From:	[redacted]
To:	Wylfa Newydd
Subject:	More input for D9
Date:	13 March 2019 00:38:36
Attachments:	Objections to the North Wales Connection project v0.1.pdf

I hope some of this helps you understand why Horizon should not make reference to overhead lines specifically

--
Dr Jonathan F Dean
[redacted]

https://you.38degrees.org.uk/petitions/anglesey-says-no-to-pylons

Pylons should not be the default solution for electricity transmission in rural Wales.

A series of arguments are presented, developed during opposition to National Grid's plans for the North Wales Connection, which could be used to change the way transmission infrastructure projects are consented in the future

The North Wales Connection project

Reasons why pylons are not the answer

Dr Jonathan F Dean
Anglesey Says No to Pylons
March 2019 v0.1

Contents

Forward

This is a collection of individual arguments and opinions that would have been submitted to the Planning Inspectorate as Written Representation for the examination of the North Wales Connection project – National Grid's proposed solution for the export of power from Wylfa Newydd. However, with the power station project delayed, on February 20th 2019 National Grid withdrew their planning application, and so these notes remained unused.

> *The North Wales Connection project would have built approx. 100 new pylons over 30 km of Anglesey countryside, tunnelled under the Menai Strait for 4 km before five more pylons to link Wylfa substation to Pentir substation. The new line would have been roughly parallel to the existing line built in the mid 1960's.*

This collection started with what is now Chapter 3 (review of Government Policy), which was largely written on a coach, sitting opposite Dave (pylon) Neal, returning from the Palace of Westminster, after a meeting with representatives of Ofgem arranged by Albert Owen MP. Knowing that a Written Representation would be required, I started writing in anger (literally) and shoe-horned the various thoughts and opinions into several documents.

Large chunks of Chapter 2 I lifted from a letter written by Hazel Shufflebottom to the Chief Executive of the Isle of Anglesey County Council, and many of the thoughts and ideas in other chapters developed through a near constant barrage of emails sent to National Grid. The complete set of mails, and the responses (if there was one) is presented in Chapter 10.

Chapter 9 is simply the text of the petition run on 38degrees.com, which started in early 2017, and has just under 14,000 signatures to date. A good 80% of these were gathered manually (ink on paper) by Pam (petition) Lee and Cheryl Weaver with their team of volunteers.

Each chapter presents a piece of evidence against National Grid's plans for Anglesey, but could apply to virtually any community under threat of new transmission projects. There has been minimal editing in collating them into this document, and there is a degree of repetition and overlap – for example chapter 5 (impacts on tourism) overlaps with chapter 6 (socio-economic costs) which overlaps with chapter 7 (fairness). While editing would remove any duplication, leaving it as is makes each chapter essentially stand alone.

Not included here is a critique of National Grid's development consent order submission, (other than the tourism survey). Work on that had only just started when the suspension of the Wylfa Newydd project was announced. If the project gets resurrected, these will be written.

Also not included, with potential interest to future, similar, campaigns, is what would be done differently if starting again from the beginning. Anyone interested in this can contact me.

A total of 821 people/organisations registered with the Planning Inspectorate as Interested Parties. This included 790 members of the public, of whom 2 argued in favour of pylons, 9 were neither for or against while 779 were against. This statistic alone speaks volumes.

Having collated this work, and with no planning inspectors to read it, what to do? Copies will be sent to:

- The Wylfa Newydd planning inspectors (particularly chapter 9) as evidence to make sure National Grid do not abuse the planning process and include details of their withdrawn proposal in the Wylfa Newydd development consent order;

- National Grid, as feedback for their stakeholder consultation prior to the RIIO ET2 negotiations with Ofgem. I remain convinced that a solution is possible for the North Wales Connection that does not involve pylons, that is still able to be consented, but it will involve genuinely engaging and working with the people of Anglesey, rather than against them;

- Ofgem (mainly chapters 1, 2, 5 & 6), as feedback and evidence for their consultation on the RIIO ET2 methodology. If the current statutory consultation approach is to remain (as required by the Planning Act 2008), there is a greater role for an independent body to host the consultation feedback process and to oversee the project development stage gates. Early intervention by a regulatory body may have made the whole drawn out process less painful;

- BEIS (mainly chapters 3 & 4), as evidence as to why National Policy Statement EN-5 needs revision. Wales has a far greater proportion of its population living in rural areas compared with England. Correspondingly, a far greater number of people are impacted, relatively speaking, by plans for pylons through open countryside;

- Rhun ap Iorwerth AM, as evidence to use with the Welsh Government for greater recognition of Welsh Planning Policy in the examination of Nationally Strategic Infrastructure Projects (NSIPs). The hunger of the south east of England for more power should not come at the expense of the Welsh countryside;

- Albert Owen MP, to use in the Energy Select Committee, to ensure that NSIPs consider the holistic impacts of development, as required by the Planning Act 2008, but in the case of Anglesey, not followed;

- Isle of Anglesey County Council, with a request to keep a copy in Llangefni Library for future reference should the North Wales Connection project be resurrected, or similar projects emerge;

- An online publication will be sought, for future use and reference by other pylon campaigns or anyone simply interested in the process.

Dr Jonathan F Dean [redacted] Coedana, Anglesey, March 2019

Summary

The Relevant Representation, included verbatim, submitted to the Planning Inspectorate, provides a useful summary of this collection.

Thank you for giving "Anglesey Says No to Pylons" the opportunity for giving our views on the National Grid Electricity Transmission plc (NGET) proposal for the North Wales Connection.

> *The key themes are: impact on tourism, impact on farming, impact on house valuation, impact on visual amenity, impact on designated landscapes, unacceptable social costs, flawed consultation, poor public engagement, failure to follow Government Policy, failure to the follow the Holford Rules, historically and culturally inappropriate.*

Our views on the Wylfa Newydd DCO are irrelevant for this proposal, but it goes without saying that any generator needs to be connected to the power demand, so we fully agree with a connection existing for Wylfa Newydd, Orthios and any future generators, however, we totally disagree with all other aspects of the proposed development.

- *NGET and Horizon have not followed the guidance in The Planning Act 2008, and at no point has the genuine cumulative impact of the development in total (i.e. Wylfa Newydd and the North Wales Connection) been assessed or consulted on;*
- *There are numerous instances where NGET have not followed the advice in Government policy (EN-1 and EN-5);*
- *The consultation was ineffective and not carried out in good faith. NGET had already published plans in 2009 three years before it commenced and the only statutory consultation in 2016 did not consider any other options Although NGET pretended to evaluate other options in 2012, the people of Pembrokeshire and the Wirral were not consulted;*
- *While hundreds of people responded to the consultation, over 13,000[1] have signed our petition against the proposals;*
- *Engagement since the consultation has felt patronising and some landowners report feeling intimidated;*
- *The tenth edition of Planning Policy Wales is quite clear that the preference of the Welsh Government is for all new connections to be underground. This will have no impact on the feasibility of the power station;*

[1] Edit note: The petition had over 13,000 signatories at the time this was submitted to the Planning Inspectorate. It is now almost 14,000. The petition is presented in Chapter 9

- *The additional costs are estimated at some 11p/year on an average UK electricity bill of £554 – an increase of 0.02%, affordable even to vulnerable households suffering fuel poverty;*

- *Despite frequent requests, NGET have refused to consider modifications to the existing line to reduce visual disamenity, and comply with current routing guidance, yet have included modifications to facilitate the new line;*

- *Of the seven "Holford Rules", NGET ignore all of them for the modifications to the existing line, and follow only one of them for the new line;*

- *NGET have not planned for the use of the third Menai crossing which could reduce costs by £200 million;*

- *While NGET are not bound by The Wellbeing of Future Generations Act, pylons are a poor legacy for future generations;*

- *Other technology exists (underground and subsea), which does not have the negative effects of pylons. Underground is acceptable to Horizon;*

- *Anglesey and Wales are self-sufficient in energy. The pylons will serve mainly to export power to the south east of England. While hosting a power station the island should not have to bear the visual intrusion of pylons;*

- *All levels of democratic representation (Council, AM, MP) have spoken against the proposals;*

- *NGET are using the presence of one pylon line to justify a second, on the (false) assumption that people are now used to the presence of these towers. It is well known that further reactors are likely at Wylfa in addition to Wylfa Newydd. If there is no change in Government policy (EN-5) a second row will be used to justify even more lines;*

- *Had the AONB designation been in place earlier, it is unlikely that much of the existing line could have used pylons. As NGET propose significant modification to this line, current design guidance should be followed;*

- *Pylons will be detrimental to views of the countryside, particularly views from within, and views of, the AONB, iconic views of Snowdonia National Park and the landscape setting of numerous historic features;*

- *Pylons will be detrimental to the tourism industry through a spoilt, blighted, stigmatised and "industrial", landscape;*

- *Pylons will be detrimental to farming due to permanent land loss and restricted practices;*

- *Pylons will be detrimental to house value due to loss of visual amenity, blight and stigma;*

- *The "social costs" of this proposal, estimated at £500 million, outweigh the additional cost of undergrounding;*
- *NGET ignore the social costs in their evaluation methodology, despite UK Government and EU guidance;*
- *Pylons will hinder Ofgem achieving their principal objective "… to protect the interests of existing and future electricity … consumers";*
- *The whole of the Anglesey landscape is recognised by UNESCO as a Geo Park for the geological and geomorphological features (not just the coast as NGET imply);*
- *There is a huge amount of scientific research into the health effects of pylons (EMFs) on people and farm animals. There are different views, but learning from early research into tobacco in the 1950's, the precautionary principle should be followed*

We would urge the Examining Authority to visit Cemaes, Llanfechell, Rhosgoch, Rhosybol, Llandyfrydog, Maenaddwyn, Capel Coch, Talwrn and Star, to see for themselves the current blight and try to imagine the view with a second line.

Anglesey Says No to Pylons

October, 2018

1 Challenges to the project "Need Case"

1.1 Summary

1. This chapter presents challenges raised with NGET regarding the need for the capacity of the connection, their response and unanswered questions.

2. A number of areas have been identified where NGET have been inconsistent, have used flawed methodologies and have not been creative in exploring all possible options.

1.2 Scope of the Project

3. The project scope has changed over time, which has been well documented by National Grid. This has had implications for the possible options available to meet the transmission need. See:

- Need Case (2012)
- Strategic Options Report (2012)
- Summary of Key Project Changes and Updates (2015)
- Project Need Case (2015)
- Strategic Options Report (2015)
- Strategic Options Report Update (2016)
- Project Need Case (2016)

4. The following table summarises the main, known, sources of power to be transmitted from Wylfa substation to Pentir substation, reported at the time of the three public consultations and submission of the DCO's by Horizon and NGET.

Source of power	**Date of consultation**			**DCO**
	2012	**2015**	**2016**	**2018**
Wylfa Newydd,	3.6 GW	2.8 GW	2.8 GW	2.9 GW
Celtic Array	2.0 GW	-	-	-
Orthios	-	-	0.3 GW	0.3 GW
Total	**5.6 GW**	**2.8 GW**	3.1 GW	**3.2 GW**

5. The key changes have been:

- the Celtic Array (sometimes called Rhiannon) offshore windfarm, that was to "land" at, or near, Wylfa was cancelled;
- Orthios, a proposed biomass power station at Penrhos (on the former Anglesey Aluminium site) contracted to supply the grid; and

- Wylfa Newydd was re-specified at a lower capacity following the acquisition of Horizon by Hitachi, and later slightly increased in capacity.

6. The current transmission line that links Wylfa substation to Pentir substation, installed in the mid 1960's, consists of a "conventional" 400 kV double circuit overhead line, rated by National Grid, with the current specification of conductors, as having a transmission capacity of 4.44 GW. This line, designed for a 1.0 GW nuclear station, had insufficient capacity for the 2012 design basis of 5.6 GW, hence the need for additional capacity.

7. As well as meeting the capacity requirement, in designing the solution, National Grid must meet, amongst other things, conditions specified in the National Electricity Transmission System Security and Quality of Supply Standard (NETS SQSS)[2]. This specifies conditions (e.g. voltage, frequency, capacity etc.) that must be met under various operating conditions.

8. One condition that National Grid draw attention to is the "Limits to Loss of Power Infeed Risks". Section 2.6.4 of NETS SQSS specifies: "following the concurrent fault outage of any two transmission circuits, or any two generation circuits on the same double circuit overhead line … the loss of power infeed shall not exceed the infrequent infeed loss risk".

9. The infrequent infeed loss risk was increased in 2014 and is currently 1.8 GW. This figure is set to enable a balance to be struck between installed transmission capacity and the likelihood of this capacity not being available through infrequent transmission line failure.

10. In layman's terms, this means that should two circuits fail to operate unexpectedly, there must be sufficient additional capacity remaining operational to transmit 1.8 GW. This is the primary reason why additional capacity is being proposed, as should the current double circuit line fail, then "all generation" on Anglesey would be "disconnected from the transmission system".

11. It is this figure of 1.8 GW which is referred to in numerous documents as being the key driver for network reinforcement, including:

    - Energy Networks Strategy Group (2009, updated 2012) "Our Electricity Transmission Network: A Vision For 2020";

    - National Grid (2012, 2013, 2014, 2015, 2016, 2017) "Electricity Ten Year Statement".

[2]National Electricity Transmission System Security and Quality of Supply Standard, Version 2.3, February 2017

12. At each of the three consultations, National Grid has published details of their single preferred option, which has remained unchanged through the generation changes, and can be summarised as:

    - retain the existing, 400 kV double circuit overhead line, and
    - install a second, 400 kV double circuit overhead line.

13. In the Project Need Case the capacity of each circuit is given as 2.22 GW, and hence the transmission capacity of the entire proposed solution is:

    = 2 lines x 2 circuits x 2.22 GW per circuit

    = 2 lines of pylons x 4.44 GW per line of pylons = 8.88 GW transmission capacity

14. Based on the 2015 design basis of 2.8 GW and the 2016 design basis of 3.1 GW generation capacity, in the event of two circuits failing, leaving two circuits operational, there is sufficient capacity in the proposed solution to transmit all generated power.

1.3 Challenges posed to NGET regarding the need case

15. A number of challenges have been posed to NGET regarding the stated need.

16. On 02/09/17 JFD asked NGET about the history and future projected value for the infrequent infeed loss value (currently 1.8 GW). The rational being that should this figure increase to 3.1 GW then the existing connection alone would meet the requirements for NETS SQSS. Should this occur within the next 60 years (forecast generation life of Wylfa Newydd), the new connection would be redundant, and investment wasted. NGET have yet to answer this question although it is hard to believe that they do not forecast future values in their business plans.

17. On 02/09/17, 14/01/18 and 15/02/18 JFD requested information on the reliability of the existing line, in order to understand the likelihood of a double circuit failure. There are local anecdotes regarding conductors snapping and killing farm animals, but few hard facts. The connection to Anglesey Aluminium (operational 1971 – 2009)[3] is never known to have had an outage, for any reason, longer than two hours. Despite offering to sign a confidentiality agreement on 24/05/18, NGET declined to answer this question for reasons of "commercial confidentiality and network security". PINS should enquire about this to be certain the proposed investment is required. A similar question regarding the reliability of (any) buried cable has not been answered.

18. On 02/09/17 JFD inquired about the impact of a "smart grid" and more distributed generation on the proposed investment, and had any other mitigation measure other

[3] The Anglesey Aluminium process, electrolytic conversion of bauxite to aluminium, ran 24/7, and a prolonged outage would have led to catastrophic failure of the plant

than additional assets been considered. NGET have not responded, despite reminders.

19. On 04/05/18 JFD inquired about the capacity of the existing connection and whether NGET could meet its' NETS SQSS obligations with a single additional circuit, potentially underground. NGET responded "Under normal working conditions, with the existing two circuits in service, the existing system would be able to export the full output of Wylfa Newydd and Orthios …". However, they then went on, at some length, to explain why a single circuit provided insufficient additional capacity. NGET did reveal "while a three-circuit option could be made to technically comply with SQSS, it would require significant additional works to the existing transmission system bringing additional costs". Such an option has never been evaluated, and the additional costs referred to remain unquantified. Without being an expert in transmission systems it is difficult to determine if the arguments presented are credible. However, the rational presented by NGET by email on 17/05/18 to JFD, justifying a four circuit solution, does not feature in the published Need Case, the DCO or ever been presented to the public during a consultation. PINS should request, and scrutinise, full justification for a four circuit solution at the proposed capacity.

1.4 Challenges posed to NGET regarding the methodology

20. A number of challenges have been posed to NGET regarding the process they have followed and decisions they have made. The process used is the Network Options Analysis (NOA).

21. On 15/02/18 JFD inquired why the buried cable at Tregele and Valley, being re-conductored for Orthios, was being placed underground when the NOA would suggest that pylons would be a lower cost option. NGET replied on 27/07/18 but did not state why they were not following their own process.

22. Several questions were raised (on 17/03/18, 02/05/18, 10/06/18, 24/07/18, 31/07/18, 30/08/18) regarding the NOA, suggesting use of a weighted matrix for decision making as currently only lifetime cost appears to be used. On 24/07/18 NGET stated "no monetary value is applied to visual amenity or any other environmental topic". This is contrary to the guidance in the Treasury Green Book. Although the Green Book applies to public finances, the proposed project will be funded by the public. NGET appeared to not understand how a weighted matrix evaluation would work, despite such an approach being used within their own organisation[4] and being a common tool in six sigma and similar approaches.

[4] John Pettigrew, National Grid's CEO, confirmed to JFD at the 2018 AGM that similar matrix evaluation methods are used for procurement decisions

23. On 24/07/18 JFD requested details of any project where the lowest cost options had not been selected. While NGET did reply on 30/08/18, they failed to name a single project.

2 Objections based on the consultation process and engagement with the public

2.1 Summary

24. This chapter has been written to document a number of areas in which National Grid Electricity Transmission's consultation (2012, 2015 and the statutory consultation in 2016) and engagement with the public since the consultation, have been inadequate.

25. NGET have:

- made statements that are not true and have misled the public;
- made the Statement of Community Consultation difficult to get hold of;
- withheld the results of the statutory consultation (2016);
- refused to establish a Stakeholder Reference Group as a means of engaging with the public;
- exploited the demographics of Anglesey to their advantage;
- always presented a preconceived solution;
- demonstrated institutional bias;
- failed to re-baseline the consultation after major changes in project scope
- demonstrated unacceptable behaviour both during and after the consultation
- failed to adequately collaborate with Horizon

2.2 Misleading Statements

2.2.1 Calling the project a NSIP

26. NGET first mentioned that the project was a Nationally Significant Infrastructure Project (NSIP) in a community newsletter in 2015.

27. It was most recently stated in DCO document 6.3 page 1013 where it says "National Grid has always been clear that the Project, as a question of fact, is an NSIP".

28. However, the Community Relations Team, in an email to JFD on 22/09/17 stated, "While our project may not be defined, technically, as an NSIP until we submit our application …"

29. In addition, the Project Manager, Gareth Williams, stated in a letter to JFD on 14/08/18 " … while technically correct that a project only becomes an NSIP when granted consent …"

30. It has never been questioned that the project would become a NSIP at some point, or that NGET should follow the NSIP process as defined by PA2008, the challenge was that it was not a NSIP at the time it was stated.

31. Clarification has been sought by JFD from PINS who stated on 06/09/18 "NSIPs are defined in ss14 through s30A of the Planning Act 2008 (as amended). It will be for National Grid to show in their application for a Development Consent Order that the development falls under s14(1)(b) and s16".

32. This implies that until the DCO is submitted, and accepted for examination by PINS, the project is not a NSIP.

33. Calling the project a NSIP before and during the consultation gives the perception that the project is already certain. It will never be known how this may have influenced the nature and quality of feedback provided.

2.2.2 Description of the need

34. NGET has made numerous statements, countless times, to the effect:

- the project is needed to bring power to the millions of homes and businesses in Wales that need it; and

- the project is critical to enabling investment in Wylfa Newydd.

35. Both these statements are misleading!

- data provided by NGET in the Need Case report shows that, according to Scottish Power Networks (the DNO) data, Anglesey is currently self-sufficient in power. Data in NGET's ETYS 2017 shows that Wales is self-sufficient in power. Anglesey and Wales do not need another pylon line, the south east of England needs Anglesey to have another connection;

- Wylfa Newydd needs a connection to the national grid. The type of technology used is irrelevant, and "any" form of connection would suffice. Far, far greater enablers of Wylfa Newydd are investors and an attractive strike price.

36. By making such misleading statements, NGET are effectively "threatening" the Anglesey public "… agree to pylons or your kids will not get jobs".

2.2.3 "consultation is not just about choosing the most popular option"

37. On 24/03/18 NGET wrote to JFD saying "We realise that many people do not want pylons and have said this in their feedback. But consultation is not just about choosing the most popular option." However NGET have done exactly that where it suits them:

- selected a tunnel for crossing the Menai, as not having pylons there was, they said in numerous newsletters, the most popular option (even though Nichola Shaw (UK Executive Director) said at the 2017 AGM that although Holford Rule 1 says to avoid AONB's, technically they could);

- selected to have the proposed second line roughly parallel to the first, as this is the most popular option;

- selected a new buried double circuit at Porthmadog, even though the Holford Rules suggest they could have used pylons as a lower cost option.

2.2.4 First of a kind

38. One of the arguments put forward against using a HVDC connection is that this technology has never been used to connect a nuclear power station to the grid before. There are two issues here:

    - at around the same time this argument was being used on Anglesey, it was also being used in Cumbria – it cannot be first in two places!;

    - NGET have argued that the Wylfa substation to Pentir substation connection is not a generator connection (the connection between a generator and the main grid), but a “grid to grid” connection. This is exactly the same as the Western Link that links Hunterston substation to Deeside substation via a subsea and subsurface HVDC connection.

2.2.5 Incorrect costs in publicity

39. On page 15 of the 2016 Overview document, a document designed for wide public consumption, NGET state "Putting the whole connection underground between Wylfa and Pentir would cost over one billion pounds."

40. When challenged about this by JFD on 24/03/18, NGET changed the story in their reply of 25/05/18 to “In this instance, the cost stated was for the full project which includes undergrounding between Wylfa and Pentir.”

41. This correction was never made public.

2.3 Availability of the Statement of Community Consultation

42. Advice from PINS to JFD on 26/09/17 stated “In accordance with s47(6)(za) of the Planning Act 2008 the SoCC should be made available for inspection by the public in a way that is reasonably convenient for people living in the vicinity of the land.”

43. A search on the project website using the term “statement of community consultation” yielded the response “Sorry, no results were found. Please try searching again using different keywords”.

44. While the document was on the site, unless you were certain it was already there (and assuming you knew what it was), it was extremely difficult to find.

2.4 Availability of consultation report

45. The pre-application consultation closed on December 16th 2016. The content of the consultation report was not made available until the DCO was published on September 7th 2018 almost two years later.

46. The Department for Communities and Local Government (DCLG) publishes a guide called “Planning Act 2008: Guidance on the pre-application process”. Paragraph 81 states “ It is good practice that those who have contributed to the consultation are informed of the results of the consultation exercise; how the information received by applicants has been used to shape and influence the project; and how any outstanding issues will be addressed before an application is submitted to the Inspectorate.”

47. NGET did not follow this good practice advice, despite the report being requested by JFD on 13/04/18.

48. PINS advised JFD on 13/04/18 to request a draft copy of the DCO from NGET. They refused on 14/05/18.

49. Edit note: The final consultation report, submitted as part of the DCO submission, totals some 2,600 pages, and remains only partly read due to the sheer bulk of it and unwieldy nature.

2.5 Lack of a Stakeholder Reference Group

50. The North West Coast Connection (NWCC) project is a similar project to the North Wales Connection project, in that its aim is to connect new nuclear capacity to the national grid.

51. The NWCC used a model of community engagement first established by Britain’s Energy Coast West Cumbria, which involved Community Councils and pressure groups (Power Without Pylons).

52. The pressure group Anglesey Says No to Pylons requested a similar Stakeholder Reference Group for Anglesey but this was refused by NGET. In an email to JFD on 12/09/17 they stated “On Anglesey we participate in the Energy Island Programme, an initiative developed by Isle of Anglesey County Council. This still continues and shares many of the same aims as the work in Cumbria to encourage discussion and co-operation between many varied stakeholder groups working in North Wales.”

53. The Energy Island Programme does not involve community stakeholders, and requests to join have been ignored.

54. The lack of a Stakeholder Reference Group on the Cumbria model, and the refusal to consider one, leads to a perception that NGET do not value engagement and involvement with the local community.

2.6 Exploiting demographics

55. The Horizon DCO document “Wylfa Newydd Project 6.3.8 ES Volume C - Project-wide effects App C1-1 - Socio-economics Baseline Report” contains a wealth of interesting facts and figures about the current state of workforce education, the economy and the population of Anglesey.

56. The NGET SoCC defines the “consultation zone” for the 2016 statutory consultation. The population of the whole island is ca 70,000, while the consultation zone is

estimated to be about 25,000. Approx. 60% of the population is of working age, with approx. 25% of them having no formal qualifications and an above average number of self-employed. Approx. 40% of adults have never accessed the internet.

57. The number of individuals in the consultation zone with any knowledge or experience of a project like the NWC project is correspondingly extremely small.

58. NGET have exploited these demographics, dazzling people with photo montages, fly-throughs and glossy brochures, in an attempt to give the impression of a fair and just consultation.

2.7 Preconceived solution

59. A common perception amongst the local community, is that NGET had already decided on the "answer" before starting to communicate and consult with the community. This perception can be shown to be fact.

60. The Electricity Networks Strategy Group (ENSG) is co-chaired by Ofgem and BEIS and includes the transmission companies, including NGET, and other industry stakeholders.

61. In March 2009 ENSG published "Our Electricity Transmission Network: A Vision For 2020". This report included a second 400 kV line between Wylfa and Pentir, and an estimate of the capital cost.

62. The report was updated in February 2012, some months before the first 2012 consultation. A second 400 kV line was again included and the capital costs updated.

63. One month after the first consultation, in November 2012, NGET published the "Electricity Ten Year Statement 2012", which also included the second 400 kV line.

64. The publication of these three reports, none of which were made available, or had attention drawn to them, during the consultation, all including for a second 400 kV line between Wylfa and Pentir, does not rule out the connection being underground, but does rule out:

- HVDC to either Deeside or Pembroke; and
- any option involving subsea, such as the hybrid option or those around the coast of Anglesey

65. The perception of a preconceived solution can be seen to be fact. NGET did not consult openly, honestly or in good faith. The motives for doing this likely being "face saving", having declared the capital cost for the connection in 2009 to Ofgem and having "exhausted their quota" of novel technology on the Western Link (which was never subjected to public scrutiny).

66. An interesting viewpoint was revealed in an email exchange with JFD regarding the use of buried cables at Porthmadog. This section of the grid passes through the Glaslyn estuary, an area which is not in the Snowdonia National Park, is not an AONB

and apart from the river itself is not a SSSI. Currently there is a single buried circuit to Trawsfynydd from CEGB days, which is proposed to be upgraded to a double buried circuit. Following the Holford Rules, in such a landscape it would normally be appropriate to use pylons. However, NGET said, on 01/05/18, "when an approach has been consented, we maintain this approach when upgrading assets". It is exactly this mindset that proposes a second pylon line on Anglesey.

2.8 Institutional/company cultural bias

67. In June 2018 JFD attended a NGET "environmental workshop" along with other stakeholders from the industry. The aim of the workshop was to gather stakeholder feedback on future business priorities in advance of the RIIO T2 negotiations.

68. In a section of the workshop dealing with visual impact, the handout booklet of presented slides contained the phrase "Our current approach is to seek overhead connections wherever possible". It was pointed out that the presented slide had just been updated as this was no longer policy.

69. A handout from the workshop was provided titled "Undergrounding policy: Approach to new connections". This included the statement "National Grid's approach is to seek overhead connections wherever possible".

70. The NWC Community Relations Team were challenged on both these documents who responded on 29/08/18 with " … information on how we consider undergrounding can be found in our approach to the design and routeing of new electricity transmission lines. This was introduced in 2012 and the process has been followed by all of our major projects since then".

71. There is no reason not to believe that a new approach was published by NGET in 2012 in readiness for the first NWC consultation. However, the fact that workshop handouts were six years out of date would suggest that the message was not effectively communicated within NGET, and that behaviours within the organisation had not changed. As an organisation, NGET are inherently biased towards overhead lines.

2.9 Changes to the Scope of the Project

72. In 2012 there was an identified need for NGET to transmit 5.6 GW of electricity from Wylfa substation across Anglesey to Pentir substation (3.6 GW generated by the proposed new nuclear power station plus 2 GW generated by the proposed Celtic Array off-shore wind farm).

73. NGET were proposing to build a second run of pylons across Anglesey to carry 2 x 400 kV overhead lines. The new row of pylons, in combination with the existing row of pylons (which also carry 2 x 400 kV overhead lines) would have a total export capacity of 8.88GW.

74. By 2015 the amount of electricity which needed to be transported across Anglesey had reduced from 5.6 GW to 3.1 GW. This reduction was due to the cancellation of

the Celtic Array wind farm and a reduction in the proposed output of the new nuclear power station at Wylfa.

