

Working Group: Customer Access to Renewables

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Executive Summary

The Customer Access to Renewables working group was tasked with answering five questions about the existing tensions around customer access to renewable energy and providing potential solutions to ease these tensions in North Carolina. The group was composed of members of city and county governments, universities, and utilities. Below are the group's key findings and the answers to the five questions.

Key Findings

- While the number of options for North Carolina customers to utilize renewable energy has increased recently, most of these options come with upfront or increased costs which may limit participation
- There are many legislative and policy changes or utility programs that could increase customer access to renewables, but some may come with tradeoffs for either the customers or the utility
- Effective solutions will require customers stating their desires, utilities stating their abilities and limitations, and the utilities commission finding the overlap in what is necessary and possible
- Due to the inherent tension with this topic, initial solutions should focus on small and quick wins that can ease tensions and build momentum towards larger changes

Briefly describe the nature of this policy tension/question – what is happening?

Utility customers in North Carolina want greater access to cheaper renewable energy. Both customers and utilities recognize that affordability, reliability, and fairness are key components of energy delivery but customer access to cost competitive renewables may be limited by these factors. This has created a tension between the utilities and their customers in North Carolina's regulated utility market.

With recent implementation of additional renewable programs, such as community solar, solar rebates, solar leasing, and the Green Source Advantage program, the tension is less about the availability of renewable energy programs, and more regarding the accessibility and affordability. Customer access to renewables is expanding, however most renewable energy programs in North Carolina require upfront costs or are non-subsidized – meaning these programs can increase costs for customers choosing to participate. In a state with low energy costs, the increase in cost associated with renewable access programs may limit participation. Additionally, some programs may require a significant level of understanding and upfront effort which could also limit participation.

One point of contention within the group was whether subsidizing renewable energy programs is fair to all customers. While subsidizing renewable energy programs would likely increase usership, there is an argument that the burden of those programs should not be borne by customers who are not participating. The counter argument to this is that there are already disproportionate health burdens from fossil fuel facilities and economic burdens from facilities that are no longer lowest cost. By increasing renewable energy capacity, these health and economic burdens may be alleviated. While there was not a consensus on this issue, it was generally agreed upon that there should be ways of addressing customer equity without depressing the growth of renewable energy.

To what extent does this policy tension exist in NC, if so, why is it relevant to the state?

Due to the nature of the regulated market, this tension is well established in North Carolina. However, as mentioned above there have been several changes made in the past few years that have increased customer access to renewables in North Carolina. These additional renewable energy options have essentially shifted the tension from availability of renewable programs to the accessibility of these programs. This is relevant to the state because customer adoption of renewable energy is one possible strategy in moving towards meeting Executive Order 80.

What policy or regulatory action might be required to address the tradeoffs you see?

There are several policy and regulatory actions that can be taken in order to expand customer access to renewables and ease the existing tension. These actions, however, may come with positive and negative tradeoffs and must be analyzed further. Each action should be evaluated to determine the positive and negative impacts it would have on all stakeholders. Example criteria to be evaluated could include: environmental impacts, economic impacts, and impacts on customer equity. The major potential actions recommended for further analysis, along with the responsible parties, are laid out in Table 1 below.

Table 1. Potential Regulatory and Policy Solutions to Relieve Tensions with Customer Access to Renewables

Action	Responsible Party
End the ban on third-party sales of electricity	Legislature
Alter solar rebate program to allow for more participation	Legislature
Develop innovative rebate programs to increase access for diverse groups of customers, especially low-income residents	Legislature
Create rebate programs for municipality and co-op customers	Legislature
Restore 35% renewable energy state tax credit	Legislature
Require or incentivize utilities to offer on-bill financing	Legislature
Remove the cap on net-metering for renewable generation	Legislature
Require state government buildings to install renewable energy systems, where feasible	Legislature and Governor
Enact state-wide commercial PACE program	Legislature and Utilities Commission
Require utilities to invest in specific amount of solar+storage	Legislature and Utilities Commission
Require virtual net metering for community solar customers	Utilities Commission
Require all utilities to offer net metering	Utilities Commission
Revise GSA program to allow for participation of smaller customers	Utilities Commission
Require incorporation of value of solar when considering net metering terms	Utilities Commission
Require utilities to provide easy options to purchase renewable energy through billing	Utilities Commission and Utilities
Empower customers to voice their opinions, desires, and need for best generation options	Utilities, Governor, Local Government
Provide resources to increase NCUC understanding of customers' needs and capability of alternate sources	Utilities Commission and Higher Education

