Energy Storage

New England Conference of Public Utilities Commissioners (NECPUC)

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National Grid is an industry leader on energy storage

By the end of 2019, we will own and operate 25 MW / 146 MWh of energy storage.

A few highlights…

- Upstate NY Substation Energy Storage
- Solar Phase II Demo
- Flow Battery Demo
- Nantucket Battery Transmission Solution
- RI Storage Demos
- Long Island’s Energy Solution

We are also interconnecting non-utility storage, with 17 MW of storage paired with solar (and 1 GW in the queue).
Potential Benefits of Energy Storage

Energy storage can help us achieve a more efficient and decarbonized electricity system, via:

- Avoided generation capacity (peak shaving)
- More efficient ancillary services (fast response)
- Firming variable renewables
- Lower electricity supply costs (energy arbitrage)
- Avoided/deferred traditional “wires” investments
- Enhanced reliability
Energy Storage Policies

Any **energy storage targets** should be scaled to support policy goals and valued outcomes.

‘**Value stacking**’ between network and wholesale market use cases supports more storage and increased societal value.

**Aligning incentives** for energy storage with value creation maximizes the benefits from energy storage.

Retail **rate design** should create opportunity for private customer savings for reducing total electricity system costs.
Utility Role in Energy Storage

Utility ownership and integration of energy storage as a grid asset

Incentives to promote desired decarbonization and electricity system efficiency

- Non-wires alternatives shared savings
- Performance incentive mechanisms (PIMs) – e.g., peak demand reduction
- TOTEX-style cost efficiency incentives