Brunner Mond

An essential role in everyday life

Brunner Mond

Working with our Sustainable Energy Plant partners

Brunner Mond is developing its proposal for a Sustainable Energy Plant with E.ON, one of the UK's leading power and gas companies, generating and distributing electricity, and retailing power and gas. E.ON is part of the E.ON Group.

The company is a market leader in combined heat and power, providing its UK customers with around 600MW of electricity and more than 1,000MW of heat at 13 sites across the country, including operating Brunner Mond's existing gas-fired CHP (combined heat and power) plant at Winnington. E.ON produces enough electricity for around eight million homes through a portfolio of renewable, coal, gas and oil-fired projects.

E.ON has a strong track record in developing, building and operating sustainable energy plants to the highest technical and environmental standards. The company has a portfolio of plants in operation or under construction in Germany, the Netherlands and Luxembourg that are broadly similar to the one proposed for Lostock.

Brunner Mond is also working with RPS, an international consultancy providing advice in relation to the design, planning and consenting process for the Sustainable Energy Plant and managing the Environmental Impact Assessment process.

Keeping YOU informed

At Brunner Mond, we are committed to sharing our plans with the local communities that surround our sites and we will work with residents and other stakeholders throughout the development of this project.

We will be keeping you informed of progress on our proposal - there will be further public information and exhibitions, with opportunities for you to tell us what you think. Remember, your opinions count and will form part of our assessments around design, health and traffic issues.

The next community information exhibitions will be held early next year – please look out for information about dates in the Northwich Guardian. At these events, we will be able to give you more up-to-date information on how the proposal is progressing and give you another opportunity to tell us what you think about our proposals.

Meanwhile, our dedicated website will be updated regularly, and we will be happy to talk to local groups about the plans.

What happens next?

We are at an early stage in the development of our proposal to build a Sustainable Energy Plant at Lostock.

Decisions on plans for an energy plant of this size are made by the Department for Energy and Climate Change (DECC) and the planning process follows a different path to other planning applications.

A 'scoping report' has been submitted to DECC and local authorities for consideration. Their responses will establish what should be studied in the Environmental Impact Assessment and what should be included in the Environmental Statement.

Contact us

If you would like to contact us to ask a question, comment on our proposals or find out more, you can:

- visit our website at **http://sustainableenergy.brunnermond.com**
- email us at sustainable.energy@brunnermond.com
- call our information line on **0845 077 3801**
- write to us at Sustainable Energy Plant, Brunner Mond, Mond House, Winnington, Northwich, Cheshire CW8 4DT

Brunner Mond plans environmentally sustainable energy supply for Lostock site

Brunner Mond, one of Northwich's largest employers, is looking into the possibility of building a new Sustainable Energy Plant at Lostock.

The proposed new plant would be built on the site of the disused power station in Griffiths Road. It would be powered by a non-hazardous, solid fuel made from pre-treated waste that would otherwise go to landfill, and potentially some biomass (plant-derived materials).

Unlike other power plants, a Sustainable Energy Plant would produce energy in ways that reduce the production of greenhouse gases, by reducing methane release from landfills and reducing the need to burn expensive, climate-damaging fossil fuels.

Highly efficient

As a major energy user, Brunner Mond is keen to reduce its reliance on fossil fuels such as gas. Managing Director, John Kerrigan, said: "We hope to do this by building a highly efficient energy plant that will produce around a third of our business's heat energy from a sustainable fuel.

"Brunner Mond employs around 500 people and we are one of the world's leading producers and suppliers of soda ash and sodium bicarbonate – so maintaining an efficient and sustainable energy supply is important to the future success of our business."

The new Sustainable Energy Plant would be developed and operated in partnership with energy company E.ON. It would use approximately 600,000 tonnes of fuel per year to produce up to 60MW of electricity and around 100 tonnes per hour of steam.

Early stages

The solid fuel for the plant would be delivered to the site by rail and road in bulk transporters, pre-treated and ready for use. Brunner Mond would not have any involvement in processing the fuel.

Mr Kerrigan added: "We are still at a very early stage in the development of our proposal and assessing how we can take our idea forward. But local people can rest assured that we will communicate fully with them and carry out the appropriate consultation and regulatory processes.

"The development of this proposed facility demonstrates Brunner Mond's commitment to maintaining the longer term competitiveness of our business and our ability to continue to contribute to the local economy."

Lostock matters

Over the years, Brunner Mond's Lostock site has been a place of invention, innovation and constant development.

Our proposal to build a Sustainable Energy Plant on the site is the next step in helping to ensure its future.

Brunner Mond bought the site from Bowman Thompson and Company in 1900 and closed it down for seven years for reconstruction. In 1907, the new plant started up, making around 60 tonnes of soda ash a day.

By 1926, soda ash production had gradually increased to an average of 800 tonnes a day, and all Brunner Mond assets became part of ICI – the chemical giant of British industry.

But many years of growth and prosperity were followed by a decade of under investment and in 1991, ICI divested to a consortium of financial investors and the soda ash business reverted to its original company name – Brunner Mond.

An important player

Since then Brunner Mond has invested heavily in the company, which is now an important player in an industry facing challenging times – we are the UK's only manufacturer of soda ash, a material that is vital in the production of everyday essentials, such as glass and detergents.

Managing Director, John Kerrigan, said: "Energy concerns are among the main issues for the industry and like every other sector, we have to play our part in meeting national energy reduction targets.

