

Tees Valley Renewable Energy Facility





Air Products Tees Valley Renewable Energy Facility

Air Products is proposing to develop a 49MW power plant on Teesside. It will be located on industrial land, known as the Reclamation Pond site, adjacent to the North Tees Chemical Complex near Billingham.

The proposed facility would use advanced gasification technology to provide renewable electricity for up to 50,000 homes in the North East. The project will create between 500 and 700 jobs during its construction and 50 permanent jobs once it enters commercial operation.

The proposed plant would divert non-recyclable waste (ie household, commercial and industrial waste left over after recycling) from landfill and offer an environmentally-friendly solution for the production of electricity. Longer term, this plant has the potential to generate a renewable source of hydrogen for commercial use, for example to fuel public transport.

Who is Air Products?

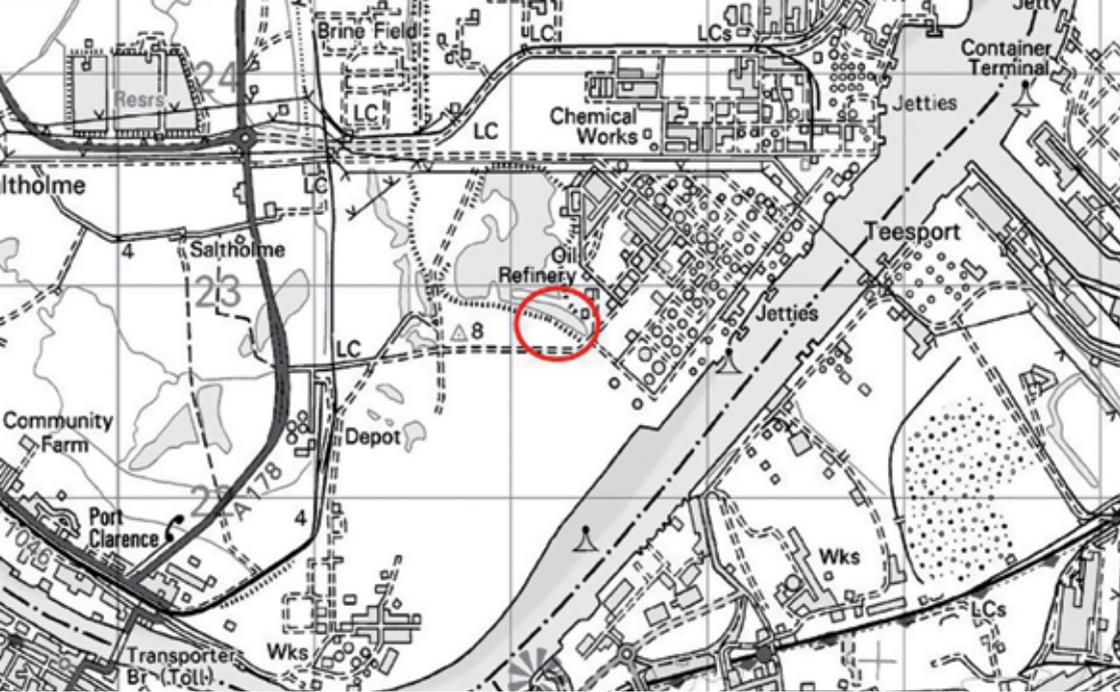
Air Products serves customers in industrial, energy, technology and healthcare markets worldwide with a unique portfolio of atmospheric gases, process and specialty gases, performance materials, and equipment and services.

Founded in 1940 in the USA, Air Products has built leading positions in key growth markets such as semiconductor materials, refinery hydrogen, home healthcare services, natural gas liquefaction, and advanced coatings and adhesives.

Air Products' company headquarters are located in Pennsylvania's Lehigh Valley, near Allentown, USA, with European headquarters at Hershham, Surrey. We currently employ 18,900 people around the world and more than 2000 people in the UK. We have operated in the UK for over 50 years and have been a local employer on Teesside for over 40 years.

Wherever we operate, we have a strong commitment to the environment, safety and the communities within which we operate. More details can be found on our website www.airproducts.co.uk/SocialResponsibility





Proposed location – the Reclamation Pond site.

Working with us

Air Products is working with local company – Impetus Waste Management. Impetus was formed in 2003 to acquire the landfill business of ICI and manage 900,000 tonnes of waste per annum to fill and restore the Bran Sands and Cowpen landfill sites.

