Mid Wales (Powys) Conjoined Wind Farms Public Inquiry

Application by SP Manweb plc, dated 2 December 2009 for consent under Section 37 of the Electricity Act 1989 to install and keep installed a 132kV overhead electric line connection from the proposed Llandinam Wind Farm to Welshpool Substation ("the Application")

Closing Statement on behalf of SP Manweb plc

Introduction

1. SP Manweb ("SPM") is a Distribution Network Operator ("DNO") and has some 1.5 million electricity customers served by its electrical distribution network within its geographic licence area which covers Cheshire, Merseyside, Shropshire, North and Mid Wales.[1]

The proposals

2. The inquiry is very familiar with the background to the proposed development ("the Llandinam Scheme"). CeltPower Ltd ("CeltPower") is repowering an existing wind farm at Llandinam ("LRWF") and requires a connection to export the electricity generated from the LRWF to the local distribution network. The Llandinam Scheme provides that connection. It will comprise approximately 35 km of new 132 kV overhead line within a 100m corridor[2] providing 3-phase

[1] Further information on SPM is provided in the proof of evidence of Eric Leavy (SPM/CPMPANY/POE/LEAVY/002A, §3.1-3.7). On request from the Inspectors a further note to the inquiry was provided which explains the regulatory regime under which SPM operates (SPM/018).

[2] The Llandinam Scheme includes a 50m tolerance either side of a notional centreline and the EIA process has assessed the environmental effects of the line anywhere within this 100m corridor. The proposed line will run within that corridor, with micro siting to be undertaken prior to construction. It is standard practice in applications for overhead lines to use a corridor to represent a tolerance for development (sometimes known as a limit of deviation). This enables some flexibility with which to implement a consented scheme as matters of precise detail are finalised post-consent.

single circuit with 124 MVA rated capacity. The conductors will be supported by 382 wood pole structures, ranging in height between 12m and 16m above surrounding ground level. This design is known as the Single Circuit Heavy Duty Flat Formation Overhead Line Design on Wood Poles or OHL-03-132 for short ("HDWP"). It is a design which has been developed and is being used by SPM to provide connections at high altitude and exposed locations. The span between poles is dependent on a number of factors, but on average it is about 90m.

3. The Llandinam Scheme would start at the CeltPower's substation at Bryn Dadlau which is situated to the south-west of Newtown on the Waun Ddubarthog Ridge, an elevated plateau lying around 400m AOD. Running eastwards from there, it would cross the main Llandrindod Wells to Newtown road, skirt the prominent ridge of Glog and traverse the southern slopes of the Mule Valley below Kerry Hill. South of the village of Kerry, near Block Wood, it would swing northwards, passing east of the village itself, and then cut across the Mule Valley again, following a course through the undulating and well wooded countryside east of the Severn Valley. It would then pass west of the village of Llandyssil before dropping down to the lower slopes above the Severn Valley near Caerhowel and converging on the Shrewsbury to Machynlleth rail line some 1.5 km to the north west of Montgomery. It would continue to run northwards close to the rail line except to avoid settlement pockets such as Cilcewydd, before connecting into the existing substation on the B4381, approximately 1 km east of Welshpool.[3]

4. A history of the Application including the development of the Environmental Statement is set out both in the Updated Environmental Statement published in October 2013 ("the Updated ES")[4] and in Kirsten Berry's ("KB") evidence.[5] It is not repeated here. It is important to note though in the light of the Alliance's closing statement that KB includes a detailed history of the long and

[3] See CD/SPM/ES/001, Vol.6, Figure 1.2 as well as a fuller description of the route in the proof of evidence of Sarah Gibson (SPM/LANDSCAPE/POE/GIBSON/006A, §6.21-6.27).
[4] CD/SPM/ES/001, Vol.1, §1.4.3.
[5] SPM/PLANNING/POE/BERRY/011A, §3.5).

comprehensive consultation the Llandinam Scheme has been subject to. Indeed that process started in July 2008 and continues effectively until the present through the full public participation in this inquiry. As KB states, the consultation undertaken on the Llandinam Scheme has gone well beyond the statutory requirements. Accordingly the Alliance's suggestion that the consultation has in some way been inadequate is wholly rejected.[6]

The main parties' cases

5. Although there are seven matters on which the Secretary of State has asked to be informed,[7] the areas of disagreement between SPM, Powys County Council ("PCC") and Natural Resources Wales ("NRW") are narrow. The Alliance support both PCC's and NRW's case. Its concerns also extend beyond those of the other two parties and cover many aspects of the Llandinam Scheme. For understandable reasons, many of the Alliance's concerns were unsupported by professional evidence which must diminish the weight that can be placed upon them. Furthermore, that the Alliance was not supported in many of their wider concerns by either PCC or NRW is, SPM suggests, indicative that those issues are do not merit any significant weight in the decision as to whether or not to grant consent.

6. PCC, the principal objector to the Llandinam Scheme, supports and/ or accepts all of the following: the grant of consent for the LRWF; the consequent need to connect the LRWF to the grid; and the network design (namely, the need to connect into the grid at Welshpool). It follows that PCC supports both the start and end points of the Llandinam Scheme. Indeed, subject to undergrounding a section of the line in the Glog/ Kerry Hill area (within what Sarah Gibson ("SG")

[6] ALL-030, §12.23. Note too the reference to the cover page of the July 2008 Consultation Report at §12.27 of the same document is partial. As Mr Bonfield accepted in XX, the contents (as opposed to the cover) of the document show clearly and accurately the types of support structure proposed.
[7] CD/COM/011.

(SPM's landscape witness) has described as "Section B"), PCC accept that on balance the route is appropriate.[8]

7. The areas of dispute, therefore, between SPM and PCC are very limited. They may be reduced to a single question: is it necessary and/ or appropriate to refuse consent for a section of the proposed line in the Glog/ Kerry Hill area. In effect this would most likely require an underground solution. The answer to that question is a matter of judgment for the decision-maker – informed by clear national policy on the issue.

8. National policy (in the form of the National Policy Statement for energy networks (EN-5)) very deliberately steers away from a presumption in favour of undergrounding nationally significant infrastructure projects ("NSIPs") for electricity infrastructure, having regard to the cost of doing so, the potential, irreversible environmental effects of doing so and the urgent need for the delivery of renewably generated electricity. Whilst the Llandinam Scheme meets the criteria for NSIPs such that EN-5 should be given substantial weight by the Secretary of State in his decision making process, its scale and form is such that it falls at the very lowest end of the spectrum of the projects to which the Government's undergrounding policy for electricity infrastructure applies: if this scale and form of project, in an undesignated landscape, is required to be undergrounded, it is hard to envisage an electricity infrastructure project that would not be required to be undergrounded.

9. In any event, PCC's conclusion is undermined by a flawed approach to policy. As is explained below, PCC mixes inappropriately two distinct policy tests in assessing whether or not to underground part of the Llandinam Scheme and it is this error that infects its conclusions on undergrounding.

10. NRW's case is focused on the landscape effects of the Llandinam Scheme at the northern end of the line and, in particular, as it passes through the Vale of

[8] OBJ/002/PLANNING/CARPENTER/OHL, §1.3.

Montgomery Registered Historic Landscape ("the VMRHL") as well as potential impacts on dormouse, bats and trees. As will be demonstrated below, the landscape concerns at the northern end of the proposed route are overstated. Mr Russell-Vick ("PRV") – PCC's landscape witness – not only did not share Mr Campion's ("JC") views on behalf of NRW but stated that SG had herself overestimated the sensitivity of the landscape at the northern end of the route (the area where NRW's concerns have been focused). The topography and vegetation at that end of the line mean that the Llandinam Scheme would be well assimilated into the landscape there and, moreover, it would not comprise an alien feature – there already exist in the landscape similar structures.

11. NRW's ecological concerns, which principally relate to whether or not there is a sufficiency of information in relation to dormouse and bats, have been raised very late in the day (as was commented on by the Inspectors during Session 3). This is particularly unfortunate given that NRW was consulted upon the methodology for the Updated ES (as well as previous iterations of the ES in 2009 and 2010) and forewent the opportunity of addressing these concerns at that stage.

12. Before turning to the Secretary of State's matters, it is worth setting out briefly the legal and policy framework under which this Application must be determined.

Legal and policy framework

13. Section 37 of the Electricity Act 1989 ("the 1989 Act")[9] sets out the requirement that an electric line shall not be installed or kept installed above ground except in accordance with a consent granted by the Secretary of State.

[9] CD/COM/023.

14. Dr Andy Beddoes ("AB") and Mr Eric Leavy ("EL") set out the principal legal duties the 1989 Act impose on DNOs.[10] Two key duties are found in sections 9 and 16.

15. Section 16 provides that a DNO is under a duty to make a connection between a distribution system of his and any premises when required to do so by the owner or occupier of the premises or an authorised supplier acting with the consent of the owner or occupier of the premises.

16. Section 9 outlines that it shall be the duty of a DNO to develop and maintain an efficient, co-ordinated and economical system of electricity distribution; and to facilitate competition in the supply and generation of electricity.

17. Section 9 of the 1989 Act is an important backdrop to the context within which the Secretary of State must consider the Application for the Llandinam Scheme. The duty to develop and maintain an economical system of electricity distribution is an important safeguard for consumers, who ultimately meet the costs of developing distribution network infrastructure.

18. It is against these duties that SPM has to balance its environmental duties under schedule 9 of the 1989 Act. Schedule 9 sets out a specific duty towards the preservation of the environment in both England and Wales. It provides in so far as is relevant:

> "*(1) In formulating any relevant proposals, a licence holder…*
>
> *(a) shall have regard to the desirability of preserving natural beauty, of conserving flora, fauna and geological or physiographical features of special interest and of protecting sites, buildings and objects of architectural, historic or archeological interest; and*

[10] Respectively at SPM/NETWORK/POE/BEDDOES/001A, section 3 and SPM/COMPANY/POE/LEAVY/002A, section 4).

(b) shall do what he reasonably can to mitigate any effect which the proposals would have on the natural beauty of the countryside or on any such flora, fauna, features, sites, buildings or objects.

(2) In considering any relevant proposals for which his consent is required under section 36 or 37 of this Act, the Secretary of State shall have regard to—

(a) the desirability of the matters mentioned in paragraph (a) of subparagraph (1) above; and

(b) the extent to which the person by whom the proposals were formulated has complied with his duty under paragraph (b) of that sub-paragraph."

Licence requirements

19. The statutory duties under which SPM operates are supplemented by a number of standards and conditions which attach to an Electricity Distribution Licence made under the 1989 Act.[11] These standards and conditions play a fundamental part in SPM's approach to the design and provision of an electrical connection and have formed an integral part of the design of the Llandinam Scheme.

20. AB describes the relevant standards and conditions in his proof of evidence,[12] two of which are of particular relevance here:

    a. Condition 12 provides that on receiving a request for connection, the Licensee will enter into an agreement outlining the works required to provide that connection.

    b. Condition 21 requires compliance with the Distribution Code which is designed so as to permit the development, maintenance and operation

[11] See SPM/NETWORK/POE/BEDDOES/001B, App.2.
[12] SPM/NETWORK/POE/BEDDOES/001A, §3.5-3.15.

of an efficient, co-ordinated and economical system for the distribution of electricity.

Policy

21. Although SPM seeks a direction from the Secretary of State under section 90 of the Town and Country Planning Act 1990 ("the 1990 Act"), section 38(6) of the Planning and Compulsory Purchase Act 2004 ("the 2004 Act") is not engaged.

22. In January 2012 the High Court considered exactly this issue in *R (on the application of Samuel Smith Old Brewery (Tadcaster) v Secretary of State for Energy & Climate Change*.[13] It ruled that section 38(6) of the 2004 Act (which requires determinations to be made in accordance with the development plan unless material considerations indicate otherwise) does not apply in respect of a deemed planning permission associated with a section 37 consent. It was decided that a 'direction' that planning permission be deemed to be granted was not a 'determination' under the 2004 Act. Consequently, there is no duty on the Secretary of State, in determining the Application for section 37 consent for the Llandinam Scheme, to comply with the legislative provision that 'determinations' must be made in accordance with the development plan unless material considerations indicate otherwise.

23. Having said that, it is clear that development plans (in this instance the development plan for Powys) may be a "material consideration" in determining an application under section 37.[14]

24. The development plan here comprises the Powys Unitary Development Plan ("the Powys UDP") adopted on 1 March 2010. KB identifies the relevant

[13] CD/COM/30.
[14] See also SOCG/POLICY/001, §8.3-8.4.

policies within the Powys UDP in the context of the Secretary of State's first matter and assesses the Llandinam Scheme's compliance with them.[15]

25. It is also important to recognise that this is a project to which EN-1,[16] EN-3[17] and EN-5[18] (all designated under the Planning Act 2008 ("the 2008 Act")) are particularly relevant; indeed these are documents that should be afforded substantial weight[19] (PCC confirmed agreement on this in closing) as they form the primary and most up-to-date expression of UK policy with respect to electricity transmission lines of at least 132kV.

26. As KB explains,[20] if the Application for the Llandinam Scheme was made today it would be a NSIP and it would need to be made under the 2008 Act regime. By virtue of section 104 of the 2008 Act, such an application if it were submitted today would fall to be decided in accordance with any relevant NPS except to the extent that, *inter alia*, the adverse impacts of the proposed development would outweigh its benefits. In short, the NPSs are at the heart of the 2008 Act regime which is designed specifically to assess and deal with projects of the nature here proposed. In similar situations, where the project would have been an NSIP but for the timing of the Application, the Secretary of State has applied substantial weight to the NPSs as they represent the most recent expression of Government policy on the national need and urgency for such information.[21]

[15] SPM/PLANNING/POE/BERRY/011A, §7.5.1-7.5.23. The principal relevant policies being E3: wind power and DC12: overhead lines and pipelines. KB analyses further Powys UDP policies under topic headings see SPM/PLANNING/POE/BERRY/011A, section 6.
[16] CD/COM/001.
[17] CD/COM/002.
[18] CD/COM/003.
[19] On which there is no dispute between SPM and PCC. See the proof of evidence of Martin Carpenter (OBJ/002/PLANNING/POE/CARPENTER/OHL), §3.2 where he states that EN-1 and EN-5 comprise "important guidance" on the approach to be taken in considering the Llandinam Scheme. This accords with the position of the applicants generally (see SOCG/POLICY/001 Wales Statement of Common Ground May 2013, §2.10).
[20] SPM/PLANNING/POE/BERRY/011A, §9.2.
[21] See the Secretary of State's decision on the Lostock Sustainable Energy Plant (CD/SPM/LEG/13).

27. The Inspector at Legacy took a similar approach stating that EN-1 and EN-5 provided important guidance even though the application was not made under the 2008 Act.[22]

28. Given all of the above, where there is any conflict between the development plan and the NPSs, it is the NPSs that ought to prevail: this is understood not to be controversial.[23]

[22] CD/SPM/LEG/11, IR, §20.

[23] PCC expressly states that the NPSs should prevail over planning policy where there is conflict – this is done within its Officer's Report on the Carnedd Wen Scheme: see SOCG/POLICY/001, §2.17.

Matter 1: the extent to which SP Manweb's proposal including any alternatives considered are consistent with Welsh Government and local policies: including Planning Policy Wales, Edition 4 (2011); Technical Advice Note 8: Planning for Renewable Energy (2005); and Energy Wales: A Low Carbon Transition (2012); and Powys Unitary Development Plan (adopted March 2010)

29. KB comprehensively summarises and assesses the Llandinam Scheme against Welsh energy and planning policy[24] and against the Secretary of State's first matter in her proof of evidence.[25] This includes a thematic evaluation of the Llandinam Scheme against the relevant landscape and visual, ecology, cultural heritage, transport, socio-economic and other policies. Policy matters are also comprehensively dealt with in the applicants' Statement of Common Ground ("SOCG").[26]

30. As identified above, the issues in dispute between the parties are narrow and (in the main) focus not on the interpretation of policy but on judgments as to the impacts of the Llandinam Scheme on, in particular, the landscape, cultural heritage and ecology of the areas through which the proposed development passes. In the circumstances, there would be little benefit in rehearsing KB's work on policy in these submissions and these submissions commend sections 5 and 6 of KB's proof of evidence to the Inspectors and Secretary of State on this issue.

