EXE 100712
Item 9

Copeland Borough Council Response to National Grid's North West Coast Connections Preliminary Strategic Options Consultation

EXECUTIVE MEMBER: Councillor Elaine Woodburn
LEAD OFFICER: Pat Graham
REPORT AUTHOR: Chris Hoban, Senior Planning Policy Officer

WHAT BENEFITS WILL THESE PROPOSALS BRING TO COPELAND RESIDENTS?

Providing early and continuous feedback throughout the design and development of the North West Coast Connections project will ensure that Copeland's needs and concerns regarding the project are properly addressed by National Grid. Connection to the National Grid is required to enable nuclear new build to proceed.

WHY HAS THIS REPORT COME TO THE EXECUTIVE?

A Council response to the National Grid North West Coast Preliminary Strategic Options Report consultation

RECOMMENDATIONS:

That Executive approves Appendix A as our response to the North West Coast Connections Preliminary Strategic Options consultation.

1. INTRODUCTION

1.1 National Grid is currently consulting with stakeholders on their Preliminary Strategic Options Report to provide a connection between a proposed nuclear power station at Moorside, other power generating proposals on Britain's Energy Coast and the wider National Grid network, which they refer to as the North West Coast Connections (NWCC) project. This consultation runs from 11th May to 19th July 2012.

1.2 Copeland Borough Council will not be the determining authority for this application, which will be considered by the Planning Inspectorate's National Infrastructure Directorate who will make a recommendation to the Secretary of State. Instead the Council is a key stakeholder and has been invited to comment

on the Preliminary Strategic Options Report and National Grid's preferred Strategic Option(s). Council officers have taken a major role in negotiations with National Grid to date and have helped to influence the options that are being considered. It is important that the Council also responds at this early consultation stage, and throughout the design and development of the project, to ensure that Copeland's needs and concerns are properly addressed by National Grid.

1.3 This report outlines the consultation process, the Preliminary Strategic Options and their potential impacts, and the draft Council's response to be submitted to National Grid.

2. THE PRELIMINARY STRATEGIC OPTIONS CONSULTATION

2.1 National Grid has a requirement to connect Moorside, a proposed 3,200MW nuclear power station, to the transmission system by 2022 and to export power from Moorside by 2023. Electricity North West's existing network of power lines in west Cumbria have a capacity of 132kV, which is not sufficient to transmit this 3,200MW, and so there is a need for four 400kV transmission circuits (i.e. two double circuits) to connect Moorside to the wider transmission network in the Carlisle and/or Lancaster areas. National Grid also has a requirement to connect two offshore wind farm projects to the transmission network at Heysham. This will be one of the largest investments in infrastructure in the North West of England for 50 years.

2.2 The project to connect these generators to National Grid's transmission network is called the North West Coast Connections project.

2.3 The Preliminary Strategic Options consultation represents the first formal consultation stage in National Grid's development of a connection with Moorside. The Strategic Options only outline the general directions that transmission routes can take from Moorside (i.e. north and/or south, onshore or offshore) and do not consider particular route corridors at this stage.

2.4 A further consultation on potential route corridors within the preferred Strategic Option(s) will take place in 2013. This will be followed by a detailed route alignment consultation in 2014. It is at these later stages when National Grid will actively engage and consult with local communities in addition to local authorities and other key stakeholders. Following the consultation and feedback, National Grid will then submit their proposed project to the Secretary of State for approval (via the Planning Inspectorate's National Infrastructure Directorate) around 2015-16. Please see Appendix B for National Grid's timeline for the project.

2.5 The Preliminary Strategic Options have been developed by National Grid over the course of two years and Copeland Borough Council officers, along with other Cumbrian local authorities, have played an active role in supporting the development and assessment of the Strategic Options throughout this time.

