

Implementation of Third Party-Ownership Solar Energy in North Carolina Under HB 589

Caroline Martin

I. Introduction

North Carolina has been a national leader in solar energy development since 2007, when Senate Bill 3 was passed making it very profitable to operate solar energy Qualifying Facilities in the state under the Public Utility Regulatory Policies Act (“PURPA”).¹ Since then, the solar market has continued to expand and evolve across the country, and there have been efforts by many stakeholders, including Duke Energy, and residential solar advocates in North Carolina to update solar regulations, which resulted in North Carolina House Bill 589 (“HB 589”).² This bill, titled “Competitive Energy Solutions for NC,” was signed into law in July 2017 and many of the provisions are still in the process of formalization, including the rules that will govern residential-scale leasing of solar panels known as “third-party ownership.”³

This direct leasing of panels from solar companies to homeowners may prove to be enormously beneficial for people that want to install solar panels on their property without paying the enormous upfront costs (upwards of twenty thousand dollars) necessary to buy an array of panels.⁴ The North Carolina Utilities Commission (“NCUC”) will need to seriously consider the policy implications of the rules that they will create for third-party ownership, including the effect of revised net metering rates and whether they want to include further consumer protection warranties.

¹ 3863 PUR Util. Reg. News 6

² Elizabeth Ouzts, *North Carolina Bill Promises Short-term Jolt to Solar, but Critics Worry About Long Term*, Southeast Energy News (2017), <http://southeastenergynews.com/2017/06/12/northcarolina-bill-promises-short-term-jolt-to-solar-but-critics-worry-about-long-term/> (last visited Oct 17, 2017).

³ S.L. 2017-192 § 62-126.10

⁴ Julie Kantor, *Good Day Sunshine: Bad Day for the Third-Party Power Purchase Agreement*, 51 U.S.F. L. Rev. 571, 589 (2017)

This paper: (1) briefly discusses the history of solar energy in North Carolina that led to the creation of HB 589; (2) analyzes two key parts of HB 589, Part 2 and Part 6; (3) discusses the implications of changes in net metering rates that may result from HB 589; (4) compares North Carolina's potential change in net metering rates to the case of Arizona's change in rates; and (5) discusses consumer protection provisions that could supplement HB 589.

II. Background of HB 589

HB 589's leading co-sponsor was Republican Representative John Szoka.⁵ The bill enjoyed widespread bipartisan support throughout the legislature, which is a telling manifestation of the positive economic growth trends associated with solar energy in the state of North Carolina.⁶ The market has attracted new solar developers and created a means of utilizing tracts of rural farmland that once grew tobacco.⁷ The installation of utility scale solar arrays on this previously fallow land has provided a growing source of income to the rural Eastern part of the state.⁸ North Carolina is currently second in the nation for total solar capacity, with 3016 megawatts installed and 7112 solar jobs in the state through the year 2016.⁹ The new bill aims to promote the continued growth of solar energy in North Carolina, and to have the state's solar capacity at 6.8 gigawatts (6800 megawatts) by the year 2022.¹⁰

HB 589 has the potential to expand the industry in a few key areas. Though it addresses setting stricter limits on Qualifying Facilities under PURPA, setting up a rebate program for

⁵ Lisa Sorg, *What 'Schoolhouse Rock' Didn't Tell You: How House Bill 589, the Renewable Energy Law, was Made*, The Progressive Pulse (2017), <http://pulse.ncpolicywatch.org/2017/08/17/schoolhouse-rock-didnt-tell-house-bill-589-renewable-energy-law-made/#sthash.xd8pOans.dpbs> (last visited Oct 17, 2017).

⁶ *Id.*

⁷ Robin Aldina et al., *North Carolina Solar and Agriculture*, NC Sustainable Energy Association (2017), https://energync.org/wp-content/uploads/2017/04/NCSEA_NC_Solar_and_Agriculture_4_19.pdf (last visited Oct 17, 2017).

