Annex D

Examining Authority's Questions

These are the Examining Authority's written questions (EAQs) and requests for information. Responses should be received by the Examining Authority (ExA) (also referred to as the Panel) on or before **Wednesday 9 July 2014**.

Questions are asked of interested and/or other parties, where applicable, these have been identified against each question. In addition to any identified party, all interested parties are welcome to respond to any question wherever they have relevant information to offer.

It has been assumed by the Panel that the applicant will have reviewed the section 55 acceptance checklist in relation to this application and will provide responses to all omissions and similar matters by the deadline set. Such responses, where incorporated in any form of written response/submission, should be clearly identified. In relation to information already submitted by the applicant, questions have been set out.

Where questions below can be fully addressed within a Statement of Common Ground (SoCG) then a reference to the relevant SOCG will be sufficient.

No.	Question to:	Question Subject Matter
0.0		EXAMINATION MANAGEMENT
		Site inspection in the company of interested parties
0.1	All interested parties	In addition to unaccompanied site inspections the Panel is considering inspecting sites on Wednesday 30 July, in the company of any interested parties who wish to attend, of the following locations:
		Offshore: To take a boat out of the Tawe dredged channel, around the perimeter of the proposed development and up the dredged channel into the River Neath.

No.	Question to:	Question Subject Matter
		Onshore: To take a minibus to a number of key Landscape and Visual Assessment viewpoints as set out in the Environmental Statement (ES). To visit locations associated with onshore access to the scheme, and with grid connection to the Baglan Bay substation site. Do any interested parties have a view on which of these locations are the priorities for the
		Panel to inspect and/or do they suggest additional locations for this inspection in the company of interested parties or for other unaccompanied site inspections by the Panel?
1.0		PRINCIPLE OF DEVELOPMENT: ASSESSMENT APPROACH and POLICY BACKGROUND
		General and Law and Policy
1.1	Applicant, Welsh Government (WG), Natural Resources Wales (NRW) and Local Authorities (LAs)	Although National Policy Statements (NPSs) EN-1 and EN-3 are referred to in the Planning Statement (application document 8.2); no NPS is designated in relation to tidal projects (as made clear in paragraph 1.4.5 of National Policy Statement EN-1). However, the Panel considers that the policies in the Energy NPSs relating to the way in which Development Consent Orders (DCO) should be set out are potentially important and relevant to this examination. Interested parties are invited to comment upon this and to identify any further or particular policies in NPSs that they consider important and relevant to the examination (as described under s105(2)(c)) of the Planning Act 2008 (PA2008)).
1.2	Applicant	Is it agreed that section 27 of PA2008 relating to dams and reservoirs is not yet in force?
1.3	Applicant, WG and LAs	Given that there is no designated National Policy Statement in relation to the proposed development; given the breadth of information provided in the Planning Statement, which key established policies of government or of local government in Wales/the United Kingdom/internationally, is it considered that the need for the project is set out?

No.	Question to:	Question Subject Matter
1.4	WG and LAs	a) Do the WG and LAs accept that the need case for the project is made, as set out in the Planning Statement?
		b) In particular, that in principle, the project conforms with Planning Policy Wales (PPW)?
1.5	LAs	The LAs are invited, in answer to this question or in a SOCG or LIR as preferred, to set out:
		a) The Development Plan Policies they consider relevant;
		b) Any Development Plan Policies with which the scheme is considered to conflict,
		 c) Whether any identified conflict would amount to a reason to refuse development consent? And;
		d) Any further mitigation requested.
1.6	LAs, NRW and WG	Table 9.2 of the Planning Statement and the document entitled 'proposed Heads of Terms for a Development Consent Obligation (DCOb)' indicate an Obligation is due to be agreed.
		The Table of Mitigation sets out a number of mitigation measures to be secured by the DCOb.
		Which aspects of the DCO, if any, are considered by the LAs, NRW, WG to be essential to enable the scheme to be consented?

No.	Question to:	Question Subject Matter
1.7	Applicant	Table 9.2 of the Planning Statement and the document entitled 'proposed Heads of Terms for a Development Consent Obligation' indicate an Obligation is due to be agreed.
		a) When does the applicant expect to conclude its proposed DCOb?
		b) How can the Panel take into account mitigation proposed to be included in an Obligation that has not been agreed and executed?
		c) If it is not to be concluded during the examination, will the mitigation it provides for, be secured in some other way, and if so how?
1.8	NRW, LAs and WG	Are the proposed mitigation measures and the way they are proposed to be secured by the draft DCO (as listed in the Table of Mitigation) considered to be sufficient?
1.9	LAs	Given the enforcement role of the LAs, are the LAs content that the Requirements in the proposed DCO are all consistent with the tests set out in paragraph 3.6.2 of Planning Policy Wales?
1.10	Applicant	a) Given there is no generation capacity proposed to be stated in the DCO how can the project be said to be a Nationally Significant Infrastructure Project under ss14 and 15 PA2008?
		b) Does the applicant intend that the DCO will state the generating capacity before it is made?
1.11	Applicant and all interested parties	The applicant includes in its proposed DCO, a range of works that might not normally be considered as principal development in an application for a generating station. However, the Panel recognises that PA2008 does not place a limitation on the scope of principal

No.	Question to:	Question Subject Matter
		development, and that guidance on the subject is not prescriptive or binding.
		The Panel invites legal submissions from the applicant to support its position that all the proposed development is properly described as principal development, and from any party who wishes to argue against that position.
1.12	NRW and LAs	a) With regard to consents set out in application document 5.6, that would need to be
		granted by NRW/the LAs if development consent were granted, are the consents listed likely to be ultimately forthcoming?
		b) Are any of them likely to present insurmountable obstacles to the development becoming operational?
1.13	Applicant	With regard to the Offshore Consents 5, 6, 7, 8 and 9 and Onshore Consents 2 and 4, has the applicant obtained any letters of comfort or similar documents and/or what evidence can be provided that the consents are likely to be obtainable if Development Consent is granted?
1.14	Applicant	In relation to the cable corridor, it is unclear as to whether there may be a need to open up the road to facilitate the burying of the cable. This would need a separate agreement to be entered into by the Welsh Ministers, the applicant and possibly the LA. It is assumed that the form of agreement could be a S50 licence, a Section 184 Agreement or a Section 278 Agreement. The Panel request the applicant to confirm its position in relation to these agreements.

No.	Question to:	Question Subject Matter
1.15	Applicant and NRW	NRW has noted concerns in terms of impacts:on European Sites under the Habitats Regulations;
		in the Water Framework Directive Assessment;
		 on terrestrial ecology and Sites of Special Scientific Interest (SSSIs);
		 on intertidal benthic ecology (including loss of Biodiversity Action Plan Annex 1 habitats and degradation of features including in an SSSI, mitigation, offsetting, omission of Blackpill SSSI baseline data)
		 on sub-tidal ecology (including uncertainty over areas, effects and dredge disposal); in relation to bio-security;
		 on fish (including assessment approach, modelling parameters, impacts of sediment levels on fish spawning including interaction with climate change, uncertainty over monitoring and mitigation proposals);
		 on coastal birds (including Sanderling / Ringed Plover and Great Crested Grebe) and,
		on the value of heritage assets.
		The Panel requests the applicant to provide supplementary information addressing these points, and to identify clearly, the scientific data, evidence and expert opinion on which it is based.
1.16	Applicant	Given the provisions of s135(1) of PA2008, has agreement been reached with the Crown Estate for acquisition of the necessary foreshore and/or other Crown Estate land?
1.17	WG relevant LAs and NRW	Does the Project (Tidal Lagoon Swansea Bay) help deliver against the following:-
		a) Climate Change Strategy for Wales (Welsh Government, October 2010)

No.	Question to:	Question Subject Matter
		b) Low Carbon Revolution- Welsh Government Energy Policy Statement (2010)
		c) Energy Wales: A Low Carbon Transition (2010)
		d) Planning Policy Wales (Ed 5, 2012)
		 e) Marine Renewable Strategy Framework, Approach to Sustainable Development (March 2011)
		f) Ministerial Policy Statement on Marine Energy in Wales (July 2009)
		g) Interim Marine Aggregates Dredging Policy, Welsh Government (2004)
1.18	WG relevant LAs and NRW	Do the parties consider that within the Welsh context, are there are any other present or forthcoming future policies, strategies and initiatives that are relevant to the examination and therefore that we should consider during our examination of the Project?
1.19	WG relevant LAs and NRW	In framing of the application for the Project, the applicant states that due notice has been given to the following TAN's:
		TAN 5 : Nature Conservation and Planning (2009)
		TAN 8 : Renewable Energy (2005)
		TAN 12 : Design (adopted 2009)
		TAN 14 : Coastal Planning (1998)
		TAN 11: Noise (1997)
		TAN 15 : Development and Flood Risk (July 2004) TAN 21 : Waste (2001)
		a) Are there any elements within the application that fail to conform with or contradict the above TANs?
		b) Are there any other TANs that the applicant should have considered?

No.	Question to:	Question Subject Matter
1.20	CCSC	To what extent does the Project conform with LA's UDP policies on Sustainability and Renewable Energy?
1.21	Applicant and CCSC	Does the Project's lack of clarity on decommissioning cause concern when set against UDP Policy R11, part of which states that new development will be favoured provided, "the development includes measures to secure the satisfactory removal of structures / related infrastructure and acceptable after use which brings about a net gain where practically feasible for biodiversity following cessation of operation of the instillation"?
1.22	WG and CCSC	 a) Does the Project conform with the UDP and its key role in delivering Sustainability? b) Does the Project aid the delivery of the Shoreline Management Plan (SMP2), Lavernock Point to St Anne's Head?
2.0		Renewable Energy Generation and Climate Change
2.1	Applicant	In the UK Renewable Energy Strategy, presented to Parliament by the Secretary of State for Energy and Climate Change (SSECC) in July 2009, tidal range power is described in the following terms:
		Although well established, tidal range power remains relatively expensive and there are few applications worldwide. The UK, however, has extensive tidal range resource in the Severn Estuary and there are several other smaller sites along the west coasts of England and Wales.
		a) Is the first sentence in the statement still accurate?
		b) If not, in what ways has the situation developed or otherwise altered since 2009 to make tidal range power a more or less attractive financial proposition?

No.	Question to:	Question Subject Matter
2.2	Applicant	What are the assumptions in the mathematical calculation behind the estimated annual 400,000 MWh output from the Project given at Section 2.6 (page 53) of the Design and Access statement (Document 8.1)?
2.3	Applicant	In the context of a national energy policy that seeks to promote a low carbon economy, as well as achieving security and diversity of supply, what particular features of the Project are advanced in its support?
2.4	NRW	In its statement of Environmental Policy, NRW states that:
		"Our purpose is to ensure that the natural resources of Wales are sustainably maintained, enhanced and used, now and in the future."
		a) How does the current application for the Project fit with this overall statement of purpose?
		b) In particular how does the broad design and scale of the Project relate to sustainable use and exploitation of the natural resource of tidal range power latent within Swansea Bay?
3.0		CONSTRUCTION PROCESS, DREDGING AND PHYSICAL PROCESSES
		Construction Process
3.1	Applicant	Table 4.1 of the ES is provided to describe the design options under consideration. However by comparing the description of the development in Chapter 4 with this table, not all of the construction options are included in this table.
		Please could the applicant provide an updated table, which clearly sets out all of the options under consideration, including details identifying which of these options have been assessed in the ES and where applicable, evidence to justify the 'worst case' adopted for

No.	Question to:	Question Subject Matter
		the purposes of the assessment?
3.2	Applicant	A number of methods for constructing the sea-wall are described in the ES (Project Description, paras 4.3.1-4.3.4) and illustrated in Figures 4.4-4.6. It is explained that certain sections of the sea-wall will require certain construction methods, for example the inclusion of a rock-armour crest for health and safety reasons.
		a) Please could the applicant provide a figure (drawn to scale), which illustrates where each of these sections is proposed to be located?
		b) Paragraph 4.3.1.7 explains that the seawall will be constructed to absorb 60-70% of wave energy. How will this design requirement be incorporated into the DCO?
		c) How has this design been incorporated into the coastal processes modelling?
3.3	Applicant	Paragraph 4.3.1.11 of the ES (Project Description) states that rock armour will be placed on the sea-wall, 'at a greater height' to allow for settlement.
		a) What is the maximum extent of the 'greater height'?
		b) How much settlement is expected? And;
		c) Over what timescale is the settlement expected to happen?
3.4	Applicant	Paragraph 4.3.1.8 of the ES (Project Description) refers to an 'engineered toe'. No description of this is provided; it is not known what construction and engineering requirements will be necessary to provide the 'engineered toe'.