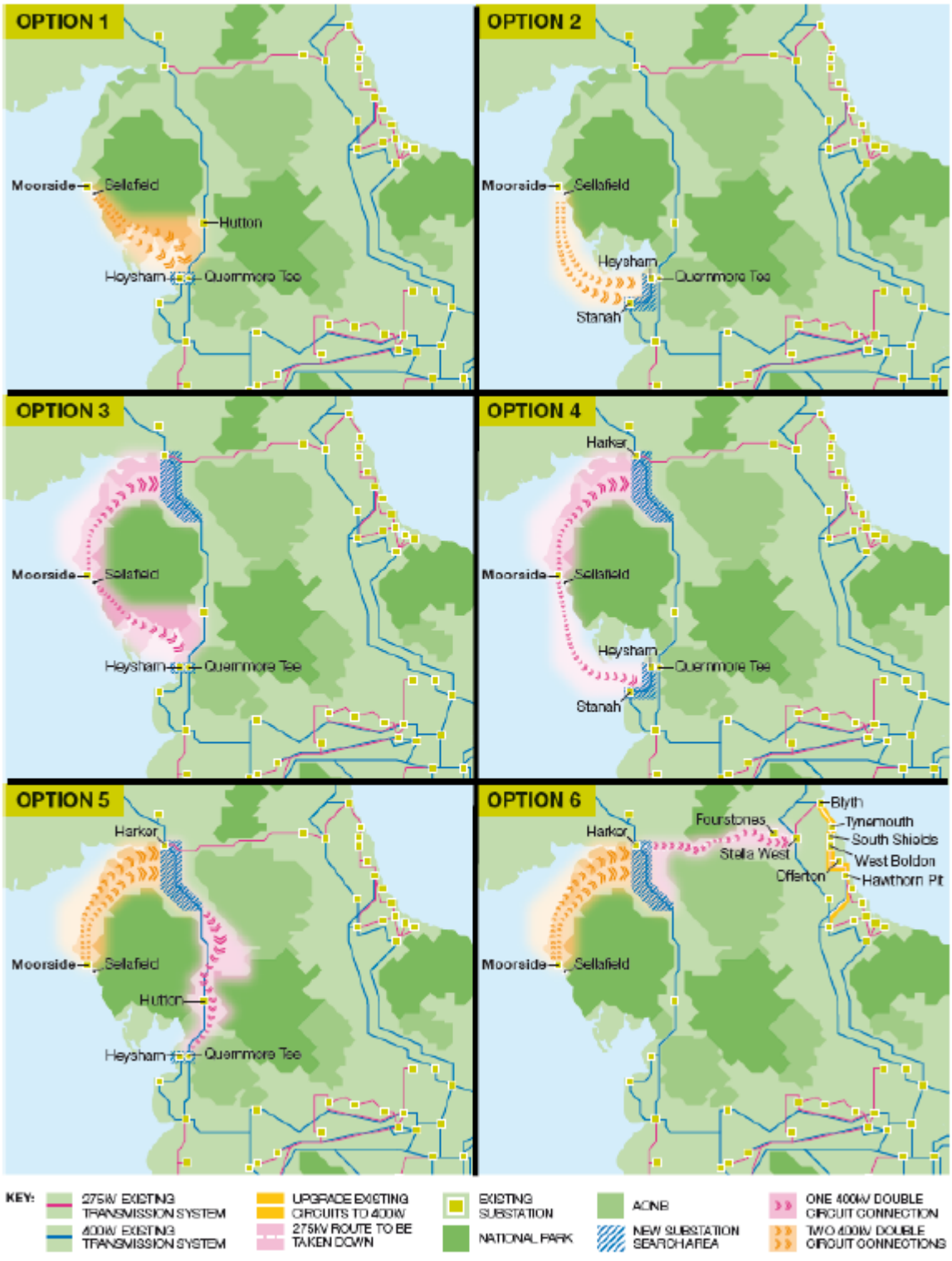
2.6 It should be noted that any response made to the consultation now is an informal planning opinion and does not bind the Council to any formal view that it may wish to make when a formal application is made.

2.7 National Grid has developed six Strategic Options that are technically feasible, which are:

- Option 1: Twin South Onshore
- Option 2: Twin South Offshore
- Option 3: Cumbria Ring Onshore South
- Option 4: Cumbria Ring Offshore South
- Option 5: Twin North + North-South
- Option 6: Twin North + East-West

2.8 The Strategic Options are shown in Diagram 1 below.

Diagram 1: The 6 Strategic Options



2.9 The assessment of the Strategic Options considers relevant technical, environmental, socio-economic and economic factors (including lifetime costs). Constraints that were considered included:

- International, national and some local ecological and biodiversity designations (including Marine Nature Reserves and Marine Conservation Zones)
- International and national cultural heritage designations
- National landscape and world heritage site designations and their settings
- Existing areas of strategic economic activity, including key tourist attractions

2.10 It should be noted that the Strategic Options at this initial stage are not informed by detailed designs and do not consider how the Strategic Options could best be delivered. This work will start to be developed in Stage 2 when route corridors are considered.

2.11 There are four main technologies that National Grid can use to connect to the rest to the National Grid network. These are:

- Alternating Current (AC) Overhead transmission lines (i.e. pylons)
- AC Underground cable circuits
- AC Gas Insulated lines (GIL)
- High Voltage Direct Current (HVDC) technology

2.12 Each of these technologies has different requirements and associated costs. At this time National Grid are neutral about the technology to be used, and it is likely that the preferred option will incorporate more than one technology.

2.13 Two of the options (Strategic Option 1 and 3) would require the transmission route to run through the National Park within Copeland. It should be noted that the Lake District National Park Authority is also an active stakeholder at this early stage and will make its own response to the consultation.

2.14 The following questions form the basis of National Grid's consultation:

1. Do you have any comments on Strategic Option 1?
2. Do you have any comments on Strategic Option 2?
3. Do you have any comments on Strategic Option 3?
4. Do you have any comments on Strategic Option 4?
5. Do you have any comments on Strategic Option 5?

6. Do you have any comments on Strategic Option 6?
7. In relation to this project, which subtopic(s) do you think National Grid should consider particularly closely when choosing a Strategic Option?
8. Are there any issues that National Grid should consider when choosing a Strategic Option that have not been included in our Options Appraisal?
9. To what extent do you think National Grid is right to identify Strategic Options 3a and 4a as its emerging preferences?
10. Do you have any additional comments?

2.15 A summary of National Grid's assessment of each of the Strategic Options can be found in Section 3 of this report, with comments received from local authority environmental (i.e. landscape, ecology, cultural heritage) and socio economic specialists outlined in Section 4. Specific impacts and considerations that relate to Copeland are included in Section 5.

2.16 The proposed draft response from the Council to answer the questions in 2.14 is attached in Appendix A.

3. NATIONAL GRID'S ASSESSMENT OF EACH STRATEGIC OPTION

3.1 This section provides a summary of National Grid's assessment of each Strategic Option.

Option 1

3.2 Option 1 potentially offers the most economical connection to the National Grid network. However, the landscape appraisal concluded that the sensitivity of the search area in South Lakeland is such that the introduction of two new double-circuits is likely to be beyond the capacity of this area to accept this type of development. Difficulties exist in accommodating this option within the south west area of the National Park between Ravenglass and Millom and to the north of Morecambe Bay.

3.3 As a result National Grid's preliminary view at this stage is that Option 1 should be excluded from further consideration.