⁸ *Id.*

⁹ *Top 10 Solar States*, SEIA (2017), <https://www.seia.org/research-resources/top-10-solar-states> (last visited Oct 17, 2017).

¹⁰ *Analysis of House Bill 589, "Competitive Energy Solutions for NC"* (Version 3), (7ADAD), https://energync.org/wp-content/uploads/2017/06/H589-v3_NCSEAs-Bill-Analysis_legislators.pdf (last visited Oct 17, 2017).

residential scale solar projects, and several other small stipulations, the two main sections of HB 589 are Part 2 and Part 6.¹¹ Part 2 of the Bill, called “Competitive Procurement of Renewable Energy,” sets up a competitive bidding process for Duke Energy and other public utilities to procure new renewable energy projects.¹² Part 6 of the Bill, called the “Distributed Resources Access Act,” contains new provisions for solar leasing.¹³ It allows Duke Energy to submit a proposal for newly revised net metering rates to the NCUC, authorizes the residential leasing of solar panels by third-party owners (“TPOs”), and sets up a community solar program.¹⁴ Part 6 sets forth rules that will allow residential users to implement solar on their own property, while helping the public utilities meet their renewable energy requirements.¹⁵

III. Part 6: Residential Solar Panel Leasing

The residential leasing section of HB 589 will allow home and property owners to lease panels from lessors, most of which will be installed on rooftops.¹⁶ The leasing of these panels is much more affordable for the average homeowner than a purchase would be, since residential solar panel systems can cost up to twenty thousand dollars.¹⁷

Lessees will be able to benefit from the panels through net metering, a system in which the amount of power produced on site is subtracted from the amount that the lessee has pulled from the grid as measured by its meter.¹⁸ This allows the lessees to reduce their electricity bills while also allowing the public utilities to maintain their monopoly on selling power, since the lessor is not selling solar power to the lessees and is not allowed to make Purchase Power

¹¹ S.L. 2017-192 § 62-110.8 and § 62-126.5

¹² S.L. 2017-192 § 62-110.8(a)

¹³ S.L. 2017-192 § 62-126.2

¹⁴ *Id.*

¹⁵ S.L. 2017-192 § 62-126

¹⁶ Katharine Kollins, Bethany Speer & Karlynn Cory, *Solar PV Project Financing: Regulatory and Legislative Challenges for Third-Party PPA System Owners*, NREL (2010), <https://www.nrel.gov/docs/fy10osti/46723.pdf> (last visited Oct 17, 2017).

¹⁷ *Id.* at 4

¹⁸ *Id.* at 15

Agreements (“PPAs”) with them.¹⁹ The language of the statute ensures that these leased projects are “intended only to offset no more than one hundred percent (100%) of the customer generator lessee’s own retail electrical energy consumption at the premises.”²⁰ It also clarifies that the solar lessors are not public utilities.²¹

So if the lessees are able to benefit from their solar panels through net metering, what are the leasing companies getting in return? Normally, to make residential rooftop leasing economically enticing for lessors (assuming that they are leasing the panels at a relatively low price so that they are affordable to lessees), they want the benefit of the federal tax credits for ownership of the solar panels.²² They might also receive sales of Renewable Energy Certificates or cash incentives along with the lease payments and tax credits.²³

Part 6 of HB 589 also includes a provision stating that solar leasing companies must go through the NCUC to get a permit for every single site where it leases solar panels.²⁴ This will ensure that the NCUC can regulate the solar companies that are implementing new contracts and business practices in a market that is brand new to the state.²⁵ Part 6 also expressly states that the leasing process needs its own rules section, and which will be drafted soon by the NCUC.²⁶ Two important considerations for the additional legislative rules are the adjustments of net metering rates and whether the legislators want to add any more consumer protection stipulations.