75. When the 2016 statutory consultation was conducted, NGET's design was substantially unchanged from 2012, despite the fact that the amount of electricity which needed to be transmitted had reduced by 45%.

76. The project should have been re-baselined, and the consultation re-started, when there was such a significant change in scope.

2.10 Attitude and behaviour during the consultation

77. The Planning Act 2008 'Guidance on Pre-application Consultation' states: "if it is to be seen as positive, the consultation process must be seen as legitimate. Community involvement is a key part in achieving this".

78. An inclusive approach is recommended which demonstrates an understanding of the local community, takes into consideration local knowledge and local perspectives and makes people feel they can influence proposals. The Guidance strongly recommends working closely with local authorities in the development of a SoCC.

79. When questioned about their "close working" with IoACC, NGET responded to JFD on 12/09/17 "when developing our consultation plans, we worked closely with both the Isle of Anglesey County Council and Gwynedd Council to develop our Statement of Community Consultation".

80. When pressed for more detail, NGET responded to JFD on 07/02/18 "we have worked with Isle of Anglesey County Council and Gwynedd Council when developing our plans for consultation and sought their guidance on how best to engage with communities".

81. When pushed for further detail NGET responded to JFD on 02/03/18 "we provided a draft to both councils, who provided useful feedback".

82. Providing a draft, and receiving feedback, could never be described as "working closely".

2.11 Attitude and behaviour since the statutory consultation (2016)

83. The group "Anglesey Says No to Pylons" has surveyed landowners/farmers who will be directly impacted by the proposals:

- none want more pylons on their land – their preference would be for underground or subsea;
- some consider that they have been bullied/intimidated to sign the "Heads of Terms".

2.12 Statement of Community Consultation (SoCC)

84. Appendix 1 (hard-to-reach groups) and Appendix 2 (special interest groups) of the SoCC list organisations with whom NGET planned to consult. On first appearance these lists look extensive - 42 hard-to-reach groups (22 in Anglesey, 20 in Gwynedd) and 167 special interest groups, however, on closer inspection there are anomalies:

- many of the organisations listed are Departments of Anglesey and Gwynedd Councils and as such they could not respond to the consultation with specific Departmental comments. The inclusion of Government Departments, Council Departments and organisations funded by local Councils served only to fill the pages of the SoCC and certainly did not contribute in a meaningful way to the consultation.

- statutory consultees were listed as 'special interest groups' eg Welsh Ambulance Service NHS Trust, as were organisations who refuse to comment on what they regard as a "political issues".

- some other voluntary organisations and interest groups listed by NGET deny ever being consulted eg The Royal Welsh Yacht Club "Sorry for the delay in getting back to you. I have to report that National Grid never contacted this Club".

85. NGET listed tourists in the "hard to reach" group. Anglesey typically receives a visitor population some 20 times the resident population, mainly in the summer months. Conducting the statutory consultation in December 2016 is unlikely to reach many visitors.

2.13 Failure to collaborate with Horizon

86. Section 2.3.1 of the Planning Act 2008 states "… the Planning Act aims to create a holistic planning regime so that the cumulative effects of different elements of the same project can be considered together. Therefore the Government envisages that, wherever reasonably possible, applications for new generating stations and related infrastructure should be contained in a single application to the IPC."

87. This approach has not been followed by Horizon and NGET, and there has not been any "cumulative consultation" for the two individual projects together ie as a single programme.

88. Horizon have used an iterative approach over three stages, all three being considered statutory.

89. NGET have also followed an iterative approach, but as explained in an email to JFD on 29/08/18 "Our statutory consultation was held in 2016."

90. If the two organisations had genuinely worked closely, one would have expected their interaction with the local community to be more similar.

91. For the Horizon DCO examination, NGET have registered as an Interested Party, and in their Relevant Representation point out that both companies have made alternative

plans for the same area of land. Had they been working closely, this would not have happened.

3 Objections based on National Policy Statements

3.1 Summary

92. This chapter has been written as a review of National Grid's plans for the North Wales Connection against the relevant Government policies that the Planning Inspectorate will use.

93. There are numerous specific points where the applicant has not followed the relevant policy details.

3.2 National Policy Statement EN-1

94. Section 4.1 considers general points and section 4.1.2 states "the IPC should start with a presumption in favour of granting consent to applications for energy NSIPs."

95. There is no objection to the connection existing. The objection is to the selected technical approach (overhead lines).

96. Section 4.1.5 states Local Development Plans (LDP) are one of the matters which the decision-maker may consider to be important and relevant.

97. The joint Anglesey and Gwynedd LDP recognises that both Horizon and NGET NSIPs be happening and is filled with statements about protecting the environment and visual amenity.

98. Section 4.4 considers alternatives and section 4.4.2 states "should include an indication of the main reasons for the applicant's choice, taking into account the environmental, social and economic effects and including, where relevant, technical and commercial feasibility".

99. The applicant has not used a quantitative selection method to select between alternatives and draws on flawed financial analysis. As such, the selected alternative has not been shown to take due account of the relevant factors.

100. Section 4.4.3 states "the IPC should be guided in considering alternative proposals by whether there is a realistic prospect of the alternative delivering the same infrastructure capacity (including energy security and climate change benefits) in the same timescale as the proposed development".

101. The rejected alternatives can all deliver the same capacity in a similar timescale, and some have more favourable climate change benefits.

102. Section 4.5 considers criteria for "good design" for energy infrastructure and section 4.5.1 states "Applying "good design" to energy projects should produce sustainable infrastructure sensitive to place, efficient in the use of natural resources and energy used in their construction and operation, matched by an appearance that demonstrates good aesthetic as far as possible".

103. The applicant's proposal is to use overhead lines on steel lattice pylons. These are not sensitive to place, do not demonstrate good aesthetic and are not the most energy efficient in operation.

104. Section 4.5.3 states "the IPC needs to be satisfied that … the applicant has taken into account both functionality … and aesthetics (including its contribution to the quality of the area in which it would be located) as far as possible.

105. The proposed development would be highly detrimental to the quality of the area.

106. In addition, "there may be opportunities for the applicant to demonstrate good design in terms of siting relative to existing landscape character, landform and vegetation".

107. Any such opportunities have been discounted or not considered.

108. Section 4.5.5 states "Applicants and the IPC should consider taking independent professional advice on the design aspects of a proposal. In particular, Design Council CABE can be asked to provide design review for nationally significant infrastructure projects and applicants are encouraged to use this service".

109. It is understood that this service has not been used.

110. Section 4.6 considers combined heat and power (CHP).

111. While the proposed development does not present the conventional opportunity for CHP, there is a possibility that there are heat recovery opportunities that the applicant has not considered.

112. Section 4.8 considers climate change adaption.

113. The selected technology is the least resilient to increased adverse weather conditions.

114. Section 4.9 considers the grid connection and section 4.9.2 states "The Government therefore envisages that wherever possible, applications for new generating stations and related infrastructure should be contained in a single application to the IPC or in separate applications submitted in tandem which have been prepared in an integrated way".

115. The proposed development is not included in the application for a new generating station and there is no evidence that the two applications have been prepared in an integrated way.

116. Section 4.10 considers pollution control and other environmental regulatory regimes and section 4.10.3 states "In considering an application for development consent, the IPC should focus on whether the development itself is an acceptable use of the land, and on the impacts of that use".

117. The proposed development will put certain sections (pylon bases) of agricultural land out of production and limit operations under over-sails. Underground cables would not impose these limitations.

118. Section 5.9 considers landscape and visual and section 5.9.8 states “Projects need to be designed carefully, taking account of the potential impact on the landscape. Having regard to siting, operational and other relevant constraints the aim should be to minimise harm to the landscape, providing reasonable mitigation where possible and appropriate.”

119. The impact on the landscape will be huge during construction and operation, while rejected alternatives, which would also have great impacts during construction, would have minimal impact during operation.

120. Section 5.9.9 concerns National Parks, the Broads and AONBs and states “The conservation of the natural beauty of the landscape and countryside should be given substantial weight by the IPC in deciding on applications for development consent in these areas.”

121. Section 5.9.12 states “The duty to have regard to the purposes of nationally designated areas also applies when considering applications for projects outside the boundaries of these areas which may have impacts within them. The aim should be to avoid compromising the purposes of designation and such projects should be designed sensitively given the various siting, operational, and other relevant constraints.”

122. Section 5.9.13 states “The fact that a proposed project will be visible from within a designated area should not in itself be a reason for refusing consent.”

123. While the developer has managed to avoid placing assets within the AONB, the development will be significantly detrimental to views from within the AONB and views (from without) of the AONB.

124. Section 5.9.15 states “… such projects … will often be visible within many miles of the site of the proposed infrastructure. The IPC should judge whether any adverse impact on the landscape would be so damaging that it is not offset by the benefits (including need) of the project.”

125. Section 5.9.17 states “The IPC should consider whether the project has been designed carefully … to minimise harm to the landscape” .

126. It is accepted a connection is required although this will not bring any benefits to Anglesey or indeed North Wales. Given that alternatives exist that will have significantly less impact on the Anglesey landscape, a national resource recognised by UNESCO, such alternatives should be consented.

127. Section 5.9.18 states “The IPC will have to judge whether the visual effects on sensitive receptors, such as local residents, and other receptors, such as visitors to the local area, outweigh the benefits of the project. Coastal areas are particularly vulnerable to visual intrusion …”.

128. The proposed development will be in an area considered by the Office of National Statistics as a “holiday hotspot” due to high dependency of the local economy on

tourism. A recent survey (Horizon) of why tourists come to the area found almost 80% being due to the unspoilt scenery.

129. Section 5.9.19 states “It may be helpful for applicants to draw attention … to any examples of existing permitted infrastructure they are aware of with a similar magnitude of impact on sensitive receptors.”

130. The proposed development will be largely parallel to an exist overhead line – a line that was locally resisted in the early 1960’s prior to being imposed by the Secretary of State. Opportunities to rationalise any part of this line have not been taken, although part of the proposed development will use some of the existing pylon towers. The existence of one line should not justify the development of further lines.

131. Section 5.9.21 states “Reducing the scale of a project can help to mitigate the visual and landscape effects of a proposed project. However, reducing the scale or otherwise amending the design of a proposed energy infrastructure project may result in a significant operational constraint and reduction in function”.

132. The applicant states [in email communication] that the proposed development is not required to provide capacity during normal operation, but is essentially “backup” capacity during planned and unplanned outages. As such, the new capacity may be infrequently used. The applicant has not proposed any policy or regulatory constraints which may be amended and/or relaxed to avoid construction of the proposed development.

133. Section 5.9.22 states “Within a defined site, adverse landscape and visual effects may be minimised through appropriate siting of infrastructure within that site, design including colours and materials, and landscaping schemes, depending on the size and type of the proposed project”.

134. Section 5.9.23 states “Depending on the topography of the surrounding terrain and areas of population it may be appropriate to undertake landscaping off site”.

135. Given the topography of the Anglesey terrain, which is glacial in origin, the proposed development is entirely inappropriate.

136. Section 5.10 considers land use including open space, green infrastructure & Green Belt and section 5.10.3 states “Although the re-use of previously developed land for new development can make a major contribution to sustainable development by reducing the amount of countryside and undeveloped greenfield land that needs to be used, it may not be possible for many forms of energy infrastructure.”

137. Subsea or subsurface technology would both significantly reduce the amount of countryside and undeveloped greenfield land required.

138. Section 5.10.24 states “Rights of way, National Trails and other rights of access to land are important recreational facilities for example for walkers, cyclists and horse riders. The IPC should expect applicants to take appropriate mitigation measures to address adverse effects on coastal access, National Trails and other rights of way.”

139. The proposed development will cross, and impact landscape views from, numerous such access ways. The developer has proposed minimal mitigation measures.

140. Section 5.12 considers socio-economic aspects and section 5.12.3 states "This assessment should consider all relevant socio-economic impacts, which may include: the creation of jobs … the provision of additional local services … effects on tourism ... the impact of a changing influx of workers during the different construction, operation and decommissioning phases … cumulative effects …".

141. Section 5.12.5 states "Socio-economic impacts may be linked to other impacts, for example the visual impact of a development … but may also have an impact on tourism and local businesses."

142. The applicant has considered many of these factors qualitatively but has not considered any of them quantitatively, or included them in the financial analysis underpinning the selection between alternatives.

143. Section 5.12.6 states "The IPC should have regard to the potential socio-economic impacts of new energy infrastructure identified by the applicant and from any other sources that the IPC considers to be both relevant and important to its decision."

144. Section 5.12.9 states "The IPC should consider whether mitigation measures are necessary to mitigate any adverse socio-economic impacts of the development. For example, high quality design can improve the visual and environmental experience for visitors and the local community alike."

145. An estimate, which by its very nature cannot be precise, of the socio-economic impacts of the proposed development is £500 million additional community costs (over 40 years at a discount rate of 3.5%). These costs could be entirely mitigated using a subsurface alternative which the applicant has ruled out on grounds of cost (an additional £400 million lifetime cost).

3.3 National Policy Statement EN-5

146. Section 2.2 addresses factors influencing site selection by applicants and section 2.2.2 states "The general location of electricity network projects is often determined by the location, or anticipated location, of a particular generating station and the existing network infrastructure taking electricity to centres of energy use."

147. It is accepted that the location of Wylfa Newydd is outside the control, but not influence, of the applicant. It is relevant that the selection of Wylfa as a site for new nuclear in EN-6 did not consider the availability of a grid connection. Section 3.14.1 of EN-6 states "Issues surrounding electricity transmission were not considered in the SSA [strategic site assessment] because not enough information was available to make an assessment at the strategic level and different applicants may come forward with different proposals without affecting the strategic suitability of the site for the purposes of the SSA". Other potential locations are available on Anglesey for the power station that would result in less intrusive grid connections.

148. Wylfa is perhaps unique in being a proposed location for new nuclear that is a considerable distance from any significant electricity demand.

149. Section 2.2.6 makes reference to Schedule 9 to the Electricity Act 1989, which places a duty on all transmission and distribution licence holders to "have regard to the desirability of preserving natural beauty, of conserving flora, fauna and geological or physiographical features of special interest and of protecting sites, buildings and objects of architectural, historic or archaeological interest; and ... do what [they] reasonably can to mitigate any effect which the proposals would have on the natural beauty of the countryside or on any such flora, fauna, features, sites, buildings or objects."

150. The applicant has evaluated alternatives that are superior in this regard but has rejected them on grounds of cost.

151. Section 2.3 considers general assessment principles for electricity networks and section 2.3.1 states "… the Planning Act aims to create a holistic planning regime so that the cumulative effects of different elements of the same project can be considered together. Therefore the Government envisages that, wherever reasonably possible, applications for new generating stations and related infrastructure should be contained in a single application to the IPC.

152. The applicant has not followed this advice to collaborate with Horizon and prepare a single application. The different legal entities and legislative frameworks would not exclude such collaboration, which could have resulted in an application of reduced cumulative impact.

153. Section 2.3.5 states "… National Grid … are required under section 9 of the Electricity Act 1989 to bring forward efficient and economical proposals in terms of network design".

154. An efficient network in terms of the electricity transmission would be one with minimal transmission losses. The applicant has not selected such an alternative. Efficient in terms of construction, would be a well-managed construction project, and the evidence for this has not been presented.

155. To determine if a network is economical requires selecting a viewpoint from which to examine the proposal. The applicant has chosen to view only the impact on electricity costs to consumers and not value added/destroyed to the local community or indeed all UK stakeholders. Using the applicants view, a buried solution would add only 11p/year to domestic electricity bills. It would also mitigate £500 million value destruction in the immediate community and have lower greenhouse gas emissions.

156. Section 2.4 considers climate change adaptation and section 2.4.1 states "applicants should in particular set out to what extent the proposed development is expected to be vulnerable, and, as appropriate, how it would be resilient to … effects of wind and storms on overhead lines …"

157. The applicant has selected an overhead line solution, which is the most vulnerable of all the alternatives to wind and storms.

158. Section 2.5 considers good design and section 2.5.2 states “Proposals for electricity networks infrastructure should demonstrate good design in their approach to mitigating the potential adverse impacts which can be associated with overhead lines”.

159. Minimal, in any, considerations have been given to mitigation of the adverse landscape impacts.

160. Section 2.8 considers landscape and visual and 2.8.2 states “Government does not believe that development of overhead lines is generally incompatible in principle with developers’ statutory duty under section 9 of the Electricity Act to have regard to amenity and to mitigate impacts”

161. This point is accepted as it is entirely feasible to develop overhead lines in areas already significantly blighted by other developments, but in Anglesey the focus should be on removal of existing overhead lines rather development of new ones.

162. Section 2.8.2 also states “new above ground electricity lines, whether supported by lattice steel towers/pylons or wooden poles, can give rise to adverse landscape and visual impacts, dependent upon their scale, siting, degree of screening and the nature of the landscape and local environment through which they are routed … at particularly sensitive locations the potential adverse landscape and visual impacts of an overhead line proposal may make it unacceptable in planning terms, taking account of the specific local environment and context”.

163. These points are entirely agreed with.

164. Section 2.8.3 states “Sometimes positive landscape and visual benefits can arise through the reconfiguration or rationalisation of existing electricity network infrastructure.”

165. The applicant has not taken any advantage of this to rationalise the existing network, even where this passes through, or is significantly detrimental to the visual amenity of, the AONB. The applicant has, however, used sections of the existing network to carry the new overhead line.

166. Section 2.8.4 states “Where possible, applicants should follow the principles below in designing the route of their overhead line proposals and it will be for applicants to offer constructive proposals for additional mitigation of the proposed overhead line. While proposed underground lines do not require development consent under the Planning Act 2008, wherever the nature or proposed route of an overhead line proposal makes it likely that its visual impact will be particularly significant, the applicant should have given appropriate consideration to the potential costs and benefits of other feasible means of connection or reinforcement, including underground and sub-sea cables where appropriate”.

167. The applicant has considered both subsea and subsurface connections, but rejected both on grounds of cost to consumer, not cost to community, even though the visual impact of overhead lines will be particularly significant.

168. Section 2.8.6 presents the Holford Rules.

169. “avoid altogether, if possible, the major areas of highest amenity value, by so planning the general route of the line in the first place”

170. The first route was not selected by the applicant, but by the CEGB, the successor organisation, in 1963. There is documented evidence in the Anglesey archives to the opposition to the location of pylon towers from 1962 and 1963, but ultimately the Secretary of State over-ruled all objection. The result being a line passing through, and significantly impacting the visual amenity of, the AONB. Mistakes of the past should not be used to justify future decisions.

171. “avoid smaller areas of high amenity value or scientific interest by deviation”

172. The applicant has avoided SSSIs, and similar designated areas, but the entire Anglesey landscape is an area of high amenity value.

173. “choose the most direct line, with no sharp changes of direction”.

174. This is largely outside the control of the applicant by following the existing line, although the route is mainly direct.

175. “choose tree and hill backgrounds in preference to sky backgrounds wherever possible. When a line has to cross a ridge, secure this opaque background as long as possible, cross obliquely when a dip in the ridge provides an opportunity. Where it does not, cross directly, preferably between belts of trees”.

176. This is extremely difficult to follow on Anglesey which is a low undulating plateau with very sparse, small, trees due to the weather conditions.

177. “prefer moderately open valleys with woods where the apparent height of towers will be reduced, and views of the line will be broken by trees”.

178. The main valley systems on Anglesey, largely formed by glacial meltwater, run NE-SW while the proposed development runs NW-SE-ie perpendicular to the valleys.

179. “where country is flat and sparsely planted, keep the high voltage lines as far as possible independent of smaller lines, converging routes, distribution poles and other masts, wires and cables, so as to avoid a concentration of lines or “wirescape””.

180. Anglesey already has a high voltage overhead line, low voltage overhead lines, overhead telecoms lines and wind turbines. An additional overhead line will only add to the “wirescape”.

181. “approach urban areas through industrial zones, where they exist; and when pleasant residential and recreational land intervenes between the approach line and the substation, carefully assess the comparative costs of undergrounding.”

182. The entirety of Anglesey is “pleasant residential and recreational land” due to the highly dispersed settlement, a feature of the rural Welsh countryside for historical and cultural reasons, and is extensively used for recreation by residents and tourists. As such, an underground solution is entirely appropriate.

183. Section 2.8.8. state “Government expects that … while the development of overhead lines will often be appropriate, it recognises that there will be cases where this is not so. Where there are serious concerns about the potential adverse landscape and visual effects of a proposed overhead line, the IPC will have to balance these against other relevant factors, including the need for the proposed infrastructure, the availability and cost of alternative sites and routes and methods of installation (including undergrounding)”.

184. A subsea or subsurface solution is entirely feasible. Subsurface will cost approximately £400 million more than overhead lines but will mitigate approximately £500 million in community costs. It would add 11 p/year to domestic electricity bills (0.02%) which is considered affordable.

185. Section 2.8.9 states “each project should be assessed individually on the basis of its specific circumstances and taking account of the fact that Government has not laid down any general rule about when an overhead line should be considered unacceptable. The IPC should, however only refuse consent for overhead line proposals in favour of an underground or sub-sea line if it is satisfied that the benefits from the non-overhead line alternative will clearly outweigh any extra economic, social and environmental impacts and the technical difficulties are surmountable”.

186. The applicant has used publicly available engineering norms to estimate costs of subsurface and subsea solutions, but has not presented location specific estimates.

187. The case for a subsurface solution are clear on economic, social and environmental grounds (lower cost to the consumer community, affordable).

188. Section 2.8.9 refers to “the landscape in which the proposed line will be set, (in particular, the impact on residential areas, and those of natural beauty or historic importance such as National Parks, AONBs and the Broads)”.

189. The landscape, while largely agricultural, is also widely residential (for historical and cultural reasons). The proposed development will significantly impact visual amenity in locally designated areas as well as within and without the AONB.

190. Section 2.8.9 also refers to “additional cost of any undergrounding or sub-sea cabling (which experience shows is generally significantly more expensive than overhead lines …)”.

191. This point is accepted although the additional cost is comparable to the additional community costs which will be borne only by the residents of Anglesey, while the extra cost of undergrounding will be shared by England and Wales.

192. The potential additional cost of surface laying cables underneath cloddiau is not known and the applicant has not explored this option. Cloddiau are a feature of the Anglesey, North Wales and Cornwall landscape and consist of banks of earth faced with dry stone walling, often with shrubs/hedging on top, most often traditionally used for field boundaries, but also used along the A55 on Anglesey. Use of cloddiau to "surface bury" cables would be particularly sensitive to, and in keeping with, the Anglesey countryside.

193. Section 2.8.10 states "… the main opportunities for mitigating potential adverse landscape and visual impacts of electricity networks infrastructure are: consideration of network reinforcement options … and selection of the most suitable type and design of support structure …"

194. Network reinforcement may be useful, but will not remove the applicants stated need for a "standby" connection, and an alternative design of pylon would introduce a mix of pylon styles into the environment unless the existing line were to be entirely replaced, which the applicant is not proposing.

195. Section 2.8.11 states "There are some more specific measures that might be taken … Landscape schemes, comprising off-site tree and hedgerow planting, [and] Screening … localised planting in the immediate vicinity of residential properties and principal viewpoints".

196. No such measures have been proposed by the applicant, although it is doubtful that these would be particularly effective, as, from many of the vantage points the proposed line is visible for many miles as it passes over exposed ridges, beyond which are extensive views of the Snowdonia National Park.

197. Section 2.10 addresses electric and magnetic fields (EMFs) and sections 2.10.6 – 2.10.8 state "The balance of scientific evidence over several decades of research has not proven a causal link between EMFs and cancer or any other disease … The Department of Health's Medicines and Healthcare Products Regulatory Agency (MHRA) does not consider that transmission line EMFs constitute a significant hazard to the operation of pacemakers … There is little evidence that exposure of crops, farm animals or natural ecosystems to transmission line EMFs has any agriculturally significant consequences."

198. This is clearly a very emotive topic, but Anglesey does have some relatively unique circumstances, namely parallel overhead lines with houses between in an area with high background radon levels. Whether the recommended exposure levels account for such conditions is not known.

199. Section 2.10.11 states "Industry currently applies optimal phasing to 275kV and 400kV overhead lines voluntarily wherever operationally possible, which helps to

minimise the effects of EMF. The Government has developed with industry a voluntary Code of Practice … that defines the circumstances where industry can and will optimally phase lines with a voltage of 132kV and above. Where the applicant cannot demonstrate that the line will be compliant with the Electricity Safety, Quality and Continuity Regulations 2002, with the exposure guidelines as specified in the Code of Practice on compliance, and with the policy on phasing as specified in the Code of Practice on optimal phasing then the IPC should not grant consent."

200. Voluntary compliance with a voluntary code of practice does not feel like a robust compliance mechanism, particularly when section 2.10.15 only states "optimal phasing of high voltage overhead power lines is introduced wherever possible and practicable".

4 Objections based on The Holford Rules

4.1 Summary

201. This chapter has been written to review National Grid's plans for the North Wales Connection against the Holford Rules.

202. The Holford Rules provide guidance for the routeing of overhead transmission lines.

203. Of the seven rules, NGET have followed one. The other six lead to the conclusion that the North Wales Connection (NWC) should be underground and the existing line removed.

204. The Holford Rules simply do not work with the Anglesey geology/geomorphology, the rural north Wales settlement pattern and the fact that Anglesey is a low, flat, undulating island.

4.2 Background

205. For simplicity:

NGET = National Grid Electricity Transmission plc (the applicant)

SPN = Scottish Power Networks

NWC = North Wales Connection project

EN-5 = National Policy Statement for Electricity Networks Infrastructure

206. Lord Holford, advisor to the Central Electricity Generating Board (CEGB), a predecessor organisation to National Grid, developed a series of planning guidelines in 1959, which have subsequently become known as the "Holford Rules". National Grid revised these rules in the 1990's, and they are incorporated in National Policy Statement EN-5 at section 2.8.6.

207. The Holford Rules form the basis upon which the decision making process of siting overhead transmission (OHT) lines, and minimising the potential landscape impact of such infrastructure.

208. The Rules are used by National Grid in England and Wales, and Scottish Power Networks and Scottish Hydro in Scotland.

209. The rules are designed to be used as a hierarchy, but it should be noted that they are designed for the routeing of overhead lines once the decision to use overhead lines has been taken, they do not justify the use of overhead lines.

4.3 Review of NGET's proposal against the Holford Rules

210. Rule 1 - Avoid altogether, if possible, the major areas of highest amenity value, by so planning the general route of the first line in the first place, even if the total mileage is somewhat increased in consequence.

211. NGET provide the following supplementary notes for England and Wales:

212. “Investigate the possibility of alternative routes, avoiding if possible the areas of the highest amenity value. The consideration of alternative routes must be an integral feature of environmental statements. Areas of highest amenity value are:

- Areas of Outstanding Natural Beauty
- National Parks
- Heritage Coasts
- World Heritage Sites”

213. However in Scotland this same rule is interpreted more stringently with SPN providing the following notes:

214. “This is the basic guidance that multiple routes should be considered as an integral part of environmental statements. Rule 1 also implies an obligation to protect areas designated for, or otherwise recognised as being of the highest amenity value. This rule also obliges consideration of alternative routes that avoid such protected sites, even if the proposal is direct replacement of existing structures and transmission lines that presently run through protected areas. Areas to be avoided include:

- Schedule of Ancient Monuments
- Protected Coastal Zone Designations
- Special Area of Conservation
- Special Protection Area
- Ramsar Site
- National Scenic Areas
- National Parks
- National Nature Reserves
- Sites of Special Scientific Interest (SSSI)
- Listed Buildings
- Conservation Areas World Heritage Sites (non-statutory designation)
- Historic Gardens and Designed Landscapes (non-stat designation)”

215. It is interesting that the NGET list is definitive whereas the SPN list is suggestive, both interpreting the same “rule”.

216. NGET's plan for the NWC is to mainly "parallel" the existing line. This first route was not selected by NGET, but by the CEGB, the successor organisation, in 1963. There is documented evidence in the Anglesey Archives (available if required) to the opposition to the location of pylon towers from 1962 and 1963, but ultimately the Secretary of State in Westminster over-ruled all objection. The result being a line passing through, and significantly impacting the visual amenity of, the AONB.

217. The Anglesey AONB was designated in 1966 and confirmed in 1967. It was designated to protect the aesthetic appeal and variety of the island's coastal landscape and habitats from inappropriate development. It covers most of Anglesey's 201 kilometre coastline and also includes Holyhead Mountain and Mynydd Bodafon.

218. The AONB was designated after the existing line had been approved and constructed. Had the designation been in place earlier, it is highly unlikely that the existing line would have been approved, as it significantly impacts on views of the AONB (eg Mynydd Bodafon from Capel Coch), views of the Snowdonia National Park and Llyn AONB, views from the AONB (e.g. from Mynydd Bodafon over Cors Erddreiniog) and cuts through the AONB at Llanfairpwll and runs alongside the Grade II listed Britannia Bridge.

219. It is useful to note that NGET have used Rule 1 to justify buried cables under the Glaslyn estuary near Porthmadog due to the visual impact from within the Snowdonia National Park and impact on the setting of a listed building. The cable route is not in the National Park or an AONB and only passes through a SSSI at the river itself.

