

Addroddiad Adolygu Dylunio Design Review Report

Review Status: **Confidential**

Meeting date:	23rd June 2010
Issue Date:	7th July 2010
Scheme Location:	Brig y Cwm, Merthyr Tydfil
Scheme Description:	Energy from Waste Plant
Planning Status:	Pre-application

Part1: Presentation

This project was seen previously at Design Review in April 2010. It was agreed to focus on the issues raised in that review.

The team have been working on reducing the visual impact of the building. A simple roof form has been developed, with a metal finish. The exact shade and material are still under discussion, but the intention is to blend it into the landscape as far as possible. The potential for part burying the building by up to 12 metres has been investigated. However this would require a significant retaining structure, with 20m long piles, 1200mm in diameter. 300,000 cubic metres of additional material would need to be removed with explosives, which would have implications for the nearby railway line. These major technical problems mean that lowering the building significantly is not feasible.

Possibilities for co-location of potential users of the waste heat are still being explored, on an adjacent site allocated for employment use. The team is in negotiation with one major user and they are confident that the benefits of lower utility costs will attract further interest.

The Local Authority had only just received the new material, but were encouraged by the direction of progress. They did question how representative the photomontages were. We were reminded that consent exists for the restoration of former open cast workings nearby and coordination will be necessary to ensure that this does not restrict any remodelling of the land form.

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

The Panel was encouraged by the progress that has been made since the last review. We think this is a good design response but major issues still remain to be resolved. In summary:

- We welcome the potential reuse of waste heat resulting in greater efficiencies. We trust that arrangements to deliver this will be in place before a planning application is made, as it is a fundamental aspect of the scheme's overall sustainability.
- We would expect the LPA to support and actively encourage similar co-locations and other potential users, which may be public buildings located in the town centre. This remit should be built into local policy and development briefs, and where relevant should be a condition for future consents.
- The simplified roof form is an improvement on the previous design. We suggested the team explore separating the 'wings' from the main roof, but only if this provided a clearer definition between the two, and resulted in a more elegant solution. If not, the existing single form should be pursued further. The supporting and retaining structure needs to be fully designed before a planning application is made to ensure that eaves and verge treatment are accurately represented, and that those structural arrangements are fully understood on plan and elevation and are built into costings and viability.
- Improving daylight levels internally would be desirable and may affect the roof design.
- The rationale for not being able to lower the building further into the ground, was accepted.
- Viewpoints should be agreed with the LPA and accurate photomontages should be provided. Every effort should be made to mitigate the effect of additional electricity distribution lines and high level lighting.
- It may be that 2 or 3 smaller stacks would have less visual impact than one taller stack, and we asked the team to consider this.
- The community benefits, especially local employment and training, were welcomed.

Part 2: Discussion and Panel Response in Full

The Panel appreciated the progress being made on possible end users for the waste heat. We understood that ongoing negotiations were at a commercially sensitive stage, but that the potential use would involve large heating and cooling loads. Arrangements for this district scale heating/cooling system will be included in the planning application and, it is claimed, would deliver an efficiency of over 60% for the plant.

The Panel would expect the LPA to actively promote such opportunities for co-location and we advised that a renewable energy assessment should be undertaken, as set out in TAN 22. This proposal offers a good marketing opportunity for adjacent employment sites and the benefits of lower utility costs should be made widely available. Any possibility of direct connections with Merthyr town centre should be explored, and public buildings which could be used as anchor loads should be identified, but these initiatives will depend on a

clear steer from the LPA. This site should figure strongly in the council's relevant policy documents, as supporting evidence to any renewable energy / CO2 reduction targets or policies. Given the importance of the heat use, the Section 106 discussions should clearly focus on ensuring development of a heat network infrastructure.

A community fund will be established to deliver community benefits, including an education centre on the site which will integrate with key educational stages and vocational training and will reintroduce apprenticeship schemes. In this way it is hoped that the project will have a positive impact on local employment, sustainable procurement, and the use of local resources. Discussions on Section 106 contributions are ongoing.

The Panel welcomed the development of the architectural approach and its integration with the landscape. With regard to the large overhanging roofs, it will be important to keep the profile as slender as possible. We suggested that the side 'wings' might be dropped to become separate elements from the main roof, while still allowing sufficient height underneath. Either way, the solution needs to be tested in tandem with an appropriate structural engineering solution. Some areas of the main roof could be made translucent to allow daylight into the depth of the building, where it would offset artificial lighting.

The Panel accepted that owing to the particular ground conditions, lowering the building by more than the proposed 2 metres would be unfeasible. Given that the building itself is 50 metres tall, any earth sheltered solution would need to be significant in scale, to have any impact on the visual appearance.

It will be important to provide accurate photomontages from key viewpoints as part of the visual impact assessment and the planning application. These should include all associated infrastructure and familiar objects such as lorries, to give a sense of scale. The views in question will be mainly distant views, and we were informed that the structure will not be visible from the Heads of the Valleys road. Additional electricity distribution lines are likely to be above ground and to follow the route of the existing 400 kVA line. This could have a major impact and the proposed solution will be part of the environmental impact assessment. There will be 24 hour floodlighting around the stack and this may need some mitigation. Achieving the lighting elements of a BREEAM Industrial assessment could be used as a condition for development. Low level lighting will be provided on the access routes.

The team confirmed that 75% of waste material will be transported to the site by rail which will bring significant carbon savings. They anticipate that many existing journeys will be rationalised and that recycling depots could be developed at railheads. The Panel thought that these claimed benefits needed to be demonstrated in an evidence based study. We were informed that the offer of public money to subsidise this scheme had been declined, saving WAG some £230m, although some European money may be involved. For future users of the site, gate fees will be cheaper than current rates.

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 [Jason Baldwin, Anne Dugdale]
Pensaer/Architect:	RPS Design [Alan Skipper, Richard Smyth]
Consultants:	RPS Planning
AwdurdodCynllunio/ Planning Authority	Merthyr Tydfil CC [Judith Jones]
Y Panel Adlygu Dylunio: Design review panel: Alan Francis [Chair] Cindy Harris [Officer] Toby Adam	Jonathan Hines Simon Hartley Ed Colgan Roger Ayton
Lead Panellist:	Simon Hartley
Sylwedyddion/Observers:	Joe Seymour [DCFW placement student]