

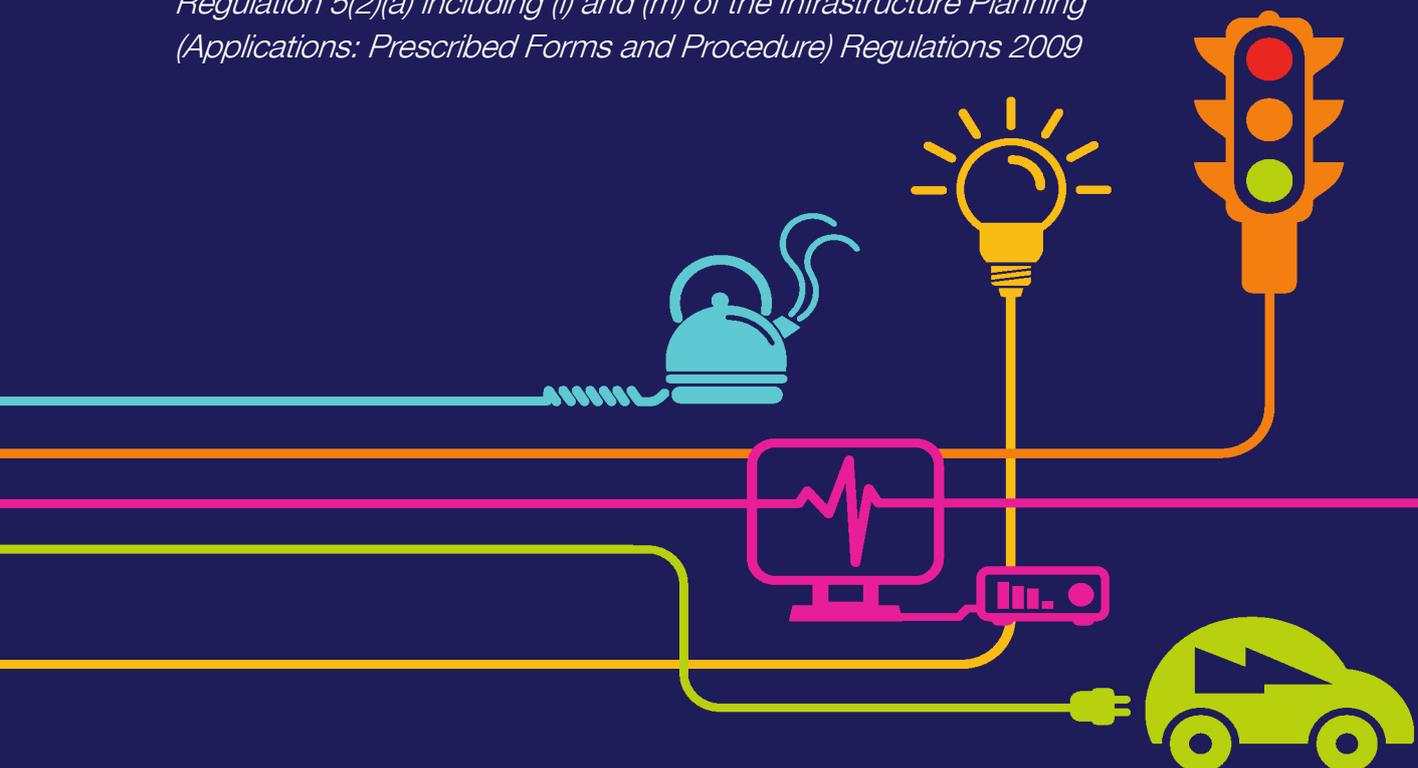
DOCUMENT 5.27.2.2

# WHIASU Report

## Document 27 – Appendix 2

National Grid (North Wales Connection Project)

*Regulation 5(2)(a) including (l) and (m) of the Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009*





**nationalgrid**

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# **North Wales Connection Project**

## **Volume 5**

### **Document 5.27.2.2 Appendix 27.2 WHIASU Report**

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# Proposed National Grid Preferred Route in Anglesey

## Health and Wellbeing Impact Assessment

### 1.0 Introduction

In 2015, Welsh Government introduced a ground breaking piece of legislation - the Wellbeing of the Future Generations (Wales) Act (WFGA)<sup>1</sup>. This placed a statutory duty on a number of specified public bodies and public sector boards to ensure that Wellbeing becomes a core focus for all. This is underpinned by a Sustainable Development principle: prevention; long term planning; public involvement; collaboration; and integration.

Sustainable development is defined in the Act as:

*'...the process of improving the economic, social, environmental and cultural wellbeing of Wales by taking action, in accordance with the sustainable development principle, aimed at achieving the well-being goals.'*

Whilst wellbeing is defined as:

*'a positive physical, social and mental state; it is not just the absence of pain, discomfort and incapacity. It requires that basic needs are met, that individuals have a sense of purpose, that they feel able to achieve important personal goals and participate in society. It is enhanced by conditions that include supportive personal relationships, strong and inclusive communities, good health, financial and personal security, rewarding employment, and a healthy and attractive environment<sup>2</sup>.*

These concepts are explicitly connected and entwined to both individual physical and mental health and wellbeing and that of communities.

Health Impact Assessment (HIA)<sup>3</sup> is a process which supports organisations to assess the potential consequences of their decisions on people's health and wellbeing. The Welsh Government (WG) is committed to developing its use as a key part of its strategy to improve health and reduce inequalities.

Health impact assessment provides a systematic yet flexible and practical framework that can be used to consider the wider effects of local and national policies or initiatives and how they, in turn, may affect people's health and wellbeing - in the present and in the future. It works best when it involves people and organisations who can contribute different kinds of relevant knowledge and insight. The information is then used to build in measures to maximise opportunities for health and to prevent or minimise any risks. It can also identify any 'gaps' that can be filled. HIA can also provide a way of addressing the inequalities in health that continue to persist in Wales by identifying any groups within the population who may be particularly affected by a policy, plan or proposal. HIA is currently not statutory in Wales (or any part of the UK).

Isle of Anglesey County Council (IACC) is a designated public body and therefore must comply with the WFGA and its requirements. It has been highlighted that the proposed National Grid connection between Wylfa and Pentir to transport electricity from the proposed Wylfa Newydd Nuclear Power Station could have significant implications for the wellbeing of the population of Anglesey and the island itself - including health, community and Welsh language and cultural impacts.

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<sup>1</sup> Well-being of the Future Generations (Wales) Act, 2015

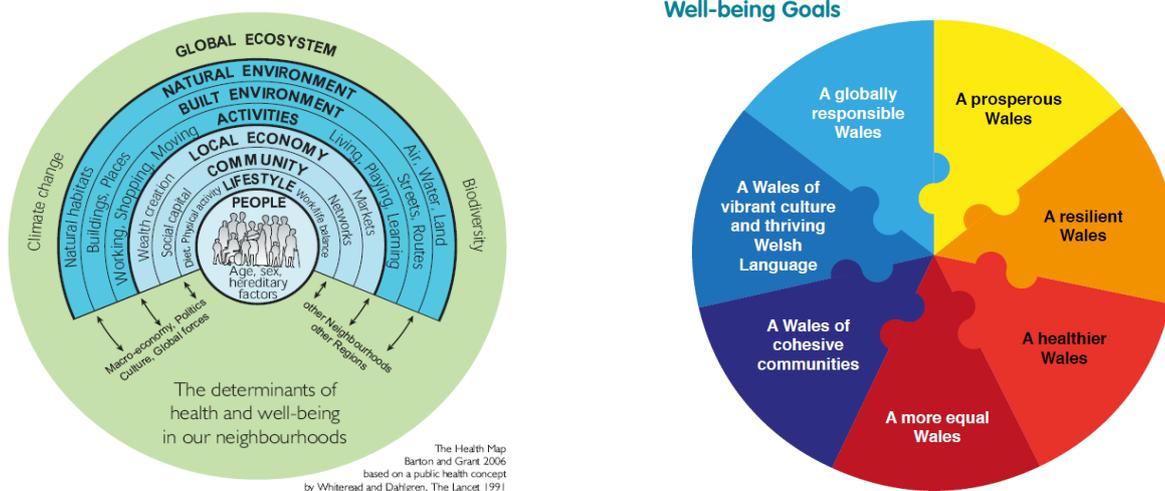
<sup>2</sup> Sustainable Development Indicators In Your Pocket. Defra, 2007 (London: HMSO)

<sup>3</sup> Gothenburg Consensus. European Centre for Health Policy, 1999

There is a strong history of health impact assessments being routinely conducted in IACC on a range of projects, plans and policies. The proposed Wylfa Newydd Nuclear Power station development is subject to a HIA<sup>4</sup> and as part of the process for applying for a Development Consent Order (DCO) it was believed by IACC that a similar exercise should be undertaken to support decisions in respect of the National Grid proposed connection between Wylfa and Pentir. It was therefore proposed by IACC that a Health and Wellbeing Impact Assessment should be conducted to ascertain the potential impacts both short and long term. IACC considered that this would be of benefit to all stakeholders and communities and would meet the requirements of the WFGA.

The Health and Wellbeing Impact Assessment (WIA) has been adapted from the Wales HIA Support Unit's Health Impact Assessment (HIA) practical guidance and resources<sup>5</sup>. It supports the needs of Public Bodies, Public Sector Boards (and others) who are required or wish to demonstrate that they are considering well-being and the Wellbeing Goals as part of the statutory duty placed on them by the WFGA. It was agreed that it would be appropriate for the WIA to be undertaken as part of the statutory consultation stage for the proposed connection.<sup>6</sup>

HIA as practiced in Wales considers not just the biophysical and environmental health impacts which can be derived from planning proposals and plans and are routinely assessed as part of Environmental Impact Assessments (EIAs) but assesses the wider determinants of health in a systematic yet flexible way. These determinants such as environment, transport, housing, access to services and employment can all interact to a greater or lesser extent with the lifestyle choices that we make and genetic makeup to influence our wellbeing. These connections are made more explicit in the WFGA - as demonstrated in the diagrams below.



## 1.1 Proposed Connection Route

It is proposed to develop a new 400 Kilovolt (kV) connection between the existing 400 kV substation at Wylfa on Anglesey and the existing high voltage electricity transmission network on the mainland in north Wales. This will facilitate the export of power from the proposed Wylfa Newydd Power Station.

<sup>4</sup> Wylfa Newydd Nuclear Power Station Development consultation website.

<http://consultation.horizonnuclearpower.com/stage-2/technical-documents> (Accessed 6/12/2016)

<sup>5</sup> 'HIA: A Practical Guide'. WHIASU, 2012

<sup>6</sup> North Wales Connection website <http://www.northwalesconnection.com/> (Accessed 6/12/2016)

At this stage the proposals (which remain subject to further development and consultation) involve a combination of overhead line and underground cables for the connection. Cable sealing end compounds would be required at the boundary points between the overhead and underground sections of the connection. The proposals include: substation upgrade works at Wylfa; approximately 30 kilometres (km) of new overhead line between Wylfa and the Anglesey side of the Menai Strait and then the Gwynedd side of the Menai Strait to the existing substation at Pentir; an underground section across the Menai Strait; two new cable sealing end compounds and tunnel head houses either side of the Menai Strait; and an extension to the substation at Pentir.

The connection has been split into sections (A-F) which are described briefly below.

In Section A (Wylfa to Rhosgoch) a new overhead line to the east of the existing overhead line is proposed. To connect to the substation it is proposed to re-align the existing wires. The pylon design for the new overhead line is similar to the lattice pylons on the existing line.

In Section B (Rhosgoch to Llandyfrydog) it is proposed to construct a new overhead line and to move sections of the existing line. The two lines keep in close parallel with pylons mostly positioned in pairs to keep effects close together. The pylons are proposed to be a lattice design similar to the existing line.

In Section C (Llandyfrydog to B5110 north of Talwrn) an overhead line that is mostly in parallel with the existing line, but moves slightly to the west in the Capel Coch area is proposed. The pylons are proposed to generally be positioned in pairs and a similar lattice design pylon to the existing line is proposed.

In Section D (B5110 north of Talwrn to Ceint) an overhead line in close parallel to the existing line is proposed. Again, the pylons are generally proposed to be kept in pairs and a lattice design similar to the existing pylons is proposed.

In Section E (Ceint to Afon Braint) it is proposed that the overhead line starts in close parallel with the existing line before taking a different route to the Menai Strait area where the line goes underground.