31. For present purposes it is sufficient to record that KB identifies a number of high level themes that permeate Welsh Government and local policies, namely: a requirement to achieve a significant reduction in greenhouse gas emissions and promote a low carbon economy; a focus on new renewable

[24] SPM/PLANNING/POE/BERRY/011A, section 5.
[25] SPM/PLANNING/POE/BERRY/011A, section 6.
[26] SOCG/POLICY/001.

energy infrastructure (both generation and grid infrastructure); and the promotion of environmental balance and undergrounding.

32. The Welsh Government is committed to achieving a substantial reduction in greenhouse gas emissions and a significant rise in renewable energy generation by 2020.[27] Indeed it is committed to achieving at least a 40 per cent. reduction in all greenhouse gas emissions in Wales by 2020 (against a 1990 baseline).[28] Wales is also expected to make a contribution to the UK's 15 per cent. renewables target to 2015. Onshore wind power offers the greatest potential for meeting this steep increase in the generation of renewable energy. It is this potential that lies behind the allocations of the SSAs in TAN 8.

33. Plainly, once such renewable energy has been generated, it needs to be connected to the distribution network and Welsh policy recognises that additional distribution infrastructure will be required to convey the energy generated to the homes and businesses where it is to be used. Indeed, the lack of grid capacity in Mid Wales is specifically acknowledged.[29]

34. The Llandinam Scheme will deliver an essential element of new energy infrastructure, supporting that renewable generation infrastructure delivered by the LRWF. In so doing, the Llandinam Scheme will contribute to the UK achieving a low carbon economy and the targets set for significant reduction in greenhouse gas emissions.

35. There is, of course, a balance to be made between environmental protection and delivery of necessary infrastructure, which is recognised in Welsh Government and local policies. It is on this balance that the greater part of these submissions are focused and which is addressed, in particular, under the

[27] Indeed as KB states, the Welsh Government is one of the few in the world that has a statutory obligation in relation to sustainable development (section 79 of the Government of Wales Act 2006 (CD/COM/024)).
[28] CD/CON/003/PLA/010, §4.5.2.
[29] CD/COM/16, Annex C, §2.13 and see CD/SPM/POL/03.

landscape, cultural heritage, ecology and undergrounding headings of this closing.

36. KB concludes that the Llandinam Scheme complies with and furthers the policy objectives of PPW 5,[30] TAN 8[31] and Energy Wales: A Low Carbon Transition.[32]

37. KB further concludes that the Llandinam Scheme is consistent with Welsh national policy, specific topic policies of EN-1 and EN-5, and the Powys UDP. This conclusion is made in the light of the trite proposition[33] that policy must be read and understood as a whole and none of the adverse effects of the Llandinam Scheme are so great as to justify refusal.

[30] CD/CON/003/PLA/010. Whilst the Secretary of State's matter 1 refers to PPW4, that document has now been superseded and KB, therefore, addresses PPW5 which comprises the up to date policy.
[31] CD/COM/16.
[32] CD/COM/033.
[33] *R v Rochdale MBC, ex parte Milne (No 2)* [2001] Env. LR 22 at [50] makes it clear that compliance with the development plan is to be interpreted as a compliance with the plan as a whole. This compliance is to be judged on the basis of the policies contained in the plan: "*it is enough that the proposal accords with the development plan considered as a whole. It does not have to accord with each and every policy therein*".

Matter 2: the extent to which the proposed development is consistent with the objectives of the Government's policy on the energy mix and maintaining a secure and reliable supply of electricity as the UK makes the transition to a low carbon economy, and achieving climate change goals

Introduction

38. In many ways the Secretary of State's second matter is pre-eminently for the other applicants at this inquiry. The applicants' position in this regard (including SPM's) is set out in a SOCG.[34]

Policy

39. KB also sets out the relevant policy in her proof of evidence.[35] It is not necessary to rehearse her evidence in any detail here. However, the UK Renewable Energy Strategy, which sets out the means by which the UK can meet the legally binding target of 15 per cent. of energy consumption from renewable sources by 2020, recognises the importance of electricity network infrastructure and the Government wants *"swifter delivery"* [36] of grid connections so that "*new renewable and other forms of generation can connect when they need and on the terms they need*"[37] because it recognises that "*constraints on access to the electricity grid represent a major challenge for both existing and future renewable generation projects*" [38] and that "*transmission access is one of the main barriers to renewable deployment*."[39]

40. It is for these reasons that EN-1 states that "*there is an urgent need for new electricity transmission and distribution infrastructure (and in particular for*

[34] SOCG/POLICY/002.
[35] SPM/PLANNING/POE/BERRY/011A, §8.1.
[36] CD/COM/004, §3.1 and 3.5.
[37] CD/COM/004, §3.6.
[38] CD/COM/004, §4.97.
[39] CD/COM/004, §4.99.

new lines of 132 kV and above) to be provided. The [IPC] should consider that the need for any given proposed new connection or reinforcement has been demonstrated if it represents an efficient and economical means of connecting a new generating station to the transmission or distribution network"[40] and EN-5 begins with the following statement: "*The new electricity generating infrastructure that the UK needs to move to a low carbon economy while maintaining security of supply will be heavily dependent on the availability of a fit for purpose and robust electricity network."*[41]

41. It follows that the contribution of electricity infrastructure to the issues encompassed in the Secretary of State's second matter is expressly recognised.

Assessment

42. The Application for the Llandinam Scheme is not one for an energy generator and therefore does not directly achieve the generation of renewable/ low carbon energy. However, by connecting a renewable generation asset it makes a positive contribution to the supply of renewable energy and consequently the reduction in greenhouse gas emissions which in turn helps achieve climate change objectives as well as security of supply (through diversification and domestic generation); all of which is required by policy. Without this vital piece of energy infrastructure, the renewable electricity generated would not be delivered to the UK consumer.

Conclusion

43. Whilst the Llandinam Scheme would have no direct impact on generation of the energy mix aspired to in Government energy policy, the connection of renewable generation is crucial to the Government achieving its desired energy mix and security of supply. Accordingly, the Llandinam Scheme is

[40] CD/COM/01, §3.7.10.
[41] CD/COM/003, §1.1.1.

compliant with objectives of the Government's policy on the energy mix to be delivered and regarding achieving and maintaining a secure and reliable supply of electricity.

Matter 3: the extent to which the proposed development is consistent with the policies relating to electricity networks infrastructure and also the generation of renewable energy contained within the relevant National Policy Statements for energy infrastructure, Overarching National Policy Statement for Energy (EN-1) July 2011, National Policy Statement for Electricity Networks Infrastructure (EN-5) July 2011 and National Policy Statement for Renewable Energy Infrastructure (EN-3) July 2011

Introduction

44. EN-1, EN-3 and EN-5 are reviewed in detail by KB in her proof of evidence.[42] Once again, it is not necessary to traverse that ground in closing. Furthermore, it is inevitable that much of the most relevant policy within the NPSs is discussed elsewhere in these submissions. This section, therefore, does not foreshadow submissions made in other parts of these closings.

45. The NPSs are particularly important to the determination of this Application: they provide a clear, comprehensive and up to date policy framework for projects of this nature; they are the principal relevant policy suite (in the event of conflict with the development plan, the NPSs are to prevail); they recognise that significant effects will arise from projects such as the Llandinam Scheme; but nonetheless they set out a presumption in favour as the starting point; and the need case is to be taken as read.

Policy & Assessment

EN-1

46. EN-1 sets out the government's overarching policy relevant to national energy infrastructure. Part 4 (assessment principles) includes a presumption in favour

[42] SPM/PLANNING/POE/BERRY/011A, sections 5 and 9.

of granting consent to applications for energy NSIPs given the urgency of the need for this type of infrastructure.[43]

47. EN-1 states that the need for a new connection should be considered to have been demonstrated "*if it represents an efficient and economical means of connecting a new generating station to the transmission or distribution network…and has sufficient capacity…to supply current or anticipated future levels of demand.*"[44]

48. SPM's company witnesses have together explained in detail why the Llandinam Scheme is both economical and efficient. As such, the need for the connection should be considered to have been demonstrated as a matter of policy. In practice, of course, PCC also accepts the need for the Llandinam Scheme exists.

49. Sections 4.2 and 4.3 of EN-1 require submission of an ES and Appropriate Assessment – as relevant in the case of a particular development: that has been done here; an Updated ES has been prepared that addresses each of the matters raised in EN-1, with expert witnesses appearing at this inquiry regarding the various topics, as required. An Appropriate Assessment is not required of the Llandinam Scheme and a report explaining this conclusion has been provided in the Updated ES.[45]

50. It is also important to note that the Llandinam Scheme and the LRWF, although two separate proposals, have been prepared in an integrated way and dealt with together at this inquiry. This accords with the aspiration expressed in EN-1 that wherever possible applications for new generating stations and their related infrastructure should either be contained in a single application or in separate applications submitted in tandem and which have been prepared in an integrated way.[46]

[43] CD/COM/001, §4.1.2
[44] CD/COM/001, §3.7.10.
[45] CD/SPM/ES/01, Vol.3b, App.7a.
[46] CD/COM/001, §4.9. This addresses the Alliance concern at ALL-030, §12.51.

51. EN-1 recognises the potential for some negative effects to arise as a result of the construction and operation of energy infrastructure, but states that in general it should be possible to mitigate those effects that are most significant. The Updated ES demonstrates that the most significant effects arising as a result of the Llandinam Scheme have been avoided and mitigation is proposed where possible for those that remain. KB concludes that the Llandinam Scheme would result in an acceptable level of impact and the relevant provisions of EN-1 have been complied with.

EN-3

52. EN-3 is focused on generation projects and so is less directly relevant to the Llandinam Scheme, albeit the NPS recognises the critical nature of grid infrastructure to the technical and commercial feasibility of generation projects and the delivery of the energy produced to customers and thus for the UK to meet its legal and policy obligations on renewable energy.[47] Therefore, in so far as applicable, the Llandinam Scheme clearly accords with EN-3.

EN-5

53. EN-5 is addresses directly electricity networks infrastructure. It is, therefore, directly relevant to the Llandinam Scheme. Together with EN-1, it "*provides the primary basis for decisions taken by the [Infrastructure Planning Commission] on applications it receives for electricity networks infrastructure.*"[48]

54. Paragraph 2.1.2 refers to the overarching policy set out in EN-1 and confirms that the decision-maker "*should act on the basis that the need for the infrastructure covered in this NPS has been demonstrated.*"

55. EN-5 makes it clear that choices with regard to site and route of electricity networks projects are a matter for the applicant, often driven by the location

[47] CD/COM/002, §2.7.9.
[48] CD/COM/003, §1.2.1.

of the generation asset that is being connected and the existing grid infrastructure in the area, with the specific criteria considered and the weight assigned to those criteria varying from project to project.[49] Route selection is addressed in the context of alternatives in these submissions. Suffice it to say here that the Llandinam Scheme has been developed so as to avoid significant environmental effects as far as possible whilst delivering an economic and efficient connection from a start and end point which is accepted by PCC.

56. Part 2.5 of EN-5 deals with climate change adaptation. The Llandinam Scheme has fully taken this into account by (a) having regard to flood risk in designing the route of the scheme and (b) by the selection of a robust support system particularly designed to be able to cope with exposed terrain.

Conclusion

57. The Llandinam Scheme is wholly compliant with the relevant suite of NPSs. In particular, it benefits from the presumption in favour of granting consent to applications for new energy infrastructure, given the level of urgent and compelling need for such infrastructure, contained in EN-1. It provides what EN-3 recognises is critical infrastructure to the delivery of renewable energy, which itself is key to the Government's legal and policy obligations and objectives in relation to energy and climate change. Finally, it complies with the specific NPS policies contained in EN-5 for electricity infrastructure, as demonstrated in the Updated ES and SPM's evidence before this inquiry and explained further in the alternatives section of this closing. This clear policy support for the Llandinam Scheme found in the NPSs should weigh very heavily in favour of granting consent.

[49] CD/COM/003, §2.1.1 and 2.2.2.

Matter 4: the relative merits of the proposed development and any alternatives considered, including consideration of undergrounding, in addressing the requirement to maintain a security of supply

Introduction

58. As PRV agreed in XX, there is neither a requirement in statute or policy to establish that a proposal is the "best" option, nor a general requirement for applicants to consider alternatives.[50] In this case SPM does not argue that alternatives are not material. Alternatives may be material where a proposed development causes significant adverse effects and need is put forward as a reason justifying the development. That situation pertains here. For this reason, SPM has provided a detailed analysis of the alternatives to the Llandinam Scheme that have been considered by SPM in Volume 5 of the Updated ES ("the Alternatives Paper").[51] Even where alternatives are a material consideration, the key question remains, as always, is the proposed development acceptable?

59. EN-1 provides a series of principles by which the weight to be given to any material alternatives should be determined.[52] PRV was taken to these principles in XX and agreed by reference to them:

    a. That any consideration of alternatives should be carried out in a proportionate manner;

    b. Whether or not an alternative can realistically deliver the same infrastructure capacity in the same timescale as the proposed

[50] See CD/COM/001, §4.4.1.
[51] CD/SPM/ES/01, Vol.5 – The Review of Needs Case and Alternatives.
[52] See CD/COM/001, §4.4.3.

development is an important consideration (a factor on which many of the alternatives considered fall down);

c. Where (as in the case of renewables) legislation imposes a specific quantitative target for particular technologies, which PRV agreed applied here, EN-1 states that consent should not be withheld for an application for development on one site simply because fewer adverse impacts would result from developing similar infrastructure on another suitable site;

d. That alternatives not amongst the main alternatives studied by the applicant should only be considered to the extent that the decision-maker thinks they are both important and relevant;

e. That alternative proposals that are not commercially viable or otherwise deliverable can be excluded on the grounds that they are not important and relevant;

f. That alternative proposals which are vague or inchoate can be excluded on the grounds that they are not important and relevant; and

g. Where an alternative is first put forward by a third party after the application has been made, the decision-maker may place the onus on the person proposing the alternative to provide the evidence for its suitability.

Need and network design

60. Section 2 of the Alternatives Paper sets out the need for the connection and the network design proposed under the Llandinam Scheme. AB described the

SPM network[53] and provides schematic diagrams of the SPM network.[54] He explained that SPM's distribution network is an interconnected network. SPM is the only UK DNO to run a fully interconnected distribution network, the key benefit of which is its resilience. AB also explained the need for the Llandinam Scheme and the strategic options to meet that need in detail.[55] His findings in this regard are summarised below.

61. It is important to recall that there is no debate about need for the Llandinam Scheme between PCC and SPM: PCC supports CeltPower's proposals for the LRWF and so accepts the need for the Llandinam Scheme (on the premise that CeltPower's application is granted consent) and, further, PCC accepts in principle the connection at 132kV into Welshpool existing substation.[56]

The statutory need for the connection

62. The first aspect of the case on need could not be more straightforward. As has been identified, section 16 of the 1989 Act provides that an electricity distributor is under a duty to make a connection between a distribution system of his and any premises when required to do so by the owner or occupier of the premises or an authorised supplier acting with the consent of the owner or occupier of the premises.

63. CeltPower has made such a request: specifically for a new standalone connection for the LRWF for up to 90MVA of capacity.[57] As a result, SPM is under a statutory duty to provide a connection offer. It has done so and there

[53] SPM/NETWORK/POE/BEDDOES/001A, Section 4.
[54] SPM/NETWORK/POE/BEDDOES/001B, App.6.
[55] SPM/NETWORK/POE/BEDDOES/001A.
[56] OBJ/002/PLANNING/POE/CARPENTER/OHL, §1.2.
[57] The details of the connection offer and its history is set out in a number of places including in Vol.1 of the Updated ES, §1.3 (CD/SPM/ES/01). It is worth mentioning here the Alliance's allegation that SPM somehow favoured CeltPower by agreeing their connection ahead of those customers to be connected through the Mid Wales Connection Project (see ALL/NEED/POE/01, §3.2 and 3.3). That allegation is wholly false. In XX Mr Bonfield fairly backed off the allegation. He agreed that, having been taken through the relevant connection offer history and to licence condition 12 (for which see SPM/NETWORK/POE/BEDDOES/001B, App.2) which requires a DNO to respond to a connection request within 90 days, that SPM had dealt with connection requests it received chronologically and accepted that he had no proper evidence of favouring CeltPower.

is a connection agreement in place which has a target date of 2017. SPM must use reasonable endeavours to provide a connection by this date.