Question to:	Question Subject Matter
	Please can the applicant provide a design drawing showing the engineered toe as well as a plan showing where it will be required and details explaining how it will be constructed?
Applicant	Paragraph 4.3.3.15 (Project Description) confirms that the gantry crane will sit above the turbine housing unit, however, it is anticipated that the roof of the unit will be raised and the crane housed internally. The dimensions of the internal enclosure are not provided in the ES.
	a) How and where has this part of the construction process been incorporated into the ES in terms of impacts?
	b) Please could the applicant explain how this design aspect will be secured in the DCO?
Applicant, MMO and NE	The ES includes a description of temporary work required to facilitate the construction of the development (Section 4.5 (of the Project Description onwards)). The draft DCO does not appear to refer to some of the aspects of the temporary construction works, (for example, lay-down areas, material handling facilities, demolition of sea walls and existing development and concrete crushing etc).
	a) Please can the applicant provide a list of work processes and areas that will be included in the 'temporary works' and confirm (by cross referencing the work processes and areas to the relevant sections of the ES) that all aspects have been assessed in the ES.
	b) Does the DCO require amendment to refer to these temporary works?
	Applicant Applicant, MMO

No.	Question to:	Question Subject Matter
3.7	Applicant	The ES Chapter 4 (Project Description) identifies that piling is likely to take place offshore during the construction of the cofferdam that is required for the turbine and sluice-gate housing, as well as to create the dolphin piles that are proposed to surround the outer edge of the lagoon in the vicinity of the turbine and sluice gates.
		a) Is piling proposed to take place in any other location?
		b) If so, please could the location be shown on an OS based plan, together with the provision of details of the likely duration of the piling, the type of piling proposed and whether the piling will be undertaken 24/7?
3.8	Applicant	The ES Chapter 4 (Project Description) identifies that both percussion piling and vibration piling/piling by jack-up barge using a piling rig are likely to be required, with percussive methods necessary when harder base rock materials are encountered.
		Have the noise and vibration calculations given in ES Chapter 19 assumed that piling would be carried out by vibration piling alone?
3.9	Applicant	Please can the applicant provide an OS based plan (or set of plans), showing both the locational context and the layout of the following construction areas (drawn at a standard scale and with a north point):-
		a) The concrete batching plant and associated yard and storage bin areas;
		b) The areas of sea wall and breakwater that are to be demolished;
		 c) Locations for storage of rock armour and other construction aggregate supplies brought to site by sea; and

No.	Question to:	Question Subject Matter
		d) The turbine fabrication yard area including the turbine fabrication building.
3.10	Applicant Part a of the question is aimed at all interested parties including (but not restricted to Dŵr Cymru (Welsh Water) (DCWW) and NRW)	 The sediment analysis chart in ES Chapter 4 (Project Description, Table 4.2) gives the results of the analysis for a suite of metals taken from various samples within the proposed lagoon area, at various depths. The analysis results are compared with CEFAS thresholds, which consider their suitability for sea disposal. The contaminants have not been considered against Dutch Standards, which are environmental pollutant reference values used in environmental remediation, investigation and clean up. The 0.7m depth sample from VC206 shows arsenic values of 48.3mg/kg, which is close to the threshold for the Dutch intervention threshold (55mg/kg)¹. The copper, lead, nickel and zinc levels from this sample are above the Dutch intervention levels. Samples from VC202, 204 and 208 also have metal contents above the Dutch target value² but below the intervention value. All of the contaminated samples were located along the western and southern areas within the lagoon footprint. a) Are the Dutch standards relevant to marine sediments? If not, are there any other standards that are commonly used in the UK, which give thresholds relating to metal contamination in sediments, in terms of their potential for ecological harm in the marine environment?
		b) What additional sampling and analysis of sediment samples within the lagoon area is proposed, in order to identify whether there are any more contaminated areas?

¹ The soil remediation intervention values indicate when the functional properties of soils for humans, plants and animals is seriously impaired or threatened. They are representative of the level of contamination above which a serious case of soil contamination is deemed to exist. ² The target value is related to Dutch national background concentrations.

No.	Question to:	Question Subject Matter
		c) What measures will be taken to minimize the risk of mobilizing the metals within these contaminated areas during dredging and avoiding their use in the lagoon walls?
		d) Para 4.3.1.27 of ES Chapter 4 (Project Description) states that the 'final location of the dredged areas will be dictated by the location of the most suitable material from an engineering property and quality perspective'.
		e) Does 'quality' include consideration of contamination levels?
3.11	Applicant	Figure 4.35 of ES Chapter 4 shows the location of the proposed access road and the text in Paragraph 4.3.7.6 in this document states that the access track will be constructed in the same method as the seawall, including rock-armour and then the proposed dune-scape built up either side.
		a) Is it proposed to surface the access track, in order to reduce noise and dust emissions from dump trucks and the lorries moving construction materials including concrete around the site?
		b) Is there any difference in construction methods/surfacing between the 'Port Road' and the 'Project Road' identified in Para 4.3.7.9 and shown on Figure 4.37 and 4.38?
		c) Please could the applicant show on a OS based plan the proposed access and egress points into the construction areas for all HGV delivery lorries, as well as details of lorry routing around the construction areas?

No.	Question to:	Question Subject Matter
3.12	Applicant	ES Chapter 4 (Project Description) paragraph 4.5.2.5 describes the working hours for the project.
		a) Will HGV movements to and from the construction site be restricted to normal
		working hours (eg 0800-1800 Monday to Friday and 0800-1300 Saturday)?
		b) Will the concrete batching plant work 24/7?
3.13	Applicant Cornwall Council is requested to respond to part c in particular	 Chapter 4, Para 4.6.2.1 and Table 4.6 identify that 1.92mt of rock armour and 0.87mt of rock underlayer will be supplied from Dean Quarry in Cornwall by 10,000 tonne capacity barge. As construction is anticipated to take place over 3 years, a rate of rock supply/importation of circa 930,000 tonnes of rock is assumed necessary. a) Dean Quarry has recently been marketed for sale with the sales particulars identifying that it operated up to 2005 with an annual output of approximately 200,000 tpa. The loading jetty is included in the sale, although the conveyor system installed on the jetty deck has been removed. In view of the dormant nature of the quarry, and the previous output levels of circa 20% of the required output level to supply the TLSB project:-Is there a supply agreement in place between the quarry owners and the applicant to deliver circa 930,000 tpa of rock and rock armour over a 3 year period?
		b) Will it be possible to re-establish the quarry infrastructure necessary in order to deliver a major increase in rock outputs level within the required timeframe?
		c) Are there any planning permission restrictions on outputs or schemes required pursuant to conditions that have to be satisfied before rock extraction can re-

No.	Question to:	Question Subject Matter
		commence at Dean Quarry?
		d) How realistic is it to expect deliveries of rock and rock armour from Dean Quarry to take place at the rate of 3 x 10,000 tonne barges per week, all year round?
		e) What contingency arrangements would there be for rock supply at times when the transport of the rock by sea cannot be achieved, due to unsuitable sea conditions?
3.14	Applicant and Swansea Port Operator (ABP)	The possibility of bringing the raw materials for concrete by rail is identified in ES Chapter 4, paragraph 4.6.3.2. The site of a potential rail-head for cement/PFA/GGBFS/other is also identified on drawing 4.58 (this shows the Indicative batching plant layout). The quantities of each type of building material required and the number of HGV movements that these would generate are given in Table 4.6.
		 a) In view of the applicant's stated intention to include principles and elements of sustainable development in the project design, if the raw materials for the concrete were imported by rail, it would reduce the number of HGVs visiting the site by an average of 400 HGV movements per week over the construction phase. In order to establish whether these materials can be delivered in a sustainable manner, by rail, it is important to establish whether the adjacent rail head could be adapted for the importation of construction materials:-Please could the applicant describe the technical and financial feasibility (or otherwise) of using the adjacent port rail-head for the importation of construction materials, including cement, cement replacement materials and the construction aggregates necessary to produce 220,000 m3 of concrete over three years? The statement should address matters including (i) the infrastructure improvements necessary to accommodate the types and sizes of freight wagons required for the various types of construction materials; (ii) the

No.	Question to:	Question Subject Matter
		availability of rolling stock for delivering materials by rail; (iii) the availability of time-slots on the rail network to enable a reliable supply to construction aggregates, cement and cement substitutes to be delivered to the project by rail. <i>These details</i> <i>could be addressed through a Statement of Common Ground.</i>
		b) In ES Chapter 4 (Project Description), Table 4.6, the last column is entitled, 'Movements per Week' and the number of HGV movements is given for the various types of construction materials required by the project. In this table, is a HGV movement equivalent to 1 HGV bringing materials to the site (in which case there are also an equivalent number of empty HGVs leaving the site), or do these HGV movements reflect the fact that for every delivery, there is also an empty HGV leaving the site (in which case the number of HGVs delivering material to the site are half of the stated numbers within this table)?
		c) Are the vehicle movements per week the average number of vehicles per week over the project construction phase, or the maximum number of vehicles per week? If they are average numbers, please could maximum and minimum numbers of HGVs be provided, as well as the average and maximum number of HGV movements on a daily basis during the various stages of construction?
3.15	Applicant	Two options are identified for dealing with the DCWW (DCC) water outfall pipe; they are (i) leave it where it is and provide additional treatment processes to reduce the risk of microbial contamination of the lagoon water or (ii) extend the outfall pipe by 1.5km so that it discharges outside the southern edge of the lagoon.
		DCC's view is that the only viable option in respect of the current outfall is extension beyond the sea wall. This will provide a consistent solution which is resilient to future

No.	Question to:	Question Subject Matter
		potential population growth and the effects of climate change. DCC stated in their RR that they, "therefore supports the extension of the outfall in accordance with Work no. 3, Part 1, Schedule 1 of the draft DCO and is carrying out detailed design and costings analysis to inform TLSB".
		The Non –Technical Summary states in the introduction that, 'An integral part of the Project is the provision of an enclosed water sports venue capable of providing a safe body of water for local, regional, national and international events'. In view of this aspiration and DCC's view:-
		a) Would option (ii) provide a more robust solution for ensuring that the microbial levels within the lagoon are kept at levels which facilitate water sports activities all year round?
		b) If the outfall is left where it is, what is the risk and likelihood of unexpected heavy rainfall events causing storm water flows to discharge into the lagoon which give rise to elevated microbial levels and thus water sports would not be safe?
		c) Please could the applicant identify on a plan the location, size (including height) and layout of the proposed UV treatment plant, if it is to be incorporated into the design?
		d) Is there an agreement in place between the applicant and DCWW for the operation of the UV plant after it has been constructed?
		e) Is the applicant prepared to agree with DCC that the foul water outlet will need to

