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ISLE OF ANGLESEY COUNTY COUNCIL	
MEETING:	THE COUNTY COUNCIL
DATE:	12th December, 2016
TITLE OF REPORT:	Isle of Anglesey's County Council Response to National Grid's Final Route Wide Consultation between Wylfa and Pentir (Section 42)
REPORT BY:	Dr. Gwynne Jones, Chief Executive Author: Alun M Owen, Lead Case Officer AlunOwen@anglesey.gov.uk 01248 752481
PURPOSE OF REPORT:	To obtain the approval of Full Council upon the Authority's Response to National Grid's Final Route Wide Consultation between Wylfa and Pentir (Section 42)

1.0 Introduction

- 1.1 The proposed National Grid North Wales Connection (Wylfa to Pentir) is a Nationally Significant Infrastructure Project (NSIP) as defined in the Planning Act 2008. This requires a Development Consent Order (DCO) application to be submitted which National Grid anticipates submitting to the Planning Inspectorate in October 2017.
- 1.2 As part of the DCO process National Grid must undertake Statutory Consultation. The Section 42 (s42) pre application consultation is a formal consultation which follows the non-statutory consultation carried out by National Grid in December 2015. The s42 consultation covers a period of 10 weeks commencing on the 5th of October and closes on the 16th of December 2016.
- 1.3 Following an examination into DCO application a recommendation will be made by the Planning Inspectorate to the Secretary of State for Business Energy and Industrial Strategy who will determine the application and the final conditions (called requirements) which will apply to any consent if granted.
- 1.4 The Isle of Anglesey County Council (the IACC) has previously stated its firm view that no additional overhead electricity transmission lines and pylons should be constructed across Anglesey or the Menai Strait, due to its serious concerns about the impacts which will arise from such development. That view remains and the IACC therefore strongly objects to the proposed project in its current form, as presented by National Grid.

2.0 National Grid's S42 Consultation Documents

2.1 The suite of documents submitted as part of National Grid's s42 consultation consists of the following material:

Technical Documents

- Consultation Documents – split into 4 Volumes
- Volume 1 – Community Documents
- Volume 2 – *Reports**
- Volume 3 – Plans
- Volume 4 – National Grid approach to Consultation
 - * *2.1 – Preferred Route Option Selection Report*
 - * *2.2 – Draft Route Alignment Report*
 - * *2.3 – Menai Strait Crossing Report*
 - * *2.4 – Preliminary Environmental Information Report (PEIR (21 Chapters incl. Appendices & Figures))*
 - * *2.5 – Strategic Options Report*
 - * *2.6 – Project Need Case (2016)*
 - * *2.7 - Project Glossary*

3.0 Approach to the IACC response

3.1 For consistency the structure follows previous responses and consultations:

- Covering letter from IACC Chief Executive
- Appendix A – Strategic Report
- Appendix B – Consultation Response to the Preliminary Environmental Information Report (PEIR)
- Appendix C – A review undertaken by Arup of the:
Preferred Route Option Selection Report, Draft Route Alignment Report, Menai Strait Crossing Report, Strategic Options Report and Project Need Case, 2016

3.2 The consultation materials have been reviewed and comments provided on the project as described in documents presented by National Grid as part of the s42 consultation. In preparing this detailed response, comments have been sought from IACC officers and specialist input from professional and legal consultants (funded by National Grid via the Planning Performance Agreement agreed with IACC). The IACC's response is therefore submitted 'without prejudice' to its formal position as stated above.

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3.3 A number of the IACC responses seek to highlight areas where further information is required before a Statement of Common Ground can be agreed with National Grid.

4.0 Overview of IACC response

4.1 The covering letter from the IACC Chief Executive confirms and reinstates the IACC's position in response to previous informal consultations undertaken by National Grid. That is, the IACC considers the only acceptable alternative is full undergrounding of the proposed new connection between Wylfa and Pentir.

4.2 The IACC's key concerns are as follows :

- The approach to design evolution and mitigation
- The absence of a clear planning strategy for the consenting of the Connection Works
- There is a lack of clarity in the documentation about the choice of location for the Menai Strait crossing and related tunnel heads and the cost of achievability of the engineering solution

4.3 In the Strategic Report (Appendix A) the main themes identified in previous two responses are maintained and built upon, these include:

- Project Design & Mitigation
- Consenting Strategy
- The Menai Area
- Costs
- Welsh Language and Culture
- Socio-Economic
- Tourism
- Traffic & Transport
- Cumulative Impacts
- Health, Wellbeing & Community Cohesion
- Consultation

4.4 Detailed comments on the Preliminary Environmental Information Report (PEIR) can be found in Appendix B.

4.5 A review by Arup of all other Consultation Reports can be found in Appendix C.

5.0 Conclusions

5.1 Members will be familiar with the key issues and main themes arising from this and previous consultations. Whilst this is the last formal stage of the consultation process, opportunities will still arise for officers to inform the content of the eventual DCO submission.

5.2 Given the IACC's position in respect of undergrounding and the failure for this to be satisfactorily addressed by National Grid, the IACC will be contacting the Planning Inspectorate in this regard. Recognising the importance placed on the cost of undergrounding in respect of decision making, the IACC also intends to seek a joint meeting with Ofgem and National Grid to discuss the approach and factors which influence the North Wales Connection Project.

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5.3 The IACC will continue to:

- build an evidence base of the effects on:
 - Tourism & Landscape
 - Communities
 - Cumulative Impacts

as a basis for changes to the proposed project by National Grid and mitigation measures.

- lobby the Welsh Government for a Third Bridge.

5.4 Officers will endeavour to work with National Grid to establish an agreed Statement of Common Ground; however where there are differences of opinion these will form the basis for the IACC's Local Impact Report. Members will be updated on a regular basis.

5.5 Members are respectfully requested to approve the attached suite of documents which combine to form the IACC formal response to the s42. Subject to Elected Member endorsement it is also requested that delegated authority is given to the Chief Executive to carry out any minor amendments, variations or corrections which are identified and reasonably necessary prior to the formal issue of the response.

5.6 Delegation is also sought for the Chief Executive to conduct negotiations on the overall obligations package which will be comprised of the respective planning obligation (S106) and related agreements for the DCO.

END OF REPORT

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16 December 2016

Dear Mr Williams

**ISLE OF ANGLESEY COUNTY COUNCIL RESPONSE TO THE NATIONAL GRID FINAL
ROUTE WIDE CONSULTATION**

I am writing to you on behalf of the Isle of Anglesey County Council (IACC) to set out the Council's response to the above consultation. This response confirms the Council's position in response to previous informal consultations undertaken by National Grid. With sub-sea connection options appearing to have been discounted on financial and technical grounds by National Grid, the Council considers the only acceptable alternative is **full undergrounding** of the proposed new connection between Wylfa and Pentir.

The Council endorses the firm views expressed extensively by residents of Anglesey. A second overhead line parallel or very close to the existing line will give rise to major impacts on the landscape of the Island which are of serious concern. This landscape is critical for tourism, which is the 'backbone' of the Anglesey economy, and the future wellbeing of residents, businesses and communities. The environmental, economic and social impacts of a further overhead line and their cumulative effects in the Council's view justify the additional cost of an underground connection. The Council is concerned that cost has been the main factor in National Grid's identification of the current proposal, at the expense of giving proper weight to the importance of those other factors.

There is nothing evident from the consultation documentation provided by National Grid to convince the Council that an overhead connection is justified or necessary. Its position therefore remains that the line should be fully undergrounded. However, notwithstanding this position, the Council has reviewed the consultation materials and has provided its comments on the project as described in these documents. The Council's response is therefore submitted 'without prejudice' to its formal position as stated above.

This letter summarises the Council's response to the consultation materials and the scheme proposed by National Grid. The Council's key concerns are as follows:

- the approach to design evolution and mitigation. Whilst there is a general lack of information in the documentation regarding mitigation for the impacts of the proposal, IACC's view is that the Menai Strait crossing and any sections of under grounding should not be considered 'mitigation' for the overhead line as these elements are part of identifying a suitable connection project. The Council also considers that NG must keep the proposed design of the connection under review and continue to discuss this with the Council and other relevant bodies up to submission of the application. Given the lack of information in the s42 consultation materials regarding the likely impacts of the various route sections on the landscape and visual resource and likely tourism effects, the Council intends undertaking its own review of the proposed route to identify undergrounding.
- the absence of a clear planning strategy for the consenting of the Connection Works. The Council is concerned that the consultation materials do not provide the requisite clarity regarding the consenting route of the various aspects of the works that are required to connect Wylfa Newydd to the National Grid. Without such information it is impossible to understand the full scope of the works that should be considered within the EIA and the potential interactions of those works. This is especially the case in relation to cumulative impacts and inter-related effects. The

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Council expects detailed further engagement and discussion with NG on the scope and methodology for these assessments before they are substantially progressed.

- there is a lack of clarity in the documentation about the choice of location for the Menai Strait crossing and related tunnel heads and the cost and achievability of the engineering solution. The Council is concerned that the documents lack the necessary detail to justify these key engineering decisions and to explain why other options were discounted. In particular, focusing on a single crossing location without confidence as to the achievability of the crossing in the proposed location, the Council is concerned that NG may seek to revert to an overhead line.

In addition to this letter, the Council's response to the s.42 consultation materials provided by National Grid is set out in:

- Appendix A – Strategic Report
- Appendix B – Consultation Response to the Preliminary Environmental Information Report (PEIR)
- Appendix C – A review of the - Preferred Route Option Selection Report, Draft Route Alignment Report, Menai Strait Crossing Report, Strategic Options Report and Project Need Case, 2016

Particular issues which the Council wishes to bring to National Grid's attention within this consultation response are the following:

1. Undergrounding – The way forward

The Council has noted the provision of Planning Inspectorate Advice Note 2: *The role of local authorities in the development consent process*. The Council notes the opportunity under 6.4 for the Planning Inspectorate to assist in effective engagement between a developer and local authority where an impasse has been reached. Given

the Council's position in respect of undergrounding and the failure for this to be satisfactorily addressed by National Grid, the Council considers this to be an appropriate way forward and will be contacting the Planning Inspectorate in this regard.

Moreover and recognising the importance placed on the cost of undergrounding in respect of decision making, the Council also intends to seek joint meetings with senior representatives from Ofgem and National Grid to discuss the approach and factors which influence the North Wales Connection Project.

2. Proposed Tunnel under the Menai Strait

The Council supports the cables crossing the Strait in the superstructure of a new third bridge as part of a total undergrounding solution. This is based on longstanding awareness of tidal, conservation and geological issues as well as the legacy benefits of a third crossing.

The Menai Strait crossing has been brought into sharp focus with National Grid proposing a tunnel solution, having in turn eliminated options of laying cables on the sea bed and horizontal directional drilling. It appears that the estimated costs of tunnelling have escalated to such a degree that they now exceed the estimated cost of a new bridge. A third bridge has been a long held ambition of this Council, Gwynedd Council, and the Welsh Government through its inclusion in their Highways Programme. These parties are in full agreement that the scope for a new bridge carrying the cables needs to be fully explored as a matter of urgency and a Working Group has been established by the Cabinet Secretary with high level representation. The National Grid funding earmarked for the tunnelling and associated works could be transferred as a substantial contribution towards the cost of a new bridge which would increase its priority in the Welsh Government Programme significantly. This should be such that a firm commitment to its construction and its timescale can be in place so as not to compromise National Grid entering into a Connection Agreement with Horizon for the Wylfa Newydd power station. In this respect Horizon have indicated a willingness to

cooperate with the Working Group. This is in recognition of the legacy benefits of a new bridge to local communities, the economy and the wider North Wales Region, which would not be forthcoming with a tunnel. The Council therefore implores National Grid to engage fully and constructively with the Working Group.

A new bridge, as opposed to a tunnel, cable crossing of the Menai Strait is seen by the Council as an integral element of a 'total' undergrounding solution.

3. Wellbeing Goals

You will no doubt be aware that the Council, along with other public bodies in Wales, is required under recent National Assembly for Wales legislation to take the seven Wellbeing Goals underpinned by sustainable development principles, fully into account in its decision making. These goals are for:

- A prosperous Wales
- A resilient Wales
- A healthier Wales
- A more equal Wales
- A Wales of cohesive communities
- A Wales of vibrant culture and thriving Welsh language
- A globally responsible Wales

All of these goals apply to the National Grid proposals and will be key considerations for the Secretary of State in determining any application. These goals also underpin the Council's drive for a 'total' undergrounding solution. This also fully reflects sustainable development principles in that the decision of the Council takes a long term view and strikes the proper balance between economic, environmental and social aspects and the cost of the project.

These goals have guided the preparation of this response on the specific National Grid proposals, design changes and mitigation. As part of further consultation in advance of submission of any application, the Council expects to engage in further discussion with National Grid about how that application meets and delivers on the Wellbeing goals for Anglesey.

4. Traffic and Transport

The Council soon concluded from initial perusal of the Consultation documents that National Grid has taken insufficient account of the traffic and transport implications of its proposals, be it lorry routes and movements for the removal of excavated material arising from the tunnel works, location of the compound, or transportation of pylons to sites along unclassified roads, potential legacy issues etc. These issues are discussed in further detail in the Annexes.

5. Overview of Key Points

The Council's expectations regarding next steps are –

- further consultation on scheme evolution and EIA, including baseline and methodology, and route options appraisal and costing;
- consultation on detailed plans of schemes to be secured by requirements for local resourcing and employment, tourism etc for agreement in advance of submission;
- further discussion on planning strategy and consenting approach to ensure that application documents are fit for purpose.

6. General Lack of Detail

The Council is concerned at the lack of detail throughout the documentation, starting with baseline data, which prevents the Council from arriving at meaningful conclusions and

formulating detailed mitigation proposals. These shortcomings are highlighted in detail in the APPENDICES along with further information that is required.

7. Further Assessment Work

Due to the lack of information provided by National Grid to date in relation to a number of fundamental aspects of the proposed Connection Project, the Council will now be required to undertake its own assessment work in relation to a number of proposed design changes that are necessary to address its serious concerns about the impacts of certain elements of the proposed scheme's design. The Council will be preparing a programme of works required, and seeking National Grid's approval for the funding of those works through a work package under the existing planning performance agreement.

8. Conclusion

In conclusion the Council's position remains unchanged that a total undergrounding solution is justified and is firmly based on relevant policies and evidence. This detailed response is therefore provided 'without prejudice' to the Council's formal position.

It is also imperative that National Grid provides the Council with its proposed Consenting Strategy for the North Wales Connection Project with a view to any agreed approach being secured through a Memorandum of Understanding between the parties and Gwynedd Council.

I have copied this response to colleagues in the Welsh Government and Gwynedd Council as they are fellow statutory consultees and members of the Third Bridge Working Group.

Yours sincerely

Dr Gwynne Jones

STRATEGIC REPORT

1.0 INTRODUCTION

- 1.1 The Isle of Anglesey County Council (the IACC or the Council) has previously stated its firm view that no additional overhead electricity transmission lines and pylons should be constructed across Anglesey or the Menai Strait, due to its serious concerns about the impacts which will arise from such development. That view remains and the IACC therefore strongly objects to the proposed scheme as presented by National Grid (NG).
- 1.2 NG has nonetheless chosen to consult on the North Wales Connection Project between Wylfa and Pentir under section 42 (s.42) of the Planning Act 2008 as a proposal which includes significant additional overhead electricity transmission lines and pylons. Notwithstanding the IACC's firm objection to that proposal, it has reviewed the consultation materials provided by NG, and this response sets out the Council's position on those documents.
- 1.3 There are a significant number of constraints on the IACC's ability to engage with the materials presented by NG for consultation. This includes the approach to design evolution and mitigation. Whilst there is a general lack of information in the documentation regarding mitigation for the impacts of the proposal, the IACC's view is that the Menai Strait crossing and any sections of undergrounding should not be considered 'mitigation' for the overhead line as these elements are part of identifying a suitable connection project. The Council also considers that NG must keep the proposed design of the connection under review and continue to discuss this with it and the other relevant bodies up to submission of the application.
- 1.4 Given the lack of information in the s.42 consultation materials regarding the likely impacts of the various route sections on the landscape and visual resource and likely tourism effects, the Council is undertaking its own review of the proposed route to identify undergrounding. Without prejudice to the position that the whole project should be undergrounded the Council is undertaking a systematic assessment of each of the five sections of the route (A-E) on Anglesey. This is being carried out with specialist consultancy input and will reflect the concerns expressed by residents, businesses and communities along the route. This detailed exercise will identify additional lengths of undergrounding supported by robust evidence grounds.
- 1.5 Proposals for undergrounding along the proposed route will be forthcoming once the detailed assessments referred to above have been completed. The Council will actively engage with National Grid in considering these undergrounding options prior to submission of the DCO application. In the course of carrying out this assessment work, additional design measures which could offset the likely significant effects of the proposals may be identified.
- 1.6 There is an absence of a clear planning strategy for the consenting of the Connection Project. The IACC is concerned that the consultation materials do

not provide the requisite clarity regarding the consenting route of the various aspects of the works that are required to connect Wylfa Newydd to the National Grid (being the proposed DCO and any related or wider works). Without such information it is impossible to understand the full scope of the works that should be considered within the Environmental Impact Assessment (EIA) and the potential interactions of those works. This is especially the case in relation to cumulative impacts and inter-related effects. The Council expects detailed further engagement and discussion with NG on the scope and methodology for these assessments before they are substantially progressed. Further detail is provided in section 3.0 of this strategic report in response to NG's s.42 consultation.

- 1.7 There is a lack of clarity in the documentation about the choice of location for the Menai Strait crossing and related tunnel heads and the cost and achievability of the engineering solution. The IACC is concerned that the documents lack the necessary detail to justify these key engineering decisions and to explain why other options were discounted. In particular, focusing on a single crossing location without confidence as to the achievability of the crossing in the proposed location, the Council is concerned that NG may seek to revert to an overhead line. Further detail is provided in section 4.0 of this strategic report in response to NG's s.42 consultation.
- 1.8 Section 5.0 of this strategic report in response to NG's s.42 consultation sets out further details concerning the IACC's concerns with the approach which has been taken by NG in respect of its preferred strategic option.
- 1.9 The other sections of this strategic report provide:
 - i. an overview of the key points arising from the Preliminary Environmental Information Report (PEIR) provided as part of the s.42 consultation materials; and
 - ii. in relation to each issue, the IACC's expectations regarding key items of information or draft documents which are required from NG prior to submission of its application.
- 1.10 Where missing information, or a requirement to consult on the details of certain document, is outlined by the IACC in this response, NG should provide that information or document, and engage with the IACC in relation to that document. In addition, the Council expects NG to provide a programme for the delivery of the documents and information that are identified as being missing in this response, together with details of when and how NG are then to engage with the Council to agree matters prior to submission of the application. That programme should then be followed in the lead up to submission of the application.
- 1.11 Appendix B to the Council's s.42 consultation response provides specific points in relation to the PEIR provided as part of the consultation materials. However there is considerably less certainty on the conclusions reached in relation to significance of effects as there is insufficient baseline information and assessment contained within the report and its appendices.

1.12 The final section [13.0] of this report addresses the approach that has been taken in general to consultation, and addresses a number of general matters which NG should ensure are considered in the remainder of its non-statutory consultation prior to submission of its DCO application.

2.0 PROJECT DESIGN AND MITIGATION

2.1 Mitigation was highlighted as one of the main themes reported in the IACC's response to National Grid's, non-statutory Stage 2 Consultation (December 2015). Amongst the comments made in the response, IACC stressed 'it is of critical importance that sufficient and early engagement to be undertaken with the Council to establish common ground on detailed proposals for control and mitigation of effects'.

2.2 The IACC has two fundamental concerns with the way in which project design options, and detailed mitigation measures, are being considered by NG.

Project design considerations

2.3 Consideration of the use of buried cables, or non-overhead technology to mitigate effects is of the upmost importance to the IACC, given the overarching position that further undergrounding must be considered on all sections of the route between Wylfa and Pentir.

2.4 Throughout the documents, National Grid fails to reference, when referring to stakeholder consultation, the IACC's overarching position on the requirement for further undergrounding as mitigation between Wylfa and the Menai Strait crossing. Following consideration at IACC's Full Council in December 2015 it was resolved that National Grid's Strategic Option 3 (if taken forward), would require further mitigation via undergrounding and this should be fully explored by National Grid. Likewise, Gwynedd Council have made representations regarding the need to consider a fully-underground solution to Pentir. Both the IACC and Gwynedd Council note that the potential for further undergrounding is excluded from the project definition. The IACC consider this an important omission which should be addressed through further stakeholder consultation and within the ES.

2.5 The IACC note related important omissions in the summary of National Grid's Stakeholder, Community and Amenity Policy (See Section 3.3.5 of the PROS report), including in particular:

- *"Offsetting where mitigation is not practical" which "could include landscaping and planting works or other benefits to affected communities";*
- *"Enhancing the environment around our works" which will "consider what practicable measures can be taken to enhance areas in the vicinity of the works for the benefit of local communities and the natural environment.";* and
- *"Working with others" to "create an environment where best practice can be shared and delivered".*

NG has failed to set out in a clear and transparent manner how the comments made in previous consultations, and this current s.42 consultation stage have influenced the project.

