GE introduced the world to F-class gas turbine technology in 1989. Today, GE powers the globe with more than 1,100 installed F-class units, producing 260 GW of power in 58 countries. With 99% reliability, customers receive five to six more days of operation per year than the industry average. A 10-minute fast start enables increased revenue and dispatchability during peak demand. GE created the 7F.05 gas turbine to be highly efficient, agile, and simple to maintain. With combined cycle efficiency greater than 59.9%, and a 40 MW per minute ramp rate, the 7F.05 helps operators capture more ancillary revenue. In simple cycle the 7F.05 gas turbine is extremely responsive with a start capacity of 200 megawatts in ten minutes, 5 ppm NOx and grid stability logic, making the 7F.05 ideal for supporting renewable energy growth.

7F.04: Customer Value with the Lowest Life Cycle Cost in Its Class
- Enhanced compressor and hot gas path cooling and sealing technologies to improve performance and durability.
- Single crystal materials and directionally solidified blades for extended maintenance intervals and lengthened component life.
- Low fuel pressure requirements reduce the need for an on-site fuel compressor.
- Industry-leading DLN 2.6 combustion system lowers emissions across a wide range of natural gas and distillate fuel compositions.
- Widest fuel flexibility; only manufacturer to offer an F-class heavy duty gas turbine that burns Arabian super light; also offers 15% C2, +20%/-10% Modified Wobbe Index, 5% hydrogen.

7F.05: Reliable and Efficient
- Combustion systems accommodate a wide range of fuels, including natural gas, distillate oil, lean methane, pure ethane, hydrogen, syngas, and light crude oils. They also enable low NOx emissions, as low as 5 ppm, at rated output levels.
- 98.5% reliability leads F-class offerings.
- Maintainability features support increased availability:
  - Field replaceable compressor airfoils reduce downtime.
  - Superfinish 3D airfoils reduce degradation.
  - 100% borescope inspection reduces overall inspection time.
- Performance packages support most customer demands across the ambient spectrum, including wet compression for enhanced hot day performance.
- The 7F.05 is now available with an air cooled generator for simplified installation and maintainability.

1 Source: ORAP Simple cycle equipment, 12 month average, April ’13 through March ’14.
GAS TURBINE PRODUCT PORTFOLIO OVERVIEW

Efficient, Flexible, Reliable Power
GE offers the world’s largest range of heavy duty gas turbines—from 44 to 510 MW. Whether for consumer electrical generation, industrial cogeneration, or mechanical drive applications, GE’s gas turbines bring proven experience and capability to any power plant. On the cutting edge of gas turbine technology, GE’s wide array of equipment options can meet even the most challenging power requirements.

Heavy Duty Gas Turbines

Validation That Demonstrates Performance
GE built the world’s largest, most powerful off-grid gas turbine testing facility to demonstrate gas turbine operability and performance before first fire in the field.

GE Introduced E-Class, F-Class, and H-Class Technology to the Industry

High-Efficiency H-Class
• Most cost-effective conversion of natural gas to electricity in the H-class industry.
• Includes the world’s largest high efficiency turbine: 510 MW.
• First H-class gas turbine fleet to reach 220,000 operating hours.

Industry-Leading F-Class
• Introduced F-class technology nearly 30 years ago.
• World’s largest fleet, with more than 1,100 installed units and 50 million fired hours in service.
• Industry’s best reliability at 99.4%.

Reliable B- and E-Class
• Rugged and available in the most arduous climates.
• Industry-leading fuel flexibility, burning more than 50 gases and liquids.
• Quick installation for fast-track projects.
• Over 3000 units installed.
• More than 143 million operating hours.

Pioneer in Gas Turbine Technology

Materials Advantage from our Aviation Expertise
GE takes advantage of more than 60 years of material science from our aviation heritage to increase performance at high firing temperatures. GE was the first to introduce single crystal alloys and devoted 15 years to developing CMCs. These materials provide longer parts life for lower life cycle costs and higher efficiencies, leading to a cost effective conversion of fuel to electricity.

Half Century of Fuel Research and Testing
GE is the industry leader in burning unconventional gas. We introduced the first F-class gas turbine to use Arabian super light crude and invented the DLN combustion system more than 30 years ago to reduce emissions.