

**From:** Amy Musser <amy@vandemusser.com>  
**Sent:** Sunday, March 27, 2022 12:10 PM  
**To:** Statements  
**Subject:** Docket E-100, Sub 180CS

As a ratepayer and owner of a residential solar array in NC, I have serious concerns about Duke's proposal to change the way in which owners of these systems are billed. I also have a residential energy efficiency rating and consulting business, and I analyze the performance of many homes that have solar. I draw on both personal and professional experience in my comments below.

First, this is unnecessary, as the utility's claims that other rate payers somehow subsidize solar owners has not been shown by independent analysis. This has been tried by utilities in other states, but has not been shown to be true. Solar owners provide a lot of benefits to the grid as a whole, as studies by organizations like RMI have shown.

Second, I have reviewed the calculation spreadsheet that was produced by NCSEA, and found it to be lacking and misleading in several important respects. The NCUC should require additional analysis to address these concerns. I was able to identify the following deficiencies with that spreadsheet. NCUC should, at a minimum, require that additional analysis address these concerns:

1) This is a very undersized system. Because of that, this homeowner never has a "reset to zero", so the effects of that provision are not accounted for. The proposed monthly vs current annual "reset to zero" is a problem for systems that are sized more closely to a home's total usage, which is ***something we don't want to penalize***. While we're putting up systems, it makes sense to have economies of scale, and a lot of homeowners like the idea of being "net-zero" energy. Most of my clients who choose solar have this goal. ***So, one of the biggest financial penalties of this system is hidden by the choice of system size in the NCSEA spreadsheet.***

2) This usage profile is NOT a house that uses electric heating in WNC (and may not be a house with electric heating at all). If we want to think about (1) real solar customers, and (2) a zero-carbon future, we have to analyze the impact on a home that is not heating with gas. This profile is probably from Charlotte or Raleigh. Its highest summer bill is a bit higher than its highest winter bill. It also doesn't have as much "swing season lull" in the spring and fall as I tend to see in Western NC. Typically in WNC if the home is all electric, you are going to have the highest bills for at least 3-4 months in the winter and those months coincide with the lowest solar production. Many people in WNC also have longer periods (3-6 total months) when their heating/cooling use is pretty low in the spring/fall, and those months coincide with moderately high solar production. The net effect is that this monthly "reset to zero" is going to more seriously hurt solar customers who do their heating with electricity, especially in WNC. ***The choice of load profile (which is not typical of WNC or a home with electric heating) also hides the effect of the monthly reset to zero.***

3) It's oddly misleading that a simple payback isn't calculated. It's easy enough to do. So, I calculated a simple payback. Using the (low) solarize Asheville cost of \$2.45/Watt, the system cost for this 6 kW system is \$14,700. Subtracting the \$2160 rebate we get a \$12,540 installed cost. (Maybe lower if federal tax credits are in play, but do we want solar only to make sense for people with federal tax liability? And do we want the viability of solar to rely entirely on Congress? I don't think so.) Divide that by the \$689 annual savings, you get

an 18 year simple payback. The simple payback on my personal system, installed in 2011, was 7-10 years. **Can anyone possibly justify the idea that solar in 2023 would have twice the simple payback of solar in 2011?** Also, I will tell you that a payback of 10 years or less is the point where most of the clients I talk to really want to see things for them to justify it financially. 18 years is a pretty hefty ask, and I think we can assume that would harm the industry significantly.

4) The other thing that is likely misleading and that NCSEA should absolutely expand the spreadsheet to address: ***They compare the "bill savings" with solar to no solar, but they don't compare it to what solar customers pay now.*** If they are proposing to put current solar owners on this rate structure, they should absolutely show a comparison to the current net-metering bill structure. ***It would be really good to know if those of us who currently have solar will suddenly have higher bills.*** Without spending half a day getting a year of my own data and making a spreadsheet with the current rates to prove it, it certainly seems like I would be paying more based on the shorter payback time for my system, which I bought at a time when the cost of solar was significantly higher.

