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## Response to Comments

received from

## Neighbour Consultation

by

**Sunrise Renewables (Barry) Limited**

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16<sup>th</sup> March 2015

## 1. Background

- 1.1 Sunrise Renewables (Barry) Limited has been developing a renewable energy plant at Woodham Road, Barry, CF63 4JE within the Port of Barry since 2009. The principle of establishing a wood fuelled power plant at the project site was established by planning permission reference 2008/01203/FUL, as approved by appeal reference APP/Z6950/A/09/2114605 on 2<sup>nd</sup> July 2010.
- 1.2 The Applicant is now finalizing the detailed technology selection and design layouts for the project and this requires the amendment of the certain technology-related features of the existing planning permission which are the subject of the current application.
- 1.3 The Vale of Glamorgan has carried out a consultation process with neighbours to the site and has received a number of comments and questions which can be grouped into the categories listed in 2. below on which Sunrise considers it helpful to respond.

## 2. Comments received

### Comment

### Response from Sunrise

<b>Isn't there an alternative?</b>	The site at David Davies road is already approved for use as a wood fuelled power plant (see planning permission reference 2008/01203/FUL) and would be the fallback for Sunrise if the current application does not go ahead. However, the proposed change of technology is more efficient and environmentally friendly.
<b>What community engagement has there been?</b>	In parallel with the neighbour consultation conducted by the Vale of Glamorgan Planning Department, the Sunrise wrote to all neighbours contacted by the council briefly explaining the background to the present application and inviting neighbours to send Sunrise any questions by email for a prompt explanation. A copy of this invitation is attached to the present document. There was also extensive community engagement in connection with the existing planning permission.
<b>Will it impact the regenerated Barry waterfront area?</b>	There is very little impact – the sightlines along the north side of Barry Docks are such that the project site cannot easily be seen (contrasting with the existing commercial warehousing structures at Atlantic Way and Dow Corning's industrial facility). Much of the structure will be screened by the existing WW2 nissen huts.
<b>Isn't the plant close to properties?</b>	The site of the plant remains the same as under the existing planning permission.
<b>What will be the effect on values of properties?</b>	While the effect on property values is not a permitted reason under planning legislation for refusing a planning permission, there is no reason why the modifications proposed for the plant should have a more detrimental effect on property values compared with the existing planning permission.
<b>What will be the effect on local businesses?</b>	First, the plant will not be competing with any local businesses. The workforce at the site will also add to the customer base for certain local businesses. The plant is to be constructed and landscaped in accordance with current best practices and should therefore contribute to regenerating the locality to the advantage of all local businesses.
<b>What's the benefit to Barry of having the development located at this site?</b>	Sunrise's lifecycle analysis for the plant indicates it will generate approximately £21.4 million for Barry/Glamorgan, comprising some £9.0 million for jobs, £5.0 million in business and rent for Barry Port and £7.4 million in business rates paid to the council over the life of the Project. We are also discussing the potential for larger local companies to buy their power direct from the plant.

Comment

Response from Sunrise

**Won't the plant affect Air quality and cause pollution?**

Air quality and emissions are recognised by both local and national government to be of fundamental importance for the operation of any facility such as this. It is also closely controlled by European Union legislation and the Welsh environment agency police this.

All power plant developers such as Sunrise have to demonstrate that the plant will only create emissions that meet these requirements and this is done in the first instance by commissioning an emissions analysis by specialist consulting engineers and in the second instance, before the plant is allowed to operate, it has to receive an environment permit from the Welsh environment agency: if you cannot meet their requirements, it is illegal to operate the plant.

For Barry, Sunrise has planned to install an enhanced emissions filtering system (more than is strictly needed) and to have a chimney stack which is much higher than under the existing planning permission. We have also designed these on the basis of 5% more emissions than will actually be the case. So, when we say we are following "best practice" on emissions, this is what we mean.

**Is the plant an incinerator?**

It's really important to understand that the plant is not "incinerating" anything – Sunrise does not believe in incineration. This is why Sunrise has chosen a more expensive technology which "boils off" the natural gases to be found in wood and uses these "wood gases" in much the same way as residents of Barry use natural gas to heat their houses and in their kitchens. The by-products that would be produced by an incinerator remain as solids and are removed from the plant for proper, safe disposal. They do not go into the atmosphere.

**Will the plant be burning Hazardous waste?**

Definitely not: processing any form of waste is very strictly controlled and deviating from this is potentially a criminal offence. Also, to do so would invalidate the manufacturer's warranties. The plant therefore has to be operated within very strict specification limits.

The existing planning permission is for a renewable power plant processing waste wood described in the original application as follows:

"The wood fuel accepted will be manufactured from clean wood, pallets, construction timber and other woods which have been removed from the construction and demolition waste stream locally. In short, the plant will process dry, non-hazardous batches of timber and wood."

Nothing has changed in this respect: only non-hazardous grades A, B & C processed waste wood which is within the manufacturer's specification will be used at the plant.

