5)	Yes	Yes
Avoided CO_2 Emissions	No	No	Yes	Yes
Social Environmental	No	No	No	Yes
Security Enhance / Risk	No	No	Yes	Yes
Societal (economic/jobs)	No	No	Yes	Yes

Table 2 above clearly demonstrates that there are numerous material omissions from the Companies', and thus the Commission's, alleged analysis of the benefits of solar. As stated by Mr. Powers, "Duke Energy failed to conduct the cost-benefit analysis required by the applicable standard of care. In particular, Duke Energy did not analyze the full *value* of solar." (R p 533).

IV. THE NON-UNANIMOUS MOU AND STIPULATION SHOULD BE GIVEN NO WEIGHT.

As described above, some solar interest groups agreed to the terms of a MOU with the Companies, which served as the basis for the NEM Tariffs approved by the Commission. Further, the Rooftop Solar Installers executed a non-binding Stipulation setting forth the terms of the short-term Bridge Rate approved by the Commission. These non-unanimous settlement agreements, which involved only a small portion of the intervenors in the underlying Commission docket, should be given little or no weight.

In *State ex rel. Utilities Comm'n v. Carolina Util. Customers Ass'n*, the North Carolina Supreme Court, in the context of a general rate case, emphasized the skepticism which must be exercised when considering a non-unanimous settlement agreement. 348 N.C. 452, 462-67, 500 S.E.2d 693, 701-03 (1998). The Supreme Court stated that "Chapter 62 contemplates a full and fair examination of evidence put forth by *all* of the parties," and "[t]o allow the Commission to dispose of a contested rate case by stipulation of less than all

certified parties would effectively absolve the Commission of its statutory and due process obligations to afford all parties a fair hearing." *Id.* at 464, 500 S.E.2d at 702. The Supreme Court proceeded to describe several problems with non-unanimous settlement agreements:

> The adoption of a non-unanimous stipulation raises several due-process concerns. The most obvious is the possibility that opposing parties may be denied an opportunity to present evidence against acceptance of the stipulation. **A more subtle problem is the possibility of an unintentional shift of the burden of proof from the utility to the opponents of the stipulation. There is a danger that when presented with a ready-made solution, the Commission might unconsciously require that the opponents refute the agreement**, rather than require the utility to prove affirmatively that the proposed rates are just and reasonable.

Id. (emphasis added).

Therefore, the Supreme Court held that, notwithstanding the presence of a non-unanimous settlement agreement, the Commission nonetheless must "set[] forth its reasoning and make[] 'its own independent conclusion' supported by substantial evidence on the record that the proposal is just and reasonable to all parties in light of all the evidence presented." *Id.* at 466, 500 S.E.2d at 703.

It bears mentioning that the MOU has not fared well in other proceedings. As noted above, the Incentive portion of the MOU—which, presumably, was the consideration sought by the solar interest groups in

exchange for their agreement to the NEM Tariffs—were rejected by the Commission on the same date as the NEM Order. *See* Order Declining to Approve Proposed Smart $aver Solar Program and Requiring Development of Pilot Program, NCUC Docket Nos. E-2, Sub 1287 & E-7, Sub 1261 (23 March 2023).

Settlement agreements are part of a give-and-take process. In exchange for an incentive, a party to a settlement agreement might agree to a separate contractual term which, without the incentive, would otherwise be completely unpalatable. In light of the give-and-take nature of settlements, where one material settlement term is rejected, arguably there is an erosion of the underlying basis for the entire settlement agreement. To be specific, because the Incentive portion of the MOU has already failed, the MOU should be completely disregarded by the Court as grounds supportive of the NEM Tariffs.

CONCLUSION

For the foregoing reasons, the Court of Appeals should reverse the Commission's NEM Order and remand this matter for a Commission-led investigation of the costs *and benefits* for NEM solar.

Respectfully submitted this the 13th day of October, 2023.

LEWIS & ROBERTS, PLLC

Electronically Submitted
Matthew D. Quinn
N.C. State Bar No. 40004
mdq@lewis-roberts.com
3700 Glenwood Avenue, Suite 410
Raleigh, NC 27612
Telephone: 919-981-0191
Facsimile: 919-981-0199
Counsel for Appellants NC WARN, North Carolina Climate Solutions Coalition, and Sunrise Movement Durham Hub

N.C. R. App. P. 33(b) Certification:
I certify that all of the appellant parties listed below have authorized me to list their names on this document as if they had personally signed it.

