

## Glyn Rhonwy Pumped Storage Development Consent Order

Deadline 2 – Applicant’s outstanding responses to the Examining Authority’s drafting queries on the DCO and Action Points from Deadline 1

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# 1 PREFACE

## 1.1 Purpose of Document

1.1.1 On 16<sup>th</sup> March 2016, the Examining Authority (ExA) issued a timetable for the examination in accordance with Rule 8 of the Infrastructure Planning (Examination Procedure) Rules 2010.

1.1.2 This Rule 8 letter requested the following submissions to be made available by Deadline 1 on 30<sup>th</sup> March 2016.

- Post-hearing documents including any written summary of an oral case put at a hearing and any documents/amendments requested by the ExA;
- The applicant's draft screening matrices summarising the effects on European sites;
- Comments on any additional representations and submissions received prior to the Preliminary Meeting;
- Any other information requested by the ExA under Rule 17 of the Infrastructure Planning (Examination Procedure) Rules 2010 (the Exam Rules).

1.1.3 The submission made for Deadline 1 noted that for questions 14, 25, 62 and 64 further information would be provided at Deadline 2. This document provides that further information.

Question Number	Article/Requirement	Question Text
14	Article 2(1)  Definition of the limits of deviation	a) Article 6 does not refer to this phrase, nor is it used elsewhere in the DCO?  b) Regulation 5(2)(j) of the APFP Regulations requires any limits of deviation to be shown on the works plans; please confirm how any such limits are shown
<b>Snowdonia Pumped Hydro's Response</b>		
<p>a) The Applicant has deleted the definition as being unnecessary. This change is set out in detail in the Table of DCO Amendments requested prepared for Deadline 1 (doc ref: SPH_GREX_DCO_04).</p> <p>b) The horizontal limits of deviation are the limits of each work area, there is no area outside of the works area to show separately, the limits of deviation are therefore shown by the information given on the plan as the delineation of the works areas. The works plans do not include any information on the vertical elements of the works and there is therefore no way to shown any limit of deviation on these plans. The provision for vertical deviation is in Article 6.</p> <p><b>AP7</b> Consider means of identifying horizontal and vertical limits of deviation on the drawings e.g. by way of a note or table.</p> <p>The Applicant has instructed the changes to the plans to address this point. The updated drawings include notes setting out the limits of deviation. The downwards vertical limit of deviation for the underground elements has been limited in Article 6 to 10m.</p>		

Question Number	Article/Requirement	Question Text
24	Article 9 Defence to proceedings in respect of statutory nuisance	<p>The Article provides defences against claims relating to:</p> <ul style="list-style-type: none"><li>(c) fumes or gases emitted from premises so as to be prejudicial to health or a nuisance;</li><li>(d) any dust, steam, smell or other effluvia arising on industrial, trade or business premises and being prejudicial to health or a nuisance;</li><li>(e) any accumulation or deposit which is prejudicial to health or a nuisance;</li><li>(g) noise emitted from premises so as to be prejudicial to health or a nuisance;</li><li>(ga) noise that is prejudicial to health or a nuisance and is emitted from or caused by a vehicle, machinery or equipment in a street or in Scotland, road;</li></ul> <p>The EM merely says that the defence is in respect of air quality and noise. What elements of the project justify or require the extension of the defence in relation to the other items in the list?</p>

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### **Snowdonia Pumped Hydro's Response**

The Applicant would advise that as set out in the Statement of Statutory Nuisance submitted as a part of the application (document reference 5.02) the various elements have been considered under the heading of air quality and noise. The following were considered under the headings listed as follows:

c) and d) concern fumes from vehicles and machinery used to construct the authorised development and dust from the construction operations and raised by vehicle movements. In particular the initial stages of blasting of the penstock is likely to create a large amount of dust. There is not anticipated to be any source of fumes during construction. There may be some dust carried off the site immediately following construction as the re-profiled slate mounds are exposed to the elements. These matters form part of air quality as assessed in the Statement of Statutory Nuisance

e). The construction of the project will require the creation of new slate mounds which would fall within the definition of "deposit". This is likely to have some dust impact. This is considered to form part of the air quality as assessed in the Statement of Statutory Nuisance

g) concerns noise. Noise has been assessed within the Statement of Statutory Nuisance for both the construction and operation phases.

ga) during construction there will be vehicle movements for vehicles access and leaving the site (including heavy vehicles and abnormal

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loads) which will require to be taken over street in close proximity to some sensitive receptors. This is considered to form part of noise as assessed in the Statement of Statutory Nuisance.

