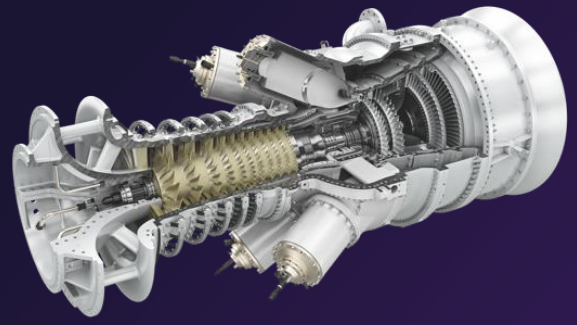
# Power Upgrade

Applicable fleet SGT-100,SGT-200 & SGT-400



Power Increase | Life-Cycle Cost | Efficiency | $CO_2$-savings

## Increase Power up to 1.5MW

$CO_2$ Up to 20,700 tons less $CO_2$ per year*

### Product Overview

Based upon accumulated operating experience and developments in technology, Siemens Energy is now able to offer power upgrade options across the portfolio including the SGT-100, SGT-200 & SGT-400 frames.
Our power upgrade solutions offers the ability to increase output up to 5.7MWe on the SGT-100, 7.68MWe on the SGT-200 and finally 14.4MWe on the SGT-400, depending on the package and site location.

### Improved Features

- Increased Power Output(Mwe) of between 0.3MWe and 1.5MWe based on ISO Conditions (limited by the capability of the driven unit and unit model)
- Potential reduction in the need to import extra power during periods of higher power demand
- Potential reduction in number of operating engines in an N+1 and N+2 situation, where a 2nd or 3rd unit may go from lower efficiency, part load, part hours, to a standby unit.

### Benefits

- This scenario results in higher efficiency and reduced fuel burn
- In a multiple unit scenario, the SGT Power Upgrade can deliver the efficiency increases identified above, but also key sustainability benefits, with a reduction in CO2, emissions and assisting customers with overall decarbonization of their processes.
- Incorporating this power upgrade in addition to already planned work-scope will maximize the benefits of this upgrade by minimizing unit down time.

### Scope of work & Implementation

- Replacement Gas Generator
- Replacement Power Turbine
- Controls changes required to manage additional power
- Identified by Siemens Energy during the quotation phase, all other key sub systems (such as the Fuel Systems, Air Inlet and Exhaust filtration) will be reviewed and evaluated to confirm acceptance of the power increase.
- Implementation of the SGT Power Upgrade is highly recommended at a major inspection, such as a “B” type on the Gas Generator or ideally a “C” type by Service Exchange, where downtime is anticipated and planned.

**Based on replacing 2 SGT-400 13MW @60% load with 1 SGT-400 15MW at full load operation*