

National Action Plan on Demand Response

**Federal Utilities Partnership Working Group
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The author's views do not necessarily represent the views of the Federal Energy Regulatory Commission

Presentation Contents

Statutory Requirements

- National Assessment [Study] of Demand Response
- National Action Plan on Demand Response

General Discussion on Demand Response and Energy Outlook

Discussion on National Action Plan for Demand Response

- National Communications Program
- Analytical tools, model regulations, supporting materials, etc.
- Technical assistance to States

Presentation Goal – Generate awareness, receive input on development of National Action Plan, and solicit follow-up meetings

Energy Independence and Security Act Requirements for Demand Response

Demand Response Statutory Requirements

Section 529 of Energy Independence & Security Act (EISA) of 2007 requires FERC to:

- Conduct a **National Assessment of Demand Response**
 - Due by June 17, 2009

- Develop a **National Action Plan on Demand Response**
 - Due by June 17, 2010

- With DOE, submit **National Action Plan Implementation Proposal** to Congress
 - Due by December 17, 2010

Demand Response Assessment Study

EISA requires FERC to:

- **Conduct a National Assessment of Demand Response**
 - Estimate nationwide demand response potential in 5 and 10 year time horizons
 - Estimate how much of this potential can be achieved within 5 and 10 years

National Action Plan on Demand Response

EISA requires FERC to:

- Develop a **National Action Plan on Demand Response**
 - Solicit input and participation from broad range of stakeholders
 - Identify requirements for technical assistance to states
 - Identify requirements for national communications program
 - Identify analytical tools and other support material
- Publish the **Demand Response National Action Plan**
 - Due by June 17, 2010
- With DOE, **Implementation Proposal** to Congress
 - Due by December 17, 2010

Demand Response National Action Plan Schedule

- Initial Outreach completed
- **Develop Preliminary Outline for Comment of Elements of National Action Plan** – - Under Development
 - When complete, solicit input from stakeholders
- Release First Draft of National Action Plan – - Summer 2009
 - Based on Stakeholder input and DR National Assessment Study
- Conduct National Action Plan Technical Conference - - Fall 2009
- Prepare and formally circulate Draft National Action Plan
 - Gather comments
- Publish Final National Action Plan - - Summer 2010

**General Discussion
Demand Response and Energy
Outlook**

Demand Response

- Def.: A short-term decrease in electrical consumption by end-use customers due to either **a)** increased electricity prices, or **b)** incentive payments (triggered by high wholesale market prices or compromised grid reliability).
- DR participation can be either through load curtailment (short-term conservation) or self-generation

