

STATE OF NORTH CAROLINA  
UTILITIES COMMISSION  
RALEIGH

DOCKET NO. E-100, SUB 180

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

In the Matter of:	)	<u>JOINT REPLY COMMENTS</u>
	)	<u>OF</u>
Investigation of Proposed	)	<u>350 TRIANGLE, 350 CHARLOTTE,</u>
	)	<u>AND THE NORTH CAROLINA</u>
Net Metering Policy Changes	)	<u>ALLIANCE TO PROTECT OUR</u>
	)	<u>PEOPLE AND THE PLACES WE LIVE</u>

Intervenors 350 Triangle, 350 Charlotte, and the North Carolina Alliance to Protect Our People and the Places We Live (collectively, the “Joint Intervenors”), through undersigned counsel and pursuant to the North Carolina Utilities Commission (“NCUC”)’s Order Requesting Comments entered in the above-referenced docket on January 10, 2022, hereby respectfully submit these Joint Reply Comments regarding the Duke Energy Progress, LLC (“DEP”) and Duke Energy Carolinas, LLC’s (“DEC”) (collectively, “Duke Energy”) Joint Petition for Approval of Revised Net Energy Metering (“NEM”) tariffs (the “Proposal”):

**SUMMARY**

As further detailed in Joint Intervenor’s Initial Comments, the NCUC must reject Duke Energy’s Proposal in the above-referenced docket.

Based on other intervenors’ initial comments, there is widespread agreement that approval of Duke Energy’s Proposal would violate applicable law governing the establishment of NEM rates.

First, the Proposal is not supported by an investigation of the costs and benefits of customer-sited generation because it fails to meaningfully analyze the benefits of NEM solar as required by § 62-126.44(b) of the North Carolina General Statutes, commonly referred to as House Bill 589 (“H.B. 589”). Until an investigation based on national best practice standards is completed, the Proposal is premature and incomplete. Additionally, other intervenors assert, and Joint Intervenors agree, that Duke Energy’s Proposal further violates the statutory mandate of H.B. 589, which directs the NCUC to establish NEM rates under all tariff designs.

Furthermore, intervenors in this docket generally agree that Duke Energy’s Proposal disincentivizes rooftop solar and reduces its economic value.<sup>1</sup> The Proposal’s complex business practices will undermine the carbon reduction goals mandated by House Bill 951 (“H.B. 951”), exacerbate the climate crisis, and have deleterious public health impacts in derogation of NCUC’s obligations under North Carolina law and public policy.

For the reasons discussed below, as well as those in the Initial Comments of Joint Intervenors which are incorporated herein by reference, Duke Energy’s Proposal must be rejected.

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<sup>1</sup> See The Public Staff’s Initial Comments, p. 32 (concluding that under Duke’s Proposal, the average bill for NEM customers would increase by as much as 118.53%).

## DISCUSSION

The following discussion highlights several arguments filed by other intervenors in this docket. An absence of a response to any argument is not intended to signal an endorsement of such views.

### **I. Most Intervenors in This Docket Agree That the Proposal Does Not Comply with Applicable Statutory Mandates.**

H.B. 589 requires the following of the NCUC regarding NEM rates:

The rates shall be nondiscriminatory and **established only after an investigation of the costs and benefits of customer-sited generation.** 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. § 62-126.44(b) (emphasis added).

Several intervenors have determined that while the *costs* of customer-sited generation have been evaluated, an investigation regarding its associated *benefits* has not been conducted.<sup>2</sup> Standing alone in opposition to this point is the Public Staff, which implies that a study of the true value of solar is not needed because the requirements of H.B. 589 have been met.<sup>3</sup> The initial comments of Joint Intervenors and other intervenors disagree with this contention and instead assert that Duke Energy's Proposal deviates from the applicable standard of care which governs cost-benefit investigations and ignored many of the known and verifiable benefits of solar.

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<sup>2</sup> Sundance Power Systems, Inc., Southern Energy Management, Inc., and Yes Solar Solutions' Initial comments, pp. 1-3; EWG's Initial Comments, pp. 8-11; The Attorney General's Office's Initial Comments, p. 3.