In Section F (Afon Braint to Pentir) the connection is proposed to change from overhead and to go beneath the Menai Strait before returning to overhead and continuing to the existing substation at Pentir. A sealing end compound is required on each side of the Strait, which will contain the equipment to connect the overhead and underground sections together. From the sealing end compounds, the connection is proposed to transfer to a tunnel under the Strait. On each side of the Strait, the cables are proposed to be installed in a vertical shaft that will be accessed through a head house building. The tunnel head houses will contain equipment such as ventilation fans which will help keep air circulating inside the tunnel and help with cooling. The tunnel head houses and sealing ends will be located together in an area approximately two acres in size. From the sealing end in Gwynedd it is proposed to construct an overhead line to Pentir substation using a lattice design similar to the existing pylons in this area.

A similar lattice pylon as the existing line is proposed because it is considered that this is the best option to reduce visual effects as it won't introduce contrasting shapes into the landscape. While similar in height and shape to the existing pylons, the new pylons have an overall lighter-weight and thinner appearance. These are the lightest-weight design that can be used and that is capable of supporting the number and size of wires required.

In most instances it is proposed to keep the existing and new pylons broadly in pairs as it is considered that this will keep views more open between pylons and means that the wires will run in the same line, which helps to reduce effects.

More information about the project and consultation documents can be accessed at:  
<http://www2.nationalgrid.com/uk/In-your-area/Projects/North-Wales/><sup>7</sup>.

## **2.0 The Wellbeing Impact Assessment (WIA)**

As part of discussions about the connection project between IACC and National Grid, it was recognised and agreed that a WIA could be a beneficial way of discussing the proposed project and understanding concerns about the potential effects it may have on the local population and area. It would do this using the social determinants of health and wellbeing as a lens and would comply with WG's requirements for Public Bodies under the Wellbeing of the Future Generations (Wales) Act 2015 (WFGA). In respect of inequalities, the HIA would include a consideration of any vulnerable groups who could be particularly affected in the population as well as the general population as a whole. It would consider the wider impacts on those key stakeholders who could be affected by the preferred route, including Gwynedd Council which is the administrative area that the proposed route will also be located within.

IACC, with agreement from National Grid, agreed to approach the Wales Health Impact Assessment Support Unit (WHIASU) to independently facilitate the HWIA so that any health and wellbeing impacts, inequality impacts, positive or unintended consequences could be identified. National Grid do not have a statutory duty to carry out a Health and Wellbeing Impact Assessment and voluntarily agreed to undertake it. WHIASU has been extensively involved in the work around the proposed Wylfa Newydd Nuclear Power Station development on Anglesey and has knowledge in respect of the area. Liz Green (LG), Principal HIA Development Officer is a member of the Wylfa Newydd HIA Steering Group<sup>8</sup>.

The WHIASU was established in 2004 to support the development of HIA in Wales and is part of the Policy, Research and International Development Directorate (PRID) of Public Health Wales (PHW). Its remit is to support, train, facilitate and build capacity in HIA and raise awareness of how the process can support and contribute to improving health and wellbeing. A particular focus of WHIASU in recent years has been the use of HIA within traditionally 'non-health' sectors such as mining, regeneration and housing, land-use, waste and transport planning as a method of encouraging a consideration of 'Health in All Policies' (HiAP). The Unit has a strong research function and has published a number of guides, evidence reviews and resources to support the practice of HIA by specialists and non-specialists<sup>9</sup>.

A small Steering Group was established and a scoping meeting was held to discuss the format, content, roles and responsibilities and attendees for the WIA. This Scoping Group consisted of the following members:

Huw Thomas	Environmental Protection Operations Manager, IACC
Anwen Davies	Health and Social Care Impact Officer, IACC
Liz Green	Principal HIA Development Officer, PRID, PHW
Lee Parry-Williams	Senior Public Health Practitioner (Policy and Impact Assessment), PRID, PHW
Andrew Lucas	Consents Officer, National Grid
Jacqui Fenn	Senior Consents Officer, National Grid
Valerie Robertson	Socio-Economic Impact lead, Jacobs
Jenny Dunwoody	HIA Lead, Arup

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<sup>7</sup> North Wales Connection website <http://www2.nationalgrid.com/uk/In-your-area/Projects/North-Wales/> (last accessed 25/1/2017)

<sup>8</sup> Wylfa Newydd HIA Scoping Report. Horizon Nuclear Power, 2014.

<sup>9</sup> Wales HIA Support Unit website: [www.whiasu.wales.nhs.uk](http://www.whiasu.wales.nhs.uk) (last accessed 6/12/2016)

At the meeting, the process to be followed was discussed and agreed by all parties. A Scoping paper was completed. The WIA is a qualitative assessment of the proposed project. It was conducted in order to gather local stakeholder and contextual knowledge in respect of the proposed project and will be considered as part of any decision making process alongside the environmental and engineering studies and information gathered to date and responses received to the consultation and the on-going assessment of the proposals. This includes that gathered from associated impact assessments i.e. Welsh Language Impact Assessment (WLIA) and the comprehensive Environmental Impact Assessment (EIA)<sup>10</sup>. There had been extensive consultation with a range of organisations in 2012 and 2015 in respect of the options for the proposed project. The statutory Pre Application Consultation stage took place from October 5<sup>th</sup> 2016 until December 16<sup>th</sup><sup>11</sup>. The responses from the consultation provide an opportunity for National Grid to critically assess the proposed project and make any appropriate changes to it and further refine any mitigation for it.

## 2.1 Evidence

HIA is evidence based. This evidence includes quantitative, statistical data and qualitative knowledge and evidence. As practiced in Wales, HIA is grounded in a mixed methodological approach and embraces organisational, community and lay knowledge. Wales emphasizes the inclusion of all stakeholders including local community citizens as part of the process. Including this type of qualitative evidence is important to assess individual concerns, anxiety and fears for example, and the data can be quantified for use in decision-making and/or mitigation. It can give a more holistic, contextual view of national and local impacts. The EIA<sup>12</sup> and associated impact assessments have amassed a huge range of quantitative technical and qualitative data to date. This has focussed primarily on environmental health determinants such as air quality, noise and vibration and visual amenity and some socio-economic determinants such as economic development and income. Health and Wellbeing impact assessment can broaden this scope and provide additional evidence in respect of some of the wider determinants not been covered by these. The WIA was also informed by local health and community data and statistics<sup>13 14 15</sup>

The proposed project aligns with a number of local and national policies and strategies<sup>16 17 18 19</sup>

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<sup>10</sup> Stage One and Two Consultation documents - North Wales Connection consultation website:

<http://www.northwalesconnection.com/default.aspx> (Last accessed 25/1/2017)

<sup>11</sup> Stage Three Consultation documents - North Wales Connection consultation website:

<http://www.northwalesconnection.com/> (Last accessed 6/12/2016)

<sup>12</sup> Preliminary Environmental Information - North Wales Connection consultation website:

<http://www.northwalesconnection.com/default.aspx> (Last accessed 25/1/2017)

<sup>13</sup> Local Authority Population Projections for Wales (2014 – based). Welsh Government 2016.

<https://statswales.gov.wales/Catalogue/Population-and-Migration/Population/Projections/Local-Authority>

(Last accessed 21/12/2016).

<sup>14</sup> Measuring Inequalities - Trends in mortality and life expectancy in the Isle of Anglesey 2010-2014. Public Health Wales Observatory

[http://www2.nphs.wales.nhs.uk:8080/PubHObservatoryProjDocs.nsf/\(\\$All\)/C1BDA825B5B85D4F8025795E00578BF8/\\$File/inequalitiesProfilesLAIsleofAnglesey\\_v1.pdf?OpenElement](http://www2.nphs.wales.nhs.uk:8080/PubHObservatoryProjDocs.nsf/($All)/C1BDA825B5B85D4F8025795E00578BF8/$File/inequalitiesProfilesLAIsleofAnglesey_v1.pdf?OpenElement) (Last accessed 16/1/2017)

<sup>15</sup> 2011 Census – A snapshot of key health, employment and qualification indicators. Betsi Cadwaladr University Health Board, 2016

[http://www2.nphs.wales.nhs.uk:8080/PubHObservatoryProjDocs.nsf/\(\\$All\)/3061D9D](http://www2.nphs.wales.nhs.uk:8080/PubHObservatoryProjDocs.nsf/($All)/3061D9D)

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<sup>16</sup> 'Anglesey Energy Island Programme' website: <http://www.anglesey.gov.uk/business/energy-island/> . Isle of Anglesey County Council (Last accessed 6/12/2016)

<sup>17</sup> 'Energy Wales: A Low carbon Transition'. Welsh Government, 2016

In terms of actual health impact assessments which have been completed on a development such as this - there are no comparable broad, wider determinant perspective or community HIA or WIAs which have ever been undertaken on this type of development - nationally or internationally. This is therefore the first of its kind. However, all developments of this type in the UK must undertake an EIA and these do contain information on physical and environmental health impacts.

### **3.0 Participatory WIA Workshop**

As part of the agreed WIA process, a half day stakeholder workshop was held at Carreg Bran Hotel, Llanfairpwll on Anglesey and participants attended from both the Isle of Anglesey and Gwynedd Councils. This built on much of the data already collected, avoided duplication of resources and provided a forum for stakeholder discussions using a recognised and systematic process.

The workshop took place on October 5<sup>th</sup> 2016. A number of key stakeholders and local community members were invited to participate and contribute to the discussion. There was such an interest in the WIA and the proposal that the majority of the invitees attended.

The WIA workshop was led by Liz Green (LG), Principal HIA Development Officer and co-facilitated by Lee Parry-Williams (LPW) Senior Public Health Practitioner (Policy and Impact Assessment) from WHIASU and Delyth Jones and Sian Ap Dewi, Principal Public Health Officers, PHW, Local PH Team. It was qualitative in nature and followed the systematic methodology described in the 2012 Welsh HIA guidance of 'Health Impact Assessment: A Practical Guide'. It builds on work and training that WHIASU has recently undertaken across Wales to develop HIA and build a consideration of health, wellbeing and inequalities into a wide range of settings and sectors. There were two breakout groups at the workshop - one discussed the proposed connection route through the medium of the Welsh language and one other one was facilitated in English. At the end of the workshop, both breakout groups reunited as one group. The participants provided feedback from the groups which they wished to convey as part of the decision making process.

In total, 39 people attended the workshop and included a wide range of representatives. Participants included local authority officers from housing, social services and environmental health, locally elected members, representatives from Betsi Cadwaladr University Health Board (BCUHB), Public Health Wales, Third Sector and the emergency services. Information was circulated beforehand to the participants alongside an HIA information sheet and an agenda. The agenda is included in Appendix One.

The aim of this workshop was primarily to gather professional and community stakeholder knowledge and evidence about the potential impacts of the proposed route. It assessed the proposed project based on the attendees understanding of the national policy context; the local circumstances; and the wealth of experience gained from working and living on Anglesey and their experience of these types of development.

A thematic analysis was undertaken by WHIASU of the participants comments from the workshop and several key population groups were identified as being potentially affected throughout the

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<sup>18</sup> Overarching National Policy Statement for Energy (EN-1), Department for Energy and Climate Change,, June 2011 <https://www.gov.uk/government/publications/national-policy-statements-for-energy-infrastructure> (last accessed 23/12/2016)

<sup>19</sup> National Policy Statement for Electricity Networks Infrastructure (EN-5), Department for Energy and Climate Change,, June 2011. <https://www.gov.uk/government/publications/national-policy-statements-for-energy-infrastructure> (last accessed 23/12/2016)

construction and operation phases. Similarly, there were several major themes and potential impacts identified by the participants from these.

At the outset, the two groups identified the main vulnerable groups who could be affected by the route using the Wellbeing Impact Assessment Checklist (Appendix Two). A lively discussion followed and a wide ranging number of groups were highlighted.

