# GE Oil & Gas: New Super-Efficient Gas Turbines at Annual Meeting in Florence

**Building on its culture of partnership and co-creation,** GE Oil & Gas today introduced two new technologies at the 2017 Annual Meeting, in Florence, Italy: **super-efficient gas turbines LM9000 and NovaLT12.** These are prime examples of how the downturn has driven focus on flexibility, efficiency and productivity, as well as demonstrated the advantages of cross-industry collaboration.

"The best companies use volatile times as a catalyst to drive beneficial change. We have taken this industry cycle to reflect on what our customers will need in the future and are disrupting traditional product development to introduce smarter and more cost-effective advanced gas turbines that address the industry's greatest needs; reliability, flexibility, efficiency and productivity."

- Rod Christie, President & CEO, Turbomachinery Solutions, GE Oil & Gas.

These technologies showcase how GE develops, utilizes and optimizes the best minds and the best machines to design reliable and effective solutions.



The <u>LM9000</u> is a 65MW, 43% simple cycle efficiency Aeroderivative Gas Turbine, derived from the proven GE90 jet engine fitted on Boeing 777. The LM9000 delivers **50% longer maintenance interval, 20% more power and 40% lower NOx emissions, resulting in 20% lower cost of ownership for LNG customers**. In addition to LNG applications in off and onshore, it can also be utilized for simple cycle, cogeneration and combined cycle power generation.

By leveraging the <u>GE Store</u> – our company's ability to transfer intellect and technology across multiple industries - this application offers high availability and best-in-class total cost of ownership. Dry Low Emissions technology, developed using GE's additive manufacturing capabilities, enables dual fuel capability and lower NOx emission, while

eliminating water use in emissions abatement. Ideal for mechanical drive with >99% availability, with **43% simple-cycle efficiency and over 80% efficiency** in cogeneration configuration, the LM9000 can deliver a precise, dependable, safe, and flexible energy supply.

Its modular package design enables greater adaptability, shorter manufacturing cycles and faster installation, with lower installed and operational costs than field-erected units. This also contributes to the **LM9000's compact footprint, requiring 25% fewer train**s, helps meet stringent space requirements, especially for retrofits or smaller new plants, and greatly simplifies balance of plant requirements for both offshore and onshore installations.

#### Learn more about the LM9000:









GE Oil & Gas also launched today the latest addition to its growing family of heavy-duty gas turbines the <u>NovaLT12</u>. An efficient, flexible, modular turbine **designed for high efficiency and lower total cost of ownership** than market peers, the NovaLT12 was developed with a special focus on oil and gas midstream operations — both mechanical drive and power generation — and is well suited to a wide range of upstream and downstream applications. The NovaLT12 leverages the success of GE's NovaLT gas turbines program overall, which includes the <u>NovaLT16</u> and that of the <u>NovaLT5</u>, designed to meet residential, industrial and commercial customers' needs with a reliable and efficient **plug and play solution below 20 MW**. With an efficiency of up to **85 percent** in cogeneration applications, these gas turbines represent an advanced

solution to produce heat and power, and they can increase industrial plant efficiency while reducing NOx and CO2 emissions.

**Standardization and modularization** significantly reduce customized engineering needs, which means faster delivery time (36-week EXW, 8-week installation). The turbine's end burners are manufactured using cutting-edge 3D printing technology at GE Oil & Gas' <u>additive manufacturing facility</u> in <u>Talamona</u>, <u>Northern Italy</u>. After extensive validation of additive during prototyping of the NovaLT16 gas turbine, GE decided to move the technology into full production, leveraging the design enhancement capabilities, cycle time reduction and improved product quality. GE Oil & Gas investment in these technologies reflects the ongoing commitment to combine cutting edge technology and new manufacturing processes to lower cost and accelerate the innovation, speed and performance of industrial products.

#### Learn more about the NovaLT12:







### 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. To learn more, please visit www.ge.com

# About GE Oil & Gas:

GE Oil & Gas is inventing the next industrial era in the oil and gas sector. In our labs and factories, and in the field, we constantly push the boundaries of technology to solve today's toughest operational & commercial challenges. We have the skills, knowledge and technical expertise to bring together the physical and digital worlds to fuel the future. Follow GE Oil & Gas on Twitter @GE\_OilandGas or visit us at www.geoilandgas.com

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