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Good Evening

This is the first in a series of 8 e-mails for the Wylfa Newydd DCO Examination Deadline 3 deliverables.

The list below provides a complete list of all documents attached to this e-mail and we will also be delivering 2x USB pen drives containing all of our Deadline 3 submission to your offices at 10:00 tomorrow (Tuesday 18th December).

Our covering letter in support of the submissions is also attached.

0 Deadline 3 Cover Letter.pdf
01 1.3 Guide to the Application.pdf
02 1.3 Guide to the Application (Rev 4.0) Welsh Language.pdf
03 Horizon's Response to IACC's Local Impact Report.pdf
04 Horizons response to Interested Parties responses to the ExA First Round Written Questions.pdf
05 Horizon's Response to Written Representation - Arthur Wyn Owen .pdf
06 Horizon's Response to Written Representation - Betsi Cadwaladr University Health Board .pdf
07 Horizon's Response to Written Representation - Brynawran Cymunedol Ltd .pdf
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15 Horizon's Response to Written Representation - Nuclear Free Local Authorities .pdf

Kind Regards

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Wylfa Newydd Project

Horizon's Response to Written Representation – Nuclear Free Local Authorities

PINS Reference Number: EN010007

18 December 2018

Revision 1.0

Examination Deadline 3

Planning Act 2008

Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009

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1 Horizon's Response to Nuclear Free Local Authorities' Written Representation

1.1 Introduction

- 1.1.1 This report provides Horizon's response to the Written Representation submitted by Nuclear Free Local Authorities at Deadline 2 (4 December 2018). For ease, cross-references are provided (where appropriate and feasible) and the response generally follows the structure and sequence of the Written Representation received. Horizon has endeavoured to respond to the key matters raised in this Written Representation. Where Horizon has not responded to a particular point or issue raised by an Interested Party, this should not necessarily be taken as agreement with that point.

1.2 Outdated nature of NPS EN-1 and EN-6

- 1.2.1 Please see the Planning Statement [APP-406], which sets out and assesses the Wylfa Newydd Project against relevant planning policy.
- 1.2.2 The principle of the need for new nuclear power stations, and that this need is urgent, is firmly established in National Policy Statements EN-1 and EN-6, and is reaffirmed by the Ministerial Statement on Energy Infrastructure (December 2017) (the "Ministerial Statement") and the Government Response: Consultation on the Siting Criteria and Process for a New National Policy Statement for Nuclear Power with Single Reactor Capacity Over 1 Gigawatt Beyond 2025 (July 2018) (Document 29) (the "Consultation on Siting and Process").
- 1.2.3 EN-1 sets out that the Government believe there is an urgent need for new electricity NSIPs to meet energy security and carbon reduction objectives, the need to replace closing electricity generating capacity, to support an increased supply from renewables and future increases in electricity demand. EN-6, stresses the urgency of bringing forward new nuclear power projects as part of the drive to decarbonise the UK's electricity supply and to increase energy security.
- 1.2.4 The Government's continued support for new nuclear power generation is set out in the Ministerial Statement which clarified that "*new nuclear power stations have an important role to play*", "*nuclear is vital to our energy mix*", and that the Government "*believes that it is important that there is a strong pipeline of new nuclear power to contribute to the UK's future energy system*". The Government also reaffirmed its commitment to nuclear power in the Consultation on Siting and Process which provides that the "Government continues to believe that nuclear has an important role to play in the UK's energy future as we transition to the low-carbon economy".
- 1.2.5 Further evidence for the urgent need for new nuclear power can be found in the additional report commissioned by Horizon and submitted alongside the DCO application (Appendix G to the Planning Statement [APP-406]) which examined the available evidence about the need for new nuclear power. The report presented evidence for the continued need for new nuclear power to

deliver the UK's energy requirements to 2025 and beyond and concluded that the significant lead time for delivery of new nuclear capacity makes this need urgent. The report demonstrates that:

- Electricity demand is expected to increase substantially by 2035;
- A significant proportion of existing electricity generating capacity is expected to close by 2035;
- There is an apparent absence of proven, low-carbon technologies that could provide credible alternatives to new nuclear generation and also be deployed at sufficient scale; and
- The UK's obligations toward meeting emissions targets further accentuate the need for new nuclear power

Applicability of EN1 and EN6

- 1.2.6 The Ministerial Statement provides that, until a post-2025 nuclear NPS is adopted (expected to be in spring 2020), nuclear power station projects applying for development consent and due for deployment beyond 2025 should be considered under section 105 of the Planning Act 2008. The ministerial statement is clear that EN-1 and EN-6 remain important and relevant matters which would carry significant weight in determining the application under section 105. NPSs EN-1 and EN-6 continue to represent the primary policy basis for a decision made by the Secretary of State on this application.