### **3.1 Vulnerable Groups**

It was acknowledged at the start that the proposed project is applicable to a wide range of communities, groups and individuals in the general population - both in Anglesey and Gwynedd and further afield. However, it was identified by the participants that there are a number of groups who could be specifically affected by the development locally. These were (in no particular order):

- Geographical groups - the population of Anglesey is dispersed. There are some main settlements whilst many of the residents are in small hamlets or isolated rural locations.<sup>20</sup>
- Communities First area of Llangefni - the proposed pylon route passing adjacent and nearby to this community.
- Older people - Anglesey has a significant older population, some of whom may be living alone in small rural isolated hamlets (which can be related to social isolation). Therefore, there is potential for a disproportionate impact on the older population, caused by uncertainty around the disruption during construction e.g. the road network or by a lack of caring support staff who may be drawn to higher paying employment provided by the National Grid project or the Wylfa Newydd development.
- Farmers/landowners - This in relation to the criteria of using the less populated geographic areas of Anglesey to situate the development<sup>21</sup>. Tenants could also be affected.<sup>22</sup>
- Carers - This was discussed in the context of the potential for competing pressures to employ low wage earners against the potential opportunities for higher wages within the planned developments such as the proposed project and Wylfa Newydd.
- Unemployed/low income households - The context for this could be the pressure on low cost accommodation from a cumulative increase in workforce(s) coming to the Island due to both Wylfa Newydd and the National Grid project. It was considered that there is potential for accommodation costs to rise and therefore decrease the availability of affordable accommodation for particular groups of residents.
- Tourism operators - There could be an impact on alternative accommodation for incoming workers. It was felt that the Island economy relies heavily on the tourism industry and there is the potential that visitors may prefer to stay in accommodation based on the mainland due to pressures on tourist accommodation on the Island. This would be more noticeable during the construction phase and could lead to future decreased income for a range of operators.
- Children - more at risk from traffic related incidents. Additionally, the construction period is a long time relative to the life span of a child - 3 years in a child's development is significant and relative when compared to an adult's life span.

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<sup>20</sup> Indices of Deprivation across the UK. Office for National Statistics 2016.

<http://www.neighbourhood.statistics.gov.uk/dissemination/Info.do?m=0&s=1481625781312&enc=1&page=analysisandguide/analysisarticles/indices-of-deprivation.htm&nsjs=true&nsck=false&nssvg=false&nswid=1440#Overview> (Last accessed 25/1/2017)

<sup>21</sup> Holford Rules - [http://nationalgrid.opendebate.co.uk/files/nationalgrid/North\\_Wales/HolfordRules6.pdf](http://nationalgrid.opendebate.co.uk/files/nationalgrid/North_Wales/HolfordRules6.pdf) (Last accessed 25/1/2017).

<sup>22</sup> Discussion re rural farmland and the identification of farmers and landowners as vulnerable groups – planning guidelines stipulate where possible less populated areas are the preferred development routes

- Sex workers - This was discussed in relation to human trafficking. There will be a dramatic transition for the islands demographics from an older population to one which contains a higher proportion of young men (cumulative between Wylfa Newydd and the National Grid project). National Grid will have less construction workers (between 200-400 at peak construction periods) compared to the potential of approximately 11,000 for Wylfa Newydd.

Other:

- Population of UK - in terms of overall benefit due to increased/secure energy capacity
- Island population - General concern was raised regarding the effect on the Island population from the increase in incoming young people (potentially predominantly young men due to the nature of the developments). This was raised in relation to the potential increased drinking at weekends.
- Construction workers away from home and family for long periods.

After agreement on the above groups, the participants then worked systematically through the wider or social determinants of health and assessed the wellbeing impacts listed in Appendix Two.

Potential positive or negative impacts were identified as were any opportunities, gaps or unintended consequences. Suggestions were made for mitigation and documented. All of this is summarised in the tables in Appendix Four.

### **3.2 Appraisal**

The workshop followed a systematic process, continued to provoke a lively discussion and made important connections to other policy areas and stakeholders. Discussions were recorded on flipcharts and notes taken during the workshop sessions and later transcribed. The transcriptions were locked and sent to all participants to be checked for accuracy, any omissions and for clarifications to be added to the notes. These transcriptions were independently analysed by the Principal HIA Development Officer and have informed this report of the WIA workshop and the summaries above and below.

It is clear from the transcribed and verbal contributions that several important themes emerged and some key messages and priority areas were clearly articulated by the participants.

These are:

1 The impact of the connection and the implications for the landscape of Anglesey and its communities both in the short term and the long term future could be significant. The impact of the construction and operation of the connection development itself may be significantly smaller than the proposed Wylfa Newydd Nuclear Power Station development but when considered together with Wylfa Newydd's construction phase it could have a significant cumulative impact - positive and unintended and/or detrimental. It is important to consider Wylfa Newydd when discussing the National Grid development and the participants called for closer working and co-ordination with Horizon Nuclear Power (the development company for Wylfa Newydd) to ensure that impacts are minimised - particularly during the construction phases.

2 There is potential for an increased pressure on the provision of services, infrastructure and facilities in Anglesey. Participants stated that the potential impacts are likely to potentially fall mainly on health and social services, housing and tourism sectors. There is also potential for impacts on a number of communities across the Island and implications for the Welsh language and Welsh culture was a major concern. There could be an impact on transport routes, connections and travel both on Anglesey and regionally across north Wales.

3 There was an explicit preference expressed by some of the local participants for the connection to be underground - either across the Isle of Anglesey or via undersea cables to a north Wales coast substation. This is preferred to the over ground connection that is currently being consulted upon.

4 The issue of Electro Magnetic Fields was raised and the perception of risks of these and other potential associated wellbeing impacts needs to be addressed.

5 Need to engage with young people on the island and gain their perspectives - as this could affect them both in the short and the longer term.

6 It was noted by some of the participants that the information available was not detailed enough. This was raised in respect of the workforce profile and the need for additional planning for the impacts on housing, transport and health services was called for - particularly when considered cumulatively with Wylfa Newydd.

Other potential impacts in relation to the Wellbeing Goals and the wider determinants were identified within the session. These are summarised from the transcribed participants' comments at the session (Appendices Five and Six).

### **3.3 A more Equal Wales**

In addition to considering the potential impacts on any vulnerable groups in the population this Wellbeing goal highlighted the potential impact across the Island and Wales.

Potential negative impacts or unintended consequences of the proposed project were highlighted to be any psychological and mental wellbeing impact which may arise from perceptions of risk from residing near the receptors and/or stress which can be caused by disruption to those living and working on the island whilst the construction of the connection takes place. The former can be challenging to overcome and open communication and transparency plus evidence may provide mitigation for this. The participants stated that there can be reduced citizen power and influence which is demonstrated by the consultation processes. It was noted that there is a conflict between the preferred route which has been announced and responses from residents to the previous consultation (i.e. under sea/underground cables have been stated as the community's preferred option but National Grid's proposed option is mainly an overhead connection). However, some participants also stated that there is a positive impact due to the consultation process which engages with the local population.

The potential unintended negative impact on younger people was flagged up. This is in relation to a potential lack of affordable accommodation on the island as any capacity could be utilised to house construction workers from the National Grid project and Wylfa Newydd. It could impact on family roles i.e. carers/child care and hinder young people's ability to remain on the Island. Should young people have to move further away this can cause challenges and lead to a breakdown of any close support networks. Changes to the demographic profile of the island could also have a disproportionate impact on older/vulnerable residents and could lead to a reduction of their use of local services as carers and support networks move from the Island or are employed by the project or Wylfa Newydd developments.

The impact on the Welsh Language and culture - from outward migration (particularly of young people) and from temporary inward migration from non-Welsh speaking workers was also highlighted as a potential challenge. This was regarding the retention of young people in the community through

provision of job and housing security. Inward migration was also to be viewed as a potential positive impact. National Grid noted at the workshop that approximately 80% of National Grid employees in the region are currently Welsh speaking.

Potential impacts/reduction in property values and the potential difficulties in selling properties was raised. Participants believed that landowners and farmers could be disproportionately affected. Whilst they could receive some financial compensation questions were raised about any tenants they may have (where the landowner does not live on the property or location affected) and if this will filter down.

Although financial compensation was raised as an issue, participants strongly voiced their view that any impact is about more than money - it is about the health and social wellbeing of the community and the island as a whole.

Potential detrimental community impact was a key theme in all the Wellbeing Goals and it was recorded that this could be island wide but also impacts could fall on specific groups who will be in near proximity to the proposed connection route. Positively, support for the communities of Anglesey is currently available for members and communities to gain a better understanding of the project (through ARUP) but this could be more extensive and focussed. The CAB also provides support and advice and could be utilised both by local residents and project workers. However, it would need more resources to deliver this.

### **3.4 A healthier Wales**

Positively, it was felt by the participants that there would be a need to promote services such as leisure centres which can promote and maintain healthy behaviour and ensure that these remain sustainable for the future. However, a big increase in activity and use could lead to pressure on the facilities and there will be a need to accommodate this should it happen. There could also be a negative impact on physical activity from avoiding pathways and walking across the land which are in near proximity to the pylons, in particular during construction.

Increased benefits from the increased use of leisure facilities such as pubs and licensed premises (and increased GDP) could also lead to potential issues regarding the increased use of alcohol and other risk taking behaviour by workers who may have a younger demographic profile.

There was however, concern from participants around the potential increased noise levels, dust emissions, waste and spoil from the tunnel and air pollution from the construction phase (which will involve more transport movement and traffic on the roads) as well as the psychological stress of increased travel times and disruption to the routes around the tunnel area at Pentir. It was also noted that when considered cumulatively with Wylfa Newydd there will be a huge increase in volumes of traffic where there is already peak time congestion, and an increase in HGV traffic. Impacts may also be felt not only at 'pinch points' but there could be an impact on congestion along the A55 corridor and the regional road network.

Major concern was articulated about the potential psychological impacts and the effect on some community members' mental health and wellbeing.

There are specific areas where concentrated levels of traffic may occur and which are where there are higher levels of residents (i.e. around the tunnel construction site). There could be an increase in

stress and anxiety from additional and increased levels of noise, particulates etc. Evidence<sup>23</sup> suggests that the emotional response to stress and anxiety has potential to have the bigger impact than physical effects.

Participants noted that transport disruption may also have a negative impact for some isolated/older populations who may currently have a weekly plan for accessing shops and services. This could be disrupted and they may reduce their access outside of the home and therefore risk becoming even more isolated.

It was highlighted that there may be a need to differentiate between any potential concerns and anxieties in respect of the differing phases (i.e. during the temporary construction phase and the permanent operation phase post construction - living with the pylons).

Construction in more rural areas could lead to increased stress due to increased and additional traffic levels from construction transport, noise and potential light pollution for 24/7 operation. National Grid clarified that there will be 24/7 tunnel boring but not 24/7 associated transport operation to remove the spoil/waste from the excavation, nor 24/7 working on the construction of the overhead line.

There were a number of questions raised in respect of concerns around the arrangements to remove the waste/spoil from the tunnel. National Grid provided the response that the company is working on planning for 'worst case scenario' i.e. all spoils is extracted onto the Anglesey side. However, considerations are underway to work on where, what and how. The company stated that there is a need to drill further bore holes to understand the geology of the full route of the tunnel as this does vary across the route. Insight into the geology will contribute to the decision of how to manage removal and dispose of spoil. A question was asked about the feasibility of removing the spoil by sea. Further investigation is required for this.

Noise from overhead lines was also a potential concern in respect of detriment to health and wellbeing. There were discussions about how this issue (along with a range of other factors) have informed the specific design of the proposed project and the conductors. A balance has been sought between competing factors, for example efficiency rating, visual impact, noise emitted. Post construction the conductors can be monitored.

Finally, questions around Electro-Magnetic Fields (EMF) were raised by participants in Group 1 and the psychological impacts which some population groups may present from a perceived risk from these. There will be a standalone EMF report which will set out clearly how National Grid has complied with guidance on EMF. Regarding assessments undertaken in conjunction with Wylfa Newydd it was confirmed that separate assessments must be undertaken but there should be reference made between the two developments and these should be considered cumulatively within the EIAs for both developments.



### **3.5 A globally responsible Wales**

There were a limited number of potential impacts identified by the groups and these were both positive and negative impacts and unintended consequences.

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<sup>23</sup> NHS Health Scotland, 2016, Place and Communities: Inequality Briefing 4 with a reference to: Geddes I, Allen J, Allen M, Morrissey L. 2011, The Marmot Review: implications for Spatial Planning.

Positively, participants felt that the development would contribute to the energy security of the UK. It also supports national policies such as National Planning Statements Energy 1 and 5 and local policies such as the IACC concept of Anglesey as an ‘Energy Island’. The development has the potential to contribute to GDP for the Island in the short term during construction period and to the whole of the UK in the long term through energy security.

However, a participant in Group 1 suggested that the Island of Anglesey is ‘losing heritage in order to subsidise electricity’. Whilst it was stated that the effect of the connection could boost or be detrimental to the economic development of the island in the short term i.e. during the construction phase it was stated that it could also affect investment for up to 60 years through a drop in tourism numbers and have a dramatic effect on Anglesey’s GDP.