The Explanatory Memorandum therefore aligns with the Statement of Statutory Nuisance in the ES. The Applicant would propose to amend the Explanatory Memorandum to make this clearer.

**AP11** requests that the Applicant provide note of reason/justification for A9 as opposed to reliance on s158 of the Planning Act 2008 (PA 2008).

**Article 9 – Defence to proceedings in respect of statutory nuisance - note on why the general defence under section 158 of the Planning Act 2008 is not considered to be sufficient as requested by the ExA at the DCO issue specific hearing.**

Article 9 of the draft DCO provides a defence to proceedings in respect of statutory nuisance. This is in addition and complementary to the provisions of Section 158 of the Planning Act 2008 which provides a defence of statutory authority in nuisance proceedings.

Section 158 provides:

158 Nuisance: statutory authority

(1) This subsection confers statutory authority for—

- (a) carrying out development for which consent is granted by an order granting development consent;
- (b) doing anything else authorised by an order granting development consent.

(2) Statutory authority under subsection (1) is conferred only for the purpose of providing a defence in civil or criminal proceedings for nuisance.

(3) Subsections (1) and (2) are subject to any contrary provision made in any particular case by an order granting development consent.

Nuisance is not defined in the 2008 Act.

The defence of statutory authority only applies to common law nuisance; it is not a defence to statutory nuisance under the Environmental Protection Act 1990. The defences to statutory nuisance set out in that Act at sections 80(7), 80(9) and 82(9). Sections 80(7) and 82(9) are in similar terms and set out that it shall be defence to proceedings for statutory nuisance to prove that best practicable means were used to prevent, or to counteract the effects of, the nuisance.

Where statutory nuisance proceedings are instituted by a local authority under section 80 of the Environmental Protection Act 1990 then section 80(9) also provides that it shall be a defence to prove—

(a) that the alleged offence was covered by a notice served under section 60 or a consent given under section 61 or 65 of the Control of Pollution Act 1974 (construction sites, etc); or

(b) where the alleged offence was committed at a time when the premises were subject to a notice under section 66 of that Act (noise reduction notice), that the level of noise emitted from the premises at that time was not such as to constitute a contravention of the notice under that section; or

(c) where the alleged offence was committed at a time when the premises were not subject to a notice under section 66 of that Act, and when a level fixed under section 67 of that Act (new buildings liable to abatement order) applied to the premises, that the level of noise emitted from the premises at that time did not exceed that level.

Where statutory nuisance proceedings are raised by an individual rather than the local authority under section 82 there is no equivalent provision to 80(9) above. Article 9(1)(a) therefore affords the applicant a defence to a statutory nuisance in an action by an individual under section 82 equivalent to that applying to an action by the local authority under section 80.

The raising of a claim by an individual is a civil action and the terms of s158 of the 2008 Act seek to give a defence to civil actions. However the provisions of section 82 of the Environmental Protection Act 1990 provide that the only defence to an action under that section is best practicable means. In order to create a general defence in actions of statutory nuisance raised by individuals relating to works carried out under the Order Articles 9 (1)(a)(ii) and 9 (1)(b) are required.



