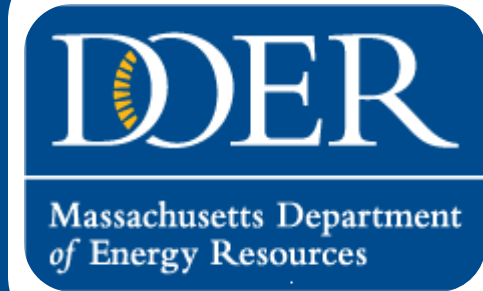


*Creating a Clean, Affordable and Resilient Energy Future for the Commonwealth*



# **Demand Management Grant Program**

# The Basics

- In June 2017, DOER awarded \$4.7 million in grants to 9 entities
- Split into 2 topics – general peak demand management and geographically-concentrated demand management
- Designed to complement PA demand management demonstrations by testing different business models and exploring frontier issues
- Goal is to gather information about how to implement active demand management by the end of 2018

# DR Portfolio

	Residential	C&I			Geotargeted
		Small	Mid	Large	
National Grid	WIFI Tstat DLC	WIFI Tstat DLC	WIFI Tstat DLC	Interruptible load	
CLC	WIFI Tstat DLC Behavioral+ DLC on Ductless Mini-Splits	BTM Thermal Storage*	BTM Thermal Storage*		
Unitil	Battery storage for existing solar PV				
Eversource		EMS WIFI Tstat DLC Lighting HVAC Controls	Software and Controls On site training Process Audits Batteries Thermal Storage	Software and Controls On site training Process Audits Batteries Thermal Storage Real time Info/DR	
DOER	Battery storage with solar PV DLC for EV chargers Consumer research and program optimization		Vertical market DR with BTM storage modeling Integrated virtual micro-grid	Gas Demonstration Battery storage with Solar PV	Substation battery BTM thermal storage
* Not yet approved by DPU					
+Not yet sunset by DPU					

## Details - Batteries

- Projects:
  - Residential project pairing solar with Powerwalls (Tesla supported by National Grid)
  - Municipal project combining lighting controls, solar, batteries in several mid-sized city buildings in Medford (B2Q)
  - Substation project located at grid-scale solar site (Holyoke G&E and UMass Amherst)
  - Battery at large C&I site for demand charge reduction – customer/location TBD (Genbright)
- Issues: Construction schedule, end-customer decision-making, regulatory hurdles

# Details - Thermal

- Projects
  - Study design and execution for large industrial gas DR demo (Fraunhofer in National Grid territory)
  - Residential/small commercial ice storage on Nantucket (Genbright)
- Issues: ISO market rules

## Details - Misc

- Projects
  - Residential consumer attitudes study gauging how to accelerate uptake of DR technology (Fraunhofer supported by National Grid)
  - Residential EV charging time control in Braintree and Belmont to test low cost, fast DLC technology (Sagewell)
- Issues: Manufacturer certification

## Details - Controls

- Packaged DR controls for 2 Kohl's stores (eCurv with support from Eversource)
- See Eversource presentation

# First Impressions

- Challenges that need to be overcome – some expected, some surprises
- Great effort to identify and address market barriers
- Some early successes! See Eversource presentation