

SITE AND CONTEXT

On 30th June 2015 the Swansea Bay Tidal Generating Station Order 2015 came into force. It gave consent for the construction of a 320MW tidal powered electricity generating station, through the construction of a 9.5km U-shaped sea wall with turbine house located at the outer edge of the resultant 11.5sq.km lagoon. The Order stated that the development must be commenced within 5 years of the dated of the Order, so prior to 30th June 2020. To make a lawful start of development the developers would have to substantially begin work upon one of the specified 'works' listed within the Order, having first complied with all appropriate Articles and Requirements specified within the Order.

DESCRIPTION OF DEVELOPMENT

The current application is a consultation request on the proposed Decommission Programme for the Tidal Lagoon in accordance with Article 42 of the Order and a 105 Notice that has been served upon the developers under the Energy Act 2004.

The tidal lagoon is expected to have a life expectancy of around 120 years with a possible refurbishment of the turbines around years 60-65. The submitted report Decommissioning Programme outlines the different options in relation to the extent of the proposed identified physical decommissioning works and assesses the potential outcomes associated with their preferred option 4B against the full decommissioning of the whole structure and the sites return to its original condition.

The developers stated preferred option seeks to retain all of the approved infrastructure with the exception of the 16 turbines, generators, the sluice gates and two of the sluice gate structures. They also propose to protect the turbine house and associated infrastructure with rock armour to their external surfaces. They also identify the need to revise some of the navigational aids that reflect the change in flow characteristics as well as excluding vessels and individuals from different parts of the marine environment.

NEGOTIATIONS

None.

PLANNING HISTORY

The application site has the following relevant planning history: -

The Swansea Bay Tidal Generating Station Order 2015 made 9 June 2015 and coming into force 30 June 2015.

CONSULTATIONS

Contaminated Land: No comment to make.

Biodiversity: No comment to make.

Glamorgan Gwent Archaeological Trust: Note that as the works are located below the low mean water mark, they have confirmed this is not within their remit and that Cadw are the body responsible for commenting on these issues.

Environmental Health: No comment to make.

Head of Engineering and Transport (Highways): It is not clear how waste from the decommissioning process will be removed from the site – by road or by sea.

Head of Engineering and Transport (Drainage): No objection.

Swansea Bay Port Health Authority: No comment to make.

Coastal Officer:

REPRESENTATIONS

As this is a consultation request there is no requirement for public consultation of neighbouring properties or consultation of external statutory bodies as this should be carried out by the developers.

REPORT

The Well-being of Future Generations Act (Wales) 2015 places a duty on the Council to take reasonable steps in exercising its functions to meet its sustainable development (or wellbeing) objectives. This report has been prepared in consideration of the Council's duty and the "sustainable development principle", as set out in the 2015 Act. In reaching the recommendation set out below, the Council has sought to ensure that the needs of the present are met without compromising the ability of future generations to meet their own needs.

National Planning Policy:

[Planning Policy Wales](#) (Edition 10) was extensively revised and restructured at the end of 2018 to take into account the themes and approaches set out in the Well-being of Future Generations (Wales) Act 2015, and to deliver the vision for Wales that is set out therein.

PPW10 takes the seven *Well-being Goals* and the five *Ways of Working* as overarching themes and embodies a placemaking approach throughout, with the aim of delivering *Active and Social Places*, *Productive and Enterprising Places* and *Distinctive and Natural Places*. It also identifies the planning system as one of the main tools to create sustainable places, and that placemaking principles are a tool to achieving this through both plan making and the decision making process.

The following guidance is of particular relevance in the assessment of this consultation request:

- Decommissioning of Offshore Renewable Energy Installations Under the Energy Act 2004: Guidance Notes for Industry (March 2019).

- Addendum to Decommissioning of Offshore Energy Installations Under the Energy Act 2004: Guidance Notes for Industry: Tidal Lagoons.

