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Design Review

Report

Tidal Lagoon Turbine Manufacturing Plant, Swansea

DCFW Ref: N142

Meeting of 13th April 2017

Review Status	**CONFIDENTIAL**
Meeting date	13th April 2017
Issue date	28th April 2017
Scheme location	Swansea
Scheme description	Industrial/Office
Scheme reference number	N142
Planning status	Pre-application

Declarations of Interest

Panel members, observers and other relevant parties are required to declare ***in advance*** any interests they may have in relation to the Design Review Agenda items. Any such declarations are recorded here and in DCFW's central records.

Alister Kratt is a Director at LDA Design and is also a DCFW design review panellist. All present confirmed that they were content to proceed following this declaration.

Consultations to Date

No formal consultation has taken place to date.

The Proposals

The site is part of the Associated British Ports (ABP) owned docks in Swansea and currently accommodates a scrap yard. The location is close to the proposed Swansea Bay Tidal Lagoon and is considered to offer the opportunity for views out over the lagoon and across Swansea Bay.

A large turbine manufacturing plant is proposed, to assemble turbines for the Swansea Bay Tidal Lagoon and then for future tidal lagoons elsewhere. There will also be Head Quarters/offices, staff welfare facilities, external storage, car parking and access roads proposed.

Main Points in Detail

Engagement with the Commission from an early stage in the design process is welcomed.

The following points summarise key issues from the review and should be considered to inform any further work ahead of public consultation, further engagement with the Commission and a planning application being submitted:

Programme and Engagement
Sufficient time should be built into the programme to allow for the feedback from public engagement and other consultation to meaningfully inform the design evolution.

The Design Commission would welcome the opportunity to review this scheme again in advance of a planning application being made. We encourage the team to make an early

booking as demand for the review service is currently high. It would be beneficial to have a representative of ABP present at a future review.

Good communication during any consultation will be essential to clearly convey the scale of the project as well as the aspirational vision. The building will be very big and will certainly have a visual impact, but the manufacturing process it will house is interesting, exciting and dramatic because of its scale. A design approach which would be appropriate for a smaller and/or historic building in this context cannot necessarily be successfully scaled up, it is important that this message is communicated to the public, members and other stakeholders.

Long-term Context and Masterplan

There are currently many unknown aspects relating to the site and context for this project which have the potential to make it difficult for the team to maintain control over design quality. The unknown lifespan of the manufacturing aspect of the facility, ABP control and influence over ownership of the building, future development and use of the surrounding docks could dilute good design aspirations. It is important that potential scenarios are considered at this stage so that the most appropriate design approach is adopted.

It would be useful for the team to draw an aspirational masterplan which integrates all the elements they hope to see on the wider site in the future. It will be important for such a masterplan to include the following:

- Access and approach to site for staff and visitors and via different transport modes, including pedestrians and cyclists
- Delivery and export of materials and products
- Parking
- Arrival experience for visitors and staff
- Aspirational environmental strategy
- Appropriate outside space for staff and overall landscape strategy
- Relationships between manufacturing, office, staff, visitor and educational facilities; including whether these are separate buildings or combined.
- Journeys between buildings
- Views into the facility and out over the lagoon and Swansea Bay
- The level of flexibility and adaptability of the different elements of the masterplan
- Potential expansion of the facility
- Potential alternative uses
- Demolition and recycling

Appropriate Design Approach

This project could be very exciting, not least as it will be the first of its kind in the UK, and should aim to be an exemplar of design and sustainability, upholding the values of the Tidal Lagoon Power brand. The facility will be very visible, so it is important that this aspirational vision is a clear part of the design brief. The tidal lagoon projects are about anticipation of future resource needs and innovation for greater sustainability. Several precedents drawn from local heritage were cited in the presentation. However, we would urge careful consideration of any design approach rooted in such precedents. The examples represent innovation in their own era – they have become familiar 'heritage' in the present day. Reflecting them and seeking such reassurance from the past may not

assist a modern day solution, which is innovative in its own time. Such a design approach may therefore not be appropriate.

Given the functional brief, the functional 'effectiveness' of this facility should be a priority, followed by 'efficiency'. 'Expression' is likely to be less of a priority in a building of this nature. Mapping the manufacturing process to create a functional plan, of both building and external spaces, would be a good starting point to the design of the building and landscape.