Option 2

3.4 Option 2 has significant advantages in terms of potential impacts on the terrestrial environmental and people and communities, as it avoids many of the land-based issues, and stakeholders with interests in the environment have

regarded this option very favourably. However, there are a number of marine environmental constraints, particularly off the Lancashire coast where a conjunction of primarily marine nature conservation constraints may make it difficult to define an acceptable corridor. Other potential disadvantages of this option are:

- the lack of provision of any opportunity for future grid connections in West Cumbria
- the technical issues regarding offshore HVDC or AC cables
- the relatively very high minimum costs of connecting via offshore HVDC or AC cables, which would conflict with National Grid's statutory duty to maintain an economic and efficient system

3.5 As a result National Grid's preliminary view at this stage is that Option 2 should not be taken forward for further consideration.

Option 3

3.6 Option 3 would create a new north-south transmission route, allowing for increased power flows south from Scotland and improving the overall efficiency of the transmission network, which is an added benefit for National Grid and a 'technical advantage' of this option. It also has the potential to be one of the most cost effective options (along with Option 1), with a minimum capital cost of £478m. Option 3 would run south from Moorside through the National Park and as a result would run close to environmentally sensitive areas (similar to Option 1). However, as there would only be one double circuit National Grid feel that impacts in these areas could be reduced by using Electricity North West's existing 132kV overhead line opportunity corridor. The relatively short length of this option is also seen as an advantage and the option provides full flexibility to connect future generation along the length of the Cumbrian Coast, without the need for further upgrades in the foreseeable future.

3.7 Two alternative sub options were considered for the circuits north from Moorside. These were:

- Option 3a (onshore circuits north from Moorside)
- Option 3b (offshore circuits north from Moorside)

3.8 National Grid's cost analysis found that Option 3b (offshore circuits north of Moorside) would cost at least £883m more than Option 3a, whilst also presenting potential negative ecological impacts.

3.9 Following this, it is National Grid's preliminary view that Option 3a should be taken forward for further consideration.

Option 4

3.10 Option 4 would create a new north-south transmission route, allowing for increased power flows south from Scotland and improving the overall efficiency of the transmission network, which is an added benefit for National Grid and a 'technical advantage' of this option. The major advantage of Option 4 is that its offshore circuits would avoid the highly constrained areas in South Lakeland. However, from an economic activity standpoint this option would only be able to facilitate the connection of additional new generation to the north of Moorside. If Option 4 were progressed, then should a new generator wish to connect at any point within the area south of Moorside in the future, additional land-based transmission circuits could be required. Other potential disadvantages of this option are the technical issues regarding offshore HVDC or AC cables and the high cost of such connection media.

3.11 Within Option 4, as with Option 3, two alternative sub options were considered for the circuits north from Moorside. National Grid note that Option 4b (offshore circuits north of Moorside) would cost significantly more than Option 4a, whilst also presenting potential negative ecological impacts.

3.12 National Grid's view is that whilst there are technical issues regarding Option 4a, the environmental advantages of Option 4a compared to the primarily land-based options (Options 1, 3, 5 and 6), coupled with the significantly lower minimum cost for this option when compared to Option 2 (£1,391m compared to £2,290m), mean that Option 4a should be considered further.

Option 5

3.13 Option 5 would create a new north-south transmission route, allowing for increased power flows south from Scotland and improving the overall efficiency of the transmission network, which is an added benefit for National Grid and a 'technical advantage' of this option. The major benefit of Option 5 is that it would avoid impacts on internationally-designated nature conservation sites in South Lakeland and/or Morecambe Bay. However, this option would involve a very lengthy and indirect connection route with the consequence that there would be high levels of environmental effects (especially on landscape and cultural heritage) and effects on people and communities.

3.14 In addition, it encounters highly constrained ecological, landscape and cultural heritage areas around Shap Fell and would be likely to impact on the proposed extensions to the Lake District and Yorkshire Dales National Parks, should they be confirmed. It also borders the Lake District for a significant distance creating significant potential for effects on its setting.

3.15 Within Option 5, as with Option 3, two alternative sub options were considered for the circuits north from Moorside. National Grid note that Option 5b (offshore circuits north of Moorside) would cost significantly more than Option 5a, whilst also presenting potential negative ecological impacts.

3.16 Consideration of the combination of these environmental impacts and the high minimum cost lead National Grid to the preliminary view that Option 5 should not be taken forward for further consideration.

Option 6

3.17 National Grid feels the advantage of Option 6 is that it would avoid impacts on South Lakeland and northern Lancashire and that any new connection between Harker and Newcastle would be a replacement for the existing 275 kV overhead line that is there at present. However, the cultural heritage appraisal of this option highlights the sensitivity of the Hadrian's Wall World Heritage Site (WHS) and concluded that development in the buffer zone of this WHS could result in significant adverse environmental effects, with few opportunities to improve on the current alignment or to place equipment underground, due to the density of constraints in this area.

3.18 In addition, Option 6 could also engage landscape constraints due to the narrow width of the corridor between the Northumberland National Park and the North Pennines AONB, and the presence of long distance footpaths that could be affected. This option would impact on many receptors within the densely populated North East where extensive work would be required, and due to its length and the number of new substations which would be required, the minimum cost of this option is significantly higher than that of Options 1 and 3.

3.19 Within Option 6, as with Option 3, two alternative sub options were considered for the circuits north from Moorside. National Grid note that Option 6b (offshore circuits north of Moorside) would cost significantly more than Option 6a, whilst also presenting potential negative ecological impacts.