Local Planning Policies

The Development Plan for the area comprises the [Neath Port Talbot Local Development Plan](#) which was adopted in January 2016, and within which the following policies are of relevance:

Strategic Policies :

- **Policy SP1** Climate Change
- **Policy SP2** Health
- **Policy SP3** Sustainable communities
- **Policy SP4** Infrastructure
- **Policy SP5** Development in the Coastal Corridor Strategy Area
- **Policy SP10** Open Space
- **Policy SP11** Employment Growth
- **Policy SP13** Tourism
- **Policy SP14** The Countryside and the Undeveloped Coast
- **Policy SP15** Biodiversity and Geodiversity
- **Policy SP16** Environmental Protection
- **Policy SP17** Minerals
- **Policy SP18** Renewable and Low Carbon Energy
- **Policy SP19** Waste Management
- **Policy SP20** Transport Network
- **Policy SP21** Built Environment and Historic Heritage

Topic Based Policies :

- **Policy SC1** Settlement limits
- **Policy SC2** Protection of Existing Community Facilities
- **Policy I1** Infrastructure Requirements
- **Policy CCUC1** Coastal Corridor University Campus
- **Policy OS1** Open Space Provision
- **Policy OS2** Protection of Existing Open Space
- **Policy TO1** Tourism Development in the Countryside
- **Policy TO2** Protection of Existing Tourism Facilities
- **Policy TO3** Tourism Led Regeneration Scheme
- **Policy TO4** Walking and Cycling Routes
- **Policy EN1** The Undeveloped Coast
- **Policy EN3** Green Wedges
- **Policy EN6** Important Biodiversity and Geodiversity Sites
- **Policy EN7** Important Natural Features
- **Policy EN8** Pollution and Land Stability
- **Policy M2** Surface Coal Operations
- **Policy RE1** Criteria for the Assessment of Renewable and Low Carbon Energy Development

- **Policy RE2** Renewable and Low Carbon Energy in New Development
- **Policy W3** Waste Management in New Development
- **Policy TR1** Transport Proposals
- **Policy TR2** Design and Access of New Development
- **Policy BE1** Design

Supplementary Planning Guidance:

The following SPG is of relevance to this application: -

- [Planning Obligations](#) (October 2016)
- [Parking Standards](#) (October 2016)
- [Pollution](#) (October 2016)
- [Open Space & Greenspace](#) (July 2017)
- [Renewable and Low Carbon Energy](#) (July 2017)
- [Design](#) (July 2017)
- [Landscape & Seascape](#) (May 2018)
- [Biodiversity and Geodiversity](#) (May 2018)
- [The Historic Environment](#) (April 2019)

EIA and AA Screening

As the application is a consultation request and the Authority is not the determining body there is no requirement for the Authority to screen the development under the Environment Impact Assessment Regulations or to carry out a Test of Likely Significance in accordance with the Conservation of Habitats and Species Regulations 2010. It will be for the determining authority to determine whether these regulations need to be addressed and how.

Issues

Having regard to the above, the main issues to consider relate to the principle of the proposed Decommissioning Programme and the potential impacts associated with it, including the impact upon amenity and the financial and ecological environment.

Principle of the Decommissioning Programme.

The submitted report outlines the possible decommissioning options from the retention of the whole of the approved structure through to the removal of the whole approved development and the return of the site to its original condition. Given the potential length of the approved development's operational life (between 60 to 120 years), as well as its offshore location, within a region with the second highest tidal range globally, it is understood that the offshore structures would have to be engineered and constructed to a considerable standard to withstand the substantial constraints associated with this dynamic environment over a prolonged period of time. The practicalities of removing such a structure after such a considerable period of time are outlined within the report. The Authority accepts within the operational lifetime of the structure, it is likely to have become an important imbedded feature within the local and wider ecological environment, as well as a focus within the economy of the region through employment, energy generation and tourism. As such the complete removal of such a structure would undoubtedly be able to have significant potential environmental and financial impacts.

However the long term retention of such a structure also raises potential ecological and financial concerns and impacts and must be carefully considered over the duration of the operational life of the project, as well as for the duration of the project's potential retirement. The Authority notes the emphasis within the guidance documents that decommissioning of long-term, offshore generating stations and tidal lagoons should be reviewed and updated throughout the life of the scheme and welcomes such an approach.

