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07 December 2011

Dear *Mr Mitchell,*

**CONSENT UNDER SECTION 37 OF THE ELECTRICITY ACT 1989 FOR AN OVERHEAD TRANSMISSION LINE BETWEEN WHARRY BURN AND DENNY  
DECISION ON POPOSALS FOR CONDITION 19 - STIRLING VISUAL IMPACT  
MITIGATION SCHEME**

I refer to your letter of 26 August 2011, and the accompanying documents " Stirling Visual Mitigation Scheme" and "Report on Engagement", representing your proposals to satisfy Condition 19 of the Beauty to Wharry Burn consent.

**Condition 19**

The condition for a Stirling Visual Mitigation Scheme (SVIMS) was imposed as condition 19 of the consent to help mitigate against the visual and landscape impacts of the upgraded line in the Stirling area.

The condition reads as follows:

19.-(1) Neither the overhead transmission line or the towers carrying that line shall be installed or constructed in the area of Stirling Council until-

(a) the applicant has submitted to the Scottish Ministers for approval a scheme prepared in accordance with this condition setting out proposals to mitigate the visual impact of the 400kv line in the Stirling area ("the Stirling Visual Impact Mitigation Scheme"); and

(b) the Scottish Ministers have, after consultation with Stirling Council, approved the Stirling Visual Impact Mitigation Scheme.

(2) The Stirling Visual Impact Mitigation Scheme is to include proposals for:

(a) the mitigation of the visual and landscape impact of the line between the top scarp of the Ochil Hills at Cocksburn Wood (TD199) and Airthrey Castle (TD203)

(b) the mitigation of visual and landscape impact of the line between Logie (TD203) and Glenside (TD244E),

(3) The Development shall be carried out in accordance with the approved Stirling Visual Impact Mitigation Scheme unless otherwise agreed in writing by the Scottish Ministers.

### **Scottish Power Transmission's (SPT) Proposals**

I have considered carefully the proposals contained in the Scheme. The detailed proposals employ three primary mitigation methods:

1. Planting and Landscape Reinforcement including native tree and shrub planting and landscape improvements in the broad corridor surrounding the overhead line route:

- The planting would involve hedgerow trees, woodland strips and clumps to provide a level of screening and a stronger landscape structure in which the proposed overhead line would become less prominent and visible than in the current open landscape.
- The landscape improvements include rebuilding of drystone walls, footpath construction and improving informal car parking areas on the Ochils scarp.

2. Undergrounding of Low Voltage Overhead Lines in several locations:

- Logie Kirk and roundabout
- Powis Mains
- Manorneuk
- Bolfornought
- Burnhead
- Carbrook Mains

3. Tower Painting:

- in locations where they are seen against a vegetated backdrop, in this case against the Ochils escarpment when seen from the Wallace Monument and Stirling Castle;
- to match other towers, in this case the 275kV double line which is crossed and paralleled to the south of Plean.

Your SVIMS Report provides details of all of the measures including plans, photomontages and indicative costings. It also carries out an assessment of the effectiveness of the measures in reducing landscape and visual impacts.

### **Engagement and Consultation**

Condition 19 requires that Scottish Ministers consult with Stirling Council before approving proposals for SVIMS, and this requirement has been met. I have undertaken a formal consultation with the Council, beginning on 30 August and extended from 30 days to 45, until 14 October. My officials have met with Stirling Council's Beauldy Denny Steering Group on several occasions, and I recently did so myself to hear their views first hand. SPT have responded to requests for consultation and for the extension of consultation periods, by the Council and SG officials. You proactively undertook a public consultation and later a programme of engagement with Stirling Council and SG officials following a request by the former Minister of Enterprise, Energy and Tourism Jim Mather in March 2011. I know that my officials found that this latter engagement to be both cooperative and constructive in nature and that it engaged the relevant technical experts.

Stirling Council have rightly acted as a conduit for the views of local communities to the process. In addition, it was agreed that local communities would be given opportunities to engage with the process through SPT's public consultation – through the submission of written views to SPT, through drop-in sessions held by SPT in various Council buildings in

the area and via four public meetings. I note that all of these opportunities were advertised in advance. Following your public consultation, you responded to each suggestion made to you within the Consultation Report submitted with your first formal SVIMS proposals in February 2011.