No.	Question to:	Question Subject Matter
		be extended outside the lagoon as part of the DCO?
		Physical/Coastal Processes
3.16	Applicant	a) Potential impact on water chemistry from impoundment resulting from sea walls is described on page 51 of the Water Framework Directive (WFD) Report. Is this impact considered acceptable under the terms of the WFD?
		b) Given the need for there to be certainty over what is to be consented would there be any negative consequences upon the removal of provisions from the DCO to remove the option of retaining the outfall outlet pipe in its current position (thus by default requiring the outfall to be relocated out with the proposed lagoon)?
3.17	Applicant	Para 4.7.7.10 of Chapter 4 (Project Description) states that there may be a need to bring a mobile crushing plant to site at times to re-process temporary slabs and hard-standing as well as crushing of the concrete that is produced from the demolition of the sea wall. It is important to understand whether the concrete derived from the demolition of the sea walls and other concrete structures will be crushed on site or whether these materials will be removed off site for recycling.
		a) How much concrete will be derived from the sea wall demolition, when will it be produced within the construction phase and over what timescale?
		b) If it is not crushed on site, where will it go for recycling or disposal?
		c) What is the likelihood of the concrete being crushed on site?
		d) What mitigation will be used during the use of the crushing plant in terms of noise

No.	Question to:	Question Subject Matter
		and dust control and how will these measures be incorporated into the DCO?
3.18	Applicant	Paragraph 4.7.7.15 of the Project Description states that rock will be stored in an area of 400m by 400m at the western landfall and 250m by 250m at the eastern landfall. It is unclear whether these areas will be located onshore or offshore. If they are to be located offshore, how will the storage areas be constructed and where in the ES has this operation been considered in terms of impacts on the environment?
3.19	Applicant	In view of the proposed location of the Project walls adjacent to the channels of the River Tawe and River Neath:-
		a) Will the presence of the lagoon walls adjacent to the river channels give rise to a reduction in velocity of the river water entering the bay?
		b) Will there be an increase in sediment deposition either side of the lagoon, caused by changes in river velocity and/or turbidity?
	Statement to frame following questions	Chapter 6 of the ES is entitled Coastal Processes, Sediment Transport and Contamination. In paragraph 6.5.1.41, baseline conditions for flood and ebb tidal currents are described as follows:
		The characteristics of the baseline flood and ebb tidal currents within Swansea Bay lead to a clear tidal residual pattern (see Figure 6.40, Volume 2), which includes: i. an anticlockwise circulation eddy to the west of Swansea Channel, extending from the shoreline to the 10m below CD contour;
		ii. shoreline parallel residuals across the Swansea Bay intertidal areas in a westerly direction between Mumbles Head and Port Talbot; and iii. north-east tidal residuals in the eastern region of the bay, between 0m CD and the 10m
		below CD contour, orientated towards Aberafan Sands and Port Talbot.

No.	Question to:	Question Subject Matter
		The long term effect of creation of a lagoon is described in paragraph 6.5.2.59 of Chapter 6 of the ES Coastal Processes in the following terms: It is considered that the completed Project will modify and redefine the existing residual circulation within the western region of Swansea Bay by effectively splitting the bay into two smaller embayment cells whereby the Lagoon structure essentially becomes a headland, thus restricting exchanges between either sides of the Lagoon. And the western region of the bay is expected to experience an increased 'trapping' potential of sediments (predominantly mud) in the future compared to existing conditions, particularly across the shallow subtidal areas adjacent to the Blackpill SSSI and within the Swansea Approach Channel.
3.20	NRW and Applicant	Are the dominant forces affecting sediment transportation and coastal morphology in and around Swansea Bay sufficiently understood to enable reliable assessments to be made of the broad consequences for patterns of erosion and deposition in and around the Bay from the introduction of a coastal lagoon between the mouths of the Rivers Tawe and Neath?
3.21	Applicant	 Have the consequences of changes in the processes and patterns of erosion and deposition on the shoreline east and west of the proposed lagoon been appropriately examined and assessed for: Features of interest of the Kenfig SAC the Crymlyn Burrows SSSI and the Blackpill SSSI The sandy beaches and amenity value of Swansea Town Beach Aberavon Town Beach (Aberafan Beach)

No.	Question to:	Question Subject Matter
3.22	Applicant	Are there other features of Swansea Bay that are considered particularly sensitive to changes in patterns of erosion and deposition that have not been appropriately examined and assessed?
3.23	Applicant	Would further hydrological modelling significantly assist in predicting the impact on coastal processes of the existence of the proposed lagoon?
4.0		SPECIES AND HABITATS – EUROPEAN SITES AND OTHER DESIGNATED SITES
4.1	Applicant	In NRW's relevant representations on the application (letter of 14 April 2014) it is stated that
		"The development will have a likely significant effect on European designated Special Areas of Conservation (SACs)".
		The European designated sites that NRW has gone on to identify as subject to likely significant effects are Kenfig SAC, Crymlyn Bog SAC, Pembrokeshire Marine (PM) SAC, Cardigan Bay (CB) SAC and Pen Llyn a'r Sarnau (PLS) SAC.
		The applicant's conclusion at the screening stage was that "no likely significant effects are predicted on Kenfig SAC" (para 4.7.11 of the Habitat Regulations Updated Screening Report, February 2014, Appendix 2 page 23 to be found in Report 5.5b: Habitat Regulations Assessment Appendices submitted with the Application).
		a) Do the above diverging views reflect the current position of the two parties in respect of Kenfig SAC? If there has been any modification of one or other of these two party's views, why are the former positions not held to?
		b) If the difference in views still exists, is there any evidence or argument that either

No.	Question to:	Question Subject Matter
		side wishes to put forward in support of the position taken in respect of "likely significant effect" on Kenfig SAC?
4.2	Applicant	Potential impacts on Crymlyn Bog SAC of NO ₂ from construction traffic and of potential saline intrusion of groundwater are covered in Section 3 of the applicant's Updated Screening Report of February 2014 with the conclusion that:
		"no likely significant effects are predicted on Crymln Bog SAC" (para 3.5.1.1 of the Habitat Regulations Updated Screening Report, February 2014, Appendix 2 in Report 5.5b: Habitat Regulations Assessment Appendices, page 98).
		a) Does the NRW hold to the position that a small increase in NO_2 for a limited period would have a likely significant effect on the Crymlyn Bog SAC?
		b) If so in what manner would that significant effect be likely to manifest?
4.3	NRW	The effects of the proposed tidal lagoon on Grey Seals are examined in Section 11 of the Report to inform Habitats Regulation Assessment, Document 5.5 which presents a general conclusion that the Project would have no significant effect on the achievement of conservation objectives for grey seals associated with Pembrokeshire Marine SAC, Cardigan Bay SAC and Lundy SAC.
		Does the NRW still hold the view that the proposed Project would have a likely significant effect on the Pembrokeshire Marine (PM) SAC, Cardigan Bay (CB) SAC and Pen Llyn a'r Sarnau (PLS) SAC?
4.4	Applicant	A Countryside Council for Wales (CCW) publication 'Your Special Site and its Future' describes the Crymlyn Burrows SSSI as including "fine examples of habitat transitions between Sand dune and Saltmarsh habitats."

No.	Question to:	Question Subject Matter
		To what extent would the proposed lagoon lying immediately to the west of the boundary of the SSSI, affect the balance of forces, including coastal processes that currently operate to maintain the Crymlyn Burrows in a "state of transition"?
4.5	Applicant	The foreshore of the western part of Swansea Bay has elements of bedrock together with shifting superficial deposits of mud, silt and sand. A website on Blackpill SSSI says that "The mud and sand provide the perfect habitat for many marine invertebrates, the rich source of food on which the 150 or so species of birds recorded here depend". (http://www.swansea.gov.uk/blackpillwildlife).
		On page 48 of the Design and Access Statement a photograph taken from a point north of The Mumbles is included as a representative view of the foreshore of the eastern part of Swansea Bay and shows part of the Blackpill SSSI. The impression is of a foreshore which is largely covered by silty sand.
		a) Has the character of the superficial deposits on the foreshore been significantly affected by weather conditions earlier in 2014? If so were these the result of an extreme event or part of the natural fluctuation exhibited in the Blackpill SSSI?
		b) Is a situation where the foreshore at Blackpill contains shifting superficial deposits of mud, silt and sand with elements of exposed bedrock providing perfect habitat for marine invertebrates likely to be altered by changes to coastal processes that would follow from construction of the proposed tidal lagoon? If so are the alterations likely to have positive or negative effects on birds, in particular on the Sanderling, Ringed Plover and Oystercatcher for which the area is particularly important?

No.	Question to:	Question Subject Matter
4.6	Applicant	Benthic Ecology and Protected Features: In Chapter 8 of the ES, the text refers to Sabellaria reef, hydroid rockpools and intertidal mudflat and sandflat as "protected features". In paragraph 8.2.0.5 of Chapter 8 of the ES there is reference to a list of the biodiversity in need of protection in the North-East Atlantic which is being used to guide the setting of priorities for further work on the OSPAR Convention and protection of marine biodiversity.
		Is the term "protected feature" being used as shorthand for types of marine habitat identified in that list as being in need of protection?
4.7	Applicant	Section 6.3.3 of the Adaptive Environmental Monitoring Plan (page 16 of Appendix 23.1 in Document 6.4) is addressed to the question of translocation of biogenic reefs built by tube-worms in the genus, Sabellaria and states that "the effectiveness of translocation mitigation for Sabellaria is not proven".
		What is known about the conditions that would be most likely to lead to successful translocation of this species and can any assurances be given that translocation is likely to be successful?
4.8	Applicant	As described in the Chapter 4 of the ES, Project Description, paragraph 4.5.3.8.
		 a) Please can the applicant provide a plan showing the known existing locations of the Sabellaria colonies as well as plan showing the proposed location for its receptor habitat.
		b) (How will the rocks that host the Sabellaria be moved and when in the construction process will this be carried out?

No.	Question to:	Question Subject Matter
		c) How will the translocation be managed, in terms of ensuring that the receptor habitat is suitable and operations are supervised and then monitored by a competent ecologist?
5.0		COASTAL BIRDS AND MARINE MAMMALS
5.1	Applicant, RSPB and NRW	It is recognised that the impacts upon the herring population arising from the Project will impact upon great crested grebes and the Royal Society for the Protection of Birds (RSPB) has raised concerns on the efficacy of mitigation measures proposed.
		What steps has the applicant taken to work with NRW and RSPB to address these concerns and is there any further work on this issue proposed?
5.2	RSPB	Please could the RSPB clarify what its concerns are regarding a 'lack of analysis of ringed plover and sanderling passage populations'?
5.3	Applicant	Has there been any assessment of the potential effects on bird populations from installing the cable through the Crymlyn Burrows SSSI?
5.4	Applicant	There is an assumption that the construction effects that are likely to impact upon coastal birds will take place primarily in summer and thus will not affect the over-wintering bird interest, particularly the species associated with Blackpill SSSI. However, the only works discussed in the assessment are the construction of the sea walls and dredging. Other construction works are likely to affect coastal birds including the unloading of rock armour into the rock store areas and piling.
		Please could the applicant provide details of winter/summer/all year round construction activities likely to impact upon coastal birds and provide cross references to the parts of the ES where their impacts upon coastal birds are assessed.