220. The existing line should not be permitted to be "repurposed" for Wylfa Newydd export, the existing pylon towers should not be permitted to carry any of the new connection and the line should not be considered "background" to help justify the proposed new line.

221. Rule 2 - Avoid smaller areas of high amenity value, or scientific interests by deviation; provided that this can be done without using too many angle towers, ie the more massive structures which are used when lines change direction.

222. Again NGET provide notes: "Some areas (e.g. Site of Special Scientific Interest) may require special consideration for potential effects on ecology (e.g. to their flora and fauna). Where possible choose routes which minimise the effects on the setting of areas of architectural, historic and archaeological interest including Conservation Areas, Listed Buildings, Listed Parks and Gardens and Ancient Monuments".

223. And again, the guidance in Scotland is more stringent: "Whilst smaller areas of amenity value may not be encompassed in designated sites as listed above, they should also be avoided where possible. Effects on the settings of historic buildings and other cultural heritage features should be minimised".

224. The applicant has avoided SSSIs, and similar designated areas, for the new pylons, but the entire Anglesey landscape is an area of high amenity value, which has contributed

to the whole landscape being recognised by UNESCO as a GeoPark. There are no proposals to remove pylons from within SSSI's.

225. Rule 3 - Other things being equal, choose the most direct line, with no sharp changes of direction and thus with fewer angle towers.

226. NGET's notes on this rule states the obvious: "Where possible choose inconspicuous locations for angle towers, terminal towers and sealing end compounds".

227. However SPN's notes, interpreting the same rule, go further: "The fewer more massive structures used to support the transmission lines, the less impact upon the amenity of the area. However, it is also suggested that in flat or open landscapes, support poles or towers should not be erected in a straight line, as this increases the visual intrusion due to an artificially linear feature being introduced into the landscape".

228. The existing line consists of three long stretches of "an artificially linear feature", and this would only be emphasised should a second, parallel line be constructed.

229. As an aside, it is common to use existing linear features such as roads and railways, or a transport corridor, as a transmission corridor, but this was not followed by the CEGB and is not being proposed by NGET.

230. Rule 4 - Choose tree and hill backgrounds in preference to sky backgrounds wherever possible; and when the line has to cross a ridge, secure this opaque background as long as possible and cross obliquely when a dip in the ridge provides an opportunity. Where it does not, cross directly, preferably between belts of trees.

231. Rule 5 - Prefer moderately open valleys with woods where the apparent height of towers will be reduced, and views of the line will be broken by trees.

232. Both NGET and SPN give similar notes on these two rules.

233. NGET "Utilise background and foreground features to reduce the apparent height and domination of towers from pan viewpoints. Minimise the exposure of numbers of towers on prominent ridges and skylines. Where possible avoiding cutting extensive swathes through woodland blocks and consider opportunities for skirting edges of copses and woods. Protecting existing vegetation, including woodland and hedgerows, and safeguard visual and ecological links with the surrounding landscape".

234. SPN "Rules 4 and 5 suggest that both background and foreground features be utilised to mask or minimise the appearance and impact of the infrastructure, where the existing ground features afford opportunity. The exposure of lines and pylons on ridges should be minimised. Where possible, follow areas of open space, running alongside (but not though) existing wooded areas, including skirting edges of copses and small plantations. Where there is no reasonable alternative, to cutting through woodland, the Forestry Authority Guidelines should be followed".

235. Following these rules is extremely difficult to do on Anglesey as it is a low undulating plateau with very sparse, small, trees due to the weather conditions. There are some small forests, but these are nowhere near the existing and proposed lines.

236. The British Geological Survey[5] describes the importance of the whole of the Anglesey landscape, which led, in part, to the UNESCO recognition:

- " … Anglesey represents one of the key areas in the UK for understanding the large-scale tectonic processes that eventually led to the formation of southern Britain, and as such**, is widely considered to be a 'classic' area of British geology. Its classic status also extends to the glacial landforms** …"

- "During the last ice age … Britain and Ireland were plunged into 'deep freeze' with a large part of the land and surrounding seas being covered in a thick layer of ice and snow known as the British and Irish ice sheet."

- "Anglesey occupied a unique position beneath this ice sheet, occurring close to the eastern margin of a fast flowing corridor of ice …"

- "This ice stream … transported ice from its source in south-west Scotland, through the Irish Sea and across Anglesey, to as far south as the Isles of Scilly."

- "The low lying, gently rolling hills of Anglesey preserve the unique 'footprint' left on the landscape by the ice stream. The landforms, such as egg-shaped drumlins, and glacial sediments left as the ice retreated provide a record of the processes occurring beneath the Irish Sea ice stream."

237. The main valley systems on Anglesey, such as e.g. Traeth Coch – Ceint - Malltraeth, were largely formed by glacial meltwater running NE-SW as the ice sheets retreated at the end of the last ice age. The current small rivers and streams that now flow through these valley systems being too small to create valleys of this scale.

238. The NGET proposal completely disregards Rule 5 with the proposed development running NW-SE, that is, perpendicular to the valley systems, with extensive views of "arrow straight" pylons visible for miles as the line crosses ridges and over drumlins.

239. Rule 6 - In country which is flat and sparsely planted, keep the high voltage lines as far as possible independent of smaller lines, converging routes, distribution poles and other masts, wires and cables, so as to avoid a concentration or 'wirescape'.

240. Both NGET and SPN provide similar notes to this rule, which is the main rule NGET use to justify a second parallel line.

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[5] https://www.bgs.ac.uk/research/ukgeology/Wales/angleseyNorthWales.html

241. NGET: “In all locations minimise confusing appearance. Arrange wherever practicable that parallel or closely related routes are planned with tower types, spans and conductors forming a coherent appearance; where routes need to diverge, allow where practicable sufficient separation to limit the effects on properties and features between the lines”.

242. SPN: “In all locations, minimise confusion by mixing cable and support types. Avoid concentrations where possible, in order to avoid the cable runs dominating the landscape character. Wherever possible and practicable, parallel or closely related routes should be arranged to provide a coherent appearance. Where diverging routes allow, sufficient separation should be planned to limit the effects on properties and features within the cable lines”.

243. Complete disregard for Rules 1 – 5 leaves NGET little room to manoeuvre. Anglesey already has a high voltage overhead line, low voltage overhead lines, overhead telecoms lines and wind turbines. An additional overhead line will only add to the “wirescape”. Some re-routeing of lower voltage lines is planned, but these are small scale works in the immediate vicinity of the proposed line.

244. Rule 7 - Approach urban area through industrial zones, where they exist; and when pleasant residential and recreational land intervenes between the approach line and the substation, go carefully into the comparative costs of the undergrounding, for lines other than those of the highest voltage.

245. NGET and SPN provide similar notes, although yet again, Scotland appears to be more stringent with regard to preserving the visual environment.

246. NGET “When a line needs to pass through a development area, route it so as to minimise as far as possible the effect on development. Alignments should be chosen after consideration of effects on the amenity of existing development and on proposals for new development. When siting substations take account of the effects of the terminal towers and line connections that will need to be made and take advantage of screening features such as ground form and vegetation”.

247. SPN “Should lines be required to pass through development areas, the course should be carefully selected to minimise the effects on the development as far as is practicably possible. Undergrounding should be considered as a realistic alternative in order to minimise impact where there is little alternative. Alignments should be chosen after consideration of the effects of the infrastructure on proposals for new development. When siting sub-stations, the effects of terminal towers should be considered in order to take advantage of screening opportunities such as ground form and vegetation”.

248. Anglesey has highly dispersed settlement. A common feature being one or two farms (typically Fawr/Fach or Uchaf/Isaf) being the only record of a once medieval township, quite unlike the English countryside with nucleated villages dating from Domesday. This is most likely due to the inheritance laws of Hywel Dda, which led to the sharing of estates:

> *"On the death of a landowner (priodawr) his immovable estate (land) passed in joint tenancy (cytir) to his sons. Then the youngest son partitioned (cyfran) the land equally, and each brother took his share. Illegitimate sons were entitled to shares equal to those of legitimate sons, provided they had been acknowledged by the father"*[6]

249. Although Welsh law (the laws of Hywel Dda) were replaced with English law following the conquest, culture, custom and practice maintained this tradition into the late medieval period and resulted in the now highly dispersed settlement pattern. This is also the reason why many Anglesey parish churches often have no settlement nearby.

250. Currently 15% of the Welsh population live in the sparsest rural areas compared with only 1.5% in England.

251. The entirety of Anglesey is "pleasant residential and recreational land" and is extensively used for recreation by both residents and tourists. As such, an underground solution is entirely appropriate. To despoil this with the existing pylon line, and compound that with a new line, cuts through the historic and cultural fabric that makes Anglesey the place that it is.

[6] "Some Medieval Rural Settlements in North Wales", G. R. J. Jones, Transactions and Papers (Institute of British Geographers) No. 19 (1953), pp. 51-72 and "Medieval Anglesey", A. D. Carr, Anglesey Antiquarian Society, 1982 provide useful background reading

5 The unacceptable impact on tourism

5.1 Summary

252. NGET conducted a survey of visitors (tourists) in 2016 and include the results in Chapter 17 of the DCO. The aim being to determine the attitude of visitors to the second proposed line of pylons in order to evaluate the socio-economic impact.

253. The results indicate that the proposed line poses a significant risk to the tourism industry on Anglesey. NGET go to some lengths to dismiss these findings and eventually conclude that the impact will be minimal. However, the evidence they use to do this contains significant flaws and differences to the Anglesey situation.

254. Intuitively, a second line of pylons cannot have a positive impact on tourism, and at best will have no impact. A better way to consider the socio-economic impact would be to estimate the magnitude of the potential financial risk and the probability of that risk occurring.

255. A conservative estimate puts the net present value of lost tourism at £300 million.

5.2 DCO document 5.17 - Environmental Statement Chapter 17 Socio-economics

256. Chapter 17 addresses tourism in sections 7.4.22 – 7.4.46, 9.4.1 – 9.4.5, 9.5.3 – 9.5.7, 9.8.1 – 9.8.19, 9.9.1 – 9.9.12, 10.2.3 – 10.2.6, 10.3.18 – 10.3.43 and section 11 tables 17.28 and 17.30.

257. Section 7.4.22-7.4.46 presents the results of the visitor survey conducted in 2016. Highlights of the survey are:

- the most commonly cited reason for visiting Anglesey was the 'Beautiful scenery/views/natural landscape', followed by 'Relaxing /peaceful /tranquil /quiet';
- other common responses were 'Been here before/come here often' and 'Meeting/visiting with friends/family';
- the majority of respondents (77%) said that the construction process for additional pylons would make no difference to the likelihood of them revisiting. A similar proportion (78%) reported that the construction process would make no difference to the type of activities undertaken in the area;
- for those that would be less likely to visit during construction, the main concerns were: i) that construction traffic would hinder access to and around the island; and ii) construction would be a blot on the landscape (and/or noisy);
- the majority of respondents (84%) said that the presence of additional pylons/OHLs (during operation) would make no difference to the likelihood of them revisiting. The main reasons cited for it making no difference were that i) it wouldn't stop them coming because they like the place or are visiting family, and ii) it doesn't bother them or they take no notice;

- for those that would be less likely to visit due to the presence of additional pylons/OHL, the main concern was that the infrastructure would be a blot on the landscape (and/or noisy);

- the majority of respondents (84%) also reported that additional pylons/OHLs (during operation) would make no difference to the type of activities undertaken in the area. The number of those who responded that additional pylons would influence activities 'a little' or 'a lot' was relatively small [10% of respondents in total, some giving more than one reason]. The main concerns raised were: i) blot on the landscape; and ii) will visit other areas to avoid the pylons.

258. From this survey it can be concluded that potentially 23% (during six years of construction) to 16% (during 60 years of operation) of tourists would be inhibited from visiting Anglesey by the presence of more pylons, as these would be 'a blot on the landscape'.

259. The very terms used in the NGET visitor questionnaire (Beautiful scenery/views/natural landscape) are all broad, expansive, 'wide screen' terms, implying that what visitors appreciate and value about Anglesey is not point destinations and attractions, but the totality of the countryside and the "Anglesey offer".

260. Section 9.4 (9.4.1-9.4.5) considers amenity effects on tourist attractions and recreational resources, and concludes that Plas Newydd and Veynol Park are the only "high value" tourist attractions and will not be impacted.

261. The approach used gives no recognition to the "beautiful scenery, views, natural landscape" that are "relaxing, peaceful, tranquil, quiet" identified as the main reasons for visiting Anglesey.

262. Sections 9.5.3 – 9.5.7 consider amenity effects on tourism accommodation and section 9.5.5. states "Thirteen tourism accommodation businesses may experience a major or moderate adverse secondary effect during operation of the Proposed Development. The nature of these businesses is such that views are likely to be an important factor in the attractiveness of their 'offer'. As such, it is considered likely that they could be affected by adverse secondary effects (loss of trade)."

263. Section 9.5.6 states "Given that there are several hundred tourism accommodation facilities … the relatively small number of facilities affected means that the overall effect on the tourism accommodation sector in Anglesey and Gwynedd is assessed as not significant."

264. While it is encouraging the survey does recognise that the presence of more pylons would lead to significant "loss of trade", again the approach taken totally ignores the key findings ('Beautiful scenery/views/natural landscape') and assumes that only "receptors" in the immediate vicinity of the pylons will be impacted.

265. Sections 9.8.1 – 9.8.19 consider the impact during construction on the availability of tourist accommodation. It is noted that camping and caravans will play a significant

role in housing the temporary workforce. A considerable effect in this sector will be the cumulative effect of the NGET and Horizon workforce, and it is not clear from the analysis if the following points have been considered:

- most, if not all, caravan sites on Anglesey have restricted, seasonal access and are not available for 12 months of the year;
- the majority of caravan sites are "statics" not "tourers", with the caravans "owner occupied", that is, the caravan is owned by the visitors who pay an annual site fee to the caravan site owner;
- most, if not all, "static sites" have clauses in the site contracts prohibiting sub-letting, and in some cases use of the caravan other than by immediate family of the owner.

266. Sections 9.9 addresses the impacts on visitor numbers based on the visitor survey conducted in 2016. Section 9.9.2 states "the majority of respondents (84%) said that the presence of additional pylons/OHLs (i.e. during operation) would make no difference to the likelihood of them revisiting", which implies that for a significant number (16%) the presence of more pylons would make a difference.

267. Section 9.9.5 states "When asked about the construction process … 18% … reported that the additional pylons and power lines would make them less likely to visit … again [due to] disruption to access caused by increased traffic." Section 9.9.6 poorly attempts to dismiss these concerns, and was clearly written by someone not familiar with Anglesey traffic on small lanes in summer.

268. Section 9.9.7 states "… visitors who said they would be less likely to return during operation, the most common reason was that the pylons would be "a blot on the landscape"" and then attempts to dismiss these concerns. It does not seem to be appreciated that the majority of people inherently dislike pylons, don't want to see them, and don't want them to exist where they take their vacations.

269. Section 9.9.8 discusses the locations used for the survey and states "Visitors to these locations are already influenced by the existing OHL and therefore the Proposed Development would not be a new element within views". This implies that visitors are quite happy to have the existing pylons in their holiday destination, and would be similarly happy to have more, which the key findings of the survey (beautiful scenery, views, natural landscape) clearly dispute.

270. Section 9.9.8 goes on to state, quite randomly "The Proposed Development would not be visible from Holyhead or Anglesey Airport, and would only be minimally visible from the railway (… the train is … passing at high speed)". Er … !

271. Section 10.2.3 – 10.2.6 pulls together the various parameters considered and section 10.2.5 states "no significant effects are anticipated for any of the tourism parameters considered in the assessment. In conclusion, no significant cumulative intra-project effects on the tourism sector in Anglesey and Gwynedd are expected.". Again, the key

finding of the survey, "The most commonly cited reason for visiting Anglesey was the 'Beautiful scenery/ views/ natural landscape', followed by 'Relaxing/ peaceful/ tranquil/ quiet' have been ignored.

272. Sections 10.3.18 – 10.3.43 looks at the cumulative impact of the Proposed Development and a number of other proposed projects. It is no surprise that the Horizon proposals dominate these. However, while the Horizon development will have a lengthy construction phase, it will result in a "point asset" (which may be well screened) the NGET development will result in an extensive "linear asset" which will not be screened at all. Impact on the "most commonly cited reason for visiting Anglesey" namely "beautiful scenery/ views/ natural landscape" will be dominated by the proposed second, parallel, line of pylons, not by the power station.

5.3 Dismissal of the visitor survey findings

273. NGET go to some lengths to dismiss the negative findings of the visitor survey stating at section 9.9.9 "Both ex-ante (before) and ex-post (after) evidence for effects of OHLs on tourism is relatively limited. However, the literature identified … covers numerous projects across the country in varying geographies and environments and over an extensive period … the evidence indicates that there is a tendency for ex-ante appraisal to overestimate the likely negative impacts on tourism, with the ex-post evidence indicating that the extent of negative effects upon visitor numbers and their behaviour is typically less than anticipated".

274. The literature they cite are:

- "Effect of major infrastructure projects on socioeconomic factors (2014)", produced by ERM & Ipsos MORI for NGET;
- "Scotland/Northern Ireland interconnector ex-post tourism impact assessment (2006)", produced by Tym & Partners for Scottish & Southern Electricity;
- "Second Yorkshire line – ex-post tourism assessment (2011)", produced by Tym & Partners for NGET.

275. None of these are independent, peer reviewed, literature publications.

5.3.1 Effect of major infrastructure projects on socioeconomic factors (2014)

276. NGET have a report available on their project website that looks at the socio-economic impacts of their projects: "A study into the effect of National Grid major infrastructure projects on socioeconomic factors (2014)". The report was researched and written by ERM and Ipsos MORI, leading consultancies in their respective fields.

277. To quote NGET's Q&A factsheet, the report found "… that 93 percent of people felt there had been no negative impact on their business as a result of new infrastructure, and 83 percent of people felt there had been no impact on the local area as a result of new infrastructure."

278. But is this study representative of the type of impact that the North Wales Connection project could have on the economics of Anglesey?

279. The following table presents a summary of the infrastructure projects the study considered, which included:

- five electricity (pylon) and two gas transmission projects;
- five completed, two proposed and two “control” (pretend) projects.

280. Also presented are whether:

- the projects resulted in above ground assets – only completed electricity (pylon) projects can do this;
- the project were conducted in what the Office for National Statistics (ONS) describes as a “holiday hotspot”

Project	Type	Stage	Resulted in above ground assets?	Conducted in "holiday hotspot"?	Comparable to Anglesey?	When was the project?
South Humber Bank	Electricity	Completed	Yes	No	No	1992
Norton to Spennymoor	Electricity	Completed	Yes	No	No	2011-2012
Hinkley to Melksham	Electricity	Completed	Yes	Yes	Yes	1960's
Felindre to Tirley	Gas	Completed	No	Yes	No	2007-2008
Wormington to Sapperton	Gas	Completed	No	Yes	No	2010
Hinkley C Connection	Electricity	Proposed	No	Yes	No	N/A
Bramford to Twinstead Tee	Electricity	Proposed	No	Yes	No	N/A
Chilterns Area	N/A	Control	No	No	No	N/A
Yorkshire Dales Area	N/A	Control	No	Yes	No	N/A

281. Only one project can be seen to be comparable to Anglesey, the Hinkley to Melksham pylon line, and that project had been completed at least 40 years earlier and only involved a single line. The results were gathered from 188 people and 33 businesses (of which only seven existed when the project took place.

282. This study, therefore, contains very little (if any) data of direct relevance to Anglesey and the NWC, and should not be used to predict future socio-economic impacts.

5.3.2 Holiday Hotspots

283. The Office of National Statistics (ONS)[7] found that a "holiday hotspot" has the following characteristics, compared to England and Wales averages:

- higher proportions of jobs in accommodation for visitors;
- higher percentages of main jobs in tourism and tourism enterprises;
- higher percentages of inbound trips for a holiday purpose.

284. For example:

- Gwynedd has the highest percentage of main jobs in tourism (14.9%) followed by Anglesey (14.0%);
- Cornwall has the highest percentage of visits for a holiday (61.4%) followed by Pembrokeshire (57.9%) and Anglesey (53.3%);
- Cardiff has the highest spend per day (£50.08), followed by Anglesey (£48.92), far higher than Greater London (£38.04).

285. The term "holiday hotspot" is describing the socio-economic importance of tourism to that area. It describes what is currently being achieved.

5.3.3 Scotland/Northern Ireland interconnector ex-post tourism impact assessment (2006)

286. This was produced by Tym & Partners for Scottish & Southern Electricity, the transmission operator in that part of Scotland.

287. The interconnector links Northern Ireland's electricity generation systems to Scotland and the national grid.

288. The development process went through the following stages, during which it became known to the general public and wider tourism market:

- October 1994-March 1995: Public Local Inquires in Scotland and Northern Ireland;
- April 1996: Public Local Enquiry report submitted to Secretary of State;
- October 1997: consent to build the Interconnector granted by the Scottish Office;
- 2000-2002: construction phase;

[7] Sub-National Tourism: A spatial classification of areas in England and Wales to show the importance of tourism, at county and unitary authority level, 2011 to 2013 (2015)

- April 2002: Interconnector entered full commercial operation;
- Post April 2002: ongoing commercial operation.

289. The report studied businesses in the tourism sector and concluded:

- Tourism businesses are greatly affected by the weather, macro-economic cycles, world events (e.g. terrorism, war), national events (e.g. sports) etc;
- "… the overhead transmission line has exerted only a marginal negative impact on local tourism related businesses, with only 2% of respondents reporting a minor or medium negative impact … the possible effects from the line … are more likely as a result of other contributory factors … largely the weather;
- " the overhead transmission line interconnector has had an inconsequential impact on the tourism industry in Ayrshire and Arran".

290. However, the report has some limitations, and differences from the visitor survey conducted by NGET and presented in the DCO:

- it did not involve speaking to, surveying or contacting any tourists (only businesses that may be used by tourists) the key consumers of the "Anglesey offer". As such, the report did not gather or analyse any "leading indicators" of performance, only "lagging indicators" (see below);
- the business impact analysis included businesses that were not in operation at key stages of the project, and businesses some distance (10 km) from the development;
- no attempt was made to quantify the financial impact of the development, e.g. the regional revenue generated through tourism compared to projections of revenue had the development not taken place;
- part of the survey was conducted "on the mainland" rather than a contained vacation environment (such as Anglesey);
- no analysis was performed on businesses that had ceased trading to examine if the pylons had contributed to this.

291. Note – "leading" and "lagging" performance indicators stem from the work of Kaplan & Norton (1996)[8]. The hypothesis, now widely accepted and used in business, being that only by using both leading and lagging indicators can a true assessment of performance be attained.

[8] "The Balanced Scorecard: Translating Strategy into Action", Harvard Business School Press

292. This report, while seemingly to present a "positive" outcome ("… only a marginal negative impact …") fails to determine what the socio-economic impact of the pylon line actually was.

5.3.4 Second Yorkshire line – ex-post tourism assessment (2011)

293. Another report produced by Tym & Partners, this time for NGET, the transmission operator in England and Wales.

294. The Second Yorkshire Line (400kV OHL and associated works) is 80.3 km long running from east of Middlesbrough through North Yorkshire to north of York. It includes a 5.3 km underground section and pylons. It was granted consent in 1998 following two Public Inquires.

295. Again, only businesses that may be used by tourists (not actual tourists) were surveyed, looking at the following phases:

- Pre construction: 1999-2000;
- Construction period: 2001-2002; and
- Post construction: 2003 – 2007.

296. The report concludes:

- as in the Scottish report, tourism businesses are greatly affected by the weather, macro-economic cycles, world events (e.g. terrorism, war), national events (e.g. sports) etc;
- "… between 1% and 3% of businesses in operation … experienced a negative impact … the impact of the line on tourism is considered to be minor".

297. The report has the same limitations, and differences from the visitor survey conducted by NGET and presented in the DCO, except the data analysis correctly excludes businesses that were not in operation.

298. The report makes the following statement but does not provide any evidence to back up the claim " the business survey focuses on 7.5km route corridor either side of the line … where any adverse business effects are most likely to occur".

299. This report presents a more negative view, but again fails to determine what the socio-economic impact of the pylon line actually was.

5.3.5 Study into the Potential Economic Impact of Wind Farms and Associated Grid Infrastructure on the Welsh Tourism Sector (2014)

300. This report was prepared by Regeneris Consulting and The Tourism Company for the Welsh Government and is not cited by NGET in the DCO. It primarily addresses wind farms but does consider the associated grid infrastructure. It does not reference either of the above reports, even though it was written after these, but does reference peer reviewed, journal articles.

301. The report states

- "… The evidence base for tourism impacts of associated infrastructure is far less developed than that for wind farms. The few studies which have addressed the subject have focused on visitors' opinions of pylons, which consistently find that reactions are far more negative than toward wind turbines. This strong feeling toward grid infrastructure presents an increased risk for those areas where new pylons are proposed alongside considerable wind farm development";

- "… there is no evidence that the existing National Grid infrastructure which is concentrated in North and South Wales, often in popular scenic areas, discourages visitors";

- "Nevertheless, the lack of robust evidence means the assessment of the potential impact of the proposed supporting grid infrastructure is particularly challenging. The proposals by National Grid will now see a significant proportion of the connection to the grid buried undergrown … this would reduce the visual impact … and mitigate potential impacts.

302. The key message here being that grid infrastructure (pylons) presents a risk to tourism, even though the (limited) available evidence may not prove this. For an industry where it can be shown there is great volatility due to uncontrollable external factors (weather, economic cycle, world and national events and promotion), this seems to a considered and prudent approach. It may be significant that the authors have chosen not to refer to the two industry sponsored reports referenced by NGET in the DCO.

5.4 Conclusions

303. Based on the information presented by NGET in the DCO it can be concluded that:

- the presence of a second pylon line, and the associated construction (as well as the construction of Wylfa Newydd) should be a considerable "red flag" to the Anglesey tourism sector;

- leading indicators (verbatim transcripts from actual tourists) suggest the impact could be considerable;

- lagging indicators suggest that the actual impact may not be as severe as initially perceived;

- NGET cite limited evidence to claim the impact will be inconsequential, but there are several issues with the rational that leads to this conclusion;

- NGET do not estimate the actual socio-economic impact of their proposals (future performance relative to the "do nothing/no project" scenario).

304. The approach suggested by the Welsh Government report is probably the most considered and prudent, that is, adopt a risk based approach and evaluate the

magnitude and probability of the socio-economic impact, and base mitigation strategies on the “most likely” impact.

305. A failure by the Anglesey tourism sector, to achieve its’ potential, of just 5%, would help justify the additional cost of undergrounding the connection (see Chapter 6). It is important to consider not just a fall in tourism revenue, but also a failure to increase in line with trends, as socio-economic impacts.

6 The socio-economic costs of a second line of pylons

6.1 Summary

306. This chapter has been written to estimate the socio-economic lifetime community costs to the residents of Anglesey. These are estimated at approx. £500 million, a cost that could be entirely mitigated by an incremental expenditure of approx. £400 million to provide an underground solution to the North Wales Connection.

6.2 Socio-economic costs

6.2.1 The value of tourism revenue at risk

307. Anglesey currently receives about £280 million a year in revenue due to tourism.

308. Every visitor will have their own reasons for visiting, be it beaches, walking, fishing etc etc. Part of the attraction is the unspoilt beauty of the open countryside. They come to Anglesey to get away from their day to day urban lives.

309. Adding more pylons cannot improve tourism for Anglesey. At absolute best they will have only a small impact.[9]

310. If the value of tourism fell by 1%, or failed to rise by 1% in line with expectations, over the (NGET assumed) 40 year life of the pylons, £60 million would be lost (assuming current value of tourism revenue, no inflation, 3.5% discount rate). This would obviously be higher over the 60 years Wylfa Newydd plans to generate.

311. This does not include the value of “sunk costs” - costs already spent by the IoACC, the Welsh Government, holiday home owners, caravan sites etc in promoting Anglesey and getting tourism to the level it is today.

6.2.2 House value at risk

312. Anglesey has ca 34,000 homes worth on average £128,000 each[10].

313. Reports locally, and in the press, suggest that some homes may be "un-mortgageable" or suffer devaluation of up to 40%.

314. Online valuation sites such as Zoopla use complex algorithms to estimate house values, with an input to these calculations being current market sales value, and average regional value. So if a few houses are highly devalued, on average, all will be devalued.

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[9] “Study into the Potential Economic Impact of Wind Farms and Associated Grid Infrastructure on the Welsh Tourism Sector” – Feb 2014, Regeneris Consulting Ltd and “A Study into the Effect of National Grid Major Infrastructure Projects on Socio-economic Factors” – Feb 2014, National Grid

[10] “Economic Overview of Anglesey”, 2013, Local Government Data Unit – Wales

315. A 1% decrease in value (£1,280 for every home) would reduce the value of the Anglesey housing stock by £43 million.

316. Some houses will be hit very badly, and the owners will probably suffer negative equity. Compensation will not be paid unless the pylon is actually on, or over the property.

