

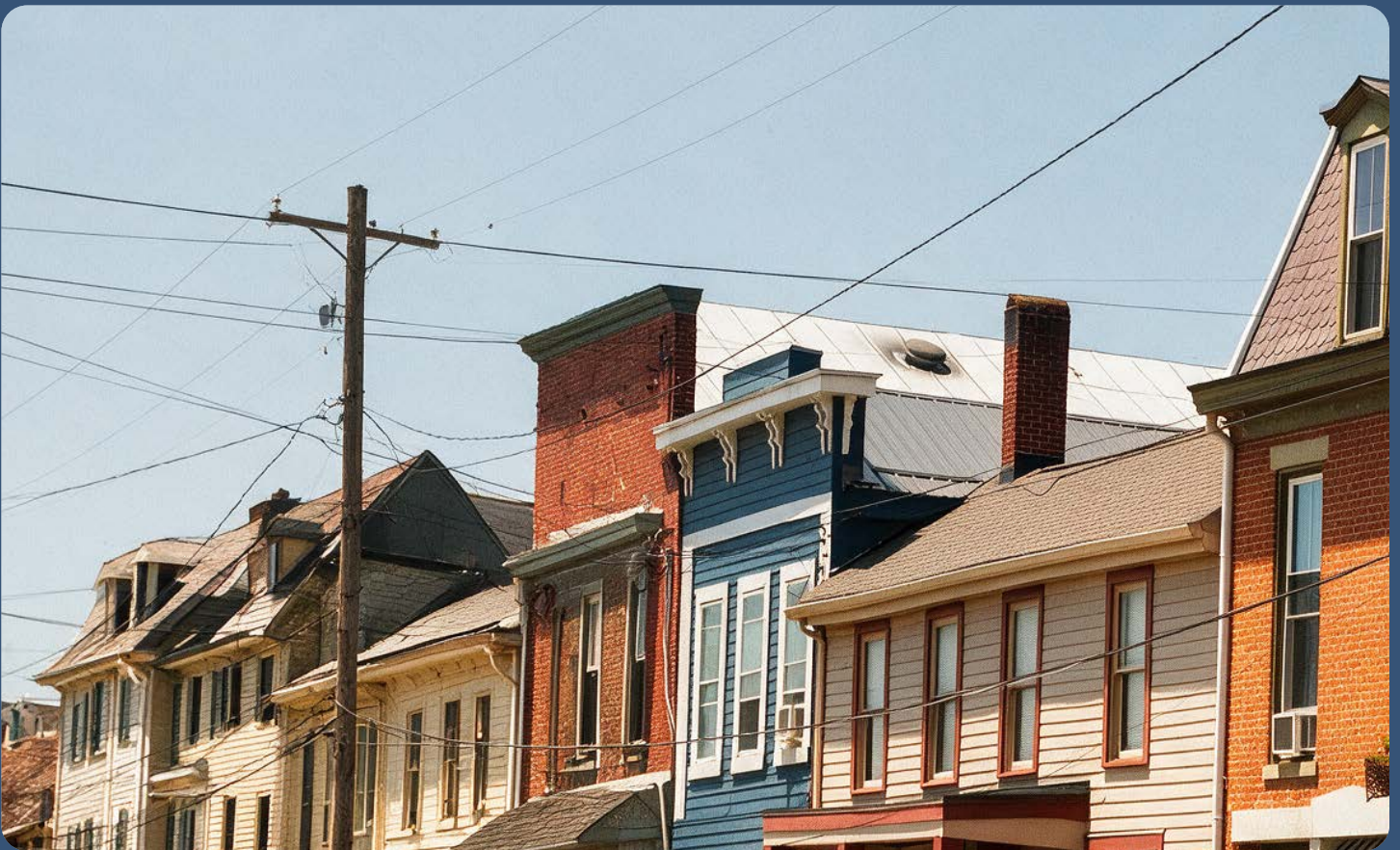


How National Grid is using locational flexibility to **deliver distribution-level value**