No.	Question to:	Question Subject Matter
5.5	NRW, RSPB	The ES highlights potential collision risks to great crested grebes and cormorants. The ES concludes that collision risk is likely to be low.
		Please could NRW/RSPB confirm whether they are satisfied with the level of detail provided on this matter and whether they agree with the conclusion?
5.6	Interested Parties (IPs) with an interest in coastal birds, including,	 a) Has the ES considered all of the projects that should be identified in terms of cumulative impacts upon coastal birds? If there are any projects missing, please explain the link between this Project and the other projects.
	but not limited to NRW,LAs and RSPB	b) Are the mitigation measures that are proposed for the cumulative impacts from this Project and the Swansea University Bay Campus (SUBC) (in the form of a warden employed during the operational phase and the creation of a beach which would be an alternative focus for visitors) appropriate and adequate?
5.7	Applicant and NRW	How will a programme of monitoring and management be established for marine mammals through a requirement within the DCO in order to ensure minimal impacts occur upon marine mammals during all stages of the TLSB?
5.8	Applicant	Mitigation for the effects of piling upon marine mammals would be secured through the Construction Environmental Management Plan (CEMP). How can the DCO be modified to ensure that these mitigation requirements are secured
5.9	Applicant	within the CEMP?
5.5	Applicant	If a marine mammal became trapped in the lagoon, mitigation would be via a capture and release plan. It would involve liaison with the British Divers Marine Life Rescue, Llys Nini RSPCA and RSPCA Cymru. This work would be specified within the Operational

No.	Question to:	Question Subject Matter
		Environmental Management Plan (OEMP).
		a) Please could the applicant provide evidence to show that these bodies have agreed to participate?
		b) How can this mitigation be specified within the DCO, so that there is certainty that this matter will indeed be covered within the OEMP?
5.10	Porthcawl Environmental Trust, Rhossili Working Group and	The WWF has identified the Outer Bristol Channel as an A/B site of importance to harbour porpoise (which could lead to the designation of a SAC for harbour porpoise in the vicinity of the Project).
	NRW	Is there any further information on this matter, especially regarding the timescales and locations of the possible SAC designation?
		Inter-tidal and subtidal benthic ecology
5.11	Applicant	a) Has a full bio-security risk assessment been carried, assessing the risk of invasive species being brought into the Project area by ship?
		b) If so, has it been circulated to relevant IPs for comment? If not, when will it be prepared?
		c) How will its risk management measures be incorporated into the CEMP and the DCO?
5.12	Applicant and NRW	Has agreement been reached on the matters that NRW raised in its RR regarding sub-tidal benthic ecology and inter-tidal ecology? <i>This could be addressed by a Statement of Common Ground.</i>

No.	Question to:	Question Subject Matter
5.13	Applicant	Accidental spillages and discharges arising during the construction phase are to be controlled through good practice, with control measures included in the CEMP.
		How will spillage control and management within the CEMP be addressed within the DCO?
5.14	Applicant	a) Is the lagoon a suitable potential receptor for new oyster beds, given the potential conflict that may occur with maintenance dredging?
		b) How will this conflict be minimised?
6.0		SHIPPING, RECREATIONAL AND NAVIGATIONAL SAFETY
6.1	Swansea ABP	Please supply the shipping statistics for the last two years including the largest ship to have entered the port during this period by tonnage and maximum draft?
6.2	Swansea ABP	Have discussions taken place with the Applicant regarding the apportioning of costs regarding the extra surveying and maintenance dredging that will be required at Swansea and Port Talbot?(14.6.2.31)
6.3	Swansea ABP	Are any of the tugs stationed in Swansea on a state of instant readiness, if not, how much notice do they need to become available?
6.4	Swansea ABP	Does your Safety Management Plan require any of the ships calling at your port to be met by tug(s) at the entrance to the approach channel?
6.5	Swansea ABP	Do you envisage having to carry extra stocks of oil dispersant to be able to deal with a ship, for whatever reason, colliding with the lagoon wall resulting in an oil spill?
6.6	Swansea ABP	Have you carried out a 'formal risk assessment' with the lagoon wall in place as required under the Port Marine Safety Code yet? If not, when do you anticipate carrying this out?

No.	Question to:	Question Subject Matter
6.7	Swansea ABP	Are there any weather restrictions in place on entering the port at the present time?
6.8	Neath Port Authority	Please supply the shipping statistics for the last two years including the largest ship to have entered the port during this period by tonnage and maximum draft?
6.9	Neath Port Authority	Are there any weather restrictions in place for entering the Port at the present time?
6.10	Neath Port Authority	Have you carried out a 'formal risk assessment' with the lagoon wall in place as required under the Port Marine Safety Code? If not, when do you anticipate carrying this out?
6.11	Neath Port Authority	Are you satisfied with the proposed raising and repositioning of your river training walls (14.6.1.2)?
6.12	Applicant	Have you carried out real time simulation studies of vessels transiting the Swansea and Neath channels under various conditions of wind and tide to validate your predictions?
6.13	Applicant	As suggested by the Maritime Coastguard Agency (MCA), have you discussed with the Pilots the implications for navigating in the Swansea and Neath approach channels with the lagoon walls in place (14.6.4.1-Table 11.1)?
6.14	Applicant	What is the proposed width of the Neath approach channel (14.6.1.2)?
6.15	Applicant	What extra maintenance dredging do you anticipate will be required in the Neath approach channel due to the Project?
6.16	Applicant	What is it you hope to achieve by raising and repositioning of the training walls in the Neath river estuary (14.6.1.2)?
6.17	Applicant	How will vessels adapt to the impact of wave reflection when they have to stay in their respective channels, Swansea or Neath (14.1.12.4.8.6)?

No.	Question to:	Question Subject Matter
6.18	Applicant	Please explain in greater detail how the proposed mitigation measures will help a vessel avoid a collision (14.6.1.15)?
6.19	Applicant	If the proposed mitigation measures fail what is there to stop an unconscious person being sucked into the turbines? Is it intended to fit a mesh over the intakes (14.6.2.26)?
6.20	Applicant	What are the procedures that will be developed for the increased risk caused to shipping by significant adverse weather (14.6.2.12. V111)?
6.21	Applicant	How many tidal cycles will it take for a complete change of water within the lagoon?
6.22	Applicant	Please confirm that CEFAS are satisfied with your survey results regarding contamination and that you can dispose of the arisings not needed in the designated dumping ground?
7.0		IMPACTS UPON FISH MIGRATION AND FISHING AREAS
7.1	Applicant	Paragraph 9.7.4.19 concludes that during the operational phase :
		the overall predicted long-term impact on the salmon and sea trout fishery is expected to be of Low magnitude with a significance value of Minor, and a confidence of Probable.
		The basis for the assessment is summarised in paragraph 9.7.4.18, in the following terms:
		The impact of the operational phase on salmon and sea trout smolt and adult migration, including entrainment and injury in the turbines, has been assessed as being of Minor significance post mitigation. This is due to the low proportion of fish that are predicted to pass through the turbines, the relatively fish-friendly design (small number of blades, slow rotation rate and minimum gap runner) of the turbines and the proposed deployment of fish deterrent systems as a mitigation measure.

No.	Question to:	Question Subject Matter
		a) Does the NRW's "concern over levels of evidence and explanations to support confidence on impacts predicted" expressed in the letter of 11 April 2014 apply to the above assessment? And if so what further analysis is needed to bolster confidence in the assessment made?
		b) What aspects of this assessment and these conclusions are not accepted by those making representations on behalf of fishing interests?
7.2	Applicant	An attachment setting out a fisheries analysis report is referred to within the Relevant Representations from the Usk Fishing Association and from Fish Legal and several other fishing clubs/angling societies. The Panel has not received this attachment and requests that a copy be submitted into the examination.
7.3	Interested parties	Does the ES address the requirements for on-going monitoring, review and mitigation of the effects of the Project upon fish populations?
7.4	Applicant and Interested Parties including, but not restricted to NRW and the Wildlife Trust of South and West Wales	The ES proposes to use acoustic fish deterrents as mitigation to lower the numbers of fish entrained through the turbines, if this becomes a significant issue. Is there evidence that identifies that acoustic fish deterrents have a significant effect upon other species such as seals and porpoises?
7.5	Applicant and any interested parties who have an interest in this	a) Does the ES sufficiently recognise the importance of the local fishing industry in the Swansea Bay area as a local employer and a supplier of local produce caught sustainably which is supplied into the local markets?

No.	Question to:	Question Subject Matter
	issue	b) Is there sufficient mitigation proposed to address the loss of this economic activity?
7.6	Applicant	How do you intend to address the concerns of NRW, Fish Legal and Angling Clubs that the modeling undertaken for the assessment in Chapter 9 does not contain sufficient information on the parameters and sensitivity testing to have confidence that the models are robust and that worst case scenarios have been assessed (NRW RR, Fish Legal RR, Afan Valley Angling Club RR, 10026555 RR, Phil Jones RR)?
7.7	Applicant	Would you please clarify how the assessment of significance has been determined in respect of fish and shellfish (6.4.9.1Tables 9.28-9.30)?
7.8	Applicant	How do you intend to address the concerns of NRW and Fish Legal regarding fish mortality given in Table 9.5(NRW RR, Fish Legal RR)?
7.9	Applicant	Do you have any evidence to support your conclusion that altering the location of the turbines would have no material effect on fish species (6.4.9.1Table 4.1)?
7.10	Applicant	Do you expect to carry out further fish surveys, if so, do you anticipate the results will affect the baseline, impact modeling or predicted impacts for the project (6.2.23.3.2)?
7.11	Applicant	What are the species referred to, with their value, in the phrase 'other demersal and pelagic species' (6.4.9.1Table 9.4)?
7.12	Applicant	How will you remove the uncertainty on potential sediment levels and construction methods as they feed into the uncertainty over the potential for impacts on fish spawning, foraging and nursery areas (NRW RR)?

No.	Question to:	Question Subject Matter
7.13	Applicant	NRW have concerns over the proposed mitigation measures, in particular, they 'do not consider that sufficient evidence has been provided to demonstrate that measures are fit for purpose, provide suitable alternative habitat or have been adequately assessed for viability'. How will you address these concerns (NRW RR)?
7.14	Applicant	NRW consider that 'further work is needed to create a robust and fit for purpose monitoring programme'. How will you address these concerns (NRW RR)?
7.15	Applicant	Do you intend to compensate the fisherman who will be displaced by the lagoon (Swansea Fisherman's Group RR)?
7.16	Applicant	Several local fishing clubs have stated that no consultations have taken place to date. When will you consult with them (Neath and Dulais Angling Club RR, Pontardawe and Swansea Angling Society RR, Afan Valley Angling Club RR, Mond Angling Club RR)?
7.17	NRW	Do you agree with the valuations assigned to fish and shellfish Valued Ecological Receptors (VERs') (6.4.9.1Table 9.2)?
7.18	NRW	Do you consider the fish and shellfish surveys and proposed further surveys sufficient, if not, what further surveys would you require (6.2.23.3.2)?
7.19	NRW	Do you consider the baseline for fish and shellfish satisfactory (6.4.9.1.4)?
7.20	NRW and EA	Do you consider 'far-field zone' is wide enough when considering the populations of migratory fish passing through the area (6.2.9.7, Appendix 9.1, Usk Fishing Association RR and Fish Legal RR)?
7.21	NRW	What further assessment would you require to be confident that the long term effects have been sufficiently considered over the lifetime of the project (NRW RR)?

No.	Question to:	Question Subject Matter
7.22	NRW	 Table 9.41 provides figures for reported salmon catches on the Rivers Afan, Neath and Tawe between 2002 and 2011. This question is primarily for NRW but other parties may wish to comment. a) Are figures for 2012 and 2013 available from NRW and can figures for reported catches on the Neath and Tawe stretching back to 1964 be provided please? b) Can comparable figures be provided for reported catches of sea trout on the Rivers Neath and Tawe? c) If the results are presented graphically as 5 year moving averages, are there any identifiable trends that emerge?
		d) Are there detectable changes for reported catches on the Tawe as a result of the construction of the barrage in 1992 and modification of the fish pass in 2001?
7.23	Applicant	Application of "IBM fish encounter modelling" is described in paragraphs 9.5.3.30-8 of Chapter 9 of the ES: Fish including Recreational and Commercial Fisheries and output from the model (a still-frame example from the adult salmon model video) is illustrated in Figure 15. Para 9.5.3.38 (Doc 6.2.9) states that:
		The model shows that olfactory trails from the two rivers remain quite distinct with the Lagoon in place and turbines and sluices operating, allowing adult salmon to home to their natal rivers with minimal distraction. Results demonstrated that there is no significant effect on olfactory trails as a result of water being drawn in to the Lagoon and released again.
		a) What level of confidence should the panel have in the output from this model?

