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## **News Release**

# GE Showcases EBoP Capabilities in Providing Portable, Backup Power to Libya in Just Six Weeks

- GE Provides Electrical Balance of Plant (EBoP) for Four Mobile Aeroderivative Gas Turbines in Libya
- Full Installation and Commissioning Completed in Half the Time Typically Required
- EBoP Technology on Display and Discussed at IEEE Conference

CHICAGO—April 15, 2014—Maintaining a reliable flow of power is a major part of any utility's daily tasks. Helping to establish a more resilient and reliable grid, GE (NYSE: GE) recently announced that it has provided the government-owned utility of Libya with four mobile aeroderivative gas turbines, each of which is equipped with complete <u>electrical balance of plant (EBoP)</u> from the company's Digital Energy business. The advanced solutions ensure the General Electricity Company of Libya (GECOL) has the efficient and dependable backup power it needs in case of an unplanned outage.

GE's extensive experience in project implementation and expertise in electrical equipment manufacturing can be seen throughout the design of its EBoP technology. The offering integrates complex generation and electrical plant systems into the modular, streamlined solution. GE's advanced EBoP technology will be showcased and discussed at the 2014 IEEE PES Transmission & Distribution Conference & Exposition taking place April 14-17 in Chicago.

#### The mobile EBoP solution includes:

- Separate fuel systems, auxiliary power and high-voltage skids for each individual gas turbine.
- Mobile, trailer-mounted substations with high-voltage disconnect switches, breakers and generator step-up transformers.
- Multilin™ protection and control devices to power the TM2500+ turbines.
- Design and engineering of equipment.
- Construction supervision and commissioning.

Utilizing fast-cycle execution capabilities and industry-leading visualization tools during planning and design, GE's EBoP solution ensures that projects can be completed on time and on budget—with 99 percent of EBoP installations completed in the specified time frame. The EBoP solution improves the reliability of a power system, increases the accuracy of scoping, minimizes unnecessary costs and labor and reduces overall commissioning cycle times. Projects utilizing GE's EBoP technology have yielded 50 percent fewer change orders than the industry average, resulting in better cost accuracy and reduced overall project cost.

GE brought this expertise to its recent mobile power project in Libya. Like many countries in the region, Libya is frequently challenged with extreme temperatures during the summer months, occasionally causing power shortages or outages at a time when it is in high demand. Recognizing the challenges that the summertime heat can cause, GECOL set out to find a reliable source of backup power. To meet the utility's requirements, the backup power needed to be mobile and capable of running on

both natural gas and diesel fuel. In addition, once a location was selected, the units had to be installed in a very tight period of time. For this, GECOL turned to GE.

The quick turnaround time required by GECOL presented unique challenges. In the best of circumstances, building an EBoP project typically takes 90 days or more. GE's EBoP solution—which has been implemented in more than 1,500 complex generation and transmission projects and nearly 10 percent of all wind farm integration projects in North America—enables distributed power projects like GECOL's to be executed in as little as 60 days. In this particular application, GE's Digital Energy business was able to provide full installation and commissioning of the mobile EBoP on the first two units in just six weeks.

"By pairing our complete EBoP technology with the advanced capabilities of the TM2500+ aeroderivative gas turbines, we are able to provide GECOL and the people of Libya with the equipment they need and the expertise they expect from our team of knowledgeable engineers and industry experts," said Bob Turko, general manager, power systems, GE's Digital Energy business. "This project marks the first time GE has engineered its <a href="mobile TM2500+">mobile TM2500+</a> units with complete EBoP—an offering that we see as an ideal fit for utilities seeking a one-stop shop for reliable backup power."

The EBoP-equipped TM2500+ aeroderivative gas turbines not only provide Libya with the backup power needed to meet peak demands, the units also enable GECOL to supply emergency power throughout the country at any time due to the mobility of the equipment.

"We chose GE because we knew they would not only deliver high-quality equipment, but that they'd be able to do it in the short time frame we needed. As promised, GE had the first two mobile units up and operating in less than two months," said Ayman Abogren, project manager, GECOL. "Today, the four mobile units provided by GE equip us with 104 megawatts of reliable, backup power, addressing our immediate power needs as well as better preparing us to rapidly and efficiently manage possible grid disruptions in the future—no matter what area of the country is affected."

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 <a href="http://www.gedigitalenergy.com/">http://www.gedigitalenergy.com/</a>.

#### **About GE**

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