2.6 Section 4 of the Preferred Route Option Selection Report (the PROS) provides relevant National Planning Policy provisions, but fails to identify how these commitments have been met within the context of design decisions. In particular, NG has failed to provide information as to how the following assessment principles set out in EN-1 will be met:

- The potential benefits, including contributions to energy infrastructure, job creation and any long term or wider benefits; and
- The potential adverse effects, including any long term and cumulative adverse effects, as well as any mitigation measures incorporated to reduce these adverse effects.

2.7 National Grid considered, as reported in the Executive Summary of the PROS Report that 'The outcome from the Options Appraisal has led National Grid to reconfirm the earlier preference for a fully overhead line throughout these sections of the Route, as it is considered that this would comply with relevant planning policy and National Grid's statutory duties.' The extent to which the preferred route option complies with the relevant planning policy and statutory duties is yet to be tested through the DCO pre-application and application stage planning process. It should be noted that the EIA is yet to be completed, and data collation remains underway. The IACC considers that further back-checking will be required, and that further design review including the potential for further undergrounding must be consulted on as part of on-going pre-application engagement.

Mitigation measures

2.8 Mitigation measures throughout the suite of s.42 consultation documents are presented in generic terms only and lack project specific details at this stage. The IACC urges National Grid, in consideration of the comments raised in this report and the previous Stage 2 Consultation response, to consult on detailed measures as a soon as possible to ensure that adequate opportunities are provided to develop and agree a range of measures with stakeholders prior to DCO submission. National Grid should refer to specific and general mitigation proposals presented in the IACC's PEIR response.

2.9 The overview section of the Draft Route Alignment Report (the DRA) refers to '*mitigation through design*,' however, this is the only time that this is mentioned throughout the report. Cross referencing to the PEIR and other project documentation in this respect would be appropriate. Section 2.5 of the DRA Report states that '*Feedback from the Stage 2 consultation has informed the detailed design and siting of proposed pylons presented at Stage 3 Consultation and explained in this Report*'. It should be noted however that the information presented during previous consultation stages was of a strategic nature only. This is the first time that details of proposed alignment and pylon locations have been made available for comment.

2.10 The mitigation measures set out within Part 3 of the PROS Report (and also included in the DRA Report) do not represent the full suite of mitigation measures that may be expected to be developed as part of the Environmental Impact Assessment and project development process. The IACC consider their inclusion here, and within the DRA Report, less relevant than in the PEIR, Environmental Statement, and detailed method statement, as these should be used as the primary means to convey and consult upon specific mitigation plans. The IACC consider the following initial and outline commentary on the mitigation measures set out by National Grid important to help shape the next stages of the project.

2.11 Screen Planting

2.11.1 National Grid note here that planting for the purposes of screening 'could' take place, without any firm commitments or proposals at this stage. The IACC consider that due to the nature of the proposed development i.e. including very prominent 'tall' structures, it is unlikely that onsite secondary mitigation will do much to reduce the significance of some predicted effects, especially visual effects of overhead lines. Therefore, it is anticipated that off-site measures will be needed to enhance the surrounding landscape and to screen and/or improve views towards the proposed development. It is also anticipated that off-site works to enhance Public Rights of Way (PRoW) user experience will be necessary.

2.11.2 Further information is required as to what secondary landscape mitigation is proposed within the order limits to reduce visual and landscape effects arising as a result of the proposed scheme. This mitigation will be required for example in the form of in situ replacement planting where trees and hedgerows are affected by construction works and also around any site specific infrastructure such as substations, Sealing End Compounds, Tunnel Head Houses, etc.

2.12 Landscape Enhancement/Restoration Strategies

2.12.1 The IACC considers that an off-site planting and enhancement strategy should be prepared and consulted on at the earliest opportunity. This should describe the measures proposed, outline their purpose and set out the methods by which they will be secured as part of the DCO process e.g. as designed in mitigation, planning requirements and s.106 planning obligations. Commentary should include opportunities for advance planting, provenance and supply of plant stock.

2.12.2 The process of agreeing the scope and quantum of off-site enhancements on Hinkley C Connection Project began at s.42 consultation stage and continued over a long period of time through to the Issue Specific Hearings conducted during Examination. The process of agreement with third party landowners is likely to be time consuming. This indicates real value in an early start on this matter.

2.12.3 Due to the nature of the works, trees and hedgerows will need to be removed to accommodate the construction and operation of the proposed development; the need for replacement planting therefore should be set out and detailed in the appropriate documentation for consultation with the IACC.

2.13 Residential Amenity

2.13.1 As part of the PEIR technical review, the IACC has raised concerns that no methodology has been presented for Residential Amenity Assessment. It is expected that the methodology, outcome of the assessment and proposals for mitigation of effects will be fully consulted on.

2.14 Alternative Technologies or Avoid Effects of Route Options

2.14.1 IACC's comments on NG's assessment of alternative technologies or avoidance of effects of route options are set out above under the sub-heading "project design considerations".

Summary on project design and mitigation

2.15 IACC expects NG to engage with it in relation to its review of the project design issues that have been outlined above, and to carefully consider the recommended options which emerge from that project design review process.

2.16 In addition, a detailed scheme of additional mitigation measures should be prepared and consulted on in advance of submission of the DCO application. That detailed scheme should also address the manner in which those mitigation measures are to be secured within the DCO submission, whether as requirements or planning obligations.

2.17 The IACC expects that a number of overarching information gaps will be addressed in respect of the emerging EIA upon which they would expect to be consulted. This includes further detailed consultation on emerging baseline data, impact assessment and proposed mitigation measures across all topic areas.

2.18 A programme of engagement with IACC will be required urgently to identify when the relevant information will be provided, when design changes or mitigation measures will be proposed, consulted on and agreed, and how those measures will be secured and delivered under the proposed DCO.

3.0 **CONSENTING STRATEGY**

3.1 A clear and comprehensive consenting strategy for all elements of the project, including associated development and wider works, has yet to be provided. This was requested in response to Scoping, but is not provided in the s.42 consultation material.

- 3.2 The updated Strategic Options Report (SOR) outlines NG's consenting strategy at a very high level. However, that simply confirms that all elements of the scheme between Wylfa and Pentir will form part of the DCO submission, with all other elements of the wider works to the North Wales electricity transmission grid (referred to as the "wider works" within the PEIR) being the subject of applications to Gwynedd Council under the Town and Country Planning Act 1990 (TCPA). No further detail is provided, and certainly no justification for why such an approach conforms with the current legislative regime. The ES and wider supporting technical documents will need to set out a clear and unambiguous approach to the assessment of all elements of the wider project within the assessment of inter-related and cumulative effects.
- 3.3 The IACC note that under present legislation applications for associated development in Wales (as defined by the Planning Act 2008) would be made under the TCPA to the IACC and Gwynedd Council as local planning authorities for their areas. The IACC anticipates a good level of pre-application dialogue pursuant to any such applications. These applications made under the TCPA will need to include a requisite level of information and detail commensurate with the scale of the proposed works. Additional consultation may also be required and IACC would need to understand the scope of this and that the design of the whole connection works remains under review until the approach to consenting the various works has been resolved.
- 3.4 The IACC has previously recognised that NG's consenting strategy would be a key issue for the examination of the project. Recent DCO decisions in Wales have grappled with the issues which emerge from the status of associated development in Wales, and the scope of what may or may not be included within an application for an NSIP comprising an overhead electrical line. Of particular note are the decisions relating to the North Wales Wind Farm Connection, and the Brechfa Forest Connection.
- 3.5 Notwithstanding the above IACC considers that National Grid should twin-track the DCO process in order to ensure that an option for the construction of a third bridge crossing of the Menai Strait is accommodated in the event that a technical tunnel option is not possible. As part of this process National Grid will be required to provide IACC and Gwynedd Council with a cost benefit analysis of both options for a tunnel and bridge crossing. The twin-track approach will ensure that the Inspectors as well as the Secretary of State are presented with options that will be considered in a timely and appropriate manner at Examination.
- 3.6 IACC has therefore previously encouraged NG to propose and agree a Memorandum of Understanding (MOU) to address how these uncertainties can be managed as part of this application. Unfortunately, whilst a draft MOU was previously prepared by NG and provided for comment to IACC, at the time insufficient detail had been provided by NG to allow IACC to consider the terms of the MOU proposed. NG were invited to either provide that missing detail, or an MOU which would allow a mechanism to agree the consenting strategy once that detail was available. Unfortunately, IACC has not since had any further

proposal from NG in this regard. A programme for engagement on an MOU in advance of DCO submission should be provided, and that programme then delivered.

4.0 THE MENAI AREA - (Menai Crossing, Tunnel Head House (THH), Sealing End Compounds (SECs), 3rd bridge proposal)

- 4.1 The Menai Strait Crossing Report (MSC Report) begins with a summary of the Options Appraisal process to date. As commented by the IACC in previous consultations, there has been no supporting technical information provided that would assist the reader to understand how the boundaries of the search areas have been defined.
- 4.2 At present, it is not understood how the potential significant impacts of the proposed tunnel crossing of the Menai Strait will be appropriately mitigated to ensure that an acceptable solution is delivered. The IACC consider that the location of the tunnel head house due to the length of the tunnel has not been adequately assessed in the report or wider s.42 consultation material. The IACC have concerns regarding the management and transport of significant quantities of spoil arising from construction of the tunnel, and await further information as to how this might be managed appropriately. Should it be identified that the preferred Strategic Option of tunnelling under the Menai Strait is not feasible, there will be a requirement to re-visit the SOR and all route options development. If an alternative Strategic Option were to be deemed appropriate, consultation material presented by National Grid for the purpose of Section 42 consultation may become irrelevant. This introduces project and programme risk for National Grid, and affects stakeholder resources for engagement in the project.
- 4.3 At no point in the MSC Report, is the requirement for an Energy Plant as set out in the PEIR considered. The PEIR states in Chapter 13, Section 3.3.25 that *'The construction of the tunnel for the crossing of the Menai Strait is likely to require a significant energy demand that is above and beyond the energy demand of other elements of the Proposed Project. Currently, the energy strategy for the crossing is yet to be finalised. However, it is assumed that substantial energy generation plant, such as diesel-fired generators, or similar, will be required to facilitate the tunnelling works'*. Consultation shared with the IACC to date has yet to demonstrate the extent to which this will result in significant adverse effects on the environment and local communities, and what mitigation measures will be secured.
- 4.4 It is acknowledged in Section 10.8.4 of the MSC Report that as with the sealing end compounds and the tunnel head houses would require appropriate siting in line with the Horlock Rules. The IACC request further clarity as to how the Horlock Rules have been applied in respect of appraisal of the tunnel head house locations proposed. It is imperative that the proposed sealing end compound and the tunnel head house are located as sensitively as possible to reduce impacts on the Southern Anglesey Estatelands' Special Landscape Area (SLA) and in particular to the special qualities of the SLA. Mitigation

proposals will need to be sufficient and extensive to minimise impacts and take full account of the immediate setting.

- 4.5 The commitment to consider Sections E and F (end to end options) of the scheme on a combined basis is welcomed, and indeed a critical component of the decision making process. It is unclear to the IACC what weight has been afforded to the various components of the project in the decision making process. IACC's position on undergrounding across Anglesey and Gwynedd Council's position on underground to Pentir must have significant weight when considering this appraisal.
- 4.6 None of the effects described in the end to end appraisal are quantified or rated in a way that would facilitate an understanding of the relative performance of options. It is therefore not possible for the IACC to form a view in respect of the adequacy of the decision making process.
- 4.7 The outcome of the appraisal is reported in Section 12.6.18 of the MSC Report which concludes that: *'On balance, considering the potential environmental effects and technical complexities, the increased cost of a longer tunnel option, and National Grid's statutory duties, Option C has been taken forward and is being developed further into a design for the DCO application'*. Given the deficiencies highlighted in IACC's review, it is considered that this conclusion could be subject to challenge without the provision of further evidence and assessment as to the relative performance of options.
- 4.8 Further rationale is required as to National Grid's discounting of the third Menai Crossing as a viable alternative to house cables. It is understood that this will be kept under review as further project details are available, but at this stage the IACC expect that a review of project programme alignment would be appropriate to inform the evidence base for decision making. National Grid need to work closely with the IACC, Gwynedd Council, Welsh Government, Horizon Nuclear Power and other public sector partners (such as North Wales Police) to fully assess the potential impacts on the Britannia Bridge and consider if National Grid apparatus could be accommodated in a third crossing, with significant efficiencies (potentially including commercial efficiencies) for all parties.
- 4.9 The IACC at this stage have a number of questions arising from information presented in Section 5.5 (Crossing Techniques for the Menai Crossing):
- Regarding Section 5.4.2, which separation distance has been applied between the cables to address heat dissipation?
 - In regards to underground construction as described in Section 5.4.5, have the locations of cable jointing bays been identified, and their impacts assessed and mitigated?
 - How will the Councils be consulted on the outcomes and implications of ongoing bathymetric and seismic refraction surveys?
 - What quantities of spoil will the Menai Tunnel generate, and how will this be managed?
 - How will the movement of Tunnel Boring Machine (TBM) be managed?

- What would be the scale of batching plant required for the sprayed concrete lining and what would be the impacts of its operation?
 - In constructing the shafts (Section 5.5.40), how would the noise and disturbance impacts of blasting be managed?
 - The potential for geological fracturing and loss of drilling fluid is identified in Section 5.5.67 and considered to be of low significance. What is the potential for marine impacts associated with this and how will it be addressed in the EIA?
- 4.10 It is apparent there is inconsistency in the framework for considering the siting of different elements of the project as no consideration appears to have been given to air quality and noise in siting of the Sealing End Compounds (SECs). If these matters have been discounted this should be clearly defined. The IACC is yet to be consulted on mitigation plans, including screening of the SECs. Further commentary is provided in respect of the PEIR.
- 4.11 It is noted in Section 8.3 of the MSC Report that the IACC expressed a preference for the Anglesey North Search Area. It should be noted that the Council reserves its position in respect of the SECs until further details including potential impacts and mitigation are understood.
- 4.12 Section 10.9.33 of the MSC Report concludes that *'Although the crossing of the Menai Strait is a considerable technical challenge which leads to Crossing Zone 2 being preferred, due to the environmental sensitivities in the area no overall preference was determined'*. The IACC query how ultimately, a preferred crossing option in consideration of wider impacts across other elements of the project can be determined. The potentially significant environmental impacts arising from the preferred crossing option must continue to be back-checked as impacts are quantified as part of the EIA process.
- 4.13 In reference to Section 5 of the Menai area in relation to the overhead line route corridors, it is not clear what the outcome of consultation feedback was on the balance across the various options and what weight is given to the outcome of consultation in determining the preferred option. Whilst National Grid cites concerns for local communities in Section E, consultation concerns regarding property devaluation should be acknowledged and addressed within the wider project. Section 7.3 refers to potential environmental impacts; it is essential that these are fully described and assessed within the ES. The IACC would expect to be consulted on the Flood Consequences Assessment (FCA) prior to DCO submission.
- 4.14 In Section 12.3.178 of the MSC Report, conclusions are drawn from a technical perspective as to the most appropriate end-to-end solution. It appears that similar conclusions have not been reported in respect of environmental considerations, and the IACC would expect this gap in information to be addressed.
- 4.15 The potential impacts on tourism in the Menai area are not adequately drawn out in the appraisal. Further evidence is required in support of the statement in Section 7.3.53; *'Due to the nature of their trade and operations, none of the*

businesses / commercial properties are likely to experience a loss in trade as a result of amenity effects from the introduction of an overhead line.'

- 4.16 Further quantitative assessment information is required in respect of the potential noise impacts, to support the assertion of compliance with policy made in Section 7.3.76.
- 4.17 Regarding geological conditions set out in Section 4.9 the IACC is aware that the Menai Strait is known to be heavily faulted, and may have seismic activity. Further evidence is required to understand the associated risk to the deliverability of the preferred design proposals, and potential cost.
- 4.18 The Council has not been able to identify any consideration within the suite of consultation documents of the requirement for a marine licence for the carrying out of tunnelling works beneath the Menai Strait. As part of the Memorandum of Understanding that is being sought to address the consenting strategy for the project and wider works, National Grid should identify whether or not such a licence will be required, and if so, how and when an application for such a licence would be made in order to give the Secretary of State (as decision maker for the DCO application) assurances that such a licence would be forthcoming.

5.0 STRATEGIC OPTIONS

- 5.1 Project costs were highlighted as one of the main themes reported in the IACC's response to National Grid's, non-statutory Stage 2 Consultation (December 2015). The IACC stated, 'National Grid should provide total costings, which include mitigation costs for each option, and 'life cycle' costs. These should be presented in a clear and transparent manner that breaks down the various cost elements. This is seen as essential in order to make proper and up to date comparisons between the different options'.
- 5.2 National Grid's declaration of costs within the s42 consultation indicates a significant cost differential (based on figures provided by National Grid) between the preferred Strategic Option and other Strategic Options, this differential could become less significant when the full cost of further design changes or mitigation is taken into account.
- 5.3 The updated Strategic Options Report (SOR) provides commentary on cost only and does not analyse the wider considerations of socio-economic and environmental impacts that were taken into consideration and reported as part of the Options Appraisal process in the 2015 SOR. National Grid's 'Our Approach to Options Appraisal' (2012) states that:
- 'Options Appraisal is a robust and transparent process we use to compare options and to assess the positive and negative effects they may have across a wider range of criteria including environmental, socio-economic, technical and cost factors'.

- 5.4 The scope of information presented in the SOR therefore does not fulfil the criteria set out in National Grid's own guidance.
- 5.5 The IACC has commented previously that the 2015 SOR was lacking in a robust evidence base on which to draw socio-economic and environmental conclusions. The updated SOR neither addresses this information gap, nor provides a review of any changes in environmental or socio-economic considerations that may influence the appraisal of Strategic Options.
- 5.6 National Grid notes in Section 5.11 of the SOR that updated information regarding the proposed route length and the identified mitigation measures at the Menai Strait allow National Grid to prepare a more detailed cost estimate of the preferred option. This updated cost and a back-check against the previously identified alternative Strategic Options are described in Section 6 of the SOR. The total cost differential between the preferred Strategic Option and the next cheapest option (Strategic Option 6 Hybrid OHL at £915m) as reported by National Grid has reduced from £396m in 2015 to £295m in 2016.
- 5.7 National Grid provides in Table 3, a cost comparison of Strategic Options, although only the costs for the preferred options have been updated. It is unclear why National Grid has not updated the cost estimates for all options.
- 5.8 In Section 6.15 it is stated that 'If National Grid were to carry out further development of the alternative Strategic Options in order to prepare more detailed cost estimates (i.e. including mitigation) for these options it is expected that these estimates would at best remain unchanged or would most likely increase from the current Strategic Options Report cost level.'
- 5.9 No further information has been provided by National Grid to support this assertion, and an update of all Strategic Options should be undertaken to ensure that conclusions are drawn based on current and like-for-like assumptions. National Grid note in Section 6.3 of the SOR that recent contract information for manufacturers and suppliers is relevant to the cost calculation. It is apparent that the cost calculations have not been updated since 2015, although it could be expected that these be updated in line with recent contracts.

6.0 COSTS

- 6.1 The costs reported for the preferred Strategic Option 3 now include cost estimates for the underground Menai Strait crossing, which was requested by the IACC previously and is welcomed. The cost reported in 2015 for the preferred option was £519m, excluding costs for the Menai Strait crossing, which was estimated (at that time) at an additional £35-50m. The cost is now reported to be £620m including the Menai Strait crossing, a reported increase of £101m. It is unclear whether this £101 million increase is entirely resulting from the Menai Strait crossing, and if so, why the costs have doubled since 2015. The IACC requires further clarity on this matter from National Grid.

- 6.2 As raised by the IACC previously, no detailed cost appraisal has been provided which might enable the IACC to verify the cost conclusions. In addition, the Menai crossing Report states that the cost of the preferred option (Option D, Table 11.1 of the Report) is £145-165m, and the reason for the discrepancy across documents is unclear.
- 6.3 The IACC also note that at a Stakeholder meeting on 29th September, National Grid advised that the costs associated with the Menai Strait crossing were approximately £170m.
- 6.4 The Menai Strait Crossing Report notes that these figures are high level only, but exclude any contingencies and potential issues arising from geological conditions of the Menai Strait. It is therefore highly feasible that this cost estimate could increase further. It is essential that this apparent inconsistency be resolved and further clarity provided, including a maximum cost envelope taking into considerations contingency and risk, as a significant increase in tunnelling costs would narrow the cost differential between the preferred option and other Strategic Options.
- 6.5 The updated SOR fails to take account of any design changes other than the Menai Strait Crossing. The Council anticipates design changes may also be provided in the form of undergrounding and alternative pylon design, as well as off-site, and on-site mitigation and enhancement. This has not been accounted for in the cost model to date. National Grid demonstrated in the SOR that the costs of a fully underground version of the preferred Strategic Option between Wylfa and Pentir would be of similar magnitude to Strategic Option 6, the 'hybrid' option. The inclusion of further design change costs therefore has significant potential to alter the cost differential between the preferred Strategic Option and alternatives.
- 6.6 Back-checking of costs continues to remain essential, as the preferred option, any design refinements and its mitigation is further defined. This process should include the costs of all embedded, primary and secondary mitigation, inclusive of costs for the crossing of the Menai Strait. National Grid has committed to back-checking throughout the DCO pre-application and application stages of the project. It is expected that as the route design evolves there will be further consultation and discussion with IACC on the costs of the connection in order that these can continue to be understood and verified.
- 6.7 NG should provide a programme of engagement with the IACC in response to this s.42 consultation whereby it can demonstrate to the IACC that this back-checking process has been carried out thoroughly.

