Demand Response as Power System Resources

Federal Energy Regulatory Commission | Washington D.C.

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Electricity Advisory Committee

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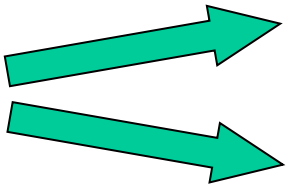
Demand Response

Demand Side Management

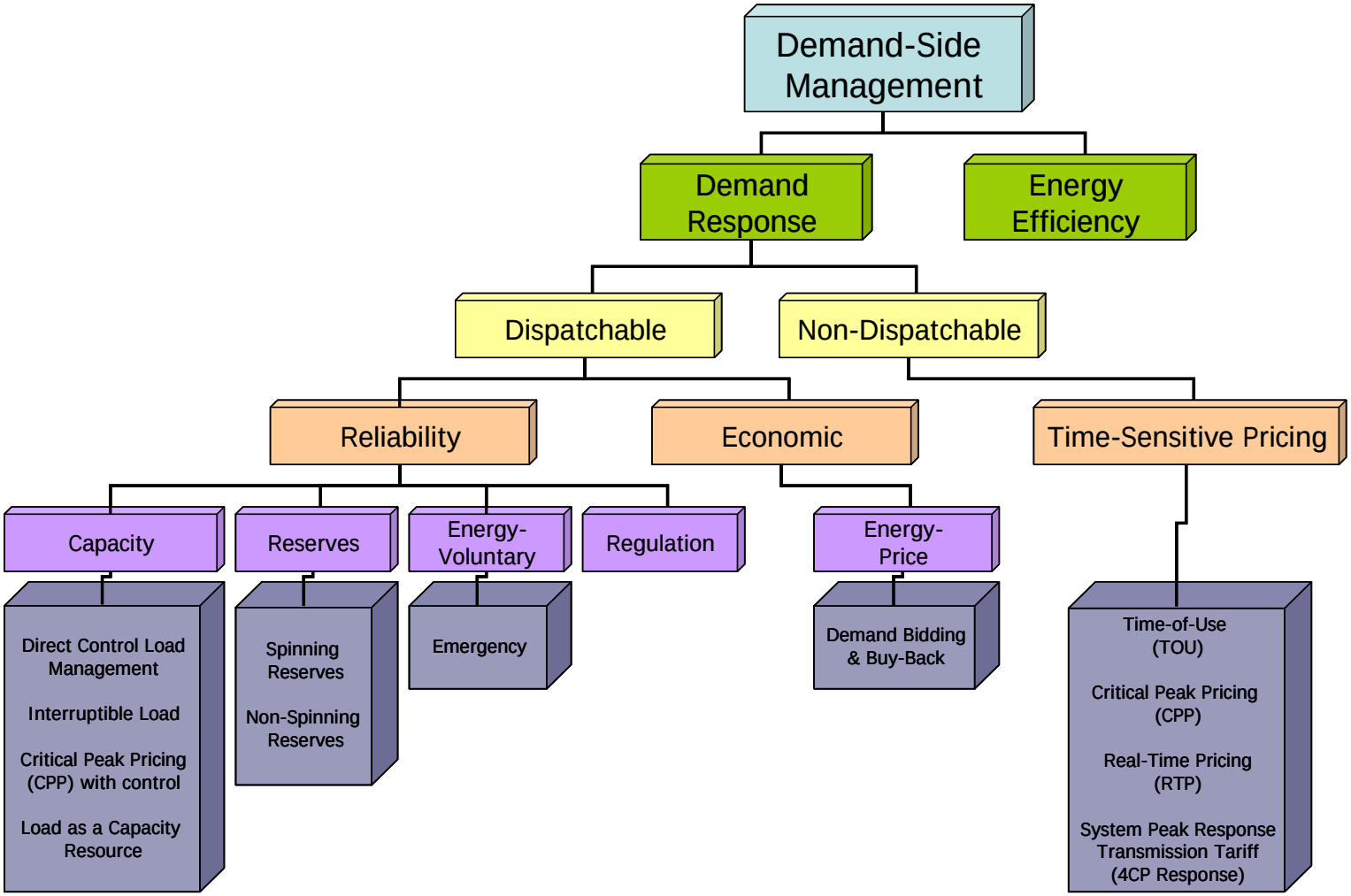


Demand Response

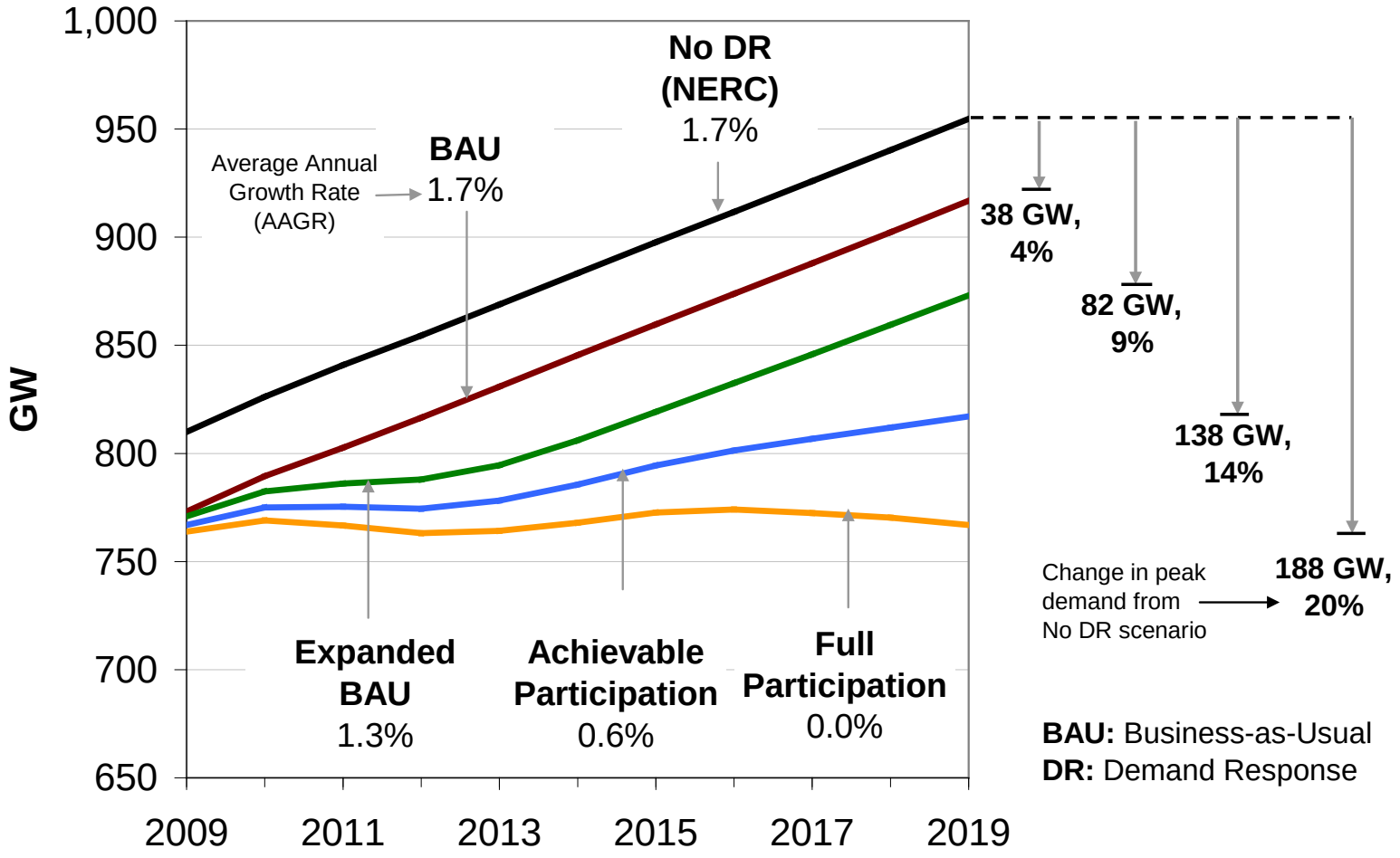
Energy Efficiency

- FERC (Order 719) defines demand response as:
  - A reduction in the consumption of electric energy by customers from their expected consumption in response to an increase in the price of electric energy or to in incentive payments designed to induce lower consumption of electric energy.
- The National Action Plan on Demand Response released by FERC staff broadens this definition to include
  - Consumer actions that can change any part of the load profile of a utility or region, not just the period of peak usage

