



The Leader in Public Sector Law

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Mr. Mark D. Marini, Secretary
Department of Public Utilities
One South Station, 3d Floor
Boston, Massachusetts 02110

Ms. Shonda D. Green, Secretary
Department of Telecommunications and Cable
1000 Washington Street, Suite 600
Boston, Massachusetts 02118

Re: Inquiry on Pole Attachments and Conduit Access on Public Rights of Way,
D.P.U. 25-10/D.T.C. 25-1 – Comments from the Town of Nantucket

To Whom it May Concern:

This firm represents the Town of Nantucket, Massachusetts (Town). Please accept this letter as the Town's written comments on the Department of Public Utilities' (DPU) and the Department of Telecommunications and Cable's (DTC) joint inquiry exploring utility pole attachment, conduit access, double pole, and related considerations applicable to utility work conducted on public rights of way in the Town as the Commonwealth facilitates its clean energy transition and electrification and modernization of the grid.¹

At the outset, the Town of Nantucket notes its support for the clean energy transition being undertaken in the Commonwealth. This letter provides comments on and expresses the Town's ongoing concerns regarding the Commonwealth's grid modernization planning and its implications for the Town's energy future, as Nantucket faces unique challenges as the Commonwealth's most remote community with critical concerns related to the reliability and resiliency of our grid infrastructure, the growing demand for electricity, and the associated cost burden on local ratepayers as the Commonwealth plans its electrification and clean energy transition. The Town appreciates the opportunity to raise these issues and provide input on how Nantucket can best align with the Commonwealth's decarbonization goals while addressing the Town's specific needs.

I. BACKGROUND

To facilitate the clean energy transition in the Commonwealth, substantial electric distribution infrastructure investments are planned, including the deployment of rights of way (ROW) and pole-mounted electric vehicle supply equipment (EVSE) to contribute to electrification options, as well as broadband infrastructure expansion and upgrades. These investments will require access and upgrades to utility poles and underground ducts and conduits, the substantial majority of which are jointly owned by National Grid—the

¹ See DPU and DTC, Notice of Inquiry and Request for Comments, dated January 17, 2025, available at <https://www.mass.gov/doc/dpu-25-10dte-25-1-notice-of-inquiry-and-request-for-comments/download>.

Town's primary electric distribution company (EDC)— and Verizon in Nantucket,² but which are located on and under public ROWs in Town.

Additionally, as it concerns Nantucket's current infrastructure and capacity, the Town notes that its peak demand is growing at five times the Massachusetts statewide average, raising concerns about the island's grid infrastructure and capacity.³ By way of background, electric service is currently delivered to Nantucket via two undersea cables from the mainland grid. These cables run approximately 30 miles from Cape Cod to the National Grid substation on Candle Street in Nantucket's historic downtown.⁴ The first cable, installed in 1996, connects to Harwich, Massachusetts and has a capacity of 36 MW at a cost of \$27 million. The second, installed in 2006, connects to Hyannis, Massachusetts and has a capacity of 38 MW at a cost of \$41 million. Both cables are classified as distribution assets of Nantucket Electric Company, a subsidiary of National Grid, with all costs borne solely by island ratepayers.

The island's peak load of 55MW has already exceeded the capacity of its one undersea cable, the 6MW Tesla Battery Energy Storage System (BESS), and a 10 MW turbine generator installed in 2019. As such, discussions are occurring with National Grid about a third undersea cable to maintain appropriate levels of reliability in future years. A third cable, if deemed necessary, would likely follow the same cost structure, placing a significant financial burden on island ratepayers.

Nantucket also faces a natural "reverse capacity limit" which restricts the amount of local renewable energy that can be developed on the island without risking back feeding events across the undersea cables to the mainland. This limit remains undefined, creating significant uncertainty and hindering the efficient advancement of local solar projects, which may serve as key "non-wire alternatives." In 2024, two major electric service disruptions occurred: a cable failure in May and a widespread outage during the Christmas Stroll weekend. These incidents underscore the urgent need for enhanced resiliency and sustainability measures to prevent future events of this magnitude, particularly as the Commonwealth begins exploring additional upgrades and expansions to promote electrification and grid modernization.

II. LEGAL FRAMEWORK

The Departments share jurisdiction over utility pole, conduit access, and double pole matters pursuant to G.L. c. 164, § 34B, G.L. c. 166, § 25A, the agencies' pole attachment, duct, conduit, and ROW complaint and enforcement regulations, 220 CMR 45.00 *et seq.*, and a Memorandum of Agreement entered into by the agencies to facilitate shared jurisdiction. The deployment of ROW or pole-mounted EVSE, along with other electric and grid updates in the Town of Nantucket, also must comply with An Act Promoting a Clean Energy Grid, Advancing Equity, and Protecting Ratepayers, St. 2024, c. 239, § 134, as well as local by-laws and policies.

