

September 21, 2021

Jeffrey R. Gaudiosi, Esq.
Executive Secretary
10 Franklin Square
New Britain, CT 06051

Re: Docket No. 17-12-03RE07 Non-Wires Alternatives: Comments on PURA Straw Proposal

Dear Executive Secretary Gaudiosi:

Acadia Center appreciates the opportunity to submit written comments in response to Public Utilities Regulatory Authority (PURA) Docket No. 17-12-03RE07 (“PURA Investigation into Distribution System Planning of the Electric Distribution Companies – Non-Wires Alternatives”). Acadia Center is a non-profit research and advocacy organization committed to advancing the clean energy future. Acadia Center strongly supports the use of non-wires alternatives (NWA) as a tool to lower customer and utility costs, lower emissions, and to help facilitate the deployment of clean energy resources.

Non-wires alternatives have the potential to provide significant benefits to ratepayers and grid operators in Connecticut. By avoiding the need to pay for large infrastructure investments that may become unnecessary in the future, NWA can save ratepayers significant amounts of money. As Connecticut seeks to meet its climate and energy targets, it is critical to avoid wasting ratepayer funds on infrastructure that may become financially stranded, in which case the infrastructure is no longer needed but still needs to be paid for.

In October 2020, Acadia Center made the following recommendations to PURA:

1. PURA must change the regulatory structure and incentives that serve as the foundation for the current utility business model to support the use of NWA.
2. PURA must allow third-party control and ownership of NWA, when cheaper.
3. Procurement and solicitation processes must be transparent and sufficiently detailed to ensure robust solutions.
4. Benefit-cost methodologies used to evaluate NWA solutions must consider all potential costs and benefits.

Acadia Center was pleased to see that PURA’s Straw Proposal¹ addresses most of these recommendations. While there is still significant room for improvement in Connecticut in terms of fully realigning utility incentives and business models to work in concert with the state’s climate and energy goals, the Straw Proposal lays a strong foundation for the procurement and implementation of NWA by outlining robust rules for third-party participation, transparent procurement processes, and benefit-cost testing.

¹ “Straw Non-Wires Alternatives Program Design,” July 30, 2021.

Acadia Center offers the following comments in response to the Straw Proposal:

- Acadia Center strongly supports the focus on transparency and encourages PURA to ensure that third-party vendors have appropriate access, in a timely manner, to all relevant information when proposing NWA solutions.
- PURA should allow for EDC ownership of NWA projects only in areas where the commercial market has clearly been shown to not provide adequate solutions.
- Acadia Center supports the use of the Total Resource Cost test as the primary test when evaluating NWA proposals, in order to capture more fully the benefits that NWA can provide.
- Acadia Center supports a robust process for stakeholder engagement as part of the independent administrator's review of NWA proposal and respectfully requests detailed information on how the NWA stakeholder group will be formed and how participation in the group will be determined.
- Pursuing NWA projects should be business-as-usual practice for EDCs; as such, additional performance incentives for EDCs for providing grid and customer benefits through NWAs may not be appropriate.

Assessment of Straw Proposal

A robust NWA process is critical given the expected growth in DERs and electrification of end uses. In order to support a strong market for NWAs, processes must be transparent, enable competition, and allow for open access to data. Acadia Center commends PURA for recognizing the importance of these attributes in its Straw Proposal.

As PURA notes, “[in] 2021, when distributed resources can provide less expensive options for ratepayers than some utility investment, consideration of NWAs in a transparent process open to the public and other energy service providers is now part of prudent utility planning” (page 4). To meet its climate and energy goals, Connecticut needs significant reforms to utility planning processes. If implemented effectively, PURA’s Straw Proposal should help to elevate the role of NWAs in meeting needs of the state by deferring and avoiding traditional transmission and distribution infrastructure investments.

Transparency

Acadia Center applauds PURA for elevating transparency and access to data as priorities in its Straw Proposal. PURA’s Straw Proposal recognizes the need to establish a level playing field for resources and to support competition in order to drive down costs, support innovation, and deliver customer savings. As the Straw Proposal notes, “Connecticut needs a new system to fairly evaluate utility and non-utility solutions – to put competing utility and competitive solutions on an equal playing field and opportunity to compete for the most effective least-cost solution. That is not possible where the utility controls information and data on distribution system needs and makes critical table-setting decisions years in advance” (page 4).

PURA further notes that “the utilities’ exclusive control over customer and grid data is now potentially a barrier to desired sharing of system data with third parties” (page 4) and that “[potential] bidders for NWAs, in fact, should have access to information on potential NWA needs at the same time the utility evaluates those needs. This means the distribution planning process must be *much more open and transparent*” (page 7). Acadia Center strongly agrees that in order to support an effective NWA market, utilities must no longer be allowed to take advantage of their monopoly

status by restricting access to data and information on system needs. The uneven access to information inhibits the ability of third-party providers to provide solutions that may be cheaper and provide more benefits than traditional utility investments.

