

**BEFORE THE NEW HAMPSHIRE
PUBLIC UTILITIES COMMISSION**

Docket No. DE 16-576

Development of New Alternative Net Metering Tariffs
and/or Other Regulatory Mechanisms and Tariffs for Customer-Generators

Joint Comments on Non-Wires Alternative Pilot Programs

Acadia Center, The Alliance for Solar Choice, Conservation Law Foundation, Energy Freedom Coalition of America, LLC, ReVision Energy, LLC, and Vote Solar (collectively, the “Joint Commenters”) respectfully submit the following comments regarding the development of non-wires alternative (“NWA”) pilot programs in Docket No. DE 16-576.

The Joint Commenters recommend that NWA pilot programs featuring a distributed generation (DG) element be conducted in this docket and that other customer-sited resources, including, but not limited to, demand response, energy efficiency, and energy storage be eligible to participate along with DG. Allowing a broad spectrum of distributed energy resources (“DER”) to participate will be less academic and more useful to the state. It will enable greater insights into the value that DER offers the grid, including by deferring traditional utility wires investments, as well as more relevant experience for utilities, customers and stakeholders, because effective NWA programs are not typically resource-limited.

1. Should the NWA pilot programs be limited to distributed generation (“DG”) projects or should the pilot programs also be open to other distributed energy resources (“DERs”), such as demand response, energy efficiency measures, or battery storage, either on a standalone basis or in concert with DG installations?

The Joint Commenters strongly recommend that the NWA pilots invite the participation of all DER technologies, and that in general programs should be technology-neutral for reasons discussed below. However, in order to address the desire of the Commission to develop DG-related data, it may be appropriate to specify a DG carve-out for a certain percentage of contracts. Customer-sided resources of many types, including storage, demand response, and energy efficiency, can help manage consumption and reduce system costs, in part through deferral of traditional utility wires investments. Given the availability of these technologies and the ability to aggregate them at a customer or circuit level, it is

preferable to consider all DERs. Employing multiple DER can provide more effective and complete solutions to grid problems, and save customers more money.

The purpose of the NWA pilot proposed in the Energy Freedom Coalition Settlement and approved in the Commission's June 23 Order in this docket was to "test the concept of deploying DER to areas in order to replace or defer traditional transmission and distribution investment..."¹ Designing a pilot limited to DG installations alone would limit the effectiveness of the pilot by ignoring the ability of other technologies to meet identified grid needs in concert with DG installations, and is not likely to reflect how NWAs would be deployed in the future. For example, if a capacity need is identified on a circuit, one customer may help relieve that need with a rooftop solar installation, while a neighbor that has a shaded roof with no solar can also help to relieve the grid need with a programmable thermostat and energy storage. Ultimately any NWA pilot must include DG in order to gather information on the benefits that DG provides to the distribution system, but effective projects typically are not limited to DG.

Each NWA opportunity should identify with specificity a system need (e.g., capacity or voltage support), together with performance requirements such as response times following a trigger (e.g., two hours, twenty-four hours, etc.), and the timing of operations (e.g., summer afternoon hours). In response, DER providers can propose a portfolio of solutions to be evaluated by utilities or a third party administrator. This is the process used in New York for the state's robust NWA program, which is integrated into the utilities' distribution system planning process. Utilities screen their current capital investments plans using "Suitability Criteria" that identifies potential NWA opportunities. Each utility has a sourcing team that works with planning engineers and utility staff to define system needs in order to develop NWA opportunities. The utilities then issue RFPs and analyze bids using a benefit-cost analysis.²

¹ See EFC Supplemental Settlement Testimony at 17. See also Order No. 26,029 at 64: "We therefore approve the EFC proposal that the utilities develop non-wires alternative pilot programs focused on the installation of DG in lieu of potential utility distribution system upgrades."

² Joint Utilities' Supplemental Information on the Non-Wires Alternatives Identification and Sourcing Process and Notification Practices (May 8, 2017), available at <http://documents.dps.ny.gov/public/Common/ViewDoc.aspx?DocRefId=%7B5DA604B3-9CDA-45D3-8642-92A4C4171787%7D>.

Two prominent NWA projects cited in this docket, ConEdison's Brooklyn-Queens Demand Management program (Ex. 21 at 54), and GridSolar's Boothbay, Maine project (Ex. 57 at 6:4-15) utilize a variety of DERs in their pilots as opposed to a single or limited subset of technologies. Additionally, National Grid's "Demand Link Pilot" in Rhode Island utilized a variety of DERs, including energy efficiency, demand response, and solar energy.³ Through this program, National Grid found that diversifying the incentive options available to customers increased program participation.⁴

2. If the NWA pilot programs are open to other DERs in addition to DG, will the pilots provide sufficient "experience and data demonstrating the effects of DG on potentially stressed components of the utility distribution system at specific locations," per the June 23rd Order?