² See *Boston Edison Co. v. Town of Bedford*, 444 Mass. 775, 776 (2005) ("[a]pproximately ninety per cent of the utility poles in Massachusetts are owned jointly by electric and telephone companies ...").

³ See Worcester Polytechnic Institute, Stimulating the Adoption of Solar PV on Nantucket, available online at <https://wp.wpi.edu/nantucket/projects/2017-projects/neo/>.

⁴ Nantucket Current, One Of The Two Undersea Cables That Provide Electricity To Nantucket Is Broken Down (May 4, 2024), available online at https://nantucketcurrent.com/news/one-of-the-two-undersea-cables-that-provide-electricity-to-nantucket-is-broken-down?utm_source=chatgpt.com; see also National Grid, Nantucket Peak Load, available online at <https://www.nationalgridus.com/media/pdfs/resi-ways-to-save/0416-natgrid-ma-hes-ngma-353598-nantucketfaqdocument-v6.pdf>.

III. UTILITY POLE AND CONDUIT WORK IN NANTUCKET

In the inquiry, the Departments have requested specific information regarding: (1) local assessments and prioritization of applications to conduct utility projects on public ROWs; (2) local communication with pole and conduit owners with respect to needs for larger and higher-priority projects; (3) local review of completed utility work for safety issues and remediation needed after utility work is completed; (4) the considerations and limitations for pole and conduit owners work involving trenching on public ROWs; (5) emergency, storm, and safety impacts on scheduling for routine ROW work; and (6) general limitations and considerations as the Departments seek to coordinate and facilitate clean energy projects.

In these regards, the Town notes that it prioritizes and fast-tracks critical network/grid infrastructure improvements, as well as municipal projects, which take precedence over private utility extensions and other routine projects and services. The Town has an open line of communication through its monthly utility coordination meeting with representatives from Verizon, Comcast, and National Grid, though the meetings are somewhat sporadically attended by the various utility companies. The Town also has a local bylaw, § 113-3, regulating removal, upgrades, and replacements of existing utility facilities that requires certain coordination with the Town.⁵

The Town emphasizes that it has had a generally positive experience with emergency response times despite Nantucket being an island community impacted by the challenges of getting crews, equipment, and resources to the island in a timely manner. Notably, and as pertinent here, the primary limitations with respect to scheduling, communication, and safety issues for the Town concerns the routine utility work and upgrades, during which response times and follow-through can be delayed and lacking. The Town believes the various entities may be overburdened, struggling to keep up with demand, and unable to prioritize important Town needs.

Specifically, there can be public safety concerns that arise when utility work is being done or after it is completed due to the relative lack of clarity with respect to who is responsible for following up or which parties are waiting on the other due to the shared nature of the utility poles. For example, the Department of Public Works (DPW) Director will often follow up with respect to a pending issue after utility work, and it appears unclear whether Verizon is waiting on National Grid, or National Grid is waiting on Verizon, and who ultimately will take responsibility for completing the task or following through.

Notably, the Town is not typically invited to review the quality or safety of any finished work on utility poles and conduits, but the DPW becomes involved when there is abandoned infrastructure and safety issues on public ROWs due to a lack of coordination or follow up among the responsible parties. The untimely response issues can and have led to public safety concerns which linger until the party responsible completes the work. Double poles are almost never removed in a timely manner and will remain while the Town is waiting on the parties to coordinate among themselves. It appears that one utility initiates the work, while the other utilities lag in undertaking their portion of the work on the poles, due to the joint ownership and responsibilities. Dangling and unsecured wires will also linger, causing public safety hazards following pole work. Abandoned boxes and wires are generally left on or near poles, leading to impassable sidewalks and similar safety

⁵ See Town of Nantucket Bylaws, Chapter 113, available at <https://ecode360.com/11471073#11471074>.

concerns. In this regard, therefore, the Town encourages transparency and communication on these safety and coordination issues as utility pole and conduit improvements are undertaken in the future.

Finally, the Town commends the State's and EDC's efforts to pursue grid modernization and utility system upgrades, but stresses the critical need for collaboration to address Nantucket's unique needs and challenges. Nantucket offers a valuable opportunity to pilot innovative solutions, such as Non-Wires Alternatives ("NWAs"),⁶ Virtual Power Plants ("VPPs"),⁷ and advanced demand-side management strategies. Given the substantial costs associated with traditional infrastructure upgrades, including a potential third undersea cable, leveraging Nantucket as a testing ground could yield insights and scalable solutions with broader applications across Massachusetts.