There was some discussion around confusion with the planning process. There are currently differences between England and Wales in relation to the Development Consent Order (DCO) process and the need for separate planning applications for associated development (to DCOs) in Wales. It is possible that some changes will come into place from secondary legislation related to the Planning (Wales) Act 2015<sup>24</sup> but this is unlikely to be in time to affect the application process for the proposed developments. The proposed connection is expected to be a single DCO application to be determined by the Secretary of State, whereas for Wylfa Newydd there is a need for additional planning applications for different elements of the development (the temporary workers accommodation etc) that will be determined by the Local Planning Authority.



### **3.6 A Prosperous Wales**

The participants highlighted a range of potential impacts in relation to the ‘Prosperous Wales’ wellbeing goal. These were both positive and negative and unintended consequences in respect of economic prosperity of the Island and population groups within it.

Positively, it was felt that there would be a potential increase in the use of specific services i.e. tourism and associated leisure services due to the construction workers and their families accessing them in their leisure time. This could offset any reduction in tourist numbers to the island. However, it was flagged up that tourists may not return after the construction phase as they may have found alternatives which they prefer.

The short term investment from the project and those working on it may help landlords and also there could be an increase in the use of local suppliers. There could be opportunities for increased turnover for local businesses and economic opportunities to be leveraged from having so many additional customers and service users to provide for. There was a question raised about the tendering and procurement process - will local people benefit from this?

However, it was also noted by participants that the development could affect the future of young people on the island. It was highlighted that there could be a real risk that the proposed connection could have an impact on tourism for the island because of the visual amenity aspects and the potential number of visitors may reduce - thus having a significant impact on the prosperity and economy of the island. It was indicated that there is a need for more detailed information on the profile of both Wylfa Newydd and National Grid workforces (and any family groups) in order to be able to assess the potential impacts.

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<sup>24</sup> Planning (Wales) Act. 2015. Welsh Government, 2015  
<http://www.senedd.assembly.wales/mgIssueHistoryHome.aspx?Ild=11271> (Last accessed 25/1/2017)

Language and culture - it was highlighted that many jobs on Anglesey are reliant on rural and tourist related activities<sup>25</sup>. Ancillary services /recruitment for developments (possibly more associated with Wylfa Newydd) risk that local workforce and potential workforce could reach capacity and therefore any recruitment could be sourced away from the region.

Short term versus long term impacts - both on the economy of the island and its communities and services but also on the Welsh language. The effect on the Welsh language was also raised in relation to economic impacts and the potential for a knock on effect from the incoming workforce and the use of services, leisure facilities, schools and living and working through non-Welsh languages.

It was also identified by the groups that there is significant need to consider the proposed connection not in isolation but in conjunction with the proposed Wylfa Newydd Power Station development. There will be a significant period of time when there will be an overlap in the construction of both developments (circa 3 years). It was flagged up that it is difficult to separate one from the other and the impacts are intertwined and could be cumulative.

There were a number of questions asked in relation to sourcing the National Grid workforce and how any potential negative impact could be mitigated for, or positive impacts maximised. In relation to questions about contracting, National Grid stated that some aspects of the contracting conditions i.e. employing from local resource/job creation are limited due to the highly skilled nature of the work to be undertaken in a short space of time. However, positively there could be more opportunities in related site work such as ground working and fencing.

It was identified by participants that there could also be a potential conflict in recruitment locally - if Wylfa Newydd and the National Grid connection provide enhanced rates of pay for ancillary services compared to existing local employers then there could be a drain on the local pool of job seekers and this could lead to a shortage of people able to fill these posts. It was raised that some of the issues around recruitment are related to the fact that Horizon particularly are looking to recruit for certain services. This in conjunction with the National Grid connection may lead to both public services and the two development companies competing for the same workforce. This could lead to more inward migration.

However, the challenges of recruitment could increase job opportunities and training for the future i.e. support services such as accommodation which can be utilised post construction phase and support the sustainability of the Island for the future.

### **3.7 A resilient Wales**

The potential impact on the Island and its community's resilience for the long term was highlighted as being a potentially significant one. The National Grid connection, particularly when considered in conjunction with the Wylfa Newydd Power Station development, could have a major impact on the delivery of services, facilities and the infrastructure of the island.

Adverse consequences could be that existing services could be placed under further stress. Certain health services are currently under pressure i.e. emergency dental services and there is a shortage of General Practitioners (GPs). There are significant projected increases to population numbers from

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<sup>25</sup> Infobase Cymru Employment breakdown for Isle of Anglesey:  
<http://www.infobasecymru.net/IAS/profiles/profile?profileId=456&geoTypeId=> (last accessed 23/12/2016)

both proposed developments (currently estimated to be between 15-20% of the population<sup>26</sup>) and this will lead to even more pressure in the system.

There were a number of concerns raised by the participants in respect of the construction of the Menai Strait tunnel section. This includes potential adverse impacts in respect of traffic congestion, waste removal, operating times and general disruption to the nearby, more densely populated local area and the A55 corridor. These have been noted in the 'Healthier Wales' section of this report.

A potential positive for the future and for the infrastructure of Anglesey is that whilst the National Grid development does not include building new roads within it there could be the potential to upgrade the existing road network to access construction sites. Other potential positives in respect of resilience are the economic benefits which could be generated due to increased spending locally and increased wages for those employed by the development. There is currently a Citizens Advice Bureau on the Island which provides a service to local people and this would also apply to any incoming workers who may need local advice and information or support. However, this may need some additional resources.

It was highlighted that more evidence is needed regarding the profile of the workforce who will be working on the construction of the connection. This could inform any planning in relation to local services and housing. It was noted by National Grid attendees that based on experience of previous developments, a range of accommodation is used by subcontractors. Some bring caravans, some take short term bed and breakfast or guest house accommodation. It was believed that it is usually only senior project managers who may re-locate to the development site area and bring their families for the duration of the construction period. However, most workers are likely to commute home at weekends.

A negative consequence of the proposed connection could be that any affected houses which are in close proximity to the proposed route may remain unoccupied in the long term once residents vacate them and they are not replaced due to concerns about noise, Electromagnetic Fields (EMFs)<sup>27</sup> and visual amenity. National Grid representatives stated that guidelines<sup>28</sup> determine the need for two power lines for increased security of transmission. There is a precedent for this in Wales in Pembrokeshire<sup>29</sup>.

As final comments, both workshop groups highlighted the potential negative impact of having no or little evidence to suggest what the long term impact for the landscape, services or population groups could be for the island. It was suggested that there is also a need to invest and support the local communities affected - particularly in relation to any potentially detrimental tourism impacts.

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<sup>26</sup> This is based on estimated figures obtained from census data. Anglesey Population = 69,979 based on Mid 2015 estimates from Stats Wales available at: -<https://stats.wales.gov.wales/Catalogue/Population-and-Migration/Population/Estimates/Local-Authority/populationestimates-by-localauthority-year>. Horizon project employee numbers of up to 11,000 whilst National Grid could be up to 300.

<sup>27</sup> EMF Fact Sheet

[http://nationalgrid.opendebate.co.uk/files/nationalgrid/North\\_Wales/NG\\_Factsheet\\_ElectricandMagneticFields.pdf](http://nationalgrid.opendebate.co.uk/files/nationalgrid/North_Wales/NG_Factsheet_ElectricandMagneticFields.pdf) (last accessed 25/1/2017)

<sup>28</sup> Strategic Options Report - includes need case and examples of twin lines elsewhere in Wales.  
<http://www.northwalesconnection.com/default.aspx>

<sup>29</sup> As above



### **3.8 A Wales of cohesive communities**

The participants at the workshop highlighted a number of both positive and detrimental impacts and unintended consequences from the project. Positively, there is a need to consider any opportunities which may arise and seize on and maximise them. There was a call for discussions around a community fund from some of the participants - and not only for the population as a whole but also for those communities who may be disproportionately affected.

There could be additional investment to make the community more cohesive and resilient to any adverse impacts in both the long and short term. This is in relation to housing and other local authority services, health and wellbeing services, the impact on the Welsh language and the tourism industry. Some of these impacts have been outlined in other sections of the report.

A potential negative impact was identified as potential conflict within and between communities and the workers themselves. It was noted that an increase in non-local and migrant workers of other nationalities could give rise to the potential for increased incidence of hate crime. A recent incident on the island was referenced in connection to this point.

Another unintended consequence of the development and the influx of workers could be the impact on communities and the Welsh language in the long term. Some communities will be used for a temporary period but it was noted by many participants that the effects could be long term.

A question was raised in relation to a 'workers code of conduct' for National Grid employees and contractors. Most contractors are not employed directly by National Grid and are sub-contractors. National Grid stated that all appointed suppliers have responsibility for their own workforce and will be required to adhere to set criteria in relation to workers behaviour etc.



### **3.9 A Wales of Vibrant Language and Culture**

There were several potential positive impacts noted by the participants of Group 2 (English language group) in relation to this Wellbeing Goal. There were also a number of detrimental and unintended consequences identified.

On a positive note, participants highlighted that the development could provide an opportunity to improve access to, and the interpretation of, ancient sites on Anglesey. It could foster an increased understanding and appreciation of them and increase research and visits to the sites. By opening up access to the sites there could be a unique opportunity to increase the understanding and involvement of the local community with their archaeological heritage.

If harnessed correctly via publicity and research, it could potentially increase the recognition of these unique sites both locally and nationally and facilitate potential tourist opportunities. There could also be an opportunity to maximise and balance against any negative effects mainly through post construction education/outreach about the sites; open days etc and increase the community's appreciation for its unique heritage and sense of pride and belonging.

It could foster benefits from learning across all educational establishments (school, college and university). It could be linked to aspirations relating to future jobs and professions.

However, these opportunities for education and volunteering in archaeological digs and finds need to be planned into the programme of construction to ensure it is meaningful and at appropriate times of the construction phase. If not, it was flagged up that there is a danger that it could be omitted if it

is deemed too disruptive to the construction timetable. This is also true of the Wylfa Newydd development.

As much as any planned work could be positive and an opportunity for future generations, if not implemented it would not convey the above benefits to the people of Anglesey. It was highlighted that there could be a huge impact on visual amenity from the two pylon routes and this will particularly affect any above ground sites and ancient monuments. The construction could also lead to archaeological disturbance.

In respect of any detrimental impacts, the impact for Welsh language and culture was again raised (see previous sections). A large influx of non Welsh speakers could also have a major impact on the Welsh language and community cohesion as cited previously.

#### **4.0 Summary of recommendations and mitigating actions**

The break out groups held diverse and interesting conversations. Participants within both workshop groups posed questions and also made some recommendations and suggestions for mitigation based on their knowledge and experience. These are listed below and are not in any particular order:

1. There is a need for transparency throughout the decision making process and the implementation process. There should be advance warnings on specific actions such as construction work with clear and timely information. There needs to be ongoing community focused discussions once construction starts within individual settlements using local community venues to have conversations about when and what actions will occur, how and where.
2. Several participants wished to explicitly state in the key messages that undersea or underground routing is their preferred option. They wish to understand how their perspectives have been considered within the decision making process and how they have contributed to the conclusions drawn as part of the overall evidence.
3. There could be many unforeseen consequences from the options proposed and these could have major implications for the Island and its language and culture. It needs to be recognised that there are complex links with other developments, services and the associated effects on them i.e. the Wylfa Newydd development. There is a need for more joint working, planning and collaboration between National Grid and Horizon Nuclear Power to address any negative consequences and mitigate for these. This is particularly true in respect of overlapping construction phases.
4. In respect of workforce issues - National Grid was asked to look further into the potential to influence and include certain requirements relating to workers within codes of conduct in contracts, including facilitating local job/apprentice opportunities.
5. National Grid was asked to collate evidence in respect of its likely workforce profile. This could provide some insight into the potential demographics and behaviour in respect of going home at weekends (or not) of subcontractors based on previous developments. This could also inform any planning considerations in respect of accommodation and the use of local services such as health etc.

6. In relation to transport impact, National Grid will continue to meet with Local Authority Highways Officers. An assessment of transport routes within given geographic boundaries is to be undertaken for the local road network, and for the strategic road network (as requested by Welsh Government). Whilst some participants highlighted that the boundary scope needs to be broadened and consider the impacts across the whole A55 corridor and the North Wales region, National Grid will agree this scope with Welsh Government. The assessment work needs to consider any planned improvements scheduled during the construction phase. The Traffic Management Plan that will be produced by National Grid needs to also consider the potentially large impact from standing traffic due to congestion at the tunnel/bridge site.
7. A Noise Assessment is currently in development which will inform further mitigation considerations around the reduction of noise. There is also a need to highlight and promote further the concern/customer concern phone in service.
8. There is a need for ongoing and considered promotion of the tourism opportunities on the island both during and post construction.
9. There are huge opportunities to promote the rich cultural heritage that exists on the Island - not just the natural environment but Welsh language and also any discovered or more accessible ancient monuments and artefacts near the connection route.
10. There is a need to strengthen the relationship between National Grid and services such as the Citizens Advice Bureau. They could provide a valuable conduit between developers and residents. However, some additional funding may be needed to ensure the security of the service.
11. EMFs are addressed in a separate assessment but are still within the realm of the EIA. This needs to be more explicit in communications with the communities of Anglesey and Gwynedd.
12. There is a need to gather the views of young people and obtain a better understanding of the potential impacts for them both now and in the future.