As PURA notes, “[third] party entities may be able to develop less expensive, more reliable and/or innovative solutions to traditional utility wires and substation builds in Connecticut as they have done so in New York, Maine, Rhode Island, and California. However, such innovative companies simply cannot develop and propose any solution without access to adequate utility distribution engineering, system data, and planning and costs options to address modern grid and customer needs” (page 4). Third-party vendors must have transparent access to system data, needs assessments, and cost estimates for traditional utility investments, among other informational categories. EDCs must make this information available in order to give third-party vendors sufficient time to develop robust proposals for consideration.

PURA proposes to establish a third-party NWA administrator to review all distribution system investment proposals over \$500,000. The administrator will then work with stakeholders to determine whether a project is a candidate for an NWA. After reviewing RFI responses, the administrator will issue an RFP as part of a competitive solicitation. The administrator will conduct a technical feasibility analysis and compare the NWA to the traditional alternatives. The administrator will compare the societal costs and benefits of the NWA and will assess whether the NWA aligns with Connecticut’s policy and PURA’s regulatory objectives. The administrator will make a recommendation to PURA regarding the NWA. PURA will then make a final determination about whether to pursue the NWA.

A similar third-party administration structure has been successfully utilized in Maine. By establishing an independent third-party NWA administrator, the Straw Proposal outlines a process that should help to ensure neutrality when evaluating proposals, as long as there is opportunity for robust stakeholder participation. Distribution utilities, as entities charged with planning the electric and gas systems they own and operate, have a strong financial stake in the results of their planning decisions. By opening up planning and investment decisions to more competition and review by an independent administrator, Connecticut’s NWA program can help to alleviate some of the conflicts of interest that currently characterize utility planning processes.

PURA clarifies that the “NWA process is intended to include more resource options, more transparency to how those options are evaluated, and to optimize outcomes across parallel programs that use customer-side resources in competition with traditional utility investments” (page 4). Acadia Center strongly agrees with this position.

NWA ownership models

PURA correctly recognizes that limiting control and ownership of NWAs to utilities only will inhibit innovation and the opportunity for third parties to develop solutions that may provide greater benefits to customers. As PURA notes, Connecticut needs a new process for evaluating distribution system upgrades. Acadia Center appreciates PURA’s recognition that innovation and competition should not be artificially limited by restricting who can own and operate NWAs.

PURA proposes that “EDC ownership of NWA solutions shall only be allowed in the following circumstances:

1. Procurement of an NWA has been solicited to meet a system need, and the EDC has demonstrated that competitive alternatives proposed by non-utility parties are clearly inadequate or fail to satisfy the benefit to cost analysis compared to a traditional utility infrastructure alternative;
2. A project consists of energy storage integrated into distribution system architecture;
3. A project will enable low- or moderate-income residential customers to benefit from DERs where markets are not likely to satisfy the need based on the results of a Third-Party Administrator or utility solicitation; and
4. A project is being sponsored for demonstration purposes by a utility” (page 20).

Acadia Center urges PURA to ensure that there is fair opportunity for third parties to provide information on potential solutions to meet system needs. Acadia Center also urges PURA to clarify that, in requiring that the “EDC has demonstrated that competitive alternatives proposed by non-utility parties are clearly inadequate,” the independent administrator and PURA have the ultimate authority in determining whether or not a third-party NWA should be pursued. PURA should also clarify that “energy storage integrated into distribution system architecture” *may* include EDC ownership but is not restricted only to EDC ownership. PURA should allow for EDC ownership only in areas where the commercial market has been shown to not provide adequate solutions. Finally, “demonstration projects” should be a low priority. Very little DER technology is new or untested. Connecticut must dramatically accelerate the deployment of DERs, and PURA should be cautious to avoid slowing progress by prioritizing demonstration projects, rather than full-scale deployments.

The slow progress to date around non-wires alternatives in Connecticut reflects the broader need for reform of the existing utility regulatory framework. Under current utility business models and cost-of-service regulation, utilities are incentivized to invest in large capital infrastructure projects, on which they earn high returns, and to erect barriers to DERs and other NWA solutions that could cut into earnings opportunities. Current reliability rules incentivize over-estimating grid needs, which raises costs for customers. By establishing a strong NWA market, PURA has the opportunity to reform existing utility distribution planning processes in order to more effectively facilitate the deployment of NWA. Non-wires alternatives should be a business-as-usual practice for long-term utility planning, rather than consisting of one-off projects that are separate to normal utility operations. The current bias towards the default options of traditional infrastructure investment and against NWA must change.