Network Design

64. As AB explained in evidence, in agreeing connection terms with Celtpower, SPM carried out an assessment of the existing network and the connection options having regard to its duty to design an efficient, economical and co-ordinated network which minimises the effects on the environment in accordance with its statutory duties. AB looked at a number of strategic options before concluding that the Llandinam Scheme as proposed was the optimal network design.[58] The principal alternatives are set out below: a connection at 33kV and alternative 132kV connections.

Connection at 33kV

65. AB explained that the connection of 90MVA of generation capacity is typically achieved at 132kV rather than 33kV. Nonetheless consideration was given to providing a connection at 33kV. However, given the constraints on the 33kV network, there is simply not the capacity to accommodate the required level of generation. Indeed, to accommodate the additional generation on the 33kV network a further five new 33kV circuits would be needed around Llandinam to connect into the nearest 132kV network at Newtown which is a distance of 12km from the wind farm (i.e. 60km of new 33kV network running in parallel through the Severn Valley). The substations at Llandinam and Newtown would also need to be increased in size to accommodate the new circuits. On top of this, the existing 132kV circuit from Newtown to Oswestry would also need to be rebuilt over its 46km length to accommodate the increase in generation. The total estimated cost of such a solution would be £52.6M. It is plainly not an appropriate solution. It is inefficient and expensive.

[58] SPM/NETWORK/POE/BEDDOES/001A, section 5. Network design is also explained in Vol.5 of the Updated ES, §2.3 (CD/SPM/ES/01).

Connection at 132kV – the Newton to Oswestry circuit

66. AB explained that there were a number of options as to where a 132kV connection may be made. The nearest 132kV connection points are at Newtown and Carno. The Newtown connection would require a connection from the LRWF to the Newtown substation (12km), a rebuild of the Newtown to Oswestry BU line due to lack of capacity (which, given the strategic importance of the line, would require a separate off-line build) (46km) and an extension to the Newtown Substation. There is a further danger that connecting into this circuit even with the rebuild would require a generation constraint system which – where there are multiple generators – is complex, inefficient and undesirable. For these reasons, AB concluded that this would not comprise an efficient and economic solution (it would cost almost £10m more than the Llandinam Scheme).

67. As to the Carno MB line: this would involve; a new line from the LRWF to the Carno MB line, rebuilding the Carno T connection with the Newton to Oswestry BU line and the same rebuild of that line set out above (because whilst there is some capacity on the Carno MB line, it connects into and is, therefore, limited by the Newtown to Oswestry BU line). SPM, therefore, discounted this option as not being economical or efficient.

68. The Alternatives Paper concludes that both of these options would also have greater environmental impacts due in part to the extended distance of the proposed connection (over 58km from the LRWF via Newtown to Oswestry in the case of the Newtown Grid alternative and 83km in the Carno variant).

69. As a result, SPM concluded that these options would not be compliant with its statutory duties to maintain an efficient, co-ordinated and economical system of electricity distribution. Furthermore, it would clearly, given the need for a whole line rebuild, not be able to deliver the required infrastructure in the same timescale as the Llandinam Scheme.

The Llandinam Scheme: a 132kV connection into Welshpool

70. The preferred network solution was a new 132kV circuit connecting into the existing 132kV Welshpool – Oswestry EJ circuit. A number of advantages were identified.

71. First, with the existing 33kV connection for Llandinam removed (a condition of the Connection Agreement), there is sufficient capacity without the need, unlike the options set out above, for the reinforcement or rebuilding of the existing SPM network. Secondly, as AB explained, the solution will provide some spare future capacity.

72. The Llandinam Scheme is, therefore, the most efficient solution in terms of making best use of existing distribution network capacity and ensures the electricity generated by the LRWF would be connected more quickly than the alternative network solutions. The Llandinam Scheme is the option that best met SPM's statutory requirements as set out in section 9 of the 1989 Act of being economical, efficient and coordinated in terms of network design.

The Need for the HDWP Design

73. Having disregarded the use of steel towers on the grounds that such pylons would be likely to have greater landscape and visual effects when compared to a wood pole alternative, SPM considered two wood pole designs. These were the HDWP and the Trident designs.

74. The HDWP design carries four wires, which comprise three conductors and an earth wire incorporating a fibre optic communications circuit. The HDWP design employs twin pole support structures and, as EL explained, was designed specifically to serve renewable generating stations in remote high altitude areas.

75. The Trident design carries a single circuit containing three phase conductors with no earth wire. Generally the Trident is a single pole design (but see below).

76. In 2009, the Trident design was not capable of carrying a communications circuit. As EP explained, this was the main reason that HDWP was selected as the preferred design. It was this design that was assessed in the December 2009 ES, and then in the December 2010 ES.

77. However, improvements in conductor technology have recently led to a conductor that can carry an integrated communications circuit so that the Trident design can now incorporate the communications circuit that it could not at the time the decision to use the HDWP design was taken in 2009.

78. As a result of this technological development and consultation responses to the Application that suggested that the Trident design would have less environmental effects due its predominantly single pole structures, lighter construction and longer span, SPM reviewed the need for the HDWP design and reconsidered the use of Trident again in the Updated ES.

79. As EP described in some detail in his proof of evidence[59] (and memorably so in his EIC), there are clear technical and safety reasons for selecting the HDWP design. As part of this reconsideration of the appropriate wood pole design, SPM considered the implications of a prospective earth fault current combined with highly resistive ground (as the ground is at the LRWF substation site). Celtpower has confirmed that the substation needs to be sited in its current location.[60]

80. EP explained when a fault current flows through resistive ground, a voltage occurs on the ground surrounding the point of fault which is known as the Rise

[59] SPM/ENGINEERING/POE/PAALMAN/003A, section 5 and, in particular, §5.7-5.21.
[60] CPL/011.

Of Earth Potential ("ROEP"). The ROEP can be so high that a person (or animal) can be injured due to the voltage developed between their feet or when a person touches a metal object such as a fence or wire or metallic piping.

81. Measurements at the LRWF substation site show the resistivity of the ground is very high and the prospective earth fault current causes an extremely high ROEP which in turn causes a high risk to public safety: a vital consideration.

82. The substation and associated equipment can be designed to reduce this risk within or at the boundary of the substation compound by increasing the protected area to ensure that all dangerous voltages are controlled within the substation compound.

83. However, in this case, the required extent of the substation compound would be wholly impracticable and would encompass third party buildings. It may not be possible to control the touch and step potentials if the compound area overlaps these buildings and this presents a serious public safety hazard.

84. As EL emphasised, SPM has a duty to design and operate installations that minimise the ROEP and eliminate dangerous touch and step potentials. There are no practical solutions available here either to reduce the ground impedance and so to lower the ROEP values to acceptable limits or to establish a large exclusion zone from the perimeter of the substation earth system. Celtpower produced a note for session 3 which strongly supports this conclusion.[61]

85. As such, SPM considers that Trident cannot be used on the grounds of public safety.[62] The proposed earthed HDWP design otherwise mitigates this risk and is the preferred choice of line design.

[61] CPL/011.
[62] And danger to livestock.

86. Further, the environmental benefits of Trident are more apparent than real. As EP made clear, the support structures for the Trident design when placed higher than about 250m above sea level are typically dual wood pole supports.[63] This altitude corresponds approximately to the last 13 kilometres of the Llandinam Scheme (at the wind farm end) and includes Section B of the route – the section of most environmental concern. As such, even if the Trident design was used, the need to employ dual pole structures would largely negate any environmental benefits.

87. Further, PCC does not argue that this section (i.e. Section B) should use Trident supports but rather that it should be undergrounded. As to the rest of the line, there is agreement between SPM and PCC that the effects of the HDWP line are acceptable for all sections of the line, other than Section B.

Remote earthing station

88. A question was put to SPM by the Inspectors during Session 3 as to whether it would be possible use part HDWP and part Trident with a transitional point – a remote earthing station ("RES") – where the resistivity of the ground was such to allow an acceptable ROEP. SPM has produced a detailed note which deals with this question.[64]

89. Whilst a RES solution may be theoretically achievable from an engineering and technical perspective (and SPM does not discern any major difference in cost between such a solution and the Llandinam Scheme subject to the acquisition costs of the land for the RES), SPM considers that there would inevitable delays whilst suitable land was identified (detailed design of a RES could only be concluded when a site location was determined) and secured. In terms of actually acquiring any land for a RES, SP Manweb would need to enter into negotiations with relevant landowners. If no landowners were willing to provide SPM with the relevant rights and interests in land voluntarily, then

[63] SPM/ENGINEERING/POE/PAALMAN/003A, §5.6.
[64] SPM/029.

SPM would need to progress through a compulsory purchase process. This would be likely to take approximately two years. Planning consent would also be required (which, of course, could be refused). In short there is inherent uncertainty in the delivery and timing of this option which led to the conclusion that this solution is not practicable in the context of the Llandinam Scheme and delivering the urgently needed renewable energy generated by the LRWF to the grid in a timely manner. Indeed, EN-1 makes it clear, as set out above, whether or not an alternative can realistically deliver the same infrastructure capacity in the same timescale as the proposed development is an important consideration. Manifestly the RES solution could not so deliver.

90. Perhaps even more significantly, there is very limited environmental benefit to a RES. As the SPM note makes clear, the HDWP would have to be used through the area of greatest environmental concern (Section B). The benefits of the Trident design in environmental terms would not therefore be available at the point of greatest concern (albeit for the reasons set out above these benefits are notional rather than real). The Trident design would therefore be used in the lower sections of the Llandinam Scheme towards Welshpool where PCC accept that the landscape is well able to accommodate the proposed HDWP technology.

91. Given the clear disadvantages (arising principally through delay) and the lack of benefits that such a solution would provide in this instance, SPM submits that no weight should be given to such a possible design in the Secretary of State's decision. That no other party is suggesting this as a solution (and that such a solution has not, as far as SPM is aware, been delivered by any DNO in the country) is, we suggest, revealing. Indeed, PCC has produced a note that confirms that it takes a similar view to that outlined above on the need for a RES.[65]

92. In conclusion, therefore, the HDWP design remains the appropriate design.

[65] OBJ/002/015. (This numbering is assumed – the document has yet to be posted on the website).

Alternatives Considered and Assessed

93. Section 3 of the Alternatives Paper outlines the main alternatives considered.[66] Alternative 1 is, in fact a reference to the Llandinam Scheme and considers alternative routes to that proposed (as well as partial undergrounding). Undergrounding is dealt with separately below. The other alternatives considered were:

    a. Alternative 2: a connection to the existing Oswestry to Newtown circuit. This alternative has already been addressed in considering network design above and is not mentioned further;[67]

    b. Alternative 3: an underground cable option for the entire route to the Welshpool Substation (a total of 40km along local roads); and

    c. Alternative 4: the incorporation of a connection from LRWF into the proposed Mid Wales hub at Cefn Coch.

94. The Alternatives Paper assessed the above alternatives against four (often interconnected) criteria: environmental (particularly, landscape and visual impacts, ecology, the historic environment and flood risk); technical; financial; and future capacity (i.e. the extent to which an alternative might make further capacity available needs to be considered).

[66] CD/SPM/ES/01, Vol.5, Table 3.1.
[67] See also CD/SPM/ES/01, Vol.5, §5.2 and SPM/LANDSCAPE/POE/GIBSON/006A, §11.15 where the landscape and visual effects of this Alternative are assessed.

Alternative 1 – route selection[68]

95. Routeing is the principal way of avoiding and mitigating the likely environmental impacts of an OHL. It is a matter of balancing multiple considerations: environmental, technical and financial. This much was agreed by PRV in XX. He also agreed that the same principle applies to routeing as other alternatives: there is no requirement to establish that the preferred route is the "best" possible option; rather the question is whether the proposed route is acceptable.

The process

96. SPM's approach to route selection in general and the selection of the route of the Llandinam Scheme is dealt with in some detail by EL,[69] SG[70] and KB.[71] SPM adopts an iterative process led by the environmental team with input from the technical team, and from the project delivery team and the business with regards to economic considerations and the overall balance. PCC's thesis in closing is that SPM simply assumes that the connection would be an overhead line as opposed to underground. That is not a fair reflection of EL's explanation of SPM's approach to routeing and undergrounding. EN-5 is clear (and we turn to this below) that there is no presumption in favour of undergrounding. Naturally therefore the starting point is to try to find an OHL having regard to the need to produce an economic distribution system, however undergrounding as EL is always considered where the environmental advice to SPM is that it should be. Here the advice received by its professional environmental advisors was that an OHL would be acceptable in the case of route E.

[68] The landscape and visual effects of this Alternative are assessed by SG in her proof of evidence: SPM/LANDSCAPE/POE/GIBSON/006A, §11.4-11.5 and 11.11-11.14.
[69] SPM/COMPANY/POE/LEAVY/002A, §5.2-5.12 (addressing SPM's general approach to routeing).
[70] SPM/LANDSCAPE/POE/GIBSON/006A, section 6 (addressing the approach in general and the specific approach of the Llandinam Scheme).
[71] SPM/PLANNING/POE/BERRY/010A, section 3.3.

97. SG details the consideration given to Routes C, D and E in 2008 and 2009 and explains the reasons why Route E became the Llandinam Scheme. PCC and the Alliance both criticise the fact that the 2008 Routeing Study Report was not published but, as SG said, the results were summarised effectively in the 2008 Consultation Report.

98. In the preliminary stages of route selection, environmental effects were considered at a level appropriate to identify, evaluate and compare potential routes. The objective was to avoid significant adverse effects wherever possible. This approach provided the justification for the selection of a "preferred" route. The preferred route was then subject to consultation and further evaluation. Specific local issues were considered during the detailed design of the line, which also resulted in minor amendments to the route. At this stage, the preferred route became the "proposed" route.

99. The proposed route was subjected to detailed EIA to determine and quantify its likely significant effects on the environment. This is reported in the 2009 ES.[72] Following submission of the Application, the design was subject to amendments arising from ground surveys and discussions with landowners. This resulted in a number of minor changes to the indicative pole positions within the 100m wide corridor presented in the original submission and in pushing two sections of the route outside that corridor at Forden and Bryn-picca (this was the subject of a variation to the Application in late 2010). This is reported in the 2010 ES Addendum.[73] The Updated ES presents some further, minor modifications to the line route (although the route remains within the 100m corridor as varied in 2010).[74]

The assessment against Routes C and D

[72] CD/SPM/ES/02, Chpt. 3.
[73] CD/SPM/ES/03, Chpt. 3.
[74] CD/SPM/ES/01, which identifies (at §3.3.1) that further minor amendments to the line alignment have been undertaken, informed by further environmental assessment and consultation responses. These amendments remain within the 100m corridor as varied in 2010).

100. Section 4 of the Alternatives Paper compares the Llandinam Scheme against route Routes C and D, the alternative routes considered. In summary, whilst Routes C and D have costs which are similar to or slightly less than the Llandinam Scheme, the environmental impacts of these routes are considered to be more adverse than the Llandinam Scheme, particularly with regard to residential amenity.

101. Route C[75] was discounted due to the likely effects on views and visual amenity due to a greater concentration of residential properties and the environmental effects on the Mochdre Dingles SSSI. There were also technical difficulties on Route C, in particular, where the line descended the steep slopes from the LRWF.

102. Route D[76] also affected more properties and had likely greater effects on trees and woodlands. SG explained in EIC the difficulty in finding a route between the SSSI, the steeply wooded terrain and residential properties.[77] When asked to comment on PRV's assertion[78] that it would be possible to route through the residential properties, SG said she had been on site with an engineer and whilst not impossible it was very difficult and would mean "*angle pole after angle pole*." PCC's claim in closing (paragraph 607) that there is no overriding reason why you could not get a line through is made wholly without evidence, in particular no evidence from an engineer has been put forward by PCC.

103. SPM has concluded that Routes C and D, on balance and accepting that Route C performs better in landscape terms, were less preferable to the Llandinam Scheme.