## **5.0 Conclusion**

The workshop followed a systematic process, provoked a lively discussion and made important connections to the Wellbeing of the populations of Anglesey and Gwynedd. It was held on the first day of the statutory consultation period and a substantial amount of information was produced to support it. The workshop supported several stakeholders who attended to clarify some of the issues before submitting a formal organisational response at a later date.

It is clear from the contributions that several clear themes emerged. These also mirror some of the key messages presented by the groups themselves. These are:

1 The impact of the connection and the implications for the landscape of Anglesey and its communities both in the short term and the long term future could be significant. The impact of the construction and operation of the connection development itself may be significantly smaller than the proposed Wylfa Newydd Nuclear Power Station development but when considered together with Wylfa Newydd's construction phase it could have a huge cumulative impact - positive and unintended and/or detrimental. It is important to consider Wylfa Newydd when discussing the National Grid development

and the participants called for closer working and co-ordination with Horizon Nuclear Power (the development company for Wylfa Newydd) to ensure that impacts are minimised - particularly during the construction phases.

2 There is potential for an increased pressure on the provision of services, infrastructure and facilities in Anglesey. Participants stated that the potential impacts are likely to potentially fall mainly on health and social services, housing and tourism sectors. There is also potential for impacts on a number of communities across the Island and implications for the Welsh language and Welsh culture was a major concern. There could be an impact on transport routes, connections and travel both on Anglesey and regionally across north Wales.

3 There was an explicit preference expressed by some of the local participants for the connection to be undergrounded - either across the Isle of Anglesey or via undersea cables to a north Wales coast substation. This is preferred to the over ground connection that is currently being consulted upon.

4 The issue of Electro Magnetic Fields was raised and the perception of risks from these and other wellbeing impacts needs to be addressed.

5 Need to engage with young people on the island and gain their perspectives - as this could affect them both in the short and the longer term.

6 It was noted by some of the participants that the information available was not detailed enough. This was raised in respect of the workforce profile and the need for additional planning for the impacts on housing, transport and health services was called for - particularly when considered cumulatively with Wylfa Newydd.

An evaluation of the workshop was undertaken (Appendix Four).

The views, information and evidence gathered as part of this WIA will now be used as one element (gathered as part of the wide ranging consultation) to inform the final submission made by National Grid.

This report represents the views of the participants who contributed to the workshop on the October 5<sup>th</sup> 2016 and those who provided written comments and feedback. They should not be assumed to be the same as those of WHIASU or PHW. WHIASU and PHW are independent organisations.

## **6.0 Author**

Liz Green, Principal Health Impact Assessment Development Officer, Wales HIA Support Unit/Public Health Wales with contributions from:

Lee Parry-Williams, Senior Public Health Practitioner (Policy and Impact Assessment), Wales HIA Support Unit/Public Health Wales

The author would like to acknowledge and thank all the contributions made by the participants, facilitators and organisers to the HIA.

The views and statements contained within this report are those expressed by the participants who attended the HIA workshop and provided written comments and are not those of WHIASU or PHW which are independent organisations.

**For more information on this HIA or HIA in general please contact:**

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March 2016

## **Rapid Health and Well-being Assessment**

### **National Grid North Wales Connection Project (Wylfa – Pentir)**

**Wednesday 5<sup>th</sup> October 2016**

**Carreg Bran Hotel, Llanfairpwll, Anglesey – LL61 5YH**

#### **PROGRAMME**

**08:30 Registration (Tea & Coffee)**

**09:00 Welcome & Introductions** – Huw Thomas (Isle of Anglesey County Council)

**09:10 North Wales Connection Project Outline** – Jacqui Fenn (National Grid)

**09:30 Wellbeing Impact Assessment** – Liz Green (Principal HIA Development Officer, Wales HIA Support Unit/Public Health Wales)

- including Workshop Outline

**09:40 Introduction to Appraisal Tool** – Liz Green

**09:45 Screening Session**

- Using appraisal tool to identify key health impacts of the proposal

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- 2 Breakout Groups led by –

Liz Green & Lee Parry-Williams (Senior Public Health Practitioner (WHIASU))

Delyth Jones & Sian Ap Dewi (Principal Public Health Officers (PHW))

**10:30 Tea / Coffee Break**

**10:45 Screening Session – continued**

**11:45 Feedback / recommendations**

**12:25 Evaluation**

**12:30 Close**

## Wellbeing Goal: A more Equal Wales

*A society that enables people to fulfil their potential no matter what their background or circumstances (including their socio economic background and circumstances).*

To assess the impact of the proposal from the perspective of the Wellbeing Goal - A more Equal Wales, there is a need to consider and identify vulnerable/disadvantaged groups and those with protected characteristics within the context of the proposal being assessed.

### **Vulnerable/Disadvantaged Groups and Protected Characteristic Groups**

(Please note that this list is a guide and is not exhaustive)

The target groups identified as vulnerable or disadvantaged will depend on the characteristics of the local population and the nature of the proposal itself. The most disadvantaged and/or vulnerable groups are those which will exhibit a number of characteristics, for example children in living poverty. This list is therefore just a guide and it may be appropriate to focus on groups that have multiple disadvantages.

In addition, whilst identifying the vulnerable and/or disadvantaged groups for a specific proposal it is also important to fulfil the general duty placed on Public Sector Bodies within Section 149 of the Equality Act 2010. When designing policies or making decisions those Public Bodies subject to the general duty are required to pay due regard to the need to:

- Eliminate unlawful discrimination, harassment and victimisation.
- Advance equality of opportunity between different groups.
- Foster good relations between different groups.

Those groups identified within the Equality Act as individuals with protected characteristics have been incorporated into the checklist below. These have been sub-divided in some instances.

## ***Vulnerable/Disadvantaged Groups***

### **Age related groups\***

- Children and young people
- Older people

### **Income related groups**

- People on low income
- Economically inactive
- Unemployed/workless
- People who are unable to work due to ill health

### **Groups who suffer discrimination or other social disadvantage**

- Black and minority ethnic groups\*\*
- Carers
- Disability - physical or learning disabilities/difficulties
- Gender
- Homeless
- Language/culture\*\*
- Lesbian, gay, transgender, gender reassignment and bisexual people
- People seeking asylum
- Pregnancy and maternity
- Race
- Religion/belief\*\*
- Refugee groups
- Sex workers
- Single parent families
- Travellers
- Veterans

### **Geographical groups**

- People living in areas known to exhibit poor economic and/or health indicators
- People living in isolated/over-populated areas
- People unable to access services and facilities

### **Protected Characteristics**

- Age
- Disability
- Gender reassignment
- Race
- Religion/belief
- Pregnancy and maternity
- Sex
- Sexual orientation
- Ethnicity
- Welsh language

- Human rights

The impact on the general adult population should also be assessed. In addition, it may be appropriate to assess the impact separately on men and women.

\* Could specify age range or target different age groups for special consideration.

\*\* May need to specify.

## Appendix Three

### Well-Being Determinants Checklist

**Please note:** Consideration is to be given to the specific identified vulnerable groups and those with protected characteristics alongside the general population.

<p><b>Wellbeing Goal:</b></p> <p><b>A more equal Wales</b> - fulfil potential no matter background or circumstances</p>	<ul style="list-style-type: none"> <li>• Family organisation and roles</li> <li>• Citizen power and influence</li> <li>• Social support and social networks</li> <li>• Divisions in community</li> <li>• Social isolation</li> <li>• Peer pressure</li> <li>• Racism</li> </ul>
<p><b>Wellbeing Goal:</b></p> <p><b>A healthier Wales</b> - physical and mental wellbeing is maximised</p>	<p><b>Physical:</b></p> <ul style="list-style-type: none"> <li>• Diet</li> <li>• Physical activity</li> <li>• Use of alcohol, cigarettes, non-prescribed drugs</li> <li>• Sexual activity</li> <li>• Other risk-taking activity</li> </ul> <p><b>Emotional:</b></p> <ul style="list-style-type: none"> <li>• Mental wellbeing - consider:             <ul style="list-style-type: none"> <li>• Does this proposal support <b>sense of control</b></li> <li>• does it enable participation in community and economic life</li> <li>• does it impact on emotional wellbeing and resilience</li> </ul> </li> </ul>
<p><b>Wellbeing Goal:</b></p> <p><b>A Wales of cohesive communities</b> - attractive, viable, safe and well-connected</p>	<ul style="list-style-type: none"> <li>• Community identity</li> <li>• Neighbourliness</li> <li>• Sense of belonging</li> <li>• Local pride</li> <li>• Racism</li> <li>• Community safety</li> <li>• Other social exclusion</li> <li>• Safety of area eg road hazards</li> <li>• Transport/connectivity (including parking)</li> <li>• Waste disposal</li> <li>• Noise</li> <li>• Air and water quality</li> <li>• Attractiveness of area</li> <li>• Green space</li> <li>• Smell/odour</li> </ul>
<p><b>Wellbeing Goal:</b></p> <p><b>A resilient Wales</b> - maintains and enhances the natural</p>	<p>Quality, sustainability and access to the built/natural environment, infrastructure and services</p> <ul style="list-style-type: none"> <li>• Neighbourhood design</li> <li>• Housing</li> <li>• Medical services</li> </ul>

environment and supporting social, economic and ecological resilience	<ul style="list-style-type: none"> <li>• Other caring services</li> <li>• Road hazards</li> <li>• Injury hazards</li> <li>• Quality and safety of play areas</li> <li>• Shops and commercial services</li> <li>• Open/green space</li> </ul>
<p><b>Wellbeing Goal:</b></p> <p><b>A prosperous Wales -</b> an innovative, productive and low carbon society which develops a skilled and well-educated population in an economy which generates wealth and provides employment</p>	<ul style="list-style-type: none"> <li>• Employment</li> <li>• Education, training, skills and employability</li> <li>• Literacy (including health)</li> <li>• Maximising income</li> <li>• Economic inactivity</li> <li>• Workplace conditions</li> <li>• Careers advice</li> <li>• Volunteering</li> <li>• Social enterprise</li> </ul>
<p><b>Wellbeing Goal:</b></p> <p><b>A Wales of vibrant culture and thriving Welsh language -</b> promotes and protects culture, heritage, language and encourages participation</p>	<ul style="list-style-type: none"> <li>• Welsh language</li> <li>• Public amenities</li> <li>• Information technology</li> <li>• Cultural and spiritual ethos</li> </ul>
<p><b>Wellbeing Goal:</b></p> <p><b>A globally responsible Wales -</b> contribution to Global wellbeing</p>	<ul style="list-style-type: none"> <li>• Government policies</li> <li>• International policies</li> <li>• Gross Domestic Product</li> <li>• Economic development</li> <li>• Biological diversity</li> <li>• Climate change</li> </ul>

(Liz Green. Principal HIA Development Officer, PHW/WHIASU & Lee Parry-Williams, Senior Public Health Practitioner (Policy & HIA), July 2016)

## Appendix Four



### Health Impact Assessment Workshop Evaluation National Grid

#### 1. What did you learn during the workshop?

	Breakout Group 1 small room
1	I gained local knowledge about specific health and wellbeing issues in Anglesey, and local concerns about the proposed development
2	That the vast majority of impacts are considered on a cumulative basis with Horizon Nuclear proposal
3	Good points made about opportunities to enhance/create benefits which in turn contribute to long term prosperity. Unique aspects of Anglesey & how those factor-geology, ecology, heritage, welsh language
4	Exactly what was being planned and how many people/organisations had been consulted
5	A diverse range of specialist areas covered
6	The interest by organisations is much more than anticipated. That National Grid are extensively looking at impact on Anglesey
7	The process for wellbeing assessment & the views of stakeholders on possible wellbeing impact
8	Some alternative views to consider
9	General information about the project and the plans
	Breakout Group “ main room
10	It was good to have other peoples feedback
11	Most discussions were around Anglesey and very little was directed towards Bangor & Pentir
12	Anglesey was discussed very thoroughly but not the Gwynedd side
13	I learnt a lot about what’s happening in the future in Anglesey and how it will work.
14	That this is an emotive subject and it is extremely difficult to have an objective discussion. That one or two people can hijack a public consultation.
15	Llawer iawn! /  A lot!
16	Dim digon o wybodaeth ynglyn a’r prosiect wedi ei gyflwyno /  Not enough information about the project presented
17	Pawb yn pryderu am y project /  Everyone is worrying about the project
18	Profiad o fod yn rhan o asesiad brys /

