September 9, 2019

Via Email
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State Energy Director
North Carolina Department of Environmental Quality

North Carolina Department of Environmental Quality
217 West Jones Street
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RE: Comments on Draft Clean Energy Plan

Vote Solar appreciates this opportunity to provide comments on the North Carolina Department of Environmental Quality's (DEQ) Clean Energy Plan (CEP), as called for in Governor Roy Cooper's Executive Order No. 80 (EO80). Cooper's EO80 represents an opportunity for North Carolina to demonstrate leadership in the region and the country through a comprehensive, multi-sector approach to climate action, and the Clean Energy Plan is one of the first steps in creating concrete goals, targets, and actions from the directives of the EO. Vote Solar believes the CEP effectively identifies the barriers to decarbonization in the energy sector, and the actions described in the Plan present a valuable roadmap of potential actions stakeholders can take in effectively realizing a clean, healthy, and more affordable energy economy.

Vote Solar applauds the Governor Cooper, DEQ staff, and all stakeholders for their contribution to this comprehensive vision of North Carolina's clean energy future and looks forward to being an active partner in the iterative process of realizing this vision. By following this roadmap and continuing to improve upon its conclusions and recommendations, stakeholders, state agencies, lawmakers, and industry can work in concert to mitigate and adapt to climate change while providing economic opportunity for all North Carolinians through the programs and investments that will inevitably spring from this work. Vote Solar is committed to working toward a just transition in the energy sector and appreciates the corresponding ideals embodied in the draft CEP.

Reforming utility incentives is critical to the Plan's vision of a clean, affordable, and resilient grid

DEQ rightly identifies that the traditional model of utility regulation, which has served its function of providing stable, low-cost rates, is ill-fitted for the task of tackling the challenges of climate change and with its bias toward maintaining the status quo is, in many ways, antithetical to what is needed at this moment. The draft CEP recognizes that business model reform, and other regulatory tools for the North

Carolina Utilities Commission, are necessary to open the market in a meaningful way for distributed energy resources (DERs). DERs are uniquely positioned as resources that are adaptable and multi-use, with stackable values and various applications from providing energy, capacity, ancillary services, emergency back-up power, microgrids, and non-wires alternatives to traditional distribution and transmission investments. A distributed grid is, inherently, a more resilient grid than the status quo central-plant paradigm. It is critical that the utility business model adapt, and that utility planning process adapt with them, to accept a larger role for DER—including customer-owned and customer-sited DER—to mitigate climate risks to the physical infrastructure of the utilities.

Indeed, many of the issues that the draft plan aims to address, from insufficiency and incompleteness of current approaches to cost-benefit analysis, sparse access to clean energy, and underinvestment by utilities in energy efficiency, proceed from the fundamental mismatch of incentives that is embedded in the traditional central-plant model and the inherent biases of electric utilities under the traditional form of cost of service ratemaking (which reward utility investment in plant with an administratively set allowable rate of return, and incent higher total energy consumption to offset upward rate pressure). Utility incentive reform is at the cutting edge of state energy policy, and Vote Solar recommends that DEQ and other policymakers recognize the centrality of this issue and use the tools presented in the CEP to familiarize the state with this process and 'learn by doing'. DEQ could underscore this issue by identifying recommendation part "A" as a priority area for the entire plan.

The Plan should take steps to support the North Carolina Utilities Commission's ("Commission") regulatory authority, in light of the central and critical role that the Commission will play in realizing North Carolina's energy future.

The North Carolina Utilities Commission's role is vital to the success of the Clean Energy Plan. The investor-owned utilities ("IOUs") account for a significant share of the electric generation in the state and the Commission has plenary authority over the IOUs' retail rates, integrated resource planning process, and siting and approval of generation plants through the granting of Certificates of Convenience and Public Necessity ("CPCN"). As North Carolina continues in its energy transition, the NCUC will be a source of guidance, regulatory certainty, and even innovation for utilities and the energy economy. In NCUC's August 2019 order on integrated resource plans—released approximately two weeks after issuance of this draft

Plan—the Commission has already taken its first steps toward accepting the mantle of leadership set out by EO80 and translating the objectives of the Order and draft Plan into effect.[1]

Vote Solar believes that continued leadership of this kind by the Commission will be critical in ensuring the success of the draft plan. The CEP can support the Commission by providing clear directives, but should defer to the Commission in determining the scope of its regulatory authority in carrying out EO80 and specific elements of the draft Plan. For example, where the plan discusses modernizing utility incentives,[2] it may be the case that specific incentive mechanisms and proposals from intervenors in Commission dockets may fall within the broad and plenary powers of the Commission to supervise utilities. In this respect, the draft Plan should be modified to make clear that the extent of the Commission's authority to adopt any new regulatory policies in the field of performance-based ratemaking will need to be evaluated on a case-by-case basis.

Foundational data is still needed to optimize use of clean energy resources

It is a truism in regulatory circles that there is a distinct information asymmetry between utilities and intervenors. In other cases, particularly as it involves increasingly granular grid operations data that is foundational to understanding the nature of DERs as a grid planning resource, there is a void of data for all parties because utilities simply lack the capability to capture it. The draft Plan rightly acknowledges that in many cases, stakeholders lack the data they need to make decisions around de-carbonizing the electric grid. DEQ should emphasize the importance and urgency of identifying and disseminating this data because of its implications for fulfilling other portions of the plan.