3.20 Stakeholders have also generally regarded this option as unfavourable and consideration of the factors above lead National Grid to the preliminary view that Option 6 should not be taken forward for further consideration.

National Grid's Conclusions

3.21 In the light of the options appraisal to date, the initial view of National Grid is that Option 3a (Cumbria Ring Onshore South) and Option 4a (Cumbria Ring Offshore South) are the options likely to achieve the best balance between

National Grid's technical, economic and environmental obligations and, as such, are the emerging preferred Strategic Options.

3.22 It should be noted that while Option 3 would utilise standard transmission technologies, Option 4 would likely require the use of HVDC offshore circuits and the unproven nature of this technology for nuclear power station connections may have material cost and timing implications. In addition, the use of AC circuits for Option 3 would provide significantly more power export capability than would be provided by Option 4 utilising HVDC, and thus Option 3 would be better able to accommodate future generation connections than Option 4.

3.23 National Grid has a preliminary preference for Option 3a. This is because:

- Option 3a provides additional technical benefits beyond those provided by Option 4a
- Option 3a should, even with the addition of substantial mitigation costs, provide a more economical solution than Option 4a (and the would allow for around 45km of underground cabling to be incorporated in Option 3a before the costs for Option 3a were as high as the minimum costs for Option 4a)

3.24 However the comparative environmental advantages of Option 4a in relation to Option 3a make it also worthy of further consideration.

3.25 National Grid's preferences will be reviewed in the light of consultation responses and the final decision regarding the preferred Strategic Option(s) to be progressed to the next stage of project development (route corridor determination) will be taken and reported via the publication of the final Strategic Options Report (SOR).

4. LOCAL SPECIALIST'S ASSESSMENTS OF EACH STRATEGIC OPTION

4.1 In order to provide a local quality check of National Grid's findings of the potential environmental and socio economic effects, local authority specialists considered the various constraints and potential opportunities around each of the options in order to provide advice to the potentially affected local authorities. The specialists covered the following subject areas:

- Landscape and visual impact
- Ecology and biodiversity
- Cultural heritage
- Socio economic issues

4.2 The specialists were drawn from Cumbria County Council, Lancashire County Council and the Lake District National Park Authority. Their main focus was upon the onshore constraints, but they also gave consideration to offshore designations, although it was accepted that Natural England and the Marine Management Organisation will be key consultees for understanding the environmental marine constraints.

4.3 The specialists considered each of the Strategic Options and the potential impacts on them, giving an assessment of the likely scale of impact as follows:

- Very High – where there are high level policy or compliance issues or the likelihood of negative effects on assets so valuable that an adverse effect, even after mitigation, is likely to be unacceptable
- High – where there is significant likelihood of negative effects on assets of national or greater value which cannot be fully mitigated, or for which mitigation is unproven or not likely to be fully effective
- Medium – where there are a number of significant constraints, but of a type where mitigation is generally believed to be effective or where there are few significant constraints but they are of a type where mitigation is not proven and hence a moderate level of residual effects is likely to remain
- Low – where there is an absence of constraints, or low level constraints the likely effect on which can be readily mitigated using proven techniques

4.4 The specialists informed the group that they have requested further clarification from National Grid regarding the final methodology used in their assessment, which has not yet been received. Their assessment is also made without detailed route information that is not available, or decided upon, at this Strategic Options stage and they have therefore considered a worse case scenario in their assessments.

4.5 The specialist's assessment of the Strategic Options is outlined below.

Option 1

4.6 The specialists generally agreed with National Grid's assessment of Option 1, considering it to be a Very High risk of significant negative effects on landscapes, ecology, cultural heritage and tourism, while offering very limited potential socio economic benefit. The negative impacts would be significant and difficult to mitigate or avoid due to two double circuits running along the route, and a number of the particularly sensitive habitats would also be very difficult, or virtually impossible, to reinstate.

Option 2

4.7 This option generally scored relatively well with the environmental (i.e. landscape, ecology and cultural heritage) specialists as any onshore impacts would be localised around the Moorside area and the point in Lancashire that the cables would come on shore. There may be some offshore and inshore sites that would need to be avoided, but the specialists believe that this avoidance could be achieved. The socio economic assessment concluded that Option 2 would have minimal negative effects on people and communities or tourism, but would have very limited potential opportunities for the local supply chain and employment during construction and reduce the opportunities to deliver Britain's Energy Coast aspirations.

Option 3

4.8 The environmental specialists considered this to be a high risk option, as there was the potential to interact with a large number of highly protected areas, such as the Lake District National Park, European designated sites (Ramsar, SPA, SAC), Hadrian's Wall World Heritage Site and Scheduled Monuments which were clustered in certain areas and created significant pinch points. A number of these pinch points are in Copeland, including the narrow coastal plain south of Ravenglass, Muncaster Castle, the mouth of the Whicham Valley and the Duddon Estuary, making it difficult to mitigate or avoid potential impacts. A number of the particularly sensitive habitats would also be very difficult, or virtually impossible, to reinstate. It was noted that any avoidance or mitigation measures would increase the cost of this option.

4.9 Option 3 could have a visual impact on seven major settlements, including Whitehaven, and could have a negative impact on tourism assets. It was recognised that these impacts would be less than the impacts from two double circuits (e.g. Option 1, 5 or 6) and that impacts could be reduced if most of the route was a replacement for the existing 132kV pylons. This option is more likely to provide opportunities for existing Cumbrian suppliers and contractors during construction and could also enable further grid connection to future generators and high energy users, as well as deliver high speed broadband across all of West Cumbria.