I consider that this enhanced level of engagement was entirely appropriate, given the level of public interest which consideration of mitigation of the upgraded line at Stirling has generated, and I am grateful for the effort and resources which SPT and Stirling Council have put into examining the issue. Given that the requirements of the condition for consultation have been met, and that a considerable program of consultation with communities and with Stirling Council as their representatives has been undertaken, I consider that there is no reason to conclude that consultation or engagement has been in any way inadequate.

### **Undergrounding of the Main 400kV Line**

Measures discounted in SPT's proposals include undergrounding of the main 400kV overhead line. Having explored the issue again, you are of the opinion that undergrounding of the 400kV line "cannot be justified on the grounds of cost, technical difficulties and the very limited environmental benefits".

Undergrounding the Beaully Denny upgrade in the Stirling area was comprehensively examined during the public inquiry, and subsequently in reports produced for Stirling Council (submitted as annexes to their consultation response), SPT and our own consultants Ironside Farrar. More generally, since the Public Inquiry, relevant reports on undergrounding of high voltage transmission lines have been produced by ENTSOE/Europacable, National Grid and Newcastle University (on behalf of Ironside Farrar). I have considered all of these.

SPT's estimates for the cost of undergrounding vary, depending on the option, from £28.7M for a 1.6km section to £263M for undergrounding the whole route covered by SVIMS as per Stirling Council's preferred position.

Stirling Council are of the view that undergrounding sections of the power line through the Stirling area is perfectly feasible and represents the only meaningful mitigation option. Based on recent reports, which have been presented with their response, including those they themselves commissioned from Europacable, the Council argue that SPT's cost estimates are higher than would result in reality, given changes in technology and the increases in the practice of undergrounding.

It is clear to me that the lifetime costs of undergrounding a 400kV transmission line vary enormously depending on the circumstances. SPT appear to have used a simplistic model for estimating costs of undergrounding, which may put estimates at the higher end of the scale, especially given that there are clear indications that the cost of undergrounding is falling. However, it remains the case that the cost of undergrounding a line of this type is likely to be significantly greater, by a considerable multiple of cost, than for an overhead cable. I am therefore of the opinion that although it would appear that SPT's costings for the options examined may be on the high side, they do not misrepresent the situation.

Undergrounding of Extremely High Voltage (EHV) transmission is normally used in congested urban areas, where physical barriers need to be overcome (e.g. broad river crossings), or to address extra-ordinary circumstances; where major adverse impacts are predicted; and where it would be effective when other mitigation options are ruled out as ineffective.

I do not consider that these conditions apply to Stirling. The area in question is not a congested urban area. According to the public inquiry and my consultants, the impacts of the consented line at Stirling are in the main minor to moderate adverse.

The primary reason for restricting undergrounding normally relates to cost. I appreciate that considerable costs incurred must be weighed against the environmental benefits realised. Objective consideration of all the relevant reports leads me to conclude that the net reduction

in landscape and visual impacts from undergrounding the route would be relatively modest in most locations, especially once the potential impacts of sealing end compounds and any vegetation clearance are taken into account. Sealing end compounds for 400kV transmission lines are themselves significant structures which would have to be accommodated into the landscape instead of pylons.

The prospect of programme delays is also of relevance. The Beauly to Denny upgrade is critical to the future deployment of renewables and the wider program of grid reinforcement required for Scotland to realise its enormous renewable potential. The Scottish Government estimates that the consents and permissions required for a Stirling Visual Mitigation Scheme which included undergrounding would take anything between 14 and 39 months to obtain. Ironside Farrar's estimate for this period was broadly similar, at 30 months. Clearly while the financial impact of these delays in terms of the cost of restraining renewables is highly relevant, the wider implications that such delays would have on grid improvements and renewables investment may carry even greater economic importance.

Overall, I conclude that the position of the reporters to the public inquiry remains viable, namely that: "having regard to the cost of the alternatives, the technical problems associated with them, and the limited environmental benefits which they offer, that the case made... for alternative routing and/or undergrounding has not been justified." Ironside Farrar's report also supports this conclusion, stating that "Reasonably undergrounding should therefore be considered as a mitigation intervention only to address extra-ordinary circumstances; where major adverse impacts are predicted; and where it would be effective when other mitigation options are ruled out as ineffective." Their assessment concludes these conditions do not apply in the Stirling area, and I agree.

### **Undergrounding the existing Fallin to Glenbervie 132kv Overhead Line**

SPT's proposals also reject this option, despite accepting the benefits it would offer, on the basis that you are of the opinion that it does not represent an efficient and economic development of the transmission system within the regulatory framework.

