The power is yours.

Power LifeMax* extends life and expands performance of GE B/E-Class turbines

GE’s Power LifeMax platform delivers a suite of hardware and software blended solutions that help reset the clock on your aging GE B/E-Class gas turbine assets by recapturing lost performance and lengthening asset life.
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 LifeMax portfolio offers several ways to improve turbine efficiency/heat rate depending on your performance and financial targets.

**KEY SOLUTIONS:**
- 9EMax
- Advanced Gas Path (AGP)
- OpFlex Turndown
- Performance Improvement Package (PIP)

**EMISSIONS**
To reduce NOx and slash fuel use, Power LifeMax 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:**
- DLN 1+ Combustion System
- OpFlex AutoTune
- OpFlex AutoRecover

**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, improve efficiencies at part load and extend maintenance intervals.

**KEY SOLUTIONS:**
- DLN 1/1+ Fuel Flexibility
- OpFlex Turndown
- OpFlex Fast Start

**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:**
- Flange-to-Flange Replacement
- Monitoring & Diagnostics
- OpFlex AutoTune
- OpFlex AutoRecover

**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 LifeMax offers multiple, customizable software and hardware solutions.

**KEY SOLUTIONS:**
- 9EMax
- Advanced Gas Path
- Performance Improvement Package
- OpFlex Variable Peak

**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:**
- DLN 1+ Conversion
- Flange-to-Flange Replacement
- OpFlex AutoRecover
- OpFlex AutoTune

**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, improve efficiencies at part load and extend maintenance intervals.

**KEY SOLUTIONS:**
- DLN 1/1+ Fuel Flexibility
- OpFlex Turndown
- OpFlex Fast Start

Built from 100 million hours of real-world operating data, and drawing on a co-creation process between our team and yours, your Power LifeMax solution is customized to precisely fit your goals, assets and operating profile. Whether your operational demands require more output and efficiency, lower emissions and fuel use, more reliability—or all of the above—we’ll partner with you to choose from the core components and complementary technologies that will best meet your needs.

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**SUCCESS STORY**

**DLN technology reduces NOx emissions**
When ThaiOil Power needed to significantly reduce environmental emissions at its 130-megawatt cogeneration power plant in Sriracha, Thailand, they turned to GE for advanced DLN2 combustion system technology—enabling them to cut NOx emissions while maintaining the plant’s performance, reliability, and most importantly, availability. NOx emissions were reduced from 42 ppm to 10 ppm, which is among the lowest level for any power generation site in Thailand and the equivalent of taking 6,750 cars off the road in Bangkok.

**OpFlex corrected parameter control pares costs**
To reduce operational costs at its Lakefield Junction Station in Trimont, Minnesota, Great River Energy (GREAT) turned to a GE OpFlex AutoTune package. This closed-loop solution uses corrected parameter control (CPC) and an emissions feedback signal from the site’s continuous emissions monitoring system (CEMS) to automate tuning, and to maintain low emissions and dynamic response of ambient conditions. By reducing the number of tunings, GRE was able to save about $240,000 in the first year following the upgrade.

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THE FOUNDATION FOR

GE’s Power LifeMax*

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

9EMax
The 9EMax gas turbine solution delivers game-changing performance in output and efficiency, without sacrificing the rugged reliability of GE’s 9E fleet. This technology enables output up to 143 MWs with up to 37% efficiency in simple-cycle operation, a performance leap that can help GE’s 9E customers compete with larger-block gas turbine units and slash operating costs.

Advanced Gas Path (AGP)
GE’s Advanced Gas Path is a leading example of Power LifeMax 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.

Flange-to-Flange Replacement
A Flange-to-Flange Replacement solution offers the opportunity to completely reset the lifecycle on critical units, ensuring reliability and performance for years to come. By replacing the turbine including your compressor and combustion system, this solution can deliver significant output improvements and efficiency gains.

A Flange-to-Flange upgrade can also feature combustion technologies that enable significant emissions reduction, along with maintenance interval and parts life extension.

Dry Low NOx (DLN1+)
Upgrading to a DLN1+ 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 DLN1+ 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.

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