

Môr Hafren Bio Power

**Proposals for an Energy Recovery Facility in
Wentloog, Cardiff**



Summary of proposal

- Wales needs to divert more waste from landfill
- This plant will:
 - Divert up to 200,000 tonnes per annum of residual commercial and industrial waste
 - Generate 15MWe of electricity
 - Create 300 jobs during construction and 40 permanent jobs at the site
 - Operate to the highest environmental standards
- The proposed plant is considered a Development of National Significance with the final planning decision being taken by the Welsh Government
- The facility will also need an Environmental Permit from Natural Resources Wales

Why is it needed? – Waste in Wales

- The Welsh Government has progressive targets – ultimately making Wales a zero waste nation by 2050
- Currently approximately 1, 600,000 tonnes of waste goes to landfill or treatment elsewhere - including 900,000 tonnes of C&I wastes
- New solutions are required to help divert this waste from landfill, but even with new facilities currently planned there will still be a capacity gap of roughly 700,000 tonnes each year
- The Welsh Government recognises that to achieve their target, efficient EfW will have an important role “For now EfW is our preferred option”
- Môr Hafren Bio Power sees this plant as a transitional technology to divert wastes from landfill and generating useful energy while the Government’s strategy is delivered

The proposal site



The proposals

- The proposal site is a brownfield site in the Wentloog industrial area, on Newlands Road, is well connected to the regional road network and in a dedicated development area
- The plant would be built by the German engineering company, Standardkessel Baumgarte, a recognised world leader in this type of technology
- The proposed plant uses robust and flexible technology that can cope with changing composition of residual waste as recycling performance improves
- The main building could be up to 47m high with the stack being approximately 70m high. The nearby wind turbine is 135m high

How it works

- The plant will use a traditional moving grate that combusts waste in controlled conditions to generate heat to convert steam to electrical energy - enough for approximately 30,000 homes
- This facility will recover energy using feedstock mainly from residual Commercial and Industrial waste
- The wastes will be delivered by road, with any process residue also being taken away by lorry, resulting in a total of 80 lorry movements per day (40 lorries in and 40 lorries out)
- The plant will operate 24 hours a day, but residual waste will only be delivered between 0700 and 1800, six days a week

Plant performance

- ERF plants, like all energy from waste technologies, are covered by stringent environmental emissions standards and controlled by a permit from Natural Resources Wales (NRW)
- Emissions standards for all ERFs are often lower than traditional power plants and many other industrial processes
- The proposed plant is being designed to meet the latest emission standards currently under development – IED BREFF 2019
- An extensive Environmental Impact Assessment has been completed by independent consultants, the scope of which was agreed with the Planning Inspectorate in consultation with Cardiff Council and NRW
- This plant will not be given an Environmental Permit to operate if the authorities believe there is any risk to either the environment or people

The planning process

- The plant is considered a Development of National Significance (DNS)
- The final planning decision is being taken by the Welsh Government in consultation with statutory stakeholders, including Cardiff Council and NHS Wales
- Pre application public consultation started in August 2019 and officially ran through to 29 November (107 days), statutory consultation will run for a minimum of 42 days and is likely to start in June 2020
- Detailed public consultation included face-to-face briefings (including meetings with residents and protestor groups), public exhibitions, and on-line information provision (www.morhafrenbiopower.co.uk) with many opportunities for feedback
- A planning application could be submitted at some point in the summer of 2020

Conclusions

- The plant is seen as a transitional technology that will help the Welsh Government achieve some of its waste management aims by:
 - Diverting up to 200,000 tonnes pa of residual wastes away from landfill
 - Generating 15MWe of electricity, enough for approximately 30,000 homes
- The plant uses proven technology that can cope with changes in waste input without compromising on stringent emissions and energy recovery standards
- NRW will ensure that all emissions are safe through the permitting process
- Môr Hafren Bio Power is a responsible developer and good neighbour and is committed to open consultation during the planning processes