No.	Question to:	Question Subject Matter
		b) What would be needed to produce an assessment that would be more firmly based?
8.0		ADAPTIVE MANAGEMENT
8.1	Applicant and NRW	 Chapter 23 of the ES introduces the concept of an Adaptive Environmental Monitoring Plan (AEMP) which is a "document to be updated and refined to give the best possible understanding of the Project's environmental effects such that mitigation can be adjusted" (Para 23.6.0.4). The proposal is presented in more detail in Appendix 23.1 of the ES. Respondents may wish to have regard to the EC Guidance note on the implementation of the EU nature legislation in estuaries and coastal zones (ref http://ec.europa.eu/transport/modes/maritime/doc/guidance_doc.pdf) a) What aspects of the proposal are particularly suited to this approach? b) Are there aspects of the proposal that make such an approach unsuitable or inappropriate? c) What provisions in the draft DCO or the separate application for a Marine Licence would support adaptive management?
8.2	Statement as background to the following questions	 Paragraph 4.1.0.2 within a section in Appendix 23.1 addressed to Coastal Processes includes the following: EIA studies are able to demonstrate a high level of confidence in relation to baseline conditions as these can be validated against suitable baseline evidence. In contrast, the description of equivalent conditions with the introduction of a scheme can only be proven in a similar way once the scheme has been constructed. And later in paragraph 4.1.0.5 one of the topics proposed for validation is:

No.	Question to:	Question Subject Matter
		v. beach profiles to ascertain any potential changes in erosion and accretion patterns particularly examining Blackpill SSSI and Crymlyn Burrows SSSI.
8.3	Applicant	Has the AEMP identified:
		a) Appropriate indices for monitoring that reflect not simply whether changes are occurring or have occurred but whether such changes are having significant adverse consequences for example in respect of SSSIs whether the changes would be likely to adversely affect the features of special interest exhibited by that SSSI.
		 b) Effective and achievable management measures designed to secure mitigation of adverse consequences.
		c) Trigger points for initiating potential mitigating measures.
8.4	Applicant	What is proposed by way of monitoring impact of changes in coastal processes on the Kenfig SAC?
8.5	Applicant	What is proposed by way of monitoring the impact of changes in coastal processes on the Swansea and Aberavon Town Beaches and their value as recreational assets?
8.6	Applicant	What reliance can be placed on monitoring of coastal processes and management actions by the way of mitigation to ensure that creation of the proposed lagoon would not have unacceptable adverse impacts on the features of interest?
9.0		FLOODING
9.1	Applicant	In section 6.3 of the Design and Access Statement (Doc 8.1) it is stated that "Whilst the Lagoon will increase waves near the Mumbles area, such increased wave action will not

No.	Question to:	Question Subject Matter
		affect maximum waves at this area or the risk of flooding."
		What is the basis for this conclusion and what level of confidence can the Panel place on it?
9.2	Applicant and Relevant Interested Parties including (but not limited to) DCWW and NRW	Have the potential impacts from extreme wet weather/high wind and high tide events (as were experienced in early 2014 in many coastal areas) been considered within the ES?
9.3	Applicant and Relevant Interested Parties including (but not limited to) DCWW and NRW	When high tides within the lagoon coincide with extreme wind and rainfall events, what is the likelihood of the lagoon over-topping in the vicinity of the ecological park area on the northern boundary of the lagoon?
9.4	Applicant and Relevant Interested Parties including (but not limited to) DCWW and NRW	Would a high water level in the lagoon, under these extreme weather conditions, cause surface storm water to back up and groundwater levels to increase in nearby areas, thus increasing the risk of flooding of basements in nearby properties?
		WATER FRAMEWORK DIRECTIVE
9.5	Applicant and NRW	The proposed lagoon wall would enclose a body of water and control inflow and outflow. To all intents and purposes these changes would lead to the creation of a highly modified water body that is separated from the remainder of Swansea Bay and with a different tidal regime.

No.	Question to:	Question Subject Matter
		What would be the basis for an assessment of the changes under the Water Framework Directive?
10.0		SOCIO-ECONOMIC, HEALTH AND TERRESTRIAL TRAFFIC AND NOISE IMPACTS
		Socio-economic and health
10.1	Applicant	Full consideration of the potential risks associated with the project failing to be completed, do not appear to be included in the ES or in the draft DCO. If the project was not completed, unpredicted impacts could arise from the partially constructed TLSB which could impact upon biodiversity, coastal processes, navigable waters, local fishing, tourism and commercial economies and the visual amenity of the wider area.
		What is the applicant proposing to incorporate into the DCO in order to provide financial and legal certainties, that in the event of the project failing after construction is commenced, there would be sufficient resources available to return Swansea Bay to its current condition?
10.2	Applicant	Please could the applicant explain why it has not addressed the issue of the potential impacts of electromagnetic fields arising from the project upon human health? This matter was identified in the PHE response to the scoping response in November 2012.
10.3	Applicant	The applicant is requested to provide details regarding the steps that will be taken in the development to ensure that it will not adversely impact on the work that the City and County of Swansea have undertaken in improving the quality of bathing water in the Bay. Please can the applicant also provide assurances that the development will not result in
		the deterioration of local bathing water quality?

No.	Question to:	Question Subject Matter
		Terrestrial Traffic and Noise Impacts
10.4	Applicant	Paragraph 15.5.2.2 of the Onshore Transport Assessment states that working hours for the construction phase have not yet been finalised. However, it is likely that there will be continuous working during some phases of construction. The last sentence of this paragraph states, "to ensure that the impact of construction traffic is conservative, it has been assumed that construction staff will operate typical daytime hours".
		 a) What aspects of the construction phase operations will take place outside 'normal working hours' (which are stated earlier as being 0800-1800 Monday to Friday and 0800-1300 Saturdays)?
		b) Does the 'conservative' assumption adopted mean that the potential impact of any HGV vehicles and mobile plant movements delivering materials to the site, leaving the site empty or with waste arisings, or working within the confines of the site outside 'normal working hours' have not been included in the transport and/or noise/air quality assessments?
10.5	Interested Parties including (but not limited to) the City and County of Swansea and Neath Port Talbot County Borough	a) In view of the large number of visitors expected at the water based sporting events, is there adequate car parking proposed (circa 300 spaces around the development)?b) Is there capacity at the existing park and ride facility to accommodate the vast majority of visitors during these events?
10.6	Council	a) The HGV movement details given in paragraphs 15.5.2.9-12 and Table 15.7
_		(Construction traffic daily profile –two way trips), give average numbers of HC

No.	Question to:	Question Subject Matter
		movements broken down into hourly time slots, with the number of HGV movements assumed to be even through-out the working day. Over the 3 year construction phase, there will undoubtedly be peaks and troughs in terms of the delivery of construction materials to the site and peak times for deliveries during the day. What is the maximum daily number of HGV movements anticipated and what is the associated maximum hourly number of HGV movements expected at any one time?
		b) Table 15.9 shows the impact of construction phase traffic. It shows that in terms of HGV vehicle movements, there will be an increase of 16% on Langdon Road and 12% on Fabian Way. Is this table calculated using the average data given in Table 15.7?
		c) What would the associated increase in HGV numbers on Fabian Way and Langdon Road be if the worst case scenario (the maximum daily numbers of HGVs) is used to calculate increase in HGVs at these locations?
10.7	Applicant	Paragraph 15.5.2.23 of the Onshore Transport Assessment identifies that "there will be some impact on amenity for existing cyclists due to the increase in traffic on roads leading to the Project area, particularly along the short length of Langdon Road to the east of the Park and Ride junction".
		When in the construction phase will the segregated pedestrian/cycle land be constructed within the project area and when will the upgrading work on Langdon Road be carried out?
10.8	Interested parties	Table 15.18 of the Onshore Transport Assessment shows a well dispersed spread of car arrivals and departures over the day during major events.

No.	Question to:	Question Subject Matter
		a) Is this a robust and credible way of considering car movements associated with major events?
		b) Would major sporting events not attract most visitors for the start of the event with the majority leaving after the event is completed, akin to a major sporting event such as a football or rugby match?
10.9	Applicant and LAs	a) Given the assumptions in the Onshore Transport Assessment that all HGV movements will take place in normal working hours, if the Panel decided to recommend to approve the application, would it be reasonable to include within the DCO a provision to limit all HGV movements from and to external supply sources during the construction phase to normal working hours (0800-1800 Monday to Friday and 0800-1300 Saturdays)?
		b) There is no apparent commitment within the ES to ensure that all loads of construction materials brought to the site are sheeted. How can this matter be addressed in the DCO?
10.10	Applicant and ABP Swansea	a) Paragraph 15.5.2.9 of the Onshore Transport Assessment assumes that the sand deliveries to the concrete plant will be from Swansea Port, so it is considered that this activity would not generate any HGV movements on the external road network. Is there a supply agreement in place between the port and the applicant to facilitate this supply of marine dredged sand?
		b) Is marine dredged concreting sand currently landed and/or processed at Swansea

No.	Question to:	Question Subject Matter
		Port?
		c) Table 4.6 of the Project Description gives two scenarios for the supply of the 165,000t of marine dredged sand needed for concrete, with the supply being from the lagoon or from Swansea Port. This table explains that this supply of sand will generate 135 HGVs per week. Whilst supply from the Port would remove the need to move HGVs on the external road network, the deliveries of sand from the Port would generate HGV movements on internal roads. Have these movements been included in the noise assessment calculations?
10.11	Applicant and Swansea University Bay Campus	The Onshore Transport Assessment, paragraph 15.7.1.5 considers cumulative impact with SUBC. It is stated here that, "It has been assumed that in 2018 only Phase 1 (of SBUC) will have been completed, and that SUBC will be operating at approximately 50% of its total capacity, equating to a daily two-way flow of 3,746 trips".
		a) Is this a realistic assumption to make?
		b) What if the construction of the TLSB was delayed until a time when the SUBC is completed, how would the doubling of SUBC daily vehicle trips impact upon the cumulative impact chart shown in Table 15.34?
		c) Table 15.34 is entitled, "Cumulative Scheme Daily Traffic Flows – Summary". Paragraph 15.7.1.6 of the Onshore Transport Assessment states that, "Traffic generated by SUBC has been distributed onto the local network in accordance with the above distribution, and is summarised in Table 15.34. However the locations in Table 15.34 include "SAIC", "SA1" and "Coed Darcy". Where are the SUBC traffic movements shown within Table 15.34?

No.	Question to:	Question Subject Matter
		d) Where are the traffic movements that are likely to be generated from the Project shown within this table?e) Please could the table be expanded or annotated to give clarity on these matters?
		e) Flease could the table be expanded of annotated to give clarity of these matters:
10.12	Applicant and LAs	The conclusions of the Onshore Transport Assessment are that the Construction Phase Travel Plan will help to minimise the impact of construction on all modes of transport. HGV movements will be managed so that they avoid the commuter peak periods as far as possible. The impact on the local highway network is predicted to be of minor adverse significance and the impact on public transport during construction is expected to be negligible. Impacts on pedestrian and cycle amenity will be 'minimised through the Construction Phase Travel Plan and the impact is considered to be negligible. a) Are these conclusions founded on a sound and credible evidence base?
		b) Has sufficient consideration been given to public transport users, cyclists and pedestrians during the construction phase?
		c) What consideration has there been within the Onshore Transport Assessment of safety of other road users (including cyclists) and pedestrians during the construction phase and also during the operational phase when major events are being held?
		 d) The Onshore Transport Assessment does not appear to give any consideration of historic accident and incident data in the vicinity of the proposed development.

