The John Muir Trust welcomes the opportunity to respond to the National Grid North West Coast Connection consultation. Our interest in this consultation relates principally to the potential impact of the Options discussed on nationally designated landscape in the North West – the Lake District National Park, the Solway Area of Outstanding Natural Beauty and other natural heritage designated sites.

2 SUMMARY

2.1 The John Muir Trust endorses the Response to this Consultation submitted by the Friends of the Lake District and adopts it into this response.

2.2 The Trust makes additional points here based on the Trust's experience of considering the costs, technical case and impacts of a similar 400kV electricity line passing through a national Park and sensitive nationally important landscapes – i.e. the 220km Beauty – Denny line.

2.3 National Grid (NG) must ensure that they deliver on their statutory duty to the public in a holistic way - considering all significant economic, social and environmental costs. The options that NG prefers have not properly taken account of NG’s duties under Section 62 of the Environment Act 1995, the Holford rules and also its duty under the Electricity Act 1989 to have regard to the environment.

2.4 Generation and transmission costs and planning should be considered together to achieve the best solution for the national good and Ofgem and the UK Government, through its Agencies, have duties to ensure this occurs.

2.5 Evidence at the Beauty Denny 400kV 220km transmission line Public Local Inquiry, and subsequent developments, demonstrated inadequate industry and Ofgem cost-benefit analysis of a major overhead line and over-estimates of costs of subsea cable alternatives.

2.6 The National Grid Report 2014, like the previous Preliminary Strategic Options Report, does not make the case for eliminating the Offshore option south and further work on economic, technical and environmental aspects is required to allow adequate comparison of different technologies before eliminating this.

2.7 The Trust considers it essential that adequate cost benefit studies and comparisons are done and put into the public domain.

2.8 Further work and evidence on assumptions and costings is required to demonstrate that the Offshore south option is not a practicable alternative or make the case for the National Grid Onshore South or Onshore South with Tunnel routes.

3 RELEVANCE OF THE JOHN MUIR TRUST’S EXPERIENCE

3.1 The John Muir Trust is the leading wild land charity in the UK whose foremost aim is the protection of Wild Land and wild places. The Trust works extensively, alongside energy experts, on strategic energy and transmission issues because of the extensive impacts energy developments are having on wild land.
3.2 The Trust has gained considerable expertise about the strategic technical and economic aspects of transmission, as a leading objector at the Public Local Inquiry for the Beauly-Denny, 220km, 400kV transmission line in 2007, and subsequently. To consider the evidence at that Inquiry, the Trust benefited from advice from energy and economic experts including Sir Donald Miller, ex-Chairman of Scottish Power, Colin Gibson, Ex Networks Director of National Grid, and Professor Andrew Bain, Emeritus Professor of Economics. Some of the evidence presented at the Beauly-Denny Public Local Inquiry is very relevant to this Consultation.

4 OVERVIEW

4.1 Total Systems costs and environmental and social impacts need holistic consideration and lessons must be learned from another part of the UK – Scotland - where the only recent similar development has been/is being built.

4.2 Whilst the Trust appreciates that National Grid are consulting in an inclusive manner on the aspect of the electricity network which is their remit in this area (the transmission required), it is essential that governments and organisations licensed by government to undertake nationally significant projects - in this case, National Grid - ensure that they are delivering on their duty to the public in a holistic way, considering all significant economic, social and environmental costs.

4.3 One key aspect of this is that generation and transmission costs and planning should be considered at the same time. The need for a new connection is based on connecting the proposed new generation capacity from Moorside Nuclear Power Station to the transmission system. While the Trust understands the requirement that its licence places on National Grid to deliver a connection for this new generating capacity, we are concerned that the approach to determining applications for generation and transmission separately is not in the best interests of the landscape, or indeed cost effective for stakeholders.

4.4 Whilst we appreciate that National Grid are not in a position to deliver this change in the process, it is an aspect of the public good which must be borne in mind to ensure that NG are delivering on their environmental duty. Moreover, it is the Trust’s view that Ofgem need to be closely involved in decision-making alongside NG and others at all key points in the process so that the most attractive option for one provider - in this case, NG - does not then lead to undesirable or even unacceptable impacts on another part of the system, or, indeed, affecting the public. The Trust would, in the longer term, like to see an obligation placed on companies to submit parallel applications for large-scale generation and transmission. However, in the regulatory context of this proposal, NG’s environmental duties are quite clear and make it clear that the cheapest option is not the one which they necessarily are required to choose and Ofgem can approve a more expensive but better option.

4.5 Friends of the Lake District have analysed NG’s costings and suggest that the NG preferred Onshore option may turn out to be considerably dearer than the estimate, as NG have not included costs of mitigation even though they accept that mitigation around and in the National Park is an essential aspect of the scheme.

4.6 It is against that background that the Trust asks National Grid and Ofgem to recognise that to rule out the offshore option at this stage, would not be consistent with their wider public duties.

5 LESSONS TO BE TAKEN FROM THE BEAULY DENNY 400Kv 220KM TRANSMISSION LINE

5.1 When considering the viability of alternative methods of transmission, it should be noted that UK transmission companies and Ofgem have inadequately analysed cost-benefit evidence on at least one previous occasion – the 400kV Beauly Denny transmission line with disastrous
consequences for the Scottish Highland landscape and at considerable cost to the public purse.

5.2 In that case, the transmission developers were Scottish and Southern Energy (SSE) and Scottish Power (SP). The costs of that line have doubled before the line is fully built. This increase in costs accords with evidence presented at Public Local Inquiry (PLI) in 2007, by objectors including the Trust, that the cost-benefit analysis used by SSE and SP was very optimistic on costs and over-estimated technical and economic benefit of the overhead proposal.