Option 4

4.10 The environmental specialists generally considered Option 4 to be preferable to Option 3 because many of the more significant constraints and issues for Option 3 are along the route south from Moorside, and by taking an offshore route they

could be avoided. This was with the caveat that a suitable offshore route could be found due to the limited knowledge of marine constraints.

4.11 As with Option 3, Option 4 would still have visual impacts to the north of Moorside, including at Whitehaven, although they would be reduced in the south of the borough and south Cumbria. This option would not enable additional connections to the grid or deliver high speed broadband south of Moorside.

Option 5

4.12 Sending two double circuits north from Moorside would remove the environmental impacts in south Copeland and parts of south Cumbria. It was also felt that there were greater opportunities to avoid ecological and cultural heritage sites in the north of the county. However, there would still be significant landscape and visual impacts upon the Lake District National Park as well as the Yorkshire Dales National Park, Hadrian's Wall World Heritage Site and a number of Areas of Outstanding Natural Beauty. Also, the impacts on ecological sites in the east of Cumbria would be significant, although there may be opportunities for mitigation or avoidance.

4.13 Two double circuits would have a significant visual impact on a number of settlements, including Whitehaven, and may have some impact on tourism. It would also restrict the potential for future connections into the grid in south Copeland, both from energy generators and high energy users, and would not deliver high speed broadband south of Moorside.

Option 6

4.14 This option would have some landscape and visual impacts on the Lake District National Park and its setting as well as some Areas of Outstanding Natural Beauty. The most significant impacts are likely to relate to the Hadrian's Wall World Heritage Site and its setting. It will also potentially interact with a large number of wildlife sites.

4.15 As there were no representatives from authorities in the North East, it should be noted that a number of impacts are likely to have been overlooked.

4.16 Two double circuits would have a significant visual impact on a number of settlements, including Whitehaven, and may have some impact on tourism. It would also restrict the potential for future connections into the grid in south Copeland, both from energy generators and high energy users, and would not deliver high speed broadband south of Moorside.

The Lake District National Park

4.17 The Lake District National Park Authority made local authorities aware that *"The Environment Act 1995 Part III National Parks sets out the National Park purposes:*

a) *of conserving and enhancing the natural beauty, wildlife and cultural heritage; and*
b) *of promoting opportunities for the understanding and enjoyment of the special qualities of (the National Parks) by the public.*

4.18 National Park officers also stated that *"Section 62 of the Environment Act 1995 amended Section 11A of the National Parks and Access to the Countryside Act 1949 as follows:*

> *'In exercising or performing any functions in relation to, or so as to affect, land in a National Park, any relevant authority shall have regard to the purposes specified in subsection (1) of section five of this Act and, if it appears that there is a conflict between those purposes, shall attach greater weight to the purpose of conserving and enhancing the natural beauty, wildlife and cultural heritage of the area comprised in the National Park'."*

And that 'Relevant authorities' would include local authorities and National Grid.

4.19 Finally, they stated that *"the Cumbrian districts and CCC have been party to the production of the Lake District National Park Partnership Plan – a statutory Management Plan prepared and agreed by the LDNPP, of which CCC and all the Cumbrian districts are equal partners. The Partnership Plan contains a commitment to maximise economic opportunities on the West Coast whilst ensuring environmental integrity of the National Park and its setting. There is a specific sub-action (adopted by the Partnership as a whole) which states that we will 'work through a Planning Performance Agreement to consider options for the Cumbrian 400kv Circuit, minimising any adverse impact on the National Park.'"*

4.20 Whilst it would be preferable not to send a transmission route through the Lake District National Park, it is difficult to determine what the localised impacts would be at this Strategic Options stage. If the new route was to be in addition to the existing 132kV line then there would be significant visual impact. If however, any new route replaced the existing 132kV route and was carefully routed (especially if some undergrounding could be achieved and the new smaller 'T' pylon was deemed appropriate) there may be the possibility of some

enhancement when compared to the current situation, or at least no real negative change.

Summary of Local Authority Specialist's Advice

4.21 The specialists generally agreed with National Grid that Option 1 posed the greatest risk and it appeared to be unachievable. Option 2 was generally considered to be the lowest risk option from the point of view of the environmental specialists, although this is qualified by a limited knowledge of the marine impacts related to the offshore options. It also does not seem to offer the potential economic benefits associated with other options

4.22 Option 3 was considered to be high risk from an environmental point of view, but has some potential economic benefits. National Grid will need to do considerable work when developing route corridors to demonstrate how/if the environmental impacts can be avoided or mitigated. Option 4 was considered to be preferable from an environmental point of view, subject to a suitable offshore route being found.

4.23 Option 5 is one of the longer routes being considered and as such has the potential to interact with a large number of sites and settlements. Whilst there is some potential for avoidance it remains a high risk option. Option 6 is also a long route that is considered to be high risk. It should be noted that it was difficult to give a full appraisal of this option as there had been no input from north east local authorities.

4.24 Regarding the sub-options within Options 3, 4, 5 and 6 there was a general agreement that the 'a' sub-options, which run onshore north from Moorside, are more risk free than the 'b' sub-options which would be partially onshore. This supported National Grid's assessment of the sub-options.

4.25 As a result it would seem reasonable for National Grid to progress with more detailed consideration of Options 3a and 4a.

5. THE COPELAND PERSPECTIVE

5.1 All of the Strategic Options will have an impact on Copeland due to the location of Moorside. Option 2 would have the least impact by taking the lines offshore, however National Grid claim that there are significant offshore constraints that it would be difficult to avoid with two double circuits. It should also be noted that any onshore development associated with the converter equipment would potentially have a significant impact on Copeland villages such as Beckermet or

Seascale (depending upon its location). For your information we understand that a converter station is roughly the same size as the Copeland Centre. Whilst these are not 'population centres' in terms of Strategic Options they are settlements identified for development as Local Centres in the Local Plan. Of course we would have to consider the visual impact of any converter station(s) when read against both the Sellafield licensed site and new power station.

