



NARUC Summer Committee Meetings
Salt Lake City, Utah
July, 2004

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- A **fully mature market** requires full participation by demand on an ongoing basis.
- The Regional Transmission Organization's ("RTO's") role is to develop products and services that **enable demand** to receive pricing and usage information and react to same both **in real time and on a forward looking basis**.
- Demand must be able to offer the market price signals for **value of consumption**.
- Market participants can only **sell what they own**.
- Demand should be able to **play in all markets**, if possible.



Alternative Generation Principles

- Distributed resources can be an **important resource** to a healthy and robust PJM market
- Mature market means fair and **open market access to all types of generation.**
- Distributed resources can make energy supply **more secure and reliable** and can reduce single point vulnerabilities.
- **Sound and Simple Business Rules.**
- Distributed resources are another tool for PJM to **solve transmission problems.**
- The diversity of alternative generation helps to reduce the ability of suppliers to exercise market power.



Small Generation Interconnection Initiative (<2MW)

- PJM Reliability Committee (Jan 04) endorsed the formation of a working group to explore ways to leverage IEEE 1547 standard
- Working group began meeting in Feb 04
- Recommendation for adoption expected Q404
- Objective is to stream line small gen. interconnection study process through consistent technical standards and equipment pre-certification, and lower cost where possible, leverage IEEE 1547



Rules for LSE's serving Retail Owners with Distributed Generation (Behind the Meter Generation)

- Clear rules for retail owners of DG resources
- Annual designation of resources required: capacity and/or energy resource, BTM (can also participate in PJM DSR programs, can also sell excess energy resource)
- LSE's obligations for supplying retail customer with behind the meter generation:
 - Network transmission service charges will be calculated based on the net load, at the time of the 1CP
 - Capacity obligations will be based on the average net load at the site during the 5CP
 - Ancillary Services charges/allocations and PJM Schedule 9 admin fees also calculated on the net



Demand Response Market Initiatives with Targets

<u>DSR Market Initiative</u>	<u>Target</u>
• Emergency Load Response Enhancements	10/1/04
• DSR as reserves (spinning / other)	12/31/04
• Forward Energy Reserve product (new market)	12/31/04
• DSR Product for Economic Planning “Market Window” and for short term congestion relief	ongoing / 12/31/04



Proposed Forward Energy Reserve Market (F-E-R)

- Fungible **forward market commodity** sourced from Demand Response, DG or other “Call-Able” resources.
- **Market Priced** through PJM managed clearing market. Annual, multi-month, and/or monthly Contracts.
- Cleared in PJM zones to match with **locational value**.
- 1 MW increments and 60 hours per year or 5 per month.
- Paid a market clearing price consisting of a “**option premium**” and a “**strike price**”
- Exercised by purchasers with **Day Ahead notice**.

- **Market Needs vs. Customer Exposure to Congestion**
- **Demand Response Programs.**
- **Distributed Resource Technologies.**
- **Incentives for Investment in Transmission Infrastructure.**
- **Incentives for Investment in Generation Infrastructure.**
- **Limit exercise of Market Power.**



Cost

- **Within “60” days that congestion event exceeds market thresholds, PJM will post:**
 - ✓ **Limit causing congestion**
 - ✓ **Per unit cost estimate to remove limit**
 - ✓ **RTEP reinforcements that would mitigate congestion**
- **Within 1 year from date that cost-benefit information is posted, PJM will:**
 - ✓ **Refine original cost estimate**
 - ✓ **Evaluate secondary limits**
 - ✓ **Evaluate solutions to remedy multiple congestion events**