Such an adaptive approach to the construction and operation of the Tidal Lagoon was built into the Order that granted permission for the development through Requirement 6 which requires that "No authorised development are to be commenced until an Adaptive Environmental Management Plan (AEMP) has been submitted to and approved by the relevant planning Authorities." It is considered that any approved Decommissioning Programme should also similarly be based around such an adaptive approach. This would ensure that all necessary decommissioning is fully assessed, identified and planned for throughout the life of the project and that a suitable decommissioning strategy is available at any point when it may be needed such as insolvency, rather than as suggested within the Decommissioning Programme only within 2 years of the end of operational development (Table 12).

During an unexpected event such as insolvency or even a significant change in ownership there is great uncertainty and sometimes a significant change in people involved in a project. By establishing a set and clear framework throughout the operational life of the project, using the continuous monitoring and where necessary mitigation for the impacts associated with the project, can only be of benefit when applied equally to the end of life plan for the physical infrastructure that is proposed to be retained in place in perpetuity. It would appear to make little to no sense to disregard these established working patterns and procedures and start again at the end of the operational life of the project.

As such the Authority would suggest that the same ongoing, holistic approach should be applied to the Decommissioning Programme and Strategy as is applied to the construction and operation of the project through the required AEMP or similar mechanism. It is also considered that such a framework would help to provide sufficient information to inform the required funding for the end of life of the project. The applicants have put forward a £50million Maintenance Reserve Fund (MRF) for the breakwater and breakwater road maintenance which would be built up during the operational life of the project (following or instead of repowering) and used to manage and maintain the retained structures during its retirement. However this figure appears to be based on what they estimate could be raised during the operational life of the project, once costs have been covered, rather than an assessment of what the project would require as a fund that would produce sufficient income to cover the cost of maintaining the structure in perpetuity. It is also a little unclear as to what works this MRF would be expected to cover and which would be funded by the developers. It is assumed that all decommissioning costs will be met by the developer and not through the MRF.

It is also unclear from the report as to when the Community Interest Company (CIC) would be expected to take over the ownership and responsibilities for the remaining lagoon asset. The report states that the MRF would be transferred to the CIC at the

end of the 120 year design life (or at year 60 if the option is chosen not to repower) however the information within tables 13, 14 and 23 would appear to suggest that partial decommissioning would be due to be completed in years 122-123 and with post decommissioning surveys and post decommissioning reporting to the BEIS, NRW and CIC taking place beyond this, which would imply that TLSB would still be responsible for the site at this stage. Without clear information on what the CIC and MRF would be expected to fund it is exceptionally difficult to understand if the MRF funds would be sufficient to produce the income to cover the required works.

While it is accepted that at this stage such costs are currently unknown as the development is largely the first of its kind, particularly constructed in a location such as this; once the development is operational such information would be readily available and would allow modelling of potential onward costs over time, taking into consideration such things as increasing maintenance costs as materials age, long term monitoring, management and mitigation commitments (such as dredging of the navigable channels and sand deposit levels at Crymlyn Burrows) and potential impacts associated with climate change. This type of consideration appears to be missing from Table 12 or the wider report.

Paragraph 3.1.9 of the report considers the impacts associated with Climate Change – however this appears to be limited to consideration of the potential increase in sea level, which the report estimates to be under 0.7m. However there does not appear to be any consideration of an increase in the number or strength of storm events and the resultant increase in management and maintenance cost associated with such. An on-going detailed adaptive approach to the Decommission Programme and Strategy would allow such issues to be assessed, monitored, modelled and mitigated for through an accurate assessment of the required funding necessary for the retention of the project in perpetuity.

It is correct when the developers state (paragraph 5.3.1) that there aren't currently any similar types of projects located within close proximity of the project's location, but identifies that if the development were to go ahead and was a success that there could be other such projects within the Severn Estuary and wider Wales coastal water that they could co-ordinate decommissioning works with. It is for this reason we believe that it is of central importance to establish good practice now for such decommissioning programmes. In 120 years' time many things will have changed and the only way of ensuring that such structure when left in location in perpetuity do not end up as a burdensome legacy up these generations is to ensure that such programmes have been adaptive enough to address any issues that have developed over time – not only during operation, not in the 120th year when it is decommissioned, but in 250 years' time, when that generation will still be required to monitor and maintain the parts of the project that have been left behind.

