

Energy-from-Waste Facility, Maha Sarakham, Thailand

VØLUND® WASTE-TO-ENERGY TECHNOLOGY

PROJECT CASE HISTORY



This Energy-from-Waste (EfW) facility, located in the province of Maha Sarakham in central northeastern Thailand, will feature state-of-the-art steam generation, combustion and environmental technologies from Babcock & Wilcox Renewable (B&W).

Anticipated to go into service in 2025, the plant is designed to generate electricity as well as steam for industrial use.



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Scope of Supply

B&W provided the combustion equipment and boiler design, including:

- DynaGrate® combustion
- Slag pusher
- Vølund® boiler design with multiple pass furnace, horizontal convection pass and economizer
- Water sootblowers
- Waste fuel feeder system
- Adaptive selective non-catalytic reduction (SNCR) system for nitrogen oxides (NO_x) control
- Construction and commissioning advisory services

| Plant Design Data | | |
|---------------------------------|-------------|-------|
| Process parameters | Value | Units |
| Waste capacity | 24.69 | t/h |
| Heat value (LHV) | 5.0 to 12.0 | MJ/kg |
| Maximum continuous rating (LHV) | 9.71 | MJ/kg |
| Steam output | 80 | t/h |
| Steam temperature | 440 | °C |
| Steam pressure | 60 | bar |
| Electricity (per year to grid) | 80 | GWh |

Facility Facts

- DynaGrate combustion technology chosen because of its fuel flexibility
- Waste fuel can be supplemented with refuse derived fuel (RDF)
- Plant's single line designed to process nearly 25 t/h of waste fuel
- Plant capable of generating up to 10 MW of electricity

| Plant Emissions Data | | |
|------------------------------------|---------------|--------------------|
| Process parameters | Value | Units |
| Total organic carbon (TOC) | < 3% | |
| TOC expected | < 1% | |
| Nitrogen oxides (NO _x) | ≤ 100 (daily) | Mg/Nm ³ |
| Carbon monoxide (CO) | ≤ 40 (daily) | Mg/Nm ³ |



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