6.2.3 Agriculture

317. The impact of pylons on agriculture is real, but difficult to quantify. The primary impacts are:

- land loss at the pylon bases and the restricted zone immediately around the bases;
- restriction of activities that can be conducted immediately below the over-sail lines resulting in increased time to perform certain tasks;
- impacts on animal health and reproduction due to exposure to electric and magnetic fields (EMFs).

318. An estimate of the value of these impacts has not been made.

6.2.4 The socio-economic risk

319. The cost impacts for tourism revenue and house value estimated above are given for a 1% reduction. The probability of this occurring is high, but depending on visitor and vendor behaviour could be as high as 10%. A “most likely”/conservative estimate would be 5%.

320. The “most likely” total socio-economic costs, over the 40 year project lifetime is thus approx. £500 million. Obviously this would be greater over the 60 year generation lifetime of Wylfa Newydd. A period of 40 years (and 3.5% discount rate) has been used to match that in NGET’s financial analysis.

321. NGET have estimated this likely risk could be mitigated for an incremental £420 million.

322. Neither of these socio-economic costs have been included in NGET’s financial justification for a pylon solution.

6.3 The “fairness” of the socio-economic costs

323. Anglesey has a population of about 65,000 while the UK as a whole has a population of about 65,000,000.

324. Assuming average, uniform consumption from a “pooled” grid, Anglesey will consume about 0.01% of the output of Wylfa Newydd.

325. National Grid are planning on putting 100 new pylons on Anglesey, and five in Gwynedd, so while using 0.01% of the power transmitted, Anglesey receives 96% of the pylons and £500 million social costs.

326. In practice, Anglesey is currently a net exporter of power, due to wind turbines and solar parks, so on average will consume none of the power from Wylfa Newydd.

6.4 Mitigating the socio-economic risk

327. NGET's Strategic Options Report (2015) estimated the cost of pylons as being £519 million while putting the cables underground would be £940 million. An incremental increase of £421 million. Ofgem stated in a private email "at least £400 million extra". These figures do not include the Menai tunnel, which is assumed to be required in both cases.

328. The connection is assumed to have a life of 40 years (although the connection will also use the existing pylons, now some 55 years old, and Wylfa Newydd is planned to generate for 60 years). The "40 year" is used throughout NGET's financial analysis and is taken to represent an average asset life.

329. Wylfa Newydd will produce 2.9 GW exported to the national grid. Of all the power generated in the UK 30% is used by domestic consumers (27.5 million households).[11]

330. Over 40 years, the incremental cost of a buried connection is about 11p/year for each UK household – an increase of 0.02% on an average electricity bill of £554/year.

331. In comparison, Hinkley Point C, and possibly Wylfa Newydd, will add about £10 - £15/year per household.

6.5 Flaws in the financial analysis and option selection methodology

6.5.1 Financial analysis

332. In the Strategic Options report, NGET presented figures for the Net Present Value (NPV) of the different options they have looked at.

333. For each option, the one-time capital costs, and the lifetime operational and maintenance costs (including transmission losses) are estimated, and the Net Present Value (NPV) of these costs over a 40 year life calculated.

334. However, there are the following issues:

- the effect of differing income/revenue to NGET from the different technologies (ie a cost-benefit analysis rather than a NPV analysis);
- years 21-40 are assumed to be identical to year 20, while in practice this will not be the case (re-conductoring etc);

[11] Energy Consumption in the UK 2015, Department of Business, Energy and Industrial Strategy and Digest of UK Energy Statistics (DUKES) 2017

- the assumption that assets are worthless by year 41, when in practice pylon towers will only be, say, halfway through their life and will sit on the balance sheet with a residual asset value generating income;

- if the asset were worthless/useless by year 41, there would then be a decommissioning/removal cost, and a replacement cost;

- no account is made for socio-economic costs - property devaluation or impact on local businesses (these are addressed qualitatively but not financially);

- there is no estimate of the "do nothing" scenario - ie the best estimate of future costs over the project lifetime if the project does not go ahead. In this case it would mean no power station and most likely the removal of the redundant transmission line. The project scenario should then be the difference between the project costs and the "do nothing" costs.

335. If NGET were to follow the Treasury Green Book or the EC Guide on Cost-Benefit Analysis for Infrastructure Projects, then a correct "do nothing" scenario would have to be constructed, socio-economic costs included and a full cost-benefit analysis performed.

336. When challenged, NGET fall back on “our approach is approved by Ofgem”, however when seeking clarification, Ofgem say ”we do not mandate any form of cost-benefit analysis”, so it would appear to be in NGET’s gift to select the approach.

337. It would appear that NGET have designed a methodology to get the answer they want (most comfortable delivering and aligned to their core business), rather than an answer that is optimal for UK consumer stakeholders.

6.5.2 Option selection methodology

338. NGET have to consider: lifetime costs, environmental impacts, socio-economic impacts and technology issues.

339. However, the only thing used to make the decision about an option is lifetime cost - all the other factors are considered qualitatively (over thousands of pages) by “experts”.

340. It has been proposed to the NWC team that a far more structured and transparent approach would be to use a weighted matrix, with the various parameters "scored" (eg subsea would score higher than pylons on socio-economic impact but lower on cost impact).

341. This is exactly the type of selection methodology used by NGET’s procurement function for selecting suppliers (conversation with John Pettigrew (CEO) at the 2018 AGM).

7 The project approach is unfair

7.1 Summary

342. NGET have made frequent reference to other transmission projects that have achieved planning consent.

343. It can be seen, from publicly available data, that the specific circumstances of these projects are quite different to the North Wales Connection (NWC) project on Anglesey, and are poor comparators.

344. NGET's approach is discriminatory and unfair.

7.2 NGET's approach to transmission routing projects

345. NGET publish the project approach in the following document: 'Our approach to the design and routeing of new electricity transmission lines'.

346. Although the financial analysis in this approach is fundamentally flawed (see Chapter 6) they are clearly very confident in it, as shown in emails to JFD:

- 06/02/18 "Our comparable projects to date that have followed this approach and made an application (the Hinkley C Connection and Richborough Connection) were considered to have followed the planning process appropriately. Both have been granted a DCO by the Secretary of State."

- 24/07/18 "Our appraisal methodology has been used for a number of projects, including the Hinkley Connection and the Richborough Connection. The approach and the decisions made on these project were scrutinised as part of the DCO examination process for each project. Both were granted a development consent order. We are confident in the process we follow and believe it offers a suitable process for developing new connections in consideration of all the factors we must take into account."

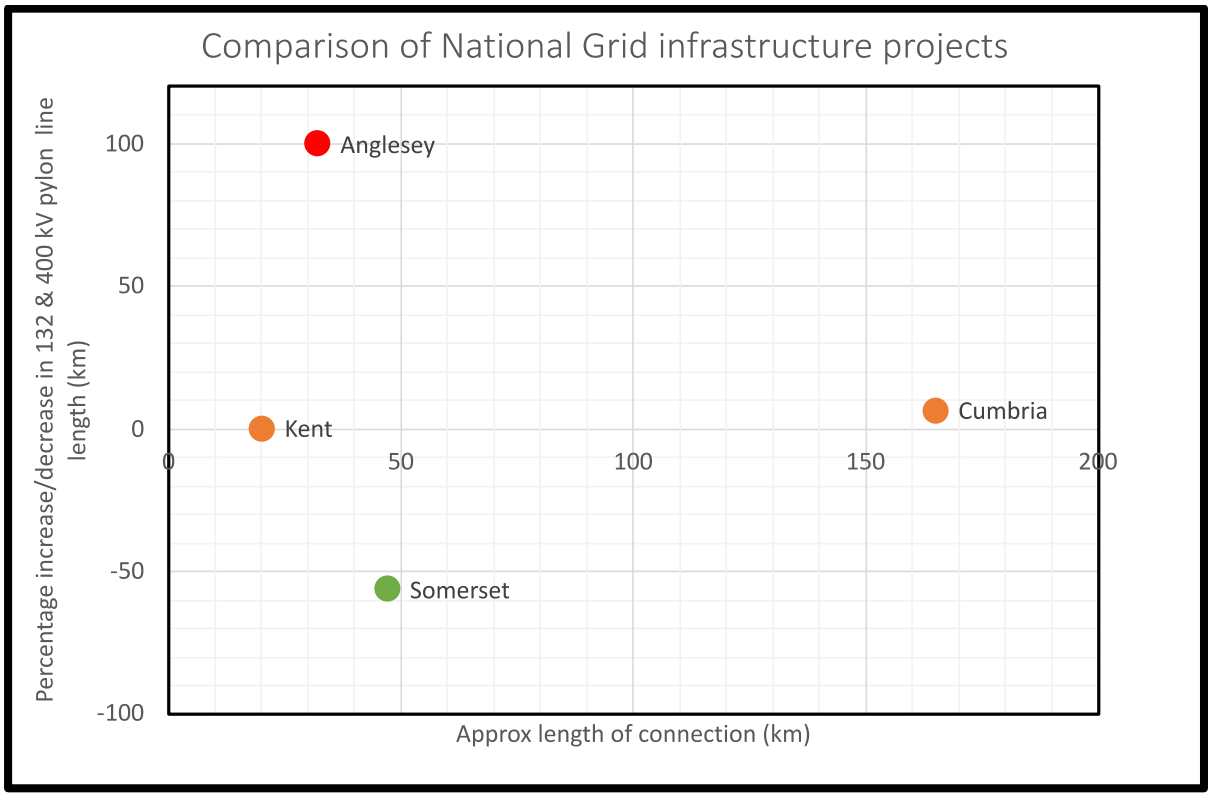
- 24/07/18 "This approach has been followed by all of our major projects and subject to scrutiny by stakeholders and the planning process. The Hinkley C Connection and Richborough Connection were both granted a DCO."

- 29/08/18 "We are confident in the process we follow and have used it to develop a number of schemes which have been granted development consent orders."

347. But are the Hinkley C and Richborough projects really comparable with the North Wales Connection?

348. The following table and figure show the increase in the length of pylon lines for these projects and also the proposed North West Coast Connection. This data is from the NGET website.

Project	Region	Approx. length (km)	km of 132 kV & 400 kV pylon lines		Increase/decrease (km)
			Before project	After project	
North Wales	Anglesey	32	32	64	32
North West Coast	Cumbria	165	165	176	11
Hinkley	Somerset	47	73	47	-26
Richborough	Kent	20	20	20	0



349. Anglesey, Hinkley and NWC are the result of the new nuclear programme. Richborough will link a subsea inter-connector to the grid.

350. It is clear though that Anglesey is different! In the three other projects, there will be significant removal of existing pylon lines (often 132 kV DNO lines) which have been replaced with new 400 kV NGET lines. Cumbria and Somerset will have significant sections underground. It is only Anglesey that will keep all the existing, and have double the number, of pylons.

351. A project approach that demonstrates such discrimination cannot be a fair approach.

8 A culturally inappropriate linear asset

8.1 Summary

352. This chapter has been written to present observations on National Grid's proposal for the North Wales Connection.

353. The imposition of an artificially linear asset on the Anglesey landscape is considered culturally insensitive and entirely inappropriate.

8.2 Linear assets in the Anglesey landscape

354. A linear asset is an often manmade feature such as a road, railway, canal or other such feature, created and managed for commercial gain or public service. Current examples on Anglesey include the A55 Expressway, the Holyhead to Bangor railway and the Wylfa to Pentir high voltage electricity transmission line.

355. Many of the oldest roads, lanes and footpaths on Anglesey follow routes dictated by the geology and geomorphology, often aligned SW-NE on high ground, following the underlying, glacially formed landscape. As such, they are sympathetic to the landscape and "of their place".

356. Perhaps the earliest linear asset recorded on Anglesey is the Beaumaris to Holyhead via Llangefni turnpike, mapped by Ogilby in 1675. This comprised a series of contiguous, long established roads and lanes, and was not a new feature imposed on the landscape.

357. Telford's "London Road" of 1826, later the A5, cuts across the Anglesey landscape. While care has been taken to design this to allow high speed (for the day) with wide swept bends, and gradual inclines, it fights the natural landforms. It was built to allow easy access from London to Dublin, following the dissolution of the Dublin Parliament. It is an asset of imperial domination, facilitating control of England's first colony.

358. Stephenson's Chester to Holyhead railway of 1860 largely replaced Telford's road, if not in form, certainly in function. The latest technology (for the day) for the control of empire.

359. In the early 1960's, the then Central Electricity Generating Board (CEGB), one of the predecessor organisations to today's National Grid, built the Wylfa to Pentir high voltage electricity transmission line. Local opposition to the siting of pylon towers in the landscape and across the Menai Strait are well documented in the Anglesey Archive from 1962 and 1963. However, local opinion was ignored and overruled by the Secretary of State in London.

360. In the 1970's the oil super-major Shell built a crude oil pipeline from Amlwch to Stanlow, Ellesmere Port. This was buried as it crosses the countryside, and today leaves no trace on the landscape, save for occasional "marker posts" and restrictions on excavation along the route.

361. In the 1980's the function of Telford's "London Road" was upgraded when the A55 was built. No longer an asset of political domination, but one of economic expansion,

facilitating the export of Irish goods to major markets in England and continental Europe.

362. National Grid's current proposal (a second Wylfa to Pentir high voltage electricity transmission line to export power from Anglesey to areas of demand in south east England), is the latest in a series of linear assets imposed on the Anglesey landscape to facilitate political or economic domination. It has no place in the Anglesey landscape.

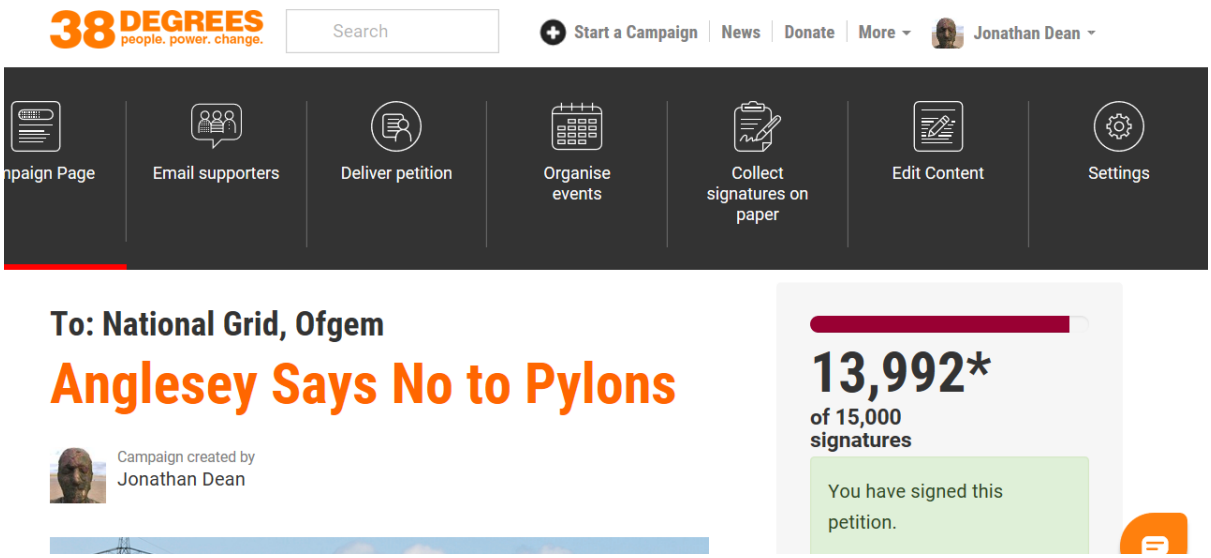
363. Christopher Hinton, successor to Holford at the CEGB said "It is when the power line starts to dominate nature that it becomes objectionable and our aim must be to avoid this ..."[12]. With the North Wales Connection, National Grid have failed.

[12] Official Architecture and Planning, Vol. 24, No. 8 (August, 1961), pp. 368-369

9 Petition

364. This chapter contains the text of the petition on 38degrees.com. The original plan was to run the petition on the UK Parliament website, but when set up, the petitions committee were not sitting due to the 2017 General Election being called. In addition, they could not confirm if a bilingual petition was allowed. A Welsh Assembly petition was considered, but as NSIPs are not a devolved issue the value was questionable.

365. The text was written before all the issues were properly understood, and if starting again, this needs a serious edit.



Anglesey Says No to Pylons - amend the Ofgem rules to account for local impacts, and keep Anglesey beautiful

National Grid propose building a new line of pylons across Anglesey to connect Irish wind farms and a new nuclear power station to the grid. National Grid argue pylons are the most cost effective transmission solution for UK wide consumers when following flawed Ofgem rules.

We oppose this proposal.

Mae Dim Peilonau ar Ynys Môn yn galw am ddiwygio rheolau Ofgem i ystyried yr effeithiau lleol, ac i gadw amglychedd Ynys Môn yn brydferth

Mae y Grid Cenedlaethol yn cynnig adeiladu llinell newydd o beilonau ar draws Ynys Môn i gysylltu ffermydd gwynt Gwyddelig a gorsaf ynni niwclear Wylfa newydd i'r grid. Mae'r Grid Cenedlaethol yn dadlau mai peilonau yw'r ateb trosglwyddo mwyaf gost effeithiol ar gyfer defnyddwyr ledled y Deyrnas Unedig wrth iddynt ddilyn y rheolau Ofgem ddiffygiol.

Gwrthwynebwn y cynnig hwn.

This petition is relevant to all rural communities who face new electricity transmission lines due to the growth of nuclear and renewable energy

Anglesey is a rural, island community in North Wales, with a small population. Income and house prices are well below the national average. Agriculture and tourism are vital to the local economy.

We oppose National Grid's proposal due to the impact on:

1 - The landscape - which will adversely affect tourism

2 - Property prices - which will not be compensated

3 - Health - there is growing evidence of adverse effects of electro-magnetic fields (EMFs)

4 - Farming - leading agricultural organisations are opposed

If Ofgem considered these impacts, National Grid would use underground or subsea cables.

This petition is relevant to all rural communities who face new electricity transmission lines due to the growth of nuclear and renewable energy

Mae Ynys Môn yn gymuned wledig yng ngogledd Cymru, gyda phoblogaeth fechan. Mae Incwm lleol a phrisiau tai yn llawer is na'r cyfartaledd cenedlaethol. Mae amaethyddiaeth a thwristiaeth yn hanfodol i'r economi leol.

Rydym yn gwrthwynebu'r cynnig y Grid Cenedlaethol oherwydd yr effaith ar:

1 - Ddirwedd yr Ynys - a fydd yn cael effaith andwyol ar dwristiaeth

2 - Prisiau eiddo - ni fydd yn cael ei digolledu

3 - Iechyd - ceir tystiolaeth gynyddol o effeithiau andwyol o feysydd electromagnetig (EMFs)

4 - Ffermio -Mae'r prif sefydliadau amaethyddol yn gwrthwynebu peilonau

Petal Ofgem yn ystyried yr effeithiau hyn, byddai Grid Cenedlaethol yn defnyddio ceblau tanddaear neu tanfor

10 Correspondence with National Grid

366. The following is the content of approx. 150 emails sent to National Grid, and, where they sent one, their response. A few may be missing, but this is the bulk of them.

367. The first question concerned Ffynnon Cybi, which, like countless generations of Anglesey children, I had learned about in primary school. National Grid had issued draft plans showing that the holy well would be covered by a site access road. If you follow the mails you will see them say that the plans were changed so that this would no longer happen. Not shown here are the details from the final submitted plans in the DCO – a return to the original plan, covering the well with a temporary roadway.

368. The stream of mails, and the research required to ask the next question, helped form most of the opinions contained in this document.

Subject	Question (brief)	Answer (brief)
Ffynnon Cybi	I note that you now propose extending a site access road over the historic Ffynnon Cybi at Clorach	Following further design and assessment work, we are no longer planning to put an access track in the field where the holy well is situated
Changes to transport plan	I understand you have made changes to your proposed transport plan, but I seem to have been missed off your mailing list. Please could you send me the latest proposals so that I may scrutinise them	The information was sent out to people living along the proposed updated routes. We also sent out information by email to everyone who subscribes to our updates, and made it available online
Taiwrn handouts	Last year I attended your community drop in session at Talwrn and took away a copy of the Holford Rules. I have now lost it. Please could you send me copy	You can see a copy of the Holford Rules on our project website here. Or, if you'd prefer a hard copy, just let us know and we'll get one in the post to you.
Consultation	I understand the council has to prepare an "adequacy of consultation" report as a statutory consultee I'm sure many members of the public have valuable views on this, but are not aware of the role the authority has What are you doing to promote awareness so the authority can gather these views? I am not aware of anything at the moment	In terms of adequacy of consultation, when developing our consultation plans, we worked closely with both the Isle of Anglesey County Council and Gwynedd Council to develop our Statement of Community Consultation, which outlined the manner in which we planned to consult with the public and stakeholders. When we have submitted our application to the Planning Inspectorate they will ask the relevant local authorities to prepare an adequacy of consultation statement. There is more information on page six of this Planning Inspectorate Advice Note. Should you have any further questions on this, we'd recommend you get in touch with the Isle of Anglesey County Council or the Planning Inspectorate
Stakeholder reference group	I understand in Cumbria there is a SRG Could you explain why you are not doing the same on Anglesey?	All of our projects, wherever they are in the UK, follow the same policy-based approach to developing proposals. An important part of this is seeking comments from communities and specialist stakeholders. We consult people on every major project, but each National Grid project requires a unique approach to consultation according to the local area. We consult with the local authorities as we develop our plans for consultation so they can influence the activities we undertake. On the North West Coast Connections Project, early stakeholder engagement activity carried out before National Grid established a project team was organised by Britain's Energy Coast West Cumbria (BECWC) enterprise. National Grid was involved to a limited extent, attending some of the workshops as an invited participant. In early 2010, National Grid established a project team and the BECWC group ended. In agreement with the local authorities for the project, National Grid picked this up and continued with the model of stakeholder engagement established through BECWC.

Subject	Question (brief)	Answer (brief)
		On Anglesey we participate in the Energy Island Programme, an initiative developed by Isle of Anglesey County Council. This still continues and shares many of the same aims as the work in Cumbria to encourage discussion and co-operation between many varied stakeholder groups working in North Wales. In addition, in North Wales we have engaged with many stakeholders from the very beginning of the project (over seven years), to discuss our proposals and encourage their feedback. We've also had lots of meetings and briefings with community councils, county councillors, assembly members, members of parliament and various local organisations. We've received hundreds of pieces of feedback over three stages of consultation. How this feedback has helped influence our proposals has been set out at each stage in our feedback reports, and will be outlined in our consultation report, which will be published as part of the submission to the Planning Inspectorate
Timing of DCO	Please could you provide some details of your forward schedule - specifically: On what date do you anticipate submitting the DCO? When will the material be available, for public scrutiny? Either hard copy or online When do you anticipate the Planning Inspectorate will reach a decision? When do you think work will start and end? Why are you submitting the DCO in advance of Horizon?	We have a commitment to provide a connection for Wylfa Newydd in 2024 and we are working towards achieving development consent to deliver that. We'll continue to work closely with Horizon to coordinate our timescales. All the application documents will be made available on the Planning Inspectorate website shortly after submission and hard copies will be available at the Isle of Anglesey County Council and Gwynedd Council offices. Following this, timings will be set by the Planning Inspectorate and Secretary of State so we cannot be certain on when decisions will be made. However, based on other projects we anticipate a decision would be made in 2019 at the earliest. Information on the planning application process and timescales are available here. If we are granted consent, we'd expect to begin construction in 2019. We anticipate construction to take approximately four to five years to build and test the connection, with additional time to reinstate the land and restore it to its previous use
Geological features	As Anglesey is a Geo Park, please could you let me see your schedule of geological features along the proposed pylon route	Anglesey's GeoPark status is something we've considered throughout the project and many people have brought it to our attention in their feedback. As the GeoMôn website notes, the large majority of Anglesey's geosites and geological features are on the coast. This is one of the many factors which informed the preferred route we consulted on at our last stage of consultation. We've also identified relevant Geological Sites of Special Scientific Interest and have avoided these through careful routeing
Project need case 2016	From the information Grid presented in the Project Need Case 2016, we have drawn the conclusion that the existing overhead line from Wylfa to Pentir can handle the entire output from Wylfa Newydd and Orthios (biomass power station proposed for the former Anglesey Aluminium site). Please can you confirm?	see other responses
Project need case 2016	The "need" for a second connection is due to the criteria set out in Section 2 of NETS SQSS, namely that should two circuits fail concurrently (ie the current twin circuit connection) power infeed to the grid will not fall by 1.8 GW. Please can you confirm?	see other responses
Project need case 2016	Could you let us know, for the existing twin circuit connection?	see other responses

Subject	Question (brief)	Answer (brief)
	- mean time between concurrent failure cases - mean time of outage - top 5 causes of concurrent failures - if not in the top 5, where do lightning strikes and adverse weather/high wind come in the ranking - how many times, since the line was commissioned, have there been concurrent failures	
Project need case 2016	Could we have similar data for any of your buried cable lines?	see other responses
Project need case 2016	Can you confirm the figure of 1.8 GW is set by National Grid?	see other responses
Project need case 2016	What is the "history" of the 1.8 GW figure?	see other responses
Project need case 2016	With the introduction of more distributed generators and a "smart grid", is this figure likely to change in the next 5, 10, 50 years?	*** NO REPLY ***
Project need case 2016	What other mitigation measures you have considered, other than installing a second connection?	*** NO REPLY ***
Timing of DCO	When will you be submitting your DCO application?	We're currently working with Horizon Nuclear Power, Isle of Anglesey County Council, Gwynedd Council and the Planning Inspectorate to agree a date for submission. When this date has been agreed, the Planning Inspectorate website will be updated
SoCC	Please can I see a copy of your Statement of Community Consultation? I cannot find a copy on your website	You can view our Statement of Community Consultation here.
NSIP?	I understand the project is being handled according to the NSIP process, but until your application is submitted, and accepted by PINS, is it not correct that the project is not yet a NSIP?	While our project may not be defined, technically, as an NSIP until we submit our application, it has been important that we plan for this possibility from the earliest stages. The NSIP planning process is the most rigorous consenting regime for a major project.
A5025 improvements	Should Wylfa Newydd go ahead, the A5025 will need upgrading so this would seem like an ideal opportunity to do either of the following: 1 - install the new export connection in a concrete duct running alongside the A5025 and then the A55, using gas insulated lines. A cycle path could be installed above the duct providing a valuable resource to residents, power station employees and tourists - a valuable legacy to leave for the Island 2 - install the new connection using XLPE cables and use heat pumps to both cool the cables and recover the lost heat, again alongside the A5025 and A55 My preference would be for the latter due to the opportunity to recover wasted low carbon energy, which could be used to eg heat schools, swimming pools and offices/homes. This does not rule out the cycle path option. Obviously the laying of the cables is down to you, but other aspects of the design could be funded by Horizon, the Welsh Government and eg Scottish Power Networks, or whatever power company sold the recovered heat I'm sure Ofgem would look favourably on such a holistic, innovative scheme and would be interested to know if you have already discussed similar with them	As explained previously, putting connections underground is also typically more costly than overhead lines. Cost isn't everything, but it is important as everything we spend is passed on to all of us through our energy bills and Ofgem requires us to keep bills affordable for consumers. Installing an underground connection alongside the A5025 would be challenging and likely cause significant disruption for road users and residential properties along the route over a prolonged period. When National Grid does put connections underground they're typically routed away from roads and houses to avoid disruption to residents and the local road network. Following lots of feedback and our own assessments, we're confident that the second overhead line proposal we put forward at last year's consultation strikes the appropriate balance between all the things we must consider. National Grid is currently trialling heat recovery systems in three substations across the country to better understand the performance and potential efficiency gains from three different variations of heat recovery systems. Importantly, in these instances energy is being recovered in high levels in a relatively small area and exported to buildings nearby, within the substation site. Underground cable systems are designed to lose very little heat during operation to reduce electrical losses and minimise any impact on surrounding ground. If the connection for Wylfa Newydd were to be placed underground, heat would be generated along the linear alignment of the cables, so any equipment to capture this heat would have to be installed parallel and close to the cable alignment. Any heat captured would have to be pumped via an insulated

