



AES NewEnergy



To The
Institute For Regulatory Policy Studies

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**Distributed Generation in
Competitive Gas and Electricity
Markets**

- Impediments to efficient deployment of distributed resources
- Pricing of stand-by power
- Cost recovery issues
- Planning for DG: the role of the utility, ESP, IPP and the ISO

**Impediments to Efficient Deployment
of Distributed Resources**

- Non-standard interconnection
- Existing tariff structure
- Existing utility reward system
- Lack of planning for DR as a solution



**Impediments to Efficient Deployment
of Distributed Resources**

- Non-Standard Interconnection
 - What is needed:
 - Standardized Requirements
 - Standardized Agreements
 - Standardized Process
 - Comparability of Treatment




**Impediments to Efficient Deployment
of Distributed Resources**

- Existing Tariff Structure
 - What is needed:
 - Unbundled energy, transmission, distribution, other services
 - Time-of-Use
 - (proxy for system loading)
 - Firm and non-Firm service
 - Firm Loads require expansion of system
 - Non-Firm Loads require curtailment instead of expansion
 - Increased Utilization Tariff (Curtailment)

**Impediments to Efficient Deployment
of Distributed Resources**

- Existing Utility Reward System
 - What is needed:
 - Reward for Performance (not investment)
 - Reward for Performance (not just throughput)
 - Reward for Performance
 - Safety
 - Reliability
 - Delivery Efficiency (utilization)
 - Cost Effective Decision-making
 - Customer Satisfaction




Impediments to Efficient Deployment of Distributed Resources

- Lack of Planning for DR as a Solution
 - What is Needed:
 - Evaluation Methodology for DR
 - Efficient DR Solicitation
 - Get DR from your Customers First
 - Increased Utilization Tariff (Curtailment)
 - Increased Utilization Tariff Rider
 - Get DR from others
 - RFP
 - Standing Orders
 - Utility Supply – Last Resort for Reliability



Pricing of Stand-by Power

- Firm or Non-Firm?
 - Non-Firm
 - Marginal Time-of-Use (system loading)
 - Unavailable during curtailment period
 - Firm
 - Marginal Time-of-Use (system loading); or
 - Average system pricing
 - Delivery always available



Cost Recovery Issues

- Interconnection
 - Comparability of Treatment
- Firm and Non-Firm Delivery
 - Distribution System Utilization
- DR Planning Solutions
 - Curtailment incentives and tariffs
 - Distribution System Utilization
 - Investment Decision Evaluation Methodology



Cost Recovery Issues

- Reward for Performance
 - Safety
 - Reliability
 - Delivery Efficiency (utilization)
 - Cost Effective Decision-making
 - Customer Satisfaction



Planning for DR: the Role of the Utility, IPP, (ESP), and the ISO

- The Role of the Utility
 - To facilitate power transactions (move power) on the distribution system safely, reliably, efficiently, and cost effectively
 - To satisfy the customers of the distribution system



Planning for DR: the Role of the Utility, IPP, (ESP), and the ISO

- The Role of the IPP
 - To provide generating facilities for wholesale transactions
 - On the transmission system or
 - On the distribution system, and either
 - On the utility side or
 - On the customer side of the meter



Planning for DR: the Role of the Utility, IPP, (ESP), and the ISO

- **The Role of the ESP**
 - To provide retail transactions
 - Using either electricity purchased from wholesale generators or from the “pool” and delivered over the transmission or distribution systems, or
 - Generated on the customers site, or
 - Generated on a retail customer site and moved over the distribution or transmission systems to another retail customer



Planning for DR: the Role of the Utility, IPP, (ESP), and the ISO

- **The Role of the ISO**
 - To facilitate power transactions using the transmission system; and
 - To act as “control area” operator
 - Includes distribution area
 - Schedules wholesale and retail transactions
 - Provides other services for purchase
 - Ancillary services
 - Imbalance energy



CONCLUSION

- **DR is “HOT”; It’s a NOW Issue!**
- **The Promise is Great**
- **Customers are willing to include DR as part of their Solution**
- **The Barriers are Sturdy**
- **The time is RIGHT for Policy-makers to address DR’s participation in the NEW ELECTRIC MARKET**