"And we can help tackle climate change by reducing our carbon footprint and using renewable energy sources. As a business, we are committed to helping the UK meet its renewable energy targets by adopting sustainable practices."

Looking ahead

Brunner Mond's production processes are very energy-intensive and require a large amount of steam. Every year 2.5TWh (terawatt hours, or 2.5million megawatt hours) of heat energy is required to run our business.

The Lostock site currently relies on energy from the existing E.ON-operated, gas-fired combined heat and power plant (CHP) plant at Winnington. But the supply of North Sea natural gas is dwindling and experts predict the UK is facing an 'energy crunch' within the next decade. High reliance on gas imports and predicted fluctuations in price for all fossil fuels highlight the need for industry to find alternative and sustainable sources of energy.

Our proposals are environmentally sustainable because we would use renewable resources, rather than natural resources - or fossil fuels - such as oil or gas. We can use both the electricity and the steam produced by the Sustainable Energy Plant, making it a very efficient use of resources.

A fuel for the future

When we talk about 'solid' fuel generally, most people still imagine they are talking about coal or coke.

But the solid fuel used so successfully in sustainable energy plants like the one proposed for Lostock is made from waste materials - after all the economically viable recyclables have been taken out - that would otherwise go to landfill. The 'energy recovery' process takes these materials and uses them to produce clean, sustainable power. Even the residual material left at the end of the process has value - for example, some residues can be used in the construction industry.

Brunner Mond's proposed Sustainable Energy Plant would use solid fuel derived from pre-treated waste that is supplied from waste treatment and biomass facilities. It would use approx 600,000 tonnes of fuel per year, to produce up to 60MW of electricity and around 100 tonnes per hour of steam.

The non-hazardous fuel would arrive at the new plant ready for use, with recyclables such as metal and glass removed, from waste treatment facilities in the North West and further afield.

The benefits of a new Sustainable Energy Plant

A new Sustainable Energy Plant at Lostock would bring a number of benefits. It would:

- help maintain Brunner Mond's long-term efficiency and competitiveness
- reduce Brunner Mond's reliance on climate-damaging fossil fuels
- help reduce Brunner Mond's carbon footprint
- help meet our energy needs by using materials that might otherwise go to landfill
- meet UK government and European best practice to recover energy from non-recyclable material for use in heat and power schemes
- supply renewable energy to the National Grid
- create new jobs – around 50 people would be needed to operate the new plant.

Did you know?

Renewable energy is a source of energy that can never be exhausted. It includes:

- the 'energy from waste' (EfW) or 'energy recovery' process, which takes materials that would otherwise go to landfill and uses them to produce clean, sustainable power
- biomass, which is plant-derived material

The large-scale use of non-renewable resources, such as coal, oil and gas, will meet the needs of the current generation. But supplies of these fossil fuels will not last forever - once we have burned them all, there are no more. So we need to use resources more efficiently and that is why businesses such as Brunner Mond now want to switch to using renewable energy

- a 60MW power station, such as Brunner Mond's proposed new Sustainable Energy Plant, can produce enough energy for 45,000 homes
- waste is an excellent fuel and there is an abundant supply of potential fuel for a Sustainable Energy Plant.
- using waste-derived fuel as a replacement for fossil fuels results in lower climate-damaging emissions of CO_2 and methane
- around 50% of domestic waste in the UK consists of biomass – plant-derived materials
- in the UK, methane emissions from biodegadable waste in landfill account for 40% of all methane emissions, and three per cent of all our greenhouse gas emissions.
- as a greenhouse gas, methane is 23 times more damaging than carbon dioxide. Using pre-treated waste as a fuel prevents these landfill emissions and means we use less fossil fuel to generate our power.

New power to fire our business

A key consideration of any proposal of this nature is how the fuel would be transported to the plant.

The pre-treated solid fuel would be delivered to the site in bulk containers, either by rail or road. Brunner Mond would not be involved in collecting or processing the waste material for the fuel – so no roadside refuse collection vehicles would deliver to the plant.

Road access would be via the Griffiths Road main site entrance, but our intention is that most of the fuel would be transported to the facility preferentially by rail directly into the Brunner Mond site – just as many of our raw materials, including limestone from Buxton, are currently delivered to both the Lostock and Winnington sites by rail.

Traffic assessment

The number of vehicles required to transport the fuel to Lostock depends on how much of the fuel can be brought in by rail. The detail has not yet been worked out. A full traffic assessment is underway.

Once it has arrived on site, the fuel would be unloaded into a covered storage area, which would be kept at reduced atmospheric pressure, compared to the air outside, to prevent any odours escaping.

The core of the plant would be the combustion grate, which would be designed to ensure the efficient and complete combustion of the fuel while minimising the creation of polluting gases that are treated in a state-of-the art flue gas treatment plant.

Strict environmental standards

The heat released by the combustion of the fuel would be recovered in a water tube boiler, and the high-pressure, superheated steam produced by the boiler would be fed to a pass-out condensing turbine linked to an air-cooled condenser. Steam passed out from the turbine would be used efficiently by Brunner Mond's energy intensive processes.

Additionally, electricity would be generated by the turbine. The plant would consume up to 10% of the electricity produced by the process and the balance would either be used directly by Brunner Mond, or exported to the National Grid.

The facility would be regulated and monitored by the Environment Agency to ensure that it operates in accordance with strict legislation and environmental standards.