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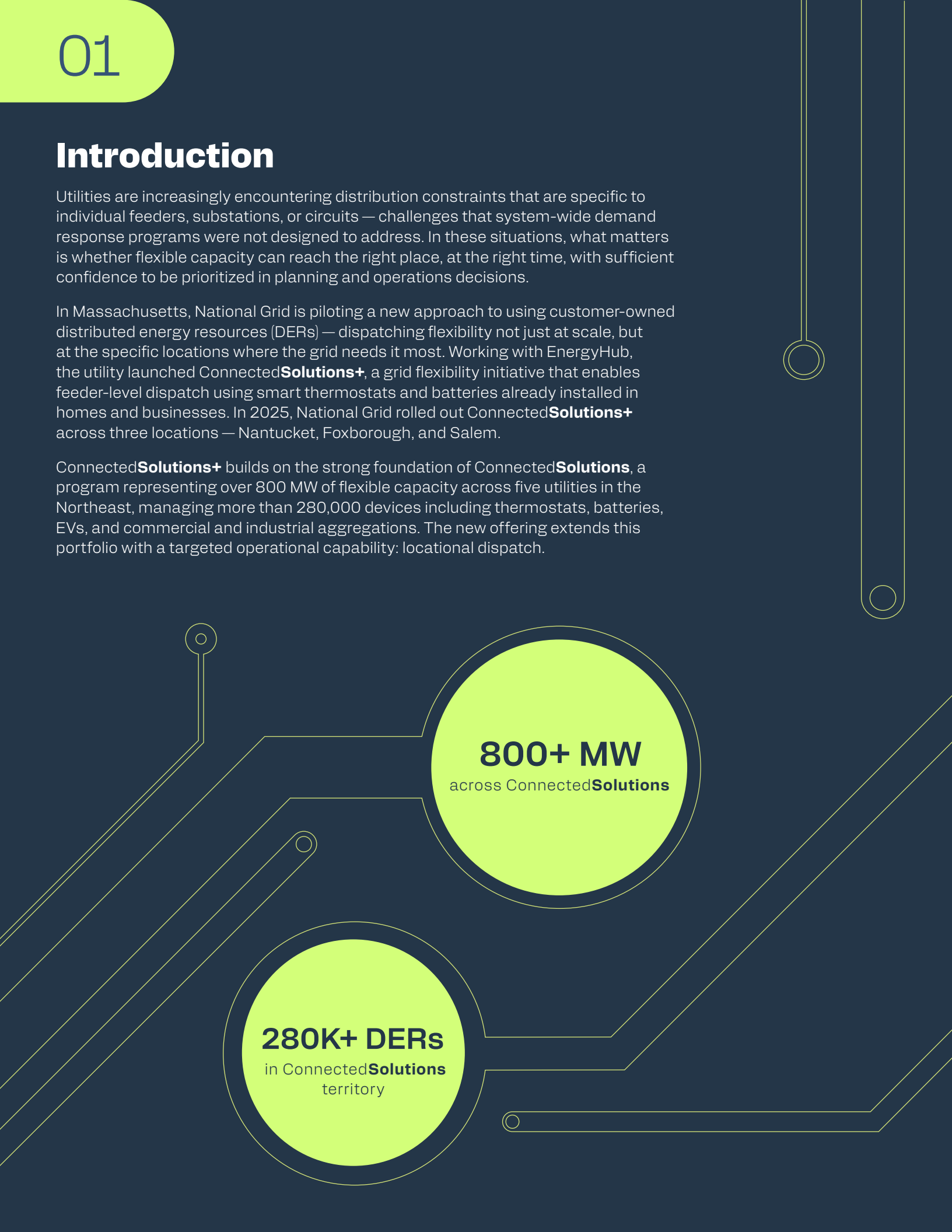


Introduction

Utilities are increasingly encountering distribution constraints that are specific to individual feeders, substations, or circuits — challenges that system-wide demand response programs were not designed to address. In these situations, what matters is whether flexible capacity can reach the right place, at the right time, with sufficient confidence to be prioritized in planning and operations decisions.

In Massachusetts, National Grid is piloting a new approach to using customer-owned distributed energy resources (DERs) — dispatching flexibility not just at scale, but at the specific locations where the grid needs it most. Working with EnergyHub, the utility launched Connected**Solutions+**, a grid flexibility initiative that enables feeder-level dispatch using smart thermostats and batteries already installed in homes and businesses. In 2025, National Grid rolled out Connected**Solutions+** across three locations — Nantucket, Foxborough, and Salem.

Connected**Solutions+** builds on the strong foundation of Connected**Solutions**, a program representing over 800 MW of flexible capacity across five utilities in the Northeast, managing more than 280,000 devices including thermostats, batteries, EVs, and commercial and industrial aggregations. The new offering extends this portfolio with a targeted operational capability: locational dispatch.