1.3 Impact on local employment and 'gold rush' economy

- 1.3.1 Please see Chapter C1 – Socio-economics of the Environmental Statement [APP-088], which assesses the project-wide socio-economic effects of the Wylfa Newydd DCO Project, including effects on the local labour market.
- 1.3.2 Horizon estimates that around 2,000 home-based workers would be employed during the peak period of construction. Those are workers who currently live within the Daily Construction Commuting Zone (DCCZ), being the area defined by a 90 minute travel time to the Wylfa Newydd Development Area. The 2,000 home-based workers would deliver major beneficial changes to employment in the construction sector in the DCCZ. An estimated 1,260 of these home based workers are expected to be drawn from Anglesey, ensuring beneficial effects on the labour market on Anglesey itself are delivered during the construction phase.
- 1.3.3 There would also be significant beneficial effects on the economies of Anglesey and north Wales as a result of the investment to be made by the Wylfa Newydd Project from the additional earnings of employees, from contracts with local businesses and investment in infrastructure, and from workers spending their income at local businesses. An expected investment of between £200 million and £400 million within north Wales over the construction period would lead to the provision or safeguarding of the equivalent of 120 to 350 Full Time Equivalent jobs over that period. Horizon is also developing a Supply Chain Action Plan jointly with IACC, the North Wales

Economic Ambition Board (NWEAB), and the Welsh Government. One of the aims of the Action Plan is to maximise opportunities for businesses within the local area. Horizon has signed a Statement of Common Ground with the NWEAB, submitted alongside the DCO Application, which sets out how they will work collectively with the organisations that form part of the NWEAB to maximise benefits for north Wales.

- 1.3.4 During operation of the Power Station it is estimated that a workforce of 850 will be required and Horizon estimates that around 85% of those employed would already be resident within the DCCZ. This represents a significant contribution to local employment opportunities and to the long-term population stability on Anglesey. Given the magnitude of change in local employment, the long-term nature of the positions, and the potential to reduce outward migration trends, alongside the importance of the local labour market, this would represent a major beneficial effect on the labour market on Anglesey.
- 1.3.5 Horizon is investing early in education to maximise opportunities for local people. Horizon currently promotes use of STEM (science, technology, engineering and mathematics) teaching and subjects, as well as already investing in an apprenticeship scheme with Coleg Menai. Horizon will also be introducing a 'Wylfa Newydd Employment and Skills Service' to improve Horizon's local recruitment strategy to help promote roles and opportunities and encourage more people to apply for Wylfa Newydd jobs. It will aim to retain skilled workers and young people and attract local people back who have had to move away for work. These measures are secured through the draft DCO s.106 Agreement submitted at Deadline 3 (18 December 2018).

1.4 Temporary nature of elements of Wylfa Newydd DCO Project and the ability to provide legacy benefits

- 1.4.1 One of Horizon's objectives for the Wylfa Newydd DCO Project is to help to create a positive legacy for Anglesey. The legacy benefits of the Wylfa Newydd Project are described in the Planning Statement [APP-406].
- 1.4.2 In addition to the benefits of providing long term, stable, low carbon energy generation for the Wales and UK as a whole, the Wylfa Newydd DCO Project will deliver a package of measures which will provide a longer-term legacy to Anglesey and the wider North Wales region. In summary, the key legacy benefits include:
- During operation of the Power Station it is estimated that a workforce of 850 will be required and Horizon estimates that around 85% of those employed would already be resident in the local area;
 - The significant employment opportunities for local people are expected to reduce out-migration of young people resulting in a beneficial effect on Welsh language and culture;
 - Horizon is investing early in education to maximise opportunities for local people. Horizon currently promotes use of STEM (science, technology, engineering and mathematics) teaching and subjects, as

well as already investing in an apprenticeship scheme with Coleg Menai;