<sup>3</sup> The Public Staff's Initial Comments, pp. 30-31.

Furthermore, other intervenors assert, and Joint Intervenors agree, that because Duke Energy's Proposal establishes a "one size fits all" NEM tariff by seeking to compel all NEM customers onto a tariff involving time of use ("TOU") and Critical Peak Pricing ("CPP"), the proposed approach is inequitable and in violation of H.B. 589 because it does not address all tariff designs.

For these reasons, as well as the reasons discussed in Joint Intervenor's Initial Comments, Joint Intervenors respectfully urge the NCUC to reject Duke Energy's Proposal.

- A. Duke Energy failed to investigate the costs and benefits of customer-sited generation and an independent investigation utilizing national best practices must be completed.

The law governing the establishment of new NEM tariffs is clear—"rates shall be nondiscriminatory and established **only after an investigation of the costs and benefits of customer-sited generation.**"<sup>4</sup> There is broad agreement among various intervenors in this docket that Duke Energy's Proposal is not supported by such an investigation and the Rate Design Stakeholder Process was insufficient to satisfy the above statutory mandate.<sup>5</sup> Therefore, pursuant to law, the NCUC must reject Duke Energy's Proposal and require a comprehensive investigation addressing the known and verifiable benefits of customer-sited generation prior to revising the NEM tariffs currently in effect.

The Public Staff erroneously concludes that Duke Energy's embedded and marginal cost studies satisfy the requirement of an investigation of the costs and

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<sup>4</sup> N.C. Gen. Stat. § 62-126.4(b) (emphasis added).

<sup>5</sup> See The Attorney General's Office's Initial Comments, pp. 3-4; NC WARN *et al.*'s Initial Comments, pp. 17-22.

benefits of NEM solar as outlined in H.B. 589. Using principles of statutory construction, other intervenors, giving the language of the statute its natural and ordinary meaning and considering its legislative intent, have correctly stated that the statute requires an independent study of benefits as well as costs.

Both Sundance Power Systems, Inc., Southern Energy Management, Inc., and Yes Solar Solutions (collectively “North Carolina Rooftop Solar Installers”) and NC WARN, NCCSC, and Sunrise Durham (“NC WARN *et al.*”) highlight the intent behind H.B. 589 by pointing to comments made by its chief author Rep. John Szoka (R-Cumberland).<sup>6</sup> Rep. Szoka once stated in relevant part:

It's **not up to the utility** to determine whether net metering is good or bad . . . . 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.**<sup>7</sup>

It is clear that based on the language of the governing statutory framework and evidence provided by other intervenors of the North Carolina Legislature's intent, Duke Energy's evaluation is not only incomplete but also insufficient to meet H.B. 589's mandate which requires an *independent* investigation.<sup>8</sup>

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<sup>6</sup> The North Carolina Rooftop Solar Installers' Initial Comments, p. 2; NC WARN *et al.*'s Initial Comments, p. 11.

<sup>7</sup> Elizabeth Ouzts, Energy News Network, "Energy Bill could see North Carolina Join national fight over net metering," July 17, 2017, <https://energynews.us/2022/03/15/rooftop-solar-companies-enter-fray-over-north-carolina-net-metering-proposal/> (last visited May 10, 2022) (emphasis added).

<sup>8</sup> *Id.*

As discussed in the Environmental Working Group (“EWG”) and NC WARN *et al.*’s initial comments,<sup>9</sup> the statutorily mandated investigation should be conducted independently and in compliance with the applicable standard of care for conducting cost-benefit analyses of distributed energy resources. This standard of care is set out by the National Energy Screening Project’s *National Standard Practice Manual for Benefit-Cost Analysis of Distributed Energy Resources* (“NSPM-DER”), which contains rules governing a broad framework for the performance of cost-benefit analyses and guidance for how to address rate impacts and cost shifts. Notably, NSPM-DER requires the consideration of the costs and benefits of solar, including both societal and economic.