5) Also misleading: The analysis actually has 3 Duke rate structures built in. The one they sent it out with is the one that shows the largest savings. The annual savings from installing solar is \$689 on the DEP rate. It's \$547 on DEC, and it's \$516 on DEC all electric (This is super easy to toggle in cell G1). They didn't show the DEP energy efficient home rate, which a lot of my clients would be on (it's a lower rate than the DEP rate). So, while pretty much all of Buncombe is in the DEP rate, our neighbors in Henderson County and South are on DEC rates. And a lot of solar customers have all electric homes. ***So using that rate, the simple payback goes up to 24 years, even for this system that's specifically designed not to show all of the flaws of this rate structure.***

6) Occupant behavior: Duke used to have a rate structure with a kW demand charge for residential customers. Most customers did TERRIBLY on it. I have talked to several local installers who told me that they stopped putting people on it as soon as they could because nobody would modify their behavior. And this was 10 years ago, so these were the early adopters. I don't think we can assume people will alter their behavior much. And the big loads (water heater, heat pump, backup heat) are not that easy to alter significantly. ***I think most installers would tell you that we have a history showing people don't alter their behavior much in response to a peak pricing regime. And this one with its 20 randomly announced periods is going to be even more difficult to react to because you can't pre-program it.*** I recently added a battery to my system and I have the ability to discharge it to avoid using electricity at peak times. However, the options to program it that are available currently are not sophisticated enough to respond to this proposed rate structure. If Duke would offer a simpler structure and tell me when to discharge my battery, I would be happy to do that. People want batteries for backup power. If Duke would work with them in a reasonable way, they could see a lot of benefit in terms of avoided peak power. But people won't (and in the case of some battery systems they CAN'T) discharge at 20 random times throughout the year. This shouldn't be necessary. Likely these 20 periods will happen at a certain time of day during a certain season. Providing a simpler on-peak period would allow customers with batteries to benefit the grid.

Thank you,

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Amy Musser, Ph.D., P.E.  
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Asheville, NC 28804  
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Mar 28 2022

**Conyers, Tamika**

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**From:** Karen Kortendick <klkortendick@gmail.com>  
**Sent:** Sunday, March 27, 2022 12:30 PM  
**To:** Statements  
**Subject:** OPPOSE DOCKET E-100, Sub 180

I oppose the petition to change the rules on net metering. Keep the existing rules and save solar! Karen Kortendick 45 Pinecroft Rd Asheville, NC 28804 Thank you Nextdoor for your support for saving solar energy in NC.

Karen

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Mar 28 2022

**Conyers, Tamika**

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**From:** Peter <peter.asmar@gmail.com>  
**Sent:** Sunday, March 27, 2022 2:33 PM  
**To:** Statements  
**Subject:** Docket E-100, Sub 180CS

Please reject Duke's proposal.

Also, amend the current following unfair policies that allow Duke to 'effectively' steal money/energy from solar consumers:  
(even though it is legal according to the commission and current laws, it is morally wrong)

- 1- Wiping out accumulated solar credits on May 31st for solar consumers
- 2- NOT allowing the credits to be applied to the monthly fixed charge charge.
- 3- Allowing Duke to use a credit system in the first place, as opposed to paying consumers their due when they receive the energy (just as consumers pay Duke on a timely basis when Duke provides energy).

Duke's claim that solar consumers don't pay their fair share of infrastructure costs is completely false. Each additional solar installation reduces peak volume requirements, especially during the summer. Solar installations D'ONT pull in energy during peak sunlight periods and will feed energy into Duke during non peak periods. Some solar installations will even feed Duke energy during peak periods.

All of the just above factors reduce the need for Duke to build out additional capacity and meet non solar consumer needs. So if incentives were set correctly (fixing 1-3 further above), even more people would move to solar and all of North Carolina would win, even Duke.