5.2 Any route that took two double circuits in one direction (either north or south) would be more likely to have negative impacts and those impacts are likely to be more significant. The constraints in the south of the borough are environmental (the Lake District National Park, Duddon Estuary, Drigg Coast, Ravenglass Estuary, Muncaster Castle etc.), while the constraints in the north are more likely to be socio economic with pinch points in the Whitehaven/Westlakes Science and Technology Park area between the National Park and St Bees Head Heritage Coast. This would make Options 1, 5 and 6 challenging for Copeland.

5.3 Option 3 would have an impact across the whole of the borough rather than concentrating the effects in either north or south. It would appear that there is potential for significant impacts, even though it is one double circuit, as it would involve a route through the Lake District National Park and avoiding individual sites may prove difficult. This option could provide employment opportunities during its construction and by providing a route through the whole of the borough would enable future connections into the National Grid network, which could support energy generators and users, future proofing the network in Copeland. It could also support a high speed broadband connection route along the whole of the borough.

5.4 Option 4 would have a reduced environmental impact in Copeland by avoiding the south of the borough on land, but would not provide options for new generators or high energy users south of Moorside to connect to the National Grid network, or high speed broadband connections.

5.5 Whichever option is chosen, every opportunity to rationalise and replace the existing 132kV lines should be taken.

6. CONCLUSIONS

6.1 National Grid need to reinforce the electricity transmission network in Cumbria in order to enable the proposed nuclear power station at Moorside. Copeland Borough Council is not the determining authority and National Grid will submit their application to the Secretary of State for approval.

6.2 The Council's role is to guide National Grid to provide the most appropriate connection route for this project. This will be achieved through continuous dialogue and feedback through consultation exercises such as this, together with the production of a Local Impact Report for the final proposed scheme. All of this will then be considered by the Secretary of State alongside the application that is submitted.

6.3 Based upon all the views presented by National Grid, the local authority specialists and the specific impacts on Copeland and its aspirations, it is recommended that the draft response attached in Appendix A is submitted to National Grid in response to its Preliminary Strategic Options Report consultation.

7. STATUTORY OFFICER COMMENTS

7.1 The Monitoring Officer's comments are:

None

7.2 The Section 151 Officer's comments are:

No further comment

7.3 EIA Comments

The report indicates that different routes have different impacts on different communities and these are taken into account in reaching the recommendation.

It should also be noted that a full assessment of the potential social, economic and environmental impacts of this project will be undertaken later in the process.

7.4 Other consultee comments, if any: None

8. HOW WILL THE PROPOSALS BE PROJECT MANAGED AND HOW ARE THE RISKS GOING TO BE MANAGED?

8.1 Copeland Borough Council's involvement in the North West Coast Connections project is funded by National Grid via a Planning Performance Agreement. This will allow for full involvement in the process throughout the development of the project and enable Copeland's views to be heard by National Grid. The Planning Performance Agreement does not fetter the Council's view on the merits of

National Grid's proposals. Also, any views expressed at this time have the status of informal planning opinions and do not bind the Council to any formal view once a formal proposal is developed by National Grid.

8.2 The final decision on the route taken for the connection will be made by the Secretary of State, and Copeland Borough Council will be a key stakeholder when the proposal is considered.

9. WHAT MEASURABLE OUTCOMES OR OUTPUTS WILL ARISE FROM THIS REPORT?

9.1 A response will be submitted to National Grid's Preliminary Strategic options consultation.

List of Appendices:

Appendix A – Copeland Borough Council Response to Preliminary Strategic Options Report Consultation
Appendix B – North West Coast Connections Timeline

List of Background Documents:

North West Coast Connections Project: Preliminary Strategic Options Report for the North West Region – May 2012

Appendix A – Copeland Borough Council Response to Preliminary Strategic Options Report Consultation

1. Do you have any comments on Strategic Option 1?
The Council agrees that there are significant environmental constraints associated with Option 1 that it would be difficult to avoid and/or provide appropriate mitigation. Two new routes through the Lake District National Park would have a significant impact and the number and scale of sensitive habitats would mean that underground cables would not really be an appropriate alternative to pylons.

The lack of a connection north of Moorside could limit the potential for economic development in north Copeland, as there would be no opportunities for future connections from new generation/high demand users or the installation of high speed broadband.

As a result this would not be a preferred option for Copeland Borough Council.

2. Do you have any comments on Strategic Option 2?
Even though this option will have the least amount of land based impacts, these impacts will be felt in Copeland and wherever the offshore cables land ashore' in Lancashire.

Whilst it may be possible to avoid the significant onshore environmental constraints and populated areas with this option, there could still be significant impact for local communities in Beckermet or Seascale, and possibly Egremont or Gosforth depending upon the route taken and positioning of converter buildings.

These settlements may not be considered to be 'strategic' at this early stage, but are settlements proposed for further development in the Copeland LDF and Lake District National Park Core Strategies. Due to their proximity to the existing Sellafield and proposed Moorside sites it is likely that potential cumulative impacts on these settlements would have to be considered if this option were to be taken forward to Stage 2.

There are also a number of smaller settlements such as Braystones and Nethertown that could be significantly affected by this option.

Concerns that the Council has for these settlements, as well as any other potentially affected communities, relate to both visual impact on these settlements and any potential impact on human health.