Benefit-cost analysis

PURA correctly determines that the benefit-cost analysis for NWAs should not be restricted to the utility cost test, but that proposals should include the Total Resource Cost (TRC) test. The Straw Proposal requires the NWA administrator to use “the more expansive total resource cost test, along with the utility cost test” (page 14-15). Acadia Center urges PURA to require the use of the TRC as the primary test for evaluating the cost effectiveness of NWA proposals. If the utility cost test is to be included, it should only be used as a secondary test.

The TRC includes several categories of benefits that are not included in the utility cost test, including non-energy impacts and non-embedded emissions. By including more benefit categories, the TRC allows for a more accurate assessment of the full set of benefits that NWAs can provide. By requiring the administrator to use the TRC, PURA can

help to ensure that NWA projects help meet the guiding principle outlined in the Straw Proposal: maximizing “value for Connecticut ratepayers and societal benefits over the long term” (page 11).

Stakeholder engagement

PURA will require the independent NWA administrator to lead an open and transparent stakeholder process as it reviews NWA opportunities. The administrator and “associated stakeholders” will review all distribution system investments over \$500,000 through monthly stakeholder group meetings. Acadia Center supports a robust process for stakeholder engagement and respectfully requests detailed information on how the NWA stakeholder group will be formed and how participation in the group will be determined.

Utility cost recovery and incentives

PURA is correct to carefully monitor the possibility of double recovery by EDCs relevant to the expenses for an NWA project. Acadia Center also urges PURA not to approve EDC performance incentives for providing “additional, superior grid, and/or customer benefits” (page 24). EDCs should already be pursuing opportunities to provide grid and customer benefits; if providing those benefits requires a third-party vendor to develop and deploy an NWA solution, then the utility is clearly not acting fully in the public’s best interest. Under those circumstances, it is not appropriate for an EDC to be rewarded with a performance incentive. That the EDC may have “cooperated in development of the [NWA] opportunity by sharing information and implementation” is not sufficient to warrant a performance incentive (page 23).

Response to Questions

In its Notice of Issuance, PURA included several questions related to the Straw Proposal.

Discuss whether it is appropriate to permit the inclusion of energy efficiency (EE) as an element of an NWA. What is the best path to integrate locational considerations / value for EE as part of NWAs?

Yes, PURA should allow the inclusion of energy efficiency as an NWA. Energy efficiency does not require system upgrades in the same way that other DERs require and can increase hosting capacity, creating space for other DERs. Energy efficiency savings provide different values based on time of day, season, and location, as well as by end use. Energy savings from efficiency measures provide higher values in areas of both the distribution and bulk power system with greater congestion. Numerous methodologies exist for evaluating these benefits, and several jurisdictions can provide lessons.² For example, by conducting marginal cost of service studies, stakeholders in New York are identifying opportunities for energy efficiency to provide locational system relief services as part of the overall demand reduction value provided in areas with system constraints. In addition, the energy efficiency programs in Connecticut are limited by funding and allowing supplemental funding to flow through the existing programs, targeted to certain areas as needed to be an NWA, is an effective way to leverage the existing system.

² See https://emp.lbl.gov/sites/default/files/webinars/lbnl_locational_value_20210309_final.pdf, <https://www.aceee.org/sites/default/files/publications/researchreports/u1802.pdf> and https://www.nationalenergyscreeningproject.org/wp-content/uploads/2020/08/NSPM-DErs_08-24-2020.pdf.

Discuss whether distributed energy resources (DERs) participating in either (1) wholesale market DER aggregations pursuant to FERC Order 2222, or (2) storage assets participating in wholesale markets pursuant to Order 841, should be allowed to also participate as part of a state NWA program. What would the parameters be for projects that participate in both a state NWA program and the wholesale markets?

Yes, DERs that are providing distribution-level services as an NWA should be allowed to participate in wholesale markets, assuming the dual participation does not interfere with the project's ability to perform its original functions. The Straw Proposal already indicates support for dual participation and use-stacking: "While the primary use case may be distribution system reliability or another use, a secondary use case to provide customer benefits behind the meter or participate in the wholesale markets through frequency regulation, for example for a battery, is allowable and may be desirable to reduce the costs of different resources in a portfolio or provide an enhanced reserve or resource margin....In fact, since distributed resources can provide multiple retail, wholesale, and customer level functions in different use cases, the Authority views this resource stacking as increasingly necessary and desirable" (page 17). Acadia Center appreciates PURA recognition of the value of NWA use stacking, given the ability for some NWAs to provide a variety of services.

Conclusion

Thank you for the opportunity to submit written comments. Acadia Center looks forward to further engagement on these issues.

Sincerely,

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