Yes. The pilots will yield data and experience about system operations, customer behavior, and the ability of integrated DER solutions to satisfy grid needs. We recommend that the Commission clarify that, consistent with the EFC settlement, the NWA pilots will include not only DG but also other DERs. We also recommend that any long-term NWA program implemented by New Hampshire should permit a full spectrum of DER solutions; therefore the experience and data from pilot programs will be most useful if the pilots programs also allow for the inclusion of all DER technologies. The success of such a program should be evaluated compared to the cost of the capital investment being deferred or avoided. This evaluation does not require that programs be limited to DG.

The June 23 Order indicates that an objective of the NWA programs is to "provide insight into the incentive levels needed by DG developers to site their projects where they would have the greatest potentially positive impacts."⁵ Unnecessarily limiting the program to certain types of technologies will likely result in higher "incentive" levels than necessary to encourage DG developers to site projects in preferred locations, because flexibility in selecting and combining NWA solutions is cost-reducing. However, pilots can be designed to require a certain amount of DG in order to ensure sufficient data to

³ National Grid System Reliability Procurement Demand Link Pilot Update (May 14, 2015), available at http://www.ripuc.org/eventsactions/docket/4545-NGrid-Presentation-DemandLink-Pilot_5-14-15.pdf.

⁴ *Id.* slide 13.

⁵ Order No. 26,029 at 63-64.

evaluate DG for the purposes of this docket. GridSolar's Boothbay project design⁶ required contracts be approved based on a balancing of cost, reliability and diversity of non-wires resources. Half of the needed DER capacity was selected based on price, and half by category, allowing different DERs to be compared. In this case, a DG carve-out would also support data development.

3. If the answer to question 2 above is negative or uncertain, should NWA pilot programs be undertaken in this docket?

Not applicable.

4. If the answer to question above is negative, should NWA pilot programs instead be deferred for potential implementation in other contexts, such as utility integrated resource planning dockets or grid modernization initiatives?

The Joint Commenters strongly recommend that NWA pilot programs be carried out in this docket in accordance with the June 23 Order, both to inform the Value of DER study, and in order to ensure that New Hampshire ratepayers do not overpay for unnecessary investments.

5. If NWA pilot programs are not undertaken in this docket, should studies be conducted to determine the potential benefits of DG deployment as a means of avoiding or deferring distribution system capital projects in specific locations?

The Joint Commenters advise that tangible New Hampshire experience with NWA measures is an essential step to ensure customer cost-savings, given the increasing rise of DER technology availability and customer adoption in the state. NWA pilots will provide empirical data and experience integrating DER resources, and will ultimately minimize system costs by leveraging the values of DERs.

6. If NWA pilot programs are not undertaken in this docket, should maps or other presentations be prepared showing locations where DG installations potentially would be beneficial as a means of avoiding or deferring distribution system capital projects?

Even with NWA pilot programs, maps or presentations indicating areas that would benefit from DG and DER installations, or highlighting constrained areas on the grid, would be a valuable tool for stakeholders. Such information is typically opaque to non-utility stakeholders. Providing greater insights about conditions on the grid would help stakeholders identify potential NWA programs to target DER in specific areas, or to aggregate customers and program participants. Moreover, making this type of

⁶ 2016 Final Report Boothbay Sub-Region Smart Grid Reliability Pilot Project, pg. 9-13

information available provides DER providers and customers with valuable information about potential interconnection costs. For example, a customer interested in adding rooftop solar to their business can check whether they are on a constrained circuit, which may lead to higher interconnection costs.

Utilities in other states have incorporated maps and presentations to supplement their NWA efforts, including investor-owned utilities in New York. For example, Orange and Rockland Utilities in New York provide hosting capacity maps, system load data (peak and minimum load duration curves and forecasted substation loads), and historical hourly load data for each distribution substation. The company's website states: "Whether you're a customer, contractor, or developer, our interactive map can help you identify potential sites for private generation. Our interactive portal can help guide decisions regarding the interconnection of resources."⁷ The company also provides information on its website about several NWA opportunities.⁸ Hosting capacity analyses and maps are also in use or under development in California, Connecticut, DC, Hawaii, Maryland, and Minnesota, among other locations.

7. If NWA pilot programs are not undertaken in this docket, should some other methodology not identified above be used to determine the potential benefits of DG deployment as a means of avoiding or deferring distribution system capital projects?

As indicated, the Joint Commenters strongly recommend that the pilot programs remain in this proceeding in order to inform the value of DER study and to facilitate a better understanding of the benefits of DER deployment. Programs and studies conducted in other states may also be used to inform NWA program development and value of DER studies, including the NWA programs identified above (Brooklyn Queens, Boothbay, Demand Link), as well as studies and programs in New York and California.

⁷ Orange and Rockland Utilities. "About the Hosting Capacity Map," available at <https://www.oru.com/en/business-partners/hosting-capacity/about>.

⁸ Orange and Rockland Utilities. "Identified Non-Wires Alternatives Opportunities," available at <https://www.oru.com/en/business-partners/non-wires-alternatives>.

Sincerely,



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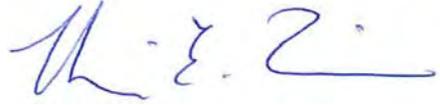
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CERTIFICATE OF SERVICE

I hereby certify that a copy of the foregoing has on this 8th day of December, 2017 been sent by email to the service list in Docket No. 16-576.



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