Subject	Question (brief)	Answer (brief)
		pipe or tube to a location where it could be utilised via heat-exchangers to gather and gain benefit from the energy. The further the heat-exchangers are from the source of the heat, the less efficient the system becomes. This would likely be significant over the length of the connection for Wylfa Newydd. The energy recovery system put in place would not be effective as any energy recovered would be negated by the power required to pump it over such distances. Furthermore, putting the insulated pipe or tubing underground would mean more open-trench construction which could be disruptive for the local area and as outlined above, could cause significant disruption if sited alongside the A55 or A5025. Given the small amount of waste heat likely to be extracted and the considerable cost of such a system, we're confident that a buried cable with a waste heat recovery system is not a suitable technology option for the Wylfa Newydd connection.
Wayleave payments	When you bury cables, do you pay landowners a wayleave payment? If so, roughly how much per 100 m of trench?	Payments vary depending on the extent of land affected (both temporarily and permanently) and the type of land affected. Generally, payments are made when our equipment is placed on the land – pylons, for example. When our connection over-sails the land, payments are made at a lower rate as it has less disruption on land activity following construction and restoration. For underground cables, we require a continuous easement so payments are calculated as a percentage of an agreed land value for the area we need for construction. Payments are therefore dependent on the type of technology required and determined on a case-by-case basis following discussions with the landowner
A5025 improvements	Your options report estimates that 2% of the 3.1 GW will be lost by buried cables - 3% for OHL I estimate you could recover 40 MW Such losses are a major contributor to your greenhouse gas emissions, so pursuing this would contribute to your, and the governments objectives I'd be more convinced of your arguments against heat recovery if you looked into it properly I am a chemical engineer and have designed similar systems, as well as heating my own home this way Ysbyty Gwynedd would be a great heat sink	*** NO REPLY ***
LRS2	Please could you send me a copy of your Land Rights Strategy LRS2 that comes into effect on December 1st	See attached for a copy of LRS2.
Project need case 2016	Would it be possible for you to meet your obligations under NETS SQSS by installing just a single circuit (underground or undersea)? This would most likely be far lower cost than the double circuit system you looked at in the Strategic Options report	As you rightly point out, we must comply with the National Electricity Transmission System Security and Quality of Supply Standard (NETS SQSS), which is set by the industry and Ofgem. It is also worth noting that we must also comply with our licence obligations, which include a duty to be economic and efficient, which SQSS also discusses. Adding only an additional underground circuit could potentially technically comply with SQSS, however this would require significant works to the existing network and place restrictions on our customer, Horizon that do not fulfil our other obligations under our licence conditions. The SQSS defines the maximum acceptable loss of power to our network before the UK power supply becomes compromised

Subject	Question (brief)	Answer (brief)
		under a double circuit fault – as you note, this is a loss of 1800MW. It does not, however, say we must design our network to the limit of its operability under these conditions. We also have obligations to get all the power from Anglesey to the transmission system, which we would be unable to do under a double circuit fault and only another single circuit. As you note, this means constraining the power from Horizon. The costs of doing so would be charged to consumers (not Horizon), so we must also consider the constraint costs while designing the transmission system. This is true for a single circuit put underground or overhead and our obligation to consider planning guidance, our regulatory duties, costs, as well as environmental impacts and other factors, means we would still need to consider the suitability of a single overhead circuit. A four-circuit solution overcomes the technical and commercial issues identified above and gives Horizon the secure and stable connection they need to operate their power station economically and without operational restrictions.
NETS SQSS	I am trying to understand the NETS SQSS (Version 2.3, 8th February 2017), and some real life examples would help For Wylfa Newydd and Orthios, and the substations at Wylfa and Pentir, where are the respective "generation point of connection", and where does the "generation circuit" start and end? Is there a substation at Penrhyn/Orthios? It would appear that paragraph 2.7 does not apply to Wylfa Newydd, but I am struggling with the logic. Please could you explain why it does not apply If it would help, I can be available for a meeting most days	The proposed connection for Wylfa Newydd will start at the existing substation located next to Wylfa power station and connect into Pentir substation. The connection for Orthios' development already exists. It runs from an existing substation next to the Orthios site (previously used by Anglesey Aluminium) to the Wylfa substation. The energy generator is responsible for the generation circuit. In North Wales, Horizon and Orthios will need to find the best way to connect to National Grid's existing substations as part of their proposals. Paragraph 2.7 applies to generators and sets out the maximum length their connection can be to National Grid's transmission system.
Stakeholder reference group	I understand from friends in Cumbria that the membership of their SRG is quite different to that of Anglesey's Energy Island Programme/Forum, in that there is representation from campaign groups Please could to explain why this (arguably) best practice model was not followed here?	As we explained in our previous email on 12 September, each National Grid project requires a unique approach to consultation according to the local area. We develop our approach to engagement with local authorities, so they can influence the activities we undertake. On the North West Coast Connection Project we agreed with the local authority to continue an existing model of stakeholder engagement that had been established by Britain's Energy Coast West Cumbria (BECWC) enterprise. On Anglesey, we participate in the Energy Island Programme which was developed by Isle of Anglesey County Council.
Western link	When you partnered with Scottish Power Transmission to deliver the Western Link, which includes 37 km across the Wirral, why did you select underground cables? Can the same logic apply to Anglesey? If not, why not? Is it possible to get any details on the options you looked at, with capital cost and NPV?	The energy being connected by the Western Link HVDC (high voltage direct current) cable is from the transmission network in Scotland to the transmission network in England. The Western Link will transfer around 2,200MW of power across several hundred kilometres. A subsea marine HVDC cable was considered the best method of doing this because it provides the most efficient and economic solution to transmit power over long distances from network to network. The onshore element of the Western Link, through the Wirral Peninsula, is a continuation of the HVDC cable. Continuing with the same technology up to the point of connection with the transmission network (at Deeside) was considered the most efficient and economical solution. Changing to alternating

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		current (AC) technology at the point where the connection came onshore, either underground or overhead, would have required additional large infrastructure with associated effects at that location. This infrastructure is still required to enable the HVDC power to connect into the AC transmission network and for the Western Link the most appropriate location was at Deeside. There are already two overhead line connections running from the north of the UK to the south, with the new Western Link HVDC connection running alongside. This means that if there was a fault on the HVDC connection, there would still be other routes available for electricity to reach energy users. More information on the Western Link project and the reports published are available on the project website. The requirement for Wylfa Newydd is to connect a single nuclear generator to the transmission network. This is a different requirement from network to network and, in our view, is most appropriately achieved with an AC onshore connection. The connection options and choices made for Wylfa Newydd are explained in our Strategic Options Report, 2016 update and in our film 'the challenge of a subsea connection'.
Interconnectors	I have been reading on your website about the subsea interconnectors you have Please could you let me know: How frequently do this have unplanned outages? What is the mean repair time? I understand Horizon have concerns with subsea, but it would be useful to have some facts to put these concerns in context	The latest information about the operation of the network, including interconnectors, is available in our National Electricity Transmission System Performance Report 2016 – 2017. The assessments and decisions we have made to date in relation to HVDC technology and the challenges it poses for connecting Wylfa Newydd are explained in our Strategic Options Report 2015 and in chapter three of our Strategic Options Report, 2016 Update. We will review all the decisions we've made as we finalise our proposals ahead of submitting an application for consent to the Planning Inspectorate.
RIIO T1	Please can you let me know if you included any costs and revenue for the North Wales Connection when negotiating RIIO (T1)? If you did, can you share them? If yes, please could I see them? More than happy to sign any confidentiality contracts	Further to your emails of 11 December and 13 December, National Grid's electricity transmission business operates under price controls set by Ofgem. We're currently in the RIIO T1 period, which covers 2013 to 2021. RIIO T1 includes an allowance for spending on new infrastructure, such as the North Wales Connection Project. The allowance for this is not calculated on an individual project basis, but allows National Grid to fulfil its statutory duty of offering a connection option to new generation seeking one. More information of RIIO T1 and how Ofgem operates the price control system are publicly available on its website.
Revenue formula	I've been struggling to understand the information on the Grid's main website, so hope you can help me Please could you explain the revenue formula you will be using to estimate the revenue you will receive from the North Wales Connection? Please could you do this for the cases of pylons and underground cables. Subsea would also be interesting but of lower priority If yes, please could I see them? More than happy to sign any confidentiality contracts	Further to your emails of 11 December and 13 December, National Grid's electricity transmission business operates under price controls set by Ofgem. We're currently in the RIIO T1 period, which covers 2013 to 2021. RIIO T1 includes an allowance for spending on new infrastructure, such as the North Wales Connection Project. The allowance for this is not calculated on an individual project basis, but allows National Grid to fulfil its statutory duty of offering a connection option to new generation seeking one. More information of RIIO T1 and how Ofgem operates the price control system are publicly available on its website.
RIIO T1	I'm surprised that the allowance is not calculated on an individual project basis, as I don't understand how else you could build up a reliable figure. However I'm sure you are right	*** NO REPLY ***

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	As you suggested, I contacted Ofgem and they provided me with the following information The almost £27 million for the "additional boundary transfer capability in northern Wales" sounds very much like the North Wales Connection project, and the figure is presented on an "individual project basis" Can you confirm that this figure does relate to the North Wales Connection?	
Financial analysis methodology	Please can you let me know who sets the methodology you have used for the financial analysis used in the comparison of options in your Strategic Options Report? Is the methodology covered by your license or other regulatory framework? I fully agree with using a discounted cash flow but do have some queries. You perform the analysis over 40 years yet state pylons have an expected life of 80 years. I would expect to see a residual asset value at year 40. In the absence of a residual asset value, I would expect to see a decommissioning cost at year 40. Please could you explain the rationale in your approach? Is there a reason you exclude revenue income from the cash flow thus giving a true cost/benefit analysis? Revenue to National Grid would be a proxy for value added to the UK economy. Please could you explain your rationale. I understand your approach is to present lifetime costs to consumers, but you have excluded some costs to consumers such as property devaluation and impact on tourism and agriculture businesses. Please could you explain why some costs are included and some excluded?	A detailed explanation of the methodology we have used in our economic appraisals of strategic options to date, including references, is included in Appendix D of our 2015 Strategic Options Report. Information on the methodology we follow under Ofgem's RIIO regulatory framework is on our website. We'll include updated economic appraisals in our application to the Planning Inspectorate.
Plan B?	I am well aware you intend submitting a DCO next year for a pylon solution. In the event of the SoS not approving this project, do you have a fall back option? As a National Grid shareholder I am concerned about the reputational risk to the company of you being found "with your pants down" ! I assume that in the project risk register there is a mitigation plan to eg bury the cables. As this would not be an NSIP there would be no need for a lengthy and expensive consultation. Please set my mind at rest	We are planning to submit our application for a development consent order later this year. The consenting process for Nationally Significant Infrastructure Projects, such as the North Wales Connection, is covered under the Planning Act 2008. Relevant projects are developed and assessed in line with National Policy Statements. The Planning Inspectorate website has information about the planning process and National Policy Statements. National Grid has developed an approach for the development of our new infrastructure projects, which takes account of the Planning Act regime. It explains how we develop options and assess these in consideration of planning policy and stakeholder feedback in order to arrive at the most appropriate proposal. All of our relevant projects to connect new generation to date have followed this process, including the North Wales Connection Project. To develop a connection for Wylfa Newydd we have considered a range of options and refined these through a number of stages of assessment and consultation. This included consideration of safety, environment and economy together with consultation feedback. Through this process we have developed a proposal achieving

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		the most appropriate balance of all the requirements we must meet. As such, we're currently moving forward with a single option proposal, confident that this is the most appropriate option based on our work to date. Our comparable projects to date that have followed this approach and made an application (the Hinkley C Connection and Richborough Connection) were considered to have followed the planning process appropriately. Both have been granted a DCO by the Secretary of State. In the event that the North Wales Connection is not granted a DCO, we would look carefully at the reasons why and consider an appropriate course of action at that time.
Change requests	You have communicated many times that you have listened to the people of Anglesey and acted on some of the feedback from the consultation process. In preparation for the public enquiry, would it be possible to see your "change request schedule"? What I would like to see is a list of all requested changes and whether you acted on this request or rejected it. I'm sure you will have this readily available, but if not, please be prepared for the public enquiry as we should try to make best use of the Planning Inspectorate's time. It would be better though if this could be shared in advance. Obviously I don't need to see details of who provided the feedback.	As part of our application for a development consent order (DCO), we will prepare a Consultation Report. This is an important part of the Planning Act process and a requirement for all developers seeking a DCO. The Planning Act requires developers to consult with relevant groups and also to explain how they have had regard to the feedback received to their consultation. The Planning Inspectorate has produced guidance on the role of the Consultation Report. Our Consultation Report will detail how we have fulfilled this for the North Wales Connection Project. It will explain the feedback we received and how we have considered this in the development of the proposals. The Consultation Report will be submitted to the Planning Inspectorate when we make our application for consent and will be publicly available.
Alternative option for the North Wales Connection	I have written before about this point, but having sought guidance from the Planning Department at Isle of Anglesey County Council, I shall reiterate to allow you to either respond or prepare for the public inquiry. I first wrote on September 2nd, and again on November 7th, when I asked " Would it be possible for you to meet your obligations under NETS SQSS by installing just a single circuit (underground or undersea)? This would most likely be far lower cost than the double circuit system you looked at in the Strategic Options report" A rough scaling (capacity ratio to the power of 2/3) of the figure you presented in the Strategic Options Report shows that a single buried cable would cost about the same as your proposed pylons solution. This option only became possible after the two consultations in 2012 and 2015, and after the downsizing of Wylfa Newydd and the dropping of the proposed Celtic Array offshore windfarm, so it is understandable that this, or similar, options were not included in those consultations. However, for the 2016 (pre-application) consultation, this option, or similar, became possible. However, you did not consider this, you consulted on the same options as 2012, even though the design basis for the project had significantly changed. You replied on November 23rd stating "an	*** NO REPLY ***

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	additional underground circuit could potentially technically comply with SQSS, however this would require significant works to the existing network", indicating to me, a layman, that this may be a viable option. As you know, there is widespread support from the people of Anglesey along with all elected members of Anglesey Council, Rhun ap Iorwerth (AM) and Albert Owen (MP) for buried cables. By not consulting on potentially viable options, I do not believe that the consultation you did conduct was fair and proper.	
Misleading the people of Anglesey	I have written before about this point, but having sought guidance from the Planning Department at Isle of Anglesey County Council, I shall reiterate to allow you to either respond or prepare for the public inquiry. I first wrote on September 12th when I stated "I understand the project is being handled according to the NSIP process, but until your application is submitted, and accepted by PINS, is it not correct that the project is not yet a NSIP?" I raised this point as you had written in the Information Booklet for the 2015 consultation (available to the public on your project website and extract attached) that the project "is a Nationally Significant Infrastructure Project (NSIP)". I'm sure you chose your words carefully. You deliberately chose "is", rather than options such as "will be". You replied on September 22nd when you stated "While our project may not be defined, technically, as an NSIP until we submit our application, it has been important that we plan for this possibility from the earliest stages." I understand fully that you have to follow the NSIP process. I understand fully that once accepted by the Planning Inspectorate, it will be a NSIP. However I question your motives for deliberately making a claim that you later admit was not true. I believe that being so definitive about the project being a NSIP when it wasn't, was misleading. We can never know the impact this may, or may not, have had on those reading the booklet or attending the consultation events, but I suspect your choice of words may have left the impression that there was little point in objecting at this consultation, or more importantly the 2016 (pre-application) consultation. As such, your conclusions from the consultation may be invalid.	We consider we have been open and honest throughout the development of the proposals and that the descriptions of the project have not been misleading. The guidance to developers is clear in that projects that are or could be classed as NSIPs should follow the process set out in the Planning Act. We have followed that guidance on this project, as we have done on other National Grid projects which has led to the granting of several Development Consent Orders by the Secretary of State. We have explained the planning process in various documents so that consultees could understand how the proposals would be developed and how we would seek consent. We have explained the proposals and the potential effects they may have. This has included providing large maps, photography and photomontages so consultees could see what the proposals could look like. We have also been very clear about the importance of feedback in the development of the proposals and invited feedback at every stage. We have published Feedback Reports following each stage of consultation which set out details of the feedback we have received and how we have consulted. It is our view that our descriptions of the project to date have provided a clear understanding of what is planned and its potential effects. We do not consider this has hindered the opportunity to participate in the consultation or dissuaded people from doing so. During the development of the proposals, we have received thousands of pieces of feedback all of which has been considered.
Consultation approach	We have exchanged mails previously on your consultation approach on Anglesey, and why it differed from that in Cumbria. I'm sure you have drawn on your extensive experience of running such consultations in similar communities. Could you let me know which other island communities you have run such projects in? It would be reassuring to contact them.	Details of our other large-scale development projects are on our website. No other current projects are located on islands and there is no specific legislation relating to islands. In planning our consultations, we have considered our experience from other major projects and, ahead of the statutory consultation in autumn 2016, the learnings from our first two stages of consultation across Anglesey and Gwynedd. Government guidance notes that when preparing for consultation “applicants, who are best placed to understand the

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		detail of their specific project, and the relevant local authorities, who have a unique knowledge of their local communities, should as far as possible work together to develop plans for consultation. The aim should be to ensure that consultation is appropriate to the scale and nature of the project and where its impacts will be experienced." In keeping with this guidance, we have worked with Isle of Anglesey County Council and Gwynedd Council when developing our plans for consultation and sought their guidance on how best to engage with communities. This included the statutory consultation in 2016 and the preparation of the Statement of Community Consultation.
NETS SQSS again	Thank you for your reply on Dec 22 clarifying para 2.7 of NETS SQSS. I understand Wylfa to Pentir is classed as a grid to grid connection as part of the main interconnected transmission system. As such, surely the design and technology selection is entirely up to National Grid? Why does Horizon's opposition to HVDC matter? Do they have any statutory or other regulatory influence?	*** NO REPLY ***
Project delivery organisation	Should the North Wales Connection project go ahead as currently proposed, is it too early to inquire about how the project would be delivered? Would you appoint a main contractor or would this role be taken by your in-house engineering team? Would this be via competitive tender? Should the OHL proposal not go ahead, and an alternative technology be used, would the arrangements be any different? I would be interested in your views on Ofgem's proposals to have the entirety of new connections be designed and delivered by third parties following competitive tender. As you know, I am a concerned shareholder, and want to ensure you "do the right thing" as John P would say. As always, happy to meet up to discuss in more detail	Should our project be granted consent, relevant suppliers and contractors would be appointed following a tendering process. We would adopt the same approach, irrespective of technology option. In previous projects, such as the Richborough Connection Project, National Grid has appointed a main contractor following a tender process. With regards to your query on Ofgem's proposals, we are supportive of the introduction of onshore competition where it is in the interest of consumers and communities; although it is important that Ofgem continues to assess opportunities and risks of competition on a project specific basis. We will continue to follow Ofgem's proposals closely and review how they relate to National Grid.
Project Need Case 2016	Would it be possible to get answers to the questions I posed last September ? I have repeated them here for convenience. Please get in touch if you need any clarification, and, as always, happy to meet up and discuss.	Thank you for your email of 14 January re-sending your questions from September. We had addressed wider points regarding the SQSS in our previous responses, which we felt answered the questions, but we're happy to address them again. The performance of the transmission system, including details of outages, is explained in the National Electricity Transmission System Performance Report. We sent this to you in response to your email dated 24 December. At present, these are the reports we publish on the performance of the network and are the best source for the information you require. The reports from previous years are also available on our website. The Security and Quality of Supply Standards (SQSS) establish a coordinated set of criteria and methodologies that transmission licensees use in planning and operating the National Electricity Transmission System. The SQSS panel are the administrator of the SQSS. They are responsible for keeping the standards under review and

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		submitting any proposed changes to Ofgem for a decision. Members of the panel include National Grid, district network operator representatives, generators and others. Details of the panel and its work, including any review of the standards it has undertaken to date, are on the SQSS section of our website. Ofgem also has a section on its website regarding SQSS. The 1800MW infeed loss figure came into force in 2014. Ofgem published an open letter in 2011 explaining the changes it had approved and when these would be adopted. The SQSS is in ongoing review, details of which are on the Ofgem website link above. The performance of the network is carefully planned to ensure that the required frequency of the transmission system is maintained. Details of how we use reserve services, like Dinorwig, to balance the network are also on our website. Dinorwig Hydro-electric Power Station continues to play an important role in balancing the transmission system. The availability of this power does not negate the need for a new two-circuit connection for Wylfa Newydd.
DCO date	I see in today's Guardian that Horizon's DCO submission date has slipped. Do you have a date for your DCO yet?	As you state, Horizon has said they won't be submitting their application to the Planning Inspectorate until later this year. When this was announced, we decided to move our application back too. Our blog on the topic, published in October last year, provides more information about why we felt this was important: http://northwalesconnection.com/blog-detail.aspx?newsID=260 Until Horizon has made its application, we cannot be certain of the timing of our application. When we do submit our application, we'll make sure local people are made aware of this.
Figures from Ofgem FOI request	Many thanks for allowing Ofgem to release these figures to me Could you clarify the £400 million to underground cables across Anglesey? This seems too good to be true, as this makes undergrounding the cheapest option	The figures in the table sent to you by Ofgem detail the estimated project cost for our current proposals, £620 million. This is based on our most recent cost estimates for the project which you can find in our Strategic Options Report, Update 2016. It also lists the estimated additional cost of putting the connection underground. This would cost a minimum of £400 million on top of the cost of our proposals. The cost of the project, with all of the connection put underground, would be over £1 billion. We'll continue to review costs as we finalise our proposals ahead of submitting an application to the Planning Inspectorate.
DCO date	But surely you have a suggested target date?	As we mentioned in our blog, it's important that our timings align with Horizon, so our proposals will be up to date and accurate when we do submit our application. Horizon has yet to announce its date for submission of its application. As such, we have no confirmed date for our application. We are submitting after Horizon, so the Planning Inspectorate can look at why our connection is needed as well as how it could be built.
Consultation approach	Please can you give me the names of who you worked with at Anglesey and Gwynedd councils	In your emails dated 07.02.18 and 16.02.18 you asked whether we could provide you with details of who we worked with at the Isle of Anglesey County Council and Gwynedd Council. As part of developing the Statement of Community Consultation (SoCC), the Planning Act 2008 requires an applicant to provide relevant local authorities with an

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		opportunity comment on a draft SoCC. This is to get their input on the suitability of proposed consultation methods and take advantage of their local knowledge. As required, we provided a draft to both councils, who provided useful feedback on the SoCC. We formally submitted the draft SoCC according to the wishes of each council. Their feedback, and how we used it, will be detailed in the Consultation Report. We do not feel it is appropriate for us to provide the details of those individuals involved on behalf of either council.
Consultation approach	Thank you for details of your other projects So you have no experience at all with running a consultation with an island community! Maybe you have experience with a similar demographic, industry base or dual languages? Please could you tell me, specifically, which communities you have worked with which have enabled you to conduct a fair and proper consultation?	We have experience of working with a variety of demographics and industry bases and consider we have delivered all our consultations in line with good practice, government guidance and statutory requirements. As part of this we must consult with local authorities when developing a Statement of Community Consultation as these organisations have a unique knowledge of the communities they represent. As such we consulted with Isle of Anglesey County Council and Gwynedd Council to seek their guidance on how best to engage with the community.
RIIO T2	As I understand it, the next period for your cost recovery charging mechanism (RIIO) starts in 2021, so the costs for the North Wales Connection would start to be recovered under that - please correct me if I'm wrong RIIO T2 has not yet been negotiated, and until it is, how do you know what level of cost will be recoverable? It strikes me that you are applying cost recovery mechanisms that may be simply inappropriate, but would be keen to hear your views Surely, with your help, we could convince Ofgem to allow funding for the burial of the connection. Please do engage with the people of Anglesey, so we can get a solution that doesn't ruin the countryside and our livelihood	The RIIO-T1 period runs until 31 March 2021. After this time, the RIIO-2 price control period will begin. There is more information on RIIO-2 on Ofgem's website. All cost estimates for the project are prepared based on the most up to date information available. We undertake regular reviews to make sure they remain accurate and will continue to do that. At this time, we can only work to the framework set out in RIIO T1 as the structure of the RIIO-2 framework is at proposal stage. Ofgem has announced that the over-arching objective for RIIO-2 is to "ensure regulated network companies deliver the value for money services that consumers want and need". This is consistent with the aims it set out for RIIO-T1. When the RIIO-2 framework is finalised, we will assess the regulatory requirements it places on National Grid and what this means for the North Wales Connection Project. Throughout the development of our proposals, we have engaged with communities in Anglesey and North Gywnedd to seek their comments and have taken these into account wherever we can. We recognise that many people would like a fully undergrounded connection. We have explained why we do not think we can do this and meet our wider obligations, and also why we think an overhead line is an appropriate proposal. We have worked hard to keep the effects of the overhead line as low as we can through careful routeing and do not consider this will ruin the countryside and livelihoods of people in the area, as you describe.
Energy superhighway	Amazing achievement in London! Well done! 32km of tunnels, 200 km of cables under the capital, and all for £1bn! And yet you estimate it will cost more to trench cables across Anglesey in open farmland? Are you sure your estimates are correct? Will you update your estimates based on this fantastic	Our most recent cost estimates are included in our Strategic Options Report Update (2016), which should be read alongside the 2015 Strategic Options Report. This provides figures for the connection options we looked at and we're confident that they are accurate estimates of cost based on the information available at the time of our statutory consultation. Although we don't anticipate that these estimates will change significantly, we'll include updated costs as part of our application to the Planning Inspectorate.

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	achievement? A tunnel from Wylfa to Pentir would be great! http://media.nationalgrid.com/press-releases/uk-press-releases/corporate-news/the-prince-of-wales-and-the-duchess-of-cornwall-open-london-s-new-1bn-energy-superhighway/	
NWC decision maker	I have re-read the definition in NETS SQSS of a generator connection, and the connection from the Wylfa substation to the Pentir substation appears to fit the definition exactly This would mean that not only would a new pylon connection not be permitted, but neither would the current pylons (installed prior to the NETS SQSS definition) I know you have told me previously that it is not a generator connection, so please could you tell me who is the ultimate decision maker? It is clearly in the commercial interests of both National Grid and Horizon that this is considered to be part of MITS, so I assume that neither can be the decision maker, as this would be a clear conflict of interest If you would like to discuss further, please suggest a time/date/location. I would urge both National Grid and Horizon to engage with the people of Anglesey, and our elected representatives, on this issue. It is very timely to demand "deeds not words". Consultation is more than just listening	see other responses
Plan B?	I take from your reply then that you have no plan B. You must be extremely confident of your proposals, almost as if the decision were already made! But as I requested, can you assure this National Grid plc shareholder that you will not be left "with egg on your face" by not getting a connection ready in time? I assume there is still time to design and install a buried cable solution - please can you confirm this? I have tried my best to ask simple, direct questions, as so far you seem to struggle answering many of my questions. Sending an email with the correct subject line is not the same as answering a question	We are confident that our proposals represent the most appropriate balance of everything we have to consider and explained why in our previous email. We consider it would be irresponsible to submit an application without having confidence in what we were proposing. As you will be aware, and as was outlined in our previous email, projects are developed and assessed in line with National Policy Statements. An application is submitted to the Planning Inspectorate which provides a recommendation to the Secretary of State. Our proposals will be given thorough independent review and examination. It is following this stage that a decision on whether to grant consent is made. You can find out more about the planning process here. In the event that our application is not granted consent, we have the capability to make changes to our proposals and still connect Wylfa Newydd on time.
License conditions	You have told me previously that it is a condition of your license that you have to be able to transmit the entire output of Wylfa Newydd in the event of a double circuit failure on OHL Although I have asked you for a copy, I have been sent a copy of your license by Ofgem Please could you identify for me the relevant section, as it is quite a weighty document Many thanks, and, as always, happy to meet up to have this explained	see other responses

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Recent communications regarding the North Wales Connection project	I've not had any replies to my correspondence recently (see attached), so have taken stock of the various questions I have asked It would be useful to know if you will be able to address these points in advance of the public inquiry Many thanks, and, as always, I'm more than happy to meet up and discuss this face to face	Thank you very much for providing a breakdown of your enquiries. We're in the process of reviewing all of your questions and gathering the information that you've asked for, so we'll be in touch again soon with responses. We note that some of these are historic which we feel we've already answered, but we're happy to resend the information.
Recent communications regarding the North Wales Connection project	The "historic" ones had some very specific questions that you did not answer No need to resend, but new answers would be appreciated	see other responses
Financial analysis methodology	Thank you for this, but I have already read Appendix D, and that is what triggered my questions in the first place Specifically: 1-Why do you choose to discount over 40 years for assets with a longer lifetime? 2- why do you exclude either residual asset value or decommissioning costs in year 40? 3- why do you exclude costs to stakeholders/consumers such as property value reduction and decreased tourism revenue? Surely these should be considered in order to make the right decision for the whole stakeholder/consumer community?	You asked a number of questions about methodology in response to our email referring you to Appendix D of the 2015 Strategic Options Report. We thought it was the best option to reply to these together as they are all related. This email answers your questions from your email sent on 6th February and the two follow-up emails on 10th February. 40 year asset life The reason we use 40 years is related to the asset lifetime of the different technology options. For overhead lines, this includes conductors and insulators as well as the steel pylons themselves. Insulators and conductors have an asset life of circa 40 years. More information is provided in paragraphs C17 and C18 of the 2015 Strategic Options Report. Each of the two main components that make up an underground cable system has a design life of between 40 and 50 years (paragraph C31). GIL is a new technology and there is limited data on historical performance. National Grid assesses GIL over a design life of up to 40 years (paragraphs C42 and C43) Residual asset values For the purposes of evaluation, asset replacement is generally expected at the end of design life. However, as the 2015 Strategic Options Report also explains, National Grid's asset replacement decisions (that are made at the end of design life) would take account of actual asset condition and may lead to actual life being longer than the design life. Realising the residual asset values of different technologies would also need to take into account the cost of removal. Our expectation is that this would be significantly more for underground assets, than overhead assets. Socio-economic effects (such as property and tourism) We do not exclude socio-economic effects when identifying preferred options. The socio-economic appraisals we undertake at a strategic options stage are explained in Appendix F of the 2015 Strategic Options Report. Socio-economic assessments, along with other assessments, continue through the development of the project. Through a

Subject	Question (brief)	Answer (brief)
		process of evaluation and iterative design we seek to keep any socio-economic effects as low as we can. Details of the assessments we have undertaken are explained in the reports we have published at each stage, which are on our website. The most recent assessments are detailed in the Preliminary Environmental Impact Report. Socio-economics is covered in chapter 16. You may also be interested in a study in this area, published in February 2014. To help us understand more about the effect of new connection projects on local businesses, especially those that rely on tourism, we commissioned a UK-wide independent survey: 'A study into the effect of National Grid major infrastructure projects on socioeconomic factors'. Capital cost or cost of ownership For each strategic option, using the scope of works relevant for each technology option, National Grid prepares indicative capital cost estimates. National Grid's capital cost estimates include costs for the transmission equipment and also for the installation of that equipment. All capital cost estimates within the 2015 Strategic Options Report are based on current financial year prices that are applicable at the Report's publication date. National Grid prepares lifetime cost estimates for any new transmission circuits required as part of a Strategic Option. These lifetime cost estimates include the capital cost estimates and also take account of the transmission losses and maintenance costs for transmission equipment over a 40 year lifetime as well as the associated indicative capital cost estimate. The capital cost estimates prepared at this initial analysis stage are sufficiently detailed to allow an indicative comparison of capital costs across options but do not represent a forecast of actual final project cost. Cost assessments were updated in the Strategic Options Report Update 2016. Methodology The financial methodology described in our reports is defined by National Grid, in line with industry best practice and our experience of operating the network. We are held accountable on the financial decision we make by our regulator Ofgem. Ofgem will evaluate our investment plans for the project to ensure they represent value for money for electricity consumers. Regulation of the network is explained on Ofgem's website. Decision making process The 2015 Strategic Options Report explains the evaluation of each of the technology options. Decisions are made by the project team using their professional experience and judgement. With regard to strategic options, factors that have been material in the decision making are explained throughout the report. Other reports we have published explain the decision-making process over the course of the project. This includes the development of route corridor options, line route options, as well as the detailed designs included in our statutory consultation.

