



KENT RENEWABLE ENERGY BIOMASS CHP

GENERATING



OF GREEN
ELECTRICITY

SUPPLYING



HOMES WITH
ENERGY

SAVING OVER



TONS OF CO₂
A YEAR

“

Our biomass power plant is one of about 20 similar sized plants that are operating or under construction in the UK, all of which seek to protect the environment by generating clean and safe forms of heat and power from local renewable wood fuel sources which will never run out - producing little waste and saving over 100,000 tonnes of polluting CO₂ every year.

”

Welcome to the community newsletter for the Kent Renewable Energy Biomass Combined Heat and Power Plant. This and future newsletters will aim to keep you up to date with all the latest activities, events and information on how our power plant is progressing. We are looking forward to being able to generate clean, green heat and power later this year.

Our biomass power plant is one of about 20 similar sized plants that are operating or under construction in the UK, all of which seek to protect the environment by generating clean and safe forms of heat and power from local renewable wood fuel sources which will never run out - producing little waste and saving over 100,000 tonnes of polluting CO₂ every year. Our 27MW biomass power plant is currently under construction on the Discovery Park Science Park in Sandwich, Kent. The plant will generate enough green electricity to supply 50,000 homes, around 15-20% of which will be supplied directly to tenants of Discovery Park. The power plant will also generate steam that will be used to provide green heat and process steam to Discovery Park's tenants. We are now reaching the exciting time when the plant will start to be commissioned so you may see and hear some activities that you are unfamiliar with. This newsletter aims to explain some of these. If there are questions we do not answer, we will be happy to hear from you, just send them to info@kentrenewableltd.com

	2016		2017				2018		
	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
WORK AT THE SITE									
Site Clean-up	■								
Piling & Foundations	■		■						
Delivery of main components			■						
Onsite assembly of components			■						
Cold Commissioning						■			
Hot Commissioning							■		
Grid connection live									●
PREPARATION FOR OPERATION									
First steam test									●
First synchronisation									●
First Power to grid									●
Full commercial operation									●

Project Timeline - Tentative/Indicative project timeline for information purposes only – subject to change.

Who are we?

We are Kent Renewable Energy Ltd. and we have brought together a highly-experienced team to develop and build the power plant. Experts in their own fields, every partner has significant experience in all aspects of making such a complex project a reality.

We are owned by Copenhagen Infrastructure II K/S, a Danish infrastructure fund which specialises in the development of and investment in, renewable energies. Our power plant is being built by Danish company Burmeister Wain Scandinavian Contractor (BWSC), who will also operate and maintain the plant once it is built. The wood fuel will be sourced and delivered by Euroforest Ltd, a leading provider of harvesting and marketing services to the UK forestry industry which is based in Hampshire.

What type of biomass are we using and where will it come from?

We will use locally sourced wood fuel to generate heat and power from our biomass power plant. The South East of the UK used to be the home of a number of paper mills that provided a commercial market for local forestry, it also used to be the centre of home grown fencing materials in the UK. Much of that industry has now closed and we hope that by building our power plant here we will provide a new, significant and reliable local market for low grade wood that can otherwise be difficult to make use of. This will make woodland management in the area and across the south east more economic, helping local wood producers to diversify, bringing more woodland back into active management and so also supporting the production of higher quality wood and coppice.

As the south east is so densely populated it is often not associated with woodland areas, however there are in fact 790,000 acres of woodland in the region, with less than half of this being actively managed today. This leaves around 430,000 acres without an economic use and therefore no long-term management plan. These woodlands represent a huge opportunity in terms of carbon balances, biodiversity management, employment opportunities and productive potential. An opportunity that we hope can be realised through our biomass power plant, halting the decline in forestry management and traditionally coppiced woodland in the area and fostering the jobs and wildlife these complex woodland systems support.

What's happening now?

We're very excited as there is not long to go before our biomass power plant is ready. We have completed some of the log stores and started receiving wood on the 3rd January. The remainder of the log stores need to be completed to receive the rest of the logs; the roads and weighbridges also need to be completed to bring the logs on to the site. There is still some auxiliary pipework associated with the boiler and turbine to be attached, and the electrical and control cabling which powers the various parts of the site also needs to be finished.

Once the pipework is completed, a final pressure test to ensure the integrity of the system will be undertaken. This test is witnessed by an independent authority to certify that it complies with the various legislative requirements for high pressure systems. These will take place on 17th February and 1st March for two different parts of the system, then the boiler will be filled with water ready for hot commissioning of the plant.

How is our biomass power plant commissioned?

Commissioning will take place in two phases, cold and then hot commissioning. Cold commissioning is currently underway with more work being carried out early in the new year. In January, the internal tubes will

