**Invenergy Selects GE's Predix-based Asset Performance Management (APM) Solution to Improve Gas Thermal Fleet Performance as Part of Shift to Clean Energy Future**
**Tuesday, April 25, 2017 01:00:00 PM (GMT)**

- *Milestone Project Helps Usher in Digital Transformation at Six Invenergy Thermal Plants with 3,159 MW of Capacity*

- *APM Solution Allows Operators to Predict Equipment Issues, Avoid Costly Unplanned Outages*

- *Predix Apps will analyze data from 13 GE Gas Turbines*

GE (NYSE:GE) and Invenergy LLC have signed an agreement to deploy GE's Predix* based Asset Performance Management (APM) reliability management software on 13 GE turbines at six gas-operated thermal plants in the U.S., with an operating capacity of 3,159 MW.

This Smart News Release features multimedia. View the full release here:
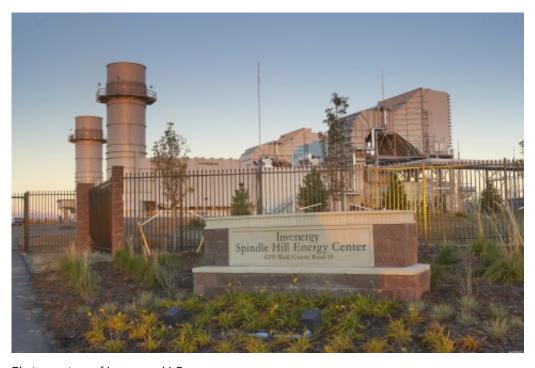http://www.businesswire.com/news/home/20170425005215/en/



Photo courtesy of Invenergy LLC

Invenergy is North America's largest independent, privately-held renewable energy provider. The company develops, owns and operates clean energy facilities across the globe. Invenergy has more than 5,500 MW of natural gas-fueled electric generating projects in operation, construction and advanced development, all of which use cutting-edge technologies to work hand-in-hand with the growth of renewable energy. Invenergy's natural gas projects use abundant, reliable, domestically sourced natural gas to produce electricity.

GE's APM reliability management solution will assist plant O&M technicians at these sites to more accurately predict and diagnose equipment failures before they occur to avoid costly unplanned outages through early warning alerts. The APM solution also enables intelligent asset strategies that balance three traditional competing priorities within the plant—reducing cost, improving availability and reliability, and managing risk—to help improve a plant's overall asset and operational performance.

"Cutting-edge technologies, including advanced digital solutions such as APM and software analytics, give us greater visibility into the performance of our plants at both the asset management and fleet level, while demonstrating real economic value for our plant operations," said Jim Shield, EVP & chief commercial officer at Invenergy LLC. "We believe these digital solutions are the key element of our innovation strategy to deliver power more reliably to our customers' energy needs."

Invenergy's digital initiative with GE began in 2015 with a pilot project designed to test early detection of equipment or system failures on selected units using both GE and non-GE equipment. Using machine data

sensors, predictive analytics and process optimizations, GE's APM solution provided Invenergy with asset anomaly detection through a unified user experience, providing alerts, alarms, historical analysis with the visibility into asset performance and health.

During this six-month testing phase, a turbine journal bearing issue with early stage vibration was identified through an early warning alert. This issue, if left undetected, could have damaged the turbine and resulted in an unplanned outage during peak periods of plant operation. Using GE's APM software and analytics, Invenergy O&M technicians quickly detected the problem three months ahead of a planned outage. A number of corrective actions were developed to fix the issue until the full equipment health could be examined more closely during the scheduled maintenance window.

"Today, across the United States, the average power generation system is unavailable six percent of the time due to unplanned downtime. With GE's Predix-based APM, we can eliminate in most cases 70% of that unplanned downtime today, and we're heading rapidly towards 90% coverage," said Ganesh Bell, chief digital officer at GE Power. "This is the type of outcome that dramatically changes the economics of modern power production, something that is all the more important in a rapidly-evolving energy landscape."

**About Invenergy LLC**

Invenergy drives innovation in energy. Invenergy and its affiliated companies develop, own, and operate large-scale renewable and other clean energy generation and storage facilities in the Americas, and Europe. Invenergy's home office is located in Chicago and it has regional development offices in the United States, Canada, Mexico, Japan and Europe.

Invenergy and its affiliated companies have developed more than 15,500 MW of projects that are in operation, construction or advanced development, including wind, solar, natural gas-fueled power generation and energy storage projects. For more information, please visit www.invenergyllc.com.

**About GE Power**

GE Power is a world leader in power generation with deep domain expertise to help customers deliver electricity from a wide spectrum of fuel sources. We are transforming the electricity industry with the digital power plant, the world's largest and most efficient gas turbine, full balance of plant, upgrade and service solutions as well as our data-leveraging software. Our innovative technologies and digital offerings help make power more affordable, reliable, accessible and sustainable.

For more information, visit the company's website at www.gepower.com. Follow GE Power on Twitter @GE Power and on LinkedIn at GE Power.

*Predix is a trademark of General Electric Company

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