and day g per m

Condenser

Boiler

First ignition

BoA concept with predried lignite

June 2008

www.modernpowersystems.com

Trial run

23

2

Civil works

sound-control

Terminal voltage (kV) 27

Generator

Steam pressure (bar) 259

Number of modules (casings) 4

Type STF100

Utilisation (°C) 350/160/125

Installed capacity (MWe) 1100 gross, 1050 net

Location Grevenbroich, Neurath

Some of the gypsum will be sold to the

For flue gas desulphurisation, a wet limestone

While over 90% of the sulphur dioxide from

planned to re-use them in the power plant. The

the mines from which the lignite will be extracted.

be used together with lignite ash for backfilling

from the building sector, some of the gypsum will

The calciferous sludge from water treatment,

Raw lignite

Fluidized-

Technology for the first time in conjunction with

RWE Power is developing a drying technology

WTA technology is also proposed as part of a

13% of the total electricity.

by without subsidy.

Germany are sufficient to last for generations to

It has been agreed between the federal

ne on the energy sector, but

It is expected that German electricity demand

Australia (see

Analyses, eg by the Prognos research institute,

The federal government is pursuing the goal of

The existing Neurath plant, left, and, right,

The difference between the two plants will lie in a given

The two new plants will use a given capacity of 1150 MWe each and are already in use of over 85% capacity of Neurath.

The most striking features of the Neurath site (see

Economic improvement:

Germany’s TA Luft and supporting wind-tunnel

Backed by individual expert opinions, the impact

Looking beyond Neurath F and G RWE Power is

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WTA is a proprietary technology of RWE Power.

1000°C hot

mill-drying

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The once through steam generators each have the highest steam mass flows, supercritical systems, eg selective catalytic reduction. The high efficiency of the BoA 2 and 3 units at Neurath is just under 37 ha and less than 40% of which is used to generate electricity. Lignite needs no subsidies and represents an economic asset for the entire region. It has traditionally played an important role in energy supply: it was close to the mining area was discovered. That was back in 1975, the current lignite resources are estimated at around 100 years and the annual consumption of lignite in the surrounding area amounts to around 30 million tons. Neurath is just under 37 ha and less than 40% of which is used to generate electricity.

Environmental impacts
As well as reduced CO₂ emissions, the new units will also reduce specific SO₂, NOₓ and dust emissions. The new units are expected to reduce SO₂ emissions below 200 mg/m³, providing a 99% reduction compared with the older units. A new scrubber system eliminates any SO₂ emissions, while the high efficiency of the BoA 2 and 3 units at Neurath means that the flue-gas emission from the two new units is far lower than that of the old ones. In fact, the energy efficiency of the new units is expected to be around 43%, which is significantly higher than that of the old units. The high efficiency of the BoA 2 and 3 units at Neurath is just under 37 ha and less than 40% of which is used to generate electricity. Lignite needs no subsidies and represents an economic asset for the entire region. It has traditionally played an important role in energy supply: it was close to the mining area was discovered. That was back in 1975, the current lignite resources are estimated at around 100 years and the annual consumption of lignite in the surrounding area amounts to around 30 million tons. Neurath is just under 37 ha and less than 40% of which is used to generate electricity.

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