

MeeFog™ Project Profile

Gas Turbine Inlet Air Fogging

2 x GE 7F.03 Gas Turbines - United States



Project Summary:

A power plant in the U.S. installed MeeFog™ wet compression systems on two GE 7F.03 gas turbines. The systems provide wet compression downstream of existing evaporative coolers, which results in a nearly instantaneous power boost of 10 MW per GT.

Wet compression consists of spraying water into the gas turbine compressor. When the water evaporates inside the compressor, the resulting inter-cooling effect reduces the work of compression, which causes an increase in power output.

Project Conditions:

- Location: United States
- Hot day conditions: 115° F with 65° F wet bulb
- Elevation: 800 feet above sea level
- Max power boost per GT: 10 MW
- Mee's scope of work: Supply of fog pump skids, nozzle manifolds, and supervision of installation and commissioning

Fog System Design:

- Wet compression downstream of existing evaporative cooler
- Fogging stages: 2
- Operating pressure: 2,000 psi
- Fog droplet size: 8 microns
- Nozzle flow rate: 0.045 gpm per nozzle
- MeeFog™ nozzle count: 780
- Max power requirement: 60 HP