- Delivery of the A5025 Off-line Highways Improvements (as well as the A5025 On-line Highways Improvements that would be consented under a separate planning application) will deliver an improved road network in the local area. The A5025 Offline Highways Improvements will reduce existing traffic levels and associated traffic noise and air pollution in the communities of Valley, Llanfachraeth, Llanfaethlu and Llanrhuuddlad (at Cefn Coch); and
- The Logistics Centre at Parc Cybi will be available for an alternative employment use, subject to achieving the necessary local consents. The Logistics Centre also has potential to kick-start investment in the allocated employment area at Parc Cybi; and
- Horizon will provide a Housing Fund, secured through the draft DCO s.106 Agreement which could be used for a range of legacy benefits, such as incentivising provision of new affordable housing.

1.5 Allocation of funding and concerns regarding the absence of alternatives in the Environmental Statement

1.5.1 There is strong legislative and policy support for new nuclear power in the UK and specifically at Wylfa including:

- “Meeting the Energy Challenge - A White Paper on Nuclear Power” announced that nuclear should have a role to play in the generation of electricity, alongside other low carbon technologies.
- NPS EN-1 which establishes the urgent need for new energy infrastructure (see paragraphs 3.3.15, 3.3.22, 3.5 and 3.5.9) to meet energy security and carbon reduction objectives, to replace closing electricity generating capacity, and to support an increased supply from renewables and future increases in electricity demand.
- NPS EN-6 which sets out the Government’s policy on the urgent need for nuclear power. NPS EN-6 included Wylfa as a potentially suitable site for the deployment of a new nuclear facility before the end of 2025, subject to certain matters that require further consideration through a DCO application. The UK Government (in including Wylfa in the NPS EN-6) concluded that none of these factors were sufficient to prevent the site from being considered potentially suitable.
- Clean Growth Strategy confirmed the Government’s continued support for growing low carbon sources of electricity, specifically including a continued commitment to nuclear energy.
- Consultation on Siting and Process” published on 7 December 2017 by BEIS states that, subject to the outcome of the consultation, the

Government propose to carry forward the sites listed in NPS EN-6 including Wylfa, that have not applied for DCO into the new NPS.

- The Statement on Energy Infrastructure [RD6] identifies that Government continues to give its strong in principle support to project proposals at those sites listed in NPS EN-6, including at Wylfa.
- In addition to the strong legislative and policy support for new nuclear power in the UK and specifically at Wylfa, the Oxera Report commissioned by Horizon and appended to the Planning Statement [APP-406] clearly identified that due to an expected increase in electricity demand, retirement of electricity generating plant capacity, the lack of proven alternatives to nuclear power generation, and the constraints imposed by emission reduction obligations, the need for new nuclear remains urgent.
- The Wylfa Newydd DCO Project is therefore a nationally significant electricity infrastructure project required to meet the national need for electricity with substantial public benefits.

1.6 Welsh Language

- 1.6.1 The potential project-wide impacts on the Welsh language and culture have been carefully assessed through the Welsh Language Impact Assessment (WLIA) [APP-432]. As the Welsh language and culture are integral elements of the social fabric of communities on Anglesey, Horizon acknowledges the need to consider Welsh language as a golden thread throughout the Wylfa Newydd DCO Project, including during the development of mitigation and enhancement measures throughout education and training, housing and accommodation, transport, quality of life and the local communities.
- 1.6.2 The WLIA has identified the need for various enhancement and mitigation measures to be secured through measures set out in the Welsh Language and Culture Mitigation and Enhancement Strategy (WLCMES) and controlled by planning obligation (through the draft DCO s.106 Agreement). The proposed measures follow four key themes, namely workforce, children and young people, community and accountability. The full range of measures proposed are set out in volume A and B of the WLIA.
- 1.6.3 There are also a number of beneficial effects of the Wylfa Newydd DCO Project on the Welsh language and culture. The significant employment opportunities offered during the construction phase is expected to reduce out-migration of young people, and the permanent, high-quality job opportunities offered during operation would also have a beneficial effect on Welsh language and culture, as 85% of the operational workforce are expected to be local people. Additional spending in the local economy would have a beneficial effect on businesses owned by Welsh speakers or providing services through the medium of Welsh.
- 1.6.4 Horizon is already contributing to the vitality of the Welsh language and culture by supporting a series of local events and initiatives and also by means of incorporating the Welsh language as an important aspect of working life, education and community services.