[75] See CD/SPM/ES/01, Vol.5, Table 4.2.
[76] See CD/SPM/ES/01, Vol.5, Table 4.3.
[77] She used SPM/013 as an aide.
[78] OBJ/002/LANDSCAPE/POE/RUSSELLVICK/OHL, §5.9.

Criticism of the route selection process

104. Much was made during Session 3 of purported flaws in the route selection process. The principal criticism was that it was assumed that all the proposed wind farms in SSA C would come forward. PRV stated that, for the capacity of the landscape to change materially enough to be able to accept an OHL in it, the landscape would have to be significantly changed and potentially dominated by wind farms and infrastructure and, in 2008, that assumption could not be made.[79]

105. However, three points need to be made in this regard. First, the Powys LCA[80] (authored by JC) which was published in March 2008 – shortly before the consultation document in July of that year and during the period when SPM was considering routeing options – explicitly contemplates marked landscape changes as a result of the indicative generating capacity for SSA C as indicated in TAN8.[81] Further, TAN-8 itself states that within and immediately adjacent to SSAs the implicit policy objective is to accept significant landscape change.[82] PRV accepted in XX that Section B of the Llandinam Scheme was immediately adjacent to SSA C. In policy terms, therefore, there exists precisely the expectation that there will be a significant change in landscape and visual terms.

106. Secondly, in light of the criticism of the route selection process contained in the consultation responses, SPM reviewed the route selection process in the Alternatives Paper – setting aside the assumption that had been made in 2008 and in light of the criteria in the NPS. The 2008 results were confirmed without the impugned assumption and the proposed route remained the preferred option.[83] The criticism is, therefore, wholly academic and of only historical interest and PCC is simply wrong to say that at no point has SPM considered

[79] OBJ-002/LAND/POE/RUSSELL/OHL, §5.7.
[80] CD/SPM/ES/01, Vol.3a, App.6b.
[81] CD/SPM/ES/01, Vol.3a, App.6b, p.98.
[82] CD/COM/016, p.63, §8.4.
[83] CD/SPM/ES/01, Vol.5, section 4.

the removal of this assumption (paragraph 591 PCC closings) or that any changes between assessments in the earlier ES and the Updated ES have not fed into the route selection process (PCC closings paragraph 625) – this was done in the Alternatives Paper.

107. Thirdly, as PRV agreed in XX, PCC had numerous opportunities – both pre and post Application – to raise the issues of route selection but did not do so. The specific point was made in the 2008 Consultation Report and PCC did not then criticise it.[84] Indeed, the PCC Cabinet Report states that route selection had been adequately addressed and was "*well considered*."[85] There was no reference at that stage to Route C being preferable in LVIA terms.[86] The issue was not raised in either of PCC's Outline Statements of Case[87] or its opening statement in June 2013.[88] The first time a preference for a different route (Route C) was raised was in PCC's Statements of Case ("SOC")[89] dated 26 November 2013. The first criticism of the route selection methodology was made later in PRV's proof of evidence.

108. As was put to PRV in XX, a responsible local planning authority would not forego numerous opportunities including pre-application opportunities to express such a fundamental concern. In fact, PCC plainly did not harbour these concerns – witness the Cabinet Report and the advise of Capita Symonds within it – until after PRV's instruction. PRV was good enough to admit that he could at least see SPM's frustration in having developed a route in consultation with PCC only to have the local planning authority raise route selection at this very late stage.

109. As to the substance of PCC's notional preference for Route C (we say notional as, subject to undergrounding Section B, PCC accepts the proposed route).

[84] CD/SPM/ES/01, Vol.3a, App.1, p.7.
[85] CD/SPM/ES/01, Vol.3a, App.2d, p.14 and 70.
[86] CD/SPM/ES/01, Vol.3a, App.2d, p.37.
[87] OBJ/002/0SOC and OBJ/002/0SOC/2.
[88] OBJ/002/003.
[89] OBJ/002/SOC/OHL, §6.2.

First, it should be noted that is not at all clear that AC concludes that Route C is indeed preferable in cultural heritage terms – he seems to prefer Route D albeit he is not categorical about it.[90]

110. Further, as PRV accepted in XX, his approach to this issue was based on LVIA only. However, the selection of an OHL route requires consideration of a wide range of factors beyond the single issue that engaged PRV. He confirmed that PCC had produced no analysis of the technical feasibility of any of alternative routes and accepted that there were technical reasons not to prefer the first section of Route C.[91]

111. The short point is that PRV's LVIA judgment does not differ from SG's. The different conclusions regarding the most appropriate route for the Llandinam Scheme to follow arise because his was an LVIA specific approach. SG's and SPM's approach was necessarily broad and balanced: OHL routeing is not determined by landscape alone. SG and SPM took into account all relevant factors and concluded that Route E was the preferred option overall. That conclusion is, SPM submits, sound.

112. However, all of the discussion outlined above as between the potential alternative routes for the Llandinam Scheme is, in all material respects, besides the point. This is because the Secretary of State can be informed that, subject to undergrounding of Section B, PCC accepts the route proposed for the Llandinam Scheme – that is the starting point of the Council's case[92] and is therefore the effective end point of any useful discussion on alternative routes. It should be noted here too that NRW does not challenge the route selection process as it confirmed in closing.

[90] OBJ-002-HISTENV-POE-CROFT-OHL, §5.13-5.14.
[91] OBJ-002/LAND/POE/RUSSELL/OHL, §5.16.
[92] OBJ/002/PLANNING/POE/CARPENTER/OHL, §1.24.

113. Lastly, it cannot be said, as PCC suggests (paragraph 615), that SPM has failed in its duty to mitigate under schedule 9 with regards to the routeing of the Llandinam Scheme. Schedule 9 plainly recognises the need to balance competing factors. All relevant factors were taken into account – it is not suggested otherwise. The outcome is a judgment in the round. There is no route for a scheme of this size which would mitigate all likely significant environmental effects. This is recognised in the Holford Rules and in schedule 9 itself with the caveat that the applicant shall do what he reasonably can to mitigate environmental effects. Plainly, as regards routeing, SPM has done so. Furthermore, SPM's other duties (section 9) also need to be taken into account.

Alternative 3[93]

114. Alternative 3 comprises a wholly underground cable connection to Welshpool and is addressed below in the section on undergounding.

Alternative 4[94]

Introduction

115. Alternative 4 is a notional connection from the LRWF to the future proposed Mid Wales National Grid Hub at Cefn Coch as part of the SP Mid Wales Connections Project, the 132kV parts of which are being promoted by SPM under the Planning Act 2008. The new Hub will be linked to the National Grid by a 400kV OHL which is being promoted by National Grid, also under the Planning Act 2008.

116. A number of consultees and objectors, including the Alliance, queried why the LRWF connection could not be developed strategically as part of the SP Mid Wales Connection Project.

[93] CD/SPM/ES/01, Vol.5, section 5.
[94] CD/SPM/ES/01, Vol.5, section 6.

117. The current network design for the SP Mid Wales Connections Project is predicated upon the Llandinam Scheme being developed. This is set out in the Third Strategic Optioneering Report September 2013 (a report that has been prepared as part of the pre-application consultations for the SP Mid Wales Connections Project and which is included as an appendix to the Alternatives Paper).[95]

118. It is important to note that the SP Mid Wales Connections Project cannot accommodate the connection to the LRWF without additional distribution infrastructure being required. This would either be by either an upgrade to a steel tower pylon in the southern leg of the project or by adding an additional 132 kV HDWP overhead line into that southern leg in addition to the line that is currently proposed. An amended SP Mid Wales Connection Project would require further transmission infrastructure (an additional 132kV bay and a 400kV/132kV Supergrid Transformer at a Mid-Wales hub). It is not, therefore, simply a case of connecting the LRWF into a proposed 132kV wood pole line that would have the capacity to absorb the additional generation provided by the LRWF. Either a substantial upgrade to the proposed wood pole line or an entire new wood pole line would be needed to facilitate such a connection.

Assessment

119. In order to explain SPM's position on this issue, the Alternatives Paper considers various theoretical options as to how the LRWF might be connected within the SP Mid Wales Connection Project and then compares those options to the status quo of the Llandinam Scheme and the SP Mid Wales Connections Project as both are currently proposed. The options considered were:

[95] CD/SPM/ES/01, Vol.5, App.1. The current SP Mid Wales Project is illustrated in CD/SPM/ES/01, Vol.5, Fig.6.1.

a. Alternative 4a: two 132kV HDWP overhead lines with one in corridor CC1[96] as currently proposed and a second line in CC2;

b. Alternative 4b: two 132kV HDWP overhead lines both in CC1;

c. Alternative 4c: two 132kV HDWP overhead lines both in CC2;

d. Alternative 4d: a steel tower pylon (double circuit) in CC1;

e. Alternative 4e: a steel tower pylon (double circuit) in CC2;

f. Alternative 4f: (assuming SPM is only required to connect 176MVA of generation capacity, an option that PCC requested be considered) a single 132kV HDWP OHL in CC1; and

g. Alternative 4g: is as for alternative 4f but with the line being located in corridor CC2.

120. These Alternatives are assessed by SG in her proof of evidence[97] and in section 6 of the Alternatives Paper in great detail and the results are summarised by EL in his proof of evidence.[98] SG concluded that there was no compelling reason to discount the Llandinam Scheme on environmental grounds. Indeed with the exception of Alternative 4a, the status quo performed better than the other Alternative 4 scenarios.

121. In relation to all alternatives 4a to 4e, the status quo enjoys technical advantages, namely: the status quo minimises the requirement for additional transmission infrastructure; it reduces the system losses inherent in the

[96] CC1 and CC2 are names for corridors being considered in the SP Mid Wale Connection Project. CC1 is the preferred corridor.
[97] SPM/LANDSCAPE/POE/GIBSON/006A, §11.17-11.24.
[98] SPM/COMPANY/POE/LEAVY/002A, §7.31.1-12.

alternatives considered; and makes use of existing capacity within the current distribution network.

122. Perhaps most significantly, given the need for renewable energy generation, Alternative 4 would substantially delay both the LRWF connection and the numerous other renewable energy generation projects to be connected via the SP Mid Wales Connection Project. The delay to the SP Mid Wales Connection Project would be brought about by the need to halt the current programme, to amend the project design and to re-consult on that amended design. The Alternatives Paper includes a comparative timetable showing the estimated effects of the delay: a four year delay to the LRWF connection and two years for the SP Mid Wales Connection Project.[99]

123. In addition to this significant delay (in the context of a windfarm application that was made in 2008), there is planning risk attached to the SP Mid Wales Connections Project that is not present in the Llandinam Scheme only Application, due to the Llandinam Scheme connecting into the existing substation at Welshpool (as opposed to a new Hub which itself needs consent) and being a connection for only one wind farm.

124. There is also a degree of commercial risk present in the SP Mid Wales Connections Project: it is dependant on a number of developers working together and sharing project costs between them, with the consequential effect of changes in one scheme adversely impacting on the costs of the others. The current developers involved in the SP Mid Wales Connections Project are aware of and managing this risk. CeltPower does not currently face this risk on the Llandinam Scheme.

125. In conclusion, in relation to Alternative 4a, the status quo performs better in both technical and cost terms but Alternative 4a is marginally better in environmental terms. The Alternatives Paper concludes that the technical and

[99] CD/SPM/ES/001, Vol.5, Table 6.1.

cost considerations outweigh the marginally better environmental performance such that the status quo is preferred.

126. For Alternatives 4b to e, again the status quo performs better both in technical and cost terms. The status quo also performs better environmentally. Again, the status quo is preferred.

127. Alternatives 4f and g were produced purely to address questions raised by PCC. These alternatives would not deliver the capacity SPM is currently contracted to deliver. As such these alternatives would place SPM in breach of its statutory duties and licence obligations. In short, they are not open to SPM on the basis of current contracted generation capacity and should therefore be regarded as purely hypothetical. At paragraph 808, PCC takes issue with SPM's use of this term but SPM has statutory obligations as a consequence of which it must develop schemes on the basis of contracted generation. It cannot prejudge the outcome of the consenting process for individual schemes. To do so would be to usurp the role of the relevant planning authority and ignore its own statutory obligations.

128. Whilst it is not for SPM to address the SP Mid Wales Connection Project at this inquiry, it is important to bear in mind the conclusions of SPM/28 in relation to the session 4 materials and the Mott McDonald and LUC Reports. It is important to recall – something that does not appear to be well understood by PCC – that the reports consider only the wind farms before this inquiry which is a fraction of the total SP Mid Wales Connection Project (65 per cent. of the contracted generation). It is wholly inappropriate to look at the SP Mid Wales Project in the partial manner PCC has in considering the grid connection alternatives. As to paragraph 889 of PPC's closing and the tipping point referred to therein: again it is imperative to take account of <u>all</u> the generation and it is wrong to say the 400kV solution is not justified. Mott McDonald concludes that if all five wind farms are consented then the 400/132kV solution would be preferable.

129. As Alternative 4f involves using only the currently proposed HDWP OHL in CC1, the environmental effects of this option are as for CC1.[100] It is also technically compliant and the need for only one OHL has obvious and significant cost savings. Theoretically, this option would be compliant with SPM's statutory duties if generation capacity was limited to 176MVA.

130. However, at a policy level, Alternative 4f would cause delay to the delivery of urgently needed renewable energy (for the same reasons outlined above).[101] As such, SPM takes the view that this alternative would not be compliant with national policy. Delivering this alternative would also introduce significant planning and commercial risk to CeltPower that will not have been factored into its commercial considerations to date.

131. Alternative 4g: this option is identical to alternative 4f above save with the difference that the CC2 corridor performs less well in environmental terms than CC1 and so is not preferred to alternative 4f.

Conclusion

132. As such, the status quo is and remains the preferred outcome from all of the alternatives considered. It meets the needs of the current and future network, properly utilises existing capacity, provides the earliest connection dates for SPM's customers (both CeltPower and those currently to be connected under the SP Mid Wales Connection Project) and is the solution that best maintains an efficient, co-ordinated and economical system of electricity distribution.

[100] See CD/SPM/ES/01, Vol.5, §6.1.9.

[101] See, for example, CD/COM/001, §3.3.15, §3.4.1, §3.4.5, §3.7.10 (expressly with regards to new electricity infrastructure)

Future Capacity

133. In addition to Alternatives 4f and 4g, PCC also asked SPM to consider the potential to fully exploit the Welshpool to Oswestry route to enable only the generation from the SSA C area which is supported by PCC to be transmitted by the Llandinam Scheme or an amended version of it. AB sets out his views on this in Appendix 10 to his proof of evidence.[102]

134. This Appendix 10 scheme is outside SPM's remit at this inquiry. SPM is here simply to promote the Llandinam Scheme and, indeed, there is no such scheme before the inquiry. Furthermore, this option would not meet all the generation capacity SPM is obligated connect in the area and hence SPM would not be meeting its statutory obligations.

135. Nonetheless, AB looked at it in order assist PCC. He concluded that the Llandinam Scheme's capacity could be increased to 160MVA by increasing the conductor size to a 176MVA rated 300mm^2 conductor. However, this in itself would not permit greater export. That would require a rebuild of the upstream Welshpool to Oswestry EJ line. Together these changes could increase the possible transfer over the Llandinam Scheme by around 70MVA to 160MVA. However, AB makes the key point that larger conductors could not be retro-fitted onto the currently proposed poles and pole locations, due to the heavier weight of a 300mm conductor.

136. AB sets out a detailed analysis of the Appendix 10 scheme against the environmental, technical, financial and future capacity criteria referred to above.

137. In short, this arrangement would cost some £2m more than the combined Llandinam Scheme/ SP Mid Wales Connection project but would provide only

[102] SPM/NETWORK/POE/BEDDOES/001B, App.10. See also SPM/014 in which AB further explains the costs of this scheme.

