

FCC Field Hearing on Energy and the Environment

Cambridge, MA; November 30, 2009



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Why Demand Response?



Annual Electricity Demand

Demand Response Benefits Ratepayers

ISO-New England: *Electricity Costs White Paper (2006)*

 Reducing electricity use by 5% during peak times will save consumers
\$580 million per year

Brattle Group: *Quantifying Demand Response Benefits in PJM (2007)*

• **\$138-281 Million of system benefits** to PJM if load curtailed 3% during top 20 5hour price blocks of 2005

Summit Blue: Demand Response Resources Valuation and Market Analysis (2006)

 Forecast: Demand response will save \$892 million in capacity charges over next 20 years (present value, 2004 \$)











Energy Data from Every Customer

Capture Meter Data

•At each site, the utility installs a KYZ pulse on the end-user meter, or an EnerNOC field technician installs a current transformer. The ESS stores this usage data.



Send Meter Data

 In real-time, each ESS transmits usage data to EnerNOC's PowerTrak® software platform via broadband or wireless connection.



Present Meter Data

•Users have access to PowerTrak, online energy management software, that presents EnerNOC consumption data and demand response performance in real-time.

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Policy Implications

- Communications and computing are the keys to the Smart Grid
- Customers should have access to their own data directly from the meter in near real time
- Standards are important
- Making broadband availability more ubiquitous will allow more and smaller customers to be able to participate in Demand Response and Energy Efficiency activities.





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