7.0 WELSH LANGUAGE AND CULTURE

- 7.1 This and the following sections of this report now highlight particular concerns, information gaps or control measures which require consideration, all arising from particular topic areas of the PEIR. A more detailed commentary on the PEIR is contained within Appendix B of the IACC's consultation response.

- 7.2 Anglesey is recognised as one of the strongholds of the Welsh language. The Welsh language is a natural element of everyday life on the island and is a reflection of its traditions and culture. Linked to this is the rich history and Welsh culture that defines the area and its inhabitants. The sustainability of the Welsh language is dependent upon supporting and improving Welsh communities by providing ample employment, educational, cultural and social opportunities to use the language on a daily basis.
- 7.3 The IACC acknowledges that National Grid have submitted the methodology proposed to undertake a Welsh Language Impact Assessment (WLIA) to which a response has been submitted.
- 7.4 Welsh Language and Culture was highlighted as one of the main themes reported in the IACC's response to National Grid's, non-statutory Stage 2 Consultation (December 2015). It is imperative that Welsh Language and Culture is to be treated as an all-encompassing theme and golden thread underpinning consideration of impacts and mitigation of all aspects of the National Grid project. Anglesey is a language sensitive area, and therefore a WLIA will be an important and relevant consideration for the decision maker on the DCO application.
- 7.5 In addition there is a need for appropriate interface with the Welsh Education Strategic Plan (WESP) and the specific targets which must be met at a local level. There is also insufficient interface with the Gwynedd and Anglesey's Single Integrated Plan 2014 and the document fails to acknowledge sufficiently the statutory footing of wellbeing in Wales and the requirements of the Well-being of Future Generations (Wales) Act 2015 and the Social Services and Well-being (Wales) Act 2014.
- 7.6 NG should provide the draft WLIA to the IACC without further delay so that informal consultation can be carried out on that document prior to DCO submission. That WLIA will need to take into account the policy documents outlined in this section. NG should also clarify the manner in which the recommendations of the WLIA will be secured, most likely as a requirement of the DCO.

8.0 SOCIO-ECONOMIC

- 8.1 The IACC expects a confirm commitment from National Grid to using local labour and businesses to construct and maintain the connection project which will be an important potential benefit. However, in order for the Secretary of State to be satisfied that those benefits will be delivered, a clear strategy and delivery mechanism is required.
- 8.2 The IACC also has significant concerns with the information that has been provided to date. The IACC's concerns about the level of information that has been provided to date are detailed at sections [cross reference 18.1.3 and 18.2.4] of its Appendix B to the IACC's consultation response, the detailed comments on the PEIR.

- 8.3 In order to address the shortfalls identified in the steps that it has taken to date NG should develop and consult on draft strategies which would deliver the items set out at paragraphs [cross reference 18.1.4 and 18.2.5] of Appendix B to the IACC's consultation response, the detailed comments on the PEIR.
- 8.4 A programme of engagement with IACC will be required urgently to identify when the relevant information will be provided, when those strategies will be proposed, consulted on and agreed, and how those strategies will be secured and delivered under the proposed DCO.

9.0 TOURISM

- 9.1 Tourism is the largest sector of the Anglesey economy and generates over £270 million to the local economy per annum, attracting over 1.6 million visitors and is a major local employer supporting over 4,000 jobs. In view of the importance of tourism to the local economy, the IACC do not believe that tourism has been considered in sufficient depth and detail.
- 9.2 The IACC acknowledge that a Tourism Survey has been undertaken and are currently awaiting the results and analysis as evidence base. However, within the consultation documents a number of tourism related issues appear to be based on assumptions and not on raw data. The IACC believe that these are premature and need appropriate assessment in place to quantify their robustness. Overall there is limited information on tourism impacts and mitigation proposals. It is not clear as to the extent of impacts on the tourism sector and the IACC request further analysis in the following areas:
- visitor activity;
 - local produce and food;
 - impacts on accommodation;
 - indirect impacts;
 - cumulative / wider impacts
- 9.3 There is concern that the infrastructure (pylons, sub-station, overhead lines, and main tunnel head house for the Strait) could have a negative impact on the landscape, amenity and tourism offer. From a tourism perspective this will lead to reduced visitor numbers and behaviours, revenues and therefore impact negatively on the local economy, employment and prosperity.
- 9.4 There is limited information on how the tunnel head house for the Strait crossing will be accessed, and what impact this will have on the settlements of Llanfair PG and Llanddaniel, and possible secondary impacts to the A4080 which houses Plas Newydd and one of the main thoroughfares to Newborough (some of our busiest and most popular visitor destinations). There is also particular concern in relation to pylons and wirescape in the vicinity of the A55 as it could adversely impact on the image of Anglesey especially to transient visitors travelling across the Island to/from the port of Holyhead for further travel or from cruise vessels visiting the area.

- 9.5 Maintaining and improving the tourism offer during construction of the project is of critical importance. The IACC would expect that the potential impact on the image and perception of the Island during the construction and operational phase is fully considered and that potential mitigation measures are provided to overcome adverse impacts. [cross reference 18.3.3] of its Appendix B to the IACC's consultation response, the detailed comments on the PEIR.
- 9.6 The IACC's Destination Management Plan 2016-2020 makes clear recommendations in terms of the major energy projects and strategic infrastructure, and it is vital that these recommendations are taken on board.
- 9.7 The NG project will have a major impact on the Wales Coastal Path and AONB. [cross reference 18.3.3] of its Appendix B to the IACC's consultation response, the detailed comments on the PEIR. There will be significant loss to the visual quality to coastal path users, local residents and visitors. The coastal path on Anglesey attracts over 330,000 walkers annually for the tranquillity and unobstructed views. The PEIR mentions the coastal path around Wylfa and Vaynol. It is imperative that the coastal path around Anglesey especially at the Menai end is also captured and scoped within the ES
- 9.8 In order to address the absence of relevant baseline data NG should:
- provide the results of the Tourism Survey to IACC and agree any changes to the underlying assumptions that the PEIR relies on in order to inform the assessment of impacts; and
 - carry out further work to identify which areas will be significantly impacted and identify linkages between issues and areas that will be affected as a basis for developing responsive and realistic mitigation proposals in consultation with IACC.
- 9.9 Once sufficient baseline data has been obtained, and its contents agreed with the IACC, NG should engage with IACC to identify a series of measures to mitigate any adverse impacts arising during construction or operation of the project in accordance with relevant planning policies. These are likely to include:
- Additional undergrounding to reduce the impacts of the project on tourism receptors on Anglesey;
 - Resource to provide regular surveys with visitors to gauge impacts and adapt mitigation as the construction of the development progresses;
 - The provision of a Marketing and Promotional resource to mitigate against the loss of visitor and associated income during both construction and operation;
 - Where rights of way, byways and cycle paths are affected by the development, alternative routes should be planned for and promoted to both residents and visitors to encourage travel by sustainable modes; and
 - Where the destruction of planting/woodland occurs a series of advanced planting to take place to ensure limited impacts.

9.10 A programme of engagement with IACC will be required urgently to identify when the relevant information will be provided, when design changes or mitigation measures will be proposed, consulted on and agreed, and how those measures will be secured and delivered under the proposed DCO.

10.0 TRAFFIC AND TRANSPORT

10.1 The IACC expects further consultation with National Grid in order to refine the construction routeing. Modifications to vehicle routes were suggested by the IACC at the site visit with National Grid on 14/10/2016.

10.2 The IACC has significant concerns about the level of information provided to date and the design measures proposed by NG to minimise impacts of the project, or other mitigation proposals. These are detailed in full in the review of the PEIR appended to this report, and the following paragraphs summarise the key requirements.

10.3 NG should provide the following information, or carry out the following steps, urgently, to allow an accurate assessment to be carried out:

- submit and agree with IACC an appropriate assessment methodology for the assessment of traffic and transport impacts of the project. It is vital that an adequate methodology is provided without delay;
- engage with IACC in order to provide a revised Construction Traffic Management Plan which addresses the deficiencies identified by IACC in the plan provided to date;
- identify measures to minimise the impact of the proposed sealing end compound and tunnel head house location near Braint;
- address concerns with the proposed location of the temporary construction compound;
- fully consider the impacts of the project, together with Wylfa Newydd, on the Britannia Bridge and identify whether they could be addressed through the provision of a third crossing incorporating the cables;
- assess and provide for impacts on public rights of way during construction of the project;
- make appropriate design changes to minimise impacts on users of public rights of way during the operation of the project.

10.4 A programme of engagement with IACC will be required urgently to identify when the relevant information will be provided, when design changes or mitigation measures will be proposed, consulted on and agreed, and how those measures will be secured and delivered under the proposed DCO.

11.0 CUMULATIVE IMPACTS

11.1 Cumulative impacts were highlighted as one of the main issues reported in the IACC's response to National Grid's, non-statutory Stage 2 Consultation (December 2015). References were made to implications of a new overhead line alongside an existing line; impacts on communities; early engagement with

National Grid on a 'tiered strategy' for the mitigation and control of potential effects; and a commitment to a scheme of Community Impact Mitigation.

- 11.2 To date, cumulative intra-project and inter-project effects are yet to be consulted on a clear and coherent methodology for assessment of such effects and it is recommended that National Grid engage in dialogue with the IACC at the earliest opportunity.
- 11.3 Within the S42 documentation and in particular with reference to the PEIR chapters, the assessment of intra-project effects is inadequate and requires further assessment. The IACC has raised a number of concerns regarding the methodology and initial assessment outcomes presented, which at this stage lack evidence. The statement that no significant effects are identified requiring mitigation lacks supporting evidence. The IACC considers that further mitigation may be required, particularly in consideration of intra-project effects on local receptors associated with construction disturbance (noise, air quality, designated nature conservation sites, and amenity impacts on users of PROW etc). The means by which and location of assessment of amenity effects is ambiguous, referring to individual assessment chapters without drawing any conclusions as to intra-project and socio-economic effects. There is very little assessment of intra-project effects during construction to support the conclusions set out by National Grid. Further consultation including draft assessment outcomes and mitigation proposals to be secured by way of method statement and Requirement is essential.
- 11.4 The IACC considers it essential that National Grid fully consider end-to-end impacts of the proposed route alignment, as is commented on in respect of the PEIR. Further work as part of the EIA process is required to ensure that the intra-project effects across disciplines and geographical sections of the route are fully appraised.
- 11.5 For inter-project cumulative effects, Table 18.4 contains the preliminary assessment of effects, however, the IACC considers that the drawing together of conclusions lacks a robust evidence base at this stage due to the level of maturity of the EIA assessment. The cumulative assessment in this chapter must therefore be kept under review and should be subject to further consultation. It is noted that the key conclusions are reported in the individual assessment chapters rather than Chapter 19. The IACC considers cross-referencing to be essential.

12.0 HEALTH, WELLBEING AND COMMUNITY COHESION

- 12.1 Wellbeing is a broad, all-encompassing theme and should be reflected as such in the consideration of impacts and mitigation of the entire North Wales Connection project. Wellbeing has a statutory footing in Wales through the Wellbeing of Future Generations (Wales) Act 2015 and Social Services (Wales) Act 2014. This legislation is concerned with improving the economic, social, environmental and cultural wellbeing of Wales. It places responsibilities to think about the long term, work better with people and communities, look to prevent problems and take a more joined up approach. There are 7 National Wellbeing

Goals that underpin the Wellbeing expectations. The Act also puts in place a sustainable development principle which means that organisations must act in a manner which seeks to ensure that the needs of the present are met without compromising the ability of future generations to meet their own needs. The legislation forms the basis for decision making by the IACC and other public bodies who are stakeholders in the North Wales Connection project. The consultation documentation does not reflect wellbeing as a broad, all-encompassing theme with a statutory footing in Wales.

- 12.2 IACC expects Wellbeing to be treated as such, underpinning consideration of impacts and mitigation of all aspects of the project and the Council expects NG to revisit this aspect prior to DCO submission.
- 12.3 Health was highlighted as one of the main themes reported in the IACC's response to National Grid's, non-statutory Stage 2 Consultation (December 2015). The IACC reported that *'The Council envisages National Grid provides a Health Impact Assessment irrespective of whether or not this is regarded as a statutory requirement. This is seen as essential to allay legitimate concerns from the general public, and to be very much in the spirit of the Well-being of Future Generations (Wales) Act 2015'*.
- 12.4 The IACC expects, as raised by the Secretary of State in their Scoping Opinion (July 2016) to Electric and Magnetic Fields (EMFs), the proposal to include a separate EMF document with the DCO application which will satisfy the requirements of NPS EN-5 and include evaluations of the EMFs that would be produced. This document should consider both the overhead transmission line and any cables that are undergrounded and should take into account the International Commission on Non-Ionizing Radiation Protection guidelines (1998), as detailed in NPS EN-5.
- 12.5 No indication of how the consideration of health and wellbeing is provided in the consultation materials. The outcomes from the recent National Grid workshop (once agreed) should be considered going forward. The final EIA for the scheme must assess the broader health and wellbeing impacts of the project. This will be particularly important when considering potential impacts on health through intra-project effects during construction relating to air quality, traffic and noise disturbance. Methodology should be agreed with relevant consultees (including IACC) prior to the HIA being carried out.
- 12.6 Safeguarding, lifestyle and behaviours are all issues of significant concern which will affect community cohesion of local communities and it is disappointing that National Grid have not recognised the importance of ensuring robust safeguarding arrangements in place. The IACC believes that a goal of an Island of cohesive communities is essential and safer communities through our joint working with the Police and other Blue Light services and the Community Safety Partnership should be a given. It is proposed that this be discussed with the IACC and its Wellbeing partners.

13.0 CONSULTATION

- 13.1 The PEIR provides the most up-to-date data on which to provide technical commentary. Whilst some of the emerging design detail has been shared with the IACC in stakeholder workshops, this is the first time that stakeholders have been asked to comment on the Preferred Route Option Selection Report (PROS Report), Draft Route Alignment Report (DRA Report) and the Menai Strait Crossing Report (MSC Report). Each report is highly technical in nature and is part of a significant volume of material consulted on within the statutory s.42 consultation period. Comments made at this stage are therefore made without prejudice to further comments made by the IACC in due course, as understanding of the project, particularly in reference to on-going consultation required on as yet incomplete EIA, is enhanced.
- 13.2 National Grid should also consider how local communities will be afforded the opportunity to adequately engage in highly complex and detailed information relating to key design decisions in their locality. The IACC is not aware of any previous opportunities for communities or wider stakeholders to engage on the proposed locations of the Sealing End Compounds, Tunnel Head Houses and the Construction Compounds before selection of the preferred locations now determined by National Grid and presented within the suite of Section 42 consultation documents.
- 13.3 The IACC is acutely aware that this is the first time that the proposed locations of construction compounds have been subject to public and stakeholder consultation. The broad search areas identified in Section 9.5 of the DRA Report have not been subject to prior consultation. The Options Appraisal presented in Table 9.1 lacks a defined methodology for assessment, and is not consistent with the approach presented in the PEIR. Further qualitative assessment and evidence basis is required to justify the compound locations, particularly in terms of potential impacts associated with traffic movements to the site.
- 13.4 Both the DRA Report and the MSC Report provide an overview of the design process to date and include commentary regarding stakeholder comments that have been used to inform the route alignment. The purpose of these documents and relationship with the Options Appraisal process is ambiguous. Whilst they provide commentary surrounding the Options Appraisal for the Project, a clear and consistent methodology for assessing each option has not been set out, and it is difficult to understand the sequence of logic that has been applied to key design decisions. It is not apparent how the significance of effects in each topic incorporated within the assessment has been considered in a balanced and transparent way. National Grid has summarised work undertaken to date between consultation periods, including continued engagement with stakeholders. Section 2.5.2 of the DRA Report notes that feedback from these sessions has not been included in the report. It would have been useful for this feedback to have been included as an Appendix for transparency.

- 13.5 Whilst acknowledging the difference in character of impacts across Sections A-D presented in the DRA Report and of Sections E-F of the Route in the MSC Report, the structure, content and approach set out in each report is very different, which makes the documents difficult to understand collectively. In the first instance it would be helpful if the policy content and contextual commentary were aligned across all reports, or cross-referenced in order to avoid repetition and enable the IACC to undertake a meaningful gap analysis of the approach taken by National Grid.
- 13.6 The Need Case document is also highly technical and not easily accessible for the purposes of wider stakeholder consultation. It is essential that the IACC are consulted on an updated Need Case and Strategic Options Report (SOR) documents prior to DCO submission. Given the fundamental importance of these documents in underpinning the DCO application, it is considered essential that the public and wider stakeholders are also given the opportunity to comment on any updates.

DRAFT

CONSULTATION RESPONSE TO THE PRELIMINARY ENVIRONMENTAL INFORMATION REPORT (PEIR)

1.0 INTRODUCTION

- 1.1 On 5th October 2016 National Grid Electricity Transmission plc (National Grid) commenced its statutory consultation under sections 42 and 47 of the Planning Act 2008 for the North Wales Connection Project (the project).
- 1.2 The consultation includes a substantial amount of documents which together provide information on the project, its evolution to date and the potential effects upon the environment (social, economic and environmental) that could arise.
- 1.3 This document represents the Isle of Anglesey County Council's (IACCs) response to one of the consultation documents, namely the Preliminary Environmental Information Report (PEIR) and its associated appendices.

2.0 THE ROLE OF PRELIMINARY ENVIRONMENTAL INFORMATION

- 2.1 A PEIR provides preliminary environmental information (PEI) in accordance with the Infrastructure Planning (Environmental Impact Assessment) Regulations 2009 (as amended by the Infrastructure Planning (EIA) (Amendment) Regulations 2011 and 2012) ('the 2009 EIA Regulations').
- 2.2 The PEIR is intended to present preliminary information about the potential significant environmental effects of the proposed project, as they are understood at that stage in the pre-submission / design process. It presents the early findings of the, as yet incomplete, Environmental Impact Assessment (EIA) and gives an indication as to whether identified environmental effects are likely or unlikely to be significant and, where possible, the degree of significance.

3.0 THE STRUCTURE OF THIS DOCUMENT

- 3.1 The IACC's comments are based upon the information contained within the PEIR and its Appendices. The IACC's response to the individual chapters of the PEIR follows the order of the chapters in the PEIR.

4.0 STRUCTURE AND PRESENTATION OF THE PEIR

- 4.1 The PEIR suite of documents submitted for the S42 consultation is extensive and to assist with navigating the hard copy documents it would have benefitted with the inclusion of a contents page at the beginning of each document to denote chapter headings / numbers or alternatively tabs inserted at the beginning of each chapter.

5.0 GENERAL OBSERVATIONS

- 5.1 National Grid state *'The results assessment presented within the PEIR is to some extent based on professional judgement, and baseline assessment is yet incomplete. National Grid states that 'mitigation measures have not all been defined or designed'.*
- 5.2 The IACC acknowledges that the PEIR contains preliminary environmental information (ie. is not a completed EIA), however, the Council would highlight that where it has not been possible for National Grid to undertake a completed quantitative assessment of predicted impacts, this means that IACC's ability to meaningfully engage on assessment outcomes and input into the project design is limited.
- 5.3 The Council expects that National Grid will engage in further consultation on the emerging outcomes of the EIA, the draft Environmental Statement (ES), and associated management plans prior to submission of the DCO application .
- 5.4 Within National Grid's Draft Route Alignment (DRA) and Menai Strait Crossing (MSC) Reports, limited detail has been provided on the design measures that have been built in to the proposed development in order to avoid or reduce effects at source. As the Council has recommended consistently during each stage of consultation, the ES should be accompanied by a design approach document or ES chapter setting out how the infrastructure has been designed to minimise adverse effects. More detailed information and where relevant cross reference to the design approach document should be made from the topic specific chapters.
- 5.5 The Council also notes the PEIR does not contain the detailed proposals that will be required to mitigate the impacts of the proposed development. The Council expects that National Grid will consult on the required mitigation measures as the project evolves and produce a detailed mitigation strategy and tracker.
- 5.6 In relation to construction aspects, the Council suggests that these are captured in the Construction Environmental Management Plan (CEMP). The CEMP consulted on within the PEIR documentation outlines general mitigation commitments that will be secured during the construction stage. The measures contained represent generic best practice and should be supplemented with project-specific measures in accordance with the findings of the EIA. As the IACC highlighted in their scoping response dated May 2016, the IACC expects the CEMP to be a live document, which will be consulted upon and up dated as required. The CEMP and related mitigation measures should be secured by way of DCO requirement.
- 5.7 For the avoidance of doubt the Council comments in paragraphs 5.1-5.5 applies to the assessment in each chapter of the PEIR.

