













# We look forward to hearing from you

Please put all your questions into the questions section with this icon.



Q&A







Why Demand Response?

Ways to Participate

Commercial & Industrial | Residential

**CSP Vendors and Revenue Stacking** 

2022 Results

Q&A



# Why Demand Response?









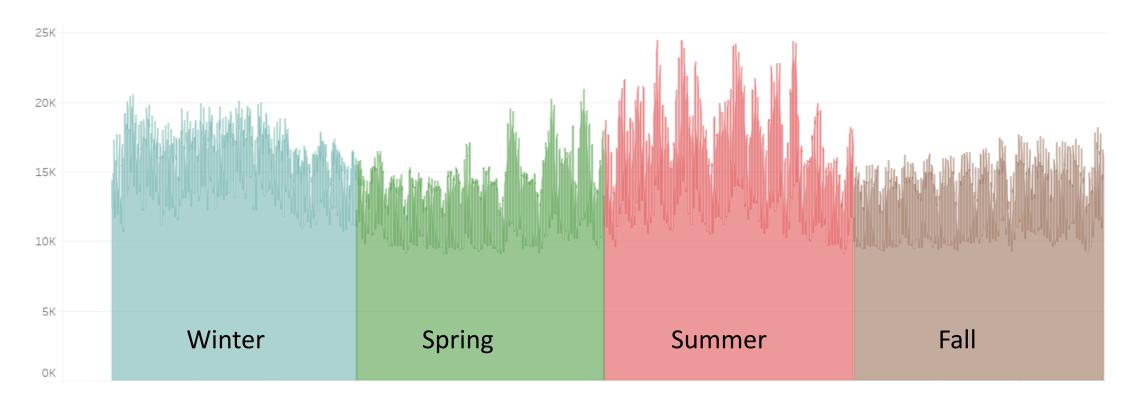




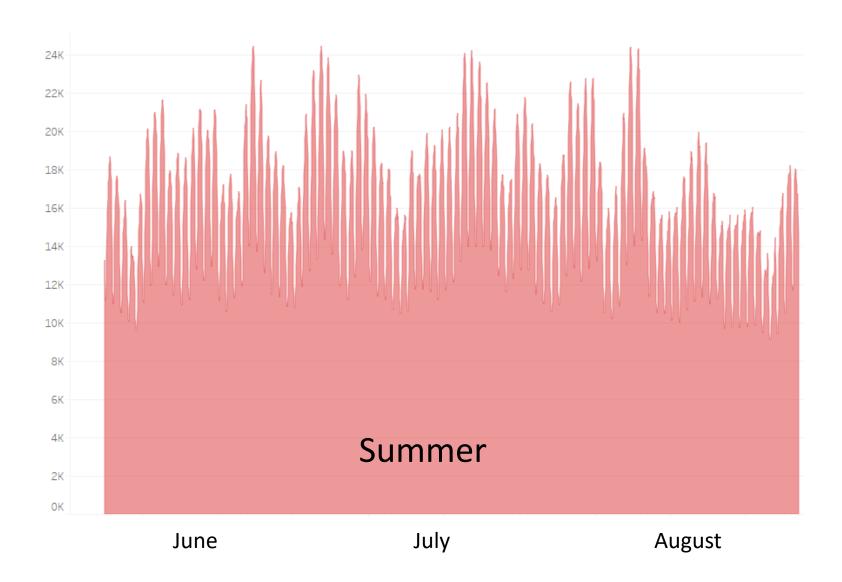


# What is demand response and why do we do it?

"The top 10% of hours during the year, on average, accounted for 40% of the annual electricity spend..."



The whole grid is sized to meet the peak.