160MVA capacity as compared to the 266MVA that the status quo would deliver. It would provide no room for future capacity. Given that other forms of generation, in addition to wind farm generation, may come forward over the coming decades, providing such limited capacity could be no guarantee that new distribution network infrastructure would not be required in five, ten or fifteen years time to connect solar, biomass, CCGT etc generation assets. As such, it is an expensive solution which takes no account of any future generation capacity coming forward in the area which would in all likelihood trigger a need for the CC1 leg of the Mid Wales Connection Project in any event. PCC is seeking to look at the network frozen in time. That is not a luxury that SPM's experience (or statutory duties) affords it. This more expensive option may easily be rendered obsolete by new generation capacity coming forward.

138. Delivering this option could also incur significant delays to the delivery of urgently needed renewable energy generation. The Appendix 10 scheme has not been subject to detailed design and assessment. It is not clear at this stage whether or not further environmental assessment for the Llandinam to Welshpool element would be required having regard to the fact that it would necessitate the use of an increased number of and thicker wooden pole supports. If required, a further review of the ES has potential to cause significant delay. Similarly, it is not clear without further study whether or not the rebuild of the EJ line beyond Welshpool would require express consent (PCC jumps ahead of itself in this regard in paragraph 804 of its closings). Plainly if consent is required, that would also introduce significant delays (which PCC accept are a relevant and serious consideration in the context of the urgent need for renewable energy).

139. In any event, whilst the Secretary of State may be able to condition the use of a 300mm^2 conductor – albeit he would have to be satisfied that he had sufficient environmental information to do so and that such an amendment to the scheme (with the consequent changes to pole numbers (and positions))

was not unfair to the parties in the *Wheatcroft* sense – he could not, in SPM's submission, require the rebuild of the EJ line beyond Welshpool, nor preclude the submission of an application for consent for the currently proposed SP Mid-Wales Connection Project.

140. Having reviewed this option, for the reasons explained by AB, SPM remains of the view that the proposed Llandinam Scheme and proposed connection via the CC1 preferred corridor in the SP Mid Wales Connection Project are the schemes that best meet SPM's statutory duties.

Undergrounding

Introduction

141. There are a number of undergrounding options before the inquiry, namely:

a. Alternative 3: full undergrounding of the Llandinam Scheme as assessed in the Alternatives Paper and referred to above;

b. The partial undergrounding option considered in detail by SPM in its EN-5 paper[103] ("the SPM Option");

c. PCC's proposal for a shorter version of the SPM Option shown in green on figure MAC2 ("the SPM Shortened Option");[104]

d. PCC's preferred option as shown in orange on MAC2 ("the PCC Option") as well as a variant of it developed during the course of the inquiry;[105] and

[103] CD/SPM/ES/001, Vol.3a, App.5.
[104] OBJ/002/PLANNING/CARPENTER/OHL, App.2.
[105] The variant of the PPC Option is shown in red on the Google Earth images at the rear of PRV's EIC materials (OBJ/002/LAN/004). Confusingly on the Google Earth image the PCC Option shown in orange on MAC2 is show in blue. The variant was produced in order to address technical concerns about the orange route expressed by EP and RL (as well as consequent landscape and cultural heritage concerns).

e. NRW's proposal for undergrounding that section of the line that passes through the VMRHL all the way up to the Welshpool substation. This option is not shown on any plans or assessed in any detail by NRW but it is alluded to in the proof of evidence of JC (the "NRW Option").[106]

142. Before turning to these options, it is important to identify (a) what the Secretary of State's powers are in relation to undergrounding as well as (b) the correct approach to undergrounding as set down in national policy.

The Secretary of State's powers under section 37

143. It is, of course, SPM's case that its Application should be granted in full. However, as a result of various points made during Session 3 of the inquiry by objectors in relation to underground alternatives to all or part of the Llandinam Scheme, SPM undertook to present submissions on the scope of the Secretary of State's powers under section 37 of the 1989 Act.

144. Section 37 of the 1989 Act is, <u>expressly</u>, a consenting procedure for <u>overhead</u> lines and not for underground electric lines. In short, the Secretary of State cannot grant consent under section 37 on the application before him for any length of underground line. However, he could consent an OHL with a gap within it. In effect, this would be a part refusal.

145. The Secretary of State must, of course, exercise his discretion in this regard reasonably and, in particular, must not cause unfairness to any party by what would be an effective amendment to the Application for the proposed development that is before him. In a sense, if the scheme is reduced then there is less capacity to cause unfairness and, of course, if planning permission

[106] CON/003/LAND/POE/CAMPION, §3.5 and §8.2. SPM do provide a figure showing what it understands the NRW Option to comprise (see SPM/025a).

is required for any aspect of the amended scheme the public will in any event be consulted on any such application.[107]

146. SPM is not aware of the Secretary of State ever having granted consent for an OHL with a gap in it. However, this is not to say he cannot (or indeed has not). SPM is aware that the Recorder at the Beauly Denny inquiry did recommend that the OHL be granted consent with two gaps in that consent, however, in that instance the Minister decided to consent whole line despite the recommendation for part refusal.[108]

147. If the Secretary of State were to consider part refusal, the pertinent question in such circumstances would be: what gap? (As opposed to: what elements of the Llandinam Scheme should be undergrounded?)

148. Of course, in answering that question it will be material for the decision-maker to consider how SPM might fill any such gap and what the implications of filling that gap might be.

149. Ultimately, it will be a question for the developer of a particular project as to how any gap is filled. The Secretary of State does not enjoy any express powers to direct, nor does he have any proposal before him to determine as to, how any gap in a consent should be bridged.

150. Two mechanisms exist through which SPM may fill any gap that were imposed in relation to the Llandinam Scheme. Whilst consent would not be required under the 1989 Act for any underground cable, such works are capable of being development requiring planning permission under the Town and Country Planning Act 1990. Consent could be obtained either under the under the

[107] Consultation was at the heart of the matter in *Bernard Wheatcroft Ltd v Secretary of State for the Environment* [1982] J.P.L. 37.
[108] The decision is not before the inquiry – it is not necessary that it should be - but it was mentioned by SPM during the planning round table in Session 3.

GDPO[109] or, in the absence of permitted development rights, by applying for planning permission. Planning permission would be required, for example, by virtue of Article 3(10) of the GDPO, if the development proposed to fill the gap comprised EIA development. If planning permission were required, an application would be made and determined by PCC who may or may not grant planning permission. Of course, any refusal could then be appealed.

151. It is understood from what PCC said at the planning round table session that these points and the Secretary of State's powers are not in (any material) dispute between PCC and SPM.

Policy – general

152. The general policy on alternatives to any proposed development – set out above – is here applicable. In particular, it should be noted that EN-1 advises that, where alternatives are first put forward by a third party after an application has been made, the onus may be placed on the person proposing the alternative to provide the evidence for its suitability and the applicant should not necessarily be expected to have assessed it.[110] Despite this, neither PCC nor NRW have produced an assessment of their undergrounding options against the policy set out in EN-5.[111] That has been left to SPM who, responding to PCC's and NRW's evidence, undertook its own assessment of the options proposed by PCC and NRW (i.e. SPM Shortened Option, the PCC Option and the NRW Option).[112]

Policy – undergrounding

[109] See Art.3(1), Sch.2, Part 17, Class G of the GDPO.
[110] CD/COM/001, §4.4.3, 8th bullet.
[111] Note PCC did respond to SPM/025 (see OBJ/002/012). In its response it states that this point is hollow (see OBJ/002/012, §3). PCC state that §4.4.3 of EN-1 does not absolve the applicant of its responsibility to investigate alternatives. However, SPM has plainly complied with its responsibilities by describing the main alternatives considered. Indeed, it has produced a discreet paper – the EN-5 Paper – expressly to deal with undergrounding. Accordingly, it is PCC's position on this point that is hollow.
[112] SPM/025.

153. The starting point when considering the design for an electricity networks infrastructure is the government's policy (set out in EN-5) that, in general, it should be placed above ground. This is due, principally, to the cost of undergrounding connection assets when compared to installing overhead connection assets. In addition, EN-5 states explicitly that the Government believes that the development of overhead lines is generally compatible with SPM's duties under schedule 9 of the 1989 Act to have regard to amenity and to mitigate impacts.

154. EN-5 is explicit that an applicant needs to consider other feasible means of connection, including undergrounding, only where a proposed OHL would cause "particularly significant" landscape and visual impacts.[113] In arriving at this position the Government expressly considered and rejected a policy that imposed a presumption that electricity lines should be placed underground.[114]

155. The tests to be considered by an applicant and the Secretary of State in the context of undergrounding are laid down in paragraphs 2.8.8 and 2.8.9 of EN-5 ("the EN-5 test"). Paragraph 2.8.8 states:

> "*Paragraph 3.7.10 of EN-1 sets out the need for new electricity lines of 132kV and above, including overhead lines. Although Government expects that fulfilling this need through the development of overhead lines will often be appropriate, it recognises that there will be cases where this is not so. Where there are serious concerns about the potential adverse landscape and visual effects of a proposed overhead line, the [IPC] will have to balance these against other relevant factors, including the need for the proposed infrastructure, the availability and cost of alternative sites and routes and methods of installation (including undergrounding).*"

156. Paragraph 2.8.9 states:

> "*The impacts and costs of both overhead and underground options vary considerably between individual projects (both in absolute and relative terms). Therefore, each project should be assessed*

[113] CD/COM/003, §2.8.4.
[114] CD/COM/003, §1.7.5.

individually on the basis of its specific circumstances and taking account of the fact that Government has not laid down any general rule about when an overhead line should be considered unacceptable. The [IPC] should, however only refuse consent for overhead line proposals in favour of an underground or sub-sea line if it is satisfied that the benefits from the non-overhead line alternative will clearly outweigh any extra economic, social and environmental impacts and the technical difficulties are surmountable. In this context it should consider:

- *the landscape in which the proposed line will be set, (in particular, the impact on residential areas, and those of natural beauty or historic importance such as National Parks, AONBs and the Broads);*

- *the additional cost of any undergrounding or sub-sea cabling (which experience shows is generally significantly more expensive than overhead lines, but varies considerably from project to project depending on a range of factors, including whether the line is buried directly in open agricultural land or whether more complex tunnelling and civil engineering through conurbations and major cities is required. Repair impacts are also significantly higher than for overhead lines as are the costs associated with any uprating); and*

- *the environmental and archaeological consequences (undergrounding a 400kV line may mean disturbing a swathe of ground up to 40 metres across, which can disturb sensitive habitats, have an impact on soils and geology, and damage heritage assets, in many cases more than an overhead line would).*"

157. A number of points should be noted:

a. As PRV agreed in XX, "serious concerns" as identified in paragraph 2.8.8 is the starting point or trigger for any consideration of whether undergrounding is appropriate.

b. It is important to note – especially given the approach of PCC – that the trigger relates to landscape and visual effects <u>only</u>. As AC acknowledged in XX, there is no equivalent trigger in EN-5 with regards to cultural

heritage impacts. Indeed, AC agreed the only reference to cultural heritage matters is to archaeology as a reason not to underground.[115]

c. The approach used by SPM in the EN-5 Paper focussed on identifying areas of "serious concerns" in relation to landscape and visual effects. In doing so SPM took "serious concerns" to equate to a "major adverse effect" in EIA terms. The logic behind this is simple: the Government accepts (as set out above) that OHLs will generally be appropriate and also expressly recognises that NSIPs, including electricity networks infrastructure projects, will inevitably cause some harm.[116] If that is so, "serious concerns" must be pitched at a higher level of harm than would be an ordinary incident of projects of the scale of NSIPs. It is for this reason that EN-5 refers to the need to undertake a very specific exercise to consider alternatives, including undergrounding, only where the landscape and visual effects are particularly significant.[117] PRV does not dissent from this approach: he confirmed in XX that he accepted that, for these reasons, "serious concerns" must equate to something more than significant adverse effects.[118] This approach is corroborated by the Inspector's conclusions on the Legacy Scheme. Paragraph 267 of the Inspector's Report states: "*Furthermore, EN-5, which provides important guidance, sets a high threshold for refusing overhead lines in favour of undergrounding.*" This position was adopted by the Secretary of State in his decision letter in which he explicitly accepts "*the Inspectors' conclusions and recommendations as set out in paragraphs 210 to 273 of the report.*"[119]

[115] CD/COM/003, §2.8.9, 3rd bullet.
[116] See, for example, CD/COM/001, §3.2.3.
[117] CD/COM/003, §2.8.4.
[118] See also a statement to the same effect in his proof of evidence: OBJ-002/LAND/RUSSELL/OHL, §2.12.
[119] OBJ-002/PLANNING/CARPENTER/OHL, App.1.

d. It should be noted that SPM's approach is conservative: whilst EN-5 does not refer to cumulative effects in the context of undergrounding, SPM has considered cumulative effects in its EN-5 Paper.

e. Paragraph 2.8.9 provides direction on what are the key matters to be considered in determining whether the benefits of an underground cable would clearly outweigh the dis-benefits. As to LVIA matters, the policy specifically highlights the need to consider designated landscapes. It is not suggested that these are the only landscapes that are relevant or that undergrounding cannot fall on balance to required outside of those areas but it is plain that designated landscapes are those the Government had at the forefront of its thinking in drafting its undergrounding policy and should attract the most weight in the decision-making process. In any event it should be noted that SG has allocated the Kerry Ridgeway the highest sensitivity value in her methodology and as such it has been ranked on a par with designated landscapes (which addresses PCC paragraph 723 final sentence). There is, contrary to PCC's suggestion, no double counting: here the relevant area was given the highest sensitivity so there is no question of the lack of designation counting against it in terms of the assessment of effects – which goes to the question of "serious concerns" and, therefore, undergrounding. It is only, therefore, in the balancing exercise that the point about non-designation is made. There is no double counting.

f. It follows that paragraphs 2.8.8 and 2.8.9 of EN-5 require the following questions to be answered:

   i. Are there "serious concerns" about potential adverse landscape and visual effects?

   ii. If so, having regard to the factors set down in paragraph 2.8.9, do the benefits from undergrounding clearly outweigh any extra

economic, social and environmental impacts and are any technical difficulties surmountable?

iii. If the answer to the second question is in the affirmative, the EN-5 test for undergrounding will be met. If it were in the negative, undergrounding would not be required under EN-5 from the perspective of the landscape and visual trigger.

The EN-5 test and the planning balance

158. It is important to recognise that the EN-5 test, as expressed by the above questions, is not necessarily the end of the matter. Other policy and legal tests apply which could result in the Secretary of State deciding that part of an application for section 37 consent should be refused (thereby effectively requiring an underground or alternative solution to that section of the proposed connection). An example might be where the Secretary of State felt that there was so significant an impact on an ecological or cultural heritage asset that the planning balance weighed in favour of refusing consent for that particular section of a proposed connection but that is a separate exercise from the application of the EN-5 test.

159. There is, therefore, a series of different exercises to go through, giving both consideration to specific tests (such as the EN-5 test), other relevant policy (and legal tests) and, finally, the overall planning balance. Therefore, whilst the EN-5 test certainly does not prevent other concerns being considered, they must be considered in the light of the specific policy relevant to those concerns and the results must be placed, along with the results of the EN-5 test, in the overall balancing exercise.

160. PCC's approach has the effect of conflating individual policy tests. The arch expression of this was in PCC's suggested amendment to the main issue as drafted by the Inspectors for the planning round table in Session 3. The main issue as drafted by the Inspectors, with which SPM was content, was "*Whether*

there would be serious concerns in LVIA terms, sufficient to justify the undergrounding of cables in section B of the proposed corridor." PCC sought an amendment as follows: *"Whether the benefits of the scheme are wholly exceptionally sufficient to outweigh the serious concerns*." The words "*wholly exceptionally*" are not to be found in EN-5. Rather they are imported from the cultural heritage policies contained in EN-1. What PCC was doing was seeking to rely on the presumption in favour of heritage assets contained in EN-1 in the specific context of the EN-5 test.[120] EN-1 is, of course, relevant and contains a number of policy tests that the decision-maker will need to take into account but it is not the proper approach to seek to rewrite the specific test on undergrounding clearly articulated in the NPS on electricity networks infrastructure by reference back to generic energy policy. The consequence is that the individual policies are robbed of their proper application and force. Of course, the NPSs must in the end be applied as a whole but only after the proper assessment of individual policy tests. As KB said in that hearing session, policy documents are carefully drafted and if there had been an intention to draw in concerns other than LVIA into the question of undergrounding in EN-5 it would have expressly done so.

