

Gareth Leigh, Head of Energy Infrastructure Planning
Wylfa Newydd Nuclear Power Station Project Team
Secretary of State for Business, Energy and Industrial Strategy
c/o The Planning Inspectorate,
Eagle Wing 3/18
Temple Quay House
Temple Quay
Bristol
BS1 6PN

By email only to wylfa@planninginspectorate.gov.uk

Your ref: EN010007
Our ref: 20011658

11 February 2020

Dear Mr Leigh

Re the application by Horizon Nuclear Power Limited for an Order Granting Development Consent (the "Application") for the Wylfa Newydd Nuclear Power Station

1. Introduction

We write on behalf of Greenpeace Ltd ("Greenpeace UK"), an Interested Party in the determination of the Application.

The purpose of this representation is to comment on the response submitted by the Applicant, Horizon Nuclear Power (published on 9 January 2020)¹, to the Secretary of State's request for additional information (23 October 2019), and to advise the Secretary of State that the analysis

¹ [https://infrastructure.planninginspectorate.gov.uk/wp-content/uploads/projects/EN010007/EN010007-003914-Horizon's%20Reponses%20to%20Horizon%20Nuclear%20Power%20SoS%20Requests%20\(Final%20-%2024%20December%202019\).pdf](https://infrastructure.planninginspectorate.gov.uk/wp-content/uploads/projects/EN010007/EN010007-003914-Horizon's%20Reponses%20to%20Horizon%20Nuclear%20Power%20SoS%20Requests%20(Final%20-%2024%20December%202019).pdf)

the Applicant uses to demonstrate the 'urgent need' for nuclear new build is out dated and must not be given significant weight in the determination of the Application.

In this representation, the Secretary of State's letter of 23 October 2019 will be referred to as "the SoS Request Letter", and the Applicant's response to the SoS Request Letter will be referred to as the "Applicant's Response Document".

Within the Applicant's Response Document, the Applicant responds to the Joint Committee on Housing, Planning and Local Government's ("JCHPL") position that there is no economic justification for the Wylfa Newydd DCO Project (page 8). The Applicant's retort to this is to rely on the principle of the need for new nuclear as established in EN-1 and EN-6, stating:

"the principle of the need for new nuclear power stations, and that this need is urgent, is firmly established in NPS EN-1 and...EN-6", and further that EN-1 and EN-6 are the "primary policy basis" for the determination of the Application (page 8).

This is simply not the case.

As Greenpeace UK has informed the Inspectorate, and subsequently the Secretary of State, in each of its representations throughout the Application process, the NPS does not have effect. EN-6 only has effect for the purposes of Section 104 of the Planning Act 2008 for development with expected deployment by the end of 2025².

The Applicant accepts that EN-6, which had the specific purpose of facilitating the urgent delivery of new nuclear by the end of 2025, does not have effect (see the Applicant's Planning Statement, page 4). The Application is therefore to be decided under Section 105 of the Planning Act 2008 ("Decisions in cases where no national policy statement has effect"), and requires the Secretary of State to have regard to a 'wide variety of matters' when deciding the Application, rather than submitting to the prescription of the NPS.

Instead, the Secretary of State should only attach significant weight to the NPS where there has been no relevant changes of circumstances³. However, the Applicant urges the Secretary of State to attach *significant weight* to the NPS and does so by setting out its case for the necessity of new nuclear. It makes this case using a 2018 report by Oxera Consulting LLP, commissioned as part of the DCO Application to evidence the 'urgent need' for new nuclear ("the Oxera Report

² Written Ministerial Statement on Energy Infrastructure by Lord Henley (dated 7 December 2017) Written Statement HLWS316:<https://www.parliament.uk/business/publications/written-questions-answers-statements/written-statement/Lords/2017-12-07/HLWS316/>

³ Written Ministerial Statement on Energy Infrastructure by Lord Henley (dated 7 December 2017) Written Statement HLWS316:<https://www.parliament.uk/business/publications/written-questions-answers-statements/written-statement/Lords/2017-12-07/HLWS316/>

2018")⁴. The Applicant commissioned Oxera to examine the "**available evidence**" pertaining to the urgent need for new nuclear power (paragraph 5.2.1 of the Planning Statement).

