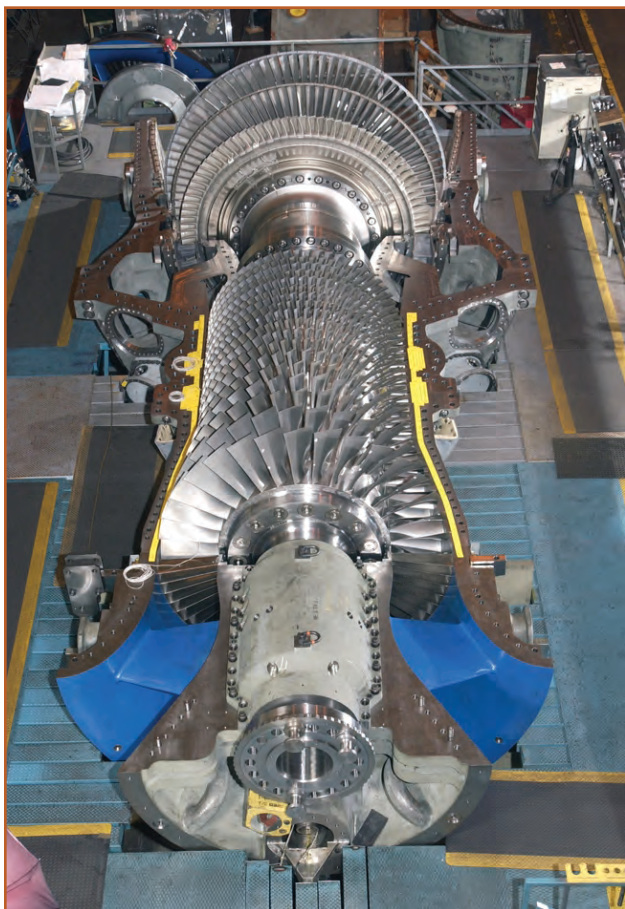


MEETING EUROPE'S STRICTEST EMISSIONS STANDARDS

GE ENERGY



To comply with Europe's strictest emissions standards, Endesa Italia, one of the largest electricity producers in Italy, turned to GE Energy's latest gas turbine emissions control technology. Shown is an F-class gas turbine similar to the units installed at the Endesa combined-cycle power plants.

On Jan. 1, 2009, the region of Lombardy in Italy will enact Europe's strictest emissions standards for combined-cycle power plants. The new requirements will limit nitrogen oxide (NO_x) and carbon monoxide (CO) emissions to 30 milligrams (mg) compared to present levels of 50 mg, for a reduction of 40%.

To comply with the new restrictions, Endesa Italia, one of the largest electricity producers in Italy, turned to GE Energy's latest gas turbine emissions control technology. As a result, two of Endesa's combined-cycle power plants in the region — Tavazzano and Ostiglia — are already meeting those standards months before they were scheduled to take place.

GE retrofitted six GE Frame 9FA gas turbines — three operating at Tavazzano and three at Ostiglia — with advanced DLN 2.6+ combustion systems and new control systems. The project has produced a 40% reduction in NO_x and CO emissions at both plants.

Each gas turbine outage was completed safely and in less than 21 days to meet Endesa's short-cycle requirements. The project teams overcame the challenges of developing a new control upgrade and replacing six enclosed fuel modules and combustion systems in parallel with the scheduled outages.

The project teams were able to successfully coordinate more than 20 000 engineering hours, the sourcing and manufacturing of more than 4000 parts, the delivery of 450 tons of materials and the supervision of 50 000 craft labor hours.

GE Energy's newest dry-low NO_x combustion system, DLN 2.6+, was developed to help power plant operators meet or exceed the increasingly stringent regulatory requirements in Europe, and elsewhere around the world. Capable of reducing NO_x emissions by 40% or more on GE Frame 9FA gas turbines, this technology has been certified under ecomagination, GE's commitment to address the need for cleaner, more efficient sources of energy and reduced emissions.

The DLN 2.6+ technology is capable of reducing combined-cycle emissions without using chemical systems, thus eliminating the possible releases of harmful chemicals into the environment. In addition to reducing emissions, the new technology also enables the gas turbine to be operated at lower power during off-peak periods, consuming less fuel and helping to reduce plant operating costs.

With the six units at the Tavazzano and Ostiglia plants, Endesa is now operating the largest GE DLN 2.6+ retrofitted gas turbine fleet outside of the U.S. GE's first two DLN 2.6+ systems were installed by AEM in Cassano d'Adda, and another system was installed by ASM in Brescia, for a total of nine systems presently operating in Italy. 🇮🇹