1.7 The construction phase and the safety of the proposed reactors

Construction Phase

- 1.7.1 The construction of the Spent Fuel Storage and Intermediate Level Waste facilities will be of a far smaller scale than that of the main Power Station. As such any associated impacts would also be significantly reduced.

Safety of Reactor Design

- 1.7.2 For new nuclear designs, the safety of a generic reactor design is assessed under the Generic Design Assessment (GDA) process, overseen by the Office for Nuclear Regulation (ONR) and the environment agencies. In December 2017, ONR, the Environment Agency and Natural Resources Wales granted Design Acceptance Confirmation and a Statement of Design Acceptability for the UK ABWR reactor design which will be utilised for the Wylfa Newydd Power Station.
- 1.7.3 Further, a key component of the nuclear site licensing process undertaken by the Office for Nuclear Regulation (ONR) is the nuclear safety case. This is a set of documents that describe the radiological hazards in terms of a facility and its modes of operation (including potential undesired modes) and the measures that prevent or mitigate against harm being incurred. The safety case must demonstrate that relevant standards have been met and that risks to persons have been reduced to As Low As Reasonably Practicable (ALARP). Horizon will need to have an approved safety case before a nuclear site license is granted for the Wylfa Newydd Power Station.
- 1.7.4 NPS EN-6 directs that certain matters are for consideration of the nuclear regulators and the decision-maker should not duplicate the consideration of these matters in the examination of a DCO application. These matters include the GDA and nuclear site licensing processes.

1.8 Nuclear waste

- 1.8.1 With regard to storage of radioactive waste please see Horizon's Responses to the Examining Authority's First Written Questions [REP2-002] and in particular FWQ20.0.1 which sets out Horizon's response with regard to the management, safe and secure storage of radioactive waste.

1.9 Emergency planning

- 1.9.1 Please see the Environmental Statement at appendix D14-2 (analysis of accidental releases) [APP-234], which sets out an assessment of effects from potential accidental release scenarios for the Wylfa Newydd Power Station based on the UK Advanced Boiling Water Reactor (UK ABWR) design. All of the scenarios were assessed as having a negligible environmental impact, even the identified severe accident scenario. This document also details the implementation of emergency arrangements and the utilisation of appropriate countermeasures in the event of accidental releases.

- 1.9.2 For new nuclear designs, the safety of a generic reactor design is assessed under the Generic Design Assessment (GDA) process, overseen by the Office for Nuclear Regulation (ONR) and the environment agencies. In December 2017, ONR, the Environment Agency and Natural Resources Wales granted Design Acceptance Confirmation and a Statement of Design Acceptability for the UK ABWR design which will be utilised for the Wylfa Newydd Power Station.
- 1.9.3 Further, a key component of the nuclear site licensing process undertaken by the Office for Nuclear Regulation is the nuclear safety case. This is a set of documents that describe the radiological hazards of a facility and its modes of operation (including potential undesired modes) and the measures that prevent or mitigate against harm being incurred. The safety case must demonstrate that relevant standards have been met and that risks to persons have been reduced to As Low As Reasonably Practicable (ALARP). Horizon will need to have an approved safety case before a nuclear site license is granted for the Wylfa Newydd Power Station.
- 1.9.4 In addition, an assessment of scenarios relevant to the Control of Major Accident Hazards Regulations 2015 (COMAH Regulations) will be undertaken for the Wylfa Newydd Power Station. It is expected that the site will be managed so that the COMAH Regulations do not apply during the construction stage, and that at operation, the site will be a Lower Tier COMAH site.
- 1.9.5 NPS EN-6 provides that when considering a DCO application the decision-maker should act on the basis that it should not duplicate the consideration of matters that are within the remit of the nuclear regulators, including the GDA and nuclear site licensing processes.