This option would not seem to future proof the network and would therefore require a similar project, albeit probably on a smaller scale, to be undertaken for any new large scale generators in the Copeland area in the future. It would also not allow for high

energy users to connect to the grid or provide high speed broadband coverage across the borough. These factors may result in piecemeal development in Copeland to connect any future generators in west Cumbria and also restrict the opportunities to deliver *Britain's Energy Coast* aspirations.

Offshore impacts are not really known by the Council and this information should be requested from organisations such as Natural England and the Marine Management Organisation.

Copeland Borough Council is currently neutral regarding this option as the potential impacts and suitability of this option are not yet properly known by the Council.

3. Do you have any comments on Strategic Option 3?

Any impacts are likely to be less than with Options 1, 5 and 6 as they are spread across the borough rather than being concentrated in one area.

Even so, the environmental specialists consider this to be a high risk option in south Copeland as they feel it would not be appropriate to bury cables in trenches to avoid the visual impact within the Lake District National Park as there are significant and considerable ecological and heritage constraints including:

- Drigg Coast/Ravenglass Estuary
- Duddon Estuary
- Muncaster Castle

There is also concern that some of the sites are particularly sensitive and particularly difficult/impossible to reinstate.

As a result any routes identified within this option should involve significant replacement of the existing 132kV network and sensitive undergrounding of cables where appropriate to minimise any potential visual impact.

Option 3 could provide opportunities for future connections (from generators and high demand users) and improve high speed broadband connections in that area, which would support the aspirations of *Britain's Energy Coast*. It would also have less of an impact on settlements in the north of the borough than Strategic Options 5 and 6. The area around Whitehaven/Westlakes Science and Technology Park to Cleator Moor is a pinch point in terms of socio economic sensitivities, but it should be possible to identify a potential route(s) to consider at the next stage.

The Council would also welcome the employment and supply chain opportunities that this option could provide and would strongly advocate the use of local businesses and labour for the project.

Another major benefit of this option from Copeland's point of view is that the future proofing it offers should reduce (and ideally remove) the requirement for further large scale onshore connections in the future.

Copeland Borough Council would support further work to investigate potential route corridors within Strategic Option 3a.

4. Do you have any comments on Strategic Option 4?
This option should largely avoid the onshore environmental impacts in the south of the borough associated with in Option 3, which is welcomed.

Option 4 could provide some opportunities in the north of the borough for future connections (from generators and high demand users) and improve high speed broadband connections in that area, which would support the aspirations of *Britain's Energy Coast.* It would also have less of an impact on settlements in the north of the borough than Strategic Options 5 and 6. The area around Whitehaven/Westlakes Science and Technology Park to Cleator Moor is a pinch point in terms of socio economic sensitivities, but it should be possibly to identify a potential route(s) to consider at the next stage.

The transmission network in the borough to the south of Moorside would remain constrained and may require upgrading in the future if further generators wanted to connect in the future, so any future proofing is limited. There would be no opportunities for high speed broadband connections in south Copeland within this option.

Copeland Borough Council would support further work to investigate potential route corridors within Strategic Option 4a.

5. Do you have any comments on Strategic Option 5?
Option 5 could provide some opportunities in the north of the borough for future connections (from generators and high demand users) and improve high speed broadband connections in that area, which would support the aspirations of *Britain's Energy Coast.*

Whilst it is welcomed that Option 5 would avoid the Lake District National Park area within Copeland this option could have significant socio economic as well as visual impacts in the north of the borough around the constrained Whitehaven/Westlakes Science and Technology Park to Cleator Moor area.

It may be appropriate to bury one of the double circuit routes underground to reduce the visual impact this option.

If undergrounding was to be considered it may be that improved road connections associated with undergrounding north of Moorside could be a positive legacy from this project. This could be achieved if the access road created for the construction of any underground section was retained and formalised after construction had ended, for example along the route of the potential Whitehaven Eastern Relief Road (see Policy TSP2 in the Copeland Local Plan).

Another negative factor associated with this option is that the lack of a connection south from Moorside could limit the potential for economic development in south Copeland, as there would be no opportunities for future connections from new generation/high demand users or the installation of high speed broadband.

Environmentally, there could be impacts on the Hadrian's Wall World Heritage Site and its setting. There would also still be impacts on the National Park and other sensitive landscapes in the east of the county.

Due to the constraints and limited potential benefit for Copeland this would not be a preferred option for Copeland Borough Council.

6. Do you have any comments on Strategic Option 6?

Option 6 could provide some opportunities in the north of the borough for future connections (from generators and high demand users) and improve high speed broadband connections in that area, which would support the aspirations of *Britain's Energy Coast.*

Whilst it is welcomed that Option 6 would avoid the Lake District National Park area within Copeland this option could have significant socio economic as well as visual impacts in the north of the borough around the constrained Whitehaven/Westlakes Science and Technology Park to Cleator Moor area.

It may be appropriate to bury one of the double circuit routes underground to reduce the visual impact this option.

If undergrounding was to be considered it may be that improved road connections associated with undergrounding north of Moorside could be a positive legacy from this project. This could be achieved if the access road created for the construction of any underground section was retained and formalised after construction had ended, for example along the route of the potential Whitehaven Eastern Relief Road (see Policy TSP2 in the Copeland Local Plan).

Another negative factor associated with this option is that the lack of a connection south from Moorside could limit the potential for economic development in south

Copeland, as there would be no opportunities for future connections from new generation/high demand users or the installation of high speed broadband.

Environmentally, there would be significant impacts on the Hadrian's Wall World Heritage Site and its setting.

Issues and constraints in the North East are not known.