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		Through the development of the proposals, we have published these reports so people can see how the information we have has been considered in the decisions made. The decisions we make are subject to consultation and we back check them in light of the feedback we receive and our ongoing assessments. There is information about our review of strategic options in the 2015 Strategic Options Report and the 2016 update. The project continues to develop in response to ongoing assessments ahead of us preparing our application for development consent. Ultimately, the decisions we make will be independently evaluated by the Planning Inspectorate through the planning process and a decision will be made by the Secretary of State for Business, Energy and Industrial Strategy.
Financial analysis methodology	Returning to my original question - who sets the methodology? ie who decides what costs are included and which are excluded? Who decides the period for the NPV? Who decides the discount rate?	see other responses
Financial analysis methodology	Please can you confirm your key decision making criteria? Is it lowest capital cost or lowest total cost of ownership over the lifetime of the assets?	You asked a number of questions about methodology in response to our email referring you to Appendix D of the 2015 Strategic Options Report. We thought it was the best option to reply to these together as they are all related. This email answers your questions from your email sent on 6th February and the two follow-up emails on 10th February. 40 year asset life The reason we use 40 years is related to the asset lifetime of the different technology options. For overhead lines, this includes conductors and insulators as well as the steel pylons themselves. Insulators and conductors have an asset life of circa 40 years. More information is provided in paragraphs C17 and C18 of the 2015 Strategic Options Report. Each of the two main components that make up an underground cable system has a design life of between 40 and 50 years (paragraph C31). GIL is a new technology and there is limited data on historical performance. National Grid assesses GIL over a design life of up to 40 years (paragraphs C42 and C43) Residual asset values For the purposes of evaluation, asset replacement is generally expected at the end of design life. However, as the 2015 Strategic Options Report also explains, National Grid's asset replacement decisions (that are made at the end of design life) would take account of actual asset condition and may lead to actual life being longer than the design life. Realising the residual asset values of different technologies would also need to take into account the cost of removal. Our expectation is that this would be significantly more for underground assets, than overhead assets. Socio-economic effects (such as property and tourism)

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Misleading the people of Anglesey	I have it in writing from PINS that until an application is accepted it is not an NSIP I fully understand the process you have to follow, as it would become an NSIP You did though say it was an NSIP when it wasn't Don't you consider printing statements that you know are not true misleading?	We do not consider that referring to the project as an NSIP, or following the process set out in the Planning Act, has misled people regarding the nature and potential effect of the proposals. Nor do we consider that it has dissuaded people from taking part in our consultations.
Misleading the people of Anglesey	I'm sure I have asked this before, but you have yet to answer. Picking up on your statement: "During the development of the proposals, we have received thousands of pieces of feedback all of which has been considered." Would it be possible to have some simple statistics on how much feedback was for and against pylons? Of the "thousands" of individual pieces of feedback, all of which you have considered, how many have you actually acted on? Needs not words - to quote the suffragettes!	Details of the feedback we received to our consultations are in our Stage One and Stage Two Consultation Feedback Reports. These reports summarise the themes and issues raised by consultees and our response to them. In the Stage One Feedback Report, chapter five provides a breakdown of responses by type and chapters 7-11 summarises the themes. In our Stage Two Feedback Report chapter five provides a breakdown by response type and chapters 6-19 summarise themes and our responses. Feedback to our statutory consultation will be covered in our Consultation Report which will be submitted with our application. We received over 5,300 pieces of feedback to the consultations. Many of these expressed opposition to the proposals; many others provided feedback on issues they consider important such as tourism, wildlife, local economy and other factors. We have and continue to take all of these into account as we develop our proposals. You can read more about how feedback has influenced our work on pages 12-17 of our 2016 Overview document. This also includes a breakdown of response type to our first two consultations
Tregele & Valley	Just out of curiosity, what was the rational for putting sections of the existing Wylfa to Penrhos line underground at Tregele and Valley? Does the cable use the Stanley Embankment and bridge or go subsea to Holy Island?	The Wylfa to Penrhos line is a 132 kV line and was built to connect the Anglesey Aluminium Plant to Wylfa power station. It was developed by the Central Electricity Generating Board, the predecessor to National Grid and the operator of the transmission system at the time. The design of the line and the decisions to put sections underground would have been made based on the planning,

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	What type of cable is used for these underground/subsea sections?	economic, technical and licence requirements of the time. The underground section of the route near Valley uses the Stanley Embankment. Due to cable ratings at this voltage, 132 kV lines typically require fewer cables when undergrounding compared to 400 kV lines. Fewer cables also means less expansive construction compared to 400 kV. Collectively this results in lower costs than 400 kV underground installations.
Wylfa substation extension	Re-reading one of your glossy booklets from 2016, I note that the extension proposed for Wylfa substation is really quite tiny compared to the existing substation Why is that, considering the new station will be some 2.5 times the original design capacity of the old station? What is the capacity of the existing substation?	*** NO REPLY ***
Figures from Ofgem FOI request	Many thanks for the reply I understand that you will not allow Ofgem to release figures for the cost of the pre-consent/pre-engineering work you are currently conducting. However in the Ofgem data is a figure of £27 million for a Wylfa to Pembroke North Wales Reinforcement Project Can you confirm this is the same as the North Wales Connection, and that the cost of your current work is £27 million Many thanks - we really should meet sometime	*** NO REPLY ***
Project Need case 2016	Many thanks for your reply You are getting better at addressing my questions and I have studied some of your linked documents already But to be specific, for the current connection, from Wylfa substation to Pentir substation, what is the: mean time between concurrent failure cases mean time of outage top 5 causes of concurrent failures if not in the top 5, where do lightening strikes and adverse weather/high wind come in the ranking how many times, since the line was commissioned, have there been concurrent failures Data by year, for say 10 years, if not the life of the connection (50+ years) is fine For one of your buried cable lines, I would be interested in similar data - data for a cable buried in North Wales would be excellent, but happy to see data for other cables as well What is the "history" of the 1.8 GW figure? ie what has the figure been each year for say the last 20 years? What are your forecasts for this figure? ie what do you anticipate, or are planning for, in the next 10	You have asked about the performance of the existing overhead line on Anglesey, such as unplanned outages and lightning strikes. This was also raised at your meeting with Jacqui Fenn and Aled Rowlands. We provided information on network performance in our email to you on 15 February 2018, but it was agreed this would be looked at again following the recent meeting. Unfortunately, the specific information you have requested is not made publically available for reasons of commercial confidentiality and network security. We refer you again to the answer in the email from February, which also provided a link to the National Electricity Transmission System Performance Report. This provides the published information about network performance. This email also provided a link to an Ofgem open letter which described the adoption of 1.8GW for SQSS.

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	years? I'm sure that in your long term business plans you also have forecasts for what this will be (as it is a driver of capex and hence revenue) for the next 10, if not 20 years. I'm sure you understand the reasoning for my question. If the figure were, say, 3.1 GW in five years time, the new backup connection would only be required for five years, and an asset with a life of 80 years would either be redundant or clear future-proofing As you know, I consider the new proposed connection to be a "backup" or "standby", as I have yet to see any data that shows that the existing connection cannot handle the entire output from Wylfa Newydd and Orthios. Maybe if you could provide the requested data I might be convinced otherwise, but at £620 million (which to my mind, is not that much per consumer) why would anyone invest this much of your consumers money if it cannot be clearly shown it is actually required? Many thanks, and as always, and have often suggested, I'm always happy to have a meeting to discuss this	
Horizon additional land consultation	Many thanks for the opportunity to provide feedback on your proposals Despite earlier feedback, I can see no evidence of integrated thinking between yourselves, National Grid and the Energy Island Programme. This is surely a fantastic opportunity to install 21st century infrastructure! The A5025 improvements should be used as an opportunity to install buried cables to connect Wylfa Newydd to the grid, ideally removing the existing pylons in the process. Then follow the A55 over the new bridge - simples! I would have hoped that Horizon, National Grid and the Energy Island Programme were able to work together as an integrated team to make this happen. I have already provided my views on the heat recovery and greenhouse gas reduction opportunity that you are not including, so shall not cover that again. Could do better!	*** NO REPLY ***
A suggestion	Dear North Wales Connection Project team I know you value feedback as I read in one of your glossy brochures from 2016 that you even read it Can I fundamentally challenge your approach? From the outset, you have taken the view that pylons are a consentable technical solution, and have piled your efforts and resources into convincing, persuading, cajoling, bribing and bullying the people of Anglesey to accept them. I know you have done this many times before. I know you have obtained consent for double run pylons before. I know you have expended great effort and public money into maps, photo montages and glossy brochures, but it's still not what we the consumers want.	We appreciate that there is a great strength of feeling about our proposals, but we have consulted genuinely in line with policy requirements and government guidance. We take accusations of bribery and bullying very seriously, and this is absolutely not the case. We've held three stages of consultation and people have been welcome to submit their views at any time during the project. We realise that many people do not want pylons and have said this in their feedback. But consultation is not just about choosing the most popular option. As we've explained before, we have to consider feedback alongside a lot of other important factors, including planning policy set by the UK government and duties placed on us by our regulator, Ofgem. There are many areas where we have taken on board points raised by people. We've also been working with those closest to our proposals to see how we could reduce effects for them. Throughout the project lifetime, we have held many public exhibitions and attended public meetings to give people the

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	There is another way, and one that is equally valid. Back in 2012 you knew then that the people of Anglesey did not want pylons. You could then have decided that underground was the technical solution, and worked with the people of Anglesey to make the solution consentable. We are grown ups! We realise that you have a balance to strike. We realise it's not all simple, but you really should have engaged in discussion and negotiation, rather than just rolling out your publicity machine. Can I suggest that before you submit your DCO you hold a public meeting to present the entirety of the project to the public, and also inform them of the roll they can play going forward after the DCO is submitted. Sure you will get challenge and push-back, but this should be welcomed as a demonstration of engagement, and will enable you to fine tune your submission. As always, I'll offer to meet up and discuss this, but so far you have yet to take up my offer. Looking forward to an invite	opportunity to have their say. Our focus now is on developing our proposals and preparing all of the information needed for our application. After we submit our application, the Planning Inspectorate will review our proposals and people will have further opportunities to provide feedback to the Planning Inspectorate as part of this process.
Western link	You have told me in a previous answer that the transmission network begins at Wylfa substation. Are you now telling me that it actually starts at Pentir substation? If the grid does start at Wylfa substation, then Wylfa to Pentir is a grid to grid connection, the same as the Western Link Puzzled?	*** NO REPLY ***
Temporary road networks	While looking at your published maps, I have noted the extensive network of temporary roadways you propose building Can you share any details of the typical design of these? Will any excavation be required? How deep will the stone bed be? How wide are they? What will happen to the tonnes of stone when they are removed? I assume you will return all sub and top soil afterwards - can you confirm?	As you point out, we are proposing to use access roads to move to and between pylon working areas and other parts of our proposed construction areas. We published details of the typical process for installing and removing these temporary access roads for our autumn 2016 consultation. They can be found in chapter four of our Preliminary Environmental Information Report. You can also find typical designs for these in our Design Plans – 3.10.8 & 3.10.9. At this stage, it is too early for us to have designs for individual access roads. If the project is given consent, designs will form part of our construction plans. This will include talking to landowners about the access roads on their land.
Working with Anglesey and Gwynedd Councils	Many thanks for your email of March 2nd in which you comment on my emails of February 7th and 16th I must apologise for my misunderstanding. In your email of February 7th, in which you said: "we have worked with Isle of Anglesey County Council and Gwynedd Council when developing our plans for consultation and sought their guidance on how best to engage with communities" I read into this that you had worked with the Councils when developing your plans and sought	*** NO REPLY EXPECTED ***

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	their guidance on how best to engage with communities. And in your email of September 12th 2017, in which you said: "when developing our consultation plans, we worked closely with both the Isle of Anglesey County Council and Gwynedd Council to develop our Statement of Community Consultation" I read into this that you worked closely with the Councils to develop your SoCC. I now realise from your email today that I was mistaken, and the following provides clarification: "we provided a draft to both councils, who provided useful feedback" Many thanks for clearing up this misunderstanding. Looking forward to meeting up on March 20th.	
misleading the people of Anglesey	Thanks for your reply We'll have to agree to disagree on this one. Calling an egg a chicken just feels like stretching the truth a little too far.	*** NO REPLY EXPECTED ***
DCO date	I note that on the PINS website is says you will be submitting by the end of Q2. Is this correct?	*** NO REPLY ***
Generator connection or MITS?	I have just been re-reading your Stage 2 Consultation Feedback Report, and have found the following quotes: "Many of National Grid's subsea interconnectors are of a different technology type ... and are connecting transmission systems not electricity generators." "The difficulty of connecting to generators via this method is explained in ... " " ... National Grid is looking to adopt a proven technology when connecting it to the wider transmission system." "A nuclear power station has never been directly connected by HVDC links ... " " ... we need to connect Horizon Nuclear Power's proposed nuclear power station ... " "National Grid cannot allow a power station wishing to generate more than 1.8GW of power to be connected ..." " ... a second connection would be needed to take power from Wylfa to the wider transmission system ..." To the layman, such as myself, your words give the impression that the proposed connection is to connect a generator to the "wider transmission system". This would make it a generator connection, and not part of the main interconnected transmission system (MITS), as defined in NETS SQSS as:	see other responses

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	"The sole electrical connection between one or more generating units and the Main Interconnected Transmission System i.e. a radial circuit which if removed would disconnect the generating units" And, as you know, this would limit the length of a pylon line to 5 km I'm sure you have a good answer to this. Please, do tell!	
Options evaluation	I am well aware that you have to strike a balance between technical, financial and environmental factors when you select your options I assume that you use a structured methodology to find the right balance between these, at times, conflicting objectives Please could you share the methodology with me, so that I can better understand how you arrived at your conclusions? I am guessing that the financial element is given a far greater weighting in the evaluation than the others. I know what conclusion you have reached, but I would like to understand more about the methodology you used, as I have used many different rating and ranking methods myself	To find out more about the methodology we use, please read 'Our approach to the design and routeing of new electricity transmission lines'. This document sets out how we identify the most appropriate location and technology, how we collect data, undertake research and analysis, consult stakeholders and communities and listen to feedback in order to inform our judgements. You may also find our factsheet entitled 'Our transmission infrastructure and its effect on local people, communities and the local economy' useful to read.
Security	During one of the drop in sessions you held during the 2016 consultation (either Llanerchymedd or Talwrn), I raised the possibility of continuing the 5 m diameter tunnel under the Menai across Anglesey. If I remember correctly, I suggested that a cut and cover approach would probably be the easiest. The Grid employee I spoke to said that such an approach could not be used due to "the threat of terrorism". Being somewhat surprised, he proceeded to tell me that buried cables are far more susceptible to terrorist attack than pylons, but did not elaborate further. Imagine my surprise when I read that you had tunnelled under London! There probably isn't a greater terrorist target in the country, and yet you still took the risk! Or maybe he wasn't being entirely thruthful, and was just making stuff up to make me go away? I'm sure you have looked into this - please could you signpost the relevant report on your website?	Can we direct you to our blog on this topic? It explains that all forms of connection, whether subsea, underground, or overhead are, to a certain extent, theoretically vulnerable to an extreme incident – such as sabotage or severe weather. It's therefore not a strategic reason to choose one connection technology over another. However, in the event of a problem with an underground connection, it would be much more difficult to identify a fault and restore the connection, when compared to an overhead line. As well as additional time and resource, excavating the cable to fix the fault would cause more disruption to the surrounding landscape and environment. We take the safety and resilience of our connection very seriously. It's our job to make sure we get the electricity that Wylfa Newydd generates to the millions of homes and businesses that need it. That's a responsibility we don't take lightly and we have various safeguards in place to ensure that we're prepared to deal with every eventuality.
A suggestion	I should apologise for the bribing and bullying. Those were not my words, but a quote from a landowner at one of our public meetings	*** NO REPLY EXPECTED ***
misleading the people of Anglesey	I note on page 15 of the 2016 Overview document, a document designed for wide public consumption, you state "Putting the whole connection underground between Wylfa and Pentir would cost over one billion pounds." However, in the Strategic Options Report 2016, in Table 2, for the Wylfa to Pentir Onshore works you	In this instance, the cost stated was for the full project which includes undergrounding between Wylfa and Pentir. The rest of the overview document contains detailed information about the works required and the associated costs. Our technical reports also go into more detail on the scope of works and associated costs, all of which were available at the

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	quote £585 million It is only if you also consider the buried cables in Gwynedd that you get close to (but not over) a billion Now I don't want to suggest that the 2016 Overview is in any way misleading. Have I misunderstood the Strategic Options Report? Many thanks - looking forward to the clarification	time of consultation. As I am sure you are aware, we will be updating all of our technical documents ahead of submission to the Planning Inspectorate and we will make this clearer in future revisions.
A suggestion	I really don't want to labour this much longer, but you really are not being consistent in your arguments You say " ... consultation is not just about choosing the most popular option" and yet: a - you have selected a tunnel under the Menai, as not having pylons there was, you say, the most popular option (even though Nichola Shaw, I think, told me at the last AGM that although Holford Rule 1 says to avoid AONB's, you could do it if you wanted) b - you have selected to have the proposed second line roughly parallel to the first, as this was, you say, the most popular option (even though Holford Rule 6 suggests that you shouldn't do this) c - you have also chosen, for the re-vamp of the buried single circuit at Porthmadog, to put a new double circuit underground. Something I agree with, and I assume it was also the most popular option, even though the Holford Rules suggest you could have used pylons So, it seems that you do select the most popular option, when it suits you BTW - for your convenience, I attach the updated spreadsheet of unanswered questions, and eagerly await your responses, particularly to the questions from last September	We have explained in many of our documents that decisions are based on a range of factors including feedback, economic, environmental, technical, planning policy and others. We have provided examples of where we have and have not responded to consultation feedback in our community documents, some of which you outline in your email. There is a summary of many of the themes and issues raised in feedback and the work we have done in response on pages 12-17 of our Overview. The technical documents we have published at each stage of our proposals explain all of the factors we have considered, including feedback, and the conclusions we have drawn. In Porthmadog, an existing underground cable is being replaced with a new cable. Typically, when an approach has been consented, we maintain this approach when upgrading assets.
Draft DCO	PINS has suggested I ask you for a copy of the draft DCO, as I am keen to read it Is this possible?	In a number of recent emails, you asked for a copy of the DCO documentation in draft and also enquired about outputs of the 2016 consultation in line with para 81 of DCLG's guidance. Following the consultation, in 2017 we prepared a community bulletin which outlined the key themes raised and next steps. This was sent to those who participated in the consultation and other stakeholders in spring last year. A copy is on our website. In addition to the Consultation Report that will be submitted as part of our application, we will also prepare a further community document that will explain how the feedback we've received has been considered in developing the proposals. This will be sent around the time of the application. We have continued consultation since autumn 2016 with landowners, individuals and stakeholders and also undertook a targeted consultation on transport routes in 2017. Consultation is ongoing. The DCO documentation itself will be available when we submit our application. This documentation is still in the process of being prepared and is unlikely to be complete until submission. We are therefore unable to share it at this time. When we submit our application, all the documents that

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		support it will be available publicly. We will let people know where they can be accessed and how they can take part in the next steps of the planning process.
Porthmadog buried cable	I have just been reading the NOA 2017/18 report and note that the work on the Pentir to Trawsfynydd upgrade to a double circuit has been effectively stopped as it is not needed until the late 2020's My understanding was that this was needed to ensure two double circuits out of Pentir, effectively to match the two double circuits you propose from Wylfa to Pentir, so would be needed by 2025 Please could you explain the logic or correct my misunderstanding? Many thanks - still looking forward to answers to my questions from last September	The recommendations made by the NOA are based on an economic assessment. They form one piece of information used in making investment decisions. We also have an obligation to comply with the SQSS. The Pentir to Trawsfynydd works are required for SQSS compliance on connection of the Horizon generator. The works will therefore be progressed in line with our connection agreement with Horizon to be ready for when Horizon plans to start generating. Currently, this is the mid-2020s. With regard to your comment on your questions from September, we believe that we have answered all of your questions up to 07.06.18. Responses to your outstanding questions are being prepared.
DCLG guidance on pre-application consultation	In the spirit of para 81, please could you share the output of the 2016 consultation in advance of submitting an application to PINS I have requested PINS to remind you of this good practice	*** NO REPLY ***
Holford rule 5	Can I draw your attention to Holford rule 5 Rule 5 - Prefer moderately open valleys with woods where the apparent height of towers will be reduced, and views of the line will be broken by trees. The main valley systems of Anglesey run NE-SW as clearly indicated by the British Geological Survey. These were formed by glacial melt-water at the end of the last ice age http://www.bgs.ac.uk/discoveringGeology/geologyOfBritain/anglesey/home.html Your proposed pylon line will run NW-SE, perpendicular to the valley systems Why have you proposed a solution in direct conflict with the Holford rules? Many thanks	You can read about how we have considered the Holford Rules in the development of the proposals in the following documents, all of which are on our website. These documents also explain how we have considered the Holford Rules in balance with other important considerations, such as the relevant National Policy Statements and consultation feedback. · Draft Route Alignment Report: pages 19-20, 22, 58 · Preferred Route Option Selection Report: pages 23, 40-41, 64,87, 104,108,121, 128-129, 139, 207, 257 · Chapter seven of the PEIR: pages 38-40 We consider we have developed the project in line with the principles set out in the Holford Rules and that we are not in conflict with them.
Answers to questions	Is there any chance you could answer the questions I have asked - particularly the ones from last September that Jacqui & Aled promised a response to when I met them recently I am preparing for the public inquiry and need those answers to prepare my response Keeping facts from the public doesn't seem a very ethical way to engage with stakeholders!	*** NO REPLY ***
EN-6 question	I would be interested in your views on the following section from EN-6 2.9.3 However, the economic viability of CHP opportunities (see Paragraph 4.6.5 of EN-1 for further details) may be more limited for new nuclear power stations because the application of a demographic criterion for new nuclear power stations can result in stations being located away from major population centres and industrial heat demand. Future industrial, residential or commercial developments may also be	We are working closely with Horizon to understand its proposals for the site including the design of the power station. We develop the connection based on planning policy and guidance. We also do a considerable amount of survey and assessment work to consider the landscape and visual impact of our proposals in combination with the proposed new power station. Information on this was available as part of our Stage Three Consultation in the Preliminary Environmental Information Report and further information will be available as part of our DCO application. This will include photomontages showing the proposed new power station and our proposed connection and an assessment of the cumulative effects.

Subject	Question (brief)	Answer (brief)
	constrained to preserve the general characteristics of the area around the nuclear site throughout its lifecycle to ensure that the basis on which the site is licensed is not undermined. In particular the section ... "Future industrial, residential or commercial developments may also be constrained to preserve the general characteristics of the area around the nuclear site" I would argue that more pylons DO NOT preserve the characteristics of the area, but would be keen to hear your views.	We feel that the proposals for an overhead line in this area balance all of the factors we must consider, including policy requirements.
LRS2	Thanks for sending this There is no mention of an early agreement incentive which I have heard about. Is this only in LRS1? If so, please could I also have a copy of that for comparison so that I can understand what has changed	Thank you for your enquiry. In May 2017 we updated our Land Rights Strategy, a copy of which is available on our website. This is the only version currently available to the public. The revised strategy reflected a change in company policy regarding payments to landowners. As some landowners across the North Wales Connection project area were already familiar with the terms of the first strategy, they were given the opportunity to voluntarily sign up to either version. Yours sincerely, Community Relations Team,
Plan B?	Thank you for your reply I am interested in how much collaboration you have with Horizon, as EN-1 is very clear about the cumulative impacts of a development Anglesey is hosting a new power station which impacts significantly on the visual amenity, albeit in a single location. Your part of Horizon's development will have a far greater impact. I assume you have worked closely in collaboration with Horizon to minimise the cumulative impact. Is this the case?	*** NO REPLY ***
A suggestion	I have studied your Network Options Analysis methodology. I know you say that many factors are taken into account, but I don't see how they are meaningfully accounted for in the NOA - it would appear to me that the only thing that sways an option is lifetime cost. I cannot see how any of the other factors impact the output of the NOA Maybe one of you NOA specialists could educate me? The following comment reveals a lot about your way of working "Typically, when an approach has been consented, we maintain this approach when upgrading assets." I assume from this that you ignore the outcome of your NOA methodology, as I'm sure a pylon line would be cheaper? I assume from this that should further capacity be required on Anglesey (for Wylfa C and D) you would propose pylons?	You sent two emails on 1st May about the Network Options Assessment (NOA) and how this has been considered in the North Wales Connection Project. We have answered both below. The purpose of the NOA is to make recommendations to transmission owners across Britain regarding which projects to proceed with to meet the future network requirements as defined in the Electricity Ten Year Statement (ETYS). Both the ETYS and NOA are published annually. The cost and timescale of the reinforcement options in the NOA reflect what is known about it at that time and what it would take to deliver that option. It is intended to provide a strategic assessment of whether the reinforcement is economic, efficient and co-ordinated and therefore appropriately placed for further development. An important thing to note about the NOA is that it is not a one-time decision to develop a project. It gives a signal based on what is known at the time on whether it is appropriate to progress a project. Any options progressed are subject to further review, including ongoing financial and environmental assessment and consultation, where this is appropriate. This would consider, for example, technology types, routeing, policy requirements

Subject	Question (brief)	Answer (brief)
	You really should adopt a methodology that is rigorous, transparent, that stands up to external scrutiny and takes account in a quantitative way, all the factors you say to have to consider. Currently you appear to decide the answer, then try to hide behind your flawed methodology Happy to discuss in more detail	and many other factors. This is the process that has been followed by the North Wales Connection Project. We have published reports at each stage and consider we have been very open and transparent in the decisions we have made and the reasons for these. You also asked if an additional overhead line would be progressed if there was further generation at Wylfa Newydd. As with our work to date, if this additional generation was in the ETYS, the NOA would assess if it was strategically important to progress with as an option. Options to connect further generation at Wylfa Newydd would then be subject to further assessment in line with policy, planning and technical requirements, and further consultation. Decisions on technology would look to achieve a balance of all of these factors. We are not aware of any plans from Horizon to increase the generation at present.
Question on EN-1	I have directed this mail to both Horizon and National Grid, and I would be interested in responses from both parties I note the following section from EN-1 "The Planning Act 2008 aims to create a holistic planning regime so that the cumulative effect of different elements of the same project can be considered together. The Government therefore envisages that wherever possible, applications for new generating stations and related infrastructure should be contained in a single application … or in separate applications submitted in tandem which have been prepared in an integrated way." I would be most interested to know in what ways your respective DCO applications have "been prepared in an integrated way"? How has one party made allowances for impacts created by the other? Particularly with respect to socio-economic impacts It would be easy to summarise that "Horizon brings jobs while Grid destroys them" but I would like to know what your respective opinions are. If you would like to collaborate and prepare an integrated response, that would be fine too	You have sent two emails regarding EN-1 (1st and 2nd May) and both are answered here. Overhead transmission lines at 132 kV and above and greater than 2km in length are classed as nationally significant infrastructure projects in their own right. Applications to date for new generating sources and associated transmission network lines have all been made separately (e.g. EDF's Hinkley Point C power station and National Grid's Hinkley C Connection, Brechfa Forest West Wind Farm and Brechfa Forest Connection). There are good reasons for this as it allows the applications to be considered against the appropriate national policy statements. The Electricity Networks NPS (EN-5) is specifically relevant to overhead lines, in addition to EN-1. Indeed, EN-1 notes that for electricity lines at or above 132kV, EN-1 in conjunction with EN-5 will be the primary basis for decision making. Mindful of the interaction of our project and Wylfa Newydd, we have always worked closely so that our development timelines and application dates remain in tandem. We have always planned for our application to follow Horizon's – an approach supported by the Planning Inspectorate as this will allow for consideration of the need for our project in advance of our examination. Our proposals have been prepared in an integrated way by working closely with Horizon to understand one another's programmes and development plans. We work closely with Horizon within several disciplines including engineering and environmental. These discussions consider the interactions between the projects and the sharing of information such as survey data. National Grid do not collaborate with Horizon specifically on the design of the connection, but do take into account the environmental effects of the Horizon project, including the visual impact of Wylfa Newydd, in our assessments. This information will be published as part of our DCO submission in the Environmental Statement which will consider the cumulative effects of both projects. The Environmental Statement prepared by both projects will need to consider the effects of the design on topics agreed with