¹⁹ *Id.*

²⁰ S.L. 2017-192 § 62-126.3(14)(e)

²¹ S.L. 2017-192 § 62-126.3(5)

²² *Id.* at 15

²³ *Id.*

²⁴ S.L. 2017-192 § 62-126.7(a)

²⁵ *Id.* at 15

²⁶ S.L. 2017-192 § 62-126.10

a. Net Metering Adjustments

While the bill provides that community solar, at least for now, will be set at avoided cost rates for public utilities, this is not the case for residential leasing.²⁷ According to HB 589, Duke Energy will conduct the study to revise net metering rates and will then make a proposal of rates to the NCUC.²⁸ Rates will then be set by the NCUC according to HB 589.²⁹ HB 589 aims “to make sure public utilities are not creating cross subsidies for solar producers,” implying that net metering rates might currently be too generous to solar producers.³⁰ Several conservation groups unsuccessfully tried to get this provision out of the bill, since it gives Duke Energy complete control over producing the information that will determine new rates for its customers.³¹

Public utilities believe that these “cross subsidies” result when an energy consumer uses 10,000 kilowatt hours of energy per month, but may only be paying the utility for 6,000 kWh if their solar panels produced 4,000 kWh during that month. The consumer in that situation is saving money on the retail rate of the 4,000 kWh that they did not have to pay for, but they are also saving on the costs of infrastructure that were required to transport the energy from the grid to their home.³² Utilities want to make sure that an energy user who also produces solar is paying her fair share of the retail rate and infrastructure cost (although if PPAs were allowed, this problem would not exist in the first place).³³

Duke Energy, the largest public utility in N.C., will conduct this study.³⁴ Their suggested revisions of rates will be based on “an investigation of the costs and benefits of customer-sited

²⁷ S.L. 2017-192 § 62-126.8(d)

²⁸ S.L. 2017-192 § 62-126.4

²⁹ *Id.*

³⁰ *Id.* at 7

³¹ *Id.*

³² Jackson Salovaara, *Just and Reasonable Rooftop Solar: A Proposal for Net Metering Reform*, 7 *Ariz. J. Envtl. L. & Pol'y* 56, 59 (2017)

³³ *Id.*

³⁴ *Id.* at 9

generation” and will “ensure that net metering customers pay their full fixed cost of service” to the utility.³⁵ If net metering rates were to fall much lower than they are currently set, it would decrease the economic benefits of leasing solar panels to home and property owners, meaning the practice may become infrequent.³⁶

The bill does have a provision that will allow current users of net metering to be “grandfathered” in at their current rates, and that will last until 2027.³⁷ There are ways in which the revised net metering rates could be beneficial to solar owners and lessees, if the new committee takes into account two factors, the first of which is seasonal.³⁸ More solar energy is produced by panels in the summer, but more electricity is needed in the winter to heat homes.³⁹ This could be solved by extending net metering credits into other seasons when more electricity is being used, instead of letting them expire at the end of a season or the end of a year.⁴⁰ Also, the public utility could pay the solar owner or lessee back for their unused net metered credits at the end of the year.⁴¹ While Duke is conducting the study to determine the revised rates, the NCUC is ultimately the regulating body that sets them.⁴²

b. One Potential Future for Net Metering Rates – the Case of Arizona

While there are ways that revised net metering provisions could help solar energy lessees, they could also have an economically negative impact on these lessees. This is currently the case in Arizona, which in 2016 was the state with the third largest solar capacity in the U.S. after

³⁵ DSIRE *Net Metering Program Overview*, N.C. Clean Energy Technology Center (2017), <http://programs.dsireusa.org/system/program/detail/1246> (last visited Oct 17, 2017).