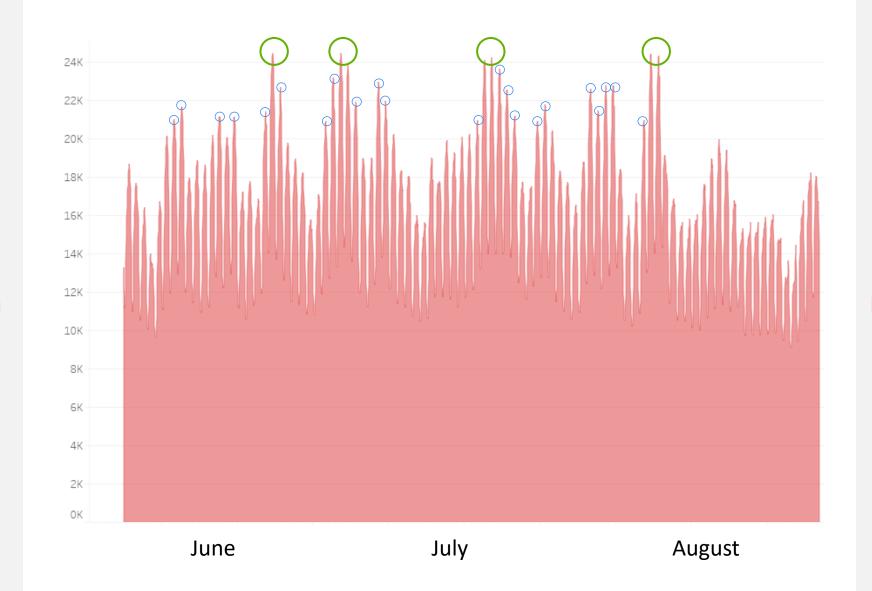
## Commercial/ Industrial Programs

**Targeted Dispatch** 



**C&I Daily Dispatch** 





# Residential Programs

Thermostats



**Residential Batteries** 



# Two Ways to Participate

- Summer SeasonJune 1 Sept 30
- Winter Dispatch has been discontinued

	Program Parameters
Targeted Dispatch	<ul> <li>3 - 8 events per summer</li> <li>3 hours per event (Typically 4-7pm)</li> <li>\$35/kW-summer - Curtailment</li> <li>+\$10/kW weekend bonus</li> </ul>
Daily Dispatch	<ul> <li>30 - 60 events per summer,</li> <li>2 - 3 hours per event</li> <li>Technology Agnostic</li> <li>MA: \$200/kW-summer C&amp;I</li> </ul>