5.3 Indeed, the Beauly Denny Public Local Inquiry Technical Assessor said, “My conclusion is that the Applicants’ technical case for transmission network reinforcement to the full 400kV standard based on a deterministic approach is unconvincing.” However, this evidence came forward so far down the decision-making process that there was no other alternative being put forward and the Application was given planning approval.

5.4 There is a very real risk that an early acceptance by National Grid and Ofgem that the overhead option is bound to be the most cost-effective option, without including the costs of essential mitigation in early analysis, then leads the process down an inevitable route to a development which is unacceptable to much of the public, with unforeseen impacts on areas such as tourism. Many members of the public and politicians who had not objected to the Beauly Denny line have expressed dismay about the actual development now that it blights so much of the approach from the south to the Scottish Highlands.

5.5 At the Beauly Denny Inquiry, it became clear that a very significant error had been the early dismissal of methods of transmission, other than overhead lines, via Beauly and Denny. Regarding subsea cables, it was stated that subsea cables were too expensive. However, the comparison between a subsea cable and the overhead line was not done on a like-for-like basis. Instead the cost of an overhead line between Beauly –Denny was compared with the total cost of a subsea cable which was significantly longer and took the power much closer to the main customers in England.

5.6 Moreover, several lengthy subsea cables around Britain are now being built or are included in National Grid and Ofgem’s proposed Electricity Network Strategy, including the cable which was proposed by objectors as an alternative to the Beauly Denny overhead line. So it is clear that the costs are not prohibitive.

5.7 A further relevant aspect is that it was a condition for mitigation that the major construction “tracks”, which are the width of a single carriageway road, would be removed i.e. they were temporary. However, the land owners have been encouraged to ask for retrospective planning permission and most of these applications have been approved. The roads are there as a permanent scar and many people view them as having a more negative visual impact than the actual pylons and conductor wires.

5.8 This is what has happened with the Beauly Denny line -

- Costs approximately doubled so it is not much cheaper than a subsea option
- Far more significant landscape and visual impacts have occurred than was acknowledged by the developers (see photos below)
- Seven years after the Inquiry, mitigation still has to be agreed in the Stirling area where the detail of how the setting of the Wallace Monument would be protected was not worked out or required at Inquiry or for a decision by Scottish Ministers.
- Most of the construction roads are now permanent – see photo
The line is not fully built, after approval in January 2010 whereas a subsea cable could have been put in more quickly.

6 CONSIDERATION OF THE OPTIONS

6.1 For the purposes of this response, the Trust is commenting in this section on the three Options for the south double circuit. However, the Trust notes there will be considerable impacts from the Onshore North double circuit and endorses Friends of the Lake District’s points regarding the need for considerable mitigation.

6.2 Onshore South
The Trust notes the use of the phrase “opportunity corridor” which has similarities to the description which was used by the Beauly Denny developers that the development was “just an upgrade”. The difference between a 132kV line and 400kV line in a sensitive landscape can be seen in the photos below.

This Option would have a major adverse impact on significant stretches of nationally designated landscape in the Lake District National Park. Given these impacts, we do not support this option being taken forward.

6.3 Onshore South with Tunnel under Morecombe Bay
This Option still has very major impacts in and around the National Park. There does seem to be a major inconsistency in Ofgem and NG recognising the need for improvements in visual impact through the proposed undergrounding of already built transmission where it is in national designated sites whilst at the same time proposing to build yet more major transmission in and around the National Park.

6.4 Ironically, perhaps the Scottish transmission companies could apply for some of that mitigation funding to underground the Beauly Denny line, now it is constructed in the Cairngorms National Park! If that sounds ridiculous, it just demonstrates the stupidity of pushing through a very damaging scheme because “it is the cheapest option” when that mistake cannot be undone and will be in our landscapes for up to 80 years. It is essential, and entirely consistent with the Ofgem and NG’s duties to the environment to pick the correct option, considering all social, economic and environmental factors.

6.5 Whilst the NG’s recognition of the serious natural heritage issues around Morecombe Bay in putting forward this option of tunnelling is welcome, the costs do seem to suggest that the offshore option would not be so much more, even accepting NG’s estimates.

6.6 Offshore double circuit south from Moorside
National Grid notes that the offshore South option “performs best in respect of landscape, seascape and visual considerations….It also performs well with regard to the historic environment and ecology.”, although it suggests that there are important constraints particularly in the marine environment in the southern part of the search area. These should be investigated further.

6.7 The evidence from the Beauly Denny Public Local Inquiry and within the transmission industry subsequently demonstrates industry regularly over-estimates sub-sea cable costs where there is an overhead onshore alternative. It is therefore essential for further work to be done on the subsea Option.

7 CONCLUSIONS

7.1 Both National Grid and Ofgem have legal duties to ensure that the environment is correctly protected. This allows National Grid to put forward and Ofgem to accept a more expensive option if it is environmentally required.
7.2 It is not acceptable for public money to be allocated to an environmentally damaging project without all the true costs and benefits of alternatives being considered. Moreover, it may well contravene legal duties.

7.3 Lessons must be learned from other projects within the UK and under Ofgem’s remit – specifically the Beauly Denny transmission project which has become a byword for insensitive development foisted on communities who had no proper say.

7.4 National Grid is to be congratulated on consulting at an early stage with stakeholders. Now they must show that that consultation will be properly considered.

7.5 Therefore, the option of Offshore South should continue to be considered in more detail, using costs from the latest subsea cables installed around the UK. Costs for the Onshore south with tunnel option should be recalculated taking into account the mitigation which will be required.

Examples of Beauly Denny 400kV line and its 132kV predecessor