Thanks,  
Peter Asmar  
914 Peltier  
Cary NC 27519

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Mar 28 2022

**From:** Bonnie/Bob Busby <bbuzz72@gmail.com>  
**Sent:** Sunday, March 27, 2022 4:04 PM  
**To:** Statements  
**Subject:** Comments on Docket #E-100 Sub 100

My name and address are Robert and Bonnie Busby, 87 McClain St, Asheville, NC 28803.

I disagree with the changes to Net Energy Metering Tariffs described by Docket E-100 Sub 180. The fundamental premise of a cross-subsidy (funds to solar owners from other ratepayers) has been repeatedly debunked by independent studies. In fact, many studies indicate that the reverse is true: solar owners are subsidizing other ratepayers. For a particularly compelling example, see <https://emp.lbl.gov/publications/putting-potential-rate-impacts>

I ask the the Public Utilities Commission to:

1. Allow excess energy produced by rooftop solar during critical peak pricing periods to be reimbursed at the same rate as a customer would buy it. This rate schedule has three different costs: off-peak, on-peak and critical peak pricing. The schedule focuses on undervaluing and discouraging solar, instead of properly valuing rooftop solar contributions to the grid. The critical peak price times are late summer evenings and early winter mornings, when solar isn't generally producing at high levels even though the summer times don't correlate to the hours when the grid is most stressed in the summer.
2. Allow customers to retain or sell their renewable energy credits (RECs) under any new rule. Duke currently gets to retain the RECs generated from energy delivered by rooftop solar. Duke can then turn around and sell them through programs like Renewable Advantage which does not contribute to more solar capacity and misrepresents "support for solar" to the customers.
3. Keep the current expiration of account balances. In the current rule, account balances are zeroed out annually. The new rule moves to monthly netting, meaning in any month where the rooftop owners produce more power than they use, they lose those credits. This will mean that more energy will be exported to the grid without appropriate compensation to them. At the same time, rooftop owners will have to pay for any deficit in any particular month, at a rate much higher than they are paid for a surplus.

Thank you for taking my input.

**Conyers, Tamika**

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**From:** Robin Stiles <robincstiles@gmail.com>  
**Sent:** Sunday, March 27, 2022 4:33 PM  
**To:** Statements  
**Subject:** Comments on Docket #E-100 Sub 100

My name is Robin Stiles. I live at 206 Central Avenue in Black Mountain NC 28711.

I disagree with the changes to Net Energy Metering Tariffs described by Docket E-100 Sub 180.

We have rooftop solar panels. We are very concerned about the environment, which is why we purchased these panels in 2016. I want Duke to keep the current expiration of account balances. In the current rule, account balances are zeroed out annually on May 31st. Each year for four years we have "given" Duke, and "contributed" the value of, an average of 593 kWh. That's 2 months use in the spring and fall, and a full month's use in the winter and summer.

The new rule moves to monthly netting, meaning in any month where the rooftop owners produce more power than they use, they lose those credits. This will mean that more energy will be exported to the grid without appropriate compensation to them.

Thank you for taking my input.

Robin

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Mar 28 2022

**Conyers, Tamika**

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**From:** Tom Stiles <thomaslstyles@gmail.com>  
**Sent:** Sunday, March 27, 2022 8:28 PM  
**To:** Statements  
**Subject:** Comments on Docket #E-100 Sub 100

My name and address are Thomas L. Stiles, 206 Central Ave, Po Box 488, Black Mountain NC, 28711

I disagree with the changes to Net Energy Metering Tariffs described by Docket E-100 Sub 180. The fundamental premise of a cross-subsidy (funds to solar owners from other ratepayers) has been repeatedly debunked by independent studies. In fact, many studies indicate that the reverse is true: solar owners are subsidizing other ratepayers. For a particularly compelling example, see <https://emp.lbl.gov/publications/putting-potential-rate-impacts>

I ask the the Public Utilities Commission to:

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2. Allow customers to retain or sell their renewable energy credits (RECs) under any new rule. Duke currently gets to retain the RECs generated from energy delivered by rooftop solar. Duke can then turn around and sell them through programs like Renewable Advantage which does not contribute to more solar capacity and misrepresents "support for solar" to the customers.
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Thank you for taking my input.