³⁶ *Id.* at 15

³⁷ *Id.* at 9

³⁸ Kirin D. Walsh, *An Industry on the Precipice of Change: Maintaining Solar Energy's Competitive Advantage in North Carolina After the Expiration of the Investment Tax Credits*, 93 N.C. L. Rev. 1935, 1936 (2015)

³⁹ *Id.*

⁴⁰ *Id.*

⁴¹ *Id.*

⁴² *Id.* at 9

California and North Carolina.⁴³ In December of 2016, the Arizona Corporation Commission (Arizona’s public utility governing body) approved new regulations that ended the system of net metering for residential solar panel owners.⁴⁴ As of September 1st, 2017, a new rate for crediting these owners that started at 12.9 cents per kilowatt-hour was put into effect.⁴⁵ This new rate results in less monthly savings for solar owners than net metering rates did, and could result in less people investing in residential solar systems in the future due to decreased savings.

Arizona’s new rules also have a “grandfathering” provision that allows residential solar owners and renters who used solar panels before the setting of new rates to still take advantage of the old net metering rates until 2027.⁴⁶ The change in rates is a reflection of the fact that public utilities do not like net metering and believe that it gives solar lessors cross subsidies, as discussed above. So the public utilities in Arizona gained at least two critical benefits in the passage of this new legislation: the eradication of net metering rates and the creation of demand charges for new customers.⁴⁷

As of August 2017, the Arizona utility’s demand charges force new customers or customers moving to the area to pay a “time-of-use” rate (“TOU rate”), meaning customers will be charged based on the peak hour when the highest amount of energy is used by all consumers.⁴⁸ While this is economically beneficial to the utility as well as environmentally beneficial, since they don’t have to turn on older back-up generators to produce extra power, it

⁴³ *Id.* at 8

⁴⁴ Ryan Randazzo, *APS Electricity Bills Going up as Rate Increase is Approved*, *azcentral* (2017), <http://www.azcentral.com/story/money/business/energy/2017/08/15/aps-electricity-bills-going-up-rate-increase-approved/565388001/> (last visited Oct 17, 2017).

⁴⁵ *Id.*

⁴⁶ Ryan Randazzo, *Some Solar Firms Oppose Net Metering Changes*, *azcentral* (2016), <http://www.azcentral.com/story/money/business/energy/2016/12/21/rooftop-solar-changes-appease-many-but-not-leasing-firms-arizona-net-metering/95699370/> (last visited Oct 17, 2017).

⁴⁷ Ryan Randazzo, *APS Rate Case: 10 Things to Know Ahead of Arizona Regulators' Vote*, *azcentral* (2017), <http://www.azcentral.com/story/money/business/energy/2017/07/07/aps-rate-case-10-things-know-ahead-arizona-regulators-vote/452362001/> (last visited Oct 17, 2017).

⁴⁸ *Id.*

can be highly detrimental to sensitive populations of consumers that do not have the flexibility to adjust their schedule and use less energy at these peak hours. This means they will end up paying a higher rate. A parallel example of this case could occur in North Carolina if the revised net metering rate study proposes to add demand/TOU charges and the NCUC accepts this proposal.

c. Consumer Protection Provisions within Part 6

Residential rooftop leasing will make solar options available to a new group of energy users, but there are some precautions to consider.⁴⁹ In other states that have enacted solar panel leasing by TPOs, there have been some issues with consumer protection, sales and installation.⁵⁰ Part 6 of HB 589 sets up several consumer protection clauses and also makes sure that solar lessors will be regulated by NCUC through the permitting requirement.⁵¹

The consumer protection sections of HB 589 stipulate that the lease agreement between TPOs and solar lessees must include a description of the solar panels as well as a guarantee that they will produce a certain amount of electricity.⁵² The sections also ensure that the agreement will set out the lease costs for the complete life of the contract and any extra costs or fees from things like installation or interest, as well as the lease payment schedule.⁵³ Several disclosures required by this section protect consumers against fraud and duplicity and include disclosures about what is allowed with regard to third parties, modification or transfer of ownership of the solar panels, a lessee's decision to sell her property, and the costs that lessees will incur for maintaining and operating the panels.⁵⁴

⁴⁹ Rebekah Fitzgerald, *Consumer Protection for Third-Party Solar Leases*, The Council of State Governments (2017), http://www.csg.org/pubs/capitolideas/enews/cs2_2.aspx (last visited Oct 17, 2017).