You have accepted that this option would partially satisfy Condition 19, and indicated that undertaking the project would be likely to be relatively straightforward, i.e. you do not foresee regulatory, safety, or technical difficulties, although landowner consents may still be required. The implementation would not create any project delay to the main 400kV development.

The Reporter to the Public Inquiry recognised the benefits this option would bring to the wider area, providing both landscape and visual benefits by reducing the wirescape. I agree with the reporter's conclusion that to the west of Fallin the undergrounding of the 132kV line would reduce the overall significant adverse visual impacts arising from the main line and that it would provide considerable benefit to Fallin and surrounding areas.

I recognise that the Fallin to Glenbervie overhead line which this option proposes to remove is only in close proximity to the route of new consented 400kV line for short sections. It runs close by at Fallin before the two diverge and then again once they re-converge at south east of Plean, where the two lines in fact cross. The adverse effects on landscape character identified for the 400kV Overhead Line itself would largely remain.

However, as well as the direct benefits in these two areas, undergrounding the Fallin to Glenbervie line would provide landscape and visual benefits which would indirectly offset the impacts of the main line. I am conscious of the sensitivities identified south east of Plean where the cumulative impact of wirescape has been identified as major adverse for some homesteads, and consider that undergrounding the Fallin to Glenbervie line would help alleviate issues around Plean.

The option offers benefits in terms of the removal of some 7km of overhead line from the area to the east of Stirling, which would improve visual and landscape amenity in the broader corridor of the main line. Furthermore, I believe it is also consistent with Scottish Ministers' decision to impose conditions for "rationalisation schemes" elsewhere in the Beauly to Denny

consents, which bring wider benefits through removing or undergrounding existing wirescape in the broader areas by way of compensatory mitigation in a wider context.

Sealing end compounds, a significant issue for consideration of undergrounding the main 400kV line due their size and visual impact, are, for the 132kV line very much less likely to be problematic. My understanding is that they may not be required at all, or planning permission may be required for small compounds.

It is also clear that undergrounding of 132kV lines has on average a significantly lower cost multiple than undergrounding of 400kV overhead lines. The estimated cost of £12.9M for 7km of undergrounded line on steel pylons compares very favourably with costs for even much shorter sections of undergrounding the main 400kV line, even accepting that SPT's costing for undergrounding 400kV line may be at the high end of the scale.

Overall, I agree with Ironside Farrar that this option would result in modest landscape improvements in the Stirling area and visual amenity improvements along its corridor, offsetting the impacts of the main 400kV line. It is therefore my view that this option is worth pursuing

### **Use of Low height Towers**

After consideration of relevant information, including from within the Atkins report submitted as part of Stirling Council's consultation response, and considering the opinion of my consultants Ironside Farrar, it is my conclusion that low height towers would provide some mitigation by reducing impacts on very some specific viewpoints, particularly in views across the Carse towards the Wallace Monument and Stirling Castle. These are areas where full height towers would significantly project above the skyline, although I do not consider that they are established viewpoints in the wider context. Furthermore, any advantage gained from these viewpoints which are set back some distance must be balanced against increased negative impacts from closer viewpoints, as the structure of low height towers appears considerably heavier and denser. In addition, the towers would need to be closer together, and there would therefore be more of them, as well as additional heavy angle towers on bends, and the lower towers also bring the transmission cables closer to the ground. I am therefore of the view that low profile towers are likely to create as many impacts as they mitigate and are not worth pursuing.

### **Stirling Council's Consultation Response**

I note that Stirling Council argue strongly that SPT's approach and proposals fail the requirements of Condition 19, and the Council consider that the most effective means of mitigation is undergrounding. I have also noted with interest the submission from the University of Stirling, Friends of the Ochils and Stirling Before Pylons sent as annexes to Stirling Council's response.

The Council point out that SPT's SVIMS proposals remain largely unchanged from their original consultation proposals of September/October 2010. This is true, you have clearly not been convinced by arguments and information presented to you to extend your proposals significantly, beyond some additional landscaping, tower painting and improvements to amenities like car parking and paths at the top of the Ochils scarp.