1.10 Ecological Impact

- 1.10.1 The potential impacts of the Project on ecological receptors has been assessed in both the Environmental Statement [APP-088 to APP-400] and the Shadow Habitats Regulations Assessment [APP-050 to APP-052 and AS-010].
- 1.10.2 These assessments have been informed by (amongst other things) extensive modelling of the noise outputs of all the proposed construction works [APP-086 and APP-231], visual construction effects, construction phase water discharge, the air quality effects of construction plant, and marine traffic. The predicted results have been used in the assessment of ecological impacts. The assessments consider, in particular effects on the Morwenoliaid Ynys Môn/Anglesey Terns SPA, the Bae Cemlyn/Cemlyn Bay SAC and the North Anglesey Marine/Gogledd Môn Forol SCI (in the process of being designated for Harbour porpoise) and have considered effects on prey stocks and availability as well as disturbance of marine birds and marine mammals.
- 1.10.3 These documents conclude that, for all these elements no significant residual impacts and no adverse effects on the integrity of any SPA or SAC designated features.
- 1.10.4 The assessment of impacts of the Wylfa Newydd Project on Tre'r Gof SSSI is presented in Chapter D9 – Terrestrial freshwater ecology of the Environmental

Statement [APP-128]. The assessment concludes that there will be minor adverse effects on Tre'r Gof SSSI as a result of air quality changes during construction and major adverse effects as a result of hydrological changes during construction and operation.

- 1.10.5 Horizon is proposing to take all reasonable steps to mitigate adverse effects on Tre'r Gof SSSI. With regard to hydrological impacts this would include the use of construction buffer zones and implementation of drainage and water treatment measures in an attempt to maintain the SSSI's baseline hydrological and hydrogeological regime. The predicted residual major adverse effect in spite of these proposed mitigation efforts is due to uncertainties inherent in predicting the response of such a complex and sensitive system and the associated good practice application of the precautionary principle.
- 1.10.6 As a result of being unable to rule out a major adverse effect on Tre'r Gof SSSI, Horizon is proposing to offset this potential effect via the creation of compensatory rich fen habitats similar to those which could be lost. The aim of Horizon's compensation proposals is to ensure no net loss of biodiversity in accordance with industry good practice.

1.11 Impact of rising sea levels

- 1.11.1 The Overarching National Policy Statement for Energy (EN-1) states that new energy infrastructure needs to be sufficiently resilient against the possible impacts of climate change. Otherwise, it may not be able to satisfy energy needs.
- 1.11.2 The design has considered predicted climate change trends up to the year 2183 (the expected end of spent fuel storage and decommissioning).
- 1.11.3 The site platform and the Cooling Water System have been designed so as not to be affected by sea level rise. Other climate change features that have been considered during the design of the Wylfa Newydd DCO Project are the likelihood of drought; sea temperature changes; increase in precipitation; and changes in wind speed, air temperature and humidity.
- 1.11.4 The Environment Agency informed the UK Government's Strategic Siting Assessment which concluded that, throughout its lifetime, the WNDA Development and Off-Site Power Station Facilities could be protected from flood risk originating from climate change, as well as other causes, and these have been considered in the design described in Chapters D1 – Proposed development [APP-120] and Chapter E1 – Proposed development [APP-239] of the Environmental Statement.

How Climate Change has been accounted for

- 1.11.5 The effects of climate change on the evolution of baseline conditions have been taken into account, where appropriate, in the Environmental Impact Assessment, as reported in the Environmental Statement.
- 1.11.6 All of the topic assessment chapters that consider climate change have referred to the UK Climate Impacts Programme predictions, which state that the future climate is likely to consist of wetter winters and drier summers. Due

to the coastal location of the Wylfa Newydd Power Station, sea-level rise and coastal erosion are key concerns.

- 1.11.7 Coastal erosion is considered in the coastal processes and geomorphology topic in Chapter D12 – Coastal processes and coastal geomorphology of the Environmental Statement [APP-131], with erosion rates given as up to 0.2m per year, whilst sea level rise projections are taken from UKCP09 with a projected sea level rise of 488mm by 2090; this rise is not expected to affect the Wylfa Newydd DCO Project directly during its lifetime. However, the surface water and groundwater assessment in this Environmental Statement considers an indirect effect, making reference to sea level rise as a cause for saline intrusion in coastal aquifers.
- 1.11.8 The surface water and groundwater assessment in ES Volume D – WNDA Development Appendix D8-1 – Surface Water Baseline Report [APP-145] has considered the potential for drier summers to lead to a reduced moisture content of soils, resulting in a shortened winter groundwater recharge season, potentially leading to a long-term decline in groundwater storage. This could potentially lead to droughts or floods.