No.	Question to:	Question Subject Matter
		Please could the applicant provide this information?
10.13	Interested Parties including (but not limited to) the LAs	a) Are the LA's and other IPs with an interest in noise and vibration issues satisfied that Chapter 19 of the ES (Noise and Vibration) suitably addresses the requirements of Welsh national, BS requirements within BS5228 and local policy on these matters?
		b) Are the LA's and other IPs with an interest in noise and vibration issues satisfied that the baseline noise data gathered in 2013 adequately reflects the existing base- line conditions across the area of study and the locations chosen for the baseline noise monitoring reflect suitable nearby noise sensitive property locations?
		c) Given the applicant's aspiration to use the lagoon for national triathlon, sailing and swimming events which will attract up to 100,000 people per year, with each event attracting up to 8000 visitors, does the noise assessment adequately assess the impacts of these events upon the local community and nearby noise sensitive receptors including the SUBC?
10.14	Applicant	Paragraph 19.3.4.2 of ES Chapter 19 on Noise and Vibration explains that 'it is expected that onshore works, where possible, will only be undertaken during the daytime and hence most assessments have been made against daytime noise levels. It is likely that works at sea will be dictated to some degree by tides and weather, and as such, may be undertaken 24 hours a day". It is also acknowledged that the batching plant will operate 24 hours a day when there are works at sea. It is not clear which other operations have been considered to take place outside normal working hours, such as demolition of the seawall and breakwater, moving aggregates from the Port to the concrete plant by HGV on internal haul roads and the crushing of concrete arising from the breakwater and sea wall.

No.	Question to:	Question Subject Matter
		a) Please could the applicant provide a table showing which construction activities are considered within the noise and vibration assessment to take place only during normal working hours only and those which may take place 24/7?
		b) Will mobile plant and HGVs visiting the site be fitted with reversing bleepers or will other alarm systems be used to eliminate the noise of vehicle reversing bleepers emanating from the construction site?
10.15	Applicant	Paragraph 19.5.1.5 of ES Chapter 19 on Noise and Vibration does not mention noise emissions from the on-site crushing of concrete, the demolition of onshore structures or the breakwater and seawalls. Nor does it mention HGVs delivering sand from the adjacent Port or other road based deliveries to the construction areas, or the concrete product fabrication area or the steel fabrication yard.
		a) Please could the applicant provide a list of all of the activities and the associated pieces of mobile plant and HGVs that were included within the noise modelling calculations for both day-time and night time noise levels?
		b) Does the noise modelling undertaken reflect the `worst case' scenario for noise emissions from the construction activities?
10.16	Applicant	The ES Chapter 19 on Noise and Vibration, paragraph 19.5.2.15-16 and Table 19.20 shows the assessment of night-time noise levels arising from impact piling activities. It is explained that the comparison of threshold values with the Total Noise Levels predicted at the noise sensitive receivers from impact piling activities indicates that the night-time impact will not be significant, although the margin of compliance is not as great as during the daytime.

No.	Question to:	Question Subject Matter
		a) Please could the applicant explain whether this assessment takes into consideration the effect of clattering, thumps and/or bangs from the piling operations and how they are incorporated into the assessment?
		b) The ES section on the Project Description identifies that percussive piling may be required in places, if piling is required through hard substrates. Percussive piling is also mentioned in Chapter 19 in paragraph 19.6.0.2. Are noise and vibration impacts from percussive piling assessed within Chapter 19?
		c) How will the impacts from night-time piling operations be mitigated? For example, could these operations be carried out predominantly when tide conditions are suitable for day-time piling to occur (minimising night time piling activities) and/or could soil screening or rock screening mounds be used to reduce the impacts on the nearest sensitive receptors?
		d) How could such mitigation measures be incorporated into the DCO?
10.17	Interested Parties including (but not limited to) NRW and The Applicant	a) Are NRW and other interested parties who have an interest in the marine ecosystem satisfied that the details supplied within ES Chapter 19 suitably address the impacts of noise and vibration arising from the development on marine animals including fish?
		b) Is the conclusion in Paragraph 19.8.0.5 of ES Chapter 19 on noise and vibration that, "overall it can be concluded that the noise and vibration impacts related to all aspects of the development are likely to be negligible" founded on a sound and

No.	Question to:	Question Subject Matter
		credible evidence base?
		Air Quality
10.18	The Applicant and Interested parties including LAs	Paragraph 16.3.1.6 of the ES chapter on Air Quality states that the emissions from the batching plant can be reasonably considered to not be significant and therefore have not been considered in this assessment. This is because reliance is being placed upon the Part B permit requirements for the concrete batching process, if a DCO is granted.
		a) Is this a robust and credible way of assessing emissions from the concrete batching plant area within the construction site, that is leaving it to the permitting process?
		b) Were dust emissions from the loading/unloading of construction aggregates and from vehicle movements on the fabrication plant yard areas considered elsewhere in the report?
10.19	Applicant (both a and b) and Interested Parties (a)	 a) Given the meteorological wind rose for Pembrey Sands (Figure 16.2), which shows that the wind direction is predominantly from the west and south west, has sufficient consideration been given to the potential impacts of wind-blown particulate matter from the construction areas and haul roads upon nearby receptors situated to the east and north east of the on-shore construction areas?
		b) The ES chapter on Air Quality, paragraph 16.5.2.4 states that "with regard to particulate matter, increases of an imperceptible magnitude are modelled at all receptors Imperceptible and small impacts are negligible, which is not significant". What sources of particulate matter were considered in order to arrive

No.	Question to:	Question Subject Matter
		at these statements?
10.20	LAs	The ES chapter on air quality, section 16.5.9 states that dust emissions and dust management will be controlled through various mitigation measures, which will be detailed in the Construction Environmental Management Plan.
		a) In view of the statement in paragraph 16.5.10.1 that wheel washing is not recommended, are the LAs satisfied that dust and mud deposition on the highway network can be controlled by limiting the amount of material transferred onto local roads and by removal of any material from the roads?
		b) Should the main dust control measures proposed be identified within the DCO?
10.21	Applicant and Local Highway Authority	The project will need to address the issue of funding the new link from Langdon Road and it is now important that there is clarity on how this will be provided. Please could the applicant explain how far this issue has progressed and what steps need to be taken to secure the delivery of this new link?
11.0		SEASCAPE, LANDSCAPE AND VISUAL ASSESSMENT (SLVIA)
11.1	NRW and LAs	Were you content with the final viewpoint selection and that your requests for additional or relocates viewpoints as outlined in Table 13.1 were taken into consideration and are reflected in Table 13.7?
11.2	NRW	In your Relevant Rep under Para 17 indent IV, ES Chapter 13, you state that,
		"The consideration of historic landscape designations appears to lack an assessment of effect on heritage values".
		Please expand on that statement and explain your concerns and how the applicant can

No.	Question to:	Question Subject Matter
		address those concerns.
11.3	Interested parties	Will the Project have an effect on the visual amenity of the Gower Area of Outstanding Natural Beauty (AONB) or do you agree with applicant that in the Regional Seascape Unit 2, Mumbles Head to Three Cliffs Bay, 13.5.2.17 :-
		"The Zone of Theoretical Visibility indicates that from the land based areas and areas immediately adjacent to the coastline, the topography of the area, including the headlands and cliffs screen views of the Project"?
11.4	Interested parties	Do you agree with the basis of the applicant's statement outlined in para 13.5.3.7, that an industrial landscape's contrast with a simple form of seascape / landscape creates a visual interest as opposed to a detracting feature?
11.5	NRW and applicant	Of the 8 Landscape Character Areas assessed as outstanding or outstanding/high in Table 13.17, Crymlyn Bog, Clyn Valley Country Park and Coed Hirwaun are screened from the Project by deciduous or mature trees.
		a) Has an assessment been made / does an assessment need to be made as to how that screening effect changes with the seasons?
		b) Similarly in the Section, Landscapes, Parks and Gardens of Special Historic Interest, Victoria Park 13.8.5.7, Clyne Garden 13.8.5.11 and Cwmdonkin Park, vegetation and mature trees play a part in the screening process but presumably not to the same extent all the year round?
11.6	Applicant	In Margam Park (13.8.5.21), you state that, "Views from the park's essential setting will be predominately be screened by dense coniferous forestry that covers the majority of the upland area to the north of the park".

No.	Question to:	Question Subject Matter
		Given the effect that Phytophthora ramorum is having on larch in South Wales, what is the species mixture of that coniferous forestry? N.B. NRW own the woodland they may be able to assist in answering this question.
11.7	NRW	If Phytophthora ramorum continues to spread at its present rate, what effect will it have on the landscape around the Project Area?
11.8	Applicant	a) Please can confirmation be provided as to the assumptions made in the SLVIA with regards to the height of the Offshore Building, the western landfall building and other buildings proposed within the development?
		b) Please confirm also whether these are in accordance with the description of the development set out in Chapter 4 of the ES and the draft DCO.
11.9	Applicant	 a) Please confirm whether the SLVIA has assessed the potential impacts of all of associated onshore elements of the development, including the cable connection to National Electricity Transmission System (NETS)?
		b) If these elements have been included already, please confirm what assumptions have been made as to their location and design?
		c) If the Strategic Landscape Visual Impact Assessment (SLVIA) has not included these elements, please confirm whether the assessment of the seascape, landscape and visual impacts of the proposed development would need to be revised?

No.	Question to:	Question Subject Matter
11.10	LAs	Please confirm whether you are satisfied with the approach taken for the cumulative SLVIA, with regards to;
		 a) The list of other developments at Table 13.12, which have been included for the purposes of cumulative impact assessment;
		b) The approach taken to the assessment of cumulative SLVI effects; and
		c) If not, please indicate why.
11.11	Applicant	Please confirm whether the impacts to landscape elements such as trees and vegetation, and any subsequent impacts to landscape character, have been included in the SLVIA. If not, please provide an updated assessment of the overall impact to the proposed development that may result in terms of landscape character from the loss of such features.
11.12	Applicant	Section 13.6.0.2 states that:-
		' other than the Masterplan, due to the scale and nature of the Project, mitigation measures to reduce the effects on seascape/landscape character and visual amenity are limited. Notwithstanding this, the lighting design along the Lagoon seawalls and also to the onshore and offshore buildings have been carefully considered and embedded into the design in order to minimise effects at night.'
		However, draft Requirements 24 and 25 of the draft DCO indicate that the lighting design is yet to be agreed. It is therefore not clear what lighting design has been assumed in the assessment of visual effects in section 13.8.
		a) Please confirm what lighting design has been assumed for the purposes of the

No.	Question to:	Question Subject Matter
		SLVIA.
		b) Please also confirm how this will be secured through the DCO?
11.13	Applicant	Is it proposed that the uses of the rooms in the proposed buildings will be as shown on the Planning Drawings and since any change to those uses would constitute development in the meaning of the TCPA1990/PA2008, would any change to those uses require consent through a modification of any Order granted?
11.14	Applicant and LAs	a) Is it considered likely that the onshore and offshore buildings would be used for major events?
		b) Is it considered that any temporary uses to which the onshore and offshore buildings and open spaces may be used for (incidental to their uses as described on the Planning Drawings) would be adequately controlled?
12.0		HISTORIC ENVIRONMENT
12.1	Applicant	a) What is the current status of the gun emplacement, pill boxes and tank cubes mentioned in ES 21.5.1.4 ?
		b) Has CADW now scheduled them?
12.2	Applicant	It is unclear from Figure 21.1 Vol2 Port of Swansea context map, as to the location of the pill boxes, tank cubes and gun emplacement. Please supply a map showing their exact location.
12.3	Applicant	You propose that the three pill boxes remain in situ along with the gun emplacement and a buffer zone of seawall around each of the structures will be included as part of the

No.	Question to:	Question Subject Matter
		scheduling of each structure; will this form a separate work no. in the draft DCO?
12.4	Applicant	If the tank cubes and collapsed pill box are to be re-located, will CADW be consulted as to their re-location?
12.5	Applicant	What contingencies will you put in place to deal with below ground structures associated with these WWII artefacts that may be disturbed during the construction operation?
13.0		COMPULSORY ACQUISITION OF LAND / RIGHTS OVER LAND
13.1	Applicant and	a) Given the provisions of s135(2) of PA 2008, has the consent of the appropriate
	Crown Estate	Crown authority been obtained for the inclusion of Article 51?
		b) If not how could the development proceed under an Order from which Article 51 had been deleted?
13.2	Applicant	Given that articles in relation to streets (9 to 12); supplementary powers (13 to 15); tidal works (16 to 22) and a number of miscellaneous and general articles (36 to 51) all engage to a greater or lesser degree, compulsory acquisition powers and tests.
		a) Where are the powers that would be granted under these articles identified in the Book of Reference and over which parcels of land would the powers under any of these articles be exercised and specifically which of these powers within the proposed articles would be exercised over which plots of land?
		b) The applicant is requested to list the relevant powers as rights over land applied for in the Book of Reference or to confirm that the Book of Reference already lists all rights over land that would be sought under these articles?

