

MeeFog™ Project Profile

Gas Turbine Inlet Air Fogging

2 x Siemens V94.2 Gas Turbines - PhuMy 2.1 Extension, Vietnam



Project Summary:

Vietnam Electricity installed MeeFog™ systems on two Siemens V94.2 gas turbines. The systems provide evaporative cooling and wet compression and produce a 19.7 MW power boost, resulting in a 39.6 MW total power boost for the plant. Wet compression consists of spraying water into the gas turbine compressor. The water evaporates inside the compressor. This inter-cooling effect reduces the work of compression, which causes an increase in power output.

Project Conditions:

- Location: PhuMy 2.1 Extension, Vietnam
- Hot day conditions: 38° with 27° C wet bulb
- Elevation: Sea level
- Max power boost per GT: 19.8 MW
- Mee's scope of work: Supply of fog pump skids, nozzle manifolds, and supervision of installation and commissioning

Fog System Design:

- Evaporative cooling and 0.6% (for the air mass flow) as wet compression
- Cooling stages: 16
- Operating pressure: 2,000 psi
- Fog droplet size: 12 microns
- Nozzle flow rate: 0.17 lpm per nozzle
- MeeFog™ nozzle count: 2,048
- Max power requirement: 160 HP