**What happens to the dust and toxins from the plant and from left over toxic bottom ash?**

The process creates two types of ash: most is a benign bottom ash which can be converted into various products used in the building trade, garden gnomes etc. Approximately 1% of the wood used will also result in fly ash and it is a legal requirement that this is disposed of at an authorised long-term disposal facility. The plant will therefore be operated so that the two types of ash are temporarily stored in separate silos for regular removal from the site in special "powder trucks". These are vehicles with enclosed storage to ensure no dust leakage. This is very established technology.

Apart from ash, the emissions arising from the burning of the "wood-gas" described above go through an in-depth filtering system in order to remove any residual dust and also to reduce the content below the minimum permitted by the Welsh environment agency. With the new technology now proposed, Sunrise has voluntarily chosen an enhanced (and more expensive) filtering system which will reduce

**Comment**

**Response from Sunrise**

**Won't the plant result in heavy haulage vehicles congesting the roads to the site from M4, creating noise and pollution?**

emission content below the level that would normally be allowed. This is a benefit from the proposed technology change compared to the existing planning permission.

It's important to keep things in perspective: about one extra lorry will arrive per hour to what is an operating port site and weekly traffic movements will be no greater than already approved as part of the existing planning permission.

In the updated operation, Sunrise now intends to receive waste wood between 7.00am and 7.00pm on weekdays. The only exception to this would be in the case of something unforeseen. This is an improvement compared to the existing planning permission which envisages weekend deliveries as well.

**Will the plant be a fire-hazard?**

All modern industrial and commercial facilities are required to meet strict safety requirements designed to avoid the risk of fire and the Sunrise plant is no different. In addition to ensuring full legal and regulatory compliance (including under the Building Regulations administered by Vale of Glamorgan), Sunrise has consulted with the ACE Insurance Group who are considered to be specialists in best practice for the insurance of biomass plants such as this. In particular, they have detailed requirements to ensure the risk of fire damage is minimised and Sunrise has therefore required the designers of the plant to ensure these requirements are fully reflected in the plant design.

**Will the plant be noisy?**

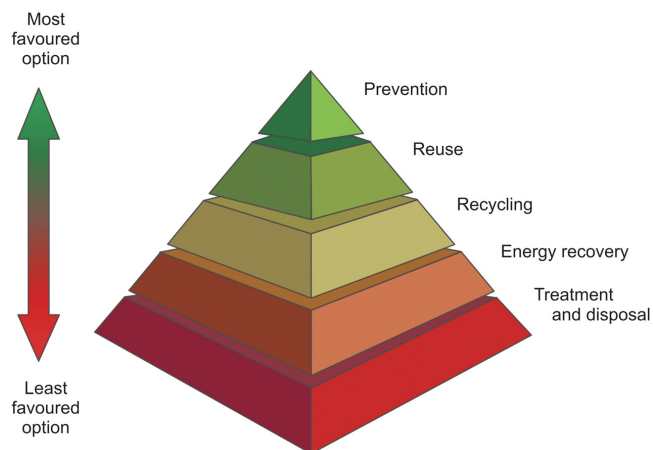
Best practicable will be used during site operations to ensure that noise does not exceed approved levels. The enclosure of the operating process within structures and buildings will ensure that noise levels are not significant and this has been re-confirmed by the noise study Sunrise commissioned for the present application.

**What will the plant really do to support targets for waste and carbon reduction?**

The Sunrise plant will supply electricity equivalent to the annual energy usage of approximately 24,500 households based on an average UK household consumption of 3,300kWh.

Utilisation of waste wood in the manner proposed displaces fossil fuels as a source of primary energy for the generation process. Coal in particular increases the amount of process waste in the form of ash going to landfill and also generates higher greenhouse gas emissions.

In terms of the plant's contribution to waste targets, this is best explained by reference to the established "waste hierarchy": landfill is at the bottom with waste prevention the preferred option, followed by preparation for re-use, recycling and other types of recovery.



Comment

Response from Sunrise

Applying this to waste wood:

- Use in the Sunrise plant avoids waste wood going to landfill;
- Instead non-combustible elements such as metals, glass and aggregates are separated out for recycling when the waste wood is processed off-site. The waste wood would then be delivered as a fully processed fuel to the power plant site;
- Within the power plant, the gasifier does not combust the waste wood in the same way that a coal-fired power plant "incinerates" coal. Instead it heats the waste wood in order to create a gas akin to natural gas which is then combusted;
- This results in a much cleaner process compared to conventional combustion or incineration.

The process of creating the waste wood therefore involves significant recycling and re-use opportunities and is fully consistent with the Government's stated waste hierarchy preferences.

**Isn't an environmental impact assessment required for this plant?**

No, it is not required for this type of power plant. However, in developing the site Sunrise commissioned environmental reports and these can be seen as attachments to the application. It is also expected that planning conditions to be imposed by the Vale of Glamorgan will include the following (taken from the existing planning permission:

No development shall take place until: i) details of a scheme to assess the nature and extent of any contamination on the site has been submitted to and approved in writing by the local planning authority; ii) the results of the survey carried out under condition (i) above have been submitted in writing to the local planning authority iii) a scheme to deal with any contamination identified by the survey has been submitted to and approved in writing by the local planning authority. Development shall be carried out in accordance with the approved details.