Our proposed renewable energy facility has also received support from Regional Development Agency, One North East.

Why Teesside?

When choosing the location, we took many factors into consideration, with the Reclamation Pond site offering significant benefits:

- Industrial land, set away from local housing and close to a major industrial complex
- Good access and connectivity to the local and national electrical distribution infrastructure with excellent road and rail links
- Designated site with planning permission for plant and energy generation
- Close proximity to the landfill disposal facilities owned by Impetus Waste Management Limited

How will the proposed facility work?

The proposed facility will generate power for up to 50,000 homes in the region by using household, commercial and industrial waste. Using this waste, the majority of which would otherwise be headed for landfill, advanced gasification technology will be used to convert waste into power:

- Waste will be collected from homes, businesses and industry by your usual service provider in the usual way – waste that cannot be recycled will be processed and then delivered to the Air Products facility
- Waste is fed into the enclosed gasifier and combusted at a very high temperature using plasma technology. Emissions are reduced due to the high temperature used in the process
- Waste is converted into a gas, called syngas, and a by-product, vitrified slag
- The syngas is treated, cleaned, and then used in a combustion gas turbine to generate electricity
- The non-organic by-product (slag) can be recycled, for use in road bedding and other construction based applications
- In the future, the plant has the potential to produce renewable hydrogen



Graphic showing reception facility of proposed plant.

*Illustrations are indicative only and subject to change following engineering design and consultation

The Air Products facility will be one of the first advanced gasification plants of this size in the UK, using technology already used in other countries and proven as an efficient and environmentally friendly way of producing energy from waste.

With this project, the North East would be better positioned to lead the way towards the sustainable production of energy from waste in the UK.



The need for renewable energy

Air Products Tees Valley facility will produce electricity for up to 50,000 homes and help diversify the UK's energy mix with new sustainable energy solutions.

The need for this type of renewable energy is increasingly being driven by national and international strategies to decarbonise our economy and reduce greenhouse gas emissions. In addition to providing a renewable energy solution, the proposed facility will also reduce the amount of landfill and incineration. As the UK generates increasing quantities of waste, using landfill sites for disposal is becoming costly, inefficient and unsustainable. Incinerating the waste we produce can also have negative environmental impacts.

The Air Products facility is expected to process between 300,000-350,000 tonnes of waste per year, providing a sustainable alternative for waste that would otherwise be destined to become landfill. The technology that will be used at the plant also has advantages over incineration as fewer pollutant gases are produced.

The benefits

As well as creating an environmentally sustainable solution to power generation and waste management, the facility will provide a number of socio-economic benefits to the region over its lifetime. Some of these benefits include:

- Industry investment in the area (for a period of at least 20 years)
- Employment of around 500-700 people during the facility's construction
- Creation of around 50 direct, permanent jobs for ongoing operation and maintenance of the facility
- Potential opportunities for local suppliers
- Increased "green technology" jobs in the North East boosting the region's reputation as a skilled technology hub
- Help the region reach renewable energy targets by reducing landfill, saving local resources.



Next steps

Air Products Tees Valley renewable energy facility requires planning approval from Stockton Borough Council and an environmental permit from the Environment Agency. Air Products is wholly committed to making information available and sharing our plans with the local community and key organisations, such as the Environment Agency and Natural England.

We have already prepared an Environmental Scoping Report to identify the scope of the information we will need to complete our future planning application.

An integral part of the development and planning process is a detailed environmental impact assessment (EIA). This will be carried out by consultants (Atkins) in accordance with local planning policy, government legislation, statutory guidance and best practice. The EIA considers a range of issues including air and water quality, emissions, noise, local ecology and transport.

These documents will be found on the project website www.airproducts.co.uk/teesvalley as they become available and will form a main part of the planning application that will be submitted to Stockton Borough Council.

Listening to your views

We will be hosting a public exhibition to give the local community the opportunity to learn more about the project and give us your comments. Dates and venues of the exhibitions will be communicated once they have been arranged and will be published on the website and in the local media.

We are aiming to submit a planning application to Stockton Borough Council in the final quarter of this year and this will be open to public consultation as per the council's guidelines.

If we secure planning consent, construction can begin in 2011 with the facility open for commercial use in late 2013/early 2014.

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