

SeaFloat Power Plants

SGT-800 Based Solution

SIEMENS
energy



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The SCC-800 SeaFloat plant utilizes the advanced and robust industrial SGT-800 gas turbine designed for combined cycle applications with the highest possible efficiency

Short project duration

The high degree of modularized design and delivery, based on pre-assembled and pre-tested plant modules, minimizes both the manpower required at the yard and the hook up and commissioning time at final location.

Typical fields of application

New power generation installations based on liquified natural gas (LNG) and expansion of industrial applications in remote coastal areas are the most prominent SGT-800 based SeaFloat solutions. The SCC-800 is a perfect fit for the provision of baseload power to public or industrial grids in remote parts of the world.

Less project risks

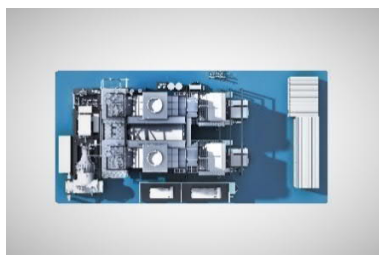
Risks resulting from brown field activities such as demolition works, site leveling activities, relocation of existing structure can be avoided by using SeaFloat power plants. Due to fabrication and assembly offsite, project progress is not dependent on availability of qualified labor and infrastructure at the final plant location. SeaFloat may also be the right choice in case land acquisition is expensive or simply not available.

Reliability and easy maintenance

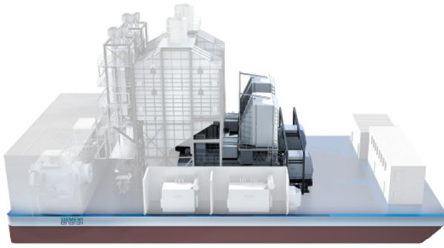
Core engine exchange within 48 hours and on-board maintenance concepts ensure highest availability.

Key benefits

- Smallest footprint of a world class combined cycle power plant
- Highest quality with low CAPEX
- Easy installations due to pre-designed solutions and plug & play concept
- Low OPEX based on easy and fast service concept
- Low emissions
- No soil risks
- High degree of flexibility on siting
- Flexible design (Barge, FSRP, FPSO or gravity-based solution GBS)
- Construction of the power plants in controlled shipyard environment with qualified labor, high erection quality and lower erection risk
- Outstanding advantages compared to reciprocating engine concepts in terms of efficiency and emissions

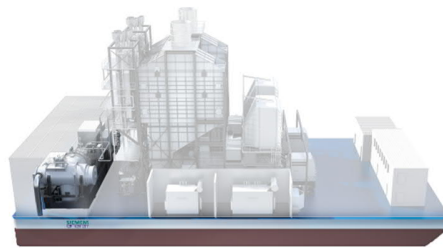


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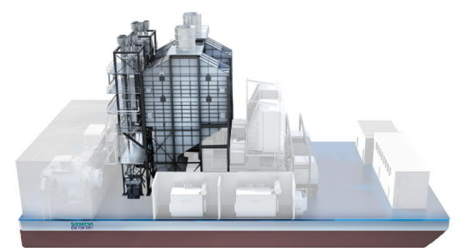
SGT-800 Package – 295 tons, 22m x 4.7m x 5.3m (length, width, height)

The 3-point mount package is a complete skid-mounted train consisting of gas turbine, mechanical auxiliaries, gear box, generator, and generator switch gear.



SST-600 Package – 475 tons, 25m x 7.0m x 5.5m (length, width, height)

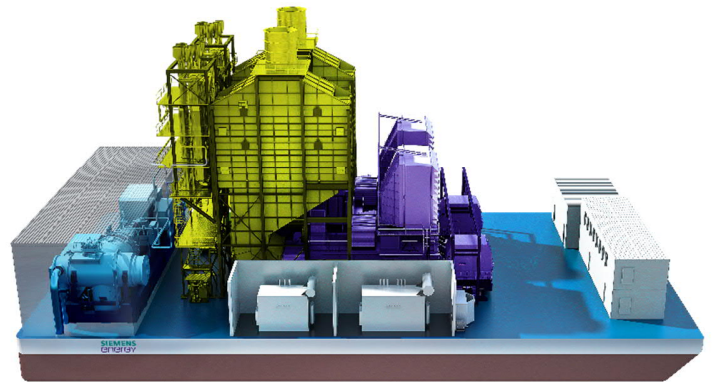
The 3-point mount package is a complete skid-mounted train consisting of steam turbine, condenser with evacuation, generator, and generator switch gear.



HRSG and Balance of Plant

The design concept of the balance of plant is based on Siemens Energy proven booster pump configuration optimized for SeaFloat applications. In-house HRSG SeaFloat design results in a harmonized overall plant concept.

	SCC-800 2x1	SCC-800 3x1	SCC-800 4x1
Gross plant output MW(e)	~147	~221	~297
Gross plant efficiency (%)	~56	~56	~56
Emissions, NO_x, [ppmV / mg/Nm³]	<25 / 51.3 @ 15% O ₂ (50-100% GT load)		
Emissions, CO, [ppmV / mg/Nm³]	<5 / 6.3 @ 15% O ₂ (50-100% GT load)		



Installed performance at:

- 25°C ambient air temperature
- 25°C sea water temperature
- 60% relative humidity
- Sea water temp. rise [°K] <10
- Gas fuel supply 30 Bar(a), 25°C, 48.6 MJ/kg LHV (Siemens Energy standard gas composition)
- At generator terminals, (transformation and auxiliary losses to be deducted)



Take a virtual walk through our SCC-800 2x1