

## DLN 2.6+ Combustion System for Frame 9FA

# fact sheet

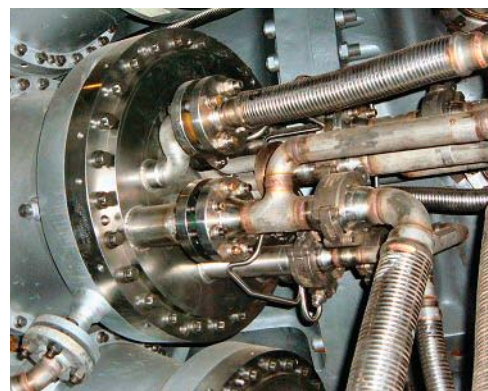
Economic and regulatory requirements are placing greater pressure on the operation of gas turbines. Higher fuel prices are driving a greater cyclic operation and increasing emission requirements are pressuring the amount of time a turbine may operate. In addition to providing lower NO<sub>x</sub> and CO emissions, the new 9FA DLN 2.6+ Combustion System from GE Energy provides increased operational flexibility for reduced cost of operation. This enhanced product builds upon decades of GE leadership and experience in the area of combustion technology. The new 9FA DLN 2.6+ Combustion System combines leading-edge technology with design innovations to deliver a product targeting as few as sub-9 ppm NO<sub>x</sub> (18 mg/Nm<sup>3</sup>). With this system, GE currently guarantees as low as sub-15 ppm NO<sub>x</sub> (30 mg/Nm<sup>3</sup>) product, over a greater load range than previous designs.

This upgraded combustion system can be installed at a combustion, hot gas path, or major inspection and increases availability through the extension of the combustion inspection interval to 24,000 hours.

With more than 10 million hours of successful DLN operation and over six million hours at or below 9 ppm NO<sub>x</sub>, GE has the experience and technology leadership to meet your emissions objectives.

### Features

- Patented combustion system
- 24,000 hour combustion inspection design
- Increased turn-down capability reduces costs
- Operational flexibility with 20 points of increased turndown while maintaining emissions guarantees
- Mark V and Mark VI solutions
- Packaging and controls changes include piping, manifold, and fuel skid redesigns, option for compliance to PED, ATEX, machinery safety, low voltage, and EMC European Union directives
- Optimized combustion liner geometry and fuel nozzle
- Tuning valves, cloth seals, dynamics reduction, and flame stability technologies contribute to the reduction of can-to-can variation and combustion dynamics
- Field tunable by controlling the fuel split to the combustion zones
- Continuous Dynamics Monitoring and Remote DLN Tuning are available as add-ons to the system



## Benefits

- Improved gas turbine emissions to as few as sub-9 ppm NO<sub>x</sub> capability (18 mg/Nm<sup>3</sup>) and as low as sub-15 ppm NO<sub>x</sub> (30 mg/Nm<sup>3</sup>) guarantee at 15% O<sub>2</sub> and 9 ppm CO (11 mg/Nm<sup>3</sup>)
  - Satisfies increasingly stringent emission regulations
- Increased turndown capability
  - Lower fuel costs, as much as \$1.5 million per year while maintaining emission compliance
  - Reduced cycling requirements in off-peak, resulting in fewer starts
  - Faster dispatch capability (because unit remains online, full load capacity can be reached more quickly)
- Maintained fuel flexibility of current product for various fuel grades
- Provides opportunities for growing NO<sub>x</sub> credit trading in 50 Hz markets
- Increased availability through extended combustion inspection interval of 24,000 hours

## Applicability

This offering is intended for model 9351 units equipped with DLN 2.0/2+ systems.

The new 9FA DLN 2.6+ Combustion System hardware is available for 9351 units and can be developed for 9311 units, depending upon market demand.



For more information, contact your GE Energy sales representative or visit [www.ge.com/energy](http://www.ge.com/energy).

©2005, General Electric Company. All rights reserved.

GEA-14358 (11/05)