No.	Question to:	Question Subject Matter
13.3	Applicant	The Statement of Reasons does not give reasons in relation to each of the following areas (streets, supplementary powers, tidal works, miscellaneous and general) why these powers are needed and refers generally to a justification for rights over land.
		The applicant is requested to clarify why these powers, that engage compulsory acquisition tests, are required.
13.4	Applicant and LAs	Under the paragraph 25 of Part 2 of the Schedule to Infrastructure Planning (Miscellaneous Prescribed Provisions) Regulations 2010, the LAs' consent is required in Wales for the inclusion within an Order, of powers to regulate traffic under the Road Traffic Regulations Act 1984. Have the LAs granted this consent?
13.5	LAs and WG	Do the LAs or WG object to or have comments upon any of the proposed powers to be acquired over streets in articles 9 to 12 (or upon the articles that would grant supplementary, tidal works and miscellaneous and general powers over land) through the proposed DCO?
13.6	Applicant	Why is it necessary to have the power to stop up not only the streets in Column 2 of Schedule 3 but also the footpaths diverted from those streets as stated in the latter phrases of proposed article 10(3)?
13.7	DCWW, WG, NRW and LAs	Does Welsh Water, the WG, the LAs or NRW object to any of the powers proposed to be acquired in relation to drains and watercourses in proposed article 13?
		Whether adequate funding is likely to be available
13.8	Applicant	As referred to in paragraph 9 of Guidance Related to procedures for the Compulsory Acquisition of Land (DCLG Guidance September 2013);

No.	Question to:	Question Subject Matter
		a) What evidence can the applicant provide the Panel with to demonstrate that there is a reasonable prospect of funding for the compulsory acquisition costs being available?
		b) What evidence can the applicant provide the Panel with to demonstrate funding being in place, prior to any grant of development consent, to execute the project?
		c) Can the applicant provide evidence for example, of any offers of funding subject to the grant of development consent?
13.9	Applicant	Given the companies referred to in the Funding Statement, can the ultimate company that will be liable for the costs of Compulsory Acquisition be confirmed as either Tidal Lagoon Power Limited or Tidal Lagoon (Swansea Bay) plc (described as a special purpose vehicle)? The applicant is requested to provide the most recently published audited annual accounts of the company that will bear the compulsory acquisition liability and to indicate where in the accounts any amounts are safeguarded or to be safeguarded to meet such liabilities.
13.10	Applicant	 The Funding Statement refers to the total proposed Compulsory Acquisition liability as amounting to £10.5Million. a) How has this been calculated? b) How is the figure independently verified? c) Has the District Valuer or other independent source been used to inform this figure?

No.	Question to:	Question Subject Matter
		d) What additional sum is assumed to be required for leasing rights in Crown Land?
13.11	Applicant	Paragraph 4.5 of the Funding Statement states that "TLSB considers that the actual capital costs of land acquisition are likely to be significantly less than the above sum $[\pm 10.5M]$ ".
		a) What is the rationale for this statement?
		b) Are the actual costs of acquisition referred to in this sentence assumed to include or exclude the costs of the proposed lease from the Crown Estate?
13.12	Applicant	a) Given there is no funding in place to discharge the Compulsory Acquisition liabilities, on what basis could any compulsory powers be granted?
		b) Given that future project revenue income referred to in the Funding Statement is a speculative assumption how can this be relied upon to guarantee compensation to those whose land and rights would be compulsorily removed from them?
13.13	Applicant and LAs	If it were proposed that the relevant planning authority should, through enforcement of a Requirement, certify that sufficient funds were in place before any powers of compulsory acquisition were exercised, what form of words should be added to the draft DCO and where?
13.14	Applicant	In the light of the DCLG 'Guidance related to procedures for compulsory acquisition' (CA Guidance), paragraph 20;
		a) How can the Panel be assured that all reasonable alternatives to compulsory acquisition including modifications to the scheme) have been explored?

No.	Question to:	Question Subject Matter
		b) In particular, what assessment/comparison has been made of the alternatives to the proposed acquisition of land or interests therein in each case?
13.15	Applicant	Paragraph 4.4 of the Funding Statement refers to the applicant being in negotiation with 7 landowners. Given the importance of exploring all reasonable alternatives to Compulsory Acquisition (paragraph 8 of CA Guidance) are there any affected landowners with which the applicant is not negotiating and if so why not?
		The applicant is requested to provide a summary table indicating the degree of advancement and state of play in relation to negotiations with all affected persons listed in Part 1 of the Book of Reference.
13.16	Applicant	a) What account has been taken of responses to pre-application consultation (both in relation to statutory and non-statutory consultation) in considering whether there are reasonable alternatives to compulsory acquisition?
		b) Where (if anywhere) are these referenced in the Statement of Reasons and/or Consultation Report?
		Whether the purposes of the proposed compulsory acquisition justify interfering with the human rights of those with an interest in the land affected
13.17	Applicant	What regard has been had to the provisions of Article 1 of the First Protocol and Article 8of the European Convention on Human Rights?
13.18	Applicant	a) What degree of importance can be attributed to the existing uses of the land proposed to be acquired?

No.	Question to:	Question Subject Matter
		 b) The Statement of Reasons, at paragraph 9.5, indicates that the applicant has weighed the potential infringement of Convention rights against the potential public benefits if the Order is made. Explain more precisely the factors which have been placed in the balance (including references to any national or local documents), the
		weight attributed to them and how this exercise has actually been undertaken?
13.19	Applicant	With regard to s126 PA2008 does the proposed DCO seek to modify any compensation provision?
13.20	LAs and WG	With regard to the need for there to be a compelling case in the public interest for land to be compulsorily acquired (s122(3) PA2008) the applicant states, in its Statement of Reasons (paragraph 5.9), that the proposal would be in the public interest because it would fulfil the objectives set out in the UK Government's 2007 Energy White Paper and the Climate Change Act 2008.
		Do the LAs and does the WG agree that the proposed development presents a compelling case in the public interest with reference to this policy and this Act?
13.21	LAs, Applicant and WG	For the avoidance of doubt, what are all the factors that are regarded as constituting evidence of a compelling case in the public interest for the compulsory acquisition powers sought and where (if anywhere), giving specific paragraph references, are these set out in the Statement of Reasons?
13.22	Applicant	Section 9 of the Statement of Reasons refers to the Human Rights Act 1998. Specifically which of the proposed powers of compulsory acquisition in the DCO, in relation to which plots, would or might engage Article 1 and which would or might engage Article 8 of the Convention?
13.23	Applicant	With reference to Table 1 in the Statement of Reasons and specifically the bottom row of

No.	Question to:	Question Subject Matter
		the table, where in Schedule 1 of the proposed DCO would "Provision of working, laydown area and construction site" be authorised?
13.24	Applicant	 In reference to "Work No1b(a) oyster spatting ponds"; "(a) viewing areas; and (b) siting location(s) and mounting facilities for public works of art" incorporated into Work Nos 1a, 1b and 2a; onshore facilities "(a) one or more buildings; (b) visitor information and boating facilities; (c) a hatchery(ies) and laboratories" incorporated into proposed Work No. 6a/b, and "Work No 11(b) a visitor/information point to serve Crymlyn Burrows SSSI" all in Schedule 1 of the proposed DCO, the applicant is requested to set out clearly how these facilities are required for the proposed development and why the full extent of the relevant plots of land to be compulsory acquired are required for these purposes. (The applicant is requested in its answer to identify through an updated Table 1 from the Statement of Reasons specifically which plots the above works and facilities would occupy).
13.25	Applicant	Given that even allowing for micrositing cable connection corridors are typically less than 100metres wide, why is it proposed in paragraph 7.26 of the Statement of Reasons that a corridor of 350metres in width is acquired?
		Open space land
		Acquisition of rights over open space land
13.26	Applicant	Paragraph 8.10 of the Statement of Reasons states that permanent rights are proposed to be acquired over 6 parcels of open space land listed in table 2. Table 2 lists 7 parcels of

No.	Question to:	Question Subject Matter
		open space land over permanent rights are proposed to be acquired.
		The applicant is requested to provide a revised Table 2 showing over which parcels/plot numbers of open space land it is proposed to acquire permanent rights and over which parcels it is proposed to seek temporary possession powers over.
		The applicant is requested in this table, for the avoidance of doubt, to state the parcels of land to which s131 and s132 PA 2008 apply respectively (bearing in mind the provision of s131(2)).
13.27	Applicant	With regard to the proposed exception in s132(3) that the applicant states, in paragraph 8.11 of the Statement of Reasons, applies, can the applicant clarify which provisions of the proposed DCO would provide for the restoration of the physical state of and of public access over the relevant plots and over what maximum timescale this will be done (especially given the proposed power to leave permanent works on the land in Article 33(1)(c))?
13.28	Applicant	Paragraph 8.12 of the Statement of Reasons draws a distinction between open space land to be used "for the footprint of the project" and other open space over which rights are proposed to be acquired however Table 2 does not show which plots would be affected in this way.
		The applicant, in producing a revised Table 2 is requested to identify which works would take place on each plot and which of the exceptions in subsections (3) to (5) of s132 PA2008 apply, in the applicant's view, to which plot.
13.29	Applicant	In relation to plots in Table 2 over which the "footprint of the development" would extend the applicant states that 120 years constitutes a "temporary (although possibly long lived) purpose" referred to in s132(4B)(c).

No.	Question to:	Question Subject Matter
		With reference to what comparable case law, precedent Orders or decisions can 120 years be considered "temporary (although possibly long lived)"?
		Acquisition of open space land (s131)
13.30	Applicant	With regard to the proposed exception in s131(4B) that the applicant states, in paragraph 8.8 of the Statement of Reasons, applies, can the applicant clarify which provisions of the proposed DCO would provide for the restoration of the physical state of and of public access over the relevant plots and over what maximum timescale?
13.31	Applicant	Given that plots of open space land are proposed to be acquired permanently, what permanent safeguards exist to prevent the applicant/a future undertaker denying access to the relevant open space land in future, whether or not the purpose for which it was acquired has been concluded or not?
		Rights and Apparatus of Statutory Undertakers (s138)
13.32	Applicant	Why does Article 35 of the proposed DCO introduce sections of the Town and Country Planning Act 1990 (TCPA1990) that would replace and change the provisions in s138 PA2008 for dealing with statutory undertakers rights/apparatus. Given that such replacement provisions would introduce the need for a separate and additional Order (required to be made under s271(6)(b) of the TCPA1990) when s138 PA 2008 would instead enable the rights/apparatus to be dealt with within the DCO already applied for by appropriately drafted Articles and protective provisions ? It is also noted that the proposed DCO would not disapply the provisions of s138 PA2008.
13.33	Applicant and Statutory Undertakers	Which rights and/or apparatus belonging to statutory undertakers would be compulsorily acquired/interfered with/require removal under the powers in the proposed DCO and where are these detailed in the Book of Reference?

