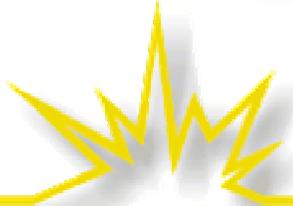


Technical Assistance to Regulators and Policymakers

FY 2004 EDT Annual Program and Peer Review Meeting
San Diego, CA, 30 October 2003

Frederick Weston

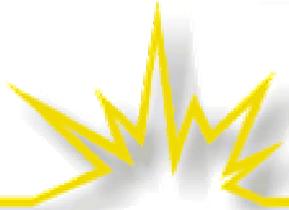
The Regulatory Assistance Project



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Problems and Needs

- The challenge: regulatory and policy barriers to the deployment of cost-effective, environmentally sustainable distributed energy resources
 - E.g., revenue setting, retail rate design, institutional biases for G, T, & D solutions, primacy of diesel DG
- The cure: a set of policies to encourage appropriate DER deployment, and analytical tools to enable regulators to evaluate DER benefits and costs



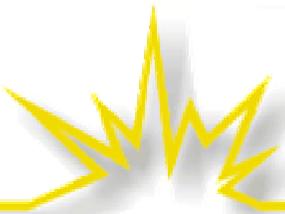
Project Objectives

- To assist state regulators and other public decision-makers in understanding the full range and potential of DER to meet the resource and reliability needs of their state and regional electric systems.



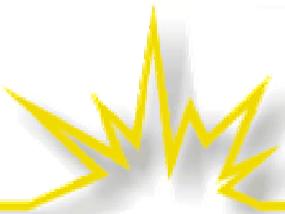
Approach

- To provide direct policy and technical assistance to utility regulators and other policymakers
 - Through workshops, meetings, and briefing papers
 - To capitalize on DER's relevance to critical issues
 - E.g., the August 2003 Blackout has already stimulated great interest in local grid resiliency and DER
 - To inform regulators about DER and to help them tailor DER policies to meet their states' particular needs



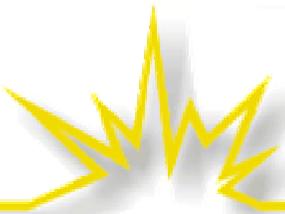
Progress and Accomplishments

- Distributed resources peer-to-peer workshops in Salt Lake City and Philadelphia
- Out of the workshops came the *Distributed Resources Policy Series*:
 - DR in Wholesale Markets
 - DR and System Reliability
 - DR Distribution Credit Pilot Programs
 - Distribution System Cost Methodologies



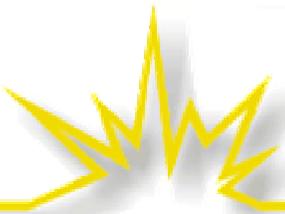
Progress and Accomplishments

- Distributed resources emissions standards
 - Model Rule
 - National stakeholder group, 2-year process
 - Technology-neutral, output-based limits for NO_x, PM, CO, CO₂
 - Fuel input requirement for sulfur
 - Credits for CHP, flared fuels, renewables, and end-use efficiency
 - Phased in over eight years
 - Broadly speaking, the model rule is less stringent than the California rule and more stringent than the Texas rule



Progress and Accomplishments

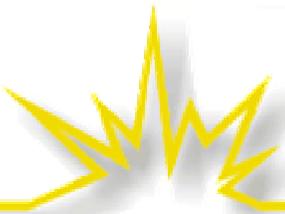
- DR emissions standards:
 - Connecticut and Massachusetts have drafted a rules based on the model
 - Rhode Island is just begun its rule-making process, and hopes to adopt a rule that is consistent with those of its neighbors
 - New Jersey will shortly release an initial draft rule for comment
 - New York still in the midst of its process



Progress and Accomplishments: Related Activities

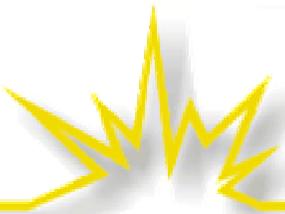
➤ Portfolio Management

- Policies, methods, etc., for assuring the provision of least-cost service for default service customers and customers of vertically integrated utilities
- White paper, July 2002
- September 2003 workshop in Chicago, attended by 14 state regulators
 - Among issues considered were how DER can and should be integrated into the portfolio and how it can solve local congestion
- Primer for regulators on theoretical and practical concepts and methods for managing retail generation risks through portfolio management, to be completed Fall 2003



Progress and Accomplishments: Related Activities

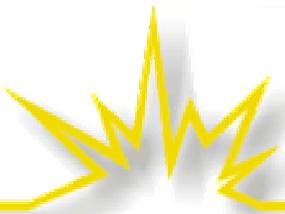
- New England Demand-Response Initiative
 - Goal: to create a comprehensive, coordinated set of demand-response programs for the New England regional power markets
 - Market rules, public policies, and regulatory criteria to incorporate customer-based demand resources -- including DG, CHP, and energy efficiency -- into the markets and power systems
 - A broad-based, facilitated process that involved the region's ISO, FERC, EPA, DOE, state utility and environmental regulators, power generators and marketers, utilities, consumer and environmental advocates, and other stakeholder groups