IV. THE DEPARTMENTS ALSO MUST TAKE INTO ACCOUNT EQUITY CONSIDERATIONS, DEMAND, AND RELIABILITY ISSUES FOR NANTUCKET IN THE MODERNIZATION AND ELECTRIFICATION OF THE GRID.

A. Peak Load Growth and Infrastructure Constraints

As noted, Nantucket's electricity demand continues to grow at an unprecedented rate and already exceeds the capacity of each undersea delivery cable from Cape Cod. As electrification accelerates under Massachusetts's decarbonization and electrification plans, there is a heightened risk that the current infrastructure will be unable to meet current and future demand. A failure of one of the two undersea cables during the peak season would leave the island without sufficient capacity to power essential services, posing a significant risk of prolonged outages and widespread disruption. To mitigate this potential catastrophe, the Town requests clarity on the State's and/or EDC's plans for deploying additional roll-on generators and/or other contingency measures during this process.

Additionally, given that internal forecasts and communications with National Grid may suggest that a third undersea cable may be required by 2033, the Town urges National Grid to outline a detailed timeline for planning, permitting, and installation as part of these utility and infrastructure system upgrades. When the Tesla BESS was proposed in 2018, the forecast for needing a third cable was projected as far out as 2044. The accelerated timeline highlights the rapid growth in electricity demand and the urgency of addressing these challenges. Recent failures underscore the vulnerability of current infrastructure, particularly during peak periods, making greater urgency and transparency essential. Considering the aging infrastructure, the Town also asks whether replacing the first cable, which is nearing 30 years old, with a higher capacity one is being evaluated as part of this planning process.

B. Electrification and Renewable Energy Integration

The Town also notes that current substation limitations significantly restrict local renewable energy deployment due to concerns about power back feeding to the mainland during low-demand periods. The Town,

⁶ Non-wires alternatives are electric utility system investments that can replace the need for specific transmission and distribution projects at lower total resource cost by reliably reducing transmission congestion or distribution system constraints at times of peak demand in specific grid areas. See NWA at National Grid, <https://www.nationalgridus.com/Business-Partners/Non-Wires-Alternatives/>.

⁷ Virtual power plants are a network of devices in homes and businesses that can be harnessed by utilities to add power, cut energy demand, or both. See WBUR, How Virtual Power Plants Help Reduce Peak Power Demand in New England, available at <https://www.wbur.org/news/2024/08/28/virtual-power-plants-eversource-massachusetts-batteries-ev-chargers/>.

therefore, urges the prioritization of essential upgrades, such as 3VO protection at the Candle Street substation, to unlock Nantucket's renewable energy potential and ensure grid reliability as electrification continues to accelerate.

Additionally, the island faces a significant challenge related to its solar capacity limit. Current infrastructure constraints, including the "reverse power limit," hinder Nantucket's ability to effectively plan for and expand distributed generation ("DG") projects. As such, the Town requests consideration and a clear assessment of this limit and the steps being taken to address it. Without such transparency, the Town is unable to adequately prepare for future DG capacity needs. Once this limit is reached, a comprehensive transmission study will be required to determine necessary upgrades, such as reverse power relays.

C. Cost Implications for Ratepayers

Current electricity prices on Nantucket are significantly higher than the national average.⁸ The anticipated cost of a third undersea cable, estimated at over \$200 million, also presents a significant economic burden for Nantucket ratepayers, who already finance the existing cables through a roughly 15% cable facility surcharge. The Town urges the active exploration of funding opportunities through federal and state programs for grid resiliency, such as Section 40101(d) of the Bipartisan Infrastructure Investment and Jobs Act, to help alleviate this financial strain, throughout its electrification and upgrade and expansion projects.

V. CONCLUSION

The Town thanks the Departments for this opportunity to provide comments regarding the future utility system upgrades and electrification of the grid. Nantucket's grid is a vital part of the community's resilience and sustainability, and its modernization must be addressed with urgency and equity. As the Town works to meet the Commonwealth's ambitious decarbonization goals, the Town urges the state agencies and EDCs to prioritize the island's unique challenges in planning and funding decisions to ensure a cleaner, more reliable energy future for Nantucket.

Thank you kindly for your attention to these critical issues.

Very truly yours,



Devan C. Braun

DCB/nal

cc: Town Manager
DPW Director
Energy Coordinator
Select Board

⁸ See note 4 *supra*.