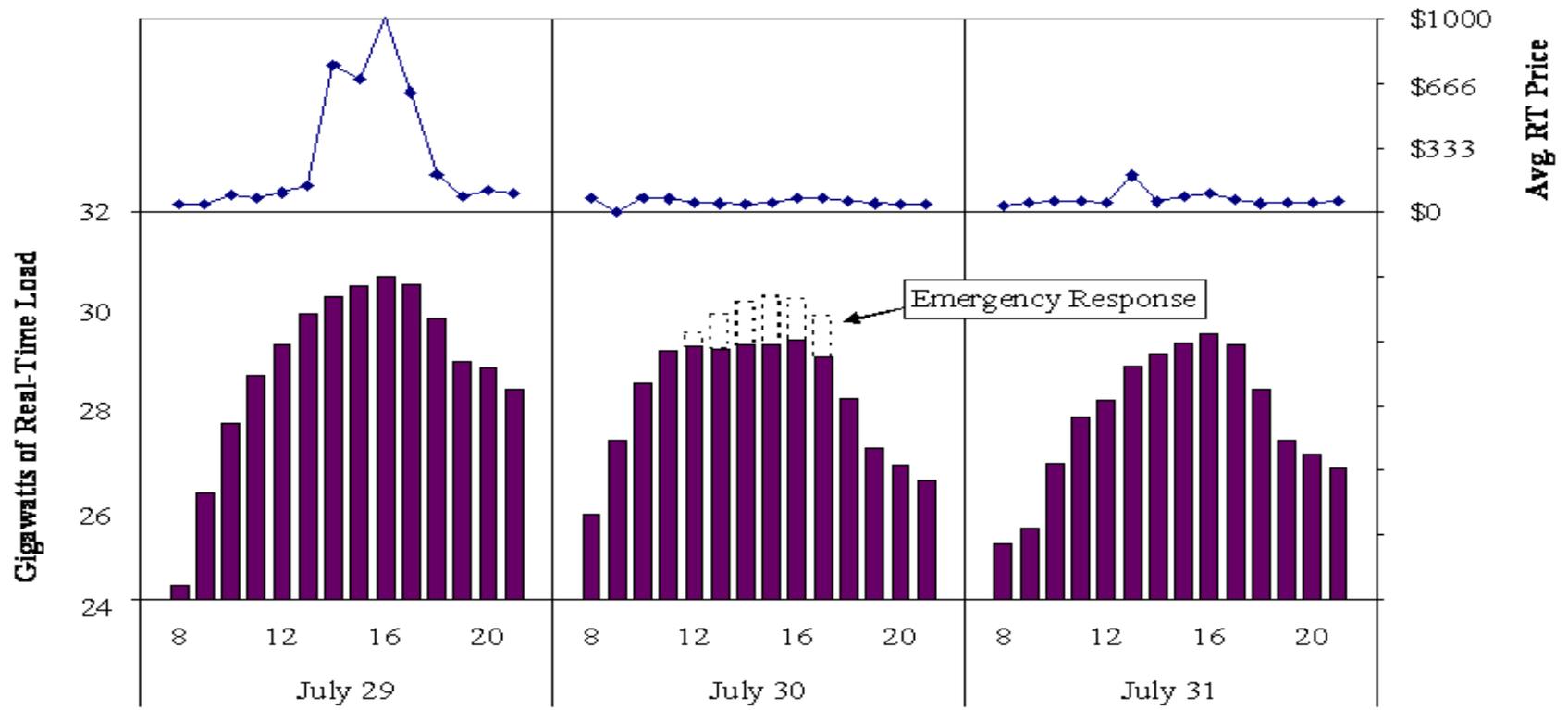
Source – Lawrence Berkeley National Laboratory