Greenpeace UK takes this opportunity to consider the Oxera Report 2018⁵ and demonstrate to the Secretary of State how the landscape has changed in the last two years, and why the argument that nuclear new build is both necessary and urgent is in itself out dated, meaning that significant weight should not and cannot be placed on the policy support for new nuclear on this basis.

2. The Oxera Report 2018

Much of the Report analyses the need for more low or zero carbon power due to closures of existing stations and increases in demand. Greenpeace UK does not disagree with this position. However, the Oxera Report claims that the only way to deliver this is to have significant nuclear capacity. This position is out-dated.

In the two years since the Oxera Report was published, the contracted price for offshore wind has fallen from £57.50/MWh to £39.65/MWh⁶, a fall of over 30%. This followed cost reductions of over 50% over the previous 5 years. There is no reason to consider this ongoing fall in prices has ceased. Onshore wind is now being built subsidy free⁷, as is solar, providing much needed income to local authorities who developed it⁸.

Whilst the issue identified of periods in which wind and solar output is low is accepted in theory, the dramatic reduction in the price of renewable generation allows for options for 'firming and balancing' the power system to be employed. These options attract cost but overall can still deliver a cheaper zero carbon energy system than using nuclear power⁹. These options are steadily emerging and have a more substantial track record than some nuclear power station designs.

One such method is storage, as demonstrated by studies by Lappeenranta University of Technology (LUT) and others into 100% renewable energy systems based on solar and wind in all regions of the world¹⁰. The Oxera Report 2018 quotes extensively from criticism of this study¹¹ purporting to show that 100% renewable systems are not feasible. This criticism of the LUT

⁴ See paragraph 5.2. of the Planning Statement and Page 8 of the Applicant's Response Document

⁵ Appendix G of the Applicant's Planning Statement: [https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010007/EN010007-001716-8.1%20Planning%20Statement%20\(Rev%201.0\).pdf](https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010007/EN010007-001716-8.1%20Planning%20Statement%20(Rev%201.0).pdf)

⁶ <https://www.greentechmedia.com/articles/read/prices-tumble-as-u-k-awards-5-5gw-of-offshore-wind>

⁷ <https://www.energyvoice.com/otherenergy/221389/sse-to-start-building-first-subsidy-free-onshore-wind-farm-in-highlands/>

⁸ <https://inews.co.uk/news/environment/warrington-solar-power-energy-environment-austerity-1345010>

⁹ <https://cleantechnica.com/2020/02/09/correcting-anti-renewable-energy-propaganda/>

¹⁰ https://www.lut.fi/web/en/news/-/asset_publisher/lGh4SAywhcPu/content/simulation-brings-global-100-renewable-electricity-system-alive-for-the-first-time

¹¹ Page 12 of the Oxera Report 2018 (at Appendix G of the Applicant's Planning Statement)

analysis was rebuffed by the original study's authors¹² 7 months after the Oxera report was published, with the lead authors making stating:

*"There are some persistent myths that 100% renewable systems are not possible... Our contribution deals with these myths one-by-one, using all the latest research... Furthermore, these solutions are absolutely affordable, especially given the sinking costs of wind and solar power."*¹³

The Oxera Report also dwells on the issue of long term, accepting that short term management of variable renewable power is made possible by batteries. However, since the Oxera Report was produced, the use of hydrogen as a user of 'spare' renewable power to prepare for other uses, including long term storage, has proliferated. Projects in Austria¹⁴, Germany¹⁵, Belgium¹⁶ and Japan¹⁷ have all been announced or commenced operation. This technology is more advanced than the small modular reactors that UK government has suggested might occupy the Wylfa site¹⁸, and so the argument that this technology is 'unproven' is weak compared to the way government chooses to appraise nuclear technologies.

Illustrating the overall feasibility of a renewables based system for the UK, energy analyst and author Chris Goodall has shown that despite variable weather systems, a half hour by half hour analysis of electricity needs in the UK can be met by a wind and hydrogen-from-electrolysis combination, at "only slightly more" than the cost of the current (much higher carbon) generation arrangements¹⁹. Typical costs of power on UK system are around £50/MWh. Note that new nuclear build, at £92.50/MWh for Hinkley Point C, would appear to be very much more expensive than this renewables plus hydrogen combination system.

