

Wärtsilä Flexicycle upgrade



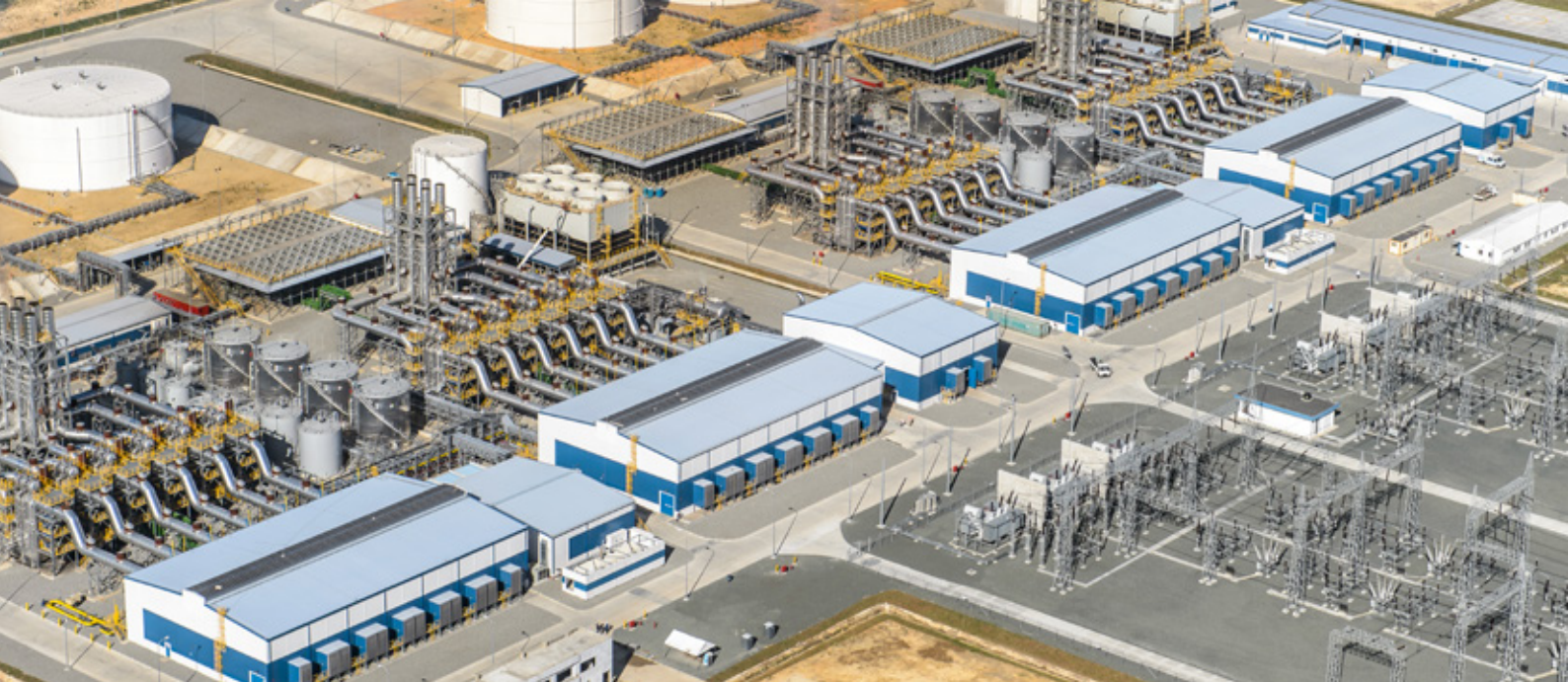
Wärtsilä's Flexicycle upgrade solution maximises the efficiency and minimises the environmental footprint of existing simple-cycle power plants. The solution improves power plant efficiency by up to 10% by producing additional electricity using waste energy from exhaust gas. This type of solution is especially useful in process industries that produce large amounts of waste energy, as well as base load power plants with Wärtsilä engines where high electrical efficiency is required.

TECHNICAL CONCEPT

The Wärtsilä Flexicycle upgrade solution combines the benefits of a simple-cycle plant with the efficiency of a combined-cycle plant based on reciprocating engines and steam turbine generators. All engines are equipped with separate waste heat recovery steam generators, which are connected to common steam turbine generator sets. The upgrade enables plants that generate large amounts of waste heat to achieve very high power efficiency while reducing the emissions per MWe produced.

KEY BENEFITS

- Increase power plant efficiency by up to 10% without increasing fuel costs
- Reduce plant environmental footprint by reusing waste energy from exhaust gas
- Ensure reliable performance and focus on your core business with a Wärtsilä Lifecycle solutions service agreement



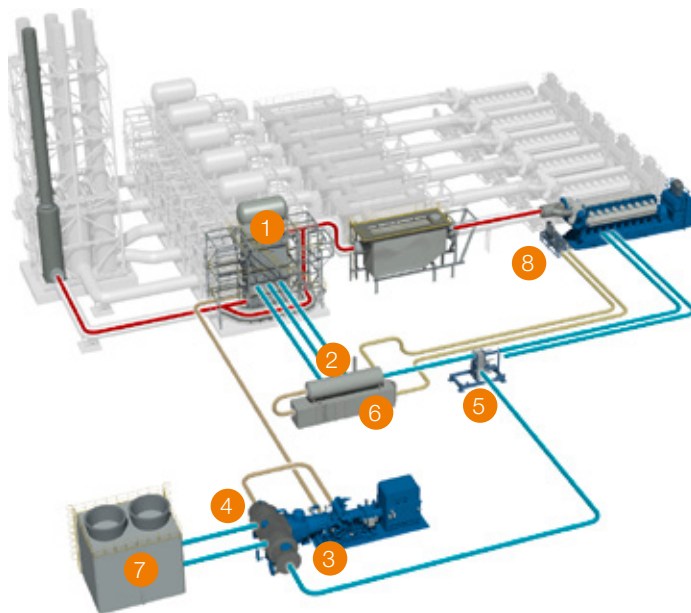
SCOPE OF SUPPLY

The scope covers the design, engineering and delivery of all main equipment, including the heat recovery boiler, steam turbine and cooling system. Prior to work beginning Wärtsilä experts will carry out surveys and feasibility studies to ensure the maximum efficiency of the upgrade.

A Wärtsilä Lifecycle solutions service agreement ensures the reliability of your installation and allows you to focus on your core business by guaranteeing performance and operational accountability.

WHY CHOOSE WÄRTSILÄ?

Our wide service network is available around the globe, with certified service engineers to carry out all installation and maintenance work. The equipment will be designed and engineered in accordance with prevailing standards and norms, such as EN, ASME and IBR. Any additional local norms or requirements will be discussed case-by-case.



Flexicycle combined cycle system

1. Exhaust gas boiler
2. Feed water tank
3. Steam turbine
4. Water cooled condenser
5. Condensate preheater
6. Heat recovery container including auxiliary boiler
7. Cooling tower
8. Engine preheater