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		the Planning Inspectorate, including socio economic, and set out how they intend to mitigate any effects. We continue to work closely with Horizon and the Isle of Anglesey County Council to ensure that mitigation identified is complimentary and appropriate. National Grid has also formally consulted with Horizon, as Horizon has done with National Grid. This way, each organisation has the opportunity to formally submit comments, in addition to our ongoing discussions, so these can be taken into account. There is more information on how we have considered Wylfa Newydd and its setting in the design of the proposed connection in the following reports, which are on our website. · The Preferred Route Option Selection Report. There is information throughout the report with sections three and 10 being most specific to this area of Anglesey. · The Draft Route Alignment Report. Again, there is information throughout the report, with section five being most specific to the area. Our preliminary assessment of how our project interacts with Horizon, and other developments on Anglesey, is covered in chapter 19 of the Preliminary Environmental Information Report (PEIR), also available on our website. The socio-economic assessment, including consideration of Wylfa Newydd is in chapter 16 of the PEIR. These topics will also be detailed in the Environmental Statement that will be submitted as part of our application. With regard to programme, we have ensured that our consultations have been timed so that they follow a similar path through the pre-application process but have not over-lapped.
ETYS 2017 page 72 question	Any comments? No mention at all about having to export 3 GW in the event of a double circuit failure Please show me where in your license this is a condition	You have sent a number of questions regarding the NETS SQSS and the need for an additional double circuit connection. You have also asked about the definition of a Generation Circuit as described in the SQSS. We have provided information on this area before, but recognise you have ongoing questions in this area. We have set out information below to provide you with further detail. Generation Circuit and Transmission Circuit A Generation Circuit as defined in the NETS SQSS is the sole electrical connection between one or more generating units and the Main Interconnected Transmission System i.e. a radial circuit which if removed would disconnect the generating units. The existing overhead line from Wylfa to Pentir is made up of two circuits, one on each side of the existing pylons. In the event of one circuit being disconnected, the generation would remain connected via the other circuit. For the purposes of SQSS, the existing Wylfa to Pentir connection is defined as being comprised of two Transmission Circuits. Contracted generation background To establish if there is a need for a new connection, we have to consider the contracted generation background. The Strategic Options Report Update 2016 describes the contracted generation background. The report also explains the changes that occurred in the contracted generation background

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		between January 2015 (after the second stage consultation) and autumn 2016 (when the statutory consultation took place). Our current need case includes a number of contracted proposed new generators in the North Wales area, not only those on Anglesey. These include: · Burbo Bank Extension, 254 MW (has begun generating since publication of the October 2016 Need Case) · Orthios power, 299 MW · Greenwire Wind Farm 1,000 MW · Codling Park Wind Farm, 1,000 MW · Wylfa Newydd, 2,800 MW When assessing the transmission system in North Wales, we have to take into account all of the contracted new generation in the area and how it can be connected to the national transmission network. Due to the interaction of all parts of the electricity network, we must also consider how new generation influences the wider network, not just the individual lines in isolation. This includes the existing overhead lines south towards Trawsfynydd and east towards Deeside, as well as the infrastructure on Anglesey and in Gwynedd. NETS SQSS The NETS SQSS contains the technical planning criteria applicable to the connection of power stations to the transmission system. The conditions for operating the onshore transmission system are detailed in chapter five of the SQSS. National Grid is required to comply with all requirements of the NETS SQSS under the terms of its transmission licence. The figure of 1,800 MW specified within the NETS SQSS is not set by National Grid. The 1800MW infeed loss figure came into force in 2014. Ofgem published an open letter in 2011 explaining the changes it had approved and when these would be adopted. Changes can be made to the NETS SQSS subject to scrutiny and approval by Ofgem, following a consultation process with affected industry parties. National Grid is not able or permitted to make a unilateral change. We have provided information on the SQSS panel and its role in separate emails to you. It is also important to note that the NETS SQSS defines the minimum standards that National Grid must apply when planning and operating the transmission system. The 1,800 MW loss is based on the maximum acceptable loss before the operation of the transmission system is adversely affected and the power supply to the UK becomes compromised. As such, the NETS SQSS works on the basis of managing potential loss to the network, not designing infrastructure that inherently limits generation capability. Additional requirements The requirements of the SQSS are not the only conditions we must meet when developing plans for new infrastructure. Among other factors, we must also consider:

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		· Transmission licence: The transmission licence is issued to the operator of the transmission system in line with the Electricity Act 1989. You can read more about the transmission licence and the conditions it places on us on Ofgem's website. Under the requirements of our transmission licence, we have a duty to facilitate new generation and are legally required to develop new connections when a need is demonstrated. In North Wales, we must take account of our contractual agreements to provide connections capable of meeting all of the contracted generation output proposed. The transmission licence requires that we meet the requirements of SQSS when planning for background generation. SQSS section 2.10 (in particular 2.10.3 and 2.10.9), in combination with section 2.8 which sets up the background conditions on the network, imposes the requirement to support all of the Horizon export following a double circuit fault. The key clause in this case is 2.10.9, which requires that for a background of no local planned outage, and a range of credible contingencies (the list includes a double circuit fault), there shall be no unacceptable overloading. When these contingencies are combined with a prior planned outage, we are referred to the operational standard by 2.12, and under those circumstances we can we use changes in generation output to manage overloads. Under our licence conditions National Grid also has an obligation to operate the system in an efficient, economic and co-ordinated manner. · System frequency: We have a licence obligation to control system frequency at 50Hz plus or minus 1%. We make sure there is sufficient generation and demand held in readiness to manage all credible circumstances that might result in frequency variations. Careful management of balancing generation and demand ensures that the lights stay on. There is information on system frequency on our website. The NETS SQSS sets out how National Grid must manage frequency. Trends in frequency management are also discussed in chapter three of our System Operability Framework (SOF) document, available on our website. Flexible generation is critical to managing infeed losses of up to 1800MW while maintaining system frequency within predefined allowable limits. The risk of losing a large amount of energy from the transmission system would require additional types of rapid response generation to be held in reserve. Adequate system inertia must also be held to avoid the loss of demand on the rate of change of frequency relays, and the level increase required is higher the larger the infeed risk that is being managed. This potentially requires non-synchronous generation such as wind and solar to be constrained off the national grid and ultimately be replaced with conventional power generating stations. This issue is explored in more detail in chapter three of the SOF, referred to above. The purpose of the limit of 1800MW is to avoid excessive costs to the consumer of frequency management, that can be more economically dealt with via infrastructure. · Transmission system performance: The behaviour and operation of electricity connections is another influence. Electrical losses, thermal performance, conductor ratings and stability issues are important considerations that all influence the amount of electricity a connection can transmit and the

Subject	Question (brief)	Answer (brief)
		design of the system. · National Policy Statements: These set our government policy for the delivery of major infrastructure. The statements relevant to our work are the NPS for Overarching Energy (EN-1) and the NPS for Electricity Networks (EN-5). National Policy Statements are available on the Department of Business and Industrial Strategy website. These are important because the Examining Authorities at the Planning Inspectorate make their recommendations within the framework provided by NPSs, as required by the Planning Act 2008. As such, we consider the NPSs in detail when developing new nationally significant infrastructure projects and develop our plans in accordance with them. EN1 recognises the need for new generation to be developed along with the new infrastructure to provide connections to the existing transmission network. It also recognises the likely scale of new generation infrastructure and the locations where it is likely to be required. EN5 in turn recognises EN1 and the need for new generation and infrastructure and sets out more information on how these should be developed including taking account of engineering and environmental aspects. EN1 also notes developers' duties to communities and other consultees under the requirements of the Planning Act. System design for 3.1GW Under normal working conditions, with the existing two circuits in service, the existing system would be able to export the full output of Wylfa Newydd and Orthios. Under maintenance conditions, with one circuit out of service, the power flow would exceed the pre-fault capability of the remaining circuit. This configuration would not allow us to comply with the requirements of NETS SQSS so additional infrastructure is therefore required. A three-circuit solution would create an infrequent infeed loss risk constraint and raise the following concerns: · A two-circuit fault on the Wylfa-Pentir circuits would result in overloading the remaining circuit. This would not be compliant with the SQSS. The limit of 1800MW generation loss relates to generation that is disconnected by a fault; we are required to provide sufficient capacity that unacceptable overloading does not occur without a post-fault limitation in generation for such a fault. To avoid this, the new circuit would need to be constructed, and both existing circuits reconductored, to achieve sufficient rating to transmit the full 3.1GW on any one circuit alone. · An outage on one of the Wylfa-Pentir circuits for maintenance followed by a double circuit fault on the remaining circuits would result in total loss of generation infeed from Wylfa through to Pentir and the remainder of the transmission system. During such a maintenance outage, the generation at Wylfa would have to be restricted to 1,800MW to avoid an infeed loss greater than that value should a double circuit fault occur. Because this contingency is more severe than a double circuit loss it is considered 'operational' i.e. governed by chapter five of the SQSS, and such restrictions on generation are permitted in this case. However, it would impose significant additional costs on consumers to compensate the generators for lost output. In summary, connecting the generation on Anglesey with three circuits (reducing to one in the loss of a double-circuit), would not be in keeping with the duties under the Electricity Act. This position would be the same whether the additional circuit was

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		overhead or underground. It is also worth noting that even in the event of a three-circuit solution meeting all of our duties and requirements, it would not necessarily be placed underground. While the cost difference between a single circuit overhead or underground would be less than a double circuit option, the underground single circuit would still be more expensive than the overhead alternative and could give rise to potentially significant environmental effects. In order to meet all of the conditions placed on us, a four-circuit connection (two existing circuits and two new circuits) is required for the proposed generation output for Orthios and Wylfa Newydd. System design for 5.6 GW At an earlier stage of the project, we also had to consider the proposed 2 GW Celtic Array wind farm and a higher proposed output for Wylfa Newydd of 3.6 GW, providing 5.6 GW in total. Considering all of the requirements above, our proposal for connecting 5.6 GW was also four circuits, two existing circuits and two new circuits. A key design difference between the 3.1 GW and 5.6 GW is the rating of the conductors. At 5.6 GW our proposal was for higher rated conductors on the two new circuits and also to re-conductor the existing circuits so they would have been capable of carrying more generation. Both the previous iterations of the design and our existing design meet all of the conditions placed on us. Consultation on options We consider we have consulted on the genuine options that meet all of the conditions placed on us. We explained in our previous email that, while a three-circuit option could be made to technically comply with SQSS, it would require significant additional works to the existing transmission system bringing additional costs. This would not meet our other obligations and licence conditions, so it was therefore not a viable option. As a non-viable option, it was not appropriate to consult on it. As you know, the planning process requires us to make an application for development consent to the Secretary of State for Business, Energy and Industrial Strategy, via the Planning Inspectorate. All the decisions we have made and how we have had a regard to the feedback we have received will be independently reviewed as part of the planning process. We are continuing to develop and refine proposals as we prepare to make our application for a DCO. We hope this helps answer your questions.
Holford rule 5	Thank you for your reply, but I note that you don't actually address the point I have raised, specifically about Holford rule 5 In your analysis, in the documents you reference, your comments seem to fall into two groups 1 - You find that views from properties etc will be significantly impacted, but then make no suggestions as to how this may be mitigated	*** NO REPLY ***

Subject	Question (brief)	Answer (brief)
	2 - you conclude that views will not be impacted due to proximity to the existing line You have argued in the past that the current line cannot form part of this projects scope, so how can it be right that you use its presence as an excuse for more pylons - it is either in scope or not! If the current line is in scope, then I would suggest that you need to revisit the entire consultation, as this was never made clear The people of Anglesey have very firm views about the existing line, and have had since 1963 as shown by documents in the Anglesey archive - I suggest you check them out Looking forward to your comments on rule 5	
Rochdale envelope	I have just been reading the excellent PINS Advice note nine: Rochdale Envelope and note the following "Clearly for consultation to be effective there will need to be a genuine possibility to influence the proposal and therefore a project should not be so fixed as to be unable to respond to comments from consultees" The advice note does not differentiate between macro and micro aspects of the project, so assume it considers both I'm sure that you have used the feedback received to fine tune micro details, but are there any examples, at all, of macro details that the consultation influenced? I'm sure that you will quote the Menai tunnel, but we both know more pylons over the Menai was a non-starter, and in my opinion was a deliberate strategy on your part to appear to be listening. That, and it will keep your new tunnel boring machine fully utilised at consumers expense for several years. Is this the real reason you are so opposed to using the proposed third bridge? So, other than the Menai tunnel, have you made any significant changes based on the three stages of consultation? I'm sure you will say that everything will be explained in the DCO application, but as the date for that keeps slipping, it would be good to have a brief heads up to prepare for the inquiry	*** NO REPLY ***
Wrexham energy center connection	I am aware that the Wrexham Energy Center connection is being handled by the DNO, Scottish Power Energy Networks, and I have written to them separately, but I understand you are also involved in some capacity Can you explain the rational behind dropping the proposed pylon solution and the adoption of a buried cable solution?	*** NO REPLY ***
Gridline - the magazine for landowners	Just seen this Fires and firefighting – the fire service may not	see other responses

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	tackle a fire near an overhead line until National Grid's engineers have made it safe and that could delay firefighting for hours, by which time a building could have burned to the ground. Factor this into your emergency plans and insurance arrangements. Is this true? People living near pylons might find it hard to get house insurance	
Gridline - again	Is this true? "We recently saw someone strike our underground cables with an excavator, because they hadn't checked on the location of our assets," said Damien. "They'd cut through the cable's cooling pipes and missed the high voltage line by a couple of centimetres. If they had done so, it's likely they'd have been killed." I thought you had previously told me that your buried cables didn't get warm ... so why do they have cooling pipes? Remember ... when you dismissed the idea of heat recovery	You recently sent us two enquiries in relation to an article in Gridline magazine. The firefighting point was aimed specifically at buildings built directly under overhead lines. Houses are not generally built close enough to overhead lines to present a problem to fire services. Our guidance to UK fire and rescue services can be found here: https://www.nationalgrid.com/sites/default/files/documents/FINAL_Fire%20%26%20Rescue.pdf In relation to your question on buried cables, the thermal conductivity of the ground in which a cable is laid, and thus the ability of the ground to dissipate heat from the cable, is an important part of the design of a cable system. Cable cooling is used on heavily loaded circuits where the ground has poor thermal characteristics (e.g. in roads and industrial estates) and, in some instances, is not applicable in a rural environment. Related to this, the heat recovery proposal you submitted to the ETYS team on 26 February for consideration has been forwarded to the North Wales Connection project team. As explained in our response on 17 October, although it is an interesting technology, heat recovery is not viable to progress with as part of the North Wales Connection Project.
Security	Thanks for your reply As you say: "we have various safeguards in place to ensure that we're prepared to deal with every eventuality" This implies that a buried cable would be no problem	*** NO REPLY ***
Draft DCO	Thanks for this I was hoping for the same draft you have shared with the Council The problem is, you generate so much stuff there is limited time to read it all before the inquiry	*** NO REPLY ***
Impact on tourism	I have been reading the report you link on your website regarding the impact of your infrastructure projects on tourist/visitor behaviour There are a number of points where I believe the conclusions you have reached render them inappropriate to the situation on Anglesey Primarily you have a mixture of gas and electricity projects - ie projects which don't, and do, leave a lasting legacy on the landscape - and in the analysis and conclusions, you do not differentiate between these two categories	*** NO REPLY ***

Subject	Question (brief)	Answer (brief)
	I am somewhat surprised by the relatively small sample size in the surveys You have used the biggest names in their respective fields to conduct the work. I am sure they would want to protect their reputations by perhaps commenting on the above points, should you ask them It is interesting to note that some of the perceived benefits of the pojects (eg availability of better tariffs) are points that the projects would have minimal/no impact on. Demonstrating, I believe, the general misunderstand of the industry by the general public I know you say you have conducted more appropriate and local studies. Given the short time from application to inquiry, would it be possible to see these in advance, as I'm sure they must be complete by now?	
Further impacts on tourism	Following from my earlier mail, I have estimated the impact on economic value to Anglesey Tourism is worth ca £290 million to the Anglesey economy. Using the same factors in the discounted cost analysis as you do (40 year discount period, 3.5% weighted average cost of capital) to estimate the net present value of an impact, a 1% reduction would be worth £60 million The aggregate value of the Anglesey housing stock is ca £4 billion. A 1% "hit" would be worth £40 million So £100 million impact on local businesses and residents for each 1% adverse impact. As I'm sure you know, a failure to increase relative to a "do nothing" base case, as commonly used in strategy assessments, is the same as a 1% reduction You note on your website that the survey you commissioned: "found that 93 percent of people felt there had been no negative impact on their business as a result of new infrastructure, and 83 percent of people felt there had been no impact on the local area as a result of new infrastructure." It would be reasonable to estimate then, that a 5% impact is a very real probability, worth £500 million In your strategic options report, you state that the additional cost of a buried connection is £400 million compared to overhead lines. This strikes me as a "good value" insurance policy against the risk of a £500 million impact (possibly more) on the businesses and people of Anglesey I would be keen to hear your views	Thank you for your notes. When we develop our projects, we take account of various factors including potential for socio economic effects including tourism. When we develop our routes we look to avoid areas of highest amenity value and communities. At previous stages of the project we have looked at various options for routeing and have chosen the current route which overall allows us to avoid areas of highest tourism such as the coastline. As part of this assessment we have also considered tourism businesses. We feel that the route we are proposing seeks to avoid and reduce effects on tourism on the island and by keeping the infrastructure together reduces the effects on the wider area. We have assessed tourism and socio-economic considerations. As well as avoiding or mitigating these impacts, we are required to consider our regulator's aims to keep its bills as low as possible for energy consumers. As part of the application to the planning inspectorate we will consider potential socio-economic effects and where these cannot be avoided we will propose appropriate mitigation.
Impacts on tourism - yet again	The Office for National Statistics puts Anglesey in a classification of "holiday hotspots" Please see the attached link https://www.ons.gov.uk/peoplepopulationandcommunity/leisureandtourism/bulletins/subnational	*** NO REPLY ***

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	tourism/aspatialclassificationofareasinenglandandwalestoshowtheimportanceoftourismatcountyandunitaryauthoritylevel2011to2013#a-focus-on-cluster-4-and-5-holiday-hotspots Please could you let me know what electricity infrastructure projects you have recently had in these 31 areas of England and Wales, and whether any of these formed part of your IPSOS/Mori & EMR study into the impact of infrastructure projects on local socio-economic factors	
Transport plans	I've just been looking at the new maps on your website Could you explain what a "retained HGV route is"? What do you mean by retained? You have many blue sections that can only be reached from a yellow section! Does this really mean that all blue and yellow sections are really HGV routes? Will you be instructing your drivers to not use their satnav's and use any other routes? Maybe you should have considered ease of transport when selecting your route?	During our Stage Three Consultation, we put forward proposed construction routes, including for HGVs. As a result of feedback we received and our own further assessments, we reviewed the proposed routes and made some changes which included using additional parts of some roads for HGV traffic. On the maps you are looking at on our website, 'retained HGV routes' are routes we consulted on during the Stage Three Consultation. 'Additional proposed HGV routes' are the changes we put forward after the Stage Three Consultation. We held a number of targeted consultations on these changes last year with residents living close to the proposed changes. We've looked at what people have told us during these consultations, and final construction routes will be included in our application. Please be assured that traffic and transport have been considered during the development of the proposed connection. We're working closely with the Isle of Anglesey and Gwynedd Councils on traffic and transport. A detailed construction traffic management plan, including measures that would be taken to ensure that drivers use the allocated routes, will be submitted as part of the DCO application.
timing	On the webpage where you present the new transport plans, you state you will start building in 2019 at the earliest and take 2-3 years So, let's say 2020 - 2023 Why so soon? Horizon have never stated they will have the reactor ready before 2024, and the new connection isn't needed for that as it's below 1.8 GW. The connection isn't needed before 2015, and if the Japanese press is correct, 2027 If Horizon do push back the investment decision to late 2019 then there is a chance you will have started building before the decision is taken to build the power station! You have stated elsewhere that the tunnel will take five years. Wouldn't it make sense to coordinate these activities, maybe starting the tunnel first and then the pylons so that both complete about the same time? Suggest you get some form of community newsletter out	*** NO REPLY ***
wensite updates	I am registered to receive updates but never get any? Is your site working correctly?	*** NO REPLY ***
Project need case 2016	I would be more than happy to sign a confidentiality agreement, as I have done many times before	Thank you for your recent email.

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		Unfortunately, as we have said previously, we cannot make this information publicly available.
misleading the people of Anglesey	Thanks for this clarification So you are saying the following quote, on page 15 of the 2016 Overview document, is incorrect? "Putting the whole connection underground between Wylfa and Pentir would cost over one billion pounds." In truth, it would cost about an additional £400 million, as explained elsewhere in the document and confirmed by Ofgem Many thanks for getting back to me. Confusion clarified	*** NO REPLY EXPECTED ***
Financial analysis methodology	Thanks for this response, but in some areas you have missed the point I was making You do not include the socio-economic costs in your DCF analysis - why? As I have pointed out in subsequent questions, your study into the effects of your projects is a poor comparison, but I'll wait for you to get to those mails and not repeat myself here	*** NO REPLY ***
Financial analysis methodology	The other point you have missed, is that while you consider many aspects qualitatively, it is only the lifetime costs you consider quantitatively Consequently this over dominates your decision making Why is this?	*** NO REPLY ***
Financial analysis methodology	Yet another point you have missed Say pylon towers last 60 years. After 40 years you have recovered the capital cost and nominally fully written them off, however with 20 years life left, they sit on your balance sheet with a residual asset value. So you now fully own an asset, potentially sell them to others, or generate revenue from them I don't believe you make any account of this in your DCF, which you should do at the end of year 40 Comments?	*** NO REPLY ***
Financial analysis methodology	Yet another point you missed was revenue to you, to enable a true cost- benefit analysis Can you explain why this is not present in your methodology?	*** NO REPLY ***
Impact on house values	On the Q&A section of your website, in the section on impact on house prices, you state: "We only pay compensation if our equipment is placed on land or crosses it, but we know that people have concerns about the effect of our work on property. We're committed to continuing to work with property owners to see if there are ways to further reduce any effects of our proposals. We're always happy to hear from property owners and would encourage anyone with concerns regarding their property to talk to our team so your comments can be considered."	Thank you for your recent email. The content of the Environmental Statement that will be submitted as part of our DCO application will include the potential significant effects of the project, both alone and in combination with other developments. The content of the Environmental Statement has taken account of the Scoping Opinion provided by the Secretary of State. As you rightly point out, it will not consider property prices. The Q&As on our website are designed to provide helpful, brief answers to the questions that are commonly asked about the

Subject	Question (brief)	Answer (brief)
	Would it not also be useful to make reference to the fact that, at your request, the Secretary of State has deemed impact on house prices to be out of scope of your Environmental Statement, in the Scoping Opinion document from 2016? "It is proposed in Appendix 14.2 of the Scoping Report that effects on house prices are scoped out for all components and all stages of the proposed development. This is on the basis that it is not a material planning consideration because of the difficulty in assigning effects to individual projects taking into account the number of projects planned for Anglesey, and that changes in the economic status of wider economic issues (such as recession, etc) are also likely to have a bearing on property prices. On this basis, the Secretary of State agrees that this matter can be scoped out of the EIA." I fully understand that there are a number of simultaneous projects being conducted on Anglesey, so can appreciate the difficulty of assigning impacts during the construction phase, but there is only one project that will result in ca 100 steel towers being erected across 30 km of the Anglesey countryside for 60 years, so surely the impact of these is fairly easy to assign? Looking forward to your comments and reading in detail the DCO application in September	project. Information on the content of the Environmental Statement, as you have found, is available in other areas of the website.
Radon	I am aware that EMFs will not form part of your Environmental Statement, but you will have a separate report Where will the interaction between EMFs and radon, as found at high levels in many parts of Anglesey, be handled - in the Environmental Styatement or the separate report?	Thank you for your recent enquiry. In the UK, we have a carefully thought out set of guidelines and policies to protect us all against EMF exposure. These guidelines and policies were adopted by Government after careful consideration of the science by their scientific advisors in Public Health England (who lead on this on behalf of Wales and England). The science regarding the interaction between EMFs and radon fed into the development of this guidance. Therefore, the policies on EMFs which National Grid follows do in fact take into account all those issues. National Grid will demonstrate in a separate report, as mentioned, how it fully complies with these guidelines and policies. Given the guidelines have been developed in light of the science on radon, compliance provides adequate protection and a separate report is not necessary.
NOA	Thank you for getting back to me I have studied your Network Options Analysis methodology. I know you say that many factors are taken into account, but I don't see how they are meaningfully accounted for in the NOA - it would appear to me that the only thing that sways an option is lifetime cost. I cannot see how any of the other factors impact the output of the NOA Maybe one of you NOA specialists could educate me?	see other responses
DCO publication	I understand from PINS that you can choose when to make the DCO publicly available Please put, as a minimum, the 2016 consultation report on your project site on the day you submit the DCO	Now that Horizon has submitted its application, we are finalising our documents and anticipate making our application in September. The consultation report will be submitted to the Planning Inspectorate together with all of the other relevant documents. The Planning Inspectorate typically uploads documents at the

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	Also, please ensure the email notification functionality is working	point it accepts the application for examination (no more than 28 days after the application is made). However, we have agreed for them to upload all of our documents to the North Wales project section of its website immediately after we submit them. While we cannot control when the documents are uploaded by the Planning Inspectorate, they will be available for review at an early opportunity. We will notify people when our application is submitted and our email will continue to be available to receive enquiries.
option evaluation	I seem to have been struggling to explain some of my questions to you on this matter, so have prepared a worked example as a means of illustration I have taken the evaluation criteria from your Strategic Options Report Evaluation criteria Option and rating (score 1-10) Wylfa to Deeside subsea Wylfa to Pentir sub-surface Wylfa to Pentir overhead line Technical feasibility issues 5 2 1 Lifetime costs 10 5 2 Environmental - Ecology and Biodiversity 2 5 2 Environmental - Cultural Heritage, Landscape and Visual 1 1 8 Socio-Economic - Economic Activity & People and Communities 1 1 8 Feedback from Consultation Events 1 1 10 TOTAL 20 15 31 In this example the sub-surface option is "best" closely followed by sub-sea. Obviously the ratings given are purely illustrative My question is why do you not use a method like this, as it would provide a far more comprehensive, balanced and engaging way of selecting from the strategic options? I am sure that you must use such an approach in other areas of your business (eg your procurement/supply chain function when selecting strategic suppliers), so I cannot believe you are not familiar with it I hope this helps explain my question and that you are now able to answer more comprehensively	Thank you for details of your proposed options assessment method and the example table. We have provided information on our methodology in our email of 7th June, including why we consider it appropriate to follow this method and why a scoring system as you suggest presents challenges. Our appraisal methodology has been used for a number of projects, including the Hinkley Connection and the Richborough Connection. The approach and the decisions made on these project were scrutinised as part of the DCO examination processs for each project. Both were granted a development consent order. We are confident in the process we follow and believe it offers a suitable process for developing new connections in consideration of all the factors we must take into account. You can find out more in our approach to routeing and approach to options appraisal documents.
A suggestion	I am surprised that you don't know of the plans to increase generation on Anglesey as the Secretary of State mentioned the plans in the House of Commons Greg Clark, Hansard, June 4th "The UK is likely to need significant new nuclear capacity to meet our carbon reduction commitments at least cost, particularly as we electrify more of our transport and heating, so alongside entering negotiations in relation to Wylfa Newydd, the Government will continue to engage with the other developers in the UK new nuclear market on their proposals for further projects. This currently includes EDF over its plans for a follow-on EPR project at Sizewell C, CGN—China General Nuclear Power Corporation—over its proposals for an HPR1000 reactor at Bradwell, and Toshiba regarding the future of the NuGen project at Moorside, as well as Hitachi over	We're aware of the recent comments from the Secretary of State. National Grid has no say on the amount of generation planned by generators or the location of that generation. We can only respond and plan to firm connection requests. Horizon Nuclear Power has made a connection request and we have a contract with them to provide a connection for 2.8 GW. If Horizon does changes its plans and the amount of generation proposed at Wylfa increases, we would assess options at this time. It's too early to say how this could be done and what technology would be used to transmit additional generation. Any future connection plans would be based on national policy requirements, technical requirements, and consultation. Ultimately, we would need to propose an option that we think could achieve consent.

