



GE Helps Terna Rete Italia Improve Grid Resiliency and Integrate Renewable Energy More Efficiently

- *GE's Synchrophasor Solution Will Enhance Terna's Grid Reliability, Reduce Congestion and Simplify the Integration of Renewable Energy Sources*
- *GE Gives Terna Real-Time Data from the Grid to Help Proactively Identify Potential Issues that Could Lead to Failures and Outages*
- *Project Marks Largest Ever Implementation of Synchrophasor Technology in Europe*

BILBAO, SPAIN—May 4, 2015—[GE's Digital Energy business](#) (NYSE: GE) today announced a milestone deal with Terna Rete Italia, Italy's transmission system operator, to help it deliver more reliable power to businesses and residences across the country while and to more efficiently integrating renewable energy. With 63,500 kilometers of high-voltage power lines, Terna was looking for a solution that could help it easily gather real-time data from the power grid to detect potential faults or disturbances on the grid and to take corrective actions to prevent outages.

Terna will integrate GE's synchrophasor in its wide area monitoring system (the largest in Europe), in order to be able to get a more holistic and accurate view of how their power grid and other local or remote devices are performing. By continually collecting real-time data from the grid, Terna will be able to test advanced monitoring applications and feed its dynamic rating system. Using phasor measurement unit information, Terna is able to monitor the system stability and keep an eye on possible grid oscillations and transients. Moreover, in last few years, Terna has developed an overhead line mean temperature estimation tool for dynamic line rating purposes. The solution is based on current and voltage synchrophasors measured at line terminals. For such kinds of applications, accuracy in phasor calculation and synchronization is essential.

Using GE's [Multilin™ N60 Network Stability and Synchrophasor Measurement System](#) and [Multilin™ P30 Phasor Data Concentrator](#), Terna can utilize advanced communications capabilities to gather data from across its vast grid infrastructure and balance power between all of its transmission sources, including renewable power generation. The complete solution also will complement Terna's existing protection and control protocols by sharing power and utilization information.

"Grid modernization is a priority for energy providers across Europe," said Luiz Perez, EMEA regional general manager for GE's Digital Energy business. "Our synchrophasor technology provides these utilities with the technology required to deliver more reliable power to their customers. It enables them to develop technology roadmaps that can help reduce grid congestion, integrate renewables and increase grid reliability."

The implementation of GE's synchrophasor solutions on Terna's grid has begun and the complete roll out is expected to be completed by the end of 2015.

GE's Digital Energy business is a global leader in transmission and distribution solutions that manage and move power from the power plant to the consumer. Its products and services increase the reliability of electrical power networks and critical equipment for utility, industrial and large

commercial customers. From protecting and optimizing assets such as generators, transmission lines and motors, to delivering analytic tools to help manage the power grid, GE's Digital Energy business delivers industry-leading technologies to solve the unique challenges of each customer. For more information, visit <http://www.gedigitalenergy.com/>.

About Terna Rete Italia

Terna is a leading electricity transmission grid operator headed by Matteo Del Fante, CEO, and chaired by Catia Bastioli, Chairwoman. Terna is the first independent operator in Europe and sixth in the world for kilometers of electricity lines managed. The Group structure is formed by the holding, Terna Spa, that heads two fully owned companies: Terna Rete Italia and Terna Plus, each one with its own Board of Directors. The service performed by Terna in Italy is essential for the operation of the entire electricity system and for guaranteeing electricity to all citizens and businesses. For more information, visit <http://www.ternareteitalia.it/>.

About GE

GE (NYSE: GE) imagines things others don't, builds things others can't and delivers outcomes that make the world work better. GE brings together the physical and digital worlds in ways no other company can. In its labs and factories and on the ground with customers, GE is inventing the next industrial era to move, power, build and cure the world. www.ge.com

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