

## Visit to the Information Centre at the Lingen power plant site and the Lingen combined-cycle gas turbine plant of RWE Power AG

At the Lingen site in Emsland, two gas-based power plant units working in combined-cycle mode with a total electric capacity of 840 megawatts (MW) have been installed since 1974/75. Extending its Lingen power plant site, RWE Power erected a combined-cycle gas turbine (CCGT) plant with a net capacity of 876 MW that was commissioned in April 2010. The plants operate on the cogeneration principle and supply adjacent industrial operations with process steam. The new plant will be the most modern CCGT station worldwide. Thanks to its energy efficiency of 59.2 %, it has a substantially lower fuel demand than old plants, thus contributing to the preservation of resources and to the reduction of carbon emissions.

The Lingen site is also home to the 1,400MW unit of the Emsland nuclear power station. It was commissioned in 1988 and since then has been producing some eleven billion kilowatt-hours of electricity per year.

<b>Date</b>	September 24, 2010	13:30 – 17:30
<b>Minimum number of participants</b>	25 persons	
<b>Price per person</b>	20.00 Euro	
<b>Meeting point</b>	Messe Essen West, Main Entrance	

## Visit to the Coal Innovation Centre at the Bergheim–Niederaussem site of RWE Power AG

In 2003, the Niederaussem power plant site in Bergheim saw the commissioning of the world's most modern lignite-fired power station unit. It goes by the name of „BoA 1“, and RWE Power is bundling its research projects for lowering and converting CO<sub>2</sub> in this plant and its technology, turning Niederaussem into a „Coal Innovation Centre“. Examples of these projects are an advanced pilot algae plant investigating the use of CO<sub>2</sub> as a valuable raw material and a CO<sub>2</sub> scrubbing pilot plant exploring the separation of CO<sub>2</sub>. The research project „High-performance scrubber REAplus“ is set to tap opportunities for further emission reductions and a fluidized-bed drying system with internal waste heat utilization (WTA) is expected to significantly boost the efficiency of lignite-based power generation. Research and development projects are an important component in the CO<sub>2</sub> climate-protection strategy of RWE Power. Here, the Company is gaining invaluable insights that can be ported to other projects and plants.

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