

Design Review:
**Teesside
Power
Station**

Designed by Heatherwick Studio

Stockton-on-Tees

Planning reference: 09/3050/EIS

9 March 2010

This is an exciting proposal for a biomass power plant and we applaud the client's decision to commission an inspiring and ambitious design. While perhaps challenging to build, this scheme has the potential to be an exemplar power plant and a beacon for the regeneration of Teesside. The clear presentation to the panel helped to explain and illustrate the stimulating design thinking behind this proposal; we would hope to see more proposals with a similar level of design thinking coming forward. We have, however, some comments on how the proposed plant elevation joins the ground, the detailing of the envelope and the delivery of the scheme.

Landscape, form and envelope

Despite – or maybe because of – its size and height, this proposal fits well into the context and we applaud the ease and elegance with which it rises out of the ground. We commend the rearrangement of the plant equipment from the standard layout as this allows for a bespoke solution. In this case, the approach enables the design team to create an impressive mountain-like form. The envelope which wraps around it reveals the entrance in an ingenious way. A section would be crucial to illustrate how the building functions internally. We find the seamless transition from landscape to building intriguing, but we suggest exploring in more detail how this interface will work in terms of planting and building coming together, particularly around the steeply angled edge. A robust, cost-effective and low maintenance structure needs to be in place in order to protect the building and to sustain the plants growing on top of it. Equal care is required to design and detail the structure and envelope of the upper elements of the proposal. We feel that, in order to achieve the fine tracery of horizontal and diagonal lines, more work is needed to define the nature and geometry of each cladding panel. We also think that the junctions of the 'folds' of the envelope and their different radii and gradients require particular care and we encourage the design team to continue investigating how the Kalzip panels could be used most effectively.

Visitor experience and sustainability

This is a building people on both sides of the Tees could be proud of, both for its exciting architecture and for the fact that it generates renewable energy on a large scale. While we are pleased to see that the proposal includes visitor facilities on top of the building which offer great views across Middlesbrough and towards the North Sea, we think that this

proposal could go even further and provide a truly memorable visitor experience. We encourage the design team to develop a detailed and imaginative strategy as to how visitors would move around the site and through the building. With regards to the environmental benefits of this proposal, we see the unique opportunity to feed into the district heating system of the Middlehaven development nearby. This could become an interesting example of sustainable urban planning with a large residential community close to the heat generating plant. We urge the client to assure himself that the long-term future of the biomass fuel contract is in place and that it comes from a certified and regulated source.

Process and delivery

We find this project commendable and we are confident that this high design standard is achievable provided that a high level of design expertise continues through to detailed design and construction. The proposal is challenging and some of the elevational details need further resolution and refinement. We suggest adding further expertise to the team, for example, an additional façade specialist and planting advisors. We wish the project well and look forward to seeing this exciting design built.

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