Progress and Accomplishments: Related Activities

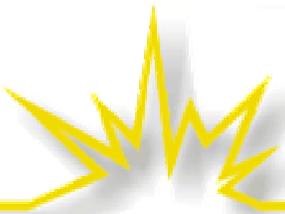
➤ NEDRI

- The effort, which began in January 2002, was strongly supported by US DOE
- Final report issued July 2003
 - Supply-side competition by itself is not enough to create efficiently competitive electricity markets. Demand-side response, including customer-sited generation, is a critical element of functioning markets
 - DR resources also lower costs and improve reliability
 - 38 recommendations in several policy areas
 - Regional (ISO) demand-response programs
 - Pricing, metering, and default service reform
 - Energy efficiency
 - Contingency reserve markets
 - Power delivery planning and investment – both regional and distribution



Progress and Accomplishments: NEDRI-Inspired Actions

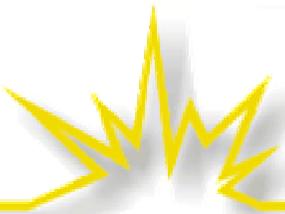
- Many NEDRI ideas included in FERC market design policies (SMD, “white paper” and later versions including current platform)
- ISO-NE created new Demand Response Department, hired experienced head
- FERC ordered adoption of NEDRI-recommended DR programs for NE
- New Hampshire is examining NEDRI rate design and metering proposals
- Maine legislature, Vermont Senate drafting legislation to implement NEDRI proposals
- NY-ISO (a NEDRI participant) examining demand-response resources (including DER) as alternative to grid investments
- EPA commissioned study of environmental benefits of NEDRI proposals
- Excellent library of working papers, policy proposals for demand response resources
 - www.raponline.org (soon also available in print)



Activities in FY 2004

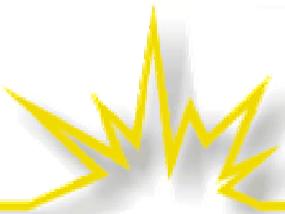
➤ Three tasks:

- 1: Direct outreach to regulators and policymakers in states that are considering DER policies and initiatives
- 2: Development of presentation materials and a primer on distribution system planning, operation, and regulation for state regulatory workshops
- 3: Preparation of DER Evaluation and Incentives Primer for regulators, developed in conjunction with the materials and primer in Task 2



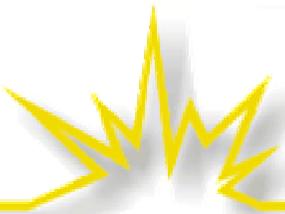
Information Resources

- ***DRAFT Model Regulations for the Output of Specified Air Emissions from Smaller-Scale Electric Generation Resources – Model Rule and Technical Support Documents***; RAP, 31 October 2002
- ***State Regulatory Policy and Distributed Resources: Accommodating Distributed Resources in Wholesale Markets***; F. Weston with C. Harrington, D. Moskovitz, W. Shirley, R. Cowart, and R. Sedano; T. Basso, NREL Technical Monitor, NREL TP-32497
- ***State Regulatory Policy and Distributed Resources: Distributed Resources and Electric System Reliability***; R. Cowart with C. Harrington, D. Moskovitz, W. Shirley, F. Weston, and R. Sedano; T. Basso, NREL Technical Monitor, NREL TP-32498
- ***State Regulatory Policy and Distributed Resources: Distributed Resource Distribution Credit Pilot Programs: Revealing the Value to Consumers and Vendors***; D. Moskovitz with C. Harrington, W. Shirley, R. Cowart, R. Sedano, and F. Weston; T. Basso, NREL Technical Monitor, NREL TP -32499
- ***State Regulatory Policy and Distributed Resources: Distribution System Cost and Methodologies for Distributed Generation***; W. Shirley with R. Cowart, R. Sedano, F. Weston, C. Harrington, and D. Moskovitz; T. Basso, NREL Technical Monitor, NREL TP-32500
- ***State Regulatory Policy and Distributed Resources: Distribution System Cost Methodologies for Distributed Generation Volume II Appendices***; D. Moskovitz with C. Harrington, W. Shirley, R. Cowart, R. Sedano, and F. Weston; T. Basso, NREL Technical Monitor, NREL TP-32501



Additional Resources

- ***Efficient Reliability: The Critical Role of Demand-Side Resources in Power Systems and Markets***, Richard Cowart et al., Regulatory Assistance Project, June 2001
- ***Dimensions of Demand Response: Capturing Customer-Based Resources in New England's Power Systems and Markets, Report and Recommendations of the New England Demand Response Initiative***, July 2003, www.raponline.org
- ***Charging for Distribution Utility Services: Issues in Rate Design***, F. Weston, Regulatory Assistance Project, December 2000
- ***Performance-Based Regulation for Distribution Utilities***, D. Moskovitz et al., Regulatory Assistance Project, December 2000
- ***Profits and Progress Through Distributed Resources***, D. Moskovitz et al., Regulatory Assistance Project, February 2000
- ***Portfolio Management: Looking After the Interests of Ordinary Customers in an Electric Market That Isn't Working Very Well***, C. Harrington et al., Regulatory Assistance Project, July 2002



Contact Information

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➤ NEDRI

- www.nedri.raabassociates.org;
- Principal documents also posted on the RAP website