Demand Response Definition

- Def.: A short-term decrease in electrical consumption by end-use customers due to either **a)** increased electricity prices, or **b)** incentive payments (triggered by high wholesale market prices or compromised grid reliability).
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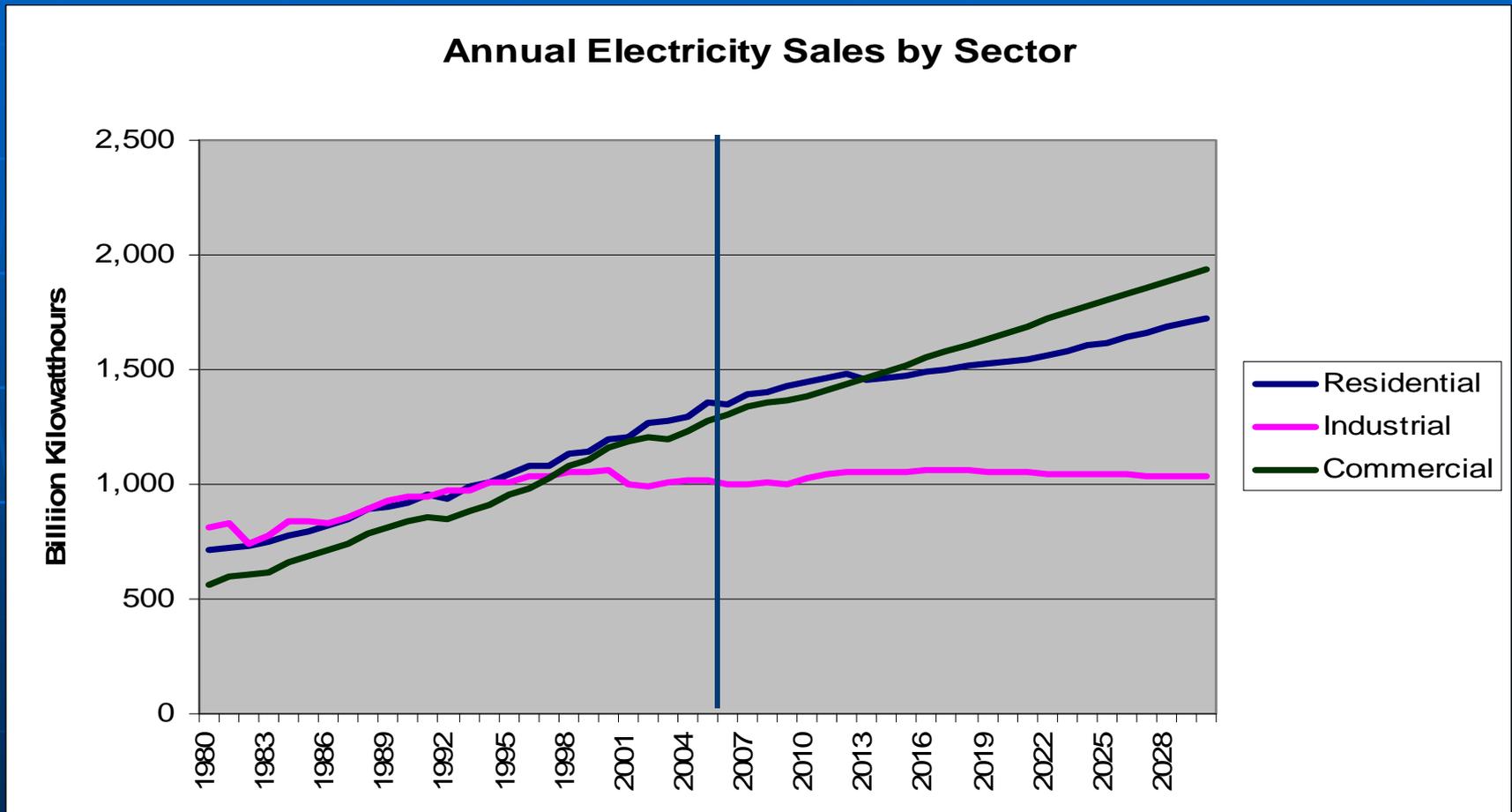
Demand Response Example