The other references quoted in the Oxera Report 2018 are thus out of date, as is the basis for the assumptions in EN-1 that nuclear new build is necessary and urgent.

3. Conclusion

¹² <https://www.sciencedirect.com/science/article/pii/S1364032118303307?via%3Dihub>

¹³ https://www.lut.fi/web/en/news/-/asset_publisher/lGh4SAywhcPu/content/can-we-get-100-of-our-energy-from-renewable-sources-new-article-gathers-the-evidence-to-address-the-sceptics

¹⁴ <https://www.rechargenews.com/transition/worlds-largest-green-hydrogen-plant-begins-operation-in-austria/2-1-708381>

¹⁵ <https://markets.ft.com/data/announce/detail?dockey=1323-14123441-70H1OUGSH14AVL42SM69RKVSIJ>

¹⁶ <https://www.rechargenews.com/transition/worlds-first-commercial-green-h2-project-powered-by-surplus-renewables-unveiled/2-1-744835>

¹⁷ <https://www.h2-view.com/story/cockerill-jingli-hydrogen-inaugurates-new-electrolyser-production-centre-in-china/>

¹⁸ <https://www.dailypost.co.uk/news/north-wales-news/mini-nuclear-power-stations-could-17594366; https://www.dailymail.co.uk/news/article-7903495/New-Rolls-Royce-mini-nuclear-power-stations-built-North.html; https://publications.parliament.uk/pa/cm201719/cmselect/cmwelaf/2585/258502.htm>

¹⁹ <https://www.carboncommentary.com/blog/2019/10/14/massive-overbuilding-of-renewables-is-the-way-to-100-decarbonisation>

This representation acts as a short supplement to Greenpeace UK's extensive package of submissions throughout the Examination of the Application²⁰. Throughout its representations, Greenpeace UK sets out a broad range of changes in circumstance which, for the purposes of Section 105(2) of the Planning Act 2008, negate the ability of the Secretary of State to attach significant weight to the NPS, including but not limited to:

- a) the complete failure and inability of new nuclear to address the 'urgent need' as required under the NPS;
- b) the total renege on the 'subsidy-free' nuclear regime promised by government, which instead has become synonymous with excessive cost, harm to the consumer, and an industry unattractive to investors;
- c) the plummeting cost of renewables including a 90% reduction in solar costs and wind power contracts continuing to be awarded at record-low contract prices;
- d) that government accepts that on cost and on the 'abundance of alternative technologies, "...nuclear is being out-competed"²¹;
- e) the growing stockpile of high-level radioactive waste without a storage solution, which is incompatible with the Well-being of Future Generations (Wales) Act 2015;
- f) the clear failure of nuclear newbuild to contribute to climate change targets in existence at the time that the NPS was designated, targets which have now been superseded by more ambitious legislative targets²² in light of the Paris Agreement and warnings from Intergovernmental Panel on Climate Change and the Committee on Climate Change.

The Secretary of State is therefore urged to avoid giving significant weight not only to the outdated NPS support for Wylfa, but also to the evidential basis of the Oxera Report 2018, which makes the now obsolete conclusion that nuclear newbuild is necessary and urgent. To do so would be irrational, misleading and damaging to both the consumer and the climate emergency. Any decision to give significant weight to such support would be plainly erroneous and is considered to amount to grounds for judicial review challenge.

Yours sincerely



Harrison Grant

²⁰ See incl Written Representation of 4 December 2018; Oral Submissions of 5 March 2019 and Post-Hearing Submission of 14 March 2019; Submission of 21 December 2019.

²¹ Greg Clark, Secretary of State for Business, Energy and Industrial Strategy, 17 Jan 2019
<https://hansard.parliament.uk/Commons/2019-01-17/debates/9C841326-B63A-4790-867F-905DEDDDD8AC/NuclearUpdate>

²² Climate Change Act 2008 (2050 Target Amendment Order) which came into force on 27 June 2019.