Subject	Question (brief)	Answer (brief)
	potential further ABWR units at Wylfa and Oldbury."	
SoS Scoping Opinion	Can you confirm for me that the SoS Scoping Opinion, from July 2016, was made freely available to the public during the autumn 2016 consultation	*** NO REPLY ***
Undergroundin g policy	Please can you confirm this was available at all the consultation events	Thank you for your emails. As we have previously explained, information on how we consider undergrounding can be found in our approach to the design and routeing of new electricity transmission lines. This was introduced in 2012 and the process has been followed by all of our major projects since then. As detailed in the document, it was informed by the results of a consultation undertaken between December 2010 and January 2011, together with our experience of major transmission infrastructure projects. It complies with the requirements of the Planning Act 2008 and the National Policy Statements on Electricity Networks Infrastructure (EN-5), and retains the principles of the Holford Rules which give guidance on the routeing of overhead lines.
ZTV	Could you confirm whether the number of pylons visible in eg PEIR Figure 7.4 is from the new line only, or the cumulative of the new line and existing line Apologies if this is explained in the report text, but I don't have time to read everything. Maybe this could be included in the figure key for the ES	Thank you for your recent email. The Zones of Theoretical Visibility (ZTVs) were for new infrastructure only. As such, PEIR figure 7.4 only refers to new pylons. It is worth being aware that ZTVs are worst case and do not take into consideration the screening effects of vegetation and how they would look when constructed. We hope this helps.
Impact on house prices, North Wales Connection	This mail is directed equally to the BEIS SoS, the Planning Inspectorate and National Grid, as there seems to be some confusion as to who "owns" the opinions in the Scoping Opinion cc to both my elected representatives It would appear to the the SoS's opinion that impact on house prices is out of scope for the North Wales Connection (Anglesey), but is in scope for the North West Coast Connection (Cumbria) I can think of no rational reason why this should be, and it seems a little unfair. Please could one of you, whoever owns the opinion, explain this	*** NO REPLY ***
Impact on house prices, North Wales Connection	I have been directed to you to address this query Please could you explain why impact on house prices is out of scope in Anglesey? Why is it in scope in Cumbria?	*** NO REPLY ***
Impact on house prices, North Wales Connection	I'm sorry but this is a circular argument ! National Grid requested impact on house prices be put out of scope The SoS agreed You put this in "the opinion" I want to know why? And why is it in scope in Cumbria? It cannot be right for National Grid to make up the rules and police themselves! There simply has to be some form of check!	*** NO REPLY ***

Subject	Question (brief)	Answer (brief)
	Who wrote “the opinion”? Who signed it off? What was the decision making process? Anglesey is being discriminated against, again!	
Impact on house prices, North Wales Connection	I have just been reading the Scoping Opinion for Wylfa Newydd, as well as the North West Coast Connection, and , of course, the North Wales Connection. Impact on house prices has not been put out of scope for Wylfa Newydd, but has for the North Wales Connection, and I have already mentioned the North West Coast Horizon presumably consider their project will have an impact on house prices, and the SoS must agree, and yet National Grid believe the opposite, and the SoS agrees Is this a question for PINS, Horizon or the SoS, and now that Horizon's DCO has been accepted for examination, is it still appropriate to ask them or wait for the inquiry?	Thank you for your recent emails. The Project has been designed to avoid residential areas and individual properties as far as possible in accordance with the Holford Rules. Whilst socio-economic factors have been taken into account in the development and refinement of the proposals, the effect on the value of private individual properties has not been a factor in the decision-making process. In common with planning decisions generally, possible effects upon property value is not a material consideration in the consenting process i.e. it is not a matter which may be lawfully taken in to account by the decision maker when determining whether to give permission or not to a development. As such, the Environmental Impact Assessment will not take considerations of property devaluation into account. House prices are also not considered in National Policy Statement EN-5, the relevant national policy document for the Project. As is consistent for all of our Development Consent Orders, this was reflected in the North West Coast Connections Environmental Impact Assessment Scoping Report and Appendices, Chapter 16.9.11: Effects on property prices This is not a matter that requires assessment under the 2009 EIA Regulations and is not a material consideration in the determination of planning merits of the proposal. Therefore, this is not proposed as part of the scope of the EIA. The Isle of Anglesey County Council also states the following planning information on its website: Planning matters do not include the following: rights to a view rights to light devaluing your property covenants affecting properties nuisance caused by building work land ownership disputes the personal character of the applicant moral issues Those who have property (including land) upon which our equipment may be sited, either on or located above it, will be entitled to compensation in accordance with applicable statute, including the compensation code, and the facts of the case in question. We work closely with any landowners on whose land their equipment is sited to determine the compensation terms if this is appropriate. We recognise that there is a perception that our work could have a potential effect on property values. We will continue to work with property owners in the area to understand their concerns and reduce effects on property where possible. We do not provide compensation in respect of any perceived reduction in house values. We have been, and continue to be, open to talking with any local residents who may have concerns about the project, so as to better understand their personal circumstances and address

Subject	Question (brief)	Answer (brief)
		concerns where appropriate. Any party who feels that they may have a claim for compensation is recommended to seek professional advice and/ or contact us.
Impact on house values	Can I ask why you requested the SoS remove the impact on house prices? Yours is the only proposed project that will leave a 30 km linear asset across the Anglesey countryside, so attributing impacts to this would be a simple matter All other influencers on house prices such as state of the economy etc can be factored by regional trends etc	*** NO REPLY ***
Iterative consultation?	I note in the Horizon DCO that the consultation has been considered iterative, so all consultations contribute to the mandatory consultation I know that you have worked closely with Horizon, so wondered if your three consultations (2012, 2015 & 2016) were all considered mandatory, or only the 2016?	As you've rightly stated, we've held three stages of consultation on the project. The mandatory consultation you refer to is known as the 'statutory' consultation. While the consultation process set out by the Planning Act 2008 only requires one stage of statutory consultation, we recognise the importance of an iterative approach and have consulted to a thorough standard over and above the requirements of the Planning Act. Taking this approach gives people the opportunity to influence the proposals as they are refined at each stage. This has involved first consulting on connection options and route corridors in 2012, consulting on route options in 2015, and then consulting on our proposed connection design in 2016. We've considered all of the feedback we received at each consultation and what people have told us at each stage has played an important role in developing the proposals. For the North Wales Connection project, the 2016 consultation was our statutory consultation. This consultation was carried out in a similar manner to the two earlier stages of consultation but involved a number of additional statutory requirements. These included the production of a SoCC, consulting with specific prescribed consultees and publishing notices in certain publications. How the project met these requirements will be detailed in the consultation report. It will also provide an overview of the earlier stages of consultation.
Options evaluation	I have read your methodology and I can see no process within it that quantitatively allows for anything other than cost You say you have to take account of many things, but you do not do it in a quantitative manner	We seek to find a balance in the decisions we make so that, wherever possible, one factor is not unduly affected compared to another. Where we have not been able to achieve this, we explain why in the technical documents we publish. We undertake thorough assessments of factors such as landscape, ecology, economic activity, communities and many others. We also consult communities and stakeholders so they can provide us with information about the area for us to consider. Our team of specialists (such as landscape architects, ecologists, archaeologists, engineers and other disciplines) use all the information we gather from consultation and assessments to make decisions. National Grid has developed an options appraisal methodology, where the significant issues under each factor are considered qualitatively with no weighting or scoring of factors. Therefore, no monetary value is applied to visual amenity or any other environmental topic, because such costs are hard to define and any assessment will be very subjective in its nature.

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		This ensures that environmental and socio-economic factors are compared on an even footing with technical and financial issues, and reasoning for selecting an option is clear and not obscured by any mechanistic scoring process. We publish documents so that the process we follow is transparent and people can see how we have made decisions based on the information we have. All of these are available on our website. We apply careful judgement, but do not have the final say on whether the decisions we have made achieve the right balance. Through the Planning Act process, all of the decisions we have made are assessed independently. Ultimately, the secretary of state makes the decision whether to grant the DCO. This approach has been followed by all of our major projects and subject to scrutiny by stakeholders and the planning process. The Hinkley C Connection and Richborough Connection were both granted a DCO.
Options evaluation	Many thanks for this response Could you give me brief details of just one example where any factor other than cost was the ultimate decision maker Please do not give an example of a designated (or similar) landscape An example where eg visual amenity or socio-economic impact won the day	We feel our earlier response provides a comprehensive explanation of the approach we take to options appraisal. As we have explained, our decisions are a balance of a number of factors and no single factor is the ultimate decision maker. At each stage of the project, we have published technical documents that explain the decisions we have made at that stage. We will continue with this approach with our application. The documents accompanying our application will explain how our specialists (such as landscape architects, ecologists, archaeologists, engineers and other disciplines) have used the information we gathered from consultation and assessments to inform decisions. Where relevant, these will refer to documents from earlier stages that explain our decision making. Ultimately, the Planning Act process will ensure all of the decisions we have made are assessed independently and the secretary of state will make the decision whether to grant the DCO.
Question on EN-1	Thank you for the response I am well aware that your project will become an NSIP in its own right should PINS accept your application, and also that EN-5 is the primary document for you, but I wondered why both you and Horizon did not follow the guidance in EN-1? When it comes to examination all Government policies will be considered, so separating DCO's by NPS seems too simplistic. It also hinders one project from mitigating impacts from another	*** NO REPLY ***
National Policy Statement EN-6	I have just had my attention drawn to section C.9.4 in EN-6 from July 2011 (see attached) Could you expand on the grid connection agreement, which I note is to be in three stages	The Energy National Policy Statements were published in 2011. Since that time, the proposals for a new nuclear power station at Wylfa have progressed significantly. Horizon has come forward for its plans for the site and this includes details of the reactor design. Our connection agreement has been prepared in line with this need. Our Need Case document and Strategic Options Report have been published and updated at various stages. These documents reflect the up-to-date information we have from Horizon about its proposals for the site and what connection they will need, including capacity and timings.

Subject	Question (brief)	Answer (brief)
		These documents will be updated for submission of our DCO application.
DCO publication	Thanks It took eight days for PINS to make the Horizon documents available Is there any chance you could make it available quicker somehow?	*** NO REPLY ***
Further impacts on tourism	Thank you for this I have just lifted the following from your regulators website “Our principal objective when carrying out our functions is to protect the interests of existing and future electricity and gas consumers. We do this in a variety of ways including: promoting value for money promoting security of supply and sustainability, for present and future generations of consumers, domestic and industrial users the supervision and development of markets and competition regulation and the delivery of government schemes.” I do not believe that destroying £500 million economic value on Anglesey (or anywhere) in order to save £400 million capex is good value for money No need to reply, just a statement of opinion	*** NO REPLY EXPECTED ***
Transport plans	Thanks for this I live near some of the routes and use them daily - no one has consulted me, targeted or otherwise	As we noted in our last email, the changes we made to our construction routes were the result of feedback we received, including from the Isle of Anglesey County Council, and our own further assessments. Having made these changes, we felt it was important to give those living directly along the roads affected by the changes an opportunity to comment on these new routes. The targeted consultations we carried out reflected the nature of the changes and likely effects. Our assessments indicated our construction traffic would not have a noticeable effect on journey times, at our busiest time, construction vehicles would only represent a very small traffic increase. We therefore wrote to each property adjacent to the roads affected, enclosing a map of the change that affected them and inviting them to comment on our proposed changes. The consultation appropriate to the nature of the changes and the likely effects was discussed with the Isle of Anglesey County Council. We did also recognise that there may be interest in the changes more widely. The consultation was therefore supported by updates to our website, a blog and we emailed our website subscribers to notify them of these updates. The relevant town and community councils, as representatives of the wider community, also received copies of the proposed changes, as did a number of statutory authorities (such as the Isle of Anglesey County Council, local emergency services and utility companies). We understand that minimising potential traffic disruption is important to local people. As we’ve stated previously, should our project receive consent, we’ll work closely with both

Subject	Question (brief)	Answer (brief)
		councils to reduce the effects from our construction work as much as possible.
Transport plans	I have signed up on the website for updates but never get updates (??) so missed this one. Are you sure it is working correctly, as I have noticed changes to the site content, but never received notification	*** NO REPLY ***
parallel lines	Please could you send me details of other sections of parallel lines, as proposed for Anglesey, in the UK (and not the Blondie break-though album)	Thank you for your email. Parallel lines can be found in many areas of National Grid's network. Specific examples include circuits in Pembrokeshire, circuits north of Kingsnorth Power Station in Kent and circuits in Yorkshire between Garthorpe and Immingham in North Lincolnshire. Information on how the second connection might look is available on our website. There are also images available of the parallel line in Pembrokeshire.
current line	Can you give me a quick comparison: number of current pylons what size are they total km to the Menai number of new pylons what size are they total km to the tunnel	The existing line from Wylfa to Pentir is 35.2km and comprises 105 pylons, typically 46 to 50m. Details of the proposed design of the new line within each section are described in the Draft Route Alignment Report. This includes information on the number of new pylons, the existing pylons to be retained and any that will be removed. Design and pylon heights are also explained in the report and on page 21 of our Overview document. The height of proposed new pylons is approximately 47m. The proposals have been reviewed since the consultation in autumn 2016 and our documents are currently being finalised in readiness for our application to the Planning Inspectorate. These will include updated details regarding the new proposed line, such as the number and height of pylons.
alternative options	[to Western Link, and National Grid] I have just been at the National Grid AGM and picked up leaflets about the link I was told that the subsea route was lower cost than an overland route - is this true? Nichola Shaw expressed surprise that details of the other options you looked at were not in the public domain - is there anything you can share on this?	see paper mail
availability of public consultation feedback	I have just been reading some details on the North West Coast project. I note that you made all the feedback from consultations, in redacted form, available on your project site Note to PINS - this is exactly what I suggested to you some mails ago Why did you not follow this practice on Anglesey? In the spirit of openness and transparency this seems like a great idea. Are you keeping something from us?	As we have explained previously, while each National Grid project follows the same development process, the approach to consultation is planned specifically to each area and can differ. On the North West Coast Connection Project, we agreed with the local authority to continue an existing model of stakeholder engagement that had been established by Britain's Energy Coast West Cumbria (BECWC) enterprise. Through participation in this and following engagement with the relevant local authorities, feedback was published online. On Anglesey, we participate in the Energy Island Programme which was developed by Isle of Anglesey County Council. We have also engaged with Anglesey and Gwynedd Councils to plan our consultations. The approach taken on the North Wales Connection Project was to explain the feedback received, including how this was being taken into account in feedback reports. These have been made publicly available and their availability has been publicised. We consider we have been open in explaining the themes and

Subject	Question (brief)	Answer (brief)
		issues raised, including where concerns have been expressed. We are not hiding information from the public. In addition to the feedback reports, we have also summarised feedback in several documents, including newsletters and our autumn 2016 Overview document. Further information relating to our work since the Stage Three Consultation will be provided in the DCO application, which will include the Consultation Report.
option evaluation	I was talking to John Pettigrew and Nicola Shaw at your AGM earlier today. I described using a structured methodology as I have described earlier, and John said that your procurement function uses such a methodology for selecting suppliers. If such a methodology is good enough for your own use, why is it not good enough for selecting the option we will have imposed on us?	We explained in our email of 7th June why we consider it appropriate to follow our methodology and why a scoring system as you suggest presents challenges. We are confident in the process we follow and have used it to develop a number of schemes which have been granted development consent orders.
ZTV	Could I also request that when you present these figures in the DCO you use a decent map of Anglesey - eg I find the 1:25,000 OS map particularly good as it shows features such as the boundary of the AONB. The current figures look as though you have used an old AA road atlas	*** NO REPLY ***
ZTV	Please could you explain why the shaded ares on these two figures are different? I live under the dotted line between sections B and C, so it is not clear to me which figure I should be looking at, or the number of pylons I will see It would also be helpful if the different colours were more distinct as the 15, 20 and 25 shades are all rather similar - could I suggest pillar box red for the 25 zone	*** NO REPLY ***
Are brown hares in or out of scope?	I have just read the following: https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN020015/EN020015-000071-Scoping%20Opinion While it is clear dormice are out of scope, it is not clear if brown hare are out of scope also Please could you advise?	Thank you for your email. Brown hare are scoped in for assessment but not for surveys. It was agreed with relevant stakeholders that surveys would not be necessary for brown hare, and the assessment is to be based on available survey data and presence of suitable habitat. We hope this helps.
Socio-economics	Again from the Scoping Opinion https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN020015/EN020015-000071-Scoping%20Opinion Section 3.53 Whilst many projects are planned for Anglesey and will happen in tandem for the construction phase, this is not the case for the operation phase. There is only one project that will impact 30 km of Anglesey Was it really the intent of the SoS to out-scope the operation phase of the proposed development? It would not be difficult to assign impacts to this single project as section 3.53 suggests	Dear Dr Dean, Thank you for your email. The operational stage as a whole is not scoped out and has been assessed where appropriate in the Environmental Impact Assessment, which you can view on the Planning Inspectorate's website. Consideration of the operational stage has been scoped out for some topics where there will not be an impact. For example, the assessment of effects on air quality has been scoped out as there will be no emissions during operation. We hope this helps.

Subject	Question (brief)	Answer (brief)
Existing line in the baseline	Again from: https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN020015/EN020015-000071-Scoping%20Opinion Section 3.60 Should the Wylfa Newydd project not go ahead, the existing line would be largely redundant and no doubt removed As such, it could be argued, the existing line is not part of the 60 year baseline schenario Please could you comment on how the cumulative baseline has been created and what, exactly has been determined to be the "do nothing" scenario against which proposed scenarios are compared	
Impact on house prices, North Wales Connection	Re the North West Coast Connection, PINS/ the SoS make no reference in the scoping opinion to house value being out of scope, but do say unless stated out of scope, it is in scope. Therefore, it is in scope in Cumbria Re the EIA Directive, please could you explain your understanding of Article 3	*** NO REPLY ***
A suggestion	From your comment: "Any future connection plans would be based on national policy requirements, technical requirements, and consultation. Ultimately, we would need to propose an option that we think could achieve consent." Assuming that EN-5 does not change (and I know of no plans to revise it) and you don't listen to consultation, we can safely assume that should another two reactors be built you would propose a third line of pylons, as you implied in your earlier mail Many thanks - I know what to do	*** NO REPLY ***
FAO Gareth Williams	Gareth Thank you for taking the time to write on August 14th, and doing so quite quickly. It really has been taking some time to get responses from your Community Relations Team. The latest update of my communications log (which I attach) shows it takes, on average, 76 days to get a response. I hope they pass this email on to you more quickly. I got your letter this morning, Saturday 18th, so there has been some overlap with the "evidence" I sent to Nicola on the 16th. Please see attached email. I have also attached my written version of the question I asked at the AGM. Regarding the points I have raised: Threatening/intimidating behaviour I attach the details we have gathered from landowners and which I sent to Nicola. I was acting as a spokesperson at the AGM. Thank you for copies of the text of letters sent to	RE: National Grid North Wales Connection Project Thank you for your email. I apologise for the delay in responding to you, but hopefully you'll find the following information useful in response to the points you have made. Allegations of Threatening / intimidatory behaviour We take claims of threatening behaviour very seriously. We have a dedicated team that works closely with land owners, and many have equipment on their land already. If you are aware of anybody who has felt threatened or intimidated, it is really important they raise this with us directly and I will ensure that this is looked into. The use of s53 is not mandatory. In passing the 2016 Act, Parliament could have removed the alternative powers available to all statutory undertakers. Instead it provided a choice of systems. The s53 process has been around for 10 years and has been used rarely throughout the decade. As stated above we have worked closely with landowners and have agreed access for survey. Use of the term NSIP

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	landowners. I notice in your "example final letter" that you make reference to the use of statutory powers under s172 of the Housing and Planning Act 2016. This is something of a surprise to me, as I understand that you were advised by PINS on April 12 2017: "in the case of a prospective DCO, the policy intention is that the more specific power in s53 of the Planning Act 2008 should remain in use" Surely this would imply that any survey data gathered has been under false pretenses? Use of the term NSIP We both know the project is not an NSIP yet. We both know you have to follow the NSIP process, as it has the potential to become one. My gripe with this matter is that it is perfectly possible to be truthful and correct. Your publicity material said "is" not "will be", and recent letters to property owners still say "is" not "will be". Impact on property value I have already raised this with the Community Relations Team (as you will see from the spreadsheet) and I am well aware of the Scoping Reports and Scoping Opinions for both the Anglesey and Cumbria projects. You are correct that in both of your reports you scoped out property value, and that this was agreed to in the SoS Scoping Opinion for Anglesey and not mentioned in the Scoping Opinion for Cumbria. However, the SoS does state, in the case of Cumbria: "3.26 Matters are not scoped out unless specifically addressed and justified by the applicant, and confirmed as being scoped out by the Secretary of State." The SoS has not confirmed impact on house values are out of scope for Cumbria, so I can only assume they are in scope. Western Link This was not part of my question at the AGM but I did discuss with Nicola after seeing the display at the AGM. I was told that a subsea route was significantly lower cost than an overland/overhead route. I have tried to get more information on this, both from the Energy Networks Strategy Group and from the Western Link project, but neither of these bodies have answered my mails. I would appreciate it if there is anything you could do before I resort to a FOI request to Ofgem. Certainly the Institution of Engineering & Technology report, that would seem to be widely accepted, reached quite different conclusions on cost. To close, it would be useful to meet with your communications people again, and thank you again for writing	We have outlined before why we think that our descriptions of an NSIP have been clear. I have also checked back to the advice given to National Grid when the Planning Act was first introduced. At this time, the Infrastructure Planning Commission (IPC) – the predecessor to the Planning Inspectorate – asked us to consider how our projects were described in our communication materials. We discussed with the IPC whether materials should refer to 'potential NSIPs' instead of stating that an NSIP was being developed. The advice they gave us was that it was simpler to state that the project was an NSIP so that people could understand the consenting route that would be followed. As a result, our projects at Hinkley, Mid Wales, Bramford-Twinstead, Richborough, Yorkshire and Humber CCS, and Feeder 9 among others have all followed this approach. Impact on Property Value We have previously explained about the approach to the North Wales Connection and the North West Coast Connection in Cumbria. Moving forward, the scope of the examination will be set by the Examining Panel at the Preliminary Meeting. Any person may make representation about what should be considered by the examiners. Western Link Western Link is more than 12 times the length of the North Wales Connection and is also connecting the network in Scotland to the network in Wales, which has resulted in significantly different technology choices. There is more information in our film, 'the challenge of a subsea connection'. The 2012 IET 'Electricity Transmission Costing Study' helps to document the differences in cost between different technology choices. The conclusions are independent of National Grid and show how the Scottish and UK Government came to the conclusion that the need for greater transmission capacity should be met by an HVDC link. We would be happy to arrange a meeting with you, please let us know possible dates and topics you'd like to discuss. Yours sincerely,
ZTV	Thank you for the clarification	*** NO REPLY EXPECTED ***

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	In practice then we will see approx double the number stated No need to reply	
Iterative consultation?	So the statutory consultation was not iterative, like Horizon's Yes or no is sufficient	We have carried out three stages of consultation on the project and have consulted over and above the requirements of the Planning Act. Our statutory consultation was held in 2016. We followed an iterative approach in order to give people the opportunity to influence our proposals as they were refined at each stage, taking account of government guidance on pre-application consultation. If you have questions regarding Horizon's approach to consultation, these need to be directed to Horizon.
SoS Scoping Opinion	Was the Scoping Opinion available at your consultation events and did you draw attention to it so that people could understand what was in and out of scope. I do not recall this to be the case at the events I attended (Llanerchymedd and Talwrn)	The scoping opinion is the Planning Inspectorate's document and was made available to the public on the Planning Inspectorate's website from 1 July 2016. The consultation on the scoping opinion was carried out by the Planning Inspectorate in accordance with the relevant regulations. It continues to be available online. As we have explained, the initial environmental assessments were published in the Preliminary Environmental Impact Report (PEIR). The PEIR was produced in line with statutory requirements and formal advice provided via the Scoping Opinion, as the next step in the EIA process. This was available at our 2016 consultation events and at reference locations in the project area, and its availability was widely publicised.
undergrounding policy	Please could you send me a copy of the 2010/2011 consultation report - sounds very interesting	Thank you for your email. Our approach was developed in consultation with relevant stakeholders, such as the Planning Inspectorate and other national stakeholders with an interest in infrastructure projects. The approach was prepared in an iterative manner, and we were not required to produce a formal consultation report. The approach has informed how we have developed our major projects since then and to date several successful development consent orders have been approved based on this approach.
Options evaluation	Many thanks for your reply I understand it is a balance with no single factor being the decision maker. Could you give brief details of just one example where the selected option was not the least cost, for whatever reason?	Dear Dr Dean, As you say in your email, our decisions are a balance of a number of factors and no single factor is the ultimate decision maker. Our recent newsletter includes a number of examples of where feedback has influenced our decisions. Details of such examples are located on the front page and map spread. As the newsletter explains, there are many decisions big and small that have been influenced by factors other than cost alone. Our Consultation Report is now available on the Planning Inspectorate's website and includes details of how we've had regard to the feedback received.
Wylfa Newydd overlap?	I seem to remember you telling me that you had worked very closely with Horizon throughout the project. How on earth did the two of you manage to have "overlaps" seeking powers over the same piece of land/equipment? I have taken the text below from your Relevant Representation for the Wylfa Newydd DCO	Thank you for your email. Please be assured that we have worked closely with Horizon to ensure our projects are developed with consideration of one another. Given the proximity of our two projects, it is not unusual for there to be overlapping elements. The representation to the Planning Inspectorate is important so

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	Is this just another example of your lack of collaborative working, as this demonstrates that you have not worked close enough with Horizon Many thanks Jonathan "DCO LAND BOUNDARY Horizon's DCO boundary and interaction/overlap with the proposed NGET North Wales Connection DCO boundary especially at: o Wylfa substation/the powers Horizon are seeking over the NGET substation at Wylfa and the land needed by NGET for its own project and; o at Horizon's environmental mitigation area where similarly there is an overlap in terms of DCO boundary. As a responsible statutory undertaker, NGET's primary concern is to meet its statutory obligations and ensure that any development does not impact in any adverse way upon those statutory obligations. NGET reserves the right to make further representations as part of the examination process but in the meantime will negotiate with the promoter with a view to reaching a satisfactory agreement."	that these issues are made known and can be considered. As the representation also points out, we continue to work with Horizon to agree the most suitable way forward with both projects. Yours sincerely, Community Relations Team
Public meeting	[poster for meeting]	Dear Dr Dean, Thank you for your emails on 5th and 7th September inviting us to the public meeting. As you may be aware, we have recently submitted our DCO application to the Planning Inspectorate. As we are now in the formal planning process, we do not feel that it would be appropriate for us to attend the public meeting. We anticipate that any issues or questions arising from the meeting will be brought to the attention of the Planning Inspectorate through the formal planning process, and we will respond when requested by them. Yours sincerely, Community Relations Team National Grid North Wales
Socio-economics	Thanks for your reply but not much help as you have missed the point During operation there will not be multiple projects and it will not be difficult to assign impacts to your operations, which you had implied	We feel we have answered your question in our previous email sent on 27 September. If we have misinterpreted your email or vice versa, we would be happy to arrange a meeting with you to discuss this in more detail.
TBM	Does NGET have its own tunnel boring machine?	*** NO REPLY ***
North Wales circuits	Can you clarify for me please. Exiting Pentir running along the north coast are two circuits? And in your DCO proposal, there will be two circuits running to Trawsfynydd? So with the four	Thank you for your email. There are currently two overhead line circuits out of Pentir towards Trawsfynydd. One side of the pylons carries the circuit to Trawsfynydd, and the other side of the pylons holds the

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	circuits from Wylfa to Pentir there will be four in and four out of Pentir? I'm sure the answers are somewhere in the 373 documents but easier to ask	circuit to Dinorwig. After Dinorwig there is an isolated section and then the circuit - although owned by National Grid - is currently being used by Scottish Power. As part of the works to connect Horizon, this section will be returned to National Grid and used for 400kV, along with the isolated circuit. We hope this helps.
Socio-economics	OK, let's try again from the very beginning One of the reasons stated in the Scoping Report for putting impact on property value out of scope, was that there would be multiple projects ongoing, so it would be difficult to assign impacts to any one project But during the 60 years of operation, after all the construction projects have been completed, your linear asset will still be scaring the Anglesey countryside, causing loss of visual amenity, so it will be very easy to assign impacts So, please tell me again why you have scoped out impact on property value during the 60 years of operation	*** NO REPLY ***