NERC's Demand Response Classification



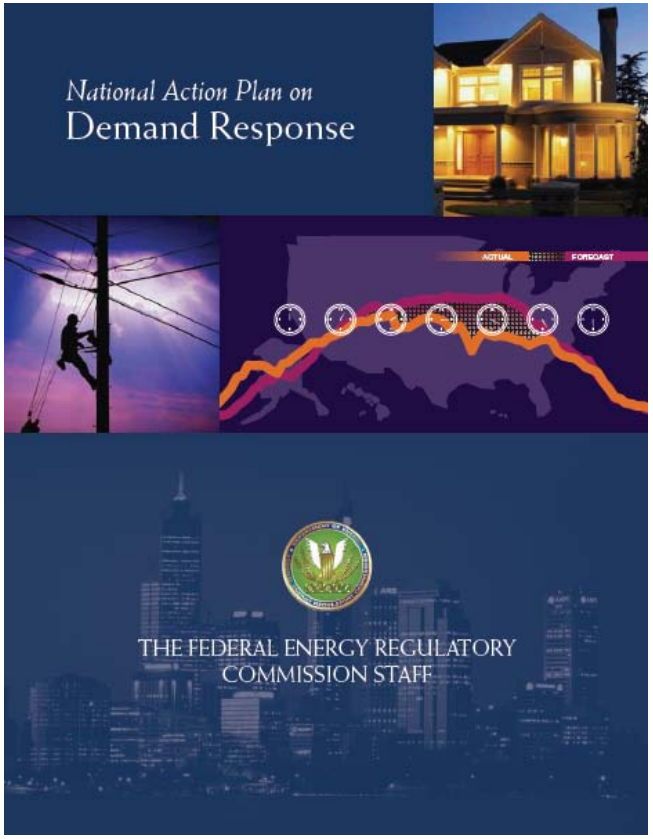
National Demand Response Potential



Existing DR Resource Contribution

By Region and Customer Class -- 2008

National Action Plan on Demand Response



- Action Plan published by FERC staff on June 17, 2010
- Based on input from a broad range of stakeholders
  - Comments on early discussion draft
  - Technical Conference
  - Comments on draft Action Plan

http://www.ferc.gov/legal/staff-reports/06-17-10-demand-response.pdf

Demand Response National Action Plan Strategies and Activities

- Assistance to States
- Tools and Materials
- National Communications Program

Other FERC Demand Response Activity

- Various cases involving wholesale demand response
- Order No. 890 (OATT Reform)
  - Demand resources should be permitted to participate in transmission planning processes on a comparable basis.
- Order No. 719 (Wholesale Competition)
  - Changes to wholesale markets to permit demand response participation
- Notice of Proposed Rulemaking on Demand Response Compensation In Organized Wholesale Energy Markets (RM10-17)
  - Proposes payment to demand response providers, in all hours, at the market price for energy
- Participation in interconnection-wide modeling efforts
- Adoption of smart grid interoperability standards

Issues and Challenges

- Certain market rules designed for supply-side resources
- Shared state and federal jurisdiction
- Measurement and verification challenges
- Disagreement over cost-effectiveness
- Perceived lack of reliability, predictability, and sustainability
- Lack of customer education and awareness
- Lack of a sufficient deployment of enabling technologies
- Lack of interoperability and open standards
- Lack of dynamic pricing at the retail level

Questions?

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