6.0 CONSENTING (Chapter 2-5 and throughout PEIR)

- 6.1 The IACC's comments on National Grid's consenting strategy are addressed in the Strategic Report Appendix A to the IACC's s.42 consultation report. However, the Council would highlight that the lack of clarity on what comprises the proposed development and wider works raises concerns about National Grid's ability to carry out an effective cumulative assessment.
- 6.2 The DCO submission now consists of the upgrades required between Wylfa and Pentir, rather than the North Wales Connections Project including wider works in Gwynedd. The IACC note that a clear consenting strategy for all elements of the project, including Associated Development and Wider Works has yet to be provided. This was requested in response to Scoping, but is not provided in the Section 42 Consultation material. The ES and wider supporting technical documents will need to set out a clear and unambiguous approach to the assessment of all elements of the wider project within the assessment of inter-related and cumulative effects..

7.0 CONSTRUCTION, OPERATION, MAINTENANCE AND DECOMMISSIONING OF THE PROPOSED PROJECT (Chapter 4)

- 7.1 In paragraph 2.4.6 National Grid explain that there are two primary methods that could be employed for tunnel construction; a tunnel boring machine (TBM) and precast segmental lining, or excavation by drill and blast or road header machine and lined with sprayed concrete lining (SCL). It would be helpful for National Grid to clarify the potential impacts associated with each technology option. The IACC should be consulted on a method statement for re-instatement proposals.
- 7.2 National Grid state that '*Disposal of spoil would be necessary, either off-site, necessitating numerous lorry movements, or on-site through creation of earth mounding.*' National Grid state that an Energy Plant may be required, but have not yet assessed the impacts.
- 7.3 The treatment of spoil requires further definition, including quantities arising, proposals for re-use or disposal and associated transport movements and impacts on local communities. Further commentary is provided within this review in respect of transport impacts, noise, and air quality impacts related to the disposal of soil.
- 7.4 There could also be intra-project effects arising from the treatment of spoil, for example if proposals were put forward to use the spoil for landscaping, which could further have associated socio-economic and recreational impacts. Further assessment of impacts associated with tunnel construction and spoil arising is required.
- 7.5 The draft CEMP should contain noise and air quality mitigation measures specifically in respect of the Energy Plant.

7.6 National Grid state that '*Materials Management Plan (MMP) will be developed to ensure that spoil removed from the launch site during the excavation of the tunnel is removed from site appropriately*'. The provision of the MMP is welcomed, and the IACC request to be consulted on this key document as it is developed prior to submission of the DCO application.

8.0 PEIR APPROACH AND METHODOLOGY (Chapter 5)

8.1 In Chapter 5 National Grid state that '*mitigation measures have not all been defined or designed*'. The definition of mitigation measures is limited, and does not highlight the potential scope for compensation measures and enhancement opportunities..

8.2 It is essential that detailed mitigation measures are consulted on prior to DCO submission. Chapter 5 could be expanded on further to clarify the potential role of offsite mitigation, and enhancement opportunities which may be important aspects of the evolving project design. National Grid states that '*Compensation measures are used when the above mitigation measures cannot be implemented for any reason*.' This fails to recognise the role of compensation or enhancement to achieve wider benefit, such as net biodiversity gain. Further dialogue would be expected in relation to mitigation, enhancement and compensation opportunities to be secured by way of requirements and obligations.

8.3 It is not clear how the consideration of health and wellbeing, including the recent National Grid workshops relating to Well-being Assessment will be integrated into the EIA, or submitted in support of the DCO application. The lack of detail within the S42 Consultation documents is of concern to the IACC. Reference must be made within the EIA to the wider health impact assessment for the project when considering potential impacts on health associated with for example, intra-project effects during construction relating to air quality, traffic and noise disturbance.

9.0 LANDSCAPE AND VISUAL ASSESSMENT

9.1 The PEIR presents the Landscape and Visual Chapters separately, however, due to the close inter-relationship between the two chapters they have been combined within this response.

9.2 OFF-SITE MITIGATION (Chapters 6 & 7 and also relevant to Chapters 8 & 9)

9.2.1 Due to the nature of the proposed development i.e. including tall structures, it is unlikely that onsite secondary mitigation will do much to reduce the significance of some predicted effects, especially visual effects in respect of overhead lines. Therefore, it is anticipated that off-site measures will be needed to enhance the surrounding landscape and to screen and/or improve views towards the proposed development. It is also anticipated that off-site works to enhance PRow user experience will be necessary where on-site mitigation is not possible.

9.2.2 An Off-site planting and enhancement strategy should be prepared and consulted on at the earliest opportunity. This should describe the measures proposed, outline their purpose and set out the methods by which they will be secured as part of the DCO process e.g. as designed in mitigation, planning requirements / conditions and s106 obligations. Commentary should include opportunities for advance planting, provenance and supply of plant stock.

9.2.3 The process of agreeing the scope and quantum of off-site mitigation on Hinkley C Connection Project began at S42 and continued over a long period of time through to the Issue Specific Hearings conducted during Examination. The process of agreement with third party landowners is likely to be time consuming.

9.3 ON-SITE SECONDARY MITIGATION (Chapters 3, 6 & 7 (also relevant to Chapters 8 & 9))

9.3.1 There is no description in Chapter 3 of the PEIR or the other referenced topic chapters as to what secondary landscape mitigation is proposed within the order limits to reduce visual and landscape effects arising as a result of the proposed scheme. This mitigation will be required for example in the form of in situ replacement planting where trees and hedgerows are affected by construction works and also around any site specific infrastructure such as substations, CSECs, Tunnel Head Houses, etc.

9.3.2 These measures need to be described in the relevant chapters with the provision of plans showing proposed measures including new and replacement planting. A draft version of this information should be consulted upon well in advance of the final ES accompanying the DCO submission to allow a meaningful dialogue between National Grid and the relevant consultees. Commentary should include opportunities for advance planting, provenance and supply of plant stock.

9.4 ON AND OFF-SITE REPLACEMENT PLANTING (Chapters 6 & 7. Also relevant to Chapters 8 & 9)

9.4.1 Due to the nature of the works, trees and hedgerows will need to be removed to accommodate the construction and operation of the proposed development.

9.4.2 In situ replacement planting as mitigation should be the first priority. This should take the form of like for like replanting of hedgerows and trees within the order limits. Where an overgrown hedgerow or line of trees needs to be removed, but for operational reasons cannot be replaced in situ, hedgerow or scrub planting should be used to reinstate the linear feature in situ.

9.4.3 Where, for operational reasons, in situ replanting of hedgerows and trees is not possible within the order limits, off site replacement planting should be carried out as close to the site of loss as possible. This is likely to require 3rd party landowner agreement. In order for as much replacement planting as possible to be secured ensuring it can be classed as mitigation, landowner agreement should be sought by National Grid as early as possible. Commentary should include opportunities for advance planting, provenance and supply of plant stock.

9.5 RESIDENTIAL AMENITY ASSESSMENT (Chapters 6 and 7. Also relevant to Chapters 8 and 9 including Chapter 18 - Intra-Project Effects)

9.5.1 Paragraph 8.1.3 of Chapter 7 explains that the methodology for the assessment of residential amenity was included at appendix 5.2 of the Scoping Report.

9.5.2 The IACC expects to be consulted on the draft ES, including outcomes of assessment and appropriate mitigation measures. Reference must be made to the wider health impact assessment for the project when considering potential impacts on health associated for example, intra-project effects during construction relating to air quality, traffic and noise disturbance.

10.0 ECOLOGY AND NATURE CONSERVATION (Chapter 8)

10.1 Menai Strait & Conwy Bay SAC

10.1.1 The PEIR confirms that a tunnelled solution is being taken forward for the crossing of the Menai Strait; overall this avoids many ecological impacts, including those that could affect the SAC. However, there are still potential impacts associated with the construction of a tunnel. In the absence of suitable mitigation, adequately demonstrated by a project level Habitats Regulation Assessment (HRA), there is a risk that these impacts could have a significant adverse effect on this internationally important site, notably the Annex 1 habitats present such as marine reefs.

10.1.2 At this stage, the PEIR includes no detailed mitigation measures for the SAC; whilst the PEIR states that the predicted magnitude of effect is very low, until proposals are developed further this cannot be confirmed. It should be noted that no draft HRA has been included with the PEIR information pack. The Council would expect to receive a draft of this document when available and consult with Natural Resources Wales to ensure mitigation measures set out are adequate. The Council expects that an appropriate assessment will be required.

10.2 Anglesey Fens SAC

10.2.1 The PEIR indicates that, in the absence of mitigation, a range of adverse / negative impacts could occur to the Anglesey Fens SAC, including direct habitat loss and changes to hydrology. Baseline surveys are ongoing and no detailed results are presented in the PEIR to allow full risk quantification. In the absence of suitable mitigation, adequately demonstrated by a project level Habitats Regulation Assessment (HRA), there is a risk that these impacts could have a significant adverse effect on this internationally important site on Anglesey.

10.2.2 It is understood from conversations with National Grid's representative during the site visit on 13th October 2016 that direct impacts are likely to be limited to tree pruning, but this needs confirmation along with detailed proposals as to how hydrological impacts will be avoided during the construction of the OHL near the SAC. It should be noted that no draft HRA has been included with the PEIR information pack. The IACC would expect to see the draft of this document when available in order to consult with Natural Resources Wales (NRW) to ensure the mitigation measures set out are adequate. There must be no significant negative effect on the integrity of the SAC as a result of this project, either alone or in combination.

10.3 Impacts to County Wildlife Sites and Section 42 Priority Habitats

10.3.1 The PEIR identifies that various impacts, including direct habitat loss, will occur to County Wildlife Sites (CWSs) and Section 42 priority habitats (Environment Act Wales 2016) as a result of the proposed project. The Council notes that baseline surveys are ongoing and no detailed results are presented in the PEIR to allow for a complete analysis of the impacts. In the absence of suitable mitigation, there is a risk that habitat losses and degradation as a consequence of the scheme could have a significant adverse effect on important habitats on Anglesey.

10.3.2 The ES should contain full baseline results, including quantitative calculations of habitat loss / degradation which should form the basis for the mitigation and enhancement proposed. The IACC requires that losses of habitats within CWSs are adequately mitigated and consider asking for a financial contribution from the applicant in line with the approach taken for National Grid's Hinkley C Connection Project. This must be kept under review as National Grid's proposals take shape.

10.4 Impacts to legally protected and Section 42 Priority Species

10.4.1 The PEIR identifies that various impacts, including species mortality and injury, may occur to legally protected species such as great crested newts, reptiles, badger and bats, along with Section 42 priority species (Environment Act Wales 2016) as a result of this project. The Council notes that baseline surveys are ongoing and no detailed results are

presented in the PEIR to allow full risk quantification. In the absence of suitable mitigation, there is a risk that these impacts could have a significant adverse effect on important populations of fauna on Anglesey.

10.4.2 The ES should contain full baseline results, including detailed accounts of ongoing faunal surveys which should form the basis for the mitigation and enhancement proposed. In particular, National Grid should provide detailed proposals for European Protected Species (great crested newts and bats in particular which may be of regional importance) where impacts are predicted and development licences will be required.

10.5 Bird collisions with overhead lines / structures

10.5.1 The PEIR includes reference to potential collision risk for birds hitting wires, notably Whooper Swans associated with Llyn Alaw SSSI and other wetland species. The Council notes that baseline surveys are ongoing and no detailed results are presented in the PEIR to allow for a complete analysis of the impacts. In the absence of suitable mitigation, there is a risk that birds, including those that form populations of national significance that use habitats on Anglesey on a regular basis, could be adversely impacted by the project.

10.5.2 The ES should contain full baseline results, modelling of impacts where possible and assessment of effects in the absence of fitting flight diverters on OHLs. If this suggests that there is potential for significant collision risk for key species, National Grid should adopt precautionary mitigation in line with latest guidance (SNH, 2016) and National Grid's protocols for fitting flight diverters to protect key populations of birds on Anglesey.

11.0 HISTORIC ENVIRONMENT (Chapter 9)

11.1 Baseline (linked to Chapters 6&7)

11.1.1 The baseline conditions in the PEIR have been informed by a desk based assessment (existing datasets, aerial photographic interpretation, and LiDAR analysis), and a walkover survey. This information has been used in part to inform the locations for proposed pylons and compounds. However, the potential for significant archaeological remains to be present within these areas is not known due to the absence of field surveys (geophysics and trial trenching).

11.1.2 In the event that significant archaeological deposits are present, National Grid has stated that pylon locations could be relocated to avoid these impacts; however, this could introduce additional setting and LVIA impacts as a result. Re-location of pylons will be restricted by the Limits of Deviation (LoD) applied for within the DCO; however, longitudinal movement along the route alignment could be accommodated within the LoD, but compromise the 'pairing' of pylons from a landscape and visual

perspective. Therefore, it is vital that these surveys are undertaken at the earliest opportunity and prior to submission of the DCO application to enable combined effects to be considered, assessed and mitigated appropriately.

11.1.3 A programme of archaeological surveys must be undertaken at the earliest opportunity, to consist of:

- Geophysical survey of all pylon locations, proposed compounds and associated construction areas where excavation would be required (haul roads etc.)
- Trial trenching of identified anomalies and 'blank' areas to characterise the archaeology and test the effectiveness of the geophysical survey.
- Review pylon locations against survey findings; where necessary relocate pylons and re-assess (historic environment and LVIA). Additional surveys may be required for proposed relocation areas.
- Review impacts in construction areas and compounds and avoid impacts by design where possible. Assess impact following design review, and propose mitigation.

11.2 Baseline (General)

11.2.1 In paragraph 1.1.5 of the PEIR, National Grid state the purpose of the Chapter is to:

- *Summarise the historic environment baseline;*
- *Identify those heritage assets for which the Proposed Project would give rise to potentially significant effects during the construction, operation or decommissioning stages;*
- *Identify initial measures that may be adopted to mitigate these effects;*
- *Consider residual effects to the historic environment; and*
- *Establish any survey or desk based work that would still be required as part of the EIA the results of which will be included in the ES.*

11.2.2 The baseline is incomplete due to a limited amount of survey across the area and the lack of historic asset and setting evaluation to date. Not all heritage assets likely to give rise to significant effects have been identified and those which have been identified as potentially significant require further evaluation to establish their significance and the likely effects on them and their respective settings.

11.2.3 Sites where there is potential adverse impact created by the proposed line on an assets setting or on its important outward view(s) will require a detailed evaluation to inform the scope and extent of any proposed mitigation. Enhancements should be considered wherever there is an unmitigated residual impact, for example, a setting impact which would not be appropriate to mitigate through screening, and also wherever

there are opportunities to strengthen landscape or historic asset character, reinforce a sense of place or shift the visual emphasis away from the overhead infrastructure.

11.2.4 A programme of staged archaeological investigation needs to progress to establish the significance of currently undesignated monuments which might be of National Importance and also to evaluate areas of archaeological potential to determine whether similar remains might be impacted upon which have not currently been identified. A programme of magnetometer survey and intrusive archaeological trial trenching needs to be agreed and in some cases topographic survey. This work needs to inform decision making as well as informing appropriate mitigation.

11.3 Viewpoint Assessment.

11.3.1 National Grid state in paragraph 6.3.4 – *‘The Viewpoint Assessment given in the Visual Impact Chapter shall be incorporated into the assessment of setting impact in order to refine those assets where there are currently potential significant effects’.*

11.3.2 A detailed and selective setting assessment is urgently needed to refine those assets where there are currently potential significant residual effects (as identified in table 9.19 and as might be identified through field evaluation). However, the viewpoints in the Visual Impact Assessment do not appear to meet the needs of the setting impact assessment and should not therefore simply be embedded within any setting assessment.

11.3.3 Bespoke visualisations will need to be created to illustrate the way the proposals might impact on particular elements of the settings of historic assets by preparing photomontages from, towards and where appropriate between assets. This is particularly important for sites where there is obvious inter-visibility e.g. views between AN080 and AN110; where one monument has influenced the siting of another e.g. the relationship between AN080 and LB 5349.

12.0 GEOLOGY, HYDROLOGY AND GROUND CONDITIONS (Chapter 10)

12.1 Groundwater (Preliminary Assessment of Effects)

12.1.1 With the good site practice mitigation measures outlined in the Construction and Environmental Management Plan (CEMP) (Appendix 4.1) in place, the effects on uncontaminated strata and construction worker health is considered by National Grid to be Negligible (not significant) as spillages will be unlikely and if they did occur they would be managed so not posing a risk to human health and localised effects on soils and geology repairable. However, the effect on groundwater is considered to be Minor Adverse (not significant) based on a low magnitude of predicted effect. The IACC highlights the presence of groundwater receptors of high importance within some areas of the

Proposed Project Boundary. Therefore, whilst it is the very low risk of a leak or spillage that limits the significance, it is imperative that robust control measures are in place to ensure that effects are mitigated.

National Grid should be aware of the implication of the Environmental Damage Regulations 2009 for any spills:

<http://gov.wales/topics/environmentcountryside/epq/environmental-damage-regulations/?lang=en>

12.1.2 . As set out at Scoping, the commitments to pollution control, inspections and incident procedures including a Pollution Incident Control Plan are welcomed by the IACC. It is expected that these measures are developed in consultation with Natural Resources Wales (NRW) and secured by way of DCO Requirement.

12.2 Tunnels and Associated shafts (Preliminary Assessment of Effects)

12.2.1 It is unclear from the PEIR how much rock spoil / material will be generated, its material / mineral properties and where it will be landed, i.e. at Anglesey, on the mainland or both sides if two tunnel boring machines are used. This needs to be established if TBM or SCL tunnelling methods are to be used.

12.2.2 The sections related to the construction and decommissioning of the tunnel should also refer to the excavation material and fill material arising from the tunnel and required to backfill the tunnel. In particular the storage, albeit temporary of the arisings and fill will need to be stored in such a way as to address potential impacts on the existing soils and groundwater.

12.2.3 The ES will need to address the recovered use and disposal of the considerable amount of spoil arising as a result of the construction of the tunnel. Spoil could be used (recovered) as part of a mitigation scheme and also be considered a part of the proposed development, giving rise to its own environmental effects, depending on how it is disposed of / utilised.

12.2.4 Based on internal officer calculations the size of the shaft and tunnel a basic calculation establishes a figure of 8,766 m³ of material from the shaft construction and 62,840m³ from tunnelling. Tunnelling is to be undertaken over a 3 year period and therefore in quarrying terms this does not account to substantial amounts of material and would in all probability be utilised within the overall development. Further studies and assessment are required of the tunnelling methodology, spoil disposal options to ensure that appropriate mitigation can be provided, transport from the tunnels, off-site disposal, reuse, and the effects on the existing aggregate industry within the area.

12.2.5 National Grid states that 'Materials Management Plan (MMP) will be developed to ensure that spoil removed from the launch site during the

excavation of the tunnel is removed from site appropriately. It is suggested that a MMP addresses broader issues than spoil/material removal from the tunnel excavations. The provision of the MMP is welcomed, and the IACC seek the establishment of a Materials and Waste Management Steering Group between relevant stakeholders to address waste and material management associated with the construction, operation, maintenance and decommissioning of the proposed project prior to submission of the DCO application.

12.2.6 Such a management plan should be submitted in draft as one of the application documents addressing the volume, geology and time frame for extraction of tunnel arisings and suitability for use within the overall project, material for construction of temporary haul roads, concrete, compound surfacing etc. The MMP will also need to address the end use / disposal of material utilised as part of the temporary haul roads, compounds that form the overall project. The storage of arisings will also need to be addressed within the LVIA if large stockpiles of material are to be stored on site (This should be considered within chapter 18 - Intra-project effects).

12.2.7 Within the MMP a materials balance exercise should be undertaken in estimating the amount of aggregate and waste generated within the scheme against the required aggregate for the development. In doing so the IACC can engage with National Grid in identifying sources and providers of aggregates and mineral materials together with potential sites for processing of waste and storage of stockpiles on Anglesey, Gwynedd, North Wales in the scheme's development. (This should be considered within chapter 19, Inter-project effects). Such consideration will also need to be addressed within Chapter 4 - Construction, Operation, Maintenance and Decommissioning of the proposed project.

13.0 WATER QUALITY, RESOURCES AND FLOOD RISK (Chapter 11)

13.1 Water resources receptors

13.1.1 In paragraph 3.3.7 National Grid state: "*Water resources receptors are defined within this assessment as surface water abstractions and their associated upstream catchment*".

13.1.2 It is important for National Grid to include Ground Water (GW) receptors and the text elsewhere implies that records of GW abstractions have been requested from NRW/LAs. It is important for groundwater to be referenced and included in other chapters- e.g. in the hydrogeology chapter.

13.1.3 National Grid should obtain groundwater abstraction data and cover groundwater as a potential receptor as part of the assessment or refer to where this is detailed elsewhere. National Grid must acknowledge the

risk that not all private supplies may be registered and the need to consult landowners potentially affected.

13.2 Magnitudes of effect and Mitigation

13.2.1 Tables 11.20 -11.24 includes detail on magnitude of effects for - overhead line, third party underground services, tunnel, THH/SECs and substations.

13.2.2 Effects and mitigation options have been seemingly discounted within the document at an early stage, without the provision of evidence to support the conclusions drawn. The IACC would expect to see evidence to support the assessment of the significance of effects reported in Sections 5.2 to 5.6. As a minimum, this should be provided through the Water Framework Directive (WFD) assessment and Flood Consequence Assessments. It seems premature to assess the potential effect without these assessment completed as a minimum. This has been identified as an issue to avoid scoping out potentially significant effects and to ensure transparent and robust decision making.

