Our top priority at Siemens Energy is to provide outstanding, responsive service solutions to help you improve your operating plant competitiveness and profitability.

As part of our ongoing commitment to meet the changing requirements of your operating assets, we offer the latest technology to help to enhance your operating plant capability and flexibility as part of Siemens Flex-Power Services™. One of our modernization products is Wet Compression.

**Our product**

Wet Compression has been a reliable and proven method of injecting water into the gas turbine inlet. Wet Compression is perfectly suited for upgrading peak load machines. A power increase can help you take fuller advantage of high peak load electricity prices and therefore offers attractive financial payback options. Wet Compression is designed to increase the power output of the gas turbine by reducing compressor inlet temperatures, intercooling the compressor and increasing mass flow throughout the turbine.

The Wet Compression provides significant performance advantages and offers attractive financial payback options.

**Your benefits**

Wet Compression can be an effective system for recovering power loss experienced at high ambient temperature. The mutual occurrence of peak load electricity demand and high ambient temperature can make Wet Compression more beneficial and economical and technical valuable.

*Answers for energy.*
Benefits can include:
- Power increase of up to 25 MW, depending on the frame and operational requirements*
- Up to 3% gas turbine heat rate improvement, depending on the frame*
- Higher exhaust energy for increased steam production
- Greater operational flexibility.

These benefits can lead to the ability to produce more power in peaking and base load operation.

Wet Compression is designed to be largely independent of the ambient relative humidity. While somewhat higher performance improvement can be available in a very hot dry climate, Wet Compression can also be effective at times of high humidity. Wet Compression is applicable for the following frames:
- SGT5-2000E (V94.2)
- SGT6-2000E (V84.2)
- SGT6-3000E (W501D5A)
- SGT5-4000F (V94.3A)
- SGT6-4000F (V84.3A)
- SGT6-5000F (W501F-FC+)

Scope of supply
Besides a comprehensive original equipment manufacturer assessment of the gas turbine and the involved power plant components, the scope of this modernization includes:
- Compressor inlet Wet Compression water distribution system with nozzles
- Inlet duct treatment
- Wet Compression pump skid
- Piping between pump skid and distribution system
- Compressor coating*
- Compressor upgrade*
- Modification of existing control logic
- Gas turbine customization (e.g. axial thrust compensation and compressor drains where applicable)

Installation and commissioning of Wet Compression can require from one to three weeks depending on plant and gas turbine configuration. We offer a full range of field service capabilities to help you manage your maintenance and outage schedules.

References
More than 45 Wet Compression systems are on various frame types in operation worldwide.

Examples include**:
- More than 35 units in the Americas
- Two units in Egypt
- Two units in Australia
- Eight units in the United Arab Emirates

We provide products and services to support your goal of maximizing your return on investment.

* Depending on site specific conditions
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