

Clean energy-as-a-service CoGen with shares up to 60% hydrogen

Order 2019



Project Type: Industrial



Customer Challenge / Driver

Residue gas with high share of H₂, modernization of existing plant, requirement of power and steam at highest availability

Portfolio Elements

SGT-600 gas turbines, E-house, extension of existing high-voltage substation, three reciprocating compressors, advanced load-shedding system and software for plant control

Scope

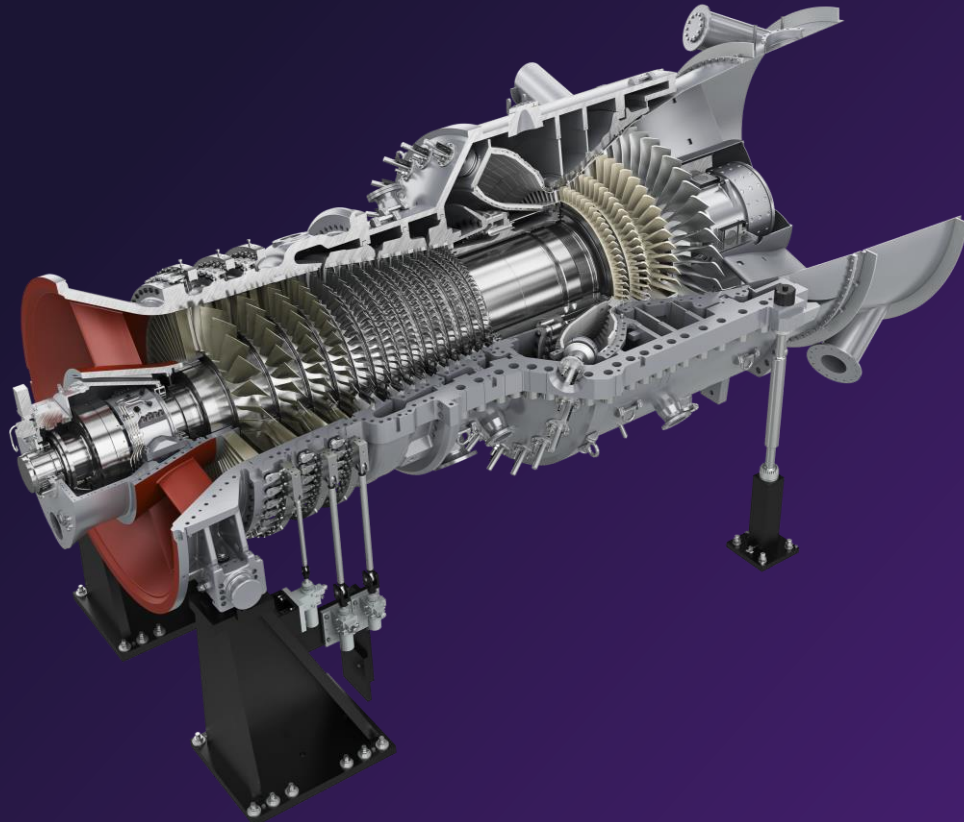
Our Role: Built-own-operate-transfer 15 year contract
Customer: Braskem – largest petrochemical company in Latin America

Customer Benefit

- 100% plant availability through redundant design
- Reduced energy use by utilizing residue gas instead of flaring
- Reduced Carbon emissions
- Energy as a service for highest customer convenience (guarantees: reliability, availability, efficiency, costs, maintenance and emissions)

Repowering of Steam power plant in Vietnam

Order 2019



Project Type: Fuel Switch & Repowering



Customer Challenge / Driver



Increase flexibility and output of existing power plant to satisfy immediate strong demand growth in environmental friendly way

Portfolio Elements



3x SGT5-4000F gas turbines, three generators, three heat recovery steam generators, related electrical equipment and control system

Scope



Our Role: Equipment provider; support for design and integration of new and existing assets

Partner/End-Customer: Hiep Phuoc / Hai Linh Corporation


Customer Benefit



- Increased output from 780 to 1200 MW
- Switch from oil to LNG
- ~50% of CO₂ emissions per kWh
- Open Cycle operation by 2021 for immediate demand
- Increased flexibility


Oil to gas switch with high efficient floating power plant

Project Start 2018




Replacement of existing Wärtsila 108 MW RICE-CC

Estrella del Mar III configuration: SCC6-800 2x1 Barge, 145 MW




Siemens is consortium lead, Power Island scope + hot commissioning in D.R.

ST Marine selected as consortium partner for design/construction of complete plant on barge in Singapore plus transportation to DR



Project start November 2018



Project Type: SeaFloat



Customer Challenge / Driver



Intensive costs for land acquisition; land scarcity, Reduce country risk, Long duration of permitting process

Portfolio Elements



SCC6-800 2x1 Barge + SIESTART Battery

Scope



Our Role: Power Island

Partner: ST Marine for Barge, Owner for site preparation

Customer Benefit



- Replace oil fired solution with new high efficient gas combined cycle technology
- More than 30% better LCoE than recipis
- Fast Primary Frequency response with BESS Solution

Embedded generation to reduce carbon emissions by 60%

COD 2018



Project Type: Industrial



2020-10-13

Customer Challenge / Driver



Coal-to-gas policy, independent from external power & steam

Portfolio Elements



Two single-shaft SGT-300 gas turbines with ISO electrical power output of 15.8 MWeI for on-site power generation

Scope



Our Role: core engine with partial auxiliaries, I&C, Guarantees, Service;
Partner: full packaging, Cabling, Local Erection

Customer Benefit



- Reduce 60% carbon emissions per year
- Reduce 24% energy consumption
- Reduce 20% energy cost per year
- Additional 38 tons of process steam (1.65MPa/204°C) p.h. for drying process
- Opportunity to sell excess power to the grid

Coal-to-Gas Switch cuts emissions into half

2017

The infographic features a background image of the Holland Energy Park building, a modern structure with a prominent red facade and large glass windows. Three key statistics are highlighted with icons: a medal for the 2016 Envision Platinum Award, a tree icon for the 26-acre site, and a group of people for the 82% commercial customer base. A call-to-action button is positioned at the bottom of the infographic.

- 2016**
Envision Platinum Award for sustainable infrastructure
- 26 acres**
total area allocated for Holland Energy Park
- 82%**
of HBPW's customers are commercial

Find out more:
[Interactive website](#)

Project Type: Fuel Switch



Customer Challenge / Driver

Aging coal plant would require huge investment to meet environmental regulation

Portfolio Elements

High efficient CHP with 2 SGT-800 gas turbine, SST-400 steam turbine, T-3000 Control System, Energy Management

Scope

Our Role: One-top shop solution: power generation, long-term service agreement, electrical equipment, control, fire-safety system

Customer Benefit

- 66% reduction of NO_x
- 50% reduction of CO₂
- World's first ISI Envision Platinum-verified energy project
- Economical coal to gas switch
- High efficient CHP, snow melt and visitor center to engage society

Reliable, affordable and sustainable power for Lomé (Togo)

Order 2020



[More information](#)

Project Type: Clean Power Supply



Customer Challenge / Driver



Increase baseload domestic power generation capacity, high efficiency for low tariff and cleaner fuels to limit env. impact

Portfolio Elements



SGT-800 combined cycle power plant 65 MW

Scope



Equipment: Gas turbine; steam turbine, DCS, HV grid connection
Service: maintenance services on GT, ST and DCS

Customer Benefit



- Meet almost 40% of Togo's power demand
- 20% less emissions compared to HFO engine plant
- Local workforce for new jobs in power plant operation
- Utilize existing gas infrastructure
- service agreement