Question Number	Article/Requirement	Question Text
62	Requirement 3 Export limit	Why is the 99.9MW output expressed as net (by comparison, A2(1) of the Hirwaun Power Station DCO expressly referred to 'gross rated electrical output')
<b>Snowdonia Pumped Hydro's Response</b>		
<p><b>AP27</b> Provide a note to further explain why the export capacity is 'net'.</p> <p>The Applicant's engineering consultant has updated the response to address the action point:</p> <p>In order to achieve maximum efficiency in both the generating and pumping cycle the turbines installed will together be capable of generating more than 99.9MW. However the export capacity of the generating station will electronically controlled and will never exceed the 99.9MW level, thus the grid connection is limited to 99.9MW. The maximum output of the development will therefore be at the net level as opposed to the 'nominal capacity' of the turbines or even the output at the terminals of the generator as the output is limited by the grid connection. As noted on Hirwaun, a cap on the rated electrical output of the pump turbines would hinder the achievement of maximum efficiency in the operation of the generating station.</p>		

In particular, the reservoirs at Glyn Rhonwy are relatively deep compared to other pumped hydro stations such as Dinorwig, which makes for a highly variable head range. In order to achieve the desired peak output across the range; the turbines will be oversized compared to a similar pumped hydro station with a less variable head. This makes the nominal output of the turbines less relevant as a description of capacity than the net output. Furthermore, the station internal loads (which occur before the export meter to grid) are subject to detailed design and will absorb some of the generated output. The grid connection offer capacity therefore illustrates the maximum output. As both the individual pump turbine characteristics and the internal station load is subject to detailed design, and will vary from, for example, different turbine suppliers, it is impractical to set the gross output at this time. The net output can however be determined because through power electronics, variable speed technology and other power regulation measures, the facility can be restricted from generating above its target

Question Number	Article/Requirement	Question Text
64	Requirement 5 Detailed design	<p>a) Several parameters are described as 'Maximum site area' where this parameter covers a number of areas (e.g. construction compounds), is this intended to be an aggregate maximum area or a maximum for each one?</p> <p>b) Provision is made for the submission of details of permanent buildings and structures; why is there no equivalent requirement for temporary buildings and structures</p> <p>c) Should this requirement read "...in accordance with the approved plans and details and any other approvals...."?</p>
<b>Snowdonia Pumped Hydro's Response</b>		
<p>a) The maximum site area is the maximum aggregate area for that element within that work. The slate mounds to be formed in work 1B have an aggregate volume of 935,000 cubic metres The Q1 construction compounds in Work 1D have an aggregate maximum area of 72,000sqm. The wording has been amended to clarify this. No other plural elements subject to one maximum are included. This change is set out in detail in the Table of DCO Amendments requested prepared for Deadline 1 (doc ref: SPH_GREX_DCO_04).</p>		

b) This requirement deals with the detailed design of the permanent elements. The temporary structures are dealt with by Requirement 17 which requires the submission and approval of the details of temporary building and structures. As these elements are by their nature temporary there is no need to as strictly control their external appearance as they will be removed following construction.

c) The Applicant has amended the wording as suggested. This change is set out in detail in the Table of DCO Amendments requested prepared for Deadline 1 (doc ref: SPH\_GREX\_DCO\_04).

**AP29** Consider revising the draft DCO to provide more detailed parameters for the permanent elements.

The Applicant has provided a maximum area and height for the dams in Requirement 5 and the works plans and does not consider that any further parameters can be given pending detailed design and Reservoirs Act sign off of the dam design.

The maximum length of the penstock is given in Requirement 5 as 1800. The Applicant has added in the further parameter of a maximum internal diameter of 4.5metres for this element.

The maximum diameters of the spillway infrastructure pipes is set out in Requirement 5.

The permanent buildings are controlled by the works plans (Work 3 was divided to better show the separation between elements at Deadline 1) and the maximum sizes and heights set out in Requirement 5.

The Applicant has made an amendment to the draft DCO to include the maximum internal diameter of the penstock. This change is shown

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in the Table of DCO Amendments for Deadline 2 (document reference: SPH\_GREX\_DCOD2\_01). The Applicant submits that the works plans and requirements suitably control the parameters of the permanent elements pending the detailed design which will require to be approved by Gwynedd Council. The Applicant does not consider that any further parameters can reasonably be specified at this stage.