



# **Impact of Demand Resources on New England's Capacity Market and Reliability**

NECA Dinner Meeting  
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*Conservation Services Group*



## About CSG

- Founded in 1984; nonprofit corporation
- 300 staff, 14 offices nationwide
- Design, develop, and deliver energy efficiency and clean energy programs and projects
- Policy advocate for market-based solutions to energy and environmental challenges such as FCM, RPS and RGGI
- Climate Leader with commitment to Net Zero Emissions





# Introduction

- FCM changes the rules for all resources
- What are Demand Resources (DR)
- Recognition of DR value is not new
- Five types of DR
- Some thoughts about DR impact on FCA1 and beyond





## **FCM changes the rules for all resources**

- Rigorous qualification and monitoring
- Existing resources are assumed “in” unless they actively delist
- Payments based on performance
- CONE--Cost of New Entry, sets payments for all resources





## **FCM changes the rules for all resources**

- All resources must pre-qualify
- All resources must demonstrate how performance will be measured
- All resources must commit in advance
- All new entrants must put up financial assurance





# What are Demand Resources?

Anything that an end user does that reduces its demand for electricity from the ISO-NE grid during specified hours:

- 1. Post June 2006**
- 2. Comparable**
- 3. Predictable**
- 4. Reliable**





## DR examples

- New combined heat and power unit
- Aggregation of several PV solar installations
- Lighting upgrade
- Motor replacement
- Energy management software that will reduce lighting by 50% in response to request from ISO-NE
- Residential air conditioner replacement programs





## Recognizing value of DR is not new

- Interruptible rates
- Load reduction and emergency generators during OP4 events
- Incorporation of state sponsored DSM projects in the ICR
- Day ahead energy market for “virtual demand”





# Five types of DR

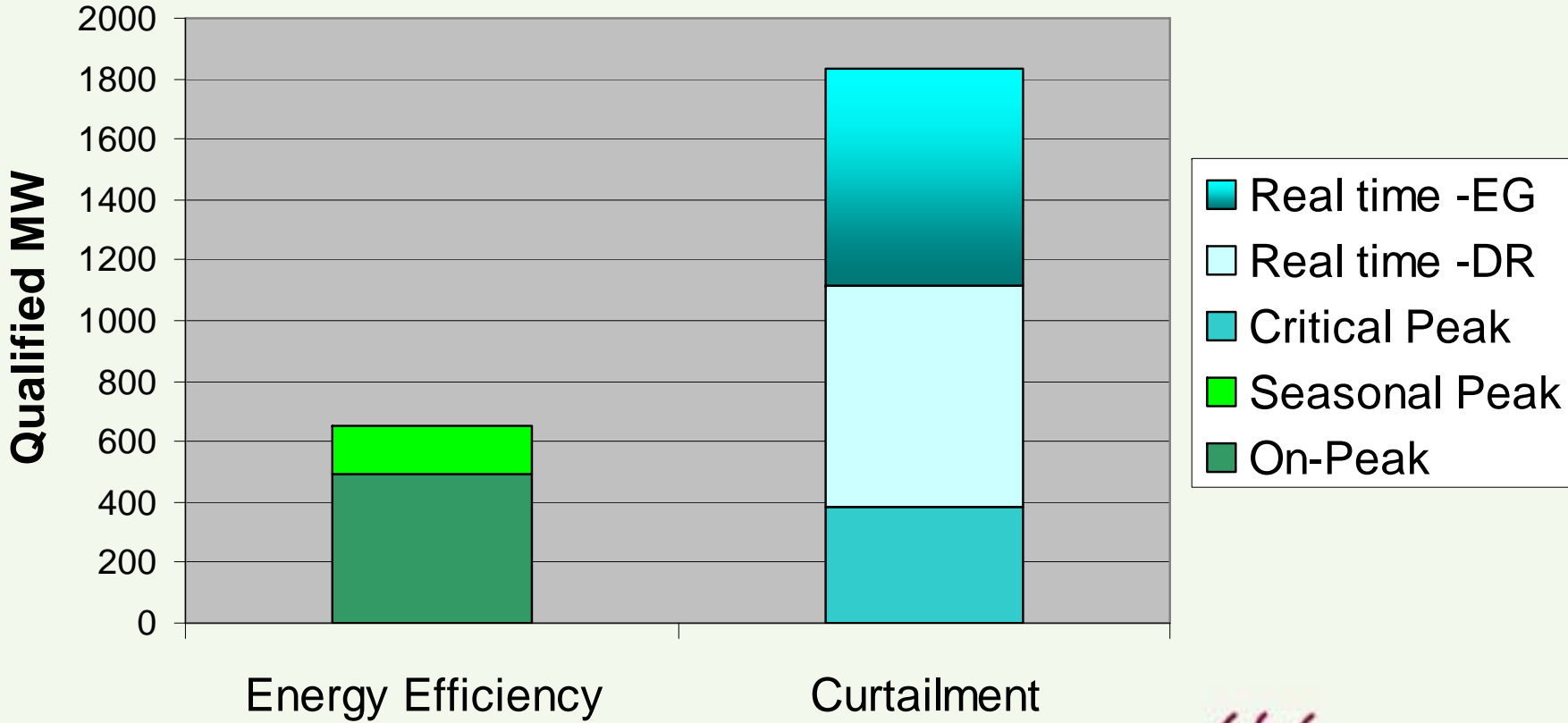
Based on how the resource will demonstrate ongoing performance in reducing load