/s/ Catherine Cralle Jones
Catherine Cralle Jones
N.C. State Bar No. 23733
cathy@attybryanbrice.com
Law Offices of F. Bryan Brice, Jr.
130 S. Salisbury Street
Raleigh, North Carolina 27601
Telephone: 919-754-1600
Facsimile: 919-573-4252
Counsel for Appellant Environmental Working Group

/s/ Caroline Leary
Caroline Leary
D.C. State Bar No. 1023204
S.C. State Bar No. 100159
Environmental Working Group
cleary@ewg.org
1250 I Street NW, Suite 1000
Washington, DC 20005
Telephone: 202-939-9151
Facsimile: 202-232-2597
Admitted Pro Hac Vice by the Court of Appeals 19 July 2023
Counsel for Appellant Environmental Working Group

/s/ Andrea C. Bonvecchio
Andrea C. Bonvecchio
N.C. State Bar No.: 56438
andrea@attybryanbrice.com
Law Offices of F. Bryan Brice, Jr.
127 W. Hargett Street, Suite 600
Raleigh, NC 27601
Telephone: (919) 754-1600
Facsimile: (919) 573-4252
Counsel for Appellants 350 Triangle, 350 Charlotte, and the North Carolina Alliance to Protect Our People and the Places We Live

/s/ Donald E. Oulman
Donald E. Oulman
doulman@gmail.com
2742 Old Sugar Rd
Durham, NC 27707
Telephone: 815-341-8184
Pro Se Appellant

CERTIFICATE OF COMPLIANCE

Pursuant to Rule 28(j) of the North Carolina Rules of Appellate Procedure, counsel for Appellants certify that the forgoing brief, which was prepared using a 13-point proportionately spaced font with serifs, does not exceed 8,750 words (excluding covers, captions, indexes, tables and authorities, counsel's signature block, certificates of service, this certificate of compliance, and appendixes) as reported by the word-processing software.

This the 13th day of October, 2023.

LEWIS & ROBERTS, PLLC

Electronically Submitted
Matthew D. Quinn

CERTIFICATE OF SERVICE

The undersigned hereby certifies that on the 13th day of October, 2023, the foregoing *Appellants' Brief* was served on the following parties by electronic mail to the following email addresses by agreement:

Robert B. Josey
Staff Attorney
Manager, Electric Section
Public Staff – N.C. Utilities Commission
430 N. Salisbury Street
4326 Mail Service Center
Raleigh, North Carolina 27699-4300
robert.josey@psncuc.nc.gov
Counsel for Public Staff – North Carolina Utilities Commission

Kurt J. Boehm
Boehm, Kurtz & Lowry
36 East Seventh Street, Suite 1510
Cincinnati, Ohio 45202
kboehm@bkllawfirm.com
Counsel for North Carolina Rooftop Solar Installers

Jack Jirak
Deputy General Counsel
Kathleen H. Richard
Senior Counsel
Duke Energy Corporation
P.O. Box 1551
Raleigh, North Carolina 27602
jack.jirak@duke-energy.com
kathleen.richard@duke-energy.com

J. Ashely Cooper
Marion "Will" Middleton, III
Catherine Wrenn
Baker, Donelson, Bearman, Caldwell & Berkowitz, PC
40 Calhoun Street, Suite 200B
Charleston, South Carolina 29401
jacooper@bakerdonelson.com
wmiddleton@bakerdonelson.com
cwrenn@bakerdonelson.com
Counsel for Duke Energy Carolinas, LLC and Duke Energy Progress, LLC

Catherine Cralle Jones
N.C. State Bar No. 23733
Law Offices of F. Bryan Brice, Jr.
130 S. Salisbury Street
Raleigh, North Carolina 27601
Telephone: 919-754-1600
Facsimile: 919-573-4252
cathy@attybryanbrice.com
Counsel for Appellant Environmental Working Group

Caroline Leary
D.C. State Bar No. 1023204
S.C. State Bar No. 100159
Environmental Working Group
1250 I Street NW, Suite 1000
Washington, DC 20005
Telephone: 202-939-9151
Facsimile: 202-232-2597
cleary@ewg.org
Admitted Pro Hac Vice by the Court of Appeals 19 July 2023
Counsel for Appellant Environmental Working Group

Andrea C. Bonvecchio
N.C. State Bar No.: 56438
Law Offices of F. Bryan Brice, Jr.
127 W. Hargett Street, Suite 600
Raleigh, NC 27601

Telephone: (919) 754-1600
Facsimile: (919) 573-4252
andrea@attybryanbrice.com
Counsel for Appellants 350 Triangle, 350 Charlotte, and the North Carolina Alliance to Protect Our People and the Places We Live

Donald E. Oulman
2742 Old Sugar Rd
Durham, NC 27707
Telephone: 815-341-8184
doulman@gmail.com
Pro Se Appellant

LEWIS & ROBERTS, PLLC

Electronically Submitted
Matthew D. Quinn