



Staythorpe to get new power station

Alstom is the world leader in integrated power plant, in power production services and air quality control systems. Alstom works with all energy forms (coal, gas, nuclear, fuel-oil, hydropower, wind) and is a leader in environmental protection (reduction of CO₂ emissions and the reduction of nitrogen oxide emissions.) Alstom will provide the conventional island for the future EPR nuclear power plant in France. The Group is also developing CO₂ capture processes that could lead to commercial scale in the medium term.

The company's cleaner and safer technology is already delivering environmental and social benefits, from reducing emissions of pollutants and CO₂ in their power stations to saving energy by designing more efficient trains. They build the world's cleanest power plants using advanced boiler and steam turbine technologies and the most comprehensive range of air emissions control equipment anywhere in the industry and their UK steam turbine retrofit solutions will reduce CO₂ emissions by 1.3 million tonnes. As these infrastructures will be used for decades to come,

their innovative solutions must remain at the leading edge of technology.

The UK is a key country for Alstom – employing five thousand people in thirty locations designing and delivering solutions for the power and rail transport industries. The company have made significant investment in UK sites, where design, engineering and project management play a major part of their global operations for new equipment and service.

The 53 strong fleet of Alstom-designed, built and maintained Pendolino tilting trains are among the most advanced in the world, setting safety and speed standards on the UK's West Coast Main Line. Alstom are also working to apply CITADIS tram technology to the UK, in Dublin, and supporting Transport for London's Cross River Tram proposal.

Over the next twenty years, the UK will need to increase capacity by 20,000MW. Alstom offers a balanced portfolio of energy supply to meet this

Alstom is the global leader in power generation and rail infrastructure and sets the benchmark for innovative and environmentally friendly technologies, designing and delivering solutions now, to shape the future.

demand. They have supplied over 50% of the UK's installed generating base and provide services to all the major domestic power generators.

Alstom was previously called Alsthom after its original owners, Société Alsacienne de Constructions Mécaniques and Thomson-Houston. In 1989, the energy and transport branches of ALSTHOM and GEC merged under the name GEC Alstom.

RWE Npower announced in 2007 that it was to construct a state of the art 1650MW Combined Cycle Gas Turbine (CCGT) power station at Staythorpe, near Newark, in Nottinghamshire.

Staythorpe will be RWE npower's lead CCGT project as it is an ideal site to deliver the new generating capacity now required by the UK, with Section 36 consent, a gas pipeline and other infrastructure already in place.

The new power station will bring £600m of investment to Nottinghamshire, over eighty long-term high quality jobs and a significant ongoing contribution to the local economy.

Tim Calver, Staythorpe Power Station Project Manager said, "Staythorpe will be a modern highly efficient power station and will produce less than half the CO₂ per unit of electricity than an existing coal station. The investment will bring long term benefits to the area and RWE npower is committed to investing in educational schemes to ensure that local people and businesses can benefit from the power station."

Staythorpe Power Station will be a compact facility located on a brownfield site which housed the two previous coal stations. RWE npower received planning consent for Staythorpe in 1993 and began construction in 1998. Construction was put on hold in 2000 as UK Generators had developed enough

power stations to fulfil the electricity demand at the time.

The power station will comprise four generating units, each around 400MW, with the combined ability to generate enough power for almost two million homes, or the whole of Nottinghamshire.

Engineering firm Alstom has been appointed as main contractor and the first unit is expected to be operational by 2010.

The Staythorpe power plant is a part of RWE's plan to renew its generation portfolio with new more efficient and more environmentally friendly plants. According to Andrew Duff, Group Chief Executive Officer of RWE npower, "The investment in this new power plant to be built by Alstom will put us on track to reduce the amount of CO₂ we emit per unit of power generated by one third by 2015 compared to 2000, and by one half compared to 1990 levels."

The Staythorpe power plant will comprise four combined-cycle units, each including one advanced class GT26 gas turbine with high operational flexibility and lowest in-class emissions, one compact, state-of-the-art reheat steam turbine, one high efficiency hydrogen-cooled TOPGAS generator and one triple pressure reheat heat recovery steam generator (HRSG).

Furthermore, Alstom was awarded a contract to provide operation and maintenance support to the station up to the first major inspection of each machine, as well as a Long Term Spare Parts Agreement for the first twenty years of plant operation. Additionally, in the past eighteen months, Alstom has been awarded EPC and service contracts for combined-cycle power plants in the UK from Centrica (Langage, 885 MW) and from

E.ON UK (Grain 1,275 MW).

Alstom has a strong presence in the UK with 4200 people based at thirty locations. They are a major supplier of products and services to the rail transport and power generation industries.

Under Alstom's 'Plant Integrator' strategy, the company's extensive expertise in product technology, customer insight and project execution allows them to provide turnkey solutions for coal, gas and hydro power stations. They have also supplied conventional island equipment for 30% of the global nuclear power stations and their designs are compatible with the major reactor designs.

Alstom are helping to reduce CO₂, NOx and SO₂ emissions through the retrofit of higher efficiency steam turbines and the installation of dedicated co-firing biomass plants and Flue Gas Desulphurisation (FGD) equipment. The company is firmly established as the market leader in servicing power generation equipment and are playing their part in "keeping the lights on" in the UK.

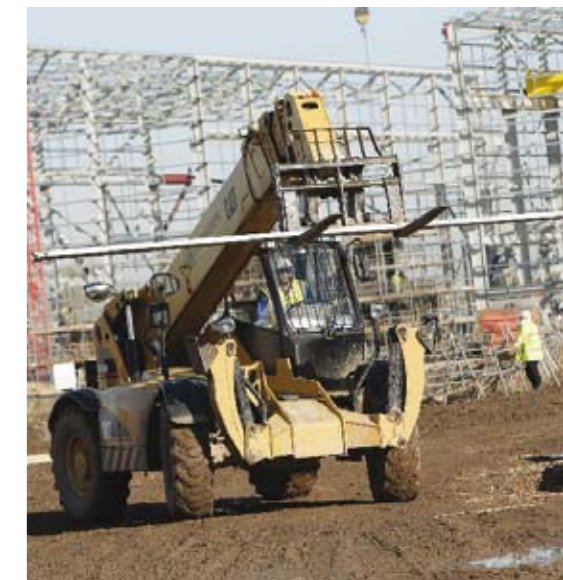
The company's service provision extends from fossil-fuelled, to nuclear, to hydropower generating plants. Alstom currently have twelve Long-term Service Agreements, including Operation and Maintenance (O&M) contacts at power and industrial plants across the UK.

The company built much of the current fleet of metro cars running on the London Underground and today provide maintenance for the Jubilee and Northern Line fleets. In co-operation with their European centres of manufacturing excellence, they completed the Jubilee Line fleet extension, providing customer Tube Lines with four extra trains and integrating an extra 7th car into each of

the existing 59 trainsets.

Alstom led an integrated joint venture in a timely delivery of system infrastructure for the final section of the High Speed 1 project, which sees Eurostar services from Paris arriving at the new St Pancras terminal in London. The work involved the installation of forty kilometres of double track, half of which is in tunnels, the overhead lines, system integration tests and commissioning.

In signalling, Alstom has established a joint venture with Balfour Beatty to supply all-round signalling expertise to better serve its customers. The partnership is currently responsible for contracts with Network Rail worth some €100 million.



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