Task XIII
Demand Response Resources
IEA Workshop
Wednesday, April 14, 2004
Ross Malme, Operating Agent
Chairman, PLMA
CEO & President, RETX
View of Demand Response in Liberalized Markets

• Electricity Restructuring and its effect on DR investment

• Must have DR for Competitive Markets to work

• Value of DR has been proven (Reliability, Transmission Congestion, Market Power, Price Volatility, etc.)

• Conservation Culture requires close coordination of Energy Efficiency and DR
Strategic View of DR

- DR/Electricity much like SPR/Oil
  - Long Term Asset/Risk Management
  - Shock absorber on each end of value chain
- Competitive Markets alone will not provide adequate investment in DR
- Difference of SPR/DR – Physical Supply Side vs. “Virtual Demand Side”
Task XIII Objectives

• Achieve Overall Project Objectives and Deliverables
  – Development of DRR Business Processes
  – DRR Resource Assessment
  – Build Necessary Tool Kit
  – Determine Best Practices

• Achieve Project Participant Objectives
  – Development of Participant Business Plan
  – Quantifying DRR Resources
  – Identifying Markets for DRR
  – Valuation of DRR
  – Determining Enabling Technologies
  – Regulatory processes
  – Specific Implementation Plans
**DRR Project Chronology**

- **February 2003** – PLMA invited to present at IEA Demand Response workshop
- **March 2003** – IEA Secretariat attends Spring PLMA Meeting in Washington D.C.
- **April 2003** – DOE agrees to have USA sponsor DRR project if approved by IEA DSM ExCo
- **April 2003** – IEA DSM ExCo approves DRR Project in Concept
- **May 2003** – DRR Project Working Group formed
DRR Project Chronology con’t

• **June 2003** – IEA/PLMA Press Releases announcing project and September meetings

• **July 2003** - Project Presented at NARUC Summer Meetings

• **September 2003** – IEA/PLMA International Seminar/Experts Workshop

• **October 2003** – DRR Project Approved by ExCo

• **February 2004** – DRR Project Work Begins

• **March 2004** – US DRCC Formed
Proposed IEA DRR Project

• Define and build turnkey DRR infrastructure model including Business Model, Business Rules, Enabling Technology, Standards and Implementation Plan

• Deliver DRR into “Any” emerging or existing liberalized electricity market

• Not a Research Project but an Actionable Plan
Project Methodology

• Determine “Availability of DRR in given market (Much like Proven Reserves in Oil)

• Determine “Attributes”
  – Market Segmentation
  – Asset Characteristics
  – Existing Technology
  – Retail Channels
  – Cost Curve

• Analyze Wholesale and Retail Market Structure
Why is DR Needed?

- DR not integrated in most electricity markets
- Member IEA countries facing energy issues that DR can address
- Need for efficient electricity markets
- Improve the reliability of the electricity grid
- Offers a highly flexible and naturally distributed resource to the network operators
- DRR acts to stabilize electricity markets by engaging demand elasticity
- Allow end use consumers a way to actively participate in electricity markets
Why This Project is Needed?

• Demand Response is a new field which cuts across wholesale and retail market structures and its benefits are disaggregated across stakeholders

• Demand Response is not happening fast enough – It needs a boost

• Demand Response stakeholders need a focal point a structure to work together

• A collaborative project such as DRR can be more economical and effective than disaggregated efforts

• Different market structures require different approaches to DR which this project will address
**IEA-DSM DRR Project Details**

- **Sponsoring Country:** USA represented by the U.S. Department of Energy

- **Project Schedule:** approximately 30 months

- **Cost Share Portion:** approximately $2.0 M U.S.

- **Task Share Portion:** 1300 hours per country

- **Financing:**
  - Country contributions
  - Industry sponsors
  - Analysis buy-in from stakeholders
  - Products
  - MOU to cover NMC participations
  - Agreements with regional organizations
Countries expressing interest

- USA
- Canada
- Netherlands
- Sweden
- Norway
- Spain
- UK
- Australia
- Finland
- Japan
- Korea
- Italy
- New Zealand
- South Africa
US Demand Response Coordination Committee

- US DRCC intended to oversee US Participation in IEA DRR Project
- Joint Letter sent out by Pat Wood/FERC and Jimmy Glotfelty/DOE to CEOs of largest electric utilities, ISOs, PLMA and DRAM requesting participation
- DRCC structured as not for profit organization
- DRCC will fund a portion of US participation in IEA DRR Project and US “Experts”
- Interest expressed in DRCC by 4 ISOs and numerous IOUs and private parties
- Request FERC, DOE, PLMA and NARUC serve as DRCC Advisors
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Recommendations

• View the DRR project much like an “Executive MBA” program for development of DRR markets for your country

• Develop a strategic view of how DRR should be developed in your country

• Use DRR Project as a tool to create DRR as a Strategic Asset for your market

• Create a country stakeholder group to oversee project and a vehicle for implementation

• Engage the DRR project team to assist in planning and implementation
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