The Council argue that the technical sessions by Stirling Council, SPT and SG throughout April to June 2011 supported an alternative, more effective approach to mitigation. I am grateful to both parties for making these technical sessions cooperative and constructive. I appreciate that the methodology SPT have taken from the sessions was agreed by all parties, i.e. to agree a list of options and a list of factors against which these would be assessed, within a matrix. I also note that Mr Mather offered the services of a neutral resource to facilitate these discussions which was not taken up. Stirling Council have suggested that when various potential mitigation measures contained within these 23 options are combined, including undergrounding and the use of lower height towers, they create affordable and more effective mitigation options than the measures proposed by SPT in your submission. The Council have presented some combinations in Annex E of their submission,

in the form of a Matrix. The Scottish Government have considered all options and combined options, including those combined options suggested by Stirling Council.

Regarding the Council's arguments about the cost of mitigation, in which they compare the costs for mitigation proposed by SPT to mitigation costs SHETL are expecting for their section of the line, the figures presented for SSE include money for all mitigation, including rationalisation schemes. Given that condition 18 in the SPT consent (also a rationalisation scheme) will cost £20M, and that other conditions also require SPT to undertake mitigation of various sorts, it seems to me that SPT's mitigation will in fact represent a higher proportion of their total construction costs. Indeed, the £20M alone for condition 18 represents over 50% of SPT's estimated construction costs, before costs for condition 19 and others have even been considered.

The Council are of the opinion that SPT's proposals fail to ensure that the views of the local communities have been fully taken into account. While it is clear that the consultation has not led SPT to move significantly from their original proposals, SPT undertook a considerable program of consultation with communities and with Stirling Council as their representatives, and I consider that there is no reason to conclude that consultation or engagement has been in any way inadequate.

The Council also state their belief that SPT's approach has been entirely cost-driven, and while cost versus benefit is at the heart of SPT's reasoning, I can see that SPT have given regard to numerous other factors, including environmental factors, program delays, technical issues and regulatory issues. Regardless, the Scottish Government is looking to consider cost in the context of the environmental benefits an outlay would realise.

The Council's view on SPT's justification is that you have not delivered a robust justification of your included and discounted proposals, or developed for consideration detailed options for undergrounding, or partial undergrounding, tower resizing or re-routing. However, there is an enormous amount of information presented, and I am of the opinion that SPT could not possibly have been expected to do a detailed engineering design of all the options. I am satisfied we have all the information we require to make a decision.

Regarding the particular mention made of the increase in wirescape where the consented line meets and runs parallel to the existing Longannet to Denny twin overhead power line to the south east of Plean, this area is one of the areas highlighted by both the reporter to the public inquiry and Ironside Farrar as facing the greatest impacts on amenity. I have taken this into account when considering my decision.

I also take on board the Council's views on impacts on the Ochills Area of Great Landscape Value (AGLV). SPT are criticised for not considering mitigation from the top of the scarp to the Wharry Burn, but I accept that you have dealt with the area covered by the condition which does not cover this area. Neither the reporter to the public inquiry or our consultants felt there are impacts of a significance which affect the integrity of the AGLV.

Stirling Council did engage with SPT following Mr Mather's request back in March 2011, and the parties agreed options, and themselves have put very considerable resources into consideration of condition 19 and your proposals.

### **SNH's Consultation Response**

SNH have restated the evidence they provided to the Beaully Denny public inquiry that the proposed route was the best that could be achieved in terms of an overhead line given other constraints, noting that at the Inquiry they proposed that an alternative undergrounded line West of Stirling be considered. This alternative route was considered at the inquiry.

SNH consider that an alternative "Durieshill" route for the overhead line would be likely to incur similar landscape and visual impacts to the consented route, but that undergrounding the proposed 400kV line on the Durieshill route may offer technical and environmental advantages to the consented route. This option was discounted at the public inquiry and was not an option considered by Stirling Council and SPT in their Technical discussions.

SNH consider that the use of lower height towers would achieve a relatively small decrease in height and given the heavier tower structure that would be necessary would not achieve significant mitigation. They agreed with SPT that this measure should not be furthered.

Regarding undergrounding of the 400kV line, SNH consider that undergrounding offers the only opportunity for significant landscape and visual mitigation, although they note concerns around the visual impact of sealing end compounds. I note that they reconfirm their opinion that if the line were to be undergrounded then undergrounding would need to extend north of the Ochils scarp and south of the more sensitive parts north of the Carse of Forth to minimise the landscape and visual effects of undergrounding.

SNH also highlighted that although new planting would screen views of the proposed 400kV line in places, it might also screen some viewpoints towards the dramatic scarp of the Ochils. I take from this that it would be worth carefully considering this context in the location and choice of species for any further landscape enhancement planting proposed to avoid negative effects.

