



COMPETE

Electricity Competition **IS** the Public Interest

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Competitive Electricity Markets Drive Renewables, Demand Response, Conservation, Efficiency and Innovation

Today, more than two-thirds of the nation's electricity consumers live or do business in states that are part of regional competitive electricity markets. Organized competitive markets provide high-quality information - embedded in price signals that reflect the forces of supply and demand - and place a premium on efficient resource use. When coupled with well-designed rules, organized markets provide proper incentives to traditional energy providers to use more efficient technologies that pollute less and allow renewable energy providers to innovate and grow. Taken together, this means cleaner air and more environmentally friendly choices for consumers.

Organized Regional Competitive Electricity Markets Promote Renewable Generation

- Wind power has grown disproportionately in organized regional competitive markets. As of 2006, about 73% of wind resources are located in the RTO markets, despite the fact that only 44% of wind energy potential is found in those areas.¹
 - Intermittent, renewable resources, such as wind power, can be easily accommodated when there are hundreds of generators being dispatched together through a central regional pool or market.
- Well-functioning hour-ahead and day-ahead markets in the RTOs provide the best means of addressing the variability in wind plant output by sending clear price signals², allowing intermittent resources to sell excess energy at a fair price.³
- Regional competitive markets offer unique opportunities for wind and other intermittent, renewable generation, including spot markets for balancing supply and demand in real-time, financial transmission rights, elimination of "pancaked" rates between utilities, credit for capacity, and regional transmission plans.⁴
- Traditional inefficiencies and balkanization found in power grids are largely remedied by competitive electricity markets, alleviating discrimination against new and renewable energy sources.⁵

Competition Promotes Conservation, Demand Response, and Improved Efficiency

- Competitive market price signals allow regional system operators and consumers to measure the value of demand response (the voluntary reduction of electricity use) and thereby provide a solid foundation for demand response growth.
 - PJM's October, 2007 Reliability Pricing Model (RPM) capacity auction cleared 893 megawatts (MW) of demand response, which is about the amount of capacity provided by a large power plant. In PJM's auction, demand response competes with, and is paid the same, as generation⁶

¹ American Wind Energy Association (AWEA), <http://www.awea.org/projects/>

² Utility Wind Integration Group, *Utility Wind Integration State of the Art*, at 4 (May 2006).

³ www.puc.state.mn.us/docs/windrpt_vol%201.pdf

⁴ Letter from AWEA, NRDC, et. al. dated February 26, 2007 to FERC Chairman Kelliher, et al.

⁵ *Id.*

⁶ "PJM Reliability Pricing Model Attracts More Generation, Demand Response," PJM Press Release, October 12, 2007.

- NYISO has over 1,800 MW of demand response and almost 400 MW from customers registered to offer their load reductions into the wholesale market on a day-ahead basis. Demand-response resources represent 5.4% of NYISO's 2007 forecast summer peak load.⁷
- As of September 2007, more than 1,200 MW of demand response are being used to protect power system reliability in New England.⁸
- During the 2006 heat wave, a total of 2,700 MW from emergency demand-response programs and voluntary conservation helped keep California's electricity running.⁹
- Every day, ERCOT utilizes 1,150 MW of "Loads acting as Resources" to help ensure system reliability.¹⁰
- Competition has dramatically improved the operating efficiency of power plants, resulting in cost savings, fewer refueling outages, and enhanced reliability.¹¹
 - Competition has promoted "substantive" efficiency improvements in U.S. electricity generating plants, with generating plants owned by municipalities and cooperatives (insulated from market reforms) experiencing the smallest gains in operating efficiencies.¹²
- Investment in new, efficient generation spurred by competition has resulted in a reduction in the use of older, less efficient and higher emission power plants, delivering both economic and environmental benefits to consumers.
 - Renewable generators account for 142,711 MW of the 326,429 MW of generation in the ISO and RTO interconnection queues.¹³
 - Most of the new construction within the NYISO has been high efficiency, natural gas-fueled, combined cycle combustion turbine units which will offset less efficient and less environmentally friendly units.¹⁴
 - The move to more efficient gas-fired generators has decreased the use of New England's oil and older gas power plants, and from 2001-2004 is estimated to have reduced annual carbon dioxide emissions by 6%, nitrogen oxide emissions by 32%, and sulfur oxide emissions by 48%.¹⁵

Competition Promotes Technological Innovation

- Organized regional competitive markets have become an incubator for technologically innovative energy products and services that respond directly to customer preferences.
- Regional electricity market operators have installed the most advanced systems in the industry for network analysis, monitoring, operations planning, scheduling, and forecasting, and are on the cutting edge of technological innovations involving grid management and delivery of energy services.¹⁶

⁷ "Increasing Demand Response and Renewable Energy Resources: How ISOs and RTOs are Helping Meet Important Public Policy Objectives." ISO/RTO Council, October 2007.

⁸ *Id.*

⁹ *Id.*

¹⁰ ERCOT protocols Section 6.5.4 (8)

¹¹ Putting Competition Power Markets to the Test - The Benefits of Competition in America's Electric Grid: Cost-Savings and Operating Efficiencies, Global Energy Decisions Study at ES-1, (2005); Howard J. Axelrod, *The Fallacy of High Prices*, 144 *Public Utilities Fortnightly* at 55 (Nov. 2006).

¹² "Do Markets Reduce Costs? Assessing the Impact of Regulatory Restructuring on US Electric Generation Efficiency," Kira R. Fabrizio et. al., September, 2007.

¹³ "Increasing Renewable Resources: How ISOs and RTOs are Helping Meet This Public Policy Objective." IRC/RTO Council, October 16, 2007.

¹⁴ "ISO Power Trends: 2005", the New York Independent System Operator, April 2005.

¹⁵ Progress of New England's Restructured Electric Industry and Competitive Markets: The Benefits of ISOs and RTOs (April 2005).

¹⁶ For example, new generation scheduling software, which allows PJM to schedule more accurately the hours that generating units must be ready to run, was projected to save customers about \$56 million annually. PJM News Release (June 24, 2004).