

Market Evolution Supports Sempa Power Demonstration Projects in PJM Territory

Valley Forge PA – March 18, 2010 – US Regional Electricity Transmission Organizations (RTO) and Independent System Operators (ISO) are looking at smart grid technology to provide ancillary services and enable the adoption of modern market elements including windmills and electric cars.

PJM is a RTO that coordinates the movement of wholesale electricity in all or parts of Delaware, Illinois, Indiana, Kentucky, Maryland, Michigan, New Jersey, North Carolina, Ohio, Pennsylvania, Tennessee, Virginia, West Virginia and the District of Columbia. Recently PJM has begun work on demonstration initiatives to support the procurement of smart grid ancillary services as a source of system regulation or stability to the electricity network. While this change has little or no significance to the average consumer of electricity, at the industrial level, it signals the arrival of a new opportunity to generate additional income.

Electricity System Regulation is an ancillary service purchased by PJM to provide continuous balance between electricity supply and market demand. Traditionally, System Regulation responds to second to second fluctuations in market demand by matching the real time adjustment of supply in the form of fast responding generation, such as hydroelectric or gas turbine generators.

New sources of intermittent, renewable generation, such as solar and wind power have increased the requirement for Regulation Services to balance the electricity system. It is predicted that across North America the demand for Regulation Services will double over the next 5 years. To meet this expected growth, PJM is identifying alternative resources to provide regulation, opening the market for non-generation resources.

For smart grid pioneers like Ontario's Sempa Power, this initiative represents an opportunity to demonstrate the value of next generation technology in one of the world's most intricate electricity markets.

"Bringing innovation to the electricity market is a cornerstone of PJM's culture. Our smart grid initiatives are focused on improving the grid reliability and security, fewer service interruptions, lower costs, cleaner energy, more integration of renewable energy, demand response opportunities and bringing greater energy independence to consumers. Working with smart grid companies like Sempa Power provides PJM and our market stakeholders the ability to develop very compelling opportunities" said Harry Dessender - General Manager, Market Strategy, PJM Interconnection.

Sempa Power enables large businesses to earn additional income by participating as resources in the modernized electricity system or smart grid. Resource partners connected to [Sempa's Regulation Services Network \(RSN\)](#) are financially rewarded for enabling the local market with Electricity System Regulation Services. Sempa's comprehensive smart grid platform is purposely designed to synchronize resource partners so they can benefit from participation without negative impact to their business or production cycles.

Each resource partner is selected for their distinct production profiles. Ideal candidates have electrical equipment and process requirements that can be managed as a variable resource without impacting key

operational or production objectives. Examples include; landfill gas generators, water treatment systems, municipal water pumps, wood chippers, battery charging stations and combined heat and power (CHP) generating plants.

Sempa Power is currently seeking resource partners in PJM Territory to participate in the Sempa Regulation Services Network, in preparation for an upcoming series of demonstration projects . At no cost to the partner, Sempa's Smart Grid Team will assess each candidate's operation and determine the level of income they can earn from participation. Interested parties are encouraged to contact Sempa at info@sempapower.com.

About Sempa Power Systems Ltd.

Sempa Power Systems Ltd. is a smart grid company providing system regulation and energy solutions to utilities as well as commercial and industrial clients. The solutions help manage the distribution of electricity while lowering energy consumption, reducing cost and cutting greenhouse gas emissions. For more information, visit www.sempapower.com.

About PJM

PJM Interconnection ensures the reliability of the high-voltage electric power system serving 51 million people in all or parts of Delaware, Illinois, Indiana, Kentucky, Maryland, Michigan, New Jersey, North Carolina, Ohio, Pennsylvania, Tennessee, Virginia, West Virginia and the District of Columbia. PJM coordinates and directs the operation of the region's transmission grid, which includes 6,038 substations and 56,350 miles of transmission lines; administers a competitive wholesale electricity market; and plans regional transmission expansion improvements to maintain grid reliability and relieve congestion. www.pjm.com

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