In addition to improperly concluding that Duke’s Energy’s Proposal satisfies the investigation requirement of H.B. 589, the Public Staff also asserts that Duke Energy’s Proposal adequately analyzed the benefits of solar. They note that “[w]hile a value of DER study in North Carolina might reveal marginal additional benefits from DERs . . . the studies included with this filing and reviewed by the Public Staff captures the bulk of the known and verifiable benefits”<sup>10</sup> and “any value of DER must be based upon quantifiable benefits and costs to the utility . . . .”<sup>11</sup> As further detailed in Joint Intervenor’s Initial Comments, there are numerous quantifiable social, economic, and environmental benefits of solar which by the

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<sup>9</sup> EWG’s Initial Comments, pp. 15-16; NC WARN *et al.*’s Initial Comments, pp. 12-14.

<sup>10</sup> The Public Staff’s Initial Comments, pp. 30-31.

<sup>11</sup> *Id.*

Public Staff's own admission<sup>12</sup>, are not mentioned or analyzed in the studies by Duke Energy. Under the applicable standard of care, these societal factors must be analyzed and quantified.

Other than the Public Staff, most intervenors in this docket acknowledge that Duke Energy's Proposal fails to adequately analyze the known and verifiable benefits of NEM solar.<sup>13</sup> Joint Intervenors agree and urge the NCUC to require that an *independent* study based on NSPM-DER standards be completed which examines low-income customers' non-energy impacts, greenhouse gas emissions, incremental economic development and job impacts, health impacts, energy importance, and energy independence.<sup>14</sup>

Without an appropriate evaluation that provides a meaningful analysis of the full costs and benefits of customer-sited generation, Duke Energy's Proposal does not comply with the mandates provided by H.B. 589 and must be rejected.

B. Duke Energy's Proposal violates the statutory mandate of H.B. 589 directing the NCUC to establish NEM rates under all tariff designs.

In addition to prohibiting the establishment of new NEM tariffs until after a cost-benefit analysis is conducted, H.B. 589 also requires the NCUC to "establish net metering rates under **all tariff designs** that ensure that the net metering retail customer pays its full fixed cost of service" and that are "nondiscriminatory."<sup>15</sup> As NC WARN *et al.* points out in its initial comments, at present, customers have a

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<sup>12</sup> The Public Staff's Initial Comments, p. 31 (table showing the value of DER benefits excluded from Duke Energy's studies).

<sup>13</sup> The Attorney General's Office's Initial Comments, p. 3; EWG's Initial Comments, pp. 15-16.

<sup>14</sup> NC WARN *et al.*'s Initial Comments, pp. 12-13.

<sup>15</sup> N.C. Gen. Stat. § 62-126.4(b) (emphasis added).

variety of NEM arrangements to choose from, which provide them the flexibility to select the most appropriate rate for their needs. These NEM arrangements include flat-rate riders and TOU based tariffs.<sup>16</sup>

Duke Energy's Proposal violates H.B. 589 because non-residential NEM customers are not addressed and only one residential rate design is being proposed for all customers. Based on a review of the Proposal, all new NEM residential customers after January 1, 2023 must be served under a residential rate schedule with TOU and CPP.<sup>17</sup> This one-size-fits-all approach will force all customers onto TOU and CPP tariffs thereby eliminating flat-rate NEM customers and substantially reducing the value of customers' solar systems by forcing them to purchase power from the grid at the highest rate.

Because H.B. 589 directs the NCUC to establish NEM rates under all tariff designs, Duke Energy's proposal of one mandatory NEM residential rate design does not comply with this statutory mandate. On that basis, the Proposal must be rejected.

**II. Intervenor's Widely Agree that Duke Energy's Proposal Will Reduce Rooftop Solar's Economic Value, Exacerbating the Climate Crisis.**

Duke Energy's Proposal and its disincentives for rooftop solar encourage the state's dependency on fossil fuels for energy production, against the public interest as well as state standards for carbon emissions reduction targets. The

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<sup>16</sup> NC WARN *et al.*'s Initial Comments, pp. 7-9.