1. On-Peak
2. Seasonal Peak
3. Critical Peak
4. Real-Time (RT) Demand Response
5. Real-Time Emergency Generation





# Distribution of DR by type



- Real time -EG
- Real time -DR
- Critical Peak
- Seasonal Peak
- On-Peak



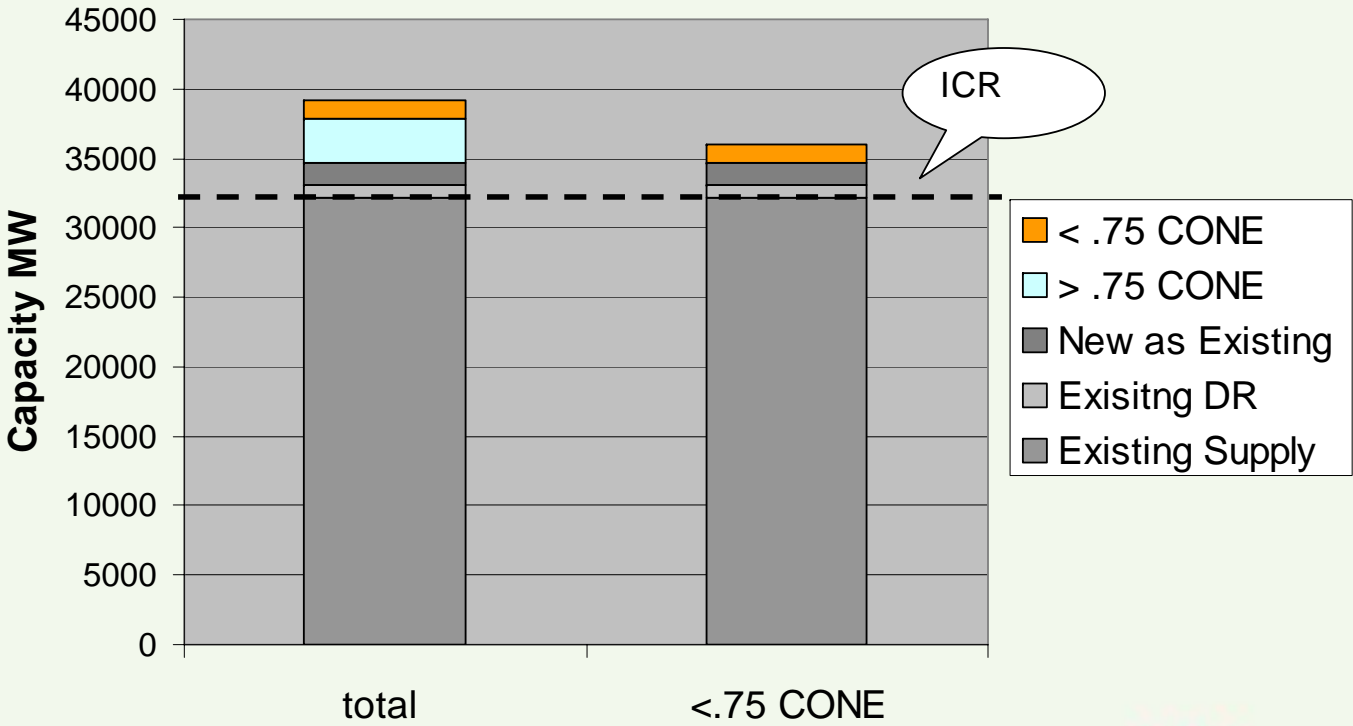
# Comparable qualifications

1. Measurement & verification plan
2. Customer acquisition plan
3. Project description
4. Source of funding
5. Critical path schedule
6. Capacity commitment period election
7. Intention to offer below 75% of CONE
8. Consistency with Show of Interest form





# DR impact for FCM1 and beyond





## Impact of DR? *“It depends”* . . .

- Will existing DR resources delist less or more frequently than supply resources?
- Will new DR resources that drop out of the auction do so incrementally?
- Are DR resources more or less likely to default than supply resources?
- Will FCM and other opportunities create an environment that fosters entrepreneurs resulting in new business?





## Time to step up and prove value

Can DR deliver comparable, predictable, and reliable capacity at less cost to ratepayers?

Market theory / years of DSM experience say *yes!*

- Incremental
- Lower capital and operations costs
- Few, if any, siting issues





***Thank you!***

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