161. As the Inspectors summed up SPM's position during the planning round table: there are a series of policy and legal tests all of which must be considered and properly applied. Thereafter, the decision-maker must stand back and make an overall decision. It is perfectly possible to conclude that the EN-5 test is not met but that other policy and legal tests are such that taken as a whole there is a need for undergrounding (or more properly stated a need to refuse in part).

162. It should be said that PCC's desire to shoe horn cultural heritage into EN-5 tests is entirely understandable: the landscape and visual effects in section B (dealt with elsewhere in these closings) are insufficient to justify undergrounding. Perhaps it is PCC's recognition of this that governs its policy approach. In the end it does not matter because, as these submissions will

[120] CD/SPM/001, §5.8.14.

seek to demonstrate, even if cultural heritage is taken into account, the outcome does not change: undergrounding is not justified.

Other policy on undergrounding

163. As to other policy on undergrounding, TAN8 explicitly states that undergrounding is likely to be justified for only limited lengths of a connection and / or in special circumstances.[121] This policy sits comfortably alongside that contained in EN-5.

164. The same cannot be said with regards to the Powys UDP and policy DC12 in particular – the first sentence of which is wholly at odds with national policy: it lays down a presumption that electric lines will be undergrounded unless there are overriding reasons for them not to be. This is the opposite of the EN-5 approach. The EN-5 approach must be preferred: it is agreed that the NPSs should be afforded significant weight and, as set out above, in drafting EN-5 the Government took an express decision to reject a presumption in favour of undergrounding (to ensure that the UK's electricity infrastructure could be delivered at an acceptable cost to consumers). Furthermore, as already set out, the presumption in favour of the development plan does not apply[122] such that policy DC12 is, simply, another material consideration. In addition, policy DC12 is internally inconsistent. The second sentence sets out quite a different expectation from the first and one which appears to accord with national policy; namely, that lines should be routed to minimise their impact. For all these reasons policy DC12 should not be given any material weight in the determination of this Application.

Alternative 3 – full undergrounding

165. Full undergrounding of the Llandinam Scheme is in theory a technically viable option: it would serve the contracted generation and, as with the Llandinam Scheme as proposed, could in principle accommodate a further 10MVA of

[121] CD/COM/016, §2.12.
[122] i.e. section 38(6) of the Planning and Compulsory Purchase Act 2004.

future generation onto the local system. However, as explained by EP, the cost is estimated to be at least more than three times that of an OHL. As such SPM would be failing in its duty to provide an economic and cost effective solution for customers if it implemented this option. Moreover, the benefits are limited: no party suggests full undergrounding is necessary and PCC concludes that the effects of the Llandinam Scheme as proposed are acceptable, aside from Section B. In the circumstances, a fully underground option would not be an appropriate means of providing the connection to the LRWF.

Assessment – introduction

166. In light of PCC's closing the following points should be noted. First, PCC has adduced no technical evidence on the feasibility of its various proposals for undergrounding. Making reference to behind the scenes advice from an engineering adviser is simply not good enough, SPM has had no opportunity to cross examine this person or even see his or her advice, and as such it should be given little weight.

167. Secondly, as PCC accepts, the means of bridging any gap by an underground cable arising from a part refusal would be a matter for SPM. The SPM Option (adjusted at each end given the acceptance of PCC's shortening of that route at its extremities) reflects the considerable experience and expertise that SPM has in developing such infrastructure. Given the lack of any countervailing expertise and the fact that the decision is for SPM, the Secretary of State is asked to give far more weight to SPM's evidence on this issue. In the end, all options developed by PCC seek simply to reduce the cost dis-benefit in the balancing exercise so as to reverse-engineer the conclusion that it seeks. Note in this regard, PCC's argument (paragraph 762) that EP used the wrong statistics in order to derive the lifetime costs is flawed. EP used the figures based on SPM's own experience and network. The data PCC relies on was for all areas across the country for all DNOs and so is actually less relevant than the numbers EP used. SPM submits that the proper basis for the balancing exercise is the SPM Option shortened at either end.

Assessment – the SPM Option

168. The SPM Option is assessed in the EN-5 Paper[123] which was produced when preparing the Updated ES. Previous versions of the ES predated the designation of EN-5 such that the Updated ES was the first opportunity to consider in detail the undergrounding policy in EN-5.

169. The EN-5 Paper sets out a detailed analysis of the landscape and visual effects of the Llandinam Scheme in the context of EN-5 and the "serious concerns" trigger referred to above. It concludes that that no "serious concerns" would arise in respect of the Llandinam Scheme on its own anywhere along the line route. However, with regards to cumulative effects, it concludes that there would be a major adverse effect in landscape and visual terms (and so "serous concerns") in the section near Kerry Hill where the proposed OHL is in close proximity to the Neuadd Goch wind farm, through which the proposed OHL would run.

170. As a result, the EN-5 Paper goes on to consider the balancing exercise set out in paragraph 2.8.9 of EN-5 and, in particular, provides a comprehensive review of: the landscape in which the proposed line will be set; the additional cost of any undergrounding; and the environmental and archaeological consequences of providing an underground solution and undertakes a balancing exercise between all the relevant factors.

171. The EN-5 Paper concludes that the benefits of undergrounding are not persuasive. These benefits must be set in context: this is a landscape that is not designated and, in any event, major adverse effects would remain even if the Llandinam Scheme were undergrounded as a result of wind farm development in SSA C. Against this, the additional costs would be significant (over half the cost of the total scheme as an OHL).

[123] CD/SPM/ES/03, Vol.3a, App.05a.

172. On balance, therefore, SPM concludes that the Llandinam Scheme on its own would not require consideration of undergrounding under the EN-5 test whilst the benefits that undergrounding would deliver in the cumulative scenario where major adverse effects may arise, and which would remain even if the Llandinam Scheme was placed underground, do not clearly outweigh the extra economic impacts of undergrounding.[124]

Assessment – the Shortened SPM Option

173. PCC proposed a variant to the SPM Option that shortens that option by a total of 3.3km. SPM set outs its assessment of the Shortened SPM Option in a paper submitted to the inquiry.[125]

174. In SPM's view, the benefits from undergrounding in this option are limited for the same reasons as outlined above.

175. However, the Shortened SPM Option would reduce costs and is technically achievable – subject to overcoming some of the concerns expressed by EP in relation to bridleway section and the footpath section at Upper Ceulanau. Whilst PCC do not accept these difficulties and refer to having taken technical advice, neither that advice nor any other technical evidence has been provided to the inquiry by PCC. As such, EP is the only expert from which the inquiry has heard. His concerns should not therefore be lightly set aside.

176. It should be noted that the Shortened SPM Option does not overcome the significant cultural heritage impact on the Bryn Cwmyrhiwdre barrow, as PCC acknowledges. Furthermore, as DB explained in EIC, any undergrounding along unmade ground, tracks or bridleways requires stripping of soil and excavation which in simple terms creates a greater likelihood of effecting the physical

[124] It should be noted that SPM accepted in the planning round table session in Session 3 that an appropriate starting point for any undergrounding scheme is the start of (i.e. the western end) the PCC Option (referred to during Session 3 as "Point B") as shown in figure MAC2. As a result, SPM Option would be shortened to that extent (0.8km) and as a result the costs reduced. However, this reduction in cost does not effect the overall conclusion on the SPM Option.
[125] SPM/025.

remains of buried cultural heritage assets. He further said that the increased engineering required at the bridleway and footpath which EP said may be required into order to route an underground cable through these sections would only be likely to increase the prospect of archaeological effects. Archaeological assets are a finite and irreplaceable resource. Whilst they may be preserved by record, where the assets are of national importance (see PCC Option below) then it is appropriate to preserve in situ. By contrast an OHL's effects on cultural heritage assets are likely to be indirect and reversible.

177. SPM's overall conclusion remains the same for this option as for the SPM Option taking into account the limited landscape benefits and, in particular, the fact that a major adverse effect would remain even if the Llandinam Scheme was undergrounded.

Assessment – the PCC Option

178. The PCC Option comprises a further shortening of the above options. This option is shown in orange on MAC2. Point B remains the same. Point C is drawn in to a point approximately 0.25km east of Black Gate. The total length of undergrounding under this option is 4.2km. Again, SPM set outs its assessment of the PPC Option in its paper submitted to the inquiry.[126]

179. The points set out under the above two options largely continue to apply. In addition, as EP described,[127] there are technical difficulties in laying a cable across the landform under the Kerry Ridgeway. Whilst not insurmountable, overcoming these difficulties may itself cause landscape and visual harm and introduce additional uncertainty (and potential cost) to this option. It is not accepted, as PCC states in its response to SPM's paper,[128] that PCC has demonstrated that the concerns are exaggerated: PCC has called no expert evidence on this. By contrast both EP and RL were called by SPM. RL sets out in

[126] SPM/025.
[127] And described in SPM/025 in detail.
[128] OBJ/002/012.

his proof the types of works and working area (7 metres) required for the installation of cables in unmade ground.[129] Both referred to the possibility of scarring and land-slip. EP'S and RL's descriptions of the techniques that may be required to install a cable along the PCC Option and their consequences cast doubt on the landscape benefits of this option. In addition, this option would not address any landscape concerns to the east of the Two Tumps.

180. As to cultural heritage, the PCC Option is curious a one. As AC agreed in XX, there is no cultural heritage justification for undergrounding at the southern end of this option. There are three assets – all of which are said by PCC to be substantially harmed – at the northern end of this option which are put forward as a justification for undergrounding: MG062 (early medieval cross dyke), MG063 (early medieval cross dyke) and 1896 (the Black Gate Enclosure) (these assets are discussed below). However, as DB suggested, the rich archaeology in this area is, contrary to PCC's view, a good reason not to underground. There is a particular danger with regards to the early medieval cross dykes (which, although scheduled separately, form a single archaeological feature). The PCC Option bisects the termini of the scheduled sections of the Dyke. However, as DB said, if the Dyke does not terminate at the end of the scheduled sections, there is the potential for significant direct effects from undergrounding (it need hardly be said that, by contrast, an OHL would oversail any archaeological remains and any impacts would, in the main, be indirect). As DB described in EIC, there is a further recently discovered section between MG062 and MG063[130] which he said was very significant in this regard: if further remains were found they may be of national importance (albeit they would not be designated) and remains of national importance should be preserved in situ and not by record.[131] As PCC pointed out in XX of DB, a documentary record of our past is not as good as retaining a heritage

[129] SPM/CONSTRUCTION/POE/LIVINGSTON/004A, §4.50-4.54.
[130] See CD/SPM/ES/001, Vol.6, Figure 8.2, Asset number 84868.
[131] DB addresses the Inspectors' question on direction drilling in a note to the inquiry. He concludes that, whilst an underpass would be preferable to an open-cut trench, he would still prefer an OHL the effects of which would be reversible (see SPM/027, §4).

asset and the ability to record should not be a factor in deciding whether or not to consent a project. In a sense PCC are advocating gambling on what cultural heritage assets may be present as opposed to either more safely oversailing these potential assets or accepting the SPM Option in terms of undergrounding. Note that the 1x1m trench referred to by PCC excludes the working area which RL said extends to 7m.

181. As a result, SPM concludes that the overall balancing exercise produces the same results: the benefits do not clearly outweigh the impacts and undergrounding is not justified.

182. As set out above, PCC introduced a variant to this option: the alternate route indicated on the red line in PRV's EIC materials. This was designed to address the technical concerns as to the feasibility and desirability of the orange route east of Black Gate. SPM had with PPC's Option and to ameliorate SPM's consequent landscape and cultural heritage concerns under that option. In short, the variant is better from a technical point of view but, as DB explained in EIC, it does not address all his concerns on archaeology (where the line follows unmade tracks). This variant does not change SPM's overall conclusion on the need for undergrounding.

Assessment – the NRW Option

183. The landscape impacts of the Llandinam Scheme on the VMRHL are discussed elsewhere in these submissions. The EN-5 Paper concludes, having reviewed the LVIA on the VMRHL, that there are no "serious concerns" arising from the Llandinam Scheme in the VMRHL such that the trigger for undergrounding in EN-5 is not met.

184. SPM has provided a specific analysis of the NRW Option in a paper submitted to the inquiry[132] (which is more than NRW has done despite putting this option forward). This analysis concludes that the benefits from undergrounding in the

[132] SPM/025.

VMRHL are low, although it would be technically achievable and likely to have limited or no significant impacts in socio-economic, ecological, cultural heritage and landscape terms. The cost of the NRW Option would be substantial (in the order of £18.4m). The balance of cost and limited benefits leads to the conclusion that the NRW Option is not an appropriate solution and would not comply with SPM's statutory duties. Consequently, there is no justification for the NRW Option. Furthermore, SPM submits that the NRW Option, which as mentioned above, is not properly set out or assessed by NRW, is precisely the vague and inchoate scheme that EN-1 advises is of little importance.[133] Consequently, SPM urges the Inspectors and the Secretary of State to place no weight on the NRW Option in their deliberations.

Conclusions

185. A final point needs to be made in the context of the non-NRW options: the Inspectors asked, recognising that it was for SPM to bridge any gap in any consent that may be granted for the Llandinam Scheme, whether Point C should be as far West as possible in order to provide SPM with as much flexibility as possible as to how the gap is bridged (i.e. SPM could join the consented line at a point further East of Point C if there were technical reasons for doing so).

186. PCC was happy with the proposal. SPM is too (in so far as its conclusions on undergrounding are rejected). However, it is important that the Secretary of State recognises that SPM (and other parties) have drawn their conclusions on the basis of the options set out above. If a shorter route were proposed, the balance would change and the Secretary of State will not have the views of the parties on that particular variation.

187. It is not suggested that the Secretary of State need do anything about this, save draw his own conclusions, but he needs to be aware that the only

[133] CD/COM/001, §4.4.3, 7th bullet.

balancing exercises conducted by the parties and set out in evidence are on the options set out above.

188. By way of conclusion on the issue of undergrounding, it is important to stand back and consider what the objectors are asking for here. What is being proposed by SPM is a single electric 132kV OHL, supported by wood poles, in a landscape which is not nationally designated and in circumstances where the proposed OHL would deliver urgently required renewably generated energy with limited residual likely significant environmental effects. It is agreed by all that the EN-5 test (i.e. the test for (partial) refusal) is a high bar – the Government has deliberately set it high in order to help deliver electricity connection infrastructure at a reasonable cost to consumers.

189. If the EN-5 test is satisfied here, as the objectors argue, what would the impact on the delivery of the Secretary of State's energy policy be given the remote and often protected landscapes in which renewable generators frequently must be sited?

190. The Llandinam Scheme is a 200mm^2 wire on 14m high wood poles that runs through a non-designated landscape. If this section must be undergrounded would not any steel tower scheme or wood pole through highly valued landscape need to be placed underground? Such a decision would effectively reverse the Government's express decision not to put in place a presumption in favour of undergrounding.

191. In SPM's view it would set a costly precedent to apply what is designed to be a high threshold policy test in an area that those drafting the policy did not anticipate – a landscape that is not nationally designated – and in such a way as to make the delivery of urgently needed renewable energy in many instances more difficult and certainly more expensive.

192. Finally, it should be noted that in the event of the Neuadd Goch being consented, PRV states (paragraph 5.11 of his proof) that undergrounding of the Llandinam Scheme would not be necessary.

Matter 5: the potential impact of the proposed development on human health

Introduction

193. Whilst the Secretary of State raised the issue of human health as one of the matters on which he wants to be informed, the reality is that it was not at issue between the principal parties. Indeed, PCC confirmed in its SOC that it raised no objection on this ground[134] and neither NRW nor the Alliance even mentioned health or EMFs in their respective SOC.

194. However, it is an issue that SPM takes extremely seriously and it recognises that members of the public expressed concerns about EMFs and impact on human health and mindful of this, the Secretary of State's matter number 5 and the statement in EN-5 to the effect that: "*Before granting consent to an overhead line application, the IPC should satisfy itself that the proposal is in accordance with the guidelines, considering the evidence provided by the applicant and any other relevant evidence*"[135] SPM called Dr John Swanson ("JS"), the EMF Scientific Advisor to both National Grid and the Energy Networks Association, to give evidence on the Llandinam Scheme and any potential impacts on human health.

