



February 2013

Blackburn Meadows News

All the latest news from Blackburn Meadows Biomass Renewable Energy Plant

Computer generated image of Blackburn Meadows

Community news

As we mentioned, we want to be a good neighbour and support local communities as much as possible. Here are just a few of the things we've been doing lately.

Energy Counts

In partnership with Action for Children, a national charity supporting vulnerable and neglected children and young people, we've developed a programme called 'Energy Counts' - designed to help them and their families find practical ways of saving energy and money. We've also supported four themed fun days at Action for Children centres, where families got to enjoy a free fun day out.

It's elementary my dear Watts-on

In partnership with Sheffield City Council and with the help of Sherlock Holmes and his trusty sidekick Doctor Watts-on, we delivered a range of activities for local schools, helping to make energy saving fun, whilst getting across important messages. The activities included an interactive play for primary school children called Town of Total Darkness, which shows them what the future could look like in a world without energy. So far we've visited 10 local schools, entertaining over 800 students.

If you'd like to find out more, you can e-mail Billie-Jean Poole on billie.poole@eon-uk.com

We're here to help

You're always welcome to get in touch with us about Blackburn Meadows. You can email blackburnmeadowsenquiries@eon-uk.com, call us Freephone on 0800 051 7495, or write to us at FREEPOST E.ON UK.

If you'd like to receive this newsletter in another language, please call us on 0800 051 7495 or email blackburnmeadowsenquiries@eon-uk.com

Ak by ste chceli dostávať tento spravodaj v inom jazyku, prosím, zavolajte nám na 0800 051 7495 alebo pošlite email blackburnmeadowsenquiries@eon-uk.com

اگر آپ اس خبر نامے کو کسی دوسری زبان میں حاصل کرنا چاہتے ہیں تو براہ مہربانی ہمیں 0800 051 7495 پر فون کریں یا blackburnmeadowsenquiries@eon-uk.com پر ای میل کریں۔

Welcome to our first newsletter of 2013, designed to bring you up to date with what's been happening at Blackburn Meadows

Inside this issue, you can find out more about biomass and how it produces electricity, together with news on our range of community projects. We really want to be a good neighbour and we're getting involved in community life in a number of useful and exciting ways.

As you may know, we're building the plant on the old Tinsley Towers site, next to Meadowhall Shopping Centre. Construction is nearly half way through and we're on track to finish in 2014.





Fuel store



Stair tower and boiler building

The highlights so far

If you've spotted work going on at the site you may be wondering what everything is. The most eye-catching feature is probably the plant's black stair tower, which will be used to access the boiler. The blue and orange steelwork belongs to the boiler building itself and the steelwork is now nearly complete. We're also building a fuel store to house the recycled waste wood (biomass) before it's turned into electricity.

When it opens, Blackburn Meadows will produce up to 30 megawatts (MW) of clean, safe, renewable energy. That's enough to power 40,000 homes!¹ On top of that, it will also lower harmful carbon dioxide (CO₂) emissions by over 80,000 tonnes every year,² the same as taking 20,000 cars off the UK's roads.

¹ Based on an average annual household energy consumption of 4,700kWh (Source DECC).

² Based on the Digest of UK Energy Statistics 2007 and an estimated availability of 90% operational capacity.

Timeline

Early 2013

Construction will continue on the boiler (this is where the recycled waste wood will be fed into the furnace to generate steam) together with the fuel store and conveyors, which will transport the recycled waste wood into the boiler.

Spring 2013

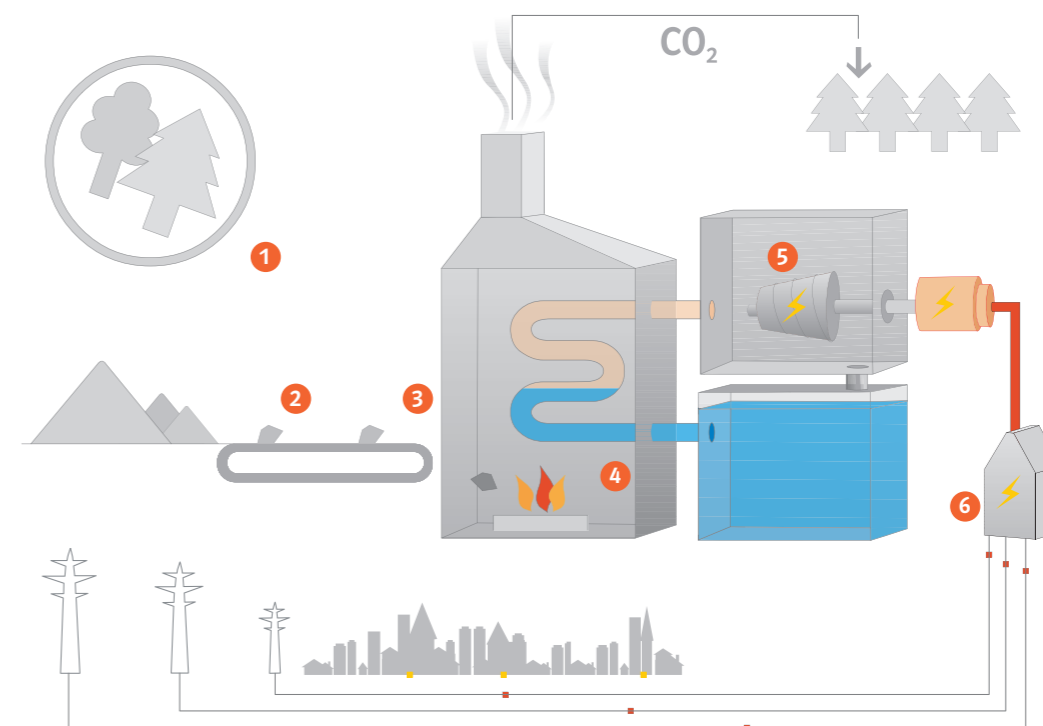
Work will start on installing the turbine, which will be turned by steam to make the generator spin and produce mechanical energy. This is then turned into electrical energy.

Winter 2013/2014

The plant will start generating power.

Summer 2014

The test phase will be complete and Blackburn Meadows becomes fully operational.



What is biomass?

In a nutshell, biomass is any natural material from a renewable source, including recycled waste wood, sustainable forestry and specially grown energy crops like willow.

Why do we need it?

Many of the UK's traditional energy sources, like coal and natural gas, are dwindling and we need to find new ways of producing the energy we need. Renewable energy sources like biomass will help us do this, whilst helping to protect the environment and tackle climate change. According to the Government's Renewable Energy Strategy, biomass could produce a quarter of the UK's renewable energy needs by 2020.

Blackburn Meadows has been designed to use around 200,000 tonnes of locally sourced recycled waste wood every year. We'll never use any hazardous waste for fuel, only recycled waste wood that's safe to burn.

How does it produce electricity?

- 1 Recycled waste wood, which would normally be taken to landfill, is chipped off site.
- 2 The waste wood is collected and taken to the plant.
- 3 At the plant, the fuel is fed into the boiler furnace.
- 4 The heat from the furnace is used to boil water, which generates steam.
- 5 The steam turns the turbine, which is connected to the generator. The generator spins and produces mechanical energy, which is then converted to electrical energy.
- 6 The electricity then goes to a transformer, which increases the voltage before it's fed to the national grid network.

Did you know?

Biomass is a renewable source of energy because it's carbon neutral. When the recycled waste wood is burnt, it releases the same amount of CO₂ as the tree absorbed when it was growing.