We have addressed above the need to establish greater understanding of the costs that will be associated with the perpetual management and maintenance of the structure that is planned to be left behind. Central to this would be ensuring that such funds are appropriately secured and safeguarded during the operation of the project. The fund would require regular contribution and management to ensure that it is not placed at risk during market downturns or during periods of insolvency resulting in 'borrowing' from the fund.

Much of the submitted document considers the project up to year 120 and assures that the structures that they wish to be retained on site after decommissioning have a life expectancy in excess of 120 years, and with suitable maintenance in perpetuity. However there appears to be little quantitative information to justify this statement, nor an assessment of what impact climate change would have upon the scale of suitable maintenance or whether sufficient funds have been identified to cover such increases in the cost of maintenance over time. As stated above much of this information may not be available until the development is operational, but the requirement to monitor, assess, and adapt to such must be built into the decommissioning programme now.

In Table 14 under decommissioning activity associated with both the Turbine House removal and Seawall removal, it is unclear what is meant by either 'introduction of rock armour into localised positions from sea' and 'dredging by sea and transportation of materials'. Neither of these terms appear to mean anything and the stated Waste Management Solutions of 'Material imported from original source for sea wall' and re-use within future infrastructure' are no more enlightening. These are both significant structures with large quantities of materials. These statements are not detailed, explanatory, or understandable to any degree in relation to the scale of the works they are purporting to explain. This appears to show a lack of true consideration of whether these are a real option in the assessment of Decommissioning Programme. It is also noted that this information does not clarify how any waste materials that are to be removed from the site will be transported. For instance all of the rock armour material is proposed to be brought to the site by sea only, due to the size and quantity of material required. However the proposed decommission programme appears to lack the necessary detail to identify how any waste produced associated with the decommissioning works will be removed from the area. This information is necessary to allow full identification of the potential impacts associated with the different decommissioning options.

Under section 6.1 (paragraph 2 un-numbered) it states that "...when the final decommissioning measures are known, TLSB will review the original EIA to assess the potential impacts that may arise and are not covered in the initial EIA process." However the EIA Regulations in Wales in relation to general planning applications has changed significantly twice since the submission of the original NSIP development (it is noted that the NSIP process has its own EIA Regulations) and are likely to change significantly again within the 120 year time frame that is the development's predicted lifespan, as such an assurance that TLSB will review the original EIA to assess the potential impacts would be woefully out of date and surely a reference to a review of the AEMP would be a more fitting assessment of the potential environmental impacts of decommissioning.

It is noted that many of the assumptions detailed within the Section 6 – Environmental Impact Assessment are based upon adequate management and maintenance of the retained structure but there is little detail on how they would assess and assure that such future maintenance is adequately funded other than the stated but unsupported figure of £50million MRF.

Under Section 13: Post-Decommissioning Monitoring, Maintenance and Management of the Site, it states that the "The frequency and scope of monitoring may be scaled back as more data is collected providing evidence that there is little change, whereby the frequency could be significantly reduced." However there is

no indication of what procedures or action would be taken if the surveys demonstrated that there were adverse impacts associated with the partial decommissioning of the site, particularly in relation to the enclosed lagoon, the newly opened sluice and turbine area and the impacts on the navigable channels. It is also unclear who would fund any identified mitigation works deemed to be necessary and who would be responsible for the works, the developer or the CIC through the MRF.

CONCLUSION

While the Authority does not necessarily object to the principle within the Decommissioning Programme of only partial decommissioning, we have illustrated above a number of significant concerns in relation to the unsupported assumptions that the document appears to make together with a lack of robust detail and evidence to support some of the proposals. The Authority therefore respectfully requests that these concerns be resolved prior to the Secretary of State's decision on the acceptability of the proposed Decommissioning Programme.