## Strategies and Technologies Typical to Dispatch Scenarios



### **Usually Manual**

Temperature setback ~3F

VFD speed limiting

Early setback

**Process Changes** 

Pre-scripted BMS control strategies



#### **Usually Automatic**

Batteries

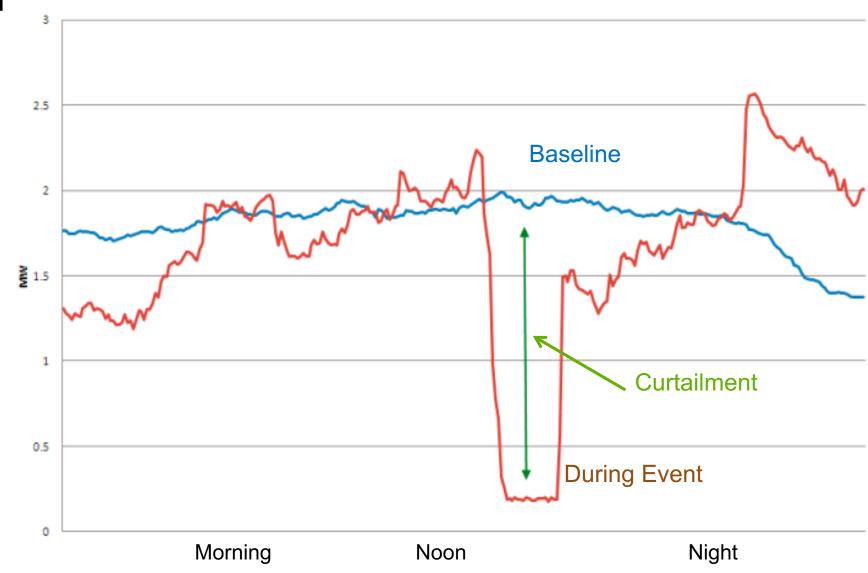
Flywheels

Thermal Storage

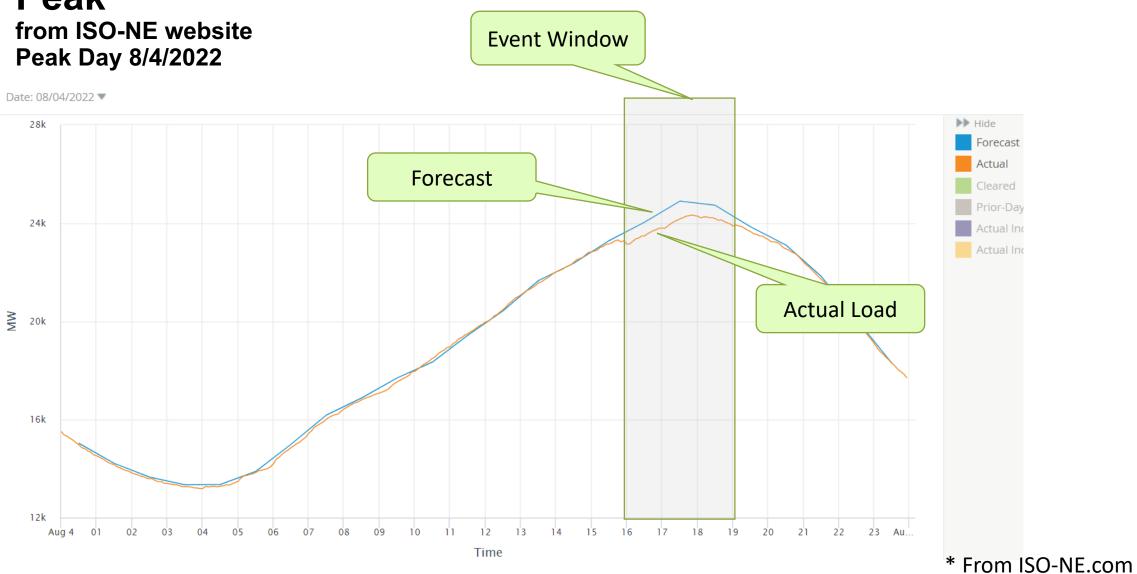
**Industrial Freezers** 

Note: Generation no longer allowed in ConnectedSolutions in Massachusetts.

How performance is calculated



# Effect on the ISO-NE Grid on Summer Peak



## MA C&I 2022 year-end results

Sector/Technology	Enrolled participants	2022 Enrolled (MW)	2022 Performed (MW)	% Performed
C&I				
Targeted	898	157.87	116.97	74%
Daily	78	16.78	9.15	54%
<b>Grand Total</b>	976	174.65	126.12	<b>72</b> %



# CSP Vendors and Stacking Revenues













## **Contracted Curtailment Service Providers** in Connected Solutions



<b>C</b> Power	1 (844) 996-4743 ConnectedSolutions@CPowerEnergyManagement.com
enel×	1 (617) 535-7482  National Grid Customers: NationalGridNE@enernoc.com  Eversource Customers: EversourceNE@enel.com  Cape Light Compact Customers: resources.enelXNorthAmerica@enel.com
SECURE TECHNOLOGY INTEGRATION CONSULTING & SOFTWARE	1 (855) 475-3970 NEsales@ipkeys.com ( <i>National Grid only</i> )
VOITUS LESS ENERGY · MORE CASH	1-415-463-4236 National Grid Customers: NGridNE@voltus.co Eversource Customers: EversouceNE@voltus.co Cape Light Compact Customers: tkrause@voltus.co

Additional Pre-Approved Curtailment Service Providers in ConnectedSolutions

NRG

Singularity

Engie

Enersponse

• Icetec

Stem

• Centrica

Cadenza

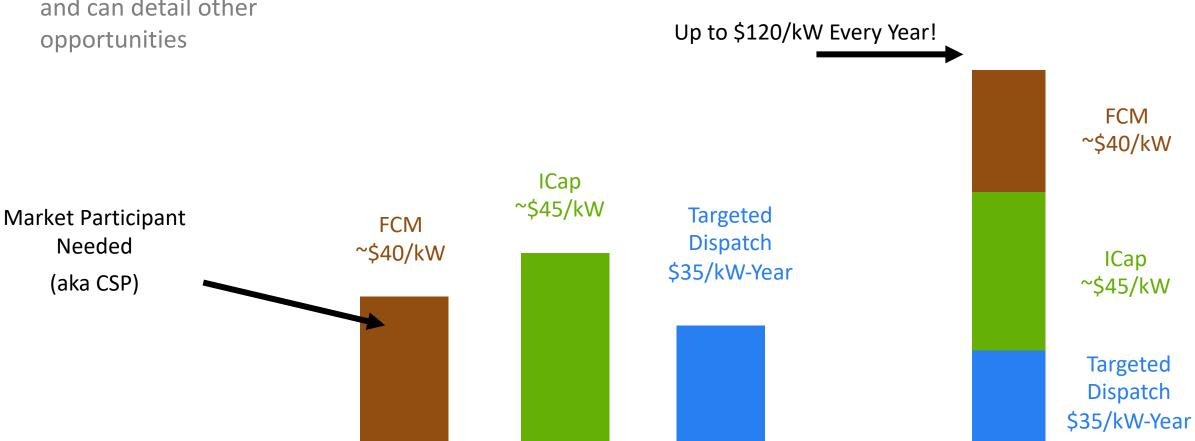
The List is Always Growing



## Revenue Stacking **Potential**

CSPs are experts at this and can detail other

CSPs are experts at this and can detail other opportunities





















#### William O'Connor

Demand Response Supervisor

william.oconnor@ eversource.com

781-441-8596



#### **Brad Hunter**

Manager, Business Services

> hunterb@ unitil.com

617-899-0073



#### **Dan Schell**

Senior Analyst

dan.schell@ capelightcompact.org

508-744-1275

## nationalgrid

#### **Paul Wassink**

Senior Engineer Demand Response Program Manager paul.wassink@ nationalgrid.com

781-264-1360