

# Addroddiad Adolygu Dylunio Design Review Report

## Review Status: **Confidential**

Meeting date:	21st April 2010
Issue Date:	12th May 2010
Scheme Location:	Brig y Cwm EFW, Cwmbargoed, Merthyr
Scheme Description:	Energy from Waste plant
Planning Status:	Pre-application

## Part1: Presentation

The proposal is for a large Energy from Waste [EfW] facility of 67 MWe capacity (approximately 200 MWth) with a main building size of 18,263 sqm, a transformer building of 1,650 sqm, and air cooled condensers of 2,430 sqm.

The applicant seeks to present an integrated strategy for the management of residual wastes in Wales recognising the economic and environmental benefits of EfW as opposed to a landfill solution. The applicant also recognises the sensitivity of such applications both politically and in potential host communities and seeks to gain from wide-ranging and early consultations.

Over 300 sites were considered throughout South Wales. Access to the adjacent railway was a significant factor in choosing this rural site, which is part of the Ffos y Fran Land Reclamation Area, to the east of Merthyr Tydfil. The visual impact of the building is seen as critical and the 'statement building' approach has been rejected. Instead, the team have opted for a curved building form which is proposed to fit in with the context of the surrounding rolling countryside. A muted colour palette has been selected to blend the building into the landscape and further reduce its impact.

The Local Authority has engaged in discussion with Covanta from an early stage and would encourage consideration of the wider impact of the scheme, such as potential jobs, as well as the building's visual impact. Consultation has been carried out with the Infrastructure Planning Commission [IPC] and the local community,

covering public and technical issues. A planning application is expected to be submitted in September 2010.

### **Summary of key points arising from discussion, to be read in conjunction with Part 2 of this report.**

The Panel welcomed this presentation and acknowledged the benefits of the EfW process for treating waste. However, we consider this to be a poor design response and we have the following major concerns:

- This is the first in a new generation of power plants in Wales and it needs to set a precedent by demonstrating exemplary design and operational processes.
- We have doubts about the ability of the plant to meet WAG aspirations for EfW plants to be at least 60% efficient (let alone European Directives requiring 65%). We would encourage more detailed and established arrangements with LPA (or IPC) conditions in place, and Local Authority corporate support for use of waste heat in public buildings.
- The Panel understands the difficulties in achieving BREEAM Industrial Excellent but would encourage a commitment to achieve a rating of Very Good. It is understood the planning application was submitted prior to MIPPS01/09 and that WAG funding is being made available.
- There may be benefits in seeking to enlarge the site footprint, in order to maximise opportunities for co-location of complementary technologies (for use of heat) and economic diversification. Such technologies might include bio-fuels, WEEE shed, and pelletisation for the biomass market.
- It is vital that the building is well integrated into the landscape and we are not convinced by the current architectural approach. The design team need to further explore the potential for sinking the building into the ground and/or sculpting the landscape around it.
- The possibility of other buildings emerging around the central development underlines the fundamental importance of how the main building is set and operates. Any additional buildings need to be considered throughout the design and development process.
- The Panel welcomes the setting up of a Trust Fund for the community as well as the employment benefits offered throughout the construction and on a long-term basis. We suggest energy improvements to housing fabric and investment in renewable energy, which would generate further revenue.
- The longer term community and employment benefits of this scheme should be emphasised. Such engagement may go some way to alleviating significant local protest and again the LA / IPC should seek to facilitate and secure these benefits.

### **Part 2: Discussion and Panel Response in Full**

The Panel welcomed the application of EfW technology, as a more environmentally benign form of waste treatment than landfill. However, in order to make a convincing environmental case, it is vital that the considerable quantities of waste heat generated by this process should be used to offset fossil fuel use elsewhere. This is not yet a demonstrable part of the project, despite intentions to run heat mains to Merthyr and discussions with business to encourage re-location to the nearest Industrial Estate to utilise the heat. Local Authority support and conditions are necessary in this regard.

The applicant stated that source material would be transported by rail [75%] and road [25%] with an extra 80 vehicles a day using the Heads of the Valleys road. We felt there was insufficient analysis of the benefits of proximity to the railway line, how they would be realised, and the consequent choice of site.

Whilst it was recognised that one large plant is potentially more economically viable than several smaller versions, and that there are considerable difficulties associated with gaining planning permission for such sites, social, economic and environmental benefits of such plants should be more carefully evaluated.

The Panel stated the fundamental importance of a contextual design response for the main building and the need for a sympathetic relationship with the landscape. We were concerned that the site area and the location of the building on it were acting as a constraint on the design. A more appropriate contextual design response should be one which places a major part of the new building below ground, with a landscape architect charged to work with the design team to mould the new proposal into its setting. The Panel believed there were opportunities for a coordinated landscaped solution especially given the history of change to the landscape in the immediate area, and that such an approach was a more important consideration than cladding type, colour and texture. The visitor centre was acknowledged to be a potentially valuable educational and regeneration resource in terms of eco-tourism, which we thought could be successfully built into such a concept.

The Panel was informed of the possibility that the plant would not be able to be connected directly to the nearby pylons, which would necessitate a significant number of new electricity poles and cabling. Easements for the heat main are likely to follow the route of the road. However, if agreement can be reached with landowners, they would take a more direct cross-country route, and ecological reports and implications should be provided in this case.

The IPC scoping report is due out on Friday 23<sup>rd</sup> April

**The Design Commission for Wales Design Review Panel and staff welcome further consultation and will be happy to provide further feedback on this report and/or where appropriate, to receive further presentations. Thank you for consulting the Commission and please keep in touch with us about the progress of your project.**

***A Welsh language copy of this report is available upon request.***

**Appendix 1: Attendees**

Asiant/Client/Datblygwr: Agent/Client/Developer	Covanta Energy Ltd [Anne Dugdale]
Pensaer/Architect:	RPS Design [Lyn Powell, Richard Smyth]
Consultants:	RPS Planning and Development, WSP, Warwick Emmanuel, Burges Salmon
Awdurdod Cynllunio/ Planning Authority	Merthyr Tydfil County Borough Council [Norman Davies]
Y Panel Adlygu Dylunio: Design review panel: Alan Francis [Chair] Elly Englefield [Officer] Simon Hartley	Lynne Sullivan Simon Carne Ed Colgan Jonathan Adams
Lead Panellist:	Simon Hartley
Sylwedyddion/Observers:	Glyn Jones [Flintshire County Council]