<sup>17</sup> Duke Energy Carolinas, LLC's and Duke Energy Progress, LLC's Joint Petition for Approval of Revised Net Energy Metering Tariffs, Docket No. E-100 Sub 180, Ex. No. 1, pdf p.30; Duke Energy Carolinas, LLC's and Duke Energy Progress, LLC's Joint Petition for Approval of Revised Net Energy Metering Tariffs, Docket No. E-100 Sub 180, Ex. No. 2, pdf p. 41.



NCUC must consider the Proposal in light of North Carolina public policy that recognizes the importance of halting the ongoing climate crisis. Other intervenors agree that based on the differential between rates charged and credits allowed, there will be a negative impact on solar customers. Duke Energy's proposed NEM tariffs would impose additional social and economic costs onto North Carolina's citizens and must be rejected.

As discussed in Joint Intervenor's Initial Comments, H.B. 951 requires the NCUC to take all reasonable steps to achieve reductions in the emissions of carbon dioxide from electric generating facilities, including Duke Energy. Specifically, H.B. 951 aims to reduce electric utilities' carbon dioxide emissions by 70% from 2005 levels by the year 2030 and to achieve carbon neutrality by 2050. To meet these targets, the NCUC directed Duke Energy to file a proposed plan (the "Carbon Plan") by May 16, 2022, which the NCUC will then adopt and make effective by December 31, 2022. Other intervenors similarly acknowledge that until there is more clarity on the role customer-sited generation will play in achieving the goals of H.B. 951, Duke Energy's Proposal is premature and will likely undercut rather than support the purpose of the Carbon Plan's development.<sup>18</sup>

There is widespread agreement in this docket that Duke Energy's Proposal would substantially reduce savings of rooftop solar in North Carolina by a range of 15-35%. For example, the Public Staff, who has a statutory duty to review, investigate, and make appropriate recommendations to the NCUC with respect to

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<sup>18</sup> The Attorney General's Office's Initial Comments, pp. 4-5; NC WARN *et al.*'s Initial Comments, 24-25; EWG's Initial Comments, pp. 15-16.

proceedings affecting rates or service, acknowledges that Duke Energy's proposed NEM tariffs will cause the average electricity bill of a NEM customer to increase by an average of 16.59% - 118.53%.<sup>19</sup> Intervenors NC WARN *et al.*,<sup>20</sup> the North Carolina Rooftop Solar Installers,<sup>21</sup> Mr. Daniel E Oulman,<sup>22</sup> and the North Carolina Sustainable Energy Association, Southern Alliance for Clean Energy, and Vote Solar ("NCSEA *et al.*")<sup>23</sup> reach similar conclusions that the proposed NEM tariffs would reduce the economic value of rooftop solar systems. This rate-based cost signal discourages investment in on-site generation and would eliminate the energy generating and social benefits of customer-sited clean energy generation.

Additionally, as EWG's energy policy expert Grant Smith explains in detail, the revisions to NEM rates proposed by Duke Energy heavily rely on high fixed charges in the form of a minimum bill, thereby lowering incentives to conserve energy, rewarding high energy customers, and hurting low-income and energy-conserving customers.<sup>24</sup> The reduction of household investments for energy efficient lighting, appliances, and insulation would inevitably increase the costs of the entire electric system.

As further discussed in Joint Intervenor's Initial Comments, the climate crisis demands the prioritization of renewable electricity generation and warrants immediate action. The Proposal's disincentives for solar—and consequent

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<sup>19</sup> The Public Staff's Initial Comments, pp. 31-32.

<sup>20</sup> NC WARN *et al.*'s Initial Comments, pp. 22-25.

<sup>21</sup> The North Carolina Rooftop Solar Installers' Initial Comments, p. 3.

<sup>22</sup> Daniel E Oulman's Initial Comments, p. 2.

<sup>23</sup> NCSEA *et al.*'s Initial Comments, p. 9.