### **Ironside Farrar's Suggested Option for Securing Enhanced Mitigation**

#### **Developing the Green Network – Wider Landscape Enhancement Option**

Ironside Farrar's proposal for a holistic landscape enhancement scheme is a further option, beyond those presented by SPT and Stirling Council or other parties. The Ironside Farrar report helpfully proposes the development of a holistic landscape enhancement scheme which would deliver wider environmental and societal (amenity) benefits. This could be achieved at a fraction of the cost identified as necessary to underground cables.

The report highlights that, through partnership working, such an enhanced scheme would not only represent compensatory mitigation for the visual impacts of the line, but would also contribute to the aims and objectives of Stirling Council's Green Belt enhancement policies and those of the Central Scotland Green Network.

Green Networks is a National planning Framework (NPF2) initiative - Action 22 Central Scotland Green Network. I agree that such an enhanced scheme would also assist the Scottish Government make progress against a number of National Performance Indicators, namely:

- Increase people's use of Scotland's outdoors (though the provision of foot and cycle paths)
- Biodiversity: increase the abundance of terrestrial breeding birds (through the creation of woodland habitat)
- Reduce Scotland's carbon footprint (through creating new woodland)

It therefore seems a very realistic option for SPT, working alongside SG policy, Stirling Council, Scottish Natural Heritage and other relevant parties, to develop a broad suit of proposals for widespread improvements to amenity in the area. These would be subject to landowner consents but could still be ambitious, without being conceptually hamstrung by the landowner consents issue.

My opinion is that this represents an affordable option with the potential to provide substantial long lasting biodiversity and civic amenity benefits.

### **Decision**

This is an extremely important issue, and I am acutely conscious of the feelings of the communities in the area of the consented overhead line. In coming to a decision I have taken into account all the relevant material considerations, and have had particular regard to the views of Stirling Council - representing the communities involved. I have also carefully considered the proposals of SPT and the submissions accompanying them, together with the advice from my consultants Ironside Farrar, Scottish Natural Heritage and Scottish

Government officials, as well as the various other reports which have been submitted. I have toured the length of the consented line covered by condition 19 with my consultants and officials.

I have decided to approve SPT's proposals. I agree with Ironside Farrar that the proposed combination of measures will provide significant mitigation in some locations as well as some short and longer term improvement to the landscape and visual environment in the Stirling area. I wish to see a way forward which maximises the potential benefits to the people of Stirling from the costs which are incurred by the public. I cannot accept that introducing the high costs and impacts of programme delays which would result from undergrounding the main 400kV line as a mitigation measure are justified by the limited environmental benefits this would bring, and concur with the reporter to the public inquiry and Ironside Farrar on this point.

### **Additional Compensatory Measures**

Although I am approving the proposals, in so doing I am requesting that additional compensatory measures be undertaken to improve amenity in the area. I feel strongly that there is an opportunity here to realise wider societal benefits in the broader corridor of the section of line covered by Condition 19, and am of the opinion that these benefits can compensate for remaining landscape impacts of the line.

I would therefore firstly request that SPT pursue the undergrounding of the existing 132kV overhead line between Fallin and Glenbervie, and that it ensures that it has all the necessary permissions in place to undertake that work before the new 400kV line is commissioned.

Secondly, SPT should now begin the process of developing a broad suit of proposals for widespread improvements to landscape amenity in the area, working alongside Stirling Council, the Central Scotland Green Network, Scottish Natural Heritage, Forestry Commission Scotland and other relevant parties. Given the sensitivities identified south east of Plean and in the Ochils Area of Great Landscape Value, particular attention should be paid to these areas.

I see no reason why we cannot grasp this opportunity and make these plans ambitious. I would like to see SPT working with other delivery bodies to develop measures which support the delivery of the vision of the Central Scotland Green Network in Stirling. The measures should become an integral part of a mitigation scheme which will enable the line to proceed in the area in a manner compatible with the needs of the local community. That will ensure that many of the measures are undertaken during the Beauty Denny construction programme, providing meaningful improvements in the short term. I believe this represents an affordable option which, if embraced by those with a stake in its success, has the potential to leave a legacy of substantial biodiversity and civic amenity benefits along the wider corridor of the development.

*Yours sincerely*

*Fergus Ewing*

**FERGUS EWING**