How are people in other places responding to this tension? What are the most innovative and promising solutions? Do they seem feasible in NC?

There are several strategies being used by other states to respond to this tension including:

Renewable Energy Purchasing Programs: Eight states require utilities to provide an option for customers to purchase renewable energy. Most of these states have regulated electricity markets, indicating that this could work in North Carolina. In Washington, this program allowed customers to purchase over three GWh of renewable electricity in the first ten years. Because these programs are often as simple as checking a box, this option could have a larger usership than programs that require customers to install solar PV, sign a solar lease, or choose a community solar project to enroll in.

On-Bill Financing: Two common forms of this include PACE and “Pay As You Save” financing. Currently, 34 states, including North Carolina allow PACE financing, but North Carolina does not have any active PACE programs. Due to the existing rule allowing PACE financing, it is seen as feasible to introduce PACE programs in North Carolina. Roanoke Co-op has an on-bill financing program that could be a model for other co-ops and municipal utilities in North Carolina if they could be required or incentivized to adopt such a program.

Additionally, New York State is currently establishing a “Green Bank” in order to more efficiently finance projects that will reduce emissions and save customers money. While this may not take the form of on-bill financing, a similar program in North Carolina could increase the financing options for renewable projects.

Rebates: While North Carolina has several energy efficiency and solar rebates, some states have more extensive and innovative rebates that allow for larger and more diverse groups of customers to take advantage of them. For example, four states (CA, MN, NM, and NY) have rebates specifically for low-income customers. These rebates are often similar to other programs but have larger rebates. Implementing similar rebates for low-income customers in North Carolina is seen as feasible and a way to increase access to renewables for all customers.

Are there ways you think NC should consider responding to this tension? What entity would need to take the action you’ve identified?

North Carolina should consider a multi-faceted response through varied leading entities each with specific internally motivated actions that do not deregulate the utility market.

Utilities. Utility providers should move to expand their customers’ affordable and highly efficient/renewable choices for power generation and delivery. By leveraging their long-term forecasting abilities and power generation option knowledge, utility providers should look for the cost inflection point - the point where the cost of renewable power (generation/storage/transport) becomes the clear economic winner - and consistently hedge towards the *future low-impact sources* and pivot from the *current low-cost sources*. Although price conscious customers (manufacturing, public, etc.) may choose low-cost options, the market is drifting towards low-impact options and will begin to drive the utility providers if the choices are available - even if not initially the most cost effective.

Utility Customers. Customers must consistently voice their opinion/desires and choose the best power generation option available for their specific situation. Asking for (demanding) low-impact and affordable, renewable options - not a one size fits all approach - or the most cost effective, and possibly less-efficient, option is the customer’s right. However, customers should consider their inherent duty to

the community and reasons beyond cost that make renewables/high efficiency power generation options the right choice and make decisions that transcend only financial cost.

Public Utilities Commission. As the Utility Commission sits squarely between the utilities and customers, it must consistently search for overlaps, dissociations and opportunities to be managed effectively in advocating for both. To achieve this, the Commission should put sufficient time and energy into understanding the growing need for renewable/high efficiency power generation from both the utility and customer points of view as opposed to relying on historical reference. The UNC system research capabilities and energy technology centers should be heavily relied upon to assist in this understanding. When points of overlap exist that integrate renewable/highly efficient power generation, the Commission should prioritize these over short-term lower efficiency/lower-cost options.