

# NORDJYLLANDSVÆRKET, UNIT 3

## Plant description

The power plant Nordjyllandsværket, unit 3, is a 400 MW coal and oil-fired unit commissioned in 1998. In addition to producing power, the unit supplies heat to two district heating companies in the town of Aalborg.

The plant has been optimised with regard to high efficiency and environmental compliance. The plant has the highest electrical efficiency proved by coal-fired plants. The high efficiency has been achieved by using the most advanced technologies such as:

- Ultra supercritical steam data (290 bar/582 °C)
- Double reheat
- 13-stage condensate and feedwater pre-heating

The unit is equipped with a wet FGD unit and a NO<sub>x</sub> high dust SCR system in order to comply with current emission standards.

## Main plant data

Client:	DONG Energy, Denmark
Main contracts:	Steam turbine (GEC Alstom), boiler (FLS Miljø, Aalborg Industries and Vølund)
Electrical output:	410 MW
Heat output:	422 MJ/s
Electrical efficiency:	47%
Plant cost:	400 MUSD
Year of commissioning:	1998

## Services provided by DONG Energy

DONG Energy provided all engineering services needed except the civil engineering that was carried out by a local civil consultant. The plant was procured according to the split package approach. DONG Energy was in charge of project management, overall plant performance and the complete functioning of the plant.



**The services also comprised:**

- Feasibility study
- Conceptual engineering for total project
- Environmental Impact Assessment
- Tendering and procurement activity
- Grid connection study
- Site management services, including erection supervision and commissioning
- Quality assurance
- Overall responsibility for programme and budget

**DONG Energy A/S Generation**

Kraftværksvej 53  
DK-7000 Fredericia  
Tel. +45 79 23 33 33  
[www.dongenergy.com](http://www.dongenergy.com)

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