No.	Question to:	Question Subject Matter
13.34	Applicant and Statutory Undertakers	a) Is it intended that the proposed DCO should contain powers to compulsorily acquire land belonging to statutory undertakers or to create new rights over land belonging to statutory undertakers so as to engage s127 of the PA 2008?
		b) If so where is this land or the rights identified in the Book of Reference?
		Authority to override easements (draft Arts 25 and 25)
13.35	Applicant	a) It appears that draft Articles 24 and 25 have the same purpose and duplicate each
		other; the applicant is requested to explain why two such articles are both required?
		b) What does article 25 provide for that article 24 could not?
13.36	Applicant	Article 33(1) lists works that may be carried out on land of which temporary possession is proposed to be taken and refers to Schedule 5 which also lists works that would be carried out on land of which temporary possession is proposed to be taken. The applicant is requested to amend the article to remove descriptions of works to the Schedule or vice-versa.
13.37	Applicant	What permanent works is it proposed to leave on land of which temporary possession is taken as provided for in Article 33(1)(c) and should the word "permanent" be deleted from this article?
13.38	Applicant	Would the lagoon wall walkway/roadway become public highway, if not what would its legal status be?
13.39	Applicant and LAs	Why would existing criminal law and existing statute which contain powers granted to the local authority not be sufficient for regulating "the maintenance of order" and "the conduct of persons" on and about the authorised development and why would byelaws be

No.	Question to:	Question Subject Matter
		required? Should the local authorities be consulted prior to the publication of any notice of intention to apply for byelaws as proposed in article 44(5)?
13.40	LAs and WG	Does the WG or LAs object to any of the proposed powers to make the byelaws listed in proposed article 44(2)(a) to (f) or to any other parts of the proposed article?
13.41	Applicant and Crown Estate	Why is it necessary to acquire compulsory rights over the full extent of the parcels of land consisting of the bay, such as plot 05005, given that no works are proposed over the greater proportion of these plots?
13.42	Applicant and Crown Estate	a) Why, in relation to plot 05005, does the land plan 2.1.7 sheet 5 of 18 indicate that this plot of land would be compulsorily acquired when it is not possible to acquire land compulsorily from the Crown?
		b) Should Article 23 of the draft DCO be amended so that the words "excluding any Crown land" are added at the end of the Article?
13.43	Applicant	Are all parcels of land in the land plans correctly shaded and referred to consistently with the Book of Reference? The applicant is required to provide any amended Land Plans that may be necessary.
13.44	Applicant	Can the applicant confirm that all affected persons have been consulted with reference to the correct land plans and Book of Reference entries in respect of land in which they have an interest?
13.45	Applicant	Why are all rights over and interests in the full extent of plot 05030 proposed to be compulsorily acquired given that no physical works are proposed over the greater proportion of the plot and given that part of the plot is proposed to be occupied by a visitor centre/building which may not be considered incidental to the proposed generating

No.	Question to:	Question Subject Matter
		station under s122(b) PA 2008?
13.46	Applicant	Why, in relation to plot 05041, is the full extent of the plot required given that its acquisition is proposed to be for an access road occupying only a small proportion of this plot?
14.0		OTHER DCO MATTERS
14.1	Applicant, LAs	Draft Article 4 would apply s96A TCPA1990 to the DCO which would allow the LAs to approve non material changes to the DCO including imposing new requirements and removing existing requirements, rather than the applicant having to use the procedure prescribed under the PA 2008 (s153 and Schedule 6) and the Infrastructure Planning (Changes to and Revocation of Development Consent Orders) Regulations 2011 for non- material changes to DCOs. This appears to circumvent the statutory process under the PA 2008 which has been put in place specifically to deal with non-material changes to DCOs. The applicant is invited to consider replacing these draft provisions with reliance upon PA 2008.
14.2	Applicant	Article 8: NPS policy encourages the defence to proceedings in respect of statutory nuisance to be granted only in relation to specific and identified expected nuisances that cannot be avoided. What nuisance does the applicant anticipate being unable to avoid causing and can draft Article 8 be worded to apply only to such nuisances?
14.3	Applicant	Given the provisions relating to development consent obligations in s174 PA 2008 (amending s106 TCPA1990) why is Article 42 necessary, given also that the proposed article is more restrictive than the provisions for development consent obligations in s106 TCPA1990?
14.4	Applicant	Work No. 2a is listed in the proposed DCO however a work no. 2a is shown on Works Plan 2.2.8 sheet 7 of 9 (although a work "2(a)" is listed). Please explain and provide any

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		necessary amendment to the DCO.
14.5	Applicant	 a) Why is a decommissioning programme only proposed to be prepared in relation to work no. 2a (which is unclear but may refer to sub-work (a) under No. 2 a "switch room") and not to the scheme as a whole?
		b) Has any other Order been made that fails to include a decommissioning programme for the works as a whole and if so what precedent Orders does the applicant wish the Panel to consider in his regard?
14.6	Applicant	The applicant is requested provide and maintain an up to date list of all the plans, drawings and documents to be certified under the Order to be listed within proposed Article 46 prior to completion of the examination.
14.7	Applicant	Can the applicant explain why Article 46, extending the boundary of the City and County of Swansea, is necessary?
14.8	WG and LAs	Do the WG/LAs have comments they wish to make upon the proposed extension of the county boundary?
14.9	Applicant	In the proposed DCO Works 5a to 5d inclusive, 5h, 5i, 5j are high voltage cables the construction of which, overhead or underground is not specified and the proposed wording would appear to permit either option. Therefore since overhead cables are likely to have the greatest impact in terms of the Rochdale envelope what elevations section and other drawings have been prepared of these overhead cables and what assessment of the impacts of overhead cables has been carried out?
14.10	Applicant	The applicant is requested to justify how the development that it intends to include, under the subheadings of 'further development' meet the criteria of 'enhancements and

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		mitigation'.
14.11	Applicant	The applicant is requested to provide clarification on how the works under 'further development' have been fully assessed in the ES and how consultees were made aware of what may constitute 'further development'.
14.12	Applicant	The applicant is requested to provide an explanation as to why each of the works to be included under the sub-headings of 'further development' are not presented in the DCO as an individual identified works.
		Requirements - Schedule 1 part 3
14.13	Applicant	Draft requirement 1(2) as currently worded would allow for development to be approved that fell outside the scope of what had been assessed in the Environmental Statement and approved under the Order. Would The applicant is invited to consider, as an alternative, the wording usually applied in DCOs i.e. that all works "must fall within the scope of the works assessed by the environmental statement."
14.14	Applicant	The applicant is invited to consider inserting the words "which fall within the scope of the works assessed by the environmental statement" before the word "including—(a)" in the final paragraph of Part 1 of Schedule 1.
14.15	Applicant	Draft requirement 3 appears to conflict with all other draft requirements which begin "no authorised development shall commence until" because it would provide for requirements not to be discharged until later phases of the development take place. The word details appears to carry a slightly different meaning in draft requirement 3(2) as compared with 3(1). No definition is given as to what details would need to be provided for any phase to commence. The draft is imprecise and potentially unenforceable, in the panel's initial view. The applicant is invited to consider identifying, in consultation with LAs (and any other authority that may discharge requirements) which requirements must be

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		discharged before any works commence and which may be subject to phased discharge and to redraft aspects of this and other requirements accordingly.
14.16	Applicant	In draft requirement 4 no definition is provided of "approved development plans", nor of "approved plans" in draft requirement 5, the applicant is invited to consider redrafting this wording or provide a definition.
14.17	Applicant	The listing of drawings in a requirement would not establish whether they were certified under the Order or not and thus listing in this way would be imprecise and unenforceable. Plans approved through DCOs would be "certified" by the SSECC under article 46. The applicant is invited to consider, in accordance with the former model provisions, the Planning Drawings submitted with the application and listed in draft requirement 5 should rather be listed in article 46 to be certified and any reference to them in the requirements should be to "the certified Planning Drawings".
14.18	Applicant	 The tailpiece used with the DCO "unless otherwise approved in writing by the relevant planning authority". As stated by the Judge in Mid-counties Co-operative ltd, R (on the application of Wyre Forest DC [2009] EWHC, such tailpieces risk making "hopelessly uncertain what is permitted [and] sidesteps the whole of the statutory process for the grant of permission and the variation of conditions." Circular 11/95 (now partially cancelled) also advises against such tailpieces. Would The applicant consider removing them from draft requirements 6(2), 6(4), 8(2), 8(3), 12(3), 16(1), 19(2), 21(2), 22(2), 23(2), 24(3), 25(3), 26(3), 27(3), 28(3), 29(3) and 31(3) or to set out in any case where the discharge of the requirement does not go to the heart of the scheme as permitted, compelling reasons why such a tailpiece would be lawful and meet the tests for conditions in Planning Policy Wales that requirements must be precise and enforceable.

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14.19	Applicant	The word "substantially" in draft requirements 6(1), 22 and 23 renders the whole of these requirements imprecise and the Panel invites the applicant to consider deleting the word.
14.20	Applicant	In draft requirement 8(4) what is meant by "commencement of the authorised development"?
14.21	Applicant	In draft requirement 8(4) the Panel suggests inserting after "planting" the words "and maintenance of landscaping".
14.22	Applicant	In draft requirement 15 should an additional sub-para 3 be included to the effect that 'the scheme of management shall be implemented as proposed'?
14.23	Applicant	In draft Requirements 17 and 18 should an additional sentence be included to the effect that 'the scheme of work shall be implemented as approved'?
14.24	Applicant, WG, and LAs	As drafted, Schedule 6 would arguably fetter the quasi-judicial decision making processes of the Welsh Government. In addition the Schedule circumvents the process for planning appeals established under the TCPA1990 as usually inserted into Orders made under PA2008. Should the usual provisions for planning appeals as set out in the TCPA1990 be inserted into the draft DCO in place of draft Schedule 6.
15.0		QUESTIONS IN RELATION TO DOCUMENTS SUBMITTED BY THE APPLICANT PRIOR TO THE PRELIMINARY MEETING
15.1	Applicant	Please explain how the works under serial 25 of annex 2 fits under the heading of 'temporary construction works, including storage areas for rock armour'.
15.2	Applicant	Are there any further works that the applicant intends to include under the title of `further development'?

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15.3	Applicant	Annex 2, section 25 identifies that Area C, the steelwork fabrication yard will include a turbine assembly building 15m high with a floor area of 3000m2 with overhead craneage. Please can the applicant:-
		a) Identify where in the ES the visual impact of this building has been assessed;
		b) Identify where in the ES the noise emissions associated with works around this building (in terms of its construction and its operational phases) have been assessed?
		 c) Provide drawings showing both elevations and the design of the turbine construction building in the context of the area in which it will be situated; and;
		d) Explain when will this building be constructed and when will it be dismantled.
15.4	Applicant	The Panel requests the applicant to review figures 4.17 and 4.18. These figures were expected to be replicas of Plans 2.4.25 and 2.4.26 within the application documents. There appears to be some differences, please can the applicant explain why these are different and consequently the status of the latest figures.
15.5	Applicant	The Panel requests that the applicant confirm the status of figure 4.20. Reference is made to it being a replication of plan 2.2.15 in the application documents however this does not appear to be the case.
15.6	Applicant	The Panel requires the applicant to confirm as why there is extra information included in Figure 4.51 of the 3 June 2014 submission that is not contained in the original figure in the Environmental Statement. This is in relation to the level of the Piles to the left hand side of the figure.

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15.7	Applicant	The Panel requests the applicant to review figures 7.6 and 7.7 . These figures state that the reader should refer to figures 4.41 and 4.42 respectively however, there appears to be some differences, please can the applicant explain why these are different and consequently the status.
15.8	Applicant	Figure 9.24 is rather blurry, is the applicant able to rectify this?
15.9	Applicant	Figure 9.29 contains labels which are not present on the original figure in the application documents, the Panel requests the applicant to explain why these are different and consequently the status.

END