Climate Change Adaptation

- 1.11.9 The Sustainability Statement [APP-426] accompanying the application for development consent outlines the design measures that have been incorporated with regards to climate change adaptation. The design of the Wylfa Newydd DCO Project has been informed by the applicable UK Climate Projections (as set out in Chapter B1 – Introduction to the assessment process of the Environmental Statement [APP-066], particularly considering potential flood risk and sea level change over the operational lifetime of the Power Station, or element within the wider Wylfa Newydd DCO Project. For example, with regards to the Power Station Site, the MOLF structure is based on present day sea levels due to its relatively short design life; the breakwater design accounts for predicted sea level rise; and the ancillary buildings have been designed to account for predicted flood risk, the coastal location and regional norms for wind and snow loading, taking account of climate change predictions for various factors including air temperature, sea level, sea temperature and rainfall. The Off-Site Power Station Facilities have been designed and arranged to reflect site-specific assessments of up to 1 in 10,000 year flood event.

Flood Risk

- 1.11.10 When considering flood risk specifically a summary of the assessment in relation to flood risk can be found within the Planning Statement [APP-406].
- 1.11.11 Flood risk is discussed in the chapters in the Environmental Statements for Flood Consequence Assessments provided as appendices. Each assessment takes into account policy requirements, the location of development relative to flood zones and any mitigation required to address flood risks. For small catchments (not captured by TAN15 larger scale flood zone mapping), bespoke flood risk modelling has been undertaken and discussed in the

Environmental Statement. Each assessment covers each phase of the development.

- 1.11.12 The methodologies and conclusions from the FCAs have been discussed with NRW and consultation is ongoing. Details of consultation on the water environment are included in Chapter B8 – Surface water and groundwater of the Environmental Statement [APP-073] and in the Consultation Report [APP-037].
- 1.11.13 Flood risk was a major consideration in the UK Government's Strategic Siting Assessment for the Power Station (NPS EN-6), in Horizon's site selection studies for the Associated Development, and in the design evolution for the Power Station Site and the Associated Development Sites.
- 1.11.14 The FCAs for each site, and any mitigation identified, make appropriate allowances for climate change. Where unacceptable flooding has been identified then mitigation measures have been identified, as identified below.
- 1.11.15 The FCA for the WNDA is provided at ES Volume D, Appendix D8-04 [APP-150 to APP-157] in accordance with section 5.7 of EN-1.
- 1.11.16 As set out at appendix A, the vast majority of the WNDA and surrounding area is located in the lowest risk zone (Flood Zone A). Critical infrastructure associated with the development is located in Flood Zone A. Some elements of the construction will need to take place in Flood Zone C and during operation various components of the Marine Works will be located within Flood Zone C2. No specific mitigation measures are necessary to increase flood capacity of the site, though a series of measures would be provided to prevent increased risks to offsite flooding. With these measures in place no significant residual adverse effects are likely in relation to flood risk as a result of development at the WNDA.
- 1.11.17 Appendix A demonstrates that the Exception Test is passed in accordance with paragraph 5.7.16 of NPS EN-1 and paragraph 3.6.13 of NPS-EN-6. The site level sequential approach is also in accordance with paragraph 3.6.11 of NPS EN-6 (and paragraph 5.7.23 of EN-1), as the proposals require works during construction and operation within high flood risk areas due to the nature of the development within and adjacent to the Irish Sea.
- 1.11.18 The Marine Works are water compatible uses and would remain operational and safe for users in times of flood. As such they can be appropriately located in an area at risk of flooding. Critical infrastructure is located in Flood Zone A in accordance with paragraph 3.6.11 of NPS-EN6.
- 1.11.19 With the mitigation proposed during the construction and operation phases to prevent increased risk of off-site flooding, the development within the WNDA is in accordance with paragraph 3.6.13 of NPS-EN-6 paragraph 13.4.2 of PPW, policy PCYFF 3 of the JLDP and GP21 of the Wylfa SPG.