13.3 Control and Management Measures (CMM) and Mitigation by Design (DMM)

13.3.1 In Table 11.18, the mitigation by Design Measures due to changes to watercourse morphology as a result of works in or near watercourses (e.g. installation of watercourse crossings) should also include potential mitigation required, including compensatory measures, due to any deterioration in WFD hydromorphological supporting elements, e.g. due to culvert crossings.

13.3.2 The mitigation by Design Measures due to volumetric displacement of flood water associated with the construction of temporary spoil mounds, access tracks and temporary spoil mounds also needs to include potential mitigation required, including compensatory measures, due to any loss of floodplain. This is applicable to associated proposed infrastructure of OHL and third party services and also THH/SECs and Substations. This has been identified to allow for compensation for loss/localised deteriorations in WFD quality elements and/or any loss of floodplain resulting from spoil heaps or raised access tracks in floodplain areas.

14.0 TRAFFIC AND TRANSPORT (Chapter 12)

14.1 Menai Strait Crossing (Cross reference with the Menai Strait Crossing Report (Chapter - Construction Consideration, other infrastructure).

14.1.2 National Grid state *that 'As plans for a potential third bridge across the Menai Strait become more defined National Grid will continue to review its proposals. At this time the Third Menai Bridge project is still not confirmed and until there is a final design, with funding and consents*

confirmed, National Grid are required to progress with its current plans to connect the Wylfa connection'.

14.1.3 Anecdotal evidence and traffic data suggests that the Britannia Bridge is a pinch point on the A55 and at peak periods (westbound am and eastbound pm), during summer months, or when the ferry has disembarked at Holyhead, this has considerable traffic implications on the Britannia Bridge. This is the only section of the E22 Euro Route which is single carriageway and therefore this is already a concern without this issue being further compounded by traffic generated by the proposed Wylfa Newydd and National Grid projects. Additionally, during adverse weather conditions or severe accidents, this also has a significant impact on both the Britannia Bridge and Menai Bridge (diversion route) where the bridges may be closed to high sided vehicles. This raises significant concerns with regards to resilience due to the closure of the bridges.

14.1.4 From an Emergency Planning perspective and linked to impacts on traffic congestion the influx of site traffic could increase the incidence of traffic congestion within the "incident management area" around both Britannia & Menai Suspension Bridge during periods of high winds and the implications of stacking any vehicles unable to cross. The accumulation of both National Grid and Wylfa Newydd traffic could become a significant factor in the event of any incident affecting the road network and has the potential to hinder the emergency response.

Local authorities are Category 1 responders with a statutory duty under the Civil Contingencies Act 2004 to undertake risk assessments and plan for emergencies. As part of this requirement IACC must, as the Local Authority with statutory responsibility for emergency planning, assist in the preparation of any relevant multi-agency response plans required during the construction phase

The role of the IACC, coordinated by Strategic Co-ordination Centre, in response to an emergency is as follows:

- to support the emergency services including attendance at the strategic level of multi-agency control (known as the Strategic Co-ordination Centre) and / or the tactical level of control (known as the Tactical Control Centre); and
- to provide humanitarian assistance to the affected local community (local residents, visitors to the local area and road users caught up in the events).

The operator will be required to provide a Traffic Management Area Plan. National Grid should arrange for all site bound traffic and traffic leaving the site in the immediate are of Britannia Bridge to be moved to a 'place of safety' if any restrictions are in operation on traffic movement across Britannia Bridge;

National Grid would also be required to provide positive control of the movement of site traffic during any such incident in order to:

- Arrange to contact suppliers to cancel/postpone deliveries; and
- Arrange to stop or modify the movement of construction worker traffic to and from National Grid Sites

14.1.5 National Grid need to work closely with the IACC, Gwynedd Council, Welsh Government, Horizon Nuclear Power and other public sector partners (such as North Wales Police) to fully assess the potential impacts on the Britannia Bridge and consider if National Grid apparatus could be accommodated in a third crossing, with significant efficiencies (potentially including commercial efficiencies) for all parties.

14.2 Construction Traffic Management Plan (CTMP)

14.2.1 The IACC raise a number of concerns with the CTMP, namely:

- The use of unsuitable roads to transport goods, materials and workers during the construction phase of the project.
- The likelihood of significant increase in uncontrolled traffic numbers using Class II, III and unclassified roads to access different bellmouths along the OHL route.
- This would lead to issues such as road safety concerns, increase in potential vehicle collisions, increase in traffic congestion, speeding concerns, edge of carriageway damage, etc.

14.2.2 National Grid will need to submit a comprehensive and robust Construction Traffic Management Plan to the IACC for review and approval prior to inclusion in the Environmental Statement (ES).

14.3 Transport Assessment (Methodology)

14.3.1 National Grid state that: *Rule 1: include highway links where total traffic flows are predicted to increase by more than 30% (or where the number of HGVs is predicted to increase by more than 30%'* Despite certain links having a relatively small overall increase in traffic volume, the IACC considers the percentage increase in HGV traffic during working hours very significant. The traffic flow increase should be assessed as an hourly increase in HGV traffic, rather than the vehicle Annual Average Daily Traffic (AADT).

14.3.2 *'Preliminary Assessment of Highway Safety Unnamed Road NCR 8 :- HGV % increase weekday 24 hours = 174% Significance = Moderate / Large'* HGV % increase should be assessed as an hourly increase in HGV traffic rather than AADT % increase. The IACC disagrees with the significance conclusion as per table 12.46, i.e. 174% increase is not a moderate significance.

14.3.3 *'For the purposes of the preliminary assessment, light vehicles (LV) are considered as cars, vans & goods vehicles weighing less than 7.5 tonnes'* Any vehicle over 3.5 tonnes should not be classed as a Light Vehicle as per the Driver & Vehicle Standards Agency's guide to lorry types and weights.

14.3.4 National Grid will need to agree an assessment methodology with the IACC prior to any transport assessments being undertaken.

14.4 Location and access to Braint.

14.4.1 Table 12.0 (Study Area) *'Link Description: A4080 between A5 and Plas Newydd'*. This link is deemed unsuitable as a proposed construction haulage route due to capacity constraints making it unsuitable for the volume of HGVs, with limited options for physical improvements due to existing structures, properties, etc. Certain traffic management measures such as temporary traffic lights implemented as mitigation measures are likely to be objected by the Highways Authority on the basis of disruption, extensive driver delay, major road safety issues due to the proximity of Llanfairpwll primary school.

14.4.2 Table 12.0 (Study Area) *'Link Description: Unnamed road between Star and access to Braint'*. This link is deemed unsuitable as a proposed construction haulage route due to capacity constraints and restrictive widths making it unsuitable for the volume of HGVs, with limited options for physical improvements due to existing structures, properties, etc. The A5 junction in this link has a history of collisions and speeding complaints.

14.4.3 Table 12.0 (Study Area) *'Link serving Bellmouth F01/G8/T1A/iii (Unclassified road over Pont Rhonwy Llanfairpwll)'*. This link is deemed unsuitable to accommodate any HGV or increase in LV traffic due to capacity constraints, poor horizontal and vertical alignment, etc.

14.4.4 National Grid should seek alternative routes or introduce physical highway improvements to make routes more suitable to accommodate an increase in traffic volume generated by the Proposed Project. It is important that regular dialogue is maintained between National Grid and the IACC.

14.5 Suitability of Construction Traffic Routes (Appendix 4.3 preliminary CTMP, Annex A2: preliminary Construction Routes and Access Point Locations).

14.5.1 All construction traffic routes are to be agreed with the IACC. The following list, which is by no means exhaustive, contains unsuitable routes/bellmouths proposed for use within proposed project:

- **Bellmouth A05** - Assessment should include Horizon works, i.e. Site Preparation & Clearance works to fully assess the impact and mitigation required.
- **Brynddu Road (Llanfechell to Rhosgoch)** - This section of road deemed unsuitable to accommodate an increase in traffic volume due to capacity constraints, lack of road width to accommodate 2-way traffic flow, etc.
- **Unnamed Road A8 (B5111 to Capel Parc)** - This section of road deemed unsuitable to accommodate an increase in traffic volume due to capacity constraints, lack of road width to accommodate 2-way traffic flow, etc.
- **Lon Leider** - This section of road deemed unsuitable to accommodate an increase in traffic volume due to capacity constraints, lack of road width to accommodate 2-way traffic flow, etc.
- **Unnamed Road A9 (Lon Bachau)** - This section of road deemed unsuitable to accommodate an increase in traffic volume due to capacity constraints, lack of road width to accommodate 2-way traffic flow, etc.
- **Route linking B5110 Rhosmeirch to B5111** - not suitable for use as an LGV route. Alternative route should be proposed.
- **Unnamed Road A10** - Section of road linking to the Temporary Access Road (TAR) deemed unsuitable to accommodate HGV traffic
- **Unnamed Roads A17 & A20** serving Bellmouths E03, E04, E05 and E06 not suitable for increase in traffic volume. Alternative suitable route should be proposed.
- **Bellmouth C11** - road serving access to proposed Bellmouth C11 is a public highway - this should be noted on the drawings.
- **Unnamed Road A19** - road serving proposed bellmouth C06 & C07 in poor condition and unable to accommodate an additional volume of traffic without remedial /improvement works.
- **B5420** between Llangefni Link Road roundabout and construction compound entrance - substantial improvement required due to network constraint points.
- **Unnamed road NCR 8 / A5 junction** to be included within Transport Assessment.

14.5.2 All construction traffic routes to be agreed with IACC with regular dialogue continued. Mitigation proposals to be assessed where appropriate in the form of physical highway improvements or alternative routing proposals.

14.6 Location and access to the Construction Compound

14.6.1 In Chapter 6 (Proposed Mitigation and Residual Effects) National Grid calculate that – ‘*Vehicle trips associated with the OHL scheme element, approximately 30% are expected to route via the construction compound near Llangefni. The remaining 70% of traffic is assumed to route directly*

to and from the appropriate bellmouth connecting the Temporary Access Road and the construction area’.

14.6.2 Sufficient information has not been provided to evidence the above assumption. The IACC considers the links providing access to the construction compound poor and unsuitable. This is due to a combination of network constraint points and poor vehicular access on to and off the strategic highway network. Funding for sections 3&4 of the Llangefni Link Road included as a construction route for National Grid vehicles it yet to be secured. The B5420 between Llangefni and Four Crosses roundabout is not suitable as a HGV route to the construction compound, due to poor horizontal and vertical geometry, restrictive widths, community severance, etc. Due to the above constraints, National Grid should consider Bryn Cefni Industrial Estate (Llangefni) or other suitable sites as compatible locations for the construction compound and proceed to engage with the IACC on suitability to accommodate traffic movements during the construction period.

14.6.3 In the first instance, further consultation is required with the IACC to discuss the distribution of traffic on the local and strategic highway network. Secondly, highway improvements to be proposed and agreed with the IACC to make the link to the construction compound more suitable and to facilitate the predicted increase in HGV traffic volume as a result of the National Grid project. IACC are considering the need for financial contributions to secure the use of sections 3 & 4 as an access route, or consider an alternative suitable route to the construction compound.

14.7 Wales Coastal Path (Appendix 4.4 Draft Public Rights of Way Management Plan PRow)

14.7.1 It is anticipated that the construction traffic route along the A4080 will have a negative effect on the PRow, including local community walks and a section of the All Wales Coastal Path. It will be necessary to assess the safety of PRow users along this route due to the significant increase in HGV traffic volume generated by National Grid project. This section of PRow should also be included in the socio-economic chapter, due to an anticipated reduction in attractiveness of the route resulting in a loss of potential users, etc.

14.8 Public Rights of Way (PRow) (Cross reference with Chapter 16)

14.8.1 Para 5.1.8 of the Socio Economics chapter states that: ‘According to the PRow Management Plan, it is anticipated that the majority of PRowS that are affected by the Proposed Project will be managed through the use of contract staff at crossing points’.

14.8.2 Additional detail is provided in the Management Plan in Appendix 4.4, however, further information is required on how this would operate,

particularly with regards to Health and Safety arrangements and likely length of delays to PRow users.

14.8.3 It should be ensured that appropriate Health and Safety protection is afforded to PRow users within close proximity to construction areas. If delays are likely to be significant, a temporary diversion may be more appropriate. Any such proposals should be discussed with the IACC with a sufficient level of underpinning information.

15.0 AIR QUALITY AND EMISSIONS (Chapter 13)

15.1 National Grid state that – *‘The energy strategy for the proposed project is currently ongoing and emissions data for the purposes of the air quality assessment will be provided when available. The detailed assessment of energy plant emissions that will be reported in the ES will be based on the method described in Appendix 13.4’.*

15.2 The lack of assessment of the environmental impacts associated with the proposed energy plant is of concern to the IACC. The assessment, and proposed mitigation measures should be completed and consulted on prior to DCO submission. Appendix 13.4 shows that dispersion modelling would be undertaken and only 1 year of meteorological data from Mona Station would be used. It is considered best practice that interannual variability should be tested by using at least three years’ worth of meteorological data.

15.3 Once the assessment is completed and interannual variability assessed, IACC should be consulted on the assessment of potential impacts and advise on the requirement for any abatement measures which are required for the energy plant. The CEMP does not contain noise and air quality mitigation measures specifically in respect of the energy plant. The CEMP should be updated with project-specific measures in accordance with the findings of the EIA.

16.0 CONSTRUCTION NOISE AND VIBRATION (Chapter 14)

16.1 Pylon Construction (Construction Noise Impacts)

16.1.1 In paragraph 6.3.13, National Grid state – *‘The preliminary assessment of noise impacts arising from different aspects of construction has identified piling works as a potentially significant source of noise and vibration. Further assessment of this activity has therefore been carried out’*

16.1.2 The IACC believe the assessment of piling noise/vibration for OHL pylons has been carried out on a worst case basis, assuming impact methods for piling, which is appropriate for the purpose of the environmental impact assessment. It is likely that a quieter method will be required when close to noise sensitive receptors. The IACC would expect arrangements to be set out for how BPM will be secured.

16.2 Tunnel

16.2.1 In paragraph 6.5.3 under the main heading of Tunnel and sub heading of Drill and Blast, National Grid state – *‘Air over-pressure as a result of surface blasting activity Lower frequency airborne energy may be felt as concussion or pressure. Due to the temporary nature of the works, it is not considered likely to result in an adverse impact at the nearest receptor. Air overpressure will be mitigated through appropriate blast design. Noise from blasts within the tunnel will be contained and will reduce the further the tunnel progresses below surface.’*

16.2.2 Further ahead in the chapter in paragraph 6.5.11 under sub heading Construction Noise and Vibration Impact, National Grid state *‘Both tunnelling methods have the potential to result in discernible ground-borne noise and vibration as they pass underneath NVSRs. The potential noise and vibration impact will depend on the tunnel route and the chosen method. From experience of other tunnelling projects, ground-borne noise and vibration are unlikely to result in a significant impact at potential receptors due to the short duration in which the tunnelling activity will pass within close proximity (under) of the receptor. Therefore, effects due to ground-borne noise/vibration are likely to be of negligible significance particularly if any potentially affected residents are notified in advance which constitutes best practice’.*

16.2.3 The IACC believes that there is a clear need for pro-active community liaison if significant effects are to be avoided. The IACC would expect arrangements to be set out in the CEMP (or Noise and Vibration Management Plan) for notifications to be made to potentially affected noise/vibration sensitive receptors regarding tunnelling/blasting.

16.3 Construction Environmental Management Plan (CEMP) (General)

16.3.1 The IACC believes that the proposed mitigation measures are inadequate and expects the proposed controls and mitigation measures to be consistent with best practice and consistent with the protection provisions that have been used on other DCO schemes. The IACC would expect more information setting out how long term, 24 hour noise from the tunnel support site would be controlled, and how those controls would be secured. It should be noted that impacts associated with the proposed energy plant are yet to be assessed.

16.3.2 IACC expects arrangements to be set out for how working hours and BPM will be secured. For example, many DCO schemes have made commitments to use processes for seeking, obtaining and working within specific consents as set out in Section 61 of the Control of Pollution Act (s61). Mechanisms should also be set out for monitoring construction effects and ensuring that they are not materially worse than those reported in the environmental statement.

16.3.3 The IACC would expect to see delivery times to construction compounds limited so that deliveries do not occur at night-time. The IACC would like to see more emphasis on logistics, planning and organisation to reduce impacts. 'Just in time' deliveries to specific sites rather than to the construction compound could reduce impacts, where practicable.

16.3.4 It is recommended the construction compound at Llangefni (PEIR 3.12.2) should be located in the more easterly of the two fields either side of the fence. This takes advantage of natural screening provided by landform, to protect the nearby property. Bunding using material from the site could be used to provide additional mitigation, along the fence line.

16.4 CEMP – Fencing and other means of enclosure

16.4.1 In paragraph 7.1.4, National Grid state that: *'Further mitigation, over and above that contained within the preliminary CEMP may be required at long term and 24 hr construction sites. This may include the use of acoustic barriers and enclosures for particularly noisy activities, or the erection of site hoardings which will be provided around most sites anyway. These measures will only be definable once the contractor has completed a detailed noise and vibration assessment of the specific activities and works that will occur at each location. These measures will then be identified in the detailed CEMPs in relation to each site or area of works'*

16.4.2 No reference has been made to solid site hoardings of sufficient mass to provide a barrier to reduce construction noise in the CEMP. Where there's a need to provide noise reduction appropriately designed imperforate site hoarding should be used to reduce noise from the construction site. Barriers are cited in CEMP Table 2. For a static plant the IACC would expect that the duration and hours of use of the plant would be cited as a deciding factor in the level of mitigation required.

16.5 CEMP – Off-site mitigation

16.5.1 IACC would expect reference to a commitment to an off-site mitigation programme. This may be required in the event that the ES identifies significant effects which cannot reasonably or practicably be mitigated within the work-site, or that such effects occur during construction as a result of noisy work being required that could not reasonably have been foreseen when the ES was prepared.

16.5.2 It is established good practice for large infrastructure projects to have a Noise Insulation and Temporary Re-Housing Policy for the construction phase. The Policy sets out criteria (noise levels, length of time of anticipated impacts) which if met would trigger either temporary rehousing or noise insulation. It also sets out what measures are to be taken when predictions indicate that the criteria will be exceeded. Operation of the scheme is made a contractual requirement for the

Contractor. This approach has been seen to ensure that the Contractors provide the maximum effort to control noise at source.

17.0 OPERATIONAL NOISE AND VIBRATION (Chapter 15)

17.1 Conductors

17.1.1 This chapter is cross referenced with the Preferred Route Options Selection Report (PROS Report), (Options Appraisal Scope and Methodologies OASM) where it states in 9.2: *'EN-5 notes that noise from overhead lines is unlikely to lead the determining authority to refuse an application; this is because noise from high voltage overhead lines is principally a function of voltage and geometry and it is not practicable to eliminate noise effects entirely. Once built, opportunities for further mitigation of overhead line noise are very limited. National Grid follows the guidelines on noise set out in EN-5 and considers these as an integral part of its process for siting and the design of new overhead lines'*.

17.1.2 PEIR paragraph (4.1.9 Section B: Rhosgoch to Llandyfydog) states: *'There will be approximately 5.9 km of new linecomprising L12 pylons with Twin Redwood conductor operated at 400 kV. A section of the existing overhead line is to be realigned requiring the removal of seven L6 pylons to be replaced with L12 pylons with twin Redwood conductor'*.

17.1.3 The IACC believes that in transposition zones, the potential for noise problems is increased due to 2 x OHL of twin conductors and the proximity to dwellings. Not only will an additional line be erected in this area but the existing line will experience an alteration which will see deterioration in its noise performance. As little can be done once the lines are constructed, the IACC believe there is sufficient justification to consider undergrounding the cables in these area. The additional cost of replacing pylons on the existing line and the deterioration in noise performance merits further consideration for undergrounding within these transposition areas, because as paragraph 5.1.28 states *'Underground cables do not produce operational noise or vibration...'*.

17.2 Tunnel Head House (THH)

17.2.1 For the proposed Tunnel Head House development National Grid in paragraph 5.1.31 state that *'Operational noise from THH's will be assessed using the method outlined in BS 4142:2014 ... This method will identify potentially significant adverse effects and assist in appropriate design criteria and noise mitigation where necessary. However at this stage it is considered unlikely that there will be any significant effects, due mainly to the distance to the nearest NSR.'*

17.2.2 The IACC seeks a comprehensive design and assurance process to ensure that significant effects are avoided and any adverse effects are

minimised as far as it is practical to do so. Upon reviewing the outcome of the design and assurance process, the IACC will advise on the need for control measures and DCO Requirements to ensure delivery of equipment with acceptable noise levels.