<sup>24</sup> EWG's Initial Comments, Attachment B, Grant Smith Report, p. 3.

increased dependence on fossil fuels—would halt and reverse the state’s progress towards achieving its carbon reduction goals and is therefore inapposite with H.B. 951. Given North Carolina’s public policy designed to curb climate change, it is essential that rooftop solar be promoted and fairly compensated rather than discouraged. Until a Proposal that does not stunt the growth of solar adoption in North Carolina is submitted, the NCUC must reject Duke Energy’s Proposal.

**III. Joint Intervenors Support the Initial Comments of Several Additional Intervenors in this Docket.**

The initial comments of several other intervenors reveal similar and repeated criticisms of Duke Energy’s NEM Proposal and further call on the NCUC to outright reject or postpone consideration of the Proposal. To underscore the validity of the points outlined above, by way of example and without limitation, Joint Intervenors support the following positions and assertions by the initial comments of other intervenors:

- a) The Proposal should be rejected;<sup>25</sup>
- b) The Comprehensive Rate Design Study investigated the costs but not the benefits of customer-sited generation;<sup>26</sup>

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<sup>25</sup> The North Carolina Rooftop Solar Installers’ Initial Comments, p. 12; NC WARN *et al.*’s Initial Comments, p. 39; Donald E Oulman’s Initial Comments, p. 6; EWG’s Initial Comments, p. 17.

<sup>26</sup> The Attorney General’s Office’s Initial Comments, p. 3; NC WARN *et al.*’s Initial Comments, pp. 20-22.

- c) It may not be possible to fully quantify the benefits of customer-sited generation until there is more clarity on the role it will play in meeting the state's carbon reduction goals;<sup>27</sup>
- d) Some benefits of distributed renewable generation that Duke Energy has not quantified includes "avoided costs for carbon emissions and fuel hedging benefits;"<sup>28</sup>
- e) When NEM tariffs are eventually adopted, the NCUC should require Duke Energy to file annual reports on the implementation of its revised NEM program and tariffs;<sup>29</sup>
- f) The NCUC should direct Duke Energy to better facilitate and accommodate energy storage coupled with renewable generation;<sup>30</sup>
- g) Duke Energy's Proposal and its disincentive of rooftop solar violates the purpose and goals of both H.B. 951 and Governor Cooper's Executive Order 80;<sup>31</sup>
- h) If the goal is to rectify alleged NEM cost shifts, it is unfair to begin with residential NEM customers;<sup>32</sup>
- i) The proposed NEM rates are overly complex;<sup>33</sup>

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<sup>27</sup> EWG's Initial Comments, p. 16; NC WARN *et al.*'s Initial Comments, pp. 24-25; The Attorney General's Office's Initial Comments, pp. 4-5.

<sup>28</sup> NCSEA *et al.*'s Initial Comments, Exhibit A, p. 6, footnote 7.

<sup>29</sup> The Public Staff's Initial Comments, p. 40.

<sup>30</sup> The Public Staff's Initial Comments, p. 37.

<sup>31</sup> NC WARN *et al.*'s Initial Comments, p. 24.

<sup>32</sup> NC WARN *et al.*'s Initial Comments, p. 28.

<sup>33</sup> The North Carolina Rooftop Solar Installers' Initial Comments, pp. 4-7; NC WARN *et al.*'s Initial Comments, Attachment 1.

- j) If the NCUC rejects the Smart Saver incentive, then the memorandum of understanding between Duke Energy and other intervenors in this docket should be disregarded in the present docket;<sup>34</sup>
- k) Without the Smart \$aver Solar Program, bill savings for a typical customer-generator would drop significantly;<sup>35</sup>
- l) Duke Energy's Proposal disincentives investments for rooftop solar thereby exacerbating the climate crisis;<sup>36</sup>
- m) Duke Energy's Proposal fails to account for substantial avoided costs of high voltage transmission;<sup>37</sup>
- n) Duke Energy's cost-shift analysis is flawed and has failed to establish that there is a cost-shift from NEM residential customers to non-NEM residential customers;<sup>38</sup>
- o) Duke Energy's proposed NEM tariffs, which are tied to TOU and CPP arrangements, would impose higher rates during non-optimal periods of generation and disadvantage rooftop solar customers;<sup>39</sup>

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<sup>34</sup> NC WARN *et al.*'s Initial Comments, p. 38.