	Experience of being part of the rapid assessment
19	Profiad newydd /  New experience
20	Bod sgop y prosiect yn enfawr a bod angen i'r National Grid fynd allan i siarad efo pobl ifanc yn ystod yr ymgynghoriad /  That the scope of the project is huge and that there's a need for the National Grid to go out and speak to young people about the proposal
21	Mae'r peilionau am gael effaith ddinistrol ar iaith, twristiaeth, ....., cymdeithas, ysgolion, busnesau a llawer arall ar yr ynys /  The pylons will have a disastrous effect on language, tourism, ....., community, schools, businesses and lots more on the island
22	Dysgais fod pob un o'r nodau yn y rhestr wirio yn berthnasol i'r datblygiad hwn. Nid wyf yn credu fod dim positif o blaid y cynllun wedi amlygu ei hunan yn ystod y trafodaeth /  I learnt that each of the checklist points are relevant to this development. I don't believe that any positive points in favour of this plan have been highlighted during the discussion

## 2. What do you feel were the positive outcomes resulting from this workshop?

	Breakout Group 1 small room
1	Understanding (by NG + Stakeholders) of how the wider social, economic and environmental issues link to health. Helpful discussion of enhancement opportunities
2	A balanced discussion on potential impacts that raised both positive and negative impacts and opportunities
3	Good dialogue, everyone contributed. Respectful, professional, kept conversation moving
4	A variety of people from different backgrounds/professions resulted in numerous discussions/opinions
5	Raising the profile of key issues and opportunities
6	The range of groups being considered, lots of information/discussion on a range of impacts
7	Good wide ranging discussion
8	Interaction with the developer
9	Good discussion in the group and a balanced approach to identifying the potential positive and negative impacts
	Breakout Group " main room
10	We had people's views shared

11	Most negative and very few positive points therefore underground or sub-sea is the answer
12	No positive feedback
13	Different views being aired. Just a shame it was quite negative. I understand that with consultation you need to look at every possibility but I think some points were just unrealistic and people are too keen to ignore positives.
14	There were some interesting subjects discussed, but greater emphasis was required to counter the negative perception that to all intents and purposes is not addressed with objective responses. The format failed because it did not counter irrational arguments
15	Negeseuon clir o ran llaisiau y bobl leol / Clear messages from the local people
16	Teimlad cryf i roi ceblau tanddaearol / Strong feeling to use underground cables
17	Pawb yn rhoi ei baen yn glir / Everyone giving their opinions clearly
18	Nodi diffyg yn y broses ymgynhori / Noted the failings in the consultation process
19	Gwranddo ar gyfranwyr eraill / Listening to other participants
20	Teimlo nad oes pwynt ymgynghori gan nad yw lleisiau'r cymuned yn cael eu clywed / I don't feel there's a point consulting because the voices of the community aren't being heard.
21	Anodd! Wnaiff Nat Grid WRANDO!?? / Difficult! Will the National Grid LISTEN!??
22	Roedd yn ddifyr gweld unoliaeth rhwng y cynrychiolwyr. Daeth negeseuon cryf i'r amlwg ond a fydd y Grid yn cymryd unrhyw sylw o'r hyn a glywyd ganddynt? / It was pleasant to see unity between the representatives. Strong messages became apparent, but will the Grid take any notice of what they heard?

### 3. What do you think worked and what didn't?

	Breakout Group 1 small room
1	The overall format worked well. It is a shame the group had to be split as some key issues were mixed by each group.
2	The group size allowed everyone to contribute
3	A lot of overlap across wellbeing goals meant we kept coming back to the

	same points. More discussion of how particular vulnerable groups could be affected throughout the W-B Goals discussion.
4	Breaking of into groups worked well, however I felt like there was too much structure
5	Workshop format and scribing worked well
6	Workshop interaction very good
7	Breakout space was a bit cramped
8	Group discussion with other agencies contributing their views
9	The group worked well. The initial presentation could have been improved by a more detailed explanation of the project
	Breakout Group “ main room
10	I think we needed more young people
11	Some good points were brought up but the representatives of the national Grid were negative
12	Everything seemed unclear
13	The breakout workshops worked well being one Welsh, one English. I have always been the type of person to argue both sides
14	It allowed for a discussion within parameters, but all of it from the anti opposition. That is not a debate. See previous note Q3 nos 14
15	Gweithdy yn dda iawn. Cyffwrdd a'r brif bynciau yn effeithiol. /  Very good workshop. Touched on the main topics effectively.
16	Mae angen i sylwadau ac adborth pobl lleol gael ei cymeryd o ddifri. /  Local people's comments and feedback need to be taken seriously.
17	Hwyluso effeithiol / Effective facilitation
18	Gweithdy rhy fawr ac heb rhoid cyfle i bob ardal cael cyfle fwydo ar faterion a allai ffeithio eu cymunedau nhw berthnasol/unigol /  The workshop was too big and didn't provide an opportunity for all areas to feed back on matters that could affect their individual communities
19	Pawb yn unfan yn erbyn a dim gwerth .... .illegible.... ..... dyfodol o ran economi a pheilonau /  Everybody there against and no point..... future in terms of economy and pylons
20	Grwp rhy fawr i <u>bawb</u> allu trafod (Grwp Cymraeg). Y rhai heb hyder ddim yn teimlo eu bod wedi gallu dylanwadu cer y drafodaeth /  The group was too big for <u>everyone</u> to be able to discuss (Welsh Group). The ones without confidence didn't feel they could influence the discussion.
21	Bodlon efo lleoliad y sesiwn /  Satisfied with location of the session
22	Diddorol oedd clywed barn y cynrychiolwyr. Roedd dadleuon deallus yn cael ei lleisio gan bawb o'r bron. Dylai'r ddogfen a ddaw o'r ymarfer hwn fod yn

	<p>offeryn pwerus i leisio'r farn hon yn gyhoeddus /</p> <p>It was interesting to hear the views of the participants. There were intelligent debates being voiced by all. The document which comes from this exercise should be a powerful instrument to voice this opinion publically.</p>
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**4. What were your expectations prior to the session? Did the session meet them? (Please rate them 1-10 where 1 = not at all, 10=very much met them).**

	Breakout Group 1 small room
1	The workshop met my expectations. 10
2	8
3	Range of perspectives/representatives - 10 Tone and content constructive - 10 Consider all potential effects? - 8
4	To learn more 7/10
5	Had now real expectations but felt the session was productive 10
6	8 very interesting
7	9
8	No expectations prior to the session as it was a new process to me
9	I really didn't know what to expect but found the workshop interesting & informative
	Breakout Group " main room
10	8
11	4
12	2
13	I didn't really know much about this at all so everything was news to me. I didn't have any expectations
14	7
15	10
16	5
17	?
18	6
19	Roeddwn yn disgwyl mai'r ..... sy'n dehongli a defnyddio adroddiad /  I expected that the .... would interpret and use the report
20	Disgwyl siop siarad - 3 /  Expecting a talking shop - 3
21	10
22	8 - 2 yn llai na 10, gan nad wyf yn credu y bydd yn cael unrhyw effaith ar benderfyniad y Grid / 8 - 2 less than 10 because I don't believe it will have any effect on the Grid's decision

## 5. Any other comments you wish to make?

	Breakout Group 1 small room
1	-
2	-
3	-
4	N/A
5	A large group is useful to get a breadth and depth of discussion but too large a group means some issues can be lost
6	-
7	-
8	-
9	-
	Breakout Group " main room
10	-
11	I am afraid that this project will affect the Welsh Language in our communities
12	The meeting seemed very one sided
13	It was very informative and useful
14	-
15	Dim / Nothing
16	Dim / Nothing
17	Teimlo mae proses ticio bocs ydi hwn / I felt that this was a box ticking process
18	Nifer o bwyntiau wedi'i drafod, mae'n bwysig rhoid cyfle i pwylo ac ychwanegu unrhyw bwyntiau efallai sydd wedi'u fethu /  Lots of points discussed, it's important to have an opportunity to reflect and add any points that were possibly not raised
19	Cyhoeddodd y Grid heb yn wybod i ni eu hymgyngoriad ar ddiwrnod y cyfarfod. Unwaith eto dim cyfle i weld y manylion - stratigaeth reolaidd gan y grid /  The Grid announced their consultation on the day of the meeting without it being known to me. Once again no opportunity to see the details - a controlling strategy by the grid.
20	-
21	-
22	Pa anghenraid sydd ar y Grid i gymryd sylw...illegible...o'r hyn a fynegwyd? A fydd modd defnyddio yr ymatebion yn ystod yr ymgynghoriad? /

	Is it necessary for the Grid to take notice of what was expressed? Will there be a way of using the answers during the consultation?
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## Appendix Five

### **Recorded Notes from the Wellbeing Assessment Workshop for the National Grid -North Wales Connection Project 5<sup>th</sup> October 2016 (Group 1 – Welsh Language)**

Please note the notes below are a record of the discussions that took place at the HIA workshop. Once they have been checked for accuracy, omissions and amendments by attendees to the workshop they will be used to inform a short report of the Wellbeing Assessment Workshop and will contribute to additional evidence gathered through the wider NG North Wales Connection Project consultation. Please note all comments/discussion have been recorded in the order they were made. Certain comments may move to different themed elements of the table once approved and analysis is undertaken.

#### Vulnerable Groups

##### 1. Who will be affected?

The Island – all groups

Psychological effect

Older People – the implications with regard to support staff for older people when they need to travel/ travelling problems for staff providing care for older people in their homes

Short / long term effect on employment

Effect on the language, long term effect on different elements

\* Noted that the information available was not detailed enough

Detailed information required – it is difficult to establish a profile of the areas without the detail

Screening today

Llanfairpwll already has experience of pylons. Negative effect on health

Important point – concern expressed about leaving the Electro Magnetic Fields assessment out of the environmental report

Negative effects

Effect on children, adults and women in particular

##### 2. The information (EMF) will be incorporated in a stand-alone report

Complying with guidelines

Important issue

Will it affect people's mental health? Suicide?

Would it be possible to remove the pylons from the area?

The effect of Radon in housing – high risk on Anglesey – research required – effects on health

Will have an effect for 60 years

Are they safe?

Agricultural – human health is important – but Agriculture and Tourism is also important

Effects whilst undertaking the work, Long term effects – wider than the economic effects

People's concerns will have to be considered – as part of the public inquiry – with evidence being discussed publicly  
 Will have an effect on everybody in the community in general

3. Communities First, Llangefni – the pylons passing adjacent and nearby.

More focus on conservation than people  
 Ignoring the opinion of the people of Anglesey  
 'Consultation fatigue' – we are being ignored, psychological effect on people  
 Why can't we put the cables under the sea to Connah's Quay  
 Age – everybody will be affected  
 Low income – All Groups dealing with income  
 The community includes everybody  
 Groups which are discriminated against – no more effect than usual  
 200-400 workers working on the Scheme at any one time  
 Villages close to the line will be affected  
 Feeling that the people of the island have no voice  
 Young People – has a negative influence on them  
 Social disarray – people coming here to work, incomers being blamed  
 Effect on the Welsh Language.

4. Accept the list in its entirety – Some groups with more effect , impact on young people highlighted . At a later point it was highlighted that there were no young people present at the event.