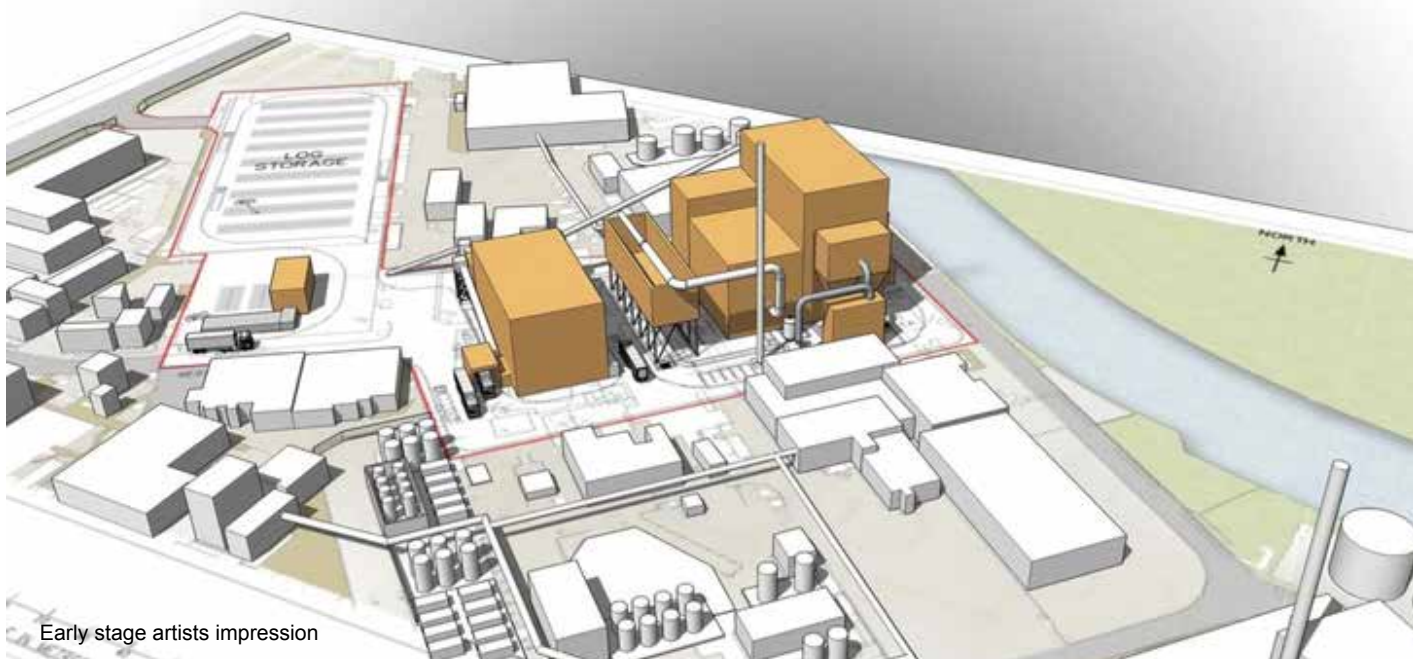
be cleaned to remove any dirt, weld material, rust etc. that has found its way into the tubes, by flushing them through with warm acid. Towards the end of January hot commissioning will commence when we will start up the boiler and commence a series of steam blows. This is the process used to clean the internal surfaces of the boiler and pipework and usually takes place over a month, with each blow happening at a specific time for just a short, test period. During each steam blow there will be a hissing sound and a visible plume of steam produced which may be noticeable in Discovery Park. The final pressure tests will take place mid-February and early March before the filling of the boiler with the water starts.

Steam Testing

The hot commissioning of the plant then continues towards the end of February, this will let us adjust the performance of the boiler to make sure it's as effective and efficient as possible. We will then start to introduce steam to the turbine towards the end of April and generate first power by the end of that month. We will start supplying steam and electricity to Discovery Park tenants in May or June once we have carried out all the required tests to ensure the power and heat generated is reliable. We will have a one-month reliability test starting early July ready for the commercial takeover of the plant in early August.

What are the benefits to the local community?

As a new business in your community we want to make sure we bring as many benefits as possible to everyone in the local area. Of course, we will bring many benefits to Discovery Park, Kent's leading science park as we will be supplying them and their tenants with a sustainable source of clean, green electricity, with any surplus being sent through the local electricity network for everyone to use. We will also provide steam to Discovery Park which they will use to heat the buildings and any other uses the tenants of the Park may have.



Early stage artists impression



At the height of our construction period we had over 400 people working on site at our power plant, with over 65% being based in the United Kingdom. Local recruitment company Pettit have supplied labour covering mechanical, electrical and support services throughout the project, many of whom were employed from the local area. The regional economy has also benefited from the construction phase as we spend money locally on things like catering, office supplies, taxis and property rental, all of which supports local businesses. We also buy as much of our construction materials locally as we can, including things like pipes and concrete. Our experience from other projects suggests that having up to 400 people working on a site provides significant spend in the local area. We are also committed to working with local schools, businesses and community groups that might have an interest in what we are doing.

Our power plant is made from many different parts which have to be sourced from companies who specialise in the manufacture of such state of the art equipment. After a lengthy procurement exercise involving companies all over the world, the vast majority of the project will be manufactured and built by EU based companies. Companies based in the United Kingdom have secured a fair number of contracts with all of the major civil works being undertaken by NB Construction from Kings Lynn, Sword Construction from Brigg, RoofDec from Rotherham and Cauntton Engineering from Nottingham.

Our Operations and Maintenance team will be made up of 27 people. By early in the new year we hope that this new team will be fully in place. They have all been recruited locally with many of those recruited so far living within 10 miles of the plant.

How we can work with you?

We will always strive to be the best neighbours we can, to both local people and local businesses across the area. We want to make sure we are working effectively with you to make the most of the opportunities we have and minimise any inconvenience which might occur. We honestly believe that communication works best when it's a conversation, so we need you to talk to us, ask any questions, tell us of any challenges and help us be the best neighbours we can be. We have set up a dedicated point of contact for you and want to encourage you to get in touch and stay in touch as our project progresses.

So if you have a question, comment or something you would like to share with us please contact:

Colin Dobson - General Manager

Kent Renewable Energy Ltd
Discovery Park
Ramsgate Road
Sandwich
Kent CT13 9ND

Website: www.kentrenewableltd.com

e-mail: info@kentrenewableltd.com

Mobile: 07495 678718