The power is yours.

Power FlexEfficiency® expands performance and value of GE F-Class turbines

GE’s Power FlexEfficiency delivers a suite of hardware and software blended solutions that enable you to unleash the full performance and long-term value of your existing GE F-Class gas turbine assets.
Tailor a solution to achieve your key performance goals

EFFICIENCY
By improving your units’ heat rate, you can lower fuel costs and emissions while opening doors to greater profitability. The Power FlexEfficiency® portfolio offers several ways to improve turbine efficiency/heat rate depending on your performance and financial goals.

KEY SOLUTIONS:
- Advanced Gas Path (AGP)
- DLN 2.6+ Combustion System
- OpFlex® Inlet Bleed Heat (IBH)
- OpFlex Advanced Attemperator

EMISSIONS
To reduce NOx and other regulated emissions, Power FlexEfficiency offers state-of-the-art combustion solutions with the ability to burn the widest range of fuels. These solutions can help you meet emission requirements, provide automated tuning and increase maintenance intervals to drive better performance.

KEY SOLUTIONS:
- Advanced Gas Path
- DLN 2.6+ Combustion System
- OpFlex AutoTune
- OpFlex Start Up NOx

FLEXIBILITY
When you can harness more of your gas turbine’s operational envelope, you gain more agility to respond to ever-changing power demands. With solutions including OpFlex controls, you can get online faster, ramp up/down in load faster and extend maintenance intervals and turn-down.

KEY SOLUTIONS:
- Advanced Gas Path
- DLN 2.6+ Combustion System
- OpFlex Fast Start
- OpFlex Fast Ramp
- OpFlex Turndown

RELIABILITY
Improving maintainability and preventing unplanned downtime is essential. With solutions ranging from OpFlex software to parts/repairs technology to engineering support, we can help you improve availability and service to your customers.

KEY SOLUTIONS:
- Advanced Gas Path
- DLN 2.6+ Combustion System
- OpFlex AutoTune
- OpFlex Enhanced Transient Stability

OUTPUT
Generating additional power can be the biggest opportunity for creating incremental value from your assets. Whether you’re selling extra megawatts to the grid, or supporting growing load demands in an industrial application, Power FlexEfficiency offers multiple, customizable software and hardware solutions.

KEY SOLUTIONS:
- Advanced Gas Path
- DLN 2.6+ Combustion System
- OpFlex Peak Fire
- OpFlex Cold Day Performance

AVAILABILITY
Often a critical measure for both utility and industrial power providers, availability can be increased with GE solutions including the Advanced Gas Path, Dry Low NOx combustion and OpFlex software suite. More uptime to deliver power can translate to additional revenue opportunities, potential capacity payments and lower maintenance costs.

KEY SOLUTIONS:
- Advanced Gas Path
- DLN 2.6+ Combustion System
- OpFlex AutoTune
- OpFlex Start Up Agility

SUCCESS STORY
Tailored a solution to achieve your key performance goals

Combined AGP/OpFlex solution boosts output, saves $900,000/yr.
With GE’s Power FlexEfficiency 7F.3 Advanced Gas Path and OpFlex solutions, TransCanada’s Ravenswood power plant in New York, and Mackay River cogeneration facility in Alberta, Canada, have increased output by 5% and 10% respectively. The Ravenswood site can now power 10,000 additional New York City households as the region continues recovering from infrastructure damage that occurred in 2012 during Hurricane Sandy. TransCanada also anticipates saving approximately $900,000 in fuel costs annually from operational efficiencies gained between both sites.

*Trademark General Electric Company

SUCCESS STORY
Slimming start up emissions in California
To meet stringent environmental regulations, Palomar Energy needed to reduce start-up exhaust emissions, fuel consumption and duration of its Escondido, California, plant running two natural gas-fired GE 7F.3 units and one D-11 steam turbine. Adopting GE’s OpFlex technology armed the plant with the capability to lower its NOx and CO emissions at part load. As such, OpFlex significantly reduced Palomar’s NOx emissions during its daily start up process using OpFlex Start Up NOx. In its first year operating with the OpFlex solution, Palomar collectively reduced its visible and total emissions by about 18,100 lbs., and its CO emissions by 4,375 lbs.
THE FOUNDATION FOR

GE’s Power FlexEfficiency*

Your customized upgrade solution taps into proven technologies designed to add more functionality, flexibility and performance to your GE gas turbines.

Advanced Gas Path (AGP)
GE’s Advanced Gas Path is a leading example of the Power FlexEfficiency at work, setting new standards in performance. By harnessing the latest in hardware design, materials innovations and advanced OpFlex* software, this solution delivers industry-leading upgrade performance in output, efficiency and maintenance intervals.

OpFlex Advanced Controls Solutions
OpFlex models-based controls solutions redefine operational flexibility with a suite of technology that empowers you with unprecedented control over all modes of your plant operation. Whether your market demands require more robust start ups, increased output, more efficient load responsiveness or lower turndown capability, the OpFlex suite delivers the operational muscle to make it happen.

This range of software solutions can position you within an unpredictable market landscape to capture new revenue streams, lower operating costs and maintain compliance with existing and emerging emissions and power grid regulations.

Dry Low NOx (DLN)
Upgrading to a DLN combustion solution can broaden your operating envelope while dramatically reducing gas turbine emissions. Slashing your emissions footprint enables more continuous operation, which also translates to longer maintenance intervals (up to 32,000 hours), extended asset life, lower turndown and longer-term reliability.

A DLN upgrade can deliver the flexibility to burn multiple fuels, which reduces your operating costs with the option to utilize fuel based on price, not just composition. All of these benefits can better position you within your market as a more reliable, flexible and emissions-compliant power generator.

AGP savings adding up, in more ways than one
A GE customer operating a combined-cycle plant powered by a 7F 3-series gas turbine with AGP technology, and generating a net output of 525.2 MW, can reduce its CO2 emissions by 11,400 tons per year. This reduction equates to the annual CO2 emissions of approximately 2,200 fewer cars on the road. Under these same operating conditions, the site could also realize an annual fuel savings of more than $790,000 at a natural gas price of $3.75 per MMBtu.

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