195. JS was the only expert from whom the inquiry heard on health matters (at least in relation to the Llandinam Scheme). What is more JS was not cross-examined or otherwise challenged. It is his evidence that is the relevant evidence to be considered in accordance with the above paragraph of EN-5.[136]

Policy

[134] OBJ/002/SOC/OHL, §11.1.
[135] CD/COM/003, §2.10.9.
[136] CD/COM/003, §2.10.9.

196. JS explained that whilst there are no statutory regulations in the UK that limit the exposure of people to EMFs, the Government is responsible for implementing appropriate measures for the protection of the public from EMFs. It is advised by Public Health England ("PHE") on this issue. The Government's clear policy is that exposure of the public should comply with the International Commission on Non-Ionizing Radiation Protection ("ICNIRP") (1998) guidelines in the terms of the 1999 EU Recommendation ("the Guidelines") which contain specific exposure limits.[137] EN-5 requires compliance with the Guidelines.[138]

197. The Government has published a Code of Practice which sets out what will be regarded as an acceptable demonstration of compliance with the Guidelines.[139] The Code of Practice provides for certain classes of equipment that are inherently compliant with the exposure limits. The Energy Networks Association keeps a list of types of equipment where the design is such that the equipment is not capable of exceeding the exposure guidelines. Overhead power lines up to and including 132kV are included on that list.

Assessment

198. As a result the Llandinam Scheme complies with the policy and it is not necessary for SPM to calculate the fields to demonstrate compliance.

199. However, JS did perform such calculations for completeness and to provide further comfort for those members of the public concerned with this issue. The maximum fields the Llandinam Scheme would be capable of producing have been calculated as an electric field of 900V/m and a magnetic field of 3.3µT. These are considerably less than the relevant exposure limits of 9000V/m and 360µT respectively, confirming that the Llandinam Scheme is compliant with

[137] See SPM/HEALTH/POE/SWANSON/007A, p.10, Table 5.1.
[138] CD/COM/003, §2.10.9 and 2.10.11.
[139] SPM/HEALTH/POE/SWANSON/007C, App.6.

policy both as result of technology type and compliance with the exposure limits for calculated fields.

200. The Government also has an optimal phasing policy.[140] However, this policy is not relevant to the Llandinam Scheme which is a single-circuit line such that there is no second circuit with which to optimise the phasing relative to the first circuit. As JS explained, single-circuit lines are automatically compliant with the policy on phasing.

201. As to indirect effects such as microshocks, there is no policy limit, but JS explained that a field of 5000V/m can be taken as a level where further assessment may be needed. The maximum field produced by the Llandinam Scheme is 900V/m. As a consequence, JS concluded that no significant indirect effects are expected.

Cumulative impacts

202. Finally there will be no cumulative impacts with or caused by the Llandinam Scheme. EMFs produced by a source such as the Llandinam Scheme fall rapidly with distance. As a result, individual sources of EMFs tend to act only as localised sources and there is negligible interaction between different sources. Thus, as JS explained, provided each individual source is compliant with the relevant exposure limits, a person's exposure from the totality of sources present can be taken as compliant too. Therefore there will be no cumulative effects from the presence of the Llandinam Scheme.

Conclusions

203. The conclusion of the unchallenged evidence of JS is clear: there is no health related issue that should cause consent to be withheld for the Llandinam

[140] For further details of which see CD/COM/003, §2.10.11 and SPM/HEALTH/POE/SWANSON/007A, §5.3 and §6.4.9-6.4.11.

Scheme. On the contrary, the Llandinam Scheme is wholly compliant with Government policy on this issue.

Matter 6: the social and economic impact of the proposed development, including on tourism

Introduction

204. PCC does not object to the Llandinam Scheme on the basis of the social and economic impact of the proposed development.[141] Indeed, PCC expressly concluded after investigation that there was insufficient evidence to support an objection on socio-economic and tourism grounds in relation to any of the projects before this inquiry either individually or cumulatively.[142]

205. Whilst the Alliance suggested in its SOC that "insufficient acknowledgement" was made by SPM of adverse socio-economic and community effects,[143] the Alliance did not submit evidence on socio-economic matters. Accordingly, the only evidence before the inquiry on this issue in relation to the Llandinam Scheme was SPM's through Rory Brooke ("RB").

206. That only SPM adduced evidence on this matter is significant. PCC had well in mind, in deciding not to object on this ground, the advice in EN-1[144] that a decision-maker may conclude that limited weight should be given to assertions of socio-economic impacts that are not supported by evidence, particularly in view of the need for energy infrastructure. That advice should be followed here.

[141] Socio-economics form no part of NRW's case either: CON/003/SOC/OHL.
[142] OBJ/002/OSOC/2/ADD and see also SPM/ECONOMIC/POE/BROOKE/009A, App.1.
[143] ALL/SOC/SESSION3, §7.1.
[144] CD/COM/001, §5.12.6.

Policy

207. KB and RB identify and set down the relevant socio-economic policy in their respective proofs of evidence.[145] At the national level, there are no specific policies in relation to OHLs and socio-economics (EN-5 does not deal with socio-economic matters explicitly). EN-1, however, recognises that large-scale energy projects may have a socio-economic impact at local and regional levels. As a result, it requires consideration of the topic in the ES.[146] EN-1 also identifies the need to minimise impacts on the best and most versatile agricultural land.[147] Local policies focus on the importance of and the need to protect tourism assets.[148]

Assessment

208. RB describes in detail the assessment that he and his team carried out in order to write the socio-economic chapter of the Updated ES.[149] The assessment was comprehensive and was made by considering findings from a range of sources concerning impacts on farms/ agricultural land, tourism attractions, tourism accommodation, local community assets, tourism supporting businesses; and other businesses (not captured elsewhere).

Relationship between socio-economic matters and landscape and visual effects generally

209. As RB identified, the concerns raised by objectors in relation to socio-economic matters generally focused on the potential visual impacts on the rural landscape of the area and the implications this could have for both residents

[145] Respectively: SPM/PLANNING/POE/BERRY/011A, §7.6.98-7.6.103 and SPM/ECONOMIC/POE/BROOKE/009A, section 4.
[146] CD/COM/001, §5.12.3. And that has been complied with here. Socio-economic matters were originally scoped out. However, after the designation of EN-1 and having regard to comments in a number of consultation responses, SPM decided to include a chapter on this issue in the Updated ES of 2013.
[147] CD/COM/001, §5.10.8.
[148] See CD/COM/006, paragraph 9.15.2 and policies SP1 and TR2.
[149] SPM/ECONOMIC/POE/BROOKE/009A, section 5.

and visitors. The quality of the landscape and the tourist economy are clearly linked. However, as RB explained, there is a difference between the LVIA – which focuses on the quality of the landscape – and the assessment of socio-economic effects which is focused on, for example, the number and type of persons experiencing the same LVIA effect and the consequence it has upon their willingness to use visitor attractions, stay in the area and to spend money. In other words, the socio-economics assessment looks at any change of behaviour consequent on the LVIA effect. For example, the fact that a significant landscape and visual effect arises at a particular point along a public right of way does not necessarily mean that users of that public right of way will be put off: their behaviour will relate to their experience of the whole route or section of route walked.[150] This explains why SG can assess the impact on a viewpoint on the Kerry Ridgeway Regional Trail as significant and RB, from the socio-economic viewpoint, as not significant.

Construction and decommissioning phases

210. The assessment determined that no significant socio-economic effects would arise from the construction and decommissioning of the Llandinam Scheme, although both phases would result in a modest amount of employment locally.

Operational phase

211. The Updated ES concludes that the Llandinam Scheme would not have significant impacts upon the local population, economy, local community assets, tourist attractions or tourism during its operational stage.

212. As to agriculture specifically, consultation with landowners found a general acceptance of the Llandinam Scheme. The expected magnitude of impact is negligible and, as such, all impacts would be not significant. As a result, the EN-1 policy in relation to agriculture is complied with.

[150] See SPM/ECONOMIC/POE/BROOKE/009A, §5.16.

213. With regards to Tourism Attractions[151] – which include all of the public rights of way encompassed in the Secretary of State's Matter 7(c)[152] – again, there will be no likely significant adverse effects. The Updated ES concludes that 11 out of 13 tourist attractions are anticipated to experience negligible magnitude impacts – predominantly because of the intervening distance from the resource to the Llandinam Scheme, vegetation cover and the overall perceptibility of the OHL. The Llandinam Scheme will be visible on a number of the public rights of way but, importantly, when the OHL is visible it is so only from a fraction of the route's length. As a consequence, RB concludes that the presence of the OHL is unlikely to deter use of the public rights of way, including the Kerry Ridgeway Regional Trail, so that there is no overall significant adverse effect on tourist attractions in general or public rights of way in particular.

214. Turning to tourist accommodation, the impacts on 21 of the 22 tourist accommodation resources are assessed as not significant.[153] The one resource where significant adverse impacts are envisaged is the Tavern Caravan Park. These impacts could result in a small reduction in visitor numbers at this resource. However, visitors have similar accommodation options elsewhere in the area, meaning the local economy is unlikely to be affected by this adverse significant impact and, in any event, if proposed mitigation is carried out (which is subject to reaching agreement with the relevant landowner) then the residual effects at the Tavern Caravan Park would be reduced to not significant.

Cumulative impacts[154]

[151] CD/SPM/ES/001, Tables 10.14.

[152] These are: the Kerry Ridgeway, Glyndwr's Way National Trail, Offa's Dyke National Trail, Severn Way and Sustrans National Cycle Trail 81. RB addresses each of these public rights of way in his proof of evidence: SPM/ECONOMIC/POE/BROOKE/009A, section 7.

[153] CD/SPM/ES/001, Tables 10.15. The Alliance asked RB about three further tourism assets which were not assessed in the Updated ES. RB provides an explanation as to why these resources were not assessed in SPM/011.

[154] Cumulative impacts were considered under three scenarios: Cumulative Scenario 1 – Llandinam Scheme + Llandinam Repowering Wind Farm; Cumulative Scenario 2 – Cumulative Scenario 1 + other

215. There are not expected to be any significant cumulative effects under Cumulative Scenario 1.

216. However, under Cumulative Scenarios 2 and 3 there are expected to be moderate beneficial and major beneficial impacts on employment, particularly during the construction phase, respectively.

217. Under Scenario 2 there is expected to be a moderately adverse effect upon the western section of the Kerry Ridgeway and under Scenario 3 there would be significant effects upon the Kerry Ridgeway and the Sustrans National Cycle Trail 81 (these effects arise mainly through the contribution of the other schemes). However, RB concludes that under both these Cumulative Scenarios there would be no significant cumulative effects on tourism overall because the vast majority of tourist attractions and accommodation in the area would experience no significant effects.

Conclusion

218. The evidence before the inquiry plainly shows that no overall significant adverse effects on socio-economic assets would arise from the construction, operation and decommissioning of the Llandinam Scheme. The impacts identified will be minimised where possible and suitably mitigated.

219. As a result of the above, KB concluded that the principal policy requirements in relation to socio-economics have been met. At the national policy level, an assessment has been undertaken and reported on in the Updated ES. The Updated ES concludes that there are no significant adverse effects in relation to agriculture. As to local policies, the relevant Powys UDP policies are met; the Llandinam Scheme will not result in unacceptable adverse impacts on

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conjoined inquiry wind farms (SSA B and SSA C); and Cumulative Scenario 3 – Cumulative Scenario 2 + non-inquiry proposed wind farms + Mid Wales development consent order (DCO) connections + Town and Country Planning (TCPA) development (including single turbines). See CD/SPM/ES/001, §10.9.

tourism. Whilst it is unlikely to sustain or enhance the social, cultural and linguistic characteristics of the area,[155] it will not unacceptably detract from them and the Llandinam Scheme will provide an element of infrastructure that will contribute to meeting the energy needs of local communities.

220. Accordingly, there is no basis on which to withhold consent on the basis of the Llandinam Scheme's socio-economic impacts.

[155] CD/COM/006, policy SP1 requires regard to be had to the need to sustain or enhance the social, cultural and linguistic characteristics of the area.

Matter 7a: the relative merits of the proposed development, any alternatives considered and likely effectiveness of mitigation measures to address: the landscape and visual impact of the proposed development both individually and cumulatively with existing energy infrastructure and any energy infrastructure which has already been granted planning permission or where planning permission has been applied for, including impact on the Vale of Montgomery Landscape of Outstanding Historic Interest in Wales, Areas of Special Landscape Character and Kerry Ridgeway Regional Path, Severn Way Regional Path and the National Cycle Route near Welshpool Substation;

Introduction

221. The landscape and visual effects of the Llandinam Scheme are assessed in detail in Chapter 6 of the Updated ES[156] as well as by SG in her proof of evidence.[157] PRV agreed in XX that there was no significant divergence between SG and himself on methodology. Indeed, he confirmed in XX that he agreed with the great majority of judgments within Chapter 6 of the Updated ES and was content to describe that chapter as "*a thorough and comprehensive analysis backed by sound judgment*."

222. SG has been involved in this project since its inception. PCC, whilst not questioning in any way SG's qualifications as a landscape expert, nor her lengthy involvement in the project, suggest (closing paragraph 637) that she fails to understand the landscape. That is wholly unfair and the suggestion is totally undermined by the fact that PRV agrees that SG's field based approach to landscape sensitivity is appropriate and largely agrees with her conclusions. When convenient, PCC sought to place considerable weight on CPAT's lengthy involvement in the scheme (paragraph 683), SG's similar history and involvement with this project is however ignored. In a similar vein, SPM wholly

[156] CD/SPM/ES/003, Chpt.8.
[157] SPM/LANDSCAPE/POE/GIBSON/010A, see, in particular, section 8.

rejects the suggestion that SG skewed her methodology to result only in moderate effects to suit SPM's requirement that this be an OHL scheme (paragraph 652). As explained above, there was no such requirement but, more importantly, the suggestion that SG skewed her evidence is entirely without justification. Rather, it is simply not right (as PCC seems to imply) that it is inevitable that a scheme of this nature would have major effects and only a "skewed" methodology would find otherwise. SG indicated that she regards major affects as likely to arise in the context of the cumulative impact scenarios, thereby illustrating when in her professional view such effects arise in this landscape.

223. A number of questions were raised about the methodology behind the photomontages as well as with respect to individual viewpoints during the course of the inquiry. These queries were addressed in a note to the inquiry and some updated viewpoints were provided as well.[158] Furthermore, as SG explained, the viewpoints were agreed through the consultation process (including the provision of further viewpoints to address areas of concern to the consultees).[159] At paragraph 641 of PCC's closings they say that SG accepted that she had wrongly taken a "letterbox" approach to photomontages. In fairness what she said was that her judgment was made from being in the field without the need for the images and that the images were included only to illustrate her judgment.

224. It is acknowledged that the installation of some 382 wood pole structures into the landscape would give rise to some unavoidable significant landscape and visual effects. As already identified above, the Government expects and acknowledges that NSIPs or equivalent projects will have inevitably have some landscape and visual impacts. Neither SG nor PRV seek to suggest that a significant landscape or visual effect means that the proposed development is unacceptable. PRV states that any significant landscape and visual effect, in

[158] SPM/020 and SPM/020a.
[159] See SPM/LANDSCAPE/POE/GIBSON/010A, section 3.

order to warrant refusal of the Llandinam Scheme, should be so severe as to substantially diminish value in the longer term.[160]

225. SG concludes that, whilst in places the landscape and visual effects of the Llandinam Scheme alone may be moderate adverse (and, therefore, significant) or minor to moderate adverse (and, therefore, borderline significant), such effects would be geographically limited and would diminish rapidly with distance from the wood pole structures.