At the same time, Vote Solar would caution stakeholders not to proceed with evaluating certain actions, plans, and resources until that foundational data is available. This tension is most apparent in the case of distributed energy resources, where data about the surrounding distribution grid is critical to evaluating many value streams of these technologies (e.g. voltage regulation, deferred distribution investment, reduced line losses). As of the August 25 NCUC Integrated Systems Operations Planning (ISOP) workshop with Duke Energy, utility technical experts indicated that such advanced distribution planning (ADP) data wouldn't be available for several more years, and that actionable recommendations based on that data could take even longer. To address this issue, DEQ should introduce prioritization and sequencing

[1] State of North Carolina Utilities Commission (2019, February). Order Accepting Integrated Resource Plans and REPS Compliance Plans, Scheduling Oral Argument, and Requiring Additional Analyses. https://starw1.ncuc.net/NCUC/ViewFile.aspx?Id=143d85de-b1e7-4622-b612-5a8c77e909d4.

[2] North Carolina Department of Environmental Quality Draft Clean Energy Plan, p. 60.

elements to the Plan. Evaluative and deployment actions should not proceed before the necessary data is available; in the meantime, the Plan should support relevant placeholder evaluation mechanisms until robust data and analysis is available to implement more granular and precise evaluation.

The fundamental lack of data is also material to some of the other recommendations within the plan. On the issue of net metering, the draft Plan recommends a transition to a value of distributed generation tariff to succeed the successful net metering program. This recommendation is premature and would result in abandonment of one of the most successful drivers of residential investment in renewable energy in the country with the promise of a DG valuation that is not yet possible. Vote Solar strongly recommends that the draft Plan modify this recommendation to call for the extension of net metering, at a minimum, until 2024 when Duke Energy Carolinas and Duke Energy Progress will have the basic data needed to evaluate the avoided transmission and distribution values of DERs, including ancillary services and other categories in the potential DER value stack.

This approach of caution is well established in other jurisdictions where net metering was extended in order to allow regulators and utilities to catch up with the data and processes necessary to fully evaluate the benefits of customer-sited DER. In New York, as part of the Reforming the Energy Vision (REV) proceeding, the New York Public Service Commission decided to extend net metering while a value of DER methodology was being developed.[3] That process has proved far more difficult than stakeholders originally anticipated, and to date net metering continues to be the primary policy supporting residential customers that want to install distributed energy resources.[4] In 2016, the New Hampshire Public Utilities Commission received a directive not unlike NCUC's directive from HB 589 to evaluate and potentially approve "alternative net metering rates." Ultimately, the New Hampshire Commission decided to keep net metering in a modified form (monthly net metering with a slight reduction in rollover credits) while the data capabilities and methodologies were developed to determine an accurate distribution-value of distributed generation.[5] These examples demonstrate the timeworn lesson of, "If it ain't broke, don't fix it." In this case, the best practice is to stick with a policy with a proven ability to support DERs until regulators and

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[3] State of New York Public Service Commission, (2017, March). Order on Net Energy Metering Transition, Phase One of Value of Distributed Energy Resources, and Related Matters. http://documents.dps.ny.gov/public/Common/ViewDoc.aspx?DocRefId=%7BA04D9EF3-9779-477E-9D98-43C7B060DAEB%7D.

[4] North Carolina Clean Energy Technology Center, (2019, January). Database of State Incentives for Renewable Energy: New York Net Metering Program Overview. https://programs.dsireusa.org/system/program/detail/453.

[5] State of New Hampshire Public Service Commission, (2017, June). Order Accepting Settlement Provisions, Resolving Settlement Issues, and Adopting a New Alternative Net Metering Tariff. http://www.puc.state.nh.us/Regulatory/Docketbk/2016/16-576/ORDERS/16-576_2017-06-23_ORDER_26029.PDF.

stakeholders have confidence that the methodologies, data sources, and utility processes are available and calibrated to produce a reliable value of distributed generation.

Moreover, Vote Solar and other stakeholders have engaged in direct dialogue with Duke Energy about the future of net metering in North Carolina and about how HB 589 should, eventually, be implemented at the Commission. All parties that Vote Solar has consulted with, have agreed that a stakeholder process to identify and work on the data and methodological issues would be beneficial to development of a more robust and sustainable successor policy at the Commission. At this time, there is no indication that any utility is filing for changes to net metering and the agreed upon stakeholder process has not yet been initiated. Vote Solar urges DEQ to modify the recommendation on distributed generation tariffs to recognize this collaborative path is, theoretically, in place and ready to convene when circumstances require and that the end of net metering should not be assumed or preferred.

Conclusion

Thank you for the thought and effort that went into the draft Clean Energy Plan. The document lays out a vision and a roadmap for a clean and equitable energy economy in North Carolina; through a clear-eyed understanding of major roadblocks and a commitment to make decisions based on the best available data, the Plan can best equip stakeholders to make that economy a reality.

Sincerely,

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