**Real-Time Load, Prices, and Emergency Demand Response
New York State**



Source – David Patton, Potomac Economics

Electricity Demand Projected to Grow 18 – 39% by 2030

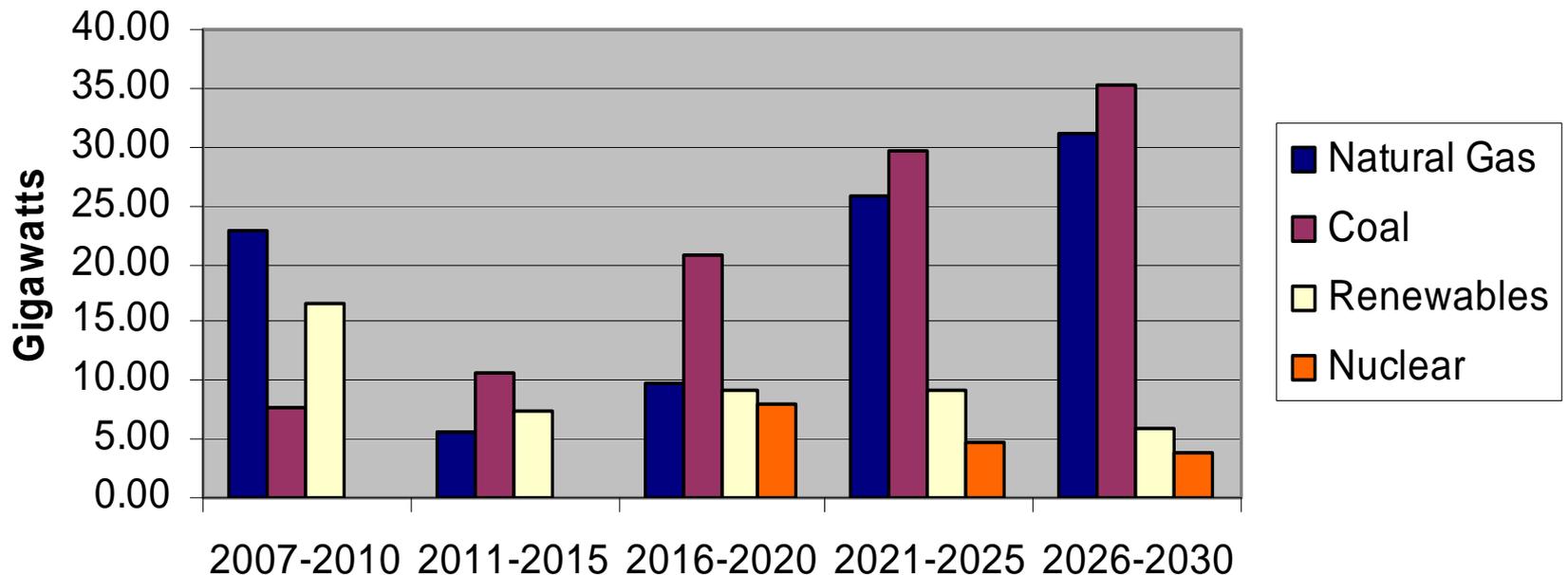


Source – DOE/EIA Annual Energy Outlook 2008

Required Generating Capacity by 2030

Projected at 263 Gigawatts

Projected New Capacity by Fuel Type



Source – DOE/EIA Annual Energy Outlook 2008

Utility “X” Needs New Capacity Question

- 4000 MW capacity
- Foresees new baseload & peak load generation requirements
- Stakeholder approval process
 - 500 MW coal plant
 - 100 MW wind power
 - 170 MW DR – Defer Peak Load Gensets
 - X MW Energy Efficiency Goal
- Viable capacity mix & DR scenario for other utilities?

Demand Response and Energy Efficiency Question

- Curtailment Service Provider "Y" survey:
 - 75% of customers use incentive payments to pay for energy efficiency
 - 40% set up Energy Management programs due to DR experience
- Utility X has 3MW customer - 10% DR reduction
 - \$135,000 fixed payment and \$37,000 flexible
- DR generates awareness and financial wins
- What role are energy efficiency promoters considering for DR?

National Action Plan on Demand Response - Questions

National Action Plan – Communications Questions

- How many customers in audience aware of Demand Response?
- How are utilities currently promoting?
- For National Acton Plan:
 - National awareness campaign?
 - Campaign targeting specific customer types?
 - Grants for local marketing, mailing, media?
 - Other?

Government Customer Related Questions

- Anecdotal information suggests:
 - Governments equals 7.5% of total electricity load (municipal, county, state, federal)
- What impact would capturing 7.5% of total have on utility DR Programs?
- Would organized training be useful?
- DESC awarding contracts to DR Curtailment Service Providers for federal facility utilization
 - Do CSPs accept the risk for non-performance?
 - Can federal facilities accept incentive payments?
 - How is the word getting out?

Lessons Learned Utility “X” Now Meeting DR Target Goals

- Reviewed other programs
 - Conducted focus group sessions
- Increased DR payments
 - Fixed payments now 75%, performance 25%
- Reduced penalties (lesser future incentive)
- Increased contract size: 1-3-5 years
 - Decreased events - Customer picks 1 – 10
- Increased Customer Awareness
 - Marketing and direct mail
 - Hired CSP as marketer
- Would compendium of other pilot project lessons learned be useful?

National Action Plan – Tools Questions

To Overcome Barriers:

- Customer cost effectiveness analysis tools?
- Uniform methods for calculating customer baseline?
- Methodology for including DR in resource planning?
- Cost recovery methods for enabling technology?
- Measurement and verification methods?
- Model regulatory provisions and state laws?
- Model tariffs?

Draft – For Discussion Purposes Only

Questions?

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