17.3 Substations

17.3.1 This chapter is cross referenced with the Draft Route Alignment Report (DRA Report) 4: Section A Wylfa to Rhosgoch

17.3.2 Paragraph 5.1.38 of the PEIR states that: *'No additional reactive plant is proposed for Wylfa, however it is anticipated that an additional shunt reactor will be required at Pentir. A full assessment of potential noise emissions from substations will be carried out when detailed plant requirements are available.'*

17.3.3 DRA Report – 4: Section A states that: *... 'to connect one of these two new circuits to Wylfa, an extension will be required to the existing Substation. DRA Report – 4: Section A states that: ... 'It is proposed that the new electrical equipment required would largely comprise compact, gas insulated equipment rather than the more traditional air insulated equipment that makes up the existing substation at Wylfa. ...*

17.3.4 The IACC consider that noise limits will need to be discussed and limits imposed to ensure that there are no significant effects due to noise from equipment at the substations. The IACC seek that a full assessment be carried out for the EIA and that a detailed design, procurement and assurance process be specified and agreed to avoid significant effects and minimise adverse impacts as far as practical. Following the assessments the IACC will review the requirement for noise limits to be imposed, and Requirements imposed to ensure delivery of equipment with acceptable noise levels.

17.3.5 Electrical hum has been the cause of complaint from Cemaes village in the past. The IACC understands that at the present time National Grid are uncertain whether it is their own transformers or those at Wylfa A which are audible in Cemaes or a combination. One of the remaining transformers is identified as a quieter type while SGT4 is of an older noisier type. Consideration should be given to offering replacement of this transformer as a mitigation measure in this area.

17.4 Mitigation and Residual Effects

17.4.1 National Grid state in paragraph 6.1.1 – *'At this stage it is not possible to provide detailed mitigation measures until the design and layout have been finalised. A further assessment will be carried out at detailed design stage, looking at methods to mitigate the potential noise impacts from the Proposed Project'*. Paragraph 6.1.4 indicates that *'Once the design and routing options for a new overhead line are fixed there are no*

further practicable mitigations options available....' Paragraph 6.1.5 concludes with 'Noise from pylon fittings and insulators will be mitigated through the selection of appropriate equipment and correct installation...'

17.4.2 The first two statements above appear contradictory. The IACC understand that the pylon siting and conductor selection are fundamental to the noise produced, and once these are set there can be no further mitigation, other than selection of pylon fittings and insulator types. It would therefore seem apparent the choice of conductor is a fundamental means of mitigation. The IACC has therefore serious concerns about the PEIR assessment and its influence on the choice of conductor, because the assessment is currently based on an assumed background noise level of 30dB (A), which the IACC does not agree with. The statement that the chosen configuration is the quietest system that can be deployed should be justified with sufficient evidence.

17.4.3 It would therefore appear that the choice of conductor is a fundamental means of mitigation and this needs to be environmentally appropriate within the constraints of the options available. A process should be set out for selecting, agreeing and securing the optimum alignment and location of overhead lines and other equipment that will minimise noise as far as it is practical to do so.

17.4.4 The IACC welcomes the statement that the additive effects of current and future lines will be considered, particularly because of the issue of transpositions and potentially noisier lines replacing existing lines.

18.0 SOCIO-ECONOMICS (Chapter 16)

18.1 Employment and Skills

18.1.1 National Grid state: *'There is potential for the proposed development to impact (positively or negatively) on the communities within the study area through the introduction of additional workers. The number of construction workers would fluctuate throughout the construction programme, and is expected to peak at around 400. The main construction works are expected to take place over a four year period (2020-2024) (para 5.6.2), with the majority of the workers coming from outside the region' (no details given) (Page 68).*

18.1.2 *'National Grid suggest that a small number of construction jobs would be taken up by workers from Anglesey and Gwynedd (page 47).'*

18.1.3 The key issues relevant to the socio-economic chapter which need to be addressed are:

- Local employment and skills - The skills profile and number of local jobs has not been defined. This is a necessary pre-requisite to identifying opportunities, access to jobs and training and developing

pathways to employment. The profile and numbers will also determine the extent and scale of a range of other potential impacts e.g. demand for accommodation from construction workers;

- Potential negative employment effects - if the demand for local employment is already taken up by other existing projects, exceeding local capacity. This needs to be understood if the potential to create local jobs from the project are to be realised. In view of the relatively low number of jobs estimated at peak, there are likely to be limited displacement effects. It is suggested this analysis is undertaken;
- Commitment to using local businesses and labour - the above National Grid PEIR statements need to be translated into a firm commitment to maximise local jobs and training through main contractors and sub-contractors alongside an understanding of what skills/competences are required for the potential jobs (refer to Supply Chain Charter and Procurement Strategy mitigation proposals);
- The findings from the Business survey will provide further evidence on the potential effects on local businesses from which mitigation proposals would be developed. It is understood that the IACC are to request an update on IACC's input into the Business Survey methodology and the timeline for carrying out the surveys – analyse results and identify further areas of concern.

18.1.4 The IACC would suggest that the following mitigation measures should be developed and taken forward:

- Develop a Workforce Strategy which identifies the number of potential jobs and the skills required locally with a view to increasing training to enable residents to take advantage of job opportunities. The skills profile should set out the local-non-local labour position. The analysis should cover the construction and operational phases of the project;
- Whilst the overall construction workforce numbers are likely to be relatively low, the project offers the opportunity for employment, work experience, training and apprenticeships. A realistic and deliverable target for the employment of local people should be secured based on an agreed Workforce Strategy (see 1 above). For example, the Hinkley Connections project identified a cumulative total of at least 17% employment of local people with NG or Tier1 or Tier 2 contractors;
- Develop and adopt a clear Procurement Strategy which requires first and second tier contractors to identify the number and range of jobs, training places, work experience placements and apprenticeships available. This should be in the form of an Employment and Training Plan which identifies how and when the opportunities will be delivered;
- Identify/create apprenticeships and work placements leading to permanent jobs and set a clear target and commitment to a number of apprentices and work placements in different trades and occupations showing how this is broken down and what resource (financial and staff) is dedicated to delivering it;

- Contractors will be required to work with the IACC and partners to promote opportunities for training and employment which should be monitored;
- Undertake a gap analysis to identify potential opportunities and develop employment and training pathways work for target groups and residents who aspire to enter the construction sector labour market. This should involve working collaboratively with the IACC and training/support agency partners;
- Invest in training provision and new training facilities to maximise the proportion of job opportunities being taken by labour resident in the labour market/travel to work area in construction and operational phases. Includes capital investment in facilities both for construction trades, mechanical and electrical, civils, managerial and professional and support occupations to maximise the use of local talent and labour and address the impacts of labour displacement;
- Investigate access to training and employment, can act as a barrier to entry and progression in the labour market, particularly for young people without access to a car or with limited access to public transport; and
- Deliver a programme of promotion and awareness about the opportunities using existing publicity channels and web based initiatives. Utilise Employment & Skills Service for the project to increase / enhance local employment.

18.2 Supply Chain

18.2.1 For project-wide effects National Grid state: *‘Construction of the project would require significant capital expenditure. A proportion of this expenditure is associated with labour, supporting construction employment as discussed above. The remaining non-labour proportion would be spent on construction works / materials generating supply chain effects. Due to the specialised nature of the construction work, the majority of this expenditure is likely to be captured outside the region. However, a small proportion of the construction expenditure would be captured by businesses within Anglesey and Gwynedd.’*

18.2.2 *‘Direct employment and expenditure effects as well as indirect / induced effects will be assessed in full in the ES; Only a limited assessment of effects on non-tourism businesses resulting in potential loss of trade is presented in the PEIR. Further information on the trade and operations of non-tourism businesses is required to fully assess the effects. This will be presented in the ES’.*

18.2.3 National Grid anticipate that a small number of construction jobs would be taken up by workers from Anglesey and local labour/contractors would be provided the opportunity to take up construction contracts and this could include dry stone walling, planting, fencing, plant hire and provision of some construction materials.

18.2.4 The key issues relevant to the socio-economic chapter which need to be addressed are:

- There is no indication as to how these services will be procured or type of the jobs could that could be on offer. Clarity is required about access to jobs and procurement process, accreditation etc. The IACC expect that a procurement strategy is required and a commitment to supporting local businesses to become tender ready to be in a position to compete for opportunities during the construction, maintenance (operational) and decommissioning phase.
- There is insufficient information on the exact number of opportunities likely to arise, or the percentage perceived as local within this.
- National Grid contend that due to the specialised nature of the construction work, the majority of construction expenditure is likely to leak outside the region. However, a small proportion of the expenditure would be captured by local businesses within Anglesey and Gwynedd. The IACC acknowledge that elements of the project are specialised in nature, however, the IACC would expect to capture the maximum number of local opportunities for less specialised contracts.

18.2.5 National Grid suggest that a number of socio-economic measures could be developed including a supply chain strategy; local sourcing of construction materials, and a construction worker accommodation strategy. The IACC would suggest that the following mitigation measures should be developed and taken forward:

- A clear procurement strategy which sets out the work packages and services required. The strategy should encourage the use of consortia and set out the accreditation requirements and how local companies can register. The strategy should commit to “buying local” where possible (subject to commercial considerations and the need to deliver value for money). First Tier and Second Tier contractors should be required to use reasonable endeavours to engage with local companies and set out procurement requirements and the range of opportunities;
- Commit to develop the proposed “Supply Chain Charter” to ensure potential local businesses are aware of the opportunities and likely demands of the project. The overriding objective of the Charter should be to encourage and support local businesses to plan for and become “tender ready”, enable ‘upskilling’, training and business development thereby be in a strong position and to compete for opportunities;
- The proposed “Supply Chain Charter” should enable awareness raising events about opportunities (clearly defined) and how local companies should register. This would enable local companies to be “tender ready” to compete for site preparation works contracts other activities associated with the development i.e. civils; scaffolding; fencing, stone-walling, temporary roads, site security etc.

- Further assessment is required to identify the number of local: non-local construction contractors/jobs and to assess the associated expenditure effects;
- National Grid should commit to working with the IACC and partners to provide business support/training to build competences and capacity thereby enhancing the chances of success on this projects and similar projects in the future;
- Use Sell2Wales and other procurement portals including the IACC's Corporate website and the NWEAB's website which has a section on Supply Chain to promote opportunities, set out the tender timelines and to raise awareness about the project.

18.3 Tourism

18.3.1 Within the socio-economic chapter National Grid report on a number of tourism related activities:

- *A Business Survey will be undertaken during autumn 2016 in order to gather further evidence on the potential effects on local businesses. Telephone interviews will be undertaken by an independent market research company, targeting businesses which may be affected by the Proposed Project. The results of the survey will be incorporated into the assessment presented in the ES (para 3.3.8, page 10)*
- *A Visitor Behaviour was undertaken in August 2016 with a second round due to be completed in October 2016. The aim of the survey is to understand visitor behaviour and motivation for visiting the area, and whether construction and operation of the proposal is likely to affect visitors' intentions to return, their spending and / or the types of activities they undertake. The survey will involve face-to-face interviews with visitors to various camping / caravan sites and attractions, and users of public footpaths. The results of the survey will be used to inform the assessment of effects on the tourism sector presented in the ES (para 3.3.4 page 9).*
- *According to NG, the positioning of the proposal is such that it avoids close proximity to the majority of tourism locations and attractions. Whilst disruption during construction could result in a reduction in visitors to particular areas / sites it is likely that these visits would be displaced elsewhere within Anglesey/Gwynedd as opposed to resulting in a net loss of visitors (page 69).*
- *Whilst disruption during construction could result in a reduction in visitors to particular areas / sites it has been suggested that these visits would be displaced elsewhere within Anglesey/Gwynedd as opposed to resulting in a net loss of visitors;*
- *National Grid recognise that Tourism businesses are highly sensitive to visual effects, air quality and noise; therefore there is potential for significant effects on these receptors. Further effects may be identified within the wider ZTV and will be assessed at the ES stage.*

- *According to National Grid the introduction of construction workers into the area would generate additional tourism accommodation revenue. It is expected that workers would take up spare capacity in hotels / B&B / non-serviced accommodation that would otherwise be empty. In addition, construction workers would spend a portion of their wages in the area, generating further benefits to local businesses. This needs to be quantified in the terms of cumulative impacts with other projects and the potential decline in accommodation stock quality.*

18.3.2 The key issues relevant to the socio-economic chapter which need to be addressed are:

- Tourism is worth over £270 million to the Isle of Anglesey economy, attracting over 1.6 million visitors and is a major local employer supporting over 4,000 jobs. Tourism is a fiercely competitive global industry. In view of the importance of tourism to the local economy, tourism has not been considered in sufficient depth and detail.
- To provide more robust evidence for the above, the results and analysis of the surveys are awaited. There is concern that the infrastructure (pylons, sub-station, overhead lines, and main tunnel head house for the Strait) could have a negative impact on the landscape, amenity and tourism offer reducing visitor numbers and behaviours, revenues and therefore impact on the local economy, employment and prosperity.
- There is insufficient information on the impact on tourism accommodation and what proportion of workers will be taking up this element of the industry. There needs to be additional analysis in terms of the occupancy levels required and what is currently available;
- A number of tourism related issues appear to be based on assumptions and not on raw data. In our view these are premature and need appropriate assessment in place to quantify their robustness. Overall there is limited information on tourism impacts and mitigation proposals. It is not clear as to the extent of impacts on the tourism sector from the perspective of visitor activity, local produce and food impacts on accommodation and wider impacts on activity within the sector including displacement of employment from businesses in sectors including hospitality, food, catering and other sectors of central importance to the tourism sector and wider economy. It is likely that displacement levels will have limited effects.
- There is limited information on how the tunnel head house for the Strait crossing will be accessed, and what impact this will have on the settlements of Llanfair PG and Llanndaniel, and possible secondary impacts to the A4080 which houses Plas Newydd and one of the main thoroughfares to Newborough (some of our busiest and most popular visitor destinations)
- The DMP 2016-2020 makes clear recommendations in terms of the major energy projects and strategic infrastructure, and it is vital that these recommendations are taken on board

- The IACC expect potential impact on image and perception of the Island to be included, this would need consideration and potential mitigation during the construction/operation periods. This is also true for people travelling across the Island to/from the port of Holyhead for further travel or from cruise vessels visiting the area.
- The coastal path on Anglesey attracts over 330,000 walkers annually for the tranquillity and unobstructed views. The PEIR mentions the coast path around Wylfa and Vaynol. Need to ensure that the coastal path around Anglesey especially at the Menai area is also captured and scoped within the ES.

18.3.3 The IACC would suggest that the following mitigation measures should be developed and taken forward:

- It is noted that a community relations agency will be appointed to provide dedicated community relations and external communications support to investigate and manage complaints, taking appropriate action accordingly. Details of the governance arrangements, timeframe and relationships will be required to ensure appropriate linkages to IACC and other tourism stakeholder bodies and (4) below;
- There is a need for further work to identify which areas will be significantly impacted and identify linkages between issues and areas that will be affected as a basis for developing responsive and realistic mitigation proposals. It is likely that displacement levels will be limited these should be defined;
- Physical proposals should ensure minimal disruption to local communities and the tourism economy and be in accordance with planning policies, SPG and Design Excellence principles SG. National Grid should work with the IACC and partners on emerging mitigation proposals;
- The provision of a financial support to provide regular surveys with visitors to gauge impacts and adapt mitigation as the development progresses;
- The provision of a Marketing and Promotional budget or contribution to existing activity to mitigate against the loss of visitor and associated income;
- Where rights of way, byways and cycle paths are affected by the development, alternative routes should be planned for and promoted to both residents and visitors to encourage travel by sustainable modes; and
- Where the destruction of planting/woodland occurs a series of advanced planting to take place to ensure limited impacts.
- Undergrounding for longer distance away from the Menai Strait and under the A55. This would result in no visual impact of additional pylons for individuals using the A55, A5 or main rail connections.

18.4 Public Rights of Way (PRoW) (Cross reference with Chapter 12)

18.4.1 Para 5.2.1 of the Socio Economics chapter refers to amenity effects on promoted PROW in Section A during OHL construction:

'The Proposed Project crosses 17 PRoWs, as shown in the PRoW Crossing Schedule in Appendix 3.4. Of these PRoWs, two are promoted for recreational use (PRoWs 38/034A/2 and 20/031/1 both of which form part of the Wales Coast Path). These paths are potentially affected by construction traffic and transport (see Chapter 12). Sections of the routes also fall within 20m of the proposed OHL where there is a medium risk of air quality impacts from dust soiling/deposition (see Chapter 13) and within 250m of the proposed OHL where there are potential noise and vibration impacts (see Chapter 14). The proposed OHL also crosses Sustrans 566 cycle route. Sections of the route fall within 20m of the proposed OHL where air quality impacts may arise and within 250m of the proposed OHL where noise impacts may arise. The combination of these effects could result in potentially significant amenity effects on users of the PRoW 38/034/A/2 and 20/031/1, and Sustrans 566.'

18.4.2 Potentially significant effects are also identified during OHL decommissioning (para 5.2.10).

18.4.3 The magnitude of effect and therefore significance of effect on PRoW 38/034/A/2 and 20/031/1, and Sustrans 566 is yet to be confirmed. Mitigation proposals for PRoW 38/034/A/2 and 20/031/1, and Sustrans 566 should be discussed with the IACC, including input from air quality and noise specialists to identify appropriate measures.

18.5 Public Rights of Way (PRoW) (Cross reference with Chapter 12)

18.5.1 Para 5.2.2, 5.2.3 and 5.2.4 of the Socio Economics chapter refer to amenity effects on promoted PROW in Section B, C and D during OHL construction:

The Proposed Project crosses ten PRoWs as shown in the PRoW Crossing Schedule in Appendix 3.4. None of these PRoWs are promoted for recreational use; therefore users are not considered to be sensitive to changes in environmental effects. The proposed OHL also crosses Sustrans 5 cycle route. Sections of the route fall within 20m of the proposed OHL where air quality impacts may arise and within 250m of the proposed OHL where noise impacts may arise. The combination of these effects could result in potentially significant amenity effects on users of Sustrans 5.' Potentially significant effects are also identified during OHL decommissioning (para 5.2.10).

18.5.2 The magnitude of effect and therefore significance on Sustrans 5 is yet to be confirmed. Mitigation proposals for Sustrans 5 should be discussed

with the IACC, including air quality and noise specialists to identify appropriate mitigation measures.

18.5.3 Access from the A4080 to construct the proposed tunnel head near Llwyn Ogan will involve crossing a permissive section of the Wales Coastal Path which is located parallel to the A4080 within the field. Construction traffic is likely to have a significant effect on this path and a temporary closure might be necessary. Mitigation proposals for the Wales Coast Path near the A4080 should be discussed with the IACC with the suggestion that the establishment of a new section of the Wales Coast Path along the coast through Plas Newydd land should be investigated as mitigation. This would provide a lasting legacy.

19.0 AGRICULTURE (Chapter 17)

19.1 All farms which are likely to be affected by the Proposed Project should be assessed for disruption individually, ensuring the relevant enterprise is identified. There could be significant disruption to normal farm activities, for example, the day to day logistics of a dairy farm could be affected considerably with cattle requiring milking twice a day. If a dairy farm was split during National Grid's construction and decommissioning phase, grazing rotation may be affected. Similarly, suckle herd calving may need ease of access to farm buildings when calving intervention is required. National Grid should undertake an accurate and up to date database of existing farm uses.

20.0 INTRA PROJECT CULULATIVE EFFECTS (Chapter 18)

20.1 The assessment of intra-project effects is inadequate and requires further assessment. The IACC has raised a number of concerns regarding the methodology and initial assessment outcomes presented, which at this stage lack evidence. The statement that no significant effects are identified requiring mitigation lacks supporting evidence. The IACC consider that further mitigation may be required, particularly in consideration of intra-project effects on local receptors associated with construction disturbance (noise, air quality, designated nature conservation sites, and amenity impacts on users of PROW etc). The means by which and location of assessment of amenity effects is ambiguous, referring to individual assessment chapters without drawing any conclusions as to intra-project and socio-economic effects. There is very little assessment of intra-project effects during construction to support the conclusions set out by National Grid. Further consultation including draft assessment outcomes and mitigation proposals to be secured by way of method statement and requirements are essential.

20.2 Intra project cumulative effects cannot be assessed using the methodology for visual effects assessment. A separate and different methodology is required, which accounts for the differential topic effects. This is not sufficiently addressed in the PEIR, and the assessment method set out in Intra-Project effects is not yet sufficiently developed.

20.3 The IACC is yet to be consulted on a clear and coherent methodology for the assessment of cumulative intra-project effects and would expect engagement with National Grid at the earliest opportunity.

21.0 INTER PROJECT CUMILATIVE EFFECTS (Chapter 19)

21.1 Table 18.4 contains the preliminary assessment of effects, however the IACC consider that the drawing together of conclusions lacks a robust evidence base at this stage due to the level of maturity of the EIA assessment. The cumulative assessment in this chapter must therefore be kept under review and should be subject to further consultation.

21.2 It is noted that the key conclusions are reported in the individual assessment chapters rather than Chapter 19. The IACC considers cross-referencing to be essential.

21.3 The IACC is yet to be consulted on a clear and coherent methodology for assessment of cumulative inter-project effects and would expect engagement with National Grid at the earliest opportunity.