800+ MW
across Connected**Solutions**

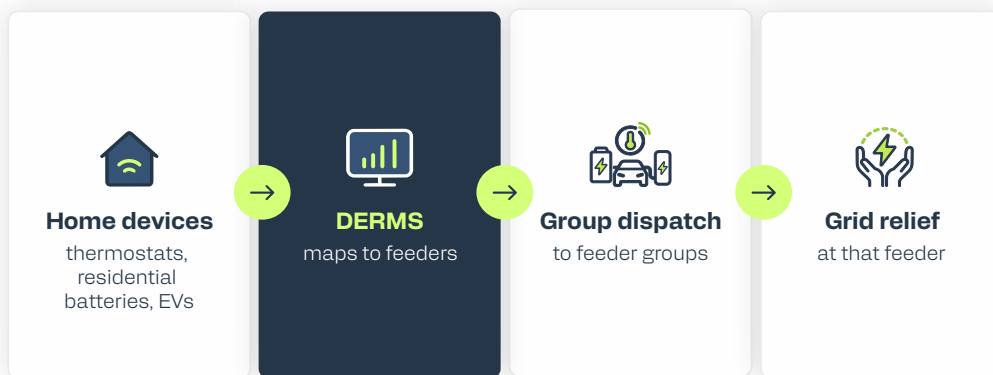
280K+ DERs
in Connected**Solutions**
territory

From system-level demand to distribution-level focus

Distribution constraints don't always align with system-wide patterns. They emerge at specific feeders, substations, and circuits. Managing them requires tools that can direct flexible capacity to exactly the right place at the right time.

Through EnergyHub's Distributed Energy Resource Management System (DERMS) platform, Connected**Solutions+** maps participating DERs to National Grid's network topology. This gives the utility visibility into which devices are connected to which feeders and circuits. National Grid can now dispatch those devices at specific locations where the grid needs relief.

National Grid is testing how dispatching enrolled devices in specific areas during peak hours can influence planning outcomes and help better characterize grid needs on constrained parts of the system. At the same time, operators can draw on those same resources to manage real-time grid conditions, using existing program infrastructure to deliver targeted flexibility exactly where it's needed.



Connected**Solutions** at a glance

5
utilities

280K+
DERs

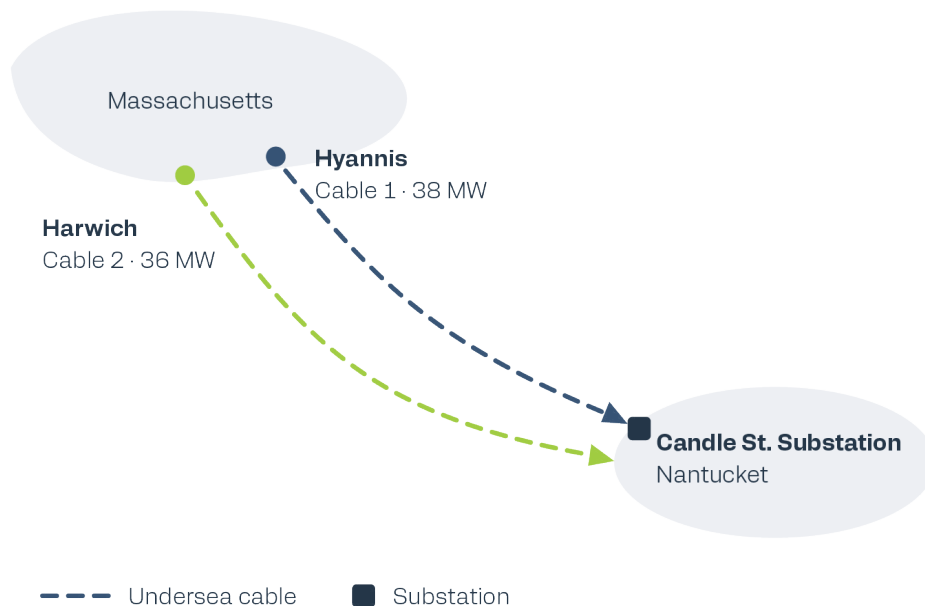
800+ MW
flexible capacity

3
DER types

WHY IT MATTERS

Distribution constraints emerge at specific feeders and circuits — not system-wide.

