



# Leveraging Demand Resources to Offset Expected Retirements

## **Raab Roundtable**

Herb Healy / June 14, 2013

## ISO-NE Generator Retirement Study Perspectives

*Is the study right?*

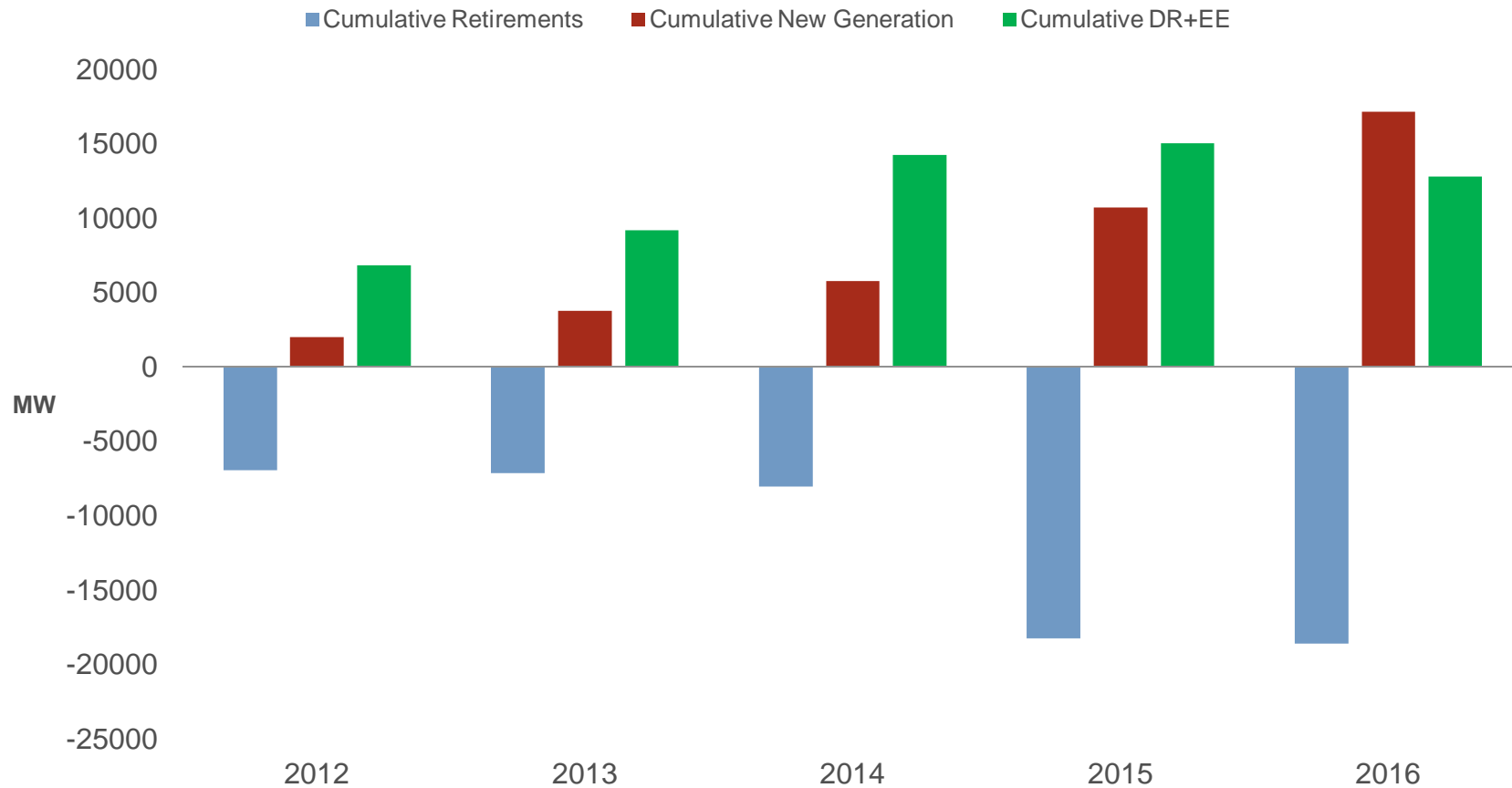
*Does it matter?*

## Demand Resources as Replacement Capacity

- **What Role Can They Play?**
- What Role Will They Play?

# Demand Resources Largely Offset PJM Retirements

## Retirements, New Generation, and DR Growth in PJM\*



\* Source: PJM, UBS Estimates

# Demand Resources Proven Cost-Effective and Reliable

## Capacity Cost Savings

PJM

**\$11,827,280,831\***

ISO-NE

**\$280,000,000\*\***

## Active DR Performance on July 22, 2011 \*\*\*

Local Time	Net Capacity Supply Obligation (MW)	Performance During 100% Dispatch Period (MW)	Percent Avg. Performance vs. Net CSO
13:50 to 16:45	642	644	100.3%

\*Monitoring Analytics, the Internal Market Monitor for PJM. "Analysis of the 2013/2014 PJM Base Residual Auction Revised and Updated." September 20, 2010. Page 52

\*\*The Regulatory Assistance Project. "The Role of Forward Capacity Markets in Increasing Demand-Side and Other Low-Carbon Resources: Experience and Prospects." Presented by Meg Gottstein, Principal. Brussels, June 2010. Slide 14.