As mentioned above, the design approach should be appropriate to the scale of the project. It also needs to be appropriate for the industrial coastal location. The form, structural strategy, materials and articulation need to be appropriate for a very large docks building.

At the same time, the well-being of staff working at the site needs careful consideration. Thought should be given to how people will arrive, circulate, interact, communicate and spend their break times. The micro-climate of the docks should be considered in the design of any outside spaces for staff.

The function of the facility provides a unique opportunity to engage the public through tourism and education strategies, given the exciting spectacle which accompanies the activity. The design process should fully explore the best ways to maximise this opportunity.

Ensuring Design Quality

It is important that design quality is prioritised and maintained through the tender, procurement and delivery stages of the project. The assessment and weighting of design in the processes of selecting the design and build team will be crucial and should be given careful consideration. The scheme will not be an exemplar unless it is designed and delivered by an exemplar team.

It is also important that the design brief encourages and allows for an excellent standard of design which is appropriate to the context and functions of the buildings and landscape. A brief which is too prescriptive about style, form and materials may distract designers from the best solution.

Appropriate Precedent

Studying good example projects could usefully guide the design process, but it is important that precedent is appropriate to the function, scale and aspirations of the scheme. The examples shown in the Architecture Design Brief and presented at the review meeting were more appropriate to smaller scale docks buildings in a now historic setting.

The examples given in Appendix 1 demonstrate good quality design and construction in large scale, efficient, functional buildings which are environmentally responsible and sustainable. There are also examples of well-designed 'human-scale' spaces for staff and other end users, within or alongside factory-scale facilities. The issue of scale is a critical one and the team may find it useful to consider current examples of similar scale with similarly dramatic activities housed within them or facilitated by them.

A number of precedents are listed in the Appendices to this report for reference.

Tidal Lagoon Power is familiar with DCFW's consultation process through its Design Review service and we would recommend that in their further assessment of an appropriate level of investment and suitable design approach, an early opportunity is sought to consult us further.

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

Attendees

Agent/Client/Developer:	Alex Herbert, Head of Consents, TLP Dave Sagan, Project Manager, TLP
Architect/Planning Consultant:	Peter Corrie, Masterplanner, LDA Design
Local Authority:	
Design Review Panel:	
Chair	Jamie Brewster
Lead Panellist	Andrew Linfoot Simon Power Steven Smith Jonathan Vernon-Smith Amanda Spence, Design Advisor, DCFW Jen Heal, Design Advisor, DCFW Carole-Anne Davies, CE, DCFW
Observing:	Peter Thomas, Vale of Glamorgan Sophie Godfrey, PINS Samantha Leathers, CH2M

Appendix 1

Siemens Green Port, Hull
http://www.siemens.co.uk/en/wind/hull.htm

BAE Submarine plant, Barrow

HAWE Factory, Germany by Barkow Leibinger
http://www.archdaily.com/578622/hawe-factory-kaufbeuren-barkow-leibinger

Cero K factory, Chile by Max-A Architecture and Landscape Architecture
http://www.max-a.cl/cero-k

Useful UK headquarter and industrial scale projects:
http://www.bennettsassociates.com/category/project/offices-civic-hq/
http://www.bennettsassociates.com/cummins-engine-company/

Westbourne Studios, London. Comfortable office environment with industrial aesthetic
http://www.westbournestudios.com/

Ateneu Popular de Nou Barris, Spain by Fornari + Rojas Arquitectos
http://www.archdaily.com/432873/ateneu-popular-de-nou-barris-fornari-rojas-arquitectos

Olympic Energy Centres, London by John McAslan Architects
http://www.mcaslan.co.uk/projects/olympic-energy-centres

Smestad Recycling Centre, Norway by Longva arkitekter
http://www.archdaily.com/785900/smestad-recycling-centre-longva-arkitekter

Surley Brewing, USA by HGA. Combines industrial with visitor facilities.
http://www.archdaily.com/773712/surly-brewing-msp-hga

Milieustraat Recycling Centre, Netherlands by Groosman
http://www.archdaily.com/771857/milieustraat-recycling-centre-groosman

Levering Trade, Mexico by ATELIER ARS°
http://www.archdaily.com/771468/levering-trade-atelier-ars-degrees

Baglan Eco-Factory, Neath Port Talbot by Welsh School of Architecture
http://sites.cardiff.ac.uk/architecture/about-us/facilities/environmental-lab/sky-dome/sky-dome-applications/