<b>5. A more equal Wales</b>	
<b>+/ Intentional</b>	<b>-/ Unintentional</b>
	<ul style="list-style-type: none"> <li>• The power and influence of the citizen – negative effect</li> <li>• Pylons close to houses or above houses</li> <li>• Effect on property values</li> <li>• Some people will be affected more than others</li> <li>• Duty to protect individuals who are being affected (a task for elected members)</li> <li>• The community being affected by the route one corridor has been chosen for the county and the effect of that</li> <li>• Effect on the feeling of community – people moving out / effects on schools</li> <li>• The effect of non-Welsh speaking incomers on the Welsh language</li> </ul>
<b>6. A more equal Wales</b>	
<b>+/ Intentional</b>	<b>-/ Unintentional</b>
	<ul style="list-style-type: none"> <li>• Negative effect of the pylons on houses – Houses depreciating by 50k</li> <li>• Anglesey subsidising Britain's</li> </ul>

	<p>electricity bills</p> <ul style="list-style-type: none"> <li>• Cheaper for Britain – we are losing our landscape and our houses are depreciating</li> <li>• The new route could be more disadvantageous than the current route – difficulty selling</li> <li>• Negative effect on the village – it is about more than money, the value of community</li> <li>• What about the houses between the 2 lines – have already been involved in a previous consultation – the effect of the new line</li> <li>• Our young people are leaving to go to college / to work – the project is not going to attract them</li> <li>• Negative effect – in our square mile – do you want to live in the middle of this?</li> </ul>
<p><b>7.</b>  <b>+/ Intentional</b> <span style="float: right;"><b>-/ Unintentional</b></span></p>	
<p>In-migration can be positive</p>	<ul style="list-style-type: none"> <li>• Why not underground the pylons?</li> <li>• The voice of a community is stronger than the voice of an individual – Pentir’s voice is important</li> <li>• The Grid could employ young local people to maintain the line</li> <li>• (80% of people working locally for National Grid on maintaining the line are Welsh speakers)</li> <li>• Effect on individuals / view / house prices</li> <li>• Some areas have councils which have a stronger voice – what about places that don’t have a voice? We need to put things in place to ensure that voices are heard</li> <li>• ARUP (company) to help people to respond to the consultation – session in the chamber to respond</li> </ul>
<p><b>8.</b>  <b>+/ Intentional</b> <span style="float: right;"><b>-/ Unintentional</b></span></p>	
<ul style="list-style-type: none"> <li>• Where companies are competing – need to be more creative</li> </ul>	<ul style="list-style-type: none"> <li>• Help and support to respond – ARUP is vital</li> <li>• Support is available for communities</li> </ul>
<p><b>9. Healthier</b>  <b>+/ Intentional</b> <span style="float: right;"><b>-/ Unintentional</b></span></p>	

<ul style="list-style-type: none"> <li>• More people will be coming here – need to promote what is available – leisure centres</li> <li>• More electricity for the people of England</li> </ul>	<ul style="list-style-type: none"> <li>• Treating people like a low density population</li> <li>• Lack of respect</li> <li>• Lack of control</li> <li>• In Scotland, a ‘celeb’ has joined the campaign – have changed the decision</li> <li>• Stress – feeling out of control</li> <li>• Increase in noise levels</li> <li>• Air quality</li> <li>• Side effects on private water supply (boreholes etc)</li> <li>• EMA</li> <li>• Effects of tunnelling work</li> <li>• Noise, dust, inconvenience</li> <li>• Emotional</li> <li>• Effect on travelling to work or school</li> <li>• Crossing the road – to get to the hospital</li> <li>• Waste to export</li> <li>• Exporting dust / dirt</li> <li>• Increase in traffic</li> <li>• Long term / permanent emotional effects</li> <li>• Hypertension</li> <li>• Adverse effect on the island’s resources – avoiding the pylons – effect on physical activity</li> <li>• Negative effects on the workforce in the past – the 60s</li> <li>• Drinking too much etc</li> </ul>
<p><b>10. Communities and cohesion</b></p>	
<p><b>+/ Intentional</b></p>	<p><b>-/ Unintentional</b></p>
<ul style="list-style-type: none"> <li>• Must consider the opportunities which will arise</li> <li>• The world is changing, concerned that we are looking back instead of forward – Future generations</li> <li>• Need to talk about a community fund</li> <li>• Will funds solve the old problems</li> <li>• An opportunity to grasp – look forward</li> <li>• Where is the Grid with regard to a fund?</li> </ul>	<ul style="list-style-type: none"> <li>• Contrary to policy – tourism</li> <li>• Refusing to underground the cables will lead to more tension with regard to the route – need to be sensitive</li> <li>• A feeling the people will be protesting in all communities</li> <li>• Extra waste (bin collection every three weeks)</li> <li>• Where will we dispose of our waste</li> <li>• How attractive would a house be that is called – ‘Pylon View’</li> <li>• Not enough young people here today</li> <li>• Communities are changing (concerned that we are looking too much to the past)</li> <li>• Challenge for groups – school councils</li> </ul>

## 11. Resilient Wales

### +/ Intentional

- Need to invest / support the local areas

### -/ Unintentional

- People in houses affected will not bounce back (resilience)
- What sort of people / communities will be living along the route?
- Less income? Skills to be part of the community? Groups will come together to live in specific areas
- A risk that houses will remain unoccupied in the long term
- Only a percentage of the people can move out
- Will create an unequal community
- Neighbourhood design
- A need to attract people to become community leaders
- We have no evidence to suggest what the full effect will be
- Places where people live
- Going to the Doctor – etc
- Effect on schools, the language
- Places are the basis for all of this discussion
- Many specialized jobs
- The sort of workers – Wiregangs crew
- Information required regarding the profile of the workforce

## 12. Prosperous Wales

### +/ Intentional

- Short term investment will help landlords
- Use of local suppliers
- Tendering process? To be implemented

### -/ Unintentional

- No advantage to future generations
- Reliant on tourism – not much capital in the area
- Anglesey as a resource is the attraction – two rows of pylons?
- People's expectations are higher when they choose where to go on holiday
- Need visitors who will spend more
- Has an effect on the future of young people
- Would you go on holiday where major developments are taking place?
- No more employment in the long term – as far as National Grid is concerned.
- Age profile is changing
- Need more information about the workforce – profiles of their families etc
- The effect on schools

	<ul style="list-style-type: none"> <li>• Short / long term effects on the language of the community</li> <li>• Property / land – the effect on the value of property, more impact on Welsh speakers if their economic capability withers, e.g. farmers, the impact on the community will be larger</li> <li>• The effect on the Welsh language in pubs, leisure centres, need to examine the profile</li> <li>• Link with Wylfa Newydd – difficult to separate the one from the other</li> <li>• Risk that both projects will be running concurrently</li> <li>• Some communities will be used for a temporary period – the effects will be long term</li> <li>• Language and culture – one third of jobs are reliant on rural activities</li> </ul>
<b>13. Globally responsible Wales</b> <b>+/ Intentional</b>	
	<b>-/ Unintentional</b> <ul style="list-style-type: none"> <li>• Cost of electricity</li> <li>• We will be subsidising Britain's electricity bills</li> <li>• Reduction in other bills – it is the government's place to subsidise this</li> <li>• Losing our heritage in order to subsidise electricity</li> <li>• Not good practice – a Nuclear Power Station with one route will potentially be a target for terrorists</li> <li>• Will consult again with local people – social media</li> <li>• Effect of pylons on economic development – investment for 60 years</li> <li>• Effect on Anglesey's GDP</li> </ul>

## Appendix Six

### **Recorded Notes from the Wellbeing Assessment Workshop for the National Grid -North Wales Connection Project 5<sup>th</sup> October 2016 (Group 2 – English Language)**

Please note the notes below are a record of the discussions that took place at the HIA workshop. Once they have been checked for accuracy, omissions and amendments by attendees to the workshop they will be used to inform a short report of the Wellbeing Assessment Workshop and will contribute to additional evidence gathered through the wider NG North Wales Connection Project consultation. Please note all comments/discussion have been recorded in the order they were made. Certain comments may move to different themed elements of the table once approved and analysis is undertaken.

#### **Vulnerable groups-**

Key groups identified-

- Geographical – population in Anglesey is dispersed you have some main settlements whilst many of the residents are in small hamlets or isolated rural locations.
- Older people – Anglesey has a significant older population and potential for these to live alone in small rural isolated hamlets- related to social isolation – potential for disproportionate impact
- Farmers/landowners - context to criteria of using the less populated geographic areas of Anglesey to situate the development
- Carers – discussed in the context of competing pressures of low wages and potential opportunities for higher wages within the planned developments
- Unemployed/low income households – context pressure on low cost accommodation on cumulative increase in workforce coming to the Island due to both developments potential for accommodation costs to rise therefore decrease availability of affordable accommodation for certain groups of residents
- Tourism operators – impact on alternative accom for incoming workers/ Island economy relies on tourism industry potential that visitors stay in accom on the mainland due to pressures on tourist accom on the Island issue for construction phase and future /potential for decreased income for a range of operators
- Children – more at risk from traffic related incidents / additionally the construction period is a long time relative to the life span of a child /3years to a child's development is significant and relative when compared to an adult's life span
- Sex workers – context -discussion on human trafficking transition for the Islands demographic from older population to raise in young men (cumulative between developments) NG less construction workers between 200-400 compared to potential 11,000 within Horizon Development, see note below

Other –

- Population of UK in terms of overall benefit due to increased/secure capacity
- Island population - General concern raised re effect on Island population from increase in young people (potential predominantly young men due to nature of

development) in relation to increased drinking at weekends led to question see notes below

Additional discussion/comments during the identification of vulnerable groups -

- Question raised about new roads – response National Grid (NG) there are no new roads within their development but there could be upgrading or new infrastructure across land from existing road network to access sites
- Question regarding assessments in conjunction with Horizon Development – response separate assessments are undertaken but there has to be reference made between the 2 developments – consideration within the EIA re cumulative effect of both developments
- Comment made – important to consider Wylfa as well when discussing NG development
- Question is this assessment looking at both construction & implementation – response- Yes – different impacts
- Question raised regarding need for 2 lines – response -guidelines determine the need for 2 lines for increased security of transmission
- Discussion re rural farmland and identification therefore of farmers and landowners as vulnerable groups – planning guidelines stipulate where possible less populated areas are the preferred development routes
- NG construction workers – A range of questions and points were raised and discussed:
  - Recognition that there will be considerations within Wylfa development regarding workforce needs this has to be considered together between both developments due to cumulative impacts as together they add additional concern re employment and pull on existing low paid workers on the island potentially drawing existing workforce away from their current employment to the new development.
  - from experience in previous developments NG engage sub-contractors and due to the nature of some of the work they are highly skilled and therefore relatively older than for more generic construction work .
  - Question – if more skilled/older do they bring their families
  - from previous developments range of accommodation is used by sub contractors, some bring caravans, some take short term B&B and Guest house accom and it is usually only senior project managers that may re-locate to the development site and bring families for the duration of the development. Most commute home at weekends.
  - Sub-contracting workforce and on the lower scales of pay tend to stay during the week and commute home at weekends/expenses limited to cover accomm costs
  - Most contractors are not employed directly by NG most sub-contracting unlike the Horizon development
  - 2 year build but with defined periods and gaps dependent on individual infrastructures components
  - Site establishment planned to be LLangefni and Pentir
  - Question raised does NG have a workers code of conduct – response was individual sub-contractors have responsibility of their workforce
  - Related question to contractors – Does NG have any contract conditions re employing from local resource/job creation/ response limited due to skilled

nature of work but more opportunities in related site work such as groundworks/fencing etc

- Re the above point - potential conflict in recruitment locally with potentially enhanced rates of pay by the 2 developments for ancillary services compared to existing local jobs therefore drain on this workforce to ne development.
- **recommendations re workforce issues –**
  - NG to look further into potential to influence and include certain points re workers within code of conduct in contracts including local job/apprentice opportunities
  - NG to collate insight into potential demographics/profile of subcontractors based on previous developments to inform considerations re accommodation/use of local services such as health etc
- Question raised re times of working on the construction – overhead lines Mon-Fri normal hours potential for Saturday am – Tunnel 24/7
- Question/comments re the Straits Tunnel section -
  - Concerns re this developments site and activities in relation to bridge traffic crossing. Recognition by attendees that the bridge crossing is already congested at key times.
  - Question on the arrangement of removal of waste/spoil from tunnel- response working on planning for 'worst case scenario' i.e. all spoil is extracted on Anglesey side considerations are underway to work on where, what and how
  - Requires further bore holes to understand the geology of the full route of the tunnel as this does vary across the route and insight into the geology will contribute to the decision of how to manage removal and dispose of spoil
  - Questions whether this spoil could be used in other elements of both NG and Horizon developments but uncertainty as potential the wrong sort of material required for infill as it will mainly be rock
  - Question as to whether it is feasible to remove spoil by sea – further investigation required
- Question and some discussion re Development Consent Orders – highlighted current differences between England and Wales in relation to planning applications & development for similar developments as the Ng .Wales Connection possible some changes will come into place within Planning Act Wales but not likely to affect the current development. There will need to be multiple applications for different elements of the development to the LA for decision/approval his is different for the Horizon Project

