



## Control Optimization of the Outlet Temperature Corrected for Siemens V-Frame Gas Turbines

Trends such as population growth, climate protection and resource scarcity are expected to continue to drive considerable amounts of capital spending in order to secure safe, economical and environmentally compatible energy supplies. As part of our ongoing commitment to meet the changing requirements of your operating assets, Siemens Energy offers the latest technology to help you enhance your operating plant's reliability and perfor-

mance. Siemens gas turbines are renowned for their high availability and reliability as well as high power output at low emissions.

One of the innovative solutions offered by Siemens Energy to help you improve the performance of your gas turbine and thereby your competitiveness is the Control Optimization of the Outlet Temperature Corrected.



Successful operation subsequent to optimization of corrected outlet temperature

Performance Enhancement – Gas Turbine

Answers for energy.

**SIEMENS**

## Our product

The Control Optimization of the Outlet Temperature Corrected is a closed-loop turbine control process that uses compressor inlet temperature, engine exhaust temperature and engine speed as main control parameters for the gas turbine. These critical parameters are used to formulate a relationship to control the turbine to a corrected exhaust temperature, taking into account variations in ambient temperature and engine speed.

## Customer benefits

The Control Optimization of the Outlet Temperature Corrected can be a cost-effective means to help you improve the overall performance of your gas turbine. Benefits may include:

- thermodynamical optimization of gas turbine operation
- maximum reduction of over and under-firing
- increased reliability of hot gas path components.

## Scope of supply

The scope of this modernization includes:

- installation of fast diffuser outlet thermocouples
- improved formula of turbine outlet temperature calculation
- instrumentation and control modification.

The installation of this upgrade can be performed at a minor or major inspection. We offer a full range of field service capabilities to help you manage your maintenance and outage schedules.

The Control Optimization of the Outlet Temperature Corrected with the above mentioned scope of supply is applicable for the SGT5-2000E (V94.2), SGT6-2000E (V84.2) and V64.3 gas turbines and can be combined with other modernizations.



SGTx-2000E in service operation

## References

Siemens Energy has successfully implemented the Control Optimization of the Outlet Temperature Corrected in more than 30 units of the frame types SGT5-2000E (V94.2) and SGT6-2000E (V84.2) worldwide.\*)

\*) As of July 2011

For more information please contact your local Siemens sales representative.

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