

**GE Power & Water Unveils the Digital Power Plant; a Revolutionary Energy Innovation to Meet Increasing Global Demand for Fast, Data-Driven, Secure Power Solutions**  
**Tuesday, September 29, 2015 08:00:00 PM (GMT)**

- *First-of-Its Kind "Digital Power Plant" Platform Will Enable Greater Efficiency and Output, More Flexibility for Renewables Integration and Help Grid Stability*
- *Secure, Data-Driven Power Generation Estimated to Deliver \$75 Billion in Savings across Power Industry Today*
- *Delivering ~\$230 Million per New Plant or ~\$50 Million for Existing Combined-Cycle Gas-Powered Plant in Savings*
- *Exelon Generation and GE are Announcing an Agreement for Enterprise-Wide Software Technologies across Three Fuel Sources—Nuclear, Gas and Wind*
- *PSEG Commences Enterprise Wide Software Solutions with GE, Setting N.J. on a Path towards More Reliable, Cleaner and Less Expensive Power and a Boost to the Local Economy*

GE (NYSE:GE) today announced Digital Power Plant, a revolutionary software and hardware solution that creates a virtual "Digital Twin" of an entire industrial power plant complex. Powered by GE's Predix platform, the operating system of the Industrial Internet, "Digital Twin" is a collection of physics-based methods and digital technologies that are used to model the present state of every asset in a Digital Power Plant or a Digital Wind Farm. This transformational technology lets utilities monitor and manage every aspect of the power generation ecosystem to generate electricity as cleanly, efficiently and securely as the global economy and environment now demand with unprecedented real-time control and precision.

"The world is expected to need 50 percent more power over the next 20 years, including providing electricity for the 1.3 billion people without access today," said Steve Bolze, president and CEO of GE Power & Water. "At the same time, the electricity industry is undergoing a radical digital transformation unlocking whole new opportunities. Imagine the benefits to our global economy and society when the power source of the world's economy, electricity, is as digitally connected and efficient as the modern technologies dependent on that electrical power."

Central generation of energy will account for up to 95 percent of the energy mix by 2025 and as a result GE's Digital Power Plant, will enable GE's utility and industrial customers to harness information technologies to optimize the underlying infrastructure that generates electricity, in a manner that will transform the way electricity is generated and managed worldwide, helping minimize the impact of power production and consumption to the climate. The expected benefits include up to \$230 million for a new combined-cycle gas power plant and up to \$50 million for an existing combined-cycle gas-powered plant in savings. Across the power industry today this will equate to up to \$75 billion in savings.

**Secure, Industrial-Scale Platform:**

As one of the world's largest suppliers of power generation equipment and the developer of Predix, GE has been able to combine the right hardware and software solution to securely digitize complex power assets and systems. The Digital Power Plant is more than connectivity and more than just one solution. Once an entire power plant is digitized, it can deploy applications powered by the Predix platform to continuously improve assets and operations. Predix is the only secure cloud and platform built for and by industry experts to support the unique scale and requirements of industrial data. It also is the only platform with security and governance built in to allow developers to quickly build, test and deploy applications for highly regulated industries. Incorporating decades of experience in operational security and information security, [Predix Cloud is designed with the most advanced security protocols available](#), including customized, adaptive security solutions for industrial operators and developers.

"To transform the entire energy value chain, we need a purpose-built, modern digital industrial stack—from software-defined machines, to the controls, to the cloud," said Ganesh Bell, GE P&W, chief digital officer and GM of Software & Analytics. "We invite our customers to innovate with Predix to improve their performance and results."

## Launch Customers and Partnerships:

"Our industry is on the precipice of a digital disruption, and Exelon is very pleased to partner with GE on several pilot programs that will help us deliver significant benefits for our customers, the industry and the environment," said Michael Pacilio, EVP & COO, Exelon Generation.

Exelon Generation and GE Power & Water have entered into an agreement to implement a Predix-powered suite of enterprise-wide software technologies across three fuel sources—nuclear, gas and wind. These solutions will enable Exelon to enhance its performance, efficiencies and reliability.

"Exelon is one of the first movers in deploying Industrial Internet solutions," said Mr. Bolze. "Given their history of innovation and delivering value to their customers, we are incredibly excited about the impact this partnership will deliver in terms of customer value, decarbonization and our long-standing collaboration. The world needs affordable, accessible, reliable, secure and sustainable power; and digitization is the next game changer."

GE's other launch customer, PSEG, recently chose GE's software solutions to upgrade multiple gas-powered plants to improve their reliability and operational performance. In addition, PSEG has chosen a 7HA.02 gas turbine for a new combined-cycle plant to replace steam boilers in New Jersey.

"For merchant generators, every bit of efficiency and productivity matters to our bottom line," said Rich Lopriore, president of PSEG Fossil LLC. "Having the best power generation technology—both physical and digital—is critical to our competitiveness. We at PSEG would like to recognize GE in this new analytic approach; technology is the way we need to go in order to stay competitive in the industry."

To further explore the implications of the digital transformation of the energy industry, please read the white paper entitled, "[Powering the Future: Leading the digital transformation of the power industry](#)," by Marco Annuziata, Chief Economist, GE and Ganesh Bell, Chief Digital Officer of GE Power & Water. The paper discusses the unprecedented opportunity for the future of the energy industry and how it will realize the goal of access to clean, reliable, sustainable and secure electricity while fostering economic growth through the creation of a new energy ecosystem.

For more information on GE's Digital Power Plant please visit: <http://www.ge.com/industries/power-and-energy/power-generation/>.

## About GE

GE (NYSE:GE) is the world's Digital Industrial Company, transforming industry with software-defined machines and solutions that are connected, responsive and predictive. GE is organized around a global exchange of knowledge, the "GE Store," through which each business shares and accesses the same technology, markets, structure and intellect. Each invention further fuels innovation and application across our industrial sectors. With people, services, technology and scale, GE delivers better outcomes for customers by speaking the language of industry. [www.ge.com](http://www.ge.com)

## About GE Power & Water

GE Power & Water provides customers with a broad array of power generation, energy delivery and water process technologies to solve their challenges locally. Power & Water works in all areas of the energy industry including renewable resources such as wind and solar, biogas and alternative fuels; and coal, oil, natural gas and nuclear energy. The business also develops advanced technologies to help solve the world's most complex challenges related to water availability and quality. Power & Water's six business units include Distributed Power, Nuclear Energy, Power Generation Products, Power Generation Services, Renewable Energy and Water & Process Technologies. Headquartered in Schenectady, N.Y., Power & Water is GE's largest industrial business.

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