

## *Synchronous Reserve Markets Open for Business*

EnergyConnect is a leader in the newly opened markets for synchronous reserve. Synchronous reserve refers to a capability to rebalance electricity supply and demand in a matter of minutes. Two conditions stimulate the need for synchronous reserve:

- Power generator outages
- Transmission system faults including power lines and transformers

Historically, the needs for synchronous reserve were met by other central generation resources. Operators of the power grid paid generators to be available for such quick start needs.

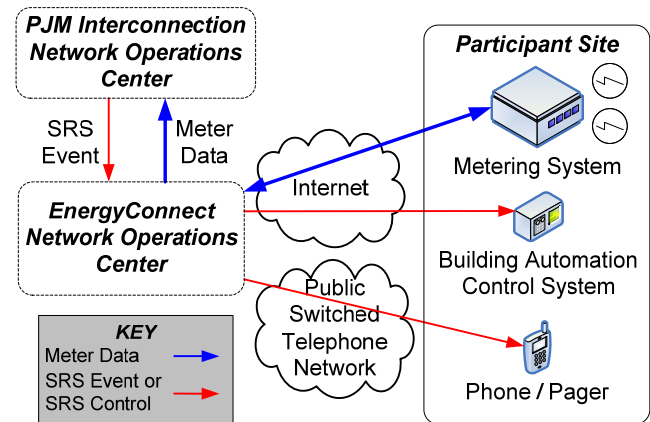
Now, electric customers with large loads can participate in synchronous reserve markets and be paid for their services. Typical actions to reduce load during events include:

- Reducing air conditioning
- Adjusting heating
- Shaving lighting
- Suspending processes
- Running standby generators

EnergyConnect has simplified the Synchronous Reserve Service through its automated information and control systems. To participate in this service the site must be able to:

- Reduce load by at least 1,000 kW
- Respond within 8 minutes
- Sustain load reduction for up to 30 minutes
- Provide, or allow EnergyConnect to install, a 1-minute interval meter
- Pass a qualifying load reduction test

Participating energy managers may be notified by email, telephone call, page, signal to a building automation system, or any combination of the above. The communications are produced automatically from the EnergyConnect Network Operations Center, which is in continuous communication with the grid operator.



Participants can receive tens of thousands of dollars per megawatt per year from two revenue streams:

- Fixed monthly reservation fee based on commitment level and time periods of commitment
- Optional additional payment for energy at time of reduction.

The frequency of synchronous reserve events could be four or five times per month, but historically vary by region. Participants can elect the hours and even seasons in which they are available to be called.

Failure to meet commitments has costs. Some or all the reservation fee may be withheld. Repeated failures could lead to disqualifying from further participation. EnergyConnect's program, however, insulates the participant from net financial exposure.

According to John Stremel, Senior Vice President of EnergyConnect, "the desire for synchronous reserve services for large end-use electric customers has been a goal of the demand response industry for many years." Now, the Synchronous Reserve Service of EnergyConnect is a reality in the PJM power grid and should be forthcoming in others. Contact your EnergyConnect account executive to learn more.

### *Facts Connect*

Region	Peak Real Time Wholesale Electricity Prices (\$/MWh)		
	Dec	Nov	Oct
PJM PECO Zone	\$248	\$205	\$150
PJM Comed Zone	\$183	\$132	\$150

*Made your New Year's resolutions yet?  
Here's one: Start working with  
EnergyConnect to allow you to Turn  
Energy into Cash!*

### *EnergyConnect Works with PJM*

PJM is the oldest grid operator in the nation, starting in 1927 and serving initially in Pennsylvania, New Jersey and Maryland (PJM). Now, PJM reaches into 13 states plus the District of Columbia and stretches south to North Carolina and west to Illinois and Michigan.

PJM is also the largest wholesale power grid operator in the world serving 51 million people with these metrics.

- 164,000 megawatts of generating capacity
- 1,270 generating units
- 56,000 miles of transmission lines
- 6,000 substations

In addition, PJM is a leader in demand response. On August 2, 2006, PJM set a new peak demand of 144,000 MW. That record electric load was met, in part, by market-based demand response of 270 MW. Demand response helped reduce wholesale energy prices by more than \$300 per MWh during the highest usage hours. Payments to demand response providers for the heat wave during the first week of August alone were about \$5 million.

As of November 2006, the demand response market in PJM was active each month with high levels of participation as indicated by the following:

- 300 participating sites representing 1,500 MW of capacity
- 169,906 MWh reductions in the demand response market composed of 161,389 MWh in the real-time market and 8,519 MWh in the day ahead market
- 50% increase in MWh reductions in 2006 compared to 2005.

The new synchronous reserve market also showed significant activity by November 2006 with a preliminary estimate of 28,317 MWh cleared.

EnergyConnect is an active member of PJM. EnergyConnect participates with its clients in all three markets: real-time, day ahead, and synchronous reserve. EnergyConnect strives to represent the interests of its customers in the various policy and committee meetings PJM.

Want more info? Visit us at  
[www.energyconnectinc.com](http://www.energyconnectinc.com) or contact us:  
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EnergyConnect serves on the Demand Response Working Group, which sets policies on such important functions as metering, billing and settlement. EnergyConnect is encouraged by the positive working relationship it has with PJM and with PJM's commitment to increase the use of demand response resources. To learn more about PJM, visit [www.pjm.com](http://www.pjm.com).

### *EnergyConnect Team Profile: Rod Boucher*

Rod founded EnergyConnect, Inc. in 1998 and has served as its Chief Executive from inception. In 2005 he also became CEO of Microfield Group through the merger that brought together the high growth transaction business of EnergyConnect and the infrastructure contract and maintenance business of Christenson Electric under the Microfield umbrella.

Throughout a career that has spanned development of power pools, power plants and transmission lines across the US, mergers and companies that have shaped the electric industry, and new technologies and processes, Rod has



focused on changes that improve the industry. There is a long standing industry need for a change that integrates electric consumers into power supply decisions to improve system efficiency. The technologies, processes, and people at the core of EnergyConnect now make this possible.

As a young engineer with a Master of Electrical Engineering from RPI, Rod was on the team that developed NEPOOL, the grid operator for the six New England States. Later he helped introduce "Conservation as a Resource" in the Pacific Northwest, and leveraged the concept into new ways to grow the business and create the first major electric utility merger in decades. As CIO of PacifiCorp he led development of innovative customer care and customer service information technologies that opened better ways to serve electric consumers. In the early 1990's, when COO of Citizens P&L, Rod led the addition of electricity trading to the tools available for improving supply efficiency. Rod was CEO of Calpine Power Services in the mid-1990's and introduced thousands of megawatts of more efficient natural gas fired power plants into electric systems across the US - initiating the merchant generation movement, an industry revolution that resulted in the transformation of power pools to independent regional grid operators.

Rod's vision for EnergyConnect and Microfield includes a dominant role in creation of substantial efficiencies in the delivery of electricity and major benefits to energy consumers and suppliers. He believes EnergyConnect is positioned to lead the industry to new levels of energy consumer integration and demand response not otherwise possible.

Valorie, Rod's wife of more than 40 years, has retired from EnergyConnect and gets Rod to take a break now and then to enjoy their common interests. Among other things these include grandchildren, hiking, and traveling together. Rod is an avid golfer and a strong supporter of developing young people to be tomorrow's leaders.