Due to the constraints and limited potential benefit for Copeland this would not be a preferred option for Copeland Borough Council.

7. In relation to this project, which subtopic(s) do you think National Grid should consider particularly closely when choosing a Strategic Option?
All of the sub-topics are important.

Many of the environmental topics will be covered through their protected status and assessments required under the Habitats Regulations.

However, it is also important that the impacts on communities and businesses, and potential benefits from future proofing etc., are carefully considered and explained at this early stage and throughout the process. There may be a number of benefits from this project that could support West Cumbria as Britain's Energy Coast, and a greater understanding and explanation of the opportunities that exist will help us to determine the potential effects of the project in Copeland.

This should also help to provide an objective assessment of the different options.

Another important factor for Copeland is to deliver an upgrade to the transmission network that will not require further additional lines to be created if additional generation is proposed in the borough/West Cumbria in the future.

8. Are there any issues that National Grid should consider when choosing a Strategic Option that have not been included in our Options Appraisal?
We would like the potentially concentrated impacts of the HVDC converter buildings on the local communities to be given further consideration, even though the settlements likely to be affected are not 'strategic' at this stage.

This is because any impacts from the converter stations could be significant and the settlement(s) affected may be identified to accommodate future development in the Copeland Local Development Framework.

9. To what extent do you think National Grid is right to identify Strategic Options 3a and 4a as its emerging preferences?
Options 3a and 4a appear to be reasonable options to be taken forward for more detailed consideration.

Option 3a would offer the greatest potential for economic benefits across Copeland/West Cumbria and if the effects on communities and the environment can be avoided or mitigated then Copeland Borough Council would support further investigation of this option.

Option 4a would appear to be a way of avoiding the most significant environmental constraints on lad, but would not provide the same level of potential economic benefits.

Option 2 would have the least onshore impacts and may have some merits, although it would potentially have significant localised impacts on some communities in Copeland and may require a similar process to be undertaken in the future if additional generation is proposed in Copeland.

The three options that take two double circuits in one direction are likely to have significant impacts on the environment (Option 1) or communities (Options 5 and 6) in Copeland and not offer the same level of connectivity and associated economic benefits as Option 3a. As a result they are not preferred options for Copeland.

That said, the Council does not wish to reject any options at this stage and would support the potential for further investigation of alternative options if significant issues arise with National Grid's preferred options.

10. Do you have any additional comments?
Copeland Borough Council supports the proposed development of a new nuclear power station at Moorside and the associated infrastructure improvements required, including an upgrade of the electricity transmission network. These projects are key parts of west Cumbria's role as *Britain's Energy Coast*, and capturing the benefits, legacy and spin-offs from them by local businesses is one the two main strands in the recently published West Cumbria Economic Blueprint.

In terms of the Strategic Options currently being proposed, the Council will support the route that provides the greatest socio economic benefits whilst having the least adverse impact on the environment.

It would appear that onshore routes will offer the greatest potential economic benefits in terms of:

- Employment and supply chain opportunities for local businesses

- Future connection opportunities for generators and high demand users
- Super-fast broadband connections (or its cutting edge equivalent at the time of construction)

These benefits would support the growth aspirations and two main areas of linked activity that form the basis of the West Cumbria Economic Blueprint, which are:

1. Creating an environment in which businesses and individuals are encouraged to innovate
2. Putting in place measures in the short term to ensure that as much of the substantial investment in nuclear new build and decommissioning is captured by local businesses as possible

Unfortunately, the onshore routes also have the greatest potential for adverse effects on:

- Landscapes (and associated tourism)
- Habitats
- Archaeology
- Communities

Therefore it is Copeland's aim to support the Strategic Option(s) that offer the best balance so as to maximise the economic aspirations within West Cumbria and minimise adverse impacts upon local communities and the environment.

Option 3a would appear to offer the most potential for economic benefits across the whole of the borough and we welcome it being taken forward for more detailed consideration at Stage 2, but we would also want to ensure that this is not at the cost of the local environment and communities.

Strategic Options 1, 4, 5 and 6 would only offer some of the potential economic benefits due to partial connectivity, including high speed broadband connectivity, within Copeland, while there would appear to be little or no economic benefits for Copeland associated with Strategic Option 2.

It is difficult to know the relative impacts at this Strategic Options stage and these issues should be considered fully in the Stage 2 work and associated sustainability appraisal and Habitats Regulations etc. assessments. It may be appropriate to undertake a more thorough sustainability appraisal of all of the Strategic Options before they are discounted.

It should be noted that the Council recommends that any onshore option should involve significant replacement of the existing 132kV network and sensitive undergrounding of

cables where appropriate to minimise any potential visual impact and avoid a proliferation of pylons across the borough and county as a whole.

It is noted that there may be opportunities for undergrounding, including in less constrained areas outside the National Park, and we would welcome the opportunity to discuss the potential for infrastructure improvements associated with undergrounding as routes are being developed.

Copeland Borough Council would also strongly advocate the use of local suppliers and contractors (together with any associated training) during the construction of the network in order to help us maximise the potential economic benefits from the project.

As this will be such a large national project that will require a newly skilled workforce we would encourage National Grid to utilise position as Britain's Energy Coast and consider the development of a national training and skills centre of excellence based in the Energy Coast. This could then also provide a skilled workforce for future National Grid projects.

On a final note, we do not appear to have seen the final Scoping Methodology that has been used by National Grid for the assessment process. We assume that all of the feedback given on the draft scoping report was taken into account.

Appendix B – North West Coast Connections Timeline

The following diagram illustrates National Grid's anticipated timetable to approve a route for the North West Coast Connections project.