⁵⁰ *Id.*

⁵¹ S.L. 2017-192 § 62-126.6

⁵² S.L. 2017-192 § 62-126.6(a)(4)

⁵³ S.L. 2017-192 § 62-126.6(a)(5)

⁵⁴ S.L. 2017-192 § 62-126.6(a)

The Act requires that the lessee acknowledges all of these disclosures in writing.⁵⁵ There is one more clause, the full text of which is required to be included in all leasing contracts made by TPOs, and it states, "Utility rates and utility rate structures are subject to change. These changes cannot be accurately predicted and projected savings from your solar energy facility are therefore subject to change. Tax incentives are subject to change or termination by executive, legislative, or regulatory action."⁵⁶ This language anticipates the changes that may occur in net metering rates. It is important for consumers to be aware of the applicable net metering rates for the energy that their solar panels produce, especially if their lease payments are fixed under their lease agreement but the rates are subject to change.⁵⁷ This could affect whether or not people will participate in solar leasing, since their reduced energy bills would not compensate for the money spent on leasing panels.⁵⁸

While the consumer protections enumerated in HB 589 anticipate many of the problems that will arise with TPO leasing, that does not mean they will effectively eliminate all fraud and duplicity. Since residential leasing is so new, it's still largely unregulated and difficult for consumers to understand in many states.⁵⁹ There have been issues regarding the lease contracts, as well as the TPOs not informing the public utility that the customer is eligible for net metering rates.⁶⁰ In Arizona, for example, the attorney general found it necessary to issue a statement in 2014 about potential scams related to residential solar sales.⁶¹ This is after the local government had received an increasing number of complaints, and the attorney general encouraged

⁵⁵ *Id.*

⁵⁶ S.L. 2017-192 § 62-126.6(a)(12)

⁵⁷ *Id.* at 15

⁵⁸ *Id.*

⁵⁹ *Id.*

⁶⁰ *Id.* at 48

⁶¹ *Id.*

consumers to do their research.⁶² North Carolina legislators should consider similarly protecting consumers if the solar market is to be successful and continue to grow.

For example, the NCUC could take similar steps as Washington’s public utility commission, the Washington Utilities and Transportation Commission (“WUTC”).⁶³ In 2014, the WUTC issued a statement saying that it has the authority to regulate TPOs that lease solar panels, and that the goal of this issuance was to protect consumers and to regulate “ (1) fraud and deceptive business practices, (2) quality of installed systems, (3) unfulfilled contract obligations, (4) securitization of consumers’ lease payments, (5) contractual limitation of consumers’ legal remedies, (6) inadequate communication and disclosure of contract terms, and (7) restrictions on the customer’s ability to sell the home.”⁶⁴ After issuing the statement, the WUTC asked the state legislature to enact further laws that would define and codify this regulative authority. The new laws would require companies to register with the WUTC and publicly post prices.⁶⁵

IV. Conclusion

The NCUC has at least two public policy concerns to consider when deciding its new rules for third-party ownership under HB 589. If the commission wants the residential solar panel sector to grow substantially and benefit solar lessees in North Carolina, it could include adequate consumer protection provisions and exclude demand or time-of-use charges from its new regulations.

⁶² *Id.*

⁶³ *Washington UTC Clarifies its Authority to Regulate Third-party Ownership of Solar Panels and Requests Further Legislative Direction*, Global Power Law & Policy, <https://www.globalpowerlawandpolicy.com/2014/08/washington-utc-clarification-of-authority-to-regulate-third-party-ownership-of-solar-panels-and-request-for-legislative-direction/> (last visited Oct 17, 2017).

⁶⁴ *Id.*

⁶⁵ *Id.*