22.0 SOCIO-ECONOMIC – CUMULATIVE EFFECTS

22.1 The PEIR suggests that *‘other major projects located in Anglesey and north Gwynedd could also result in cumulative effects in terms of general construction disturbance affecting visitors’ perceptions of the area and a consequent reduction in visitor numbers / associated expenditure. Such cumulative effects would only occur if construction phases overlap significantly. Based on currently available information on construction timescales, the following developments are considered potentially likely to result in a cumulative effect on tourism visitors: Wylfa Newydd, Land and Lakes, and the A487 Caernarfon to Bontnewydd Bypass. However, it is considered unlikely that there would be a material increase on the overall significance of effects of these projects in combination.*

22.2 Given the number of major developments proposed on Anglesey over the next 5 to 10 years, there is a real risk of adverse cumulative impacts on the Island. This includes cumulative impacts within the National Grid Project to serve HNP’s development (i.e. Wylfa Newydd Site and associated developments) and cumulative impacts with other major development such as Land & Lakes, National Grid, LNG Great Lakes, Orthios and others. The IACC would expect to agree in advance the approach and methodology to assess the cumulative impacts on the Island and to monitor the cumulative impacts.

22.3 Further information could be provided to clarify the definition of amenity, the scope of this assessment, and the methodology to be employed. However, limited information is provided in relation to the scope of this assessment and the assessment methodology to be applied. The Council requests to be consulted further on the scoping of such surveys.

22.4 There is a need to adequately assess the perception of the impact of the development on the tourism industry and to measure the cumulative impact of all the major energy developments to ensure where possible no negative impact takes place on the economy as it's acknowledged in 14.5.30 that Anglesey's economic performance is below average across Wales. Further negative impacts on the tourism sector on Anglesey could have further detrimental effects. There is a need to consider secondary and tertiary tourism products including restaurants/eating out as part of the wider tourism mix and not just attractions and accommodation. Liaison with stakeholders will be required to enable this approach.

22.5 The following proposals will strengthen the approach and address a number of key issues:

Key cumulative issues for the IACC include the potential economic and employment opportunities afforded to the local workforce and businesses as a result of a number of projects coming forward on Anglesey at the same time. Insufficient information or no information at all is provided with the S42 documents in relation to cumulative impacts. The IACC would require:

- Opportunities to increase training to enable workers to take advantages of employment opportunities and supporting STEM awareness and training in schools in addition to post- secondary education to ensure that younger residents are able to identify and take advantage of future workplace opportunities. (Refer to Socio-economic response on skills and employment);
- National Grid need to provide mitigation measures such as marketing and 'Brand' support for the tourism sector as a means to reduce effects or to compensate for the loss of trade in the tourism sector during the construction and operational phase. Commitment is required from National Grid in the form of potential mitigation measures to overcome adverse effects on the tourism sector such as improvements elsewhere to the long distance footpath network, cycle network, etc. Marketing and branding should also commence in advance of construction to ensure that visitors are not dissuaded initially from visiting Anglesey;
- The IACC expects to see sufficient information, including cumulative visualisations, to enable robust conclusions to be reached on the significance of effects upon local communities (especially those areas that will be mostly affected such as Tregel, Rhosybol, Star, Talwrn). Similarly sufficient information will be required to enable consideration of the combined effects upon the AONB and other designated sites, bearing in mind a combination of effects may give rise to a significant level of disturbance upon communities which surround the pylon corridor and the main transport corridors which follow the line;
- The IACC is concerned about the lack of regard of the Welsh Language as a receptor in the cumulative environmental documentation submitted. It is considered that cumulative effects upon the Welsh language should be assessed and mitigation identified where conclusions of significance are reached.

**Adolygiad gan Arup o - Adroddiad Dewis Opsiwn Llwybr a Ffafir, Adroddiad Alinio Llwybr
Drafft, Adroddiad Croesi Afon Menai, Adroddiad Opsiynau Strategol ac Achos Angen y
Prosiect, 2016**

**A review by Arup of the - Preferred Route Option Selection Report, Draft Route Alignment
Report, Menai Strait Crossing Report, Strategic Options Report and Project Need Case, 2016**

Isle of Anglesey County Council and
Gwynedd Council

North Wales Connection Project

Review of Preferred Route Option
Selection, Draft Route Alignment
Report and Menai Crossing Report

Issue 1 | 28 November 2016

This report takes into account the particular
instructions and requirements of our client.

It is not intended for and should not be relied
upon by any third party and no responsibility
is undertaken to any third party.

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7 Recommendations / Conclusions

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1 Introduction

Arup has been commissioned by Isle of Anglesey County Council (IACC) and Gwynedd Council (GC) to provide independent technical support to inform the Councils continued dialogue with National Grid in respect of the North Wales Connections Project.

The North Wales Connection Project, as proposed by National Grid, consists of approximately 30km of 400kV grid infrastructure and supporting buildings between Wylfa and Pentir (the Proposed Project) within the administrative boundaries of Isle of Anglesey County Council (IACC) and Gwynedd Council (GC). The Proposed Project is classed as a Nationally Significant Infrastructure Project (NSIP) and will require a Development Consent Order (DCO) application to the Secretary of State. National Grid currently anticipates that the DCO application will be submitted in late 2017.

This report sets out the response from IACC and GC to the North Wales Connections Project Route Options Appraisal, Draft Route Alignment Report, and the Menai Strait Crossing Report. These documents form part of a suite of documentation being consulted on by National Grid under Section 42 of the Planning Act (2008). The Councils welcome the opportunity to review and appraise submissions made by National Grid relating to their proposals for a new grid connection in North Wales. As principal host authorities to the development, the Councils recognise their key role in assessing the proposals as they evolve in response to National Grid's consultation process. The report draws upon statutory provisions and contemporary pre-application consultation practice for Nationally Significant Infrastructure Projects (NSIPs), in addition to knowledge of previous informal consultation stages of the project dating back to 2010.

The Councils understand that it is imperative that National Grid captures sufficient detail in this formal stage of consultation as, at this time, the Councils are unaware of any plans for further formal consultation through which affected communities and interested parties will be able to submit views pre-DCO submission.

IACC and GC have provided responses to other documents within the Section 42 documentation, including the Preliminary Environmental Information Report (PEIR), Need Case and Strategic Options Report (SOR) in separate stand-alone reports. Where appropriate, reference is made to these wider responses.

3 Approach to Route Options Selection Report Draft Route Alignment and Menai Crossing Reports

The Preferred Route Option Selection Report provides qualitative commentary for each section of the proposed overhead line route in respect of environmental, socio-economic, technical and cost considerations. It does not however, as is acknowledged by National Grid in Section 1.1.5 of the Report, present any detailed design information or detailed environmental appraisal. The Councils have made comments regarding National Grid's approach to the appraisal process in previous representations. The qualitative nature of the appraisal presented within the report makes it difficult for the Councils to provide meaningful commentary regarding the adequacy or otherwise of decision making set out.

Both the Draft Route Alignment Report and the Menai Crossing Report provide an overview of the design process to date and include commentary regarding stakeholder comments that have been used to inform the route alignment. The purpose of these documents and relationship with the Options Appraisal process is ambiguous. Whilst they provide commentary surrounding the Options Appraisal for the Project, a clear and consistent methodology for assessing each option has not been set out, and it is difficult to understand the sequence of logic that has been applied to key design decisions. It is not apparent how the significance of effects in each topic incorporated within the assessment has been considered in a balanced and transparent way.

Whilst acknowledging the difference in character of impacts across Sections A-D presented in the Draft Route Alignment Report and of Sections E-F of the Route in the Menai Strait crossing report, the structure, content and approach set out in each report is very different, which makes the documents difficult to understand collectively. In the first instance it would be helpful if the policy content and contextual commentary were aligned across all reports, or cross-referenced in order to avoid repetition and enable the Councils to undertake a meaningful gap analysis of the approach taken by National Grid.

Stakeholder consultation is not currently reported consistently or transparently within the reports. It is advised that, as part of the Consultation Report and an Appendix to each relevant document, National Grid provides a list of consultation comments received through stakeholder engagement, and how these comments have been addressed. Where it has not been feasible to address stakeholder comments, the rationale for design decisions should be clearly set out.

Throughout the documents, National Grid fails to reference, when referring to stakeholder consultation, IACC's overarching position on the requirement for further undergrounding as mitigation between Wylfa and the Menai Strait crossing. Following consideration at Full Council (IACC) in December 2015 it was resolved that National Grid's Strategic Option 3 (if taken forward), would require further mitigation via undergrounding and this should be fully explored by National Grid. Likewise, Gwynedd Council have made representations regarding the need to consider a fully-underground solution to Pentir. The Councils note that

the potential for further undergrounding is excluded from the project definition. The Councils consider this an important omission which should be addressed through further stakeholder consultation and within the ES.

4 Review of Preferred Route Option Selection Report

National Grid consider, as reported in the Executive Summary that ‘*The outcome from the Options Appraisal has led National Grid to reconfirm the earlier preference for a fully overhead line throughout these sections of the Route, as it is considered that this would comply with relevant planning policy and National Grid’s statutory duties.*’

The extent to which the preferred route option complies with the relevant planning policy and statutory duties is yet to be tested though the DCO pre-application and application stage planning process. It should be noted that the Environmental Impact Assessment (EIA) is yet to be completed, and data collation remains underway. The Councils consider that further back-checking will be required, and that detailed mitigation, including the potential for further undergrounding must be consulted on as part of on-going pre-application engagement. Detailed comments in respect of potential mitigation options are provided in response to the PEIR.

4.1 Part 1: Context and Scope of Appraisal

Part 1 of the Report provides background information and a summary of planning policy considerations. As highlighted in Section 3 of this Report it would be helpful if such commentary were aligned for consistency across all consultation documents, or cross-referenced to avoid repetition. The Council have provided comment in respect of planning policy in reference to the PEIR and within Section 5 and 6 of this document.

4.2 Part 2: Appraisal of Route and Design Options

Part 2 of the Report outlines the scope and methodology applied in the appraisal process. The Councils provided a detailed response on environment and socio-economic assessment methodology and scope in response to National Grid’s North Wales Connections Project Scoping Report, which is not repeated here. The Councils have previously expressed concern that the geographical scope of appraisal should be sufficient, particularly in respect of socio-economic receptors which were mapped within a limited 1km distance of each route option (as reported in Section 9.4.23). Cumulative intra-project and inter-project effects are particularly important, and the Councils are yet to be consulted on a clear and coherent methodology for assessment of such effects. The remainder of Part 2 presents a largely qualitative commentary on information that has been gathered to inform design decisions. The Councils consider that whilst this provides helpful background information, it is important that a full suite of data is updated and assessed within the EIA process, and presented in the Environmental Statement (ES), a draft of which the Councils would expect to be consulted upon.

4.3 Part 3: Design Overview and Next Steps

The mitigation measures set out within Part 3 of the Preferred Route Option Report (and also included in the Draft Route Alignment Report) do not represent the full suite of mitigation measures that may be expected to be developed as part of the Environmental Impact Assessment and project development process. The Councils consider their inclusion here, and within the Draft Route Alignment Report, less relevant than in the PEIR, Environmental Statement, and detailed method statement, as these should be used as the primary means to convey and consult upon specific mitigation plans. The Councils consider the following initial and outline commentary on the mitigation measures set out by National Grid important to help shape the next stages of the project.

Screen Planting

National Grid note here that planting for the purposes of screening ‘could’ take place, without any firm commitments or proposals at this stage. The Councils consider that due to the nature of the proposed development i.e. including very prominent ‘tall’ structures, it is unlikely that onsite secondary mitigation will do much to reduce the significance of some predicted effects, especially visual effects of overhead lines. Therefore, it is anticipated that off-site measures will be needed to enhance the surrounding landscape and to screen and/or improve views towards the proposed development. It is also anticipated that off-site works to enhance PRow user experience will be necessary.

Further information is required as to what secondary landscape mitigation is proposed within the order limits to reduce visual and landscape effects arising as a result of the proposed scheme. This mitigation will be required for example in the form of in situ replacement planting where trees and hedgerows are affected by construction works and also around any site specific infrastructure such as substations, CSECs, Tunnel Head Houses, etc.

Landscape Enhancement/Restoration Strategies

The Councils consider that an Off-site planting and enhancement strategy should be prepared and consulted on at the earliest opportunity. This should describe the measures proposed, outline their purpose and set out the methods by which they will be secured as part of the DCO process e.g. as designed in mitigation, Planning Requirements / Conditions and s106 Obligations. Commentary should include opportunities for advance planting, provenance and supply of plant stock.

The process of agreeing the scope and quantum of Off-site enhancements on Hinkley C Connection Project began at S42 Consultation stage and continued over a long period of time through to the Issue Specific Hearings conducted during Examination. The process of agreement with third party landowners is likely to be time consuming. This indicates real value in an early start on this matter.

Due to the nature of the works, trees and hedgerows will need to be removed to accommodate the construction and operation of the proposed development, the need for replacement planting therefore should be set out and detailed in the appropriate documentation for consultation with the Councils.

Residential Amenity

The Report acknowledges the concerns and Council policy in respect of residential amenity but fails to set out means by which this will be addressed. As part of the PEIR technical review, the Councils have raised concerns that no methodology has been presented for Residential Amenity Assessment. It is expected that the methodology, outcome of the assessment and proposals for mitigation of effects will be fully consulted on.

Alternative Technologies or Avoid Effects of Route Options

Where mitigation is embedded into the design of the project, this must be clearly set out in the Environmental Statement. The Councils expect to be consulted on a draft Environmental Statement prior to DCO submission. Consideration of the use of buried cables, or non-overhead technology to mitigate effects is of upmost importance to the Councils, given the overarching position that further undergrounding must be considered on all sections of the route between Wylfa and Pentir.

5 Review of Draft Route Alignment Report

5.1 Overview

The Overview provides a thorough and concise overview of the structure of the report, but would benefit from setting out the aim of the report at the outset in order to assist the reader in understanding the purpose of the document, as both a stand-alone document and a supplement to the other Consultation documents.

The section refers to “mitigation through design” however this is the only time that this is mentioned throughout the report. Cross referencing to the PEIR and other project documentation in this respect would be appropriate.

In regards to the route alignment, detailed technical comments and a review of the potential impacts is included in the Councils response to the PEIR and is not repeated here.

5.2 Introduction (Section 1)

The Section helpfully refers to consultation documents presented at previous consultation stages, and sets the scene for the proposed draft route. It is essential that the relationship between documents is adequately communicated to stakeholders and local communities as part of the DCO submission.

5.3 Background (Section 2)

National Grid has summarised work undertaken to date between consultation periods, including continued engagement with stakeholders. Section 2.5.2 notes that feedback from these sessions has not been included in the report. It would have been useful for this feedback to have been included as an Appendix for transparency.

The Councils have responded to the Need Case and Strategic Options appraisal under separate cover. Concerns include the extent to which environmental, socio-economic and cost implications have been adequately considered as part of the Strategic Options appraisal referenced in this report.

Section 2.5 states that “*Feedback from the Stage 2 consultation has informed the detailed design and siting of proposed pylons presented at Stage 3 Consultation and explained in this Report.*” It should be noted however that the information presented during previous consultation stages was of a strategic nature only. This is the first time that details of alignment and pylon locations have been made available for comment.

5.4 Generic Design Considerations (Section 3)

The summary of relevant policy and guidance is helpful and it is expected that this will be presented as appropriate within the Environmental Statement (ES) accompanying the DCO submission, and also in a consistent manner throughout the

consultation and DCO documents. This section could be better cross referenced throughout the document, to draw out the appropriate linkages between the policy framework and design decisions made.

It is notable that Holford Rule 6 refers to the relationship of proposed infrastructure with existing lines (See Section 3.2.8). This is directly relevant to plans to rationalise the existing distribution and utilities network as part of the DCO application, for which greater emphasis could be placed within this report and wider consultation documentation.

The Councils note important omissions in the summary of National Grid's Stakeholder, Community and Amenity Policy (See Section 3.3.5 of the report), including in particular;

- *“Offsetting where mitigation is not practical” which “could include landscaping and planting works or other benefits to affected communities”;*
- *“Enhancing the environment around our works” which will “consider what practicable measures can be taken to enhance areas in the vicinity of the works for the benefit of local communities and the natural environment.”;* and
- *“Working with others” to “create an environment where best practice can be shared and delivered”.*

The Councils seek further information to understand how these commitments will be fulfilled. It is expected that a Mitigation Strategy and further proposals for compensation and enhancement will be consulted on prior to DCO submission.

Section 3.4.7 notes that *“The general route of the existing overhead line largely avoids significant sites and features that might preclude the routeing of a new line.”* The Councils note, as they have done during previous consultation stages that wider environmental constraints information would be required to provide a rationale to support an understanding of the boundaries of the route corridors identified.

Where it is noted in Section 3.4.8 that the preferred route has been subject to detailed design engineering, National Grid should ensure that this advanced stage of the project design does not prejudice the ability of the project to accommodate changes that may arise from the Section 42 consultation period, and their statutory duty to take into consideration consultation responses.

5.5 Aspects of the Proposed Design (Section 4)

This section provides a wealth of engineering information, which has been drawn upon to provide information to inform the Councils' wider project response.

In Section 4.3.13, the rationalisation of existing utility infrastructure is referred to. The wider implications of this activity, for example impacts arising from construction works associated with third party infrastructure are yet to be understood and appear not to have been assessed within the PEIR. The Councils seek clarity on the potential impacts, and any benefits associated with the works. It

is noted that such proposals will be refined following the Section 42 consultation stage, although the extent to which stakeholders are aware of this important aspect of consultation or how to find the relevant information could be challenged.

Where utilities may choose to make their own access arrangements for works (Section 4.3.15) National Grid should clarify how such works will be coordinated and managed to ensure that the impacts do not exceed those predicted in the EIA.

Section 4.4.5 sets out National Grid's approach to Limits of Deviation (LoD) and how these have been defined. It would however be premature to set LoD at this stage prior to completion of the Environmental Impact Assessment. The Councils would expect to be consulted on detailed plans for mitigation, including LoD where required to ensure that environmental impacts are managed and mitigated appropriately. The LoD should also include all third party works as defined in Section 4.4.6, and be updated to take into account feedback from consultation.

Section 4.5.2 indicates that advance works are programmed. The Councils seek to understand the scope of advance works, including mitigation, such as advance landscape planting that may be required.

5.6 Section A Wylfa to Rhosgoch (Section 5 of Report) to Section D B5110 North of Talwrn to Ceint (West of Star) (Section 8 of Report)

The Councils have identified a number of potential issues and mitigation measures required to address impacts in their responses to the PEIR. This draws upon some of the information, including constraints mapping exercise provided with the Draft Route Alignment Report. It is important that these be considered as part of the iterative EIA and design process going forward.

5.7 Temporary Construction Compound (Section 9)

The Councils are acutely aware that this is the first time that the proposed locations of construction compounds have been subject to public and stakeholder consultation. The broad search areas identified in Section 9.5 of the report have not been subject to prior consultation. The Options Appraisal presented in Table 9.1 lacks a defined methodology for assessment, and is not consistent with the approach presented in the PEIR. Further qualitative assessment and evidence basis is required to justify the compound locations, particularly in terms of potential impacts associated with traffic movements to the site.

A combination of network constraint points and poor vehicular access on to and off the strategic highway network are of concern. The B5420 between Llangedfni and Four Crosses roundabout there is no evidence that this route is suitable as a HGV route to the construction compound, and the Council considers that poor horizontal and vertical geometry, restrictive widths, and community severance are of concern.

In the first instance, further consultation with the local Highways Authorities and the Trunk Road Agency is recommended to discuss the distribution of traffic on the local and strategic highway network. Highway improvements will need to be proposed and agreed with the Council to make the link to the construction compound more suitable, and to facilitate the predicted increase in HGV traffic volume associated with the project.

5.8 Overview of Proposed Alignment (Section 10)

The Councils consider it essential that National Grid fully consider end-to-end impacts of the proposed Route Alignment, as is commented on in respect of the PEIR. Further work as part of the EIA process is required to ensure that the intra-project effects across disciplines and geographical sections of the route are fully appraised.

5.9 Next Steps (Section 11)

National Grid acknowledge that although this is the final formal consultation stage to influence the proposals prior to DCO submission, a full Environmental Impact Assessment with detailed mitigation proposals is yet to be developed. It is essential that the Councils are consulted on detailed mitigation measures prior to DCO submission. As set out previously, National Grid should set out in a clear and transparent manner how the comments made in previous consultations, and this current Section 42 Consultation stage have influenced the project.

6 Menai Strait Crossing Report

6.1 Background (Section 1)

The Menai Strait Crossing Report begins with a summary of the Options Appraisal process to date. As commented by the Councils in previous consultations, there has been no supporting technical information provided that would assist the reader to understand how the boundaries of the search areas have been defined.

6.2 National Grid's Duties and Policies (Section 2)

The commentary regarding the policy framework provides a helpful linkage between economic duties, the duty to protect the environment, and the DCO Planning process. This section could be better cross referenced throughout the document, to draw out the appropriate linkages between the policy framework and design decisions made. The Councils note that a clear consenting strategy for all elements of the project, including Associated Development and Wider Works has yet to be provided. This was requested in response to Scoping, but has not been provided in the Section 42 consultation material. The ES will need to set out a clear and unambiguous approach to the assessment of all elements of the wider project within the assessment of inter-related and cumulative effects.

This section could also make reference to the Holford Rules and Horlock Rules, and importantly recognise the role of the Anglesey and Gwynedd Joint Local Development Plan and local planning policy framework as a material consideration in assessing local environmental impacts.