Addressing localized challenges with a near-term solution



In summer 2025, National Grid launched **ConnectedSolutions+** to test whether targeted dispatches on peak days could help reduce stress — and the risk of disruptions — on specific parts of the distribution system. Nantucket and Foxborough were the first locations selected, with Salem following that winter.

Nantucket's complex infrastructure requirements and increasing demand made it a strong candidate for **ConnectedSolutions+**. The island's electricity is delivered entirely through undersea cables, and National Grid is evaluating a range of options to address continued demand growth and aging infrastructure.

ConnectedSolutions+ offered a way to test a different approach: by dispatching enrolled devices on the island during peak hours, National Grid could gather data on how targeted load reduction on specific circuits might inform future infrastructure investment decisions and help manage risk in the near term.

After a successful inaugural season, National Grid has expanded the program to additional locations in 2026 and will continue to refine dispatch strategies and incentive design based on operational experience.

Combined capacity

74 MW

across two cables

Peak demand

45+ MW

exceeds one cable

Connected**Solutions+**

After a successful inaugural season, National Grid has expanded the program to 15 locations

and will continue to refine dispatch strategies and incentive design based on operational experience.

Evaluating distribution-level value under Massachusetts' grid modernization plan

National Grid is deploying Connected**Solutions+** as part of its [Electric Sector Modernization Plan \(ESMP\)](#) — its roadmap for advancing the state's electrification goals. Under ESMP, National Grid can test new approaches to grid flexibility, evaluating how programs like Connected**Solutions+** can support local grid needs, inform planning decisions, and bridge or defer the need for capital infrastructure upgrades. These flexible resources could offer a more cost-effective alternative to traditional infrastructure investments, helping manage costs for customers while maintaining grid reliability. The increased incentives available through Connected**Solutions+** reflect that customer and system value, recognizing the added impact of participation in targeted, grid-constrained areas.

A core goal of the ESMP period is to understand the value National Grid realizes from investment in DERs and grid services, using operational experience to build the evidence base needed to evaluate how these programs can best support grid planning and investment decisions beyond 2030.

The program is designed to encourage participation in local, feeder-specific dispatches by offering incentives that are, on average, ~27% higher than traditional Connected**Solutions** compensation. Over the ESMP term, National Grid intends to assess how these incentive levels influence customer participation and program performance in locational use cases.

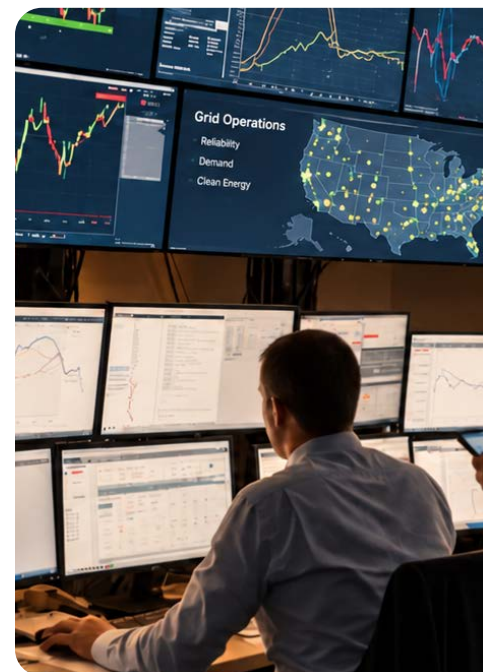
ESMP highlights

5-year
term

2025
launch

2026
expansion

~27%
higher incentives for
locational dispatch



Building a learning-based approach to local grid needs

By applying locational dispatch within an existing DER portfolio across multiple locations, National Grid is building a growing body of operational experience — learning how targeted flexibility performs under real grid conditions and what it takes to make it a reliable tool for distribution-level planning. For utilities exploring non-wires alternatives (NWAs), Connected**Solutions+** offers an evolving model for how VPP capabilities can be applied at the distribution level, using customer-owned devices as operational resources where grid needs are local, time-bound, and measurable.

Looking ahead, National Grid intends to apply insights from programs like Connected**Solutions+** to shape future approaches for scaling flexibility, using operational experience to better understand, assess, and integrate non-wires alternatives into utility planning processes.

Additional details on Connected**Solutions+**, including eligibility and enrollment information, are available on National Grid's [program page](#).