\*\*\*ISO-NE. "Active Demand Response Performance Update." Presentation given by Doug Smith. January 4, 2012. Slide 7

# Demand Resources Have Required Capacity Attributes for ISO-NE System Needs

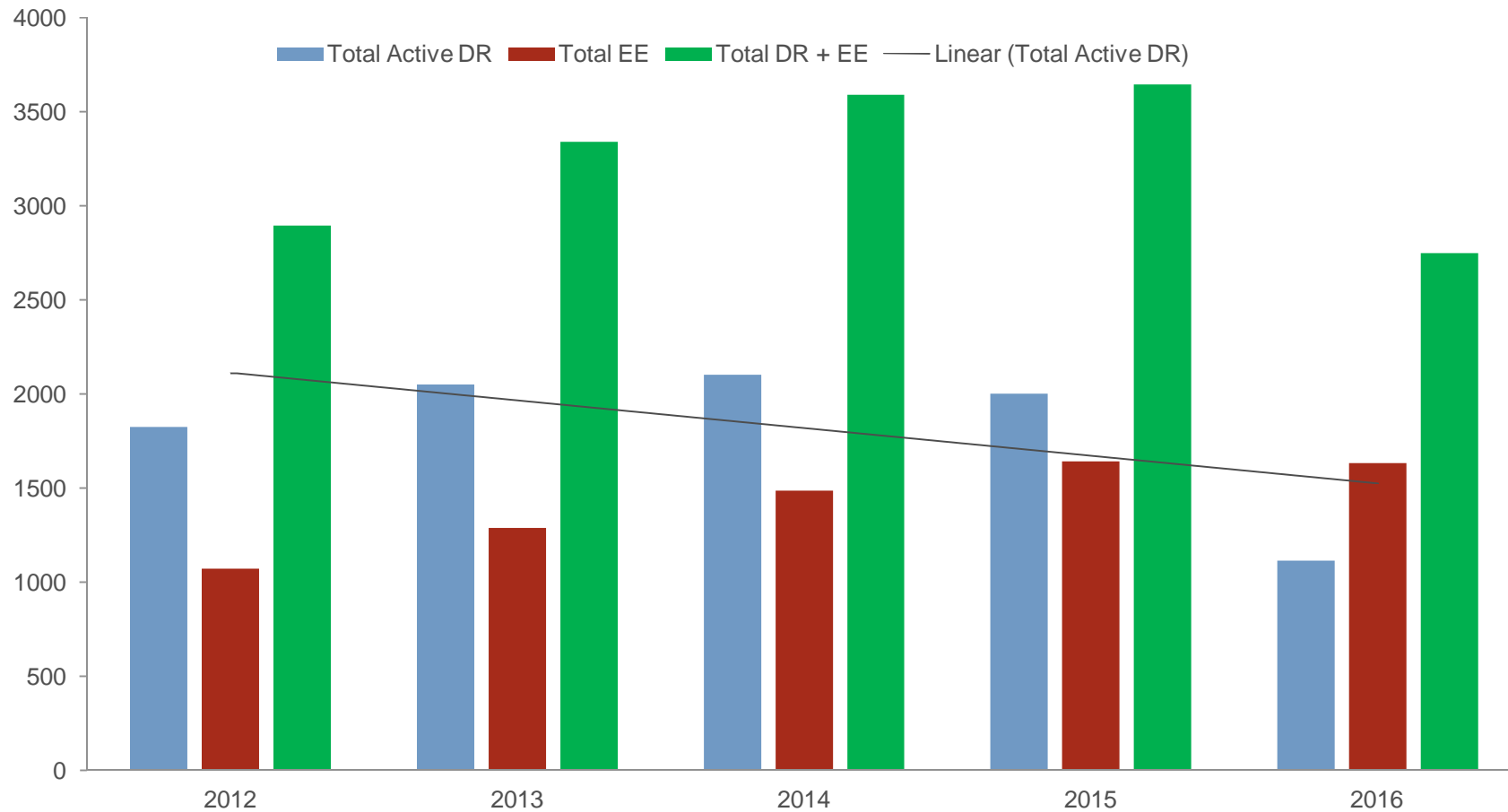
System Need	Demand Response	Energy Efficiency
Reliable	Yes	Yes
Cost-Effective	Yes	Yes
Easy to Build & Gain Regulatory Approval	Yes	Yes
Flexible	Yes	Baseload
Increases Fuel Diversity	Yes	Yes
Aligns with Regional Policy Goals	Yes	Yes

## Demand Resources as Replacement Capacity

- What Role Can They Play?
- **What Role Will They Play?**

# Recent Steep Decline in Active DR – Single Occurrence or Trend?

## Demand Side Resources in ISO-NE





# FCM Challenges for Demand Resources

## Must –offer Implementation

DR needs assurance it can offer into the energy market reflective of aggregate opportunity costs not easily quantified

## Pay for Performance Initiative

DR needs specifics of reserve market access, financial assurance requirements, and consideration of RTEG

EE needs assurance of workable M&V approach for all hours / all seasons (ie, covering DEFCON hours)

## DR Market Rule Reforms

Additionally, market rule reform required to reverse trend of DR exiting the market

- Price formation/ volatility
- Revision of baselines / data submittal
- Valuation of aggregation principles

# Example of Needed Market Rule Reforms for DR

## Baseline Methodology Impacts Data Submittal & Validation

Data submittals / asset

ISO-NE 90/10 vs. High X of Y (e.g. 4 of 5)

**105,120 vs 1440**

***ISO-NE's Requirements are  
Unnecessarily Complex***

2011 KEMA Study: ISO-NE baseline

“Since the empirical performance of the ISO-NE baseline is only marginally better than that of the remaining two (PJM X of Y CBL), it is not apparent that this additional administrative effort is warranted and therefore is not recommended.”

<http://pjm.com/markets-and-operations/demand-response/~media/markets-ops/dsr/pjm-analysis-of-dr-baseline-methods-full-report.ashx>

### EnerNOC Recommendation:

**Switch to a baseline methodology that has similar accuracy but costs a small fraction as much to administer**