The Councils note important omissions in the summary of National Grid's Stakeholder, Community and Amenity Policy, including in particular;

- *“Offsetting where mitigation is not practical” which “could include landscaping and planting works or other benefits to affected communities”;*
- *“Enhancing the environment around our works” which will “consider what practicable measures can be taken to enhance areas in the vicinity of the works for the benefit of local communities and the natural environment.”; and*
- *“Working with others” to “create an environment where best practice can be shared and delivered”.*

The Councils seek further information to understand how these commitments will be fulfilled. It is expected that a Mitigation Strategy and further proposals for compensation and enhancement be consulted on prior to DCO submission.

6.3 Context of Appraisal (Section 3)

The section sets out relevant National Planning Policy provisions, but fails to identify how these commitments have been met within the context of design decisions. In particular, the Councils request that National Grid provides information as to how the following assessment principles set out in EN-1 will be met;

- *The potential benefits, including contributions to energy infrastructure, job creation and any long term or wider benefits; and*
- *The potential adverse effects, including any long term and cumulative adverse effects, as well as any mitigation measures incorporated to reduce these adverse effects.*

Section 3.4.10 sets out that waste management has been considered in combination with Traffic and Transport assessment. The Councils consider however that waste management has not been adequately assessed in the report or wider Section 42 consultation material. The Councils have concerns regarding the treatment of significant quantities of spoil arising from construction of the tunnel, and await further information as to how this might be managed appropriately.

National Grid states in Section 3.4.14 that *“Based on our work to date there is no evidence to suggest that there would be a significant difference between routes / technologies / site locations in terms of effects on civil and military aviation and defence interests arising from either the construction works or permanent structures”* Whilst this may be broadly appropriate, further rationale and supporting evidence should be provided to support this assertion.

Where factors have been discounted in options appraisal it is crucial that these are subject to back-checking, as per the commitment provided by National Grid in reference to EN-1. The Councils welcome the commitment to back-checking across the project in regards to all stages of the Options Appraisal.

The Councils have commented separately in the context of the PEIR on National Grid’s approach to the assessment of residential amenity, mitigation, land ownership and effects on house prices and land. There are inconsistencies in how National Grid has proposed this is addressed between the documents. Section 2.5.2 of the draft Route Alignment Report suggests that discussions with individual property owners are already well advanced, which is not consistent with Section 3.2.24 of this report. This must be addressed prior to DCO submission, and local communities must be adequately consulted.

6.4 Overview (Section 4)

It is important that where baseline environmental conditions are described within this report they are consistent with and updated to take account of stakeholder comments on the PEIR. The Council’s comments in this respect are provided in reference to the PEIR and not repeated or reviewed in the context of this document.

The methodology of sea bed installation should clarify in greater detail the potential impacts on the marine environment, and cross reference the HRA process.

At no point in this document, is the requirement for an Energy Plant as set out in the PEIR considered. The PEIR states in Chapter 13, Section 3.3.25 that “*The construction of the tunnel for the crossing of the Menai Strait is likely to require a significant energy demand that is above and beyond the energy demand of other elements of the Proposed Project. Currently, the energy strategy for the crossing is yet to be finalised. However, it is assumed that substantial energy generation plant, such as diesel-fired generators, or similar, will be required to facilitate the tunnelling works.*”

This is a significant omission that the Councils consider should be taken into consideration in the Options Appraisal process. Consultation shared with the Councils to date has yet to demonstrate the extent to which this will result in significant adverse effects on the environment and local communities, and what mitigation measures will be secured.

6.6 Construction Considerations: Other Infrastructure (Section 6)

The role of cumulative assessment in the consideration of transport, including future planned projects should be recognised in this Section of the report. The potential impacts on multi-modal transport options, both on a project basis and in combination with other planned projects could be further drawn out in the appraisal process.

Further rationale is required as to the discounting of the third Menai Crossing as a viable alternative to house cables. It is understood that this will be kept under review as further project details are available, but at this stage the Councils expect that a review of project programme alignment would be appropriate to inform the evidence base for decision making.

6.7 Overhead Line Route Corridors (Section 7)

When referring to consultation feedback in Section 7.2, it is not clear what the outcome of consultation was, on balance across the various options, and what weight is given to the outcome of consultation in determining the preferred option. Whilst National Grid cites concerns for local communities in Section E, consultation concerns regarding property devaluation should be acknowledged and addressed within the wider project.

Section 7.3 refers to potential environmental impacts; it is essential that these are fully described and assessed within the ES. The Councils would expect to be consulted on the Flood Consequences Assessment (FCA) prior to DCO submission.

As per comments made previously, the potential impacts on tourism are not adequately drawn out in the appraisal. Further evidence is required in support of

Table 11.1 Outline Cost Estimates

Option	Crossing Technique	Cost Estimate ³⁸
A	HDD	£130m – £150m
B	Tunnel	£115m - £135m
C	Tunnel	£170m - £190m
D	Tunnel	£145m - £165m
E	Tunnel	£115m - £135mm
F	Tunnel	£140m - £160m
G	Tunnel	£200m - £220m

No information has been provided to explain the basis for the cost calculations and any assumptions made. In addition, the figures appear to be inconsistent with those provided elsewhere within the Section 42 consultation documentation. The Councils have raised significant concerns on this matter in response to the Strategic Options Report. It would be helpful to understand how the above costs are distributed across the discrete project elements of the end-to-end options. The report notes that these figures are high level only, but exclude any contingencies and potential issues arising from the geological conditions of the Menai Strait. It is therefore highly feasible that this cost estimate could increase. It is expected that the Councils will be consulted further on this matter prior to DCO submission.

The outcome of the appraisal is reported in Section 12.6.18 which concludes that:

“On balance, considering the potential environmental effects and technical complexities, the increased cost of a longer tunnel option, and National Grid’s statutory duties, Option C has been taken forward and is being developed further into a design for the DCO application.”

Given the deficiencies highlighted in the Councils’ review, it is considered that this conclusion could be subject to challenge without the provision of further evidence and assessment as to the relative performance of options.

7 Recommendations / Conclusions

The Councils consider that the structure and presentation of information provided in support of the DCO will be essential to ensure that documentation is accessible to stakeholders. The Preferred Route Options Selection Report, Draft Route Alignment Report and Menai Strait Crossing Report provide a wealth of technical information which whilst helpful, could prove difficult for all to access and understand.

The Options Appraisal Process should be consulted on in a coherent manner, with the rationale for design decisions clearly set out. As an example, the Councils have set out in this report a number of concerns regarding the proposed temporary construction compound east of Llangefni, for which further consultation and engagement regarding potential mitigation measures is required.

Throughout the consultation documents, National Grid fails to reference, when referring to stakeholder consultation, IACC's overarching position on the requirement for further undergrounding as mitigation between Wylfa and the Menai Strait crossing, and Gwynedd Council's position regarding undergrounding to Pentir. It is advised that, as part of the Consultation Report and an Appendix to each relevant document, National Grid provides a list of consultation comments received through stakeholder engagement, and how these comments have been addressed. Where it has not been feasible to address stakeholder comments, the rationale for design decisions should be clearly set out.

The Councils expect that a number of overarching information gaps will be addressed in respect of the emerging EIA upon which they would expect to be consulted. This includes further detailed consultation on emerging baseline data, impact assessment and proposed mitigation measures. Mitigation measures throughout the suite of Section 42 consultation documents are presented in generic terms only and lack project specific details at this stage. The Councils urge National Grid, in consideration of the comments raised in this report, to consult on detailed measures as a soon as possible to ensure that adequate opportunities are provided to develop and agree a range of measures with stakeholders prior to DCO submission. The background and policy position of the project should also be updated and presented within the ES, taking into consideration the Councils' comments set out above.

Isle of Anglesey County Council and
Gwynedd Council

North Wales Connection Project

Review of North Wales Connections
Need Case and Strategic Options
Report 2016

Issue 1 | 28 November 2016

This report takes into account the particular
instructions and requirements of our client.

It is not intended for and should not be relied
upon by any third party and no responsibility
is undertaken to any third party.

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1 Introduction

Arup has been commissioned by Isle of Anglesey County Council (IACC) and Gwynedd Council (GC) to provide technical, independent support to inform the Councils' continued dialogue with National Grid in respect of the proposed North Wales Connections Project, in accordance with a Planning Performance Agreement (PPA).

The North Wales Connection Project, between Wylfa Newydd and Pentir (the Proposed Project) as proposed by National Grid, consists of approximately 30km of new 400kV overhead line grid infrastructure and a crossing via tunnel of the Menai Straits. It is located within the administrative boundaries of Isle of Anglesey County Council (IACC) and Gwynedd Council (GC). The Proposed Project is classed as a Nationally Significant Infrastructure Project (NSIP) and will require a Development Consent Order (DCO) application to the Secretary of State (SoS). National Grid currently anticipate that the DCO application will be submitted in late 2017.

This document sets out the response from IACC and GC to the North Wales Connections Project Need Case 2016, and Strategic Options Report (SOR) 2016, which form part of a suite of documentation being consulted on by National Grid under Section 42 the Planning Act (2008). The Councils welcome the opportunity to review and appraise submissions made by National Grid relating to their proposals for the new grid connection in North Wales. As principal host authorities to the development, the Councils recognise their key role in assessing the proposals as they evolve in response to National Grid's consultation process.

The Councils understand that it is imperative that National Grid captures sufficient detail in this formal stage of consultation as, at this time, the Councils are unaware of any plans for further formal consultation through which affected communities and interested parties will be able to submit views pre-DCO submission.

IACC and GC have provided responses to other documents within the Section 42 documentation, including the Preliminary Environmental Information Report (PEIR), Preferred Route Option Selection Report and Draft Route Alignment Report in separate stand-alone reports.

The review draws upon statutory provisions and contemporary pre-application consultation good practice for Nationally Significant Infrastructure Projects (NSIPs), in addition to knowledge of previous informal consultation stages of the project dating back to 2010.

2 Scope of Review

National Grid has provided, within the Need Case 2016, an overview of changes to contracted generation relevant to the North Wales Connection project that have taken place since the publication of the Project Need Case and Strategic Options Report on 9th January 2015.

The Councils have previously reviewed and commented on the Need Case and Strategic Options Report dated January 2015, and have therefore reviewed to what extent previous comments have been addressed, and the adequacy of the updated reports presented as consultation material in the current consultation. It is expected that a complete Need Case for the project will continue to be updated for the Project as set out previously, drawing upon National Grid's previous Need Case reports, including the commitment to back-checking. This should include local context for the project associated with the requirement to connect local generation projects to the network, and the Need Case should be drawn upon to inform the EIA and wider suite of documents informing the DCO submission.

As highlighted by the Councils previously, back-checking is essential, as the preferred option and its mitigation is further defined. This process should include a transparent presentation of the costs of all embedded, primary and secondary mitigation, inclusive of costs for the crossing of the Menai Strait. National Grid has committed to back-checking throughout the DCO pre-application and application stages of the project. The updated Need Case and SOR therefore form an important part of this process. It is essential at this crucial consultation stage in the project, as this is the last opportunity for stakeholders to formally respond to the proposals prior to DCO submission. National Grid has a statutory obligation to consider stakeholder comments arising from consultation.

3 Review of Project Need Case

3.1 Changes in Contracted Generation

It is noted in Table 4.3 of the Need Case Report that the contracted generation has altered since the 2015 Need Case Report. The changes are more helpfully described in the SOR in Section 2.1 and Table 1 and are summarised below:

- The existing Wylfa nuclear power station formally reduced its generation capacity to 0 MW;
- Greenwire has revised its connection date from 2018 to 2020;
- Codling Park has revised its connection date from 2018 to 2021; and
- A new 299 MW biomass power station, named Orthios Power, applied to connect at Penhros substation in 2019.

Given that these changes are essential in underpinning the update to the Need Case, it would be advisable to ensure that these changes are clearly articulated both in the Need Case Document, and the SOR.

The SOR explains that *'the results of that analysis concluded that the increase of 299 MW of generation capacity in North Wales does not alter the parameters of the Strategic Options, i.e. all the previously identified Strategic Options could accommodate the additional 299 MW of North Wales generation without the need for higher rated assets being used.'* It would be helpful if this was explained in the Need Case Document.

The Need Case Document itself is highly technical and not easily accessible for the purposes of wider stakeholder consultation. Considering that the need for the project will be of acute interest to local interest groups and stakeholders, it would be helpful if the document were updated to more clearly articulate the changes in contracted capacity and implications on the Need Case for the project.

The Councils note that there are other low carbon generation proposals anticipated and associated with the Isle of Anglesey Energy Programme including the West of Anglesey Tidal Demonstration Zone. Policy EN-5 considers that the need for a transmission project can be assessed on the basis of contracted generation or reasonable anticipated future requirements. It is notable that such projects are excluded from the current Need Case, and it would be helpful for the Councils to understand what the implications would be for future anticipated projects.

4 Review of Strategic Options Report (SOR)

4.1 Feasibility of Strategic Option

As highlighted by the Councils in previous consultation responses, National Grid must demonstrate that the preferred option is technically feasible, and is in fact capable of being delivered (including technical considerations and legislative compliance). At present, it is not understood how the potential significant impacts of the proposed tunnel crossing of the Menai Strait will be appropriately mitigated to ensure that an acceptable solution is delivered. The Councils have concerns regarding the management and transport of significant quantities of spoil arising from construction of the tunnel, and await further information as to how this might be managed appropriately. Should it be identified that the preferred Strategic Option is not feasible, there will be a requirement to re-visit the SOR and all route options development.

If an alternative Strategic Option were to be deemed appropriate, consultation material presented by National Grid for the purpose of Section 42 consultation may become irrelevant. This introduces project and programme risk for National Grid, and affects stakeholder resources for engagement in the project.

4.2 Feasibility of Other Strategic Options

The Councils have previously expressed concern that the options of a High Voltage Direct Current (HVDC) only connection had been seemingly discounted as an unproven technological risk. National Grid states that, in response to stakeholder concern on the issue, National Grid commissioned an independent study by WSP - Parsons Brinkerhoff to assess the viability of HVDC options, the outcome of which confirmed National Grid's review that such a connection would not be viable. The Councils note however that they have not been consulted on the independent report that provided this conclusion and therefore cannot verify the technical adequacy of information supporting this key conclusion.

The 2015 SOR noted that National Grid will keep this technology under review, although no such commitment is made in the 2016 Report. The Councils consider it essential that this remain under review as part of the back-checking process.

4.3 Consenting Strategy

Section 4.4 of the SOR helpfully explains the change in consenting strategy since the Strategic Options were originally appraised. The DCO submission now consists of the upgrades required between Wylfa and Pentir, rather than the North Wales Connections Project including wider works in Gwynedd. The Councils note that a clear consenting strategy for all elements of the project, including Associated Development and Wider Works has yet to be provided. This was requested in response to Scoping, but is not provided in the Section 42 Consultation material. The ES and wider supporting technical documents will need to set out a clear and

unambiguous approach to the assessment of all elements of the wider project within the assessment of inter-related and cumulative effects. The Councils note that Associated Development applications in Wales would be made under the Town and Country Planning Act (TCPA) 1990 to the Councils as Planning Authorities for their areas. The Councils anticipate a good level of pre-application dialogue pursuant to any such applications. These applications made under TCPA will need to include a requisite level of information and detail commensurate with the scale of the proposed works.

4.4 Cost Model

National Grid has legal obligations to provide an efficient, coordinated and economical system, and are regulated by Ofgem to protect the interests of consumers. Whilst it is recognised that there is a significant cost differential (based on figures provided by National Grid) between the preferred Strategic Option and other Strategic Options, this differential could become less significant when the full cost of mitigation is taken into account.

National Grid notes in Section 5.11 that updated information regarding the proposed route length and the identified mitigation measures at the Menai Strait allow National Grid to prepare a more detailed cost estimate of the preferred option. This updated cost and a back-check against the previously identified alternative Strategic Options are described in Section 6 of the SOR. The total cost differential between the preferred Strategic Option and the next cheapest option (Strategic Option 6 Hybrid OHL at £915m) as reported by National Grid has reduced from £396m in 2015 to £295m in 2016.

National Grid provides in Table 3, a cost comparison of Strategic Options, although only the costs for the preferred options have been updated. It is unclear why National Grid has not updated the cost estimates for all options. The costs for the Strategic Option 3 (preferred option) AC Cable and HVDC options should have taken into account crossing the Menai Strait as it is integral to the necessary design.

In Section 6.15 it is stated that *'If National Grid were to carry out further development of the alternative Strategic Options in order to prepare more detailed cost estimates (i.e. including mitigation) for these options it is expected that these estimates would at best remain unchanged or would most likely increase from the current Strategic Options Report cost level.'*

No further information has been provided by National Grid to support this assertion, and an update of all Strategic Options should be undertaken to ensure that conclusions are drawn based on current and like-for-like assumptions. National Grid note in Section 6.3 of the SOR that recent contract information for manufacturers and suppliers is relevant to the cost calculation. It is apparent that the cost calculations have not been updated since 2015, although it could be expected that these be updated in line with recent contracts.

The costs reported for the preferred Strategic Option 3 now include cost estimates for the Menai Strait crossing, which was requested by the Councils previously and is welcomed. The cost reported in 2015 for the preferred option was £519m, excluding costs for the Menai Strait crossing, which was estimated (at that time) at

an additional £35-50m. The cost is now reported to be £620m including the Menai Strait crossing, a reported increase of £101m. This could lead readers to assume that the increase of £101m is associated entirely with the Menai Strait crossing, although this is unclear. It is notable that taking account of the £35-50m originally assumed for the Menai Strait crossing, the increase is actually in the region of £51m - £66m. The Councils would welcome further clarity on this matter from National Grid.

As raised by the Councils previously, no detailed cost appraisal has been provided which might enable the Councils to verify the cost conclusions. It is not clear if the cost increase is solely associated with the proposed tunnel under the Menai Strait, or whether there have been other updates to the cost model for the preferred option. Of particular concern is that the £101m increase conflicts with higher costs provided by National Grid for the Menai Strait tunnel in stakeholder briefings. In addition, the Menai crossing Report states that the cost of the preferred option (Option D, Table 11.1 of the Report) is £145-165m. The report notes that these figures are high level only, but exclude any contingencies and potential issues arising from geological conditions of the Menai Straits. It is therefore highly feasible that this cost estimate could increase. It is essential that this apparent inconsistency be resolved and further clarity provided, as a significant increase in tunnelling costs would narrow the cost differential between the preferred option and other Strategic Options.

4.5 Approach to Options Appraisal

The updated SOR provides commentary on cost only and does not analyse the wider considerations of socio-economic and environmental impacts that were taken into consideration and reported as part of the Options Appraisal process in the 2015 SOR. National Grid's 'Our Approach to Options Appraisal' (2012) states that:

"Options Appraisal is a robust and transparent process we use to compare options and to assess the positive and negative effects they may have across a wider range of criteria including environmental, socio-economic, technical and cost factors".

The document also makes clear that Options Appraisal is a requirement at "Stage 1 – Strategic Options". The scope of information presented in the SOR therefore does not appear to fulfil the criteria set out in National Grid's own guidance.

The Councils have commented previously that the 2015 SOR was lacking in a robust evidence base on which to draw socio-economic and environmental conclusions. The updated SOR neither addresses this information gap, nor provides a review of any changes in environmental or socio-economic considerations that may influence the appraisal of Strategic Options.

The updated SOR fails to take account of any mitigation other than the Menai Strait Crossing. The Council anticipates mitigation may also be provided in the form of undergrounding, alternative pylon design, off-site, and on-site mitigation and enhancement. This has not been accounted for in the cost model to date. National Grid demonstrated in the SOR that the costs of a fully underground version of the preferred Strategic Option between Wylfa and Pentir would be of similar magnitude to Strategic Option 6, the 'hybrid' option. The inclusion of fuller mitigation costs

therefore has significant potential to alter the cost differential between the preferred Strategic Option and alternatives.

Back-checking of costs continues to remain essential, as the preferred option and its mitigation is further defined. This process should include the costs of all embedded, primary and secondary mitigation, inclusive of costs for the crossing of the Menai Strait. National Grid has committed to back-checking throughout the DCO pre-application and application stages of the project and the Council continues to welcome this commitment.

5 Recommendations / Conclusions

The Councils have set out in this report a number of key matters requiring resolution:

- The Councils have concerns regarding the adequacy of the Need Case document for the purposes of stakeholder consultation and ultimately as a key document to underpin the DCO application.
- There is a lack of clarity regarding the cost of the proposed Menai Strait tunnel.
- The 2016 SOR update fails to update the range of Strategic Options, to facilitate comparison on a like-for-like basis.
- The 2016 SOR update does not consider the comparison of Strategic Options on a holistic basis, including socio-economic and environmental considerations. It therefore does not appear to take account of National Grid's own guidance for Options Appraisal.
- Wider mitigation (other than the Menai Strait crossing) for all options continues to be lacking in the appraisal, a concern raised by the Councils in previous consultation responses.

It is therefore essential that the Councils are consulted on an updated Need Case and SOR documents prior to DCO submission. Given the fundamental importance of these documents in underpinning the DCO application, it is considered essential that the public and wider stakeholders are also given the opportunity to comment on any updates.