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Mar 28 2022



**Conyers, Tamika**

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**From:** Allison Gaynor <allisong0823@gmail.com>  
**Sent:** Monday, March 28, 2022 6:51 AM  
**To:** Statements  
**Subject:** Docket E-100, Sub 180CS

Hi to whom it may concern,

Our dependencies a nuclear and fossil fuels spawned people in my neighborhood to install solar in their homes. These units have a payback of 10 to 15 years and higher depending on the installer. Learning that Duke plans to continue to increase rates for those people who made this investment to protect our ecosystems is outrageous. Please stop Duke from punishing individual homeowners.

Let's please look to create legislation and incentives instead to make Solar more affordable and encourage a way forward to lower our dependencies an oil, coal, and nuclear energy.

Best, Allison

Allison Gaynor  
Durham, North Carolina  
Sent from my iPhone

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Mar 28 2022

**Conyers, Tamika**

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**From:** Dustin Nidiffer <hotliljay@gmail.com>  
**Sent:** Monday, March 28, 2022 6:59 AM  
**To:** Statements  
**Subject:** Save Solar

Please help NC save solar. Thank you.

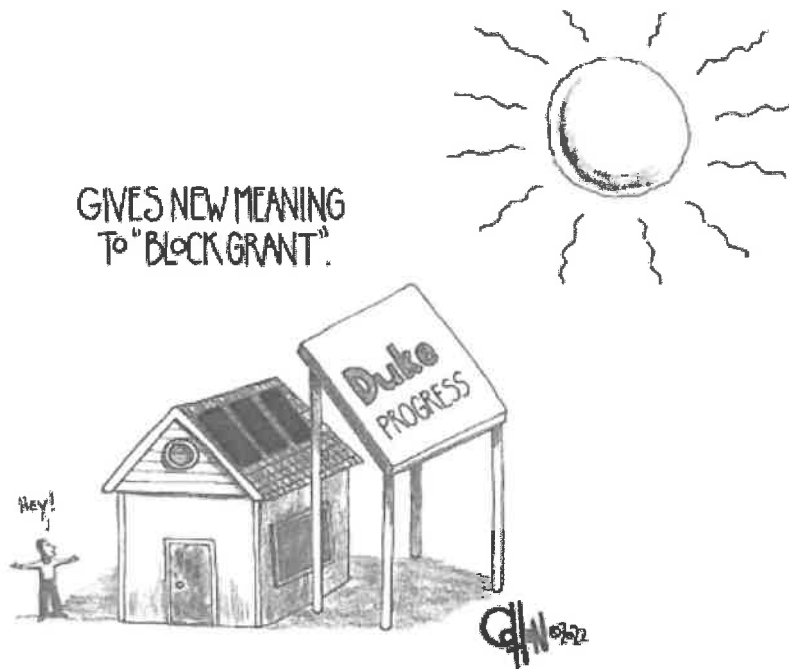
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Mar 28 2022

Conyers, Tamika

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**From:** Paul Rollins <proll5082@gmail.com>  
**Sent:** Sunday, March 27, 2022 4:54 PM  
**To:** Statements  
**Subject:** Stop the Duke solar power STEAL



I just spent \$20,000 to install solar panels on my home and now Duke Energy is, once again, trying to stop progress and steal the solar power I generate.

Please allow me to retain or sell the renewable energy I generate!

Do the right thing.

Paul Rollins

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Paul Rollins  
22 Stonebridge Dr.  
Asheville, NC 28805  
828-505-0144

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Mar 28 2022