**Assessment discussion using the wider determinants framework**

A more equal Wales – fulfil potential no matter background or circumstances	
<p>+ve</p> <ul style="list-style-type: none"> <li>● open communication does help to mitigate</li> </ul>	<p>-ve</p> <ul style="list-style-type: none"> <li>● Related to perceptions and difficult to overcome – perception that there is reduced citizen power and influence as conflict between the announcement of the preferred route and responses from residents to previous consultation i.e. under sea/underground preferred but gone with overhead route</li> <li>● Due to disruption potentially</li> </ul>

<ul style="list-style-type: none"> <li>• Population benefit due to secure power generation</li> <li>• Landowners will continue to receive financial compensation for any infrastructure that is sited on their land</li> <li>• Increased local work opportunities within support services</li> <li>•</li> </ul>	<p>disproportionate effect from road closers, infrastructure disruption to those who are already isolated increased risk of social isolation for older/vulnerable residents</p> <ul style="list-style-type: none"> <li>• Changes to the demographic profile of the island again disproportionate impact on older/vulnerable residents could reduce their use of local services</li> <li>• Construction workers away from home and family for long periods</li> <li>• Younger people less affordable accomm on the island could impact on family roles i.e carers/child care inability to remain on the Island move away breakdown of support networks</li> </ul>
<p>Comments/ questions/recommendations</p> <ul style="list-style-type: none"> <li>•</li> </ul>	
<p><b>A healthier Wales – physical and mental wellbeing maximised</b></p>	
<p>+ve</p> <ul style="list-style-type: none"> <li>• Landowners/farmers -Recognition of impact on emotional health from uncertainties etc there are ongoing direct discussions with landowners and tenant farmers and recognition that direct impact could be greater for tenants than the landowner where the landowner does not live on the property or location affected</li> <li>• Positive effect for bars and licensed premises from increased business</li> </ul>	<p>-ve</p> <ul style="list-style-type: none"> <li>• Physical activity – during construction disruption to pathways etc</li> <li>• Pressure on existing leisure services – small centres which may not be able to accommodate large increases of members</li> <li>• Potential issues regarding use of alcohol, increased drinking and associated issues due to influx of a large number of works which may have a younger age profile</li> <li>• Driver stress - emotional and mental health concerns – increase in volumes of traffic where there is already peak time congestion /increase in HGV traffic</li> <li>• Specific areas where concentration levels of traffic may occur are more likely to be where higher levels of residents ie around the tunnel construction site potential increased physical and emotional health concerns increased stress and anxiety - noise, particulates etc</li> <li>• Population effect – emotional response</li> </ul>

<p>Mitigation opportunities see below ←</p>	<p>stress and anxiety has the potential to have the bigger impact than physical impacts</p> <ul style="list-style-type: none"> <li>• Isolated/older population may currently have a weekly plan for accessing shops and services this could be disrupted and they may reduce their access outside the home and therefore risk becoming more isolated</li> <li>• Other vulnerable groups those with mental health issues their recovery may be compromised during development phases.</li> <li>• Differentiate between potential concern and anxieties for different phases i.e during construction and post construction i.e. living with the pylons</li> <li>• Tunnel construction phase has potential to impact on a larger population group due to denser number of housing residents in vicinity. Pylon construction in more rural areas increased stress due to additional transport from construction traffic and noise and potential light pollution for 24/7 operation 24/7 tunnel boring but not 24/7 associated transport operation for spoil/waste</li> <li>• Noise from overhead lines – some discussion on how this along with a range of factors have informed the specific design of the pylon as different pylons result in different noise levels etc. A balance has to be reached between those competing factors rating, visual, noise etc In addition pylon siting considerations in build considerations re noise post construction</li> </ul>
<p>Comments/ questions/recommendations</p> <p><b>Comment</b> – re pathways etc – there is a Public right of Way management Plan in development in consultation with the LA , there will be additional signage, manual guidance where and when required at specific points, not looking at diversions but this would be preferable to complete closure but unlikely .</p> <p><b>Question</b> raising a previous point from above – what evidence re contractor workforce going home at the weekend</p> <p><b>Recommendation</b> – gain further insight into incoming workforce profile</p> <p><b>Comment/questions</b> re transport –</p> <ul style="list-style-type: none"> <li>• NG ongoing meeting with LA transport Officers</li> <li>• Assessment of transport routes to be undertaken requested by WG within given</li> </ul>	

<p>geographic boundaries</p> <ul style="list-style-type: none"> <li>• Question- what are these boundaries and do they consider the impacts across the whole A55 in north Wales as there are already known pinch points and there are known further improvements scheduled for the A55 which will have an effect on traffic flows.</li> <li>• Waste /spoil from the tunnel will vary dependant on the geology therefore need further detail as this will influence the management plan for transport</li> </ul> <p><b>Recommendation</b> – NG clarify boundaries for transport infrastructure assessment and consider expanding to take in all A55 due to existing pressures and planned improvements which will occur during the construction phase of NG and Horizon developments</p> <p><b>Mitigation</b> – advance warnings on specifics, clear and timely information, ongoing community focused discussions once construction starts within individual settlements when, where, what using local community venues.</p> <p><b>Mitigation</b> – highlight and promote further the concern/customer concern phone in service</p> <p><b>Mitigation</b> – Traffic management Plan – consider big impact from standing traffic due to congestion</p> <p><b>Mitigation</b> – Noise Assessment in development which will inform further mitigation considerations</p> <p><b>Recommendation</b> – many of the issues raised above have to be considered from a cumulative impact perspective therefore highlighting the need for joint ongoing assessment and planning between the 2 developments (NG and Horizon)</p>	
<p><b>A Wales of cohesive communities – attractive, viable, safe and well connected</b></p>	
<p>+ve</p> <ul style="list-style-type: none"> <li>•</li> </ul>	<p>-ve</p> <ul style="list-style-type: none"> <li>• Increased risk to children from increased traffic along with construction sites</li> <li>• Safety concerns and perceptions – NG plans include c considerations for health and Safety but perceptions of risk may impact on population and certain population groups behaviour</li> </ul>
<p>Comments/ questions/recommendations</p> <p><b>Comment</b> – health and Safety Plans have strict control built in such as security features on Head House /Sealing end compounds , secure sub-station</p>	
<p><b>A resilient Wales – maintains and enhances the natural environment and supporting social, economic and ecological resilience</b></p>	
<p>+ve</p> <ul style="list-style-type: none"> <li>• Nuclear Power Plant and Power Lines will contribute to energy security for the UK</li> <li>• The challenges of recruitment increases job opportunities for support services such as accomm/food</li> <li>• Increased turnover for local businesses/services</li> </ul>	<p>-ve</p> <ul style="list-style-type: none"> <li>• Certain health services currently under pressure i.e. emergency dental services and shortage of GP's with projected increases to population numbers from both developments (est 15-20%) increased pressure</li> <li>• Some of the issues are around recruitment and with Horizon looking to recruit support certain services this will</li> </ul>

<ul style="list-style-type: none"> <li>• additional monies for local population due to increased wages more spending with local services</li> <li>• CAB – currently a good service dealing with residents issues through advice and information offering additional outreach services. Respected source of support and good relationship with residents of Anglesey</li> <li>• Incoming workers may need local advice and information on local services trusted service in place but potentially requires additional support</li> </ul>	<p>lead to both public and Horizon services competing for the same workforce</p> <ul style="list-style-type: none"> <li>• A&amp;E service may be pt under further pressure with cumulative effect from both developments</li> <li>• Increased transient population but not increased funding from WG/Westminster for public services note – thought NG development smaller cumulative effect important consideration</li> <li>• Potential drain on local services from employment perspective, due to opportunities of recruiting to ancillary services required for the developments and potentially higher wages potential impact on local retail/caring services traditionally low paid employment</li> <li>• Pressures on housing and other accommodation</li> <li>• Currently dealing with increased volumes of enquires and need for their services whilst at risk of losing funding difficult to cope with all enquiries. Issues include debt advice, if potential of developments to offer additional jobs opportunities and increased wages becomes a reality debt advice may need to change to budgeting and other issues. If their capacity is not maintained good will and confidence in their service from residents could be lost and a valued source of support, information and advice could be lost.</li> </ul>
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Comments/ questions/recommendations

**Recommendation** – where possible gain further insight into workers profile and use to predict potential impacts on different service provision joint action between developments required potentially easier for NG than Horizon as they have had previous experience of sub contractors on similar developments

**Question** – how much consideration on the impact on the whole of the A55 across n.Wales

**Comment** – above re A55 requires wider consideration than seems apparent in guidelines from WG due to current issues and planned improvements and current users experiences applies to both developments

**Mitigation** – strengthen relationship between developers and CAB as they could be a valued conduit between developers and residents may require additional funding to reduce risk of loss of services

**A prosperous Wales – an innovative, productive and low carbon society which develops a skilled and**

<b>well educated population in an economy which generates wealth and provides employment</b>	
<p>+ve</p> <ul style="list-style-type: none"> <li>• CAB supports income maximisation, trusted source of information and advice could support raising awareness of job opportunities from developments</li> <li>• NG are undertaking an outreach awareness programme within school settings etc</li> </ul>	<p>-ve</p> <ul style="list-style-type: none"> <li>• Ancillary services /recruitment for developments possibly more associated with Horizon Development risk that local workforce and potential workforce reach capacity and therefore external recruitment from away</li> <li>• Increased foreign workers and potential for increased incidence of hate crime. A recent incident was referenced in connection to this point</li> <li>• pressures on specific services i.e. tourism from the construction phase could be positive in construction phase as workers may be using these services and off set any reduction in tourism numbers but tourists may not return after construction phase as they have found alternatives</li> </ul>
<p>Comments/ questions/recommendations</p> <ul style="list-style-type: none"> <li>• Question and comment – do peak construction phases for both developments overlap? Requires more joint discussion and planning</li> <li>• Ongoing and considered promotion of the tourism opportunities on the island both during and post construction</li> </ul>	
<b>A Wales of vibrant culture and thriving Welsh Language – Promotes and protects culture, heritage, language and encourages participation</b>	
<p>+ve</p> <p>The points below could be considered in terms of mitigation/recommendations</p> <ul style="list-style-type: none"> <li>• offsetting the negative is recognition that the construction provides opportunity for NG to improve access and interpretation to the ancient sites thus increasing understanding and appreciation and visits to the sites</li> <li>• Unique opportunity to increase understanding and involvement of local community within their archaeological heritage</li> <li>• Increase recognition of these unique sites both locally and across the UK and further potential tourist</li> </ul>	<p>-ve</p> <ul style="list-style-type: none"> <li>• Negative impact on the Welsh Language on the Island due to large influx on non Welsh speakers linked to community cohesion and identity</li> <li>• Archaeological Heritage visual impact will be mostly negative especially on above ground installations post construction</li> <li>• Linear line of existing pylons divides ancient monuments/standing stones etc which are well loved by local residents therefore new line doubling the impact</li> <li>• Below ground direct negative impact due to archaeological disturbance</li> </ul>

<p>opportunities</p> <ul style="list-style-type: none"> <li>• Potential to expand and enhance sites interpretations</li> <li>• To maximise and balance against the negative effects mainly through end product – better education/outreach, open days- increased appreciation for the unique heritage and increased sense of pride and belonging</li> <li>• Opportunities for education and volunteering in archaeological digs and finds for both developments but need to be planned into programme of construction to ensure it is meaningful and at appropriate times of the construction phases otherwise can be rushed or ‘planned out’ if deemed too disruptive to construction timetable</li> <li>• Benefits to learning across all educational establishments school, college/and university. Could be linked to aspirations relating to future jobs and professions. Introducing children and young people to opportunities related to archaeology, ecology with the straits and tunnelling and geology</li> </ul>	
<p>Comments/ questions/recommendations</p> <p><b>Mitigation</b> – comprehensive Welsh Language Assessment to be completed</p> <ul style="list-style-type: none"> <li>• Requires ongoing monitoring of workforce profile</li> <li>• Completion of Welsh Language Impact Assessment –Scoping has begun for the assessment requires linkage with Horizon Development</li> </ul>	
<p><b>A globally responsible Wales – contribution to Global Wellbeing</b></p>	
<p>+ve</p> <ul style="list-style-type: none"> <li>• National and local policies support the concept of Energy Island</li> <li>• Contributing to energy security</li> <li>• Positive effect on GDP potential for immediate and future</li> </ul>	<p>-ve</p> <ul style="list-style-type: none"> <li>• Potential negative reputational impact on NG due to them being seen to support Horizon and Nuclear Power as this is seen negatively by some in the population and campaign groups</li> </ul>
<p>Comments/ questions/recommendations</p> <ul style="list-style-type: none"> <li>•</li> </ul>	

Currently mitigation/recommendations in specific places within the notes in the final report these will be listed together for clarity