<sup>35</sup> North Carolina Sustainable Energy Association, the Southern Alliance for Clean Energy, and Vote Solar's Initial Comments, p. 13.

<sup>36</sup> The North Carolina Rooftop Solar Installers' Initial Comments, pp. 3-4; NC WARN *et al.*'s Initial Comments, pp. 3, 22-24; Donald E Oulman's Initial Comments, p. 2; The Attorney General's Office's Initial Comments, p. 5.

<sup>37</sup> NC WARN *et al.*'s Initial Comments, Attachment A, p. 8; EWG's Initial Comments, Attachment B, pp. 22-23.

<sup>38</sup> The North Carolina Rooftop Solar Installers' Initial Comments, pp. 3, 11-12; NC WARN *et al.*'s Initial Comments, pp. 2, 18-19.

<sup>39</sup> Donald E Oulman's Initial Comments, p. 3-4; NC WARN *et al.*'s Initial Comments, pp. 33-35.

- p) Duke Energy's proposal to lock in the current Net Excess Energy Credit of \$0.0268/kWh for the next 10 years at the NCUC-approved avoided cost rate is unreasonable and should be rejected;<sup>40</sup>
- q) Duke Energy's studies fail to include factors favorable to solar customers in its studies including line losses, carbon emissions avoided, avoided criteria pollutants, fuel hedge, and environmental system/compliance costs avoided;<sup>41</sup>
- r) Duke Energy's Proposal ignores the fact that low-usage customers and those in multi-family housing or dense neighbors incur lower distribution costs than high-usage customers;<sup>42</sup>
- s) Duke Energy's Proposal lacks provisions regarding battery storage technology which is critical for customers to avoid high on-peak pricing;<sup>43</sup> and
- t) Duke Energy's proposed TOU rates not only disincentive large rooftop solar arrays but would also encourage a directional bias away from direct south, the optimal direction for solar generation, to the west/southwest to earn a credit for kWh at peak times.<sup>44</sup>

### **CONCLUSION**

Duke Energy's Proposal must be rejected. As others acknowledge, approval of Duke Energy's Proposal would violate applicable law governing the

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<sup>40</sup> The North Carolina Rooftop Solar Installers' Initial Comments, pp. 7-8.

<sup>41</sup> EWG's Initial Comments, Attachment B, p. 18.

<sup>42</sup> *Id.* at 11.

<sup>43</sup> NC WARN *et al.*'s Initial Comments, p. 36.

<sup>44</sup> The North Carolina Rooftop Solar Installers' Initial Comments, pp. 5-7.

establishment of NEM rates for various reasons, including that the Proposal is not supported by an investigation of the costs and benefits of customer-sited generation and fails to establish NEM rates under all tariff designs. Furthermore, Duke Energy's Proposal and its disincentives for rooftop solar, as well as its complex proposed tariffs, will undermine the carbon reduction goals mandated by H.B. 951 and exacerbate the climate crisis.

Finally, in fairness to all existing residential NEM customers who will unknowingly be impacted by the Proposal, the NCUC should require Duke Energy to provide individual notice to customers to allow them an opportunity to evaluate their interests and engage in this docket. For the above reasons, as well as the reasons discussed in Joint Intervenor's Initial Comments, Joint Intervenors respectfully urge the NCUC to reject Duke Energy's Proposal.

Respectfully submitted this 12th day of May, 2022.

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CERTIFICATE OF SERVICE

I hereby certify that I have this day served a copy of the foregoing *Joint Reply Comments of 350 Triangle, 350 Charlotte, and The North Carolina Alliance to Protect Our People and the Places We Live* upon each of the parties of record in these proceedings or their attorneys of record by deposit in the U.S. Mail, postage prepaid, or by email transmission.

This the 12th day of May, 2022.

LAW OFFICE OF F. BRYAN BRICE, JR.

By: /s/ Andrea C. Bonvecchio  
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