226. When assessing the landscape and visual impacts of this scheme, it is particularly important to bear in mind its form and scale. The development here proposed is a series of wood poles supporting some wires. It is, as SG said, "visually permeable." That is not to say that one can see through the poles but, as can be seen from RL's illustration of pole types,[161] (a) each element of each structure is relatively speaking slight (especially when one considers that the Llandinam Scheme meets the criteria to be a NSIP) and (b) when each support structure is looked at as a whole, one can see through it. Furthermore, at a height of approximately 14m, the Llandinam Scheme is strikingly small when compared to either the wind farms being considered at this inquiry or electricity network infrastructure at 400kV or at 132kV on steel towers.[162]

227. All this means, as Cadw recognises in the context of cultural heritage (which is addressed in more detail below), that the visual effects of the Llandinam Scheme reduce rapidly with distance. SG explained in EIC that at 1km distance a 14m high wood pole would appear approximately 14mm high in the view.[163] PRV accepts that the effects diminish rapidly with distance. He sets out his view that high (or in his terms "dominant") visual effects would generally extend only to about 120m away from the scheme but could extend to "*as*

[160] OBJ/002/LAND/POE/RUSSELL/OHL, §2.11.
[161] SPM/CONSTRUCTION/POE/LIVINGSTON/004C, App.2.
[162] SPM/CONSTRUCTION/POE/LIVINGSTON/004C, App.1.
[163] See CD/SPM/ES/001, Vol.1, p.4.

much as" 200m in particular circumstances (albeit one of the viewpoints discussed below at which he contends there is a dominant effect is some 630m from the line). In other words, where there are significant landscape and visual effects, those effects are highly localised.

228. In the context of a project of this nature and its importance to the fulfillment of national energy policy imperatives, localised effects are precisely the type of effect that government policy, in the form of EN-1, accepts will arise with the development of nationally significant infrastructure projects.

Landscape effects

229. PRV confirmed in XX that he agreed that SG's subdivision of the proposed route into Sections A to H through her Field Based Landscape and Visual Sensitivity Assessment[164] was appropriate. Indeed, he adopted her approach and agreed with her assessment of Sections A, D, E, F and G. Accordingly, the only material differences between SG and PRV with regards to landscape effects are as follows:

    a. Section B: PRV said that the magnitude of change was underestimated by SG and it should be high rather than medium. However, the overall conclusion is unaffected by substituting PRV's assessment on magnitude: both SG and PRV assess the landscape effects in Section B as significant. Section B is addressed in more detail below;

    b. Section C: again, PRV thought that SG/ the Updated ES had undervalued the magnitude of effect but even substituting PRV's magnitude of change (medium) the resulting landscape effect remains not significant; and

    c. Section H: here, PRV regarded SG/ the Updated ES to have overvalued the landscape sensitivity which he considers to be low. The effect of

[164] CD/SPM/ES/001, Vol.3a, App.6c

revising the landscape sensitivity down as PRV suggests is that the effect goes from borderline significant in the Updated ES to not significant.

230. It follows that the only area where there is a material divergence of views between SG and PRV in landscape effects, as PRV confirmed in XX, is within Section B.

231. It is convenient here to mention JC. He did have some methodological difficulties with SG's field based approach to landscape effects and, in particular, he said that the assessment of landscape character had been undertaken at too coarse a level and this informed his criticism of the boundaries that SG had developed between the sections of the proposed route.

232. JC was alone in raising this concern. His concerns need to be placed in context: first, they relate principally to Sections F, G and H. As set out above, PRV agrees with SG's assessment of F and G and regards her assessment of Section H as too conservative. Secondly, it is unfortunate that NRW through JC raise this issue now. As SG explained in EIC, NRW was consulted on the Field Based Landscape and Visual Sensitivity Assessment. It was sent an outline methodology for the Updated ES in July 2013[165] which included at Annex 3 a full draft of the proposed Field Based Landscape and Visual Sensitivity Assessment. NRW responded to the draft methodology in August 2013 but the response expressed no concern in relation to the boundaries of the sections drawn up in the assessment. It did raise concerns about two judgments on sensitivity saying that Section F which was assessed in the draft as medium ought to be medium to high and something similar in respect of Section H (albeit the letter also said that the assessment was reasonable). SG took this advice on board and revised both up in the final version. NRW did not express concern about the sensitivity analysis of any other section. It is odd now, therefore, to find NRW criticising an assessment which expressly takes account

[165] CD/SPM/ADD/L&V/02.

of the only criticisms that NRW raised in August last year (which, as JC confirmed in XX, was after his instruction).

233. Furthermore, descending into more detail would not change SG's analysis. It is clear from the Field Based Landscape and Visual Sensitivity Assessment (and SG confirmed as much in EIC) that she took account of the Outstanding LANDMAP overall evaluation for the historic landscape aspect in Sections F, G and H – whether or not that Outstanding historic landscape aspect, in fact, crosses the railway line at Level 3 (the reason JC wanted Level 4 used was that it did cross the railway line at that greater resolution). In short, in preparing her assessment SG took a point against herself such that a Level 4 analysis does not bring anything new. The other reason that JC wanted Level 4 detail taken into account was that the LANDMAP historic landscape aspect overall evaluation shows the line to pass through an area of High value as opposed to Outstanding value through the majority of these sections (and including through much of the VMRHL). SG accepted this was curious (given the landscape is on the Register) and explained that was why she refers to outstanding values in her Field Based Landscape and Visual Sensitivity Assessment. Again, greater detail would not bring about any significant change in the analysis.[166] SG was sensitive to these points in carrying out her assessment. Accordingly, these methodological criticisms are only of academic interest and, given the clear agreement between PCC and SG in this regard, should be afforded very limited weight, if any at all.

Section B

234. The landscape in this section of the Llandinam Scheme is not designated. It has, however, as PRV and SG agree, a high sensitivity.[167] As SG explained, the sensitivity is higher than might be inferred from scenic quality alone because the area is a locally valued historic landscape that contains a cluster of SAMs

[166] CD/SPM/ES/001, Vol.3a, App.6b, Figure 20.
[167] Although it should be noted that the LANDMAP Kerry Ridgeway Visual and Sensory Aspect Area is valued as high rather than outstanding (OBJ/002/LAND/POE/RUSSELL/APPH/OHL).

and is also locally recognised and promoted as a recreational resource due to the Kerry Ridgeway Regional Trail and a number of footpaths, bridleways and Open Access Areas.

235. As PRV agreed in XX, it is correct to take into account a number of features that exist already in the landscape when considering whether or not the Llandinam Scheme would be uncharacteristic in the landscape. PRV acknowledged that all of the following were already present in the landscape: the Llandinam wind farm, turbines at Llwyn Dwr and Esgair Draellwyn and Dolfor, low voltage electricity and telegraph lines supported by wooden poles, areas of commercial forestry (a natural adjunct to which is the felling of trees), roads, farm buildings and other farm infrastructure such as fencing and sheep pens.

236. It is with regard to the magnitude of change in Section B that there is some divergence of views as between PRV and SG. PRV's principal concerns in this regard are the effects of the Llandinam Scheme on trees, tranquility and long views within Section B. He accepts the following key characteristics would not be severely affected: the sense of openness, the scale and the smooth and consistent landcover. PRV also accepts that there would no change to the topographical character of the landscape.

237. Tranquility can be dealt with swiftly, as PRV confirmed in XX, there is no objection to the Llandinam Scheme on the basis on noise. Whilst the visual presence of OHLs can also be regarded as an indicator of loss of tranquillity, the presence of the vertical infrastructure identified above already indicates that this area has experienced a decline in tranquillity.

238. As to trees, PRV identifies a severe effect from the proposed removal of two strips of deciduous plantation in the vicinity of Black Gate and a further strip of coniferous trees.

239. As to the coniferous trees,[168] PRV accepted in XX that the harm caused by the removal of the trees is less than severe in its own right and he is less concerned about their removal than the deciduous trees. Moreover, it must be recognised, as PRV did accept in XX, that forestry is one of the uses of land in this locality[169] and an ordinary incident of forestry is the felling of trees. The removal of coniferous trees in particular should not, therefore, be regarded as uncharacteristic in this landscape.

240. Turning then to the deciduous trees, the concern expressed in the LANDMAP Kerry Ridgeway Visual and Sensory Aspect Area is the preservation of pockets of woodland associated with watercourses.[170] As PRV accepted in XX, neither of the pockets of deciduous woodland with which he is concerned[171] is associated with a watercourse. It is the Black Gate plantation[172] which may be associated with the River Ithon but that group will remain.[173]

241. The effect of the removal of these trees can be seen in VP71.[174] Belts of both coniferous and deciduous trees are plainly visible and form a feature of the landscape. It is important to note that the belts are not continuous. There are breaks. This can be seen clearly in the aerial photograph of the area provided by PRV in EIC.[175] If one looks at the coniferous belt in the distance on the left of the image one sees a break in that belt. The Llandinam Scheme will create another break. The overall effect, therefore, is not a change to the landscape character. In short, as PRV accepted in XX, it is a feature of the existing landscape that both deciduous and coniferous trees are read in distinct groups and this feature would remain after development. It is important to bear this

[168] See CD/SPM/ES/001, Vol.3b, App.7d, TP-18: group 379 (comprising 300 Norway spruce).
[169] See the LANDMAP Kerry Ridgeway Visual and Sensory Aspect Area which identifies forestry as a land use in the area (OBJ/002/LAND/POE/RUSSELL/APPH/OHL).
[170] OBJ/002/LAND/POE/RUSSELL/APPH/OHL.
[171] See CD/SPM/ES/001, Vol.3b, App.7d, TP-18: S378 and 372.
[172] See CD/SPM/ES/001, Vol.3b, App.7d, TP-18: the Black Gate plantation is made up of groups S377, S376, S375, S374 and S373.
[173] Note, though, that four trees from S373 are to be felled but the great majority of the Black Gate Plantation would be unaffected.
[174] SPM/020a (this is one of the viewpoints that was updated during the inquiry).
[175] OBJ/002/LAN/004 (penultimate sheet).

in mind when considering PRV's judgment that these changes are "so severe" in landscape terms that this part of the Application should be refused.

242. As to long views and the sense of historic landscape, this is dealt with in more detail in the context of cultural heritage but the following points should be noted. First, the form and scale of the Llandinam Scheme is such that it is permeable (even if PRV did not like that phrase) and so does not prohibit long views. An example of which is VP50[176] which PRV places at the higher end of his significance spectrum in terms of visual effects but in which the Llandinam Scheme plainly does not prohibit or materially affect the long, open views. A further example is VP04[177] (from Two Tumps), at which location the views are long and open and the line is settled unobtrusively in the valley below (indeed, PRV assesses the visual effect here as not significant).[178] This is also clearly shown in DB's sections.[179] These show that the visual links which are identified on MAC2 as important to the creation of a sense of history are not interrupted by the Llandinam Scheme.

243. PRV judges the landscape effects on Section B as so severe as to be unacceptable. It is submitted that this judgment goes too far: the area is not designated, it is not valued as Outstanding in LANDMAP terms, there are a number of man made features in the baseline, PRV's major concern here is trees but their removal is an ordinary part of forestry and, more significantly, both before and after development the relevant feature of the landscape in this context – identifiable groups of woodland – would remain.

244. Moreover, if one reads PRV's detailed assessment of the effects on the landscape in Section B which is contained in his appendices[180] his judgment appears far less severe than that expressed in his proof. The language is much

[176] CD/SPM/ES/001, Vol.4, p.58.
[177] CD/SPM/ES/001, Vol.4, p.8.
[178] See OBJ/002/LAND/POE/RUSSELL/APPF/OHL.
[179] SPM/023.
[180] See OBJ/002/LAND/POE/RUSSELL/APPG/OHL.

more nuanced and it is submitted that such language is more appropriate to the effects of the Llandinam Scheme in this area. There is no conclusion that the impacts are "so severe" (or indeed even mention of trees). Reading PRV's detailed assessment, it is difficult not to conclude that his view expressed therein is much as SG's own assessment for this section of the Llandinam Scheme – i.e there will be significant effects but not major adverse ones.

245. As SG said in EIC, although there would be localised significant effects in Section B, overall the Llandinam Scheme would not be uncharacteristic in this section, given the existing modern infrastructure (identified above) in the landscape and the fact that the Llandinam Scheme is of a similar scale to other features in the landscape. It should also be recalled that the effects of the Llandinam Scheme, although long term, are reversible.

Visual effects

246. As to visual effects, PRV said in XX that there was "*overwhelming consistency*" with the judgments in the Updated ES on the sensitivity of receptors at viewpoints and a "*high level of agreement*" as to judgments on magnitude (albeit that PRV employs different terms). Again, aside from Section B, there is broad agreement between PRV and SG. PRV confirmed in XX that he considered the effects of the Llandinam Scheme to be acceptable.

247. It is worth touching upon PRV's approach to the assessment of visual effects. He uses the methodology laid down in GLVIA3 for judgments on sensitivity but a different source for judgments on magnitude; the Scottish Natural Heritage document called "Visual assessment of Wind Farms: Best Practice (2002)[181] ("the SNH document").[182] It is from this latter document that PRV derives terms such as "dominant". It is worth recalling that the SNH document is specifically designed for the assessment of wind farms and that it uses the

[181] CD/VATT/LAN/003.
[182] See OBJ/002/LAND/POE/RUSSELL/APPB and C/OHL.

term “dominant” in the context of a 100m turbine in the range of 0-4kms. There is no real basis for comparisons of such turbines to a 14 metre static wood pole which is some seven times smaller. This must be borne in mind when reviewing PRV’s judgments.

Section B

248. The Inspectors and the Secretary of State will clearly form their own views on the visual impacts of the Llandinam Scheme. The principal relevant viewpoints are VP3,[183] VP26,[184] VP27,[185] VP50[186] (addressed above), VP70[187] and VP71[188] (addressed above). It is these viewpoints that PRV assesses as having significant effects (as well as his own viewpoints, but these represent similar views).[189] It is noteworthy that VP26 and VP71 fall outside of the 200m at which PRV suggested views would not be significantly affected. Indeed in the case of VP71, which has already been discussed above, the viewpoint is some 630m from the nearest pole i.e. over three times that distance.

249. It is worth taking two further viewpoints as examples for the purpose of closing: VP3, VP26 and VP70.

250. As to VP3 and PCC’s comments in closing (paragraph 647): SG explained that one of the main changes in GLVIA3 was a move away from the formulaic approach and a greater emphasis of professional judgment. It was in this context that SG explained that her overall judgment was that the effect was moderate (and so significant in EIA terms) though the sensitivity and magnitude of change was high. SG said the effect still fell within the moderate range but was higher (albeit within the same range) than in 2009, due to the increased sensitivity of the users of the bridleway. In the end it does not

[183] CD/SPM/ES/001, Vol.4, p.6.
[184] CD/SPM/ES/001, Vol.4, p.38.
[185] CD/SPM/ES/001, Vol.4, p.40.
[186] CD/SPM/ES/001, Vol.4, p.58.
[187] CD/SPM/ES/001, Vol.4, p.130.
[188] SPM/020a.
[189] See OBJ/002/LAND/POE/RUSSELL/APPF/OHL.

greatly matter in practical terms whether the effect is moderate or major – as SG considered the effect significant in EIA terms and SPM had considered the justification for undergrounding all or part of the Llandinam Scheme by virtue of the EN-5 Paper and the Alternatives Paper.

251. As to VP26: this is a viewpoint where PRV says the magnitude of change is "prominent" (i.e. lower on the scale than "dominant"). Here, as PRV agreed in XX, the Llandinam Scheme is seen in natural gully, backgrounded by landform and natural features of similar colour. It is well accommodated in the view. There already exists an OHL on wooden poles and post and wire fencing. At a range of 256m, the apparent height of the nearest element of the Llandinam Scheme would be under 7mm. For these reasons, SPM commends the conclusion in the Updated ES that this does not represent a significant effect.

252. VP70 is one which PRV assesses as having a "dominant" magnitude of change. The distance from the nearest pole is 125m (giving an apparent height a little over 14mm). Again, there are telegraph poles, fencing, roads, and the dilapidated sheep pens in the landscape already. Whilst the Llandinam Scheme would be a noticeable man made feature it would be backgrounded by landform and yet PRV applies the very highest category of change in his armoury: his judgment would be the same if the development proposed in the same location was a 100m plus wind turbine (the context in which the term dominant was developed) or even a nuclear power station. In short, PRV has nowhere to go. That cannot be sensible when the development proposed is a 14m high wood pole structure with suspended conductors. No large-scale infrastructure project could have a slighter scale and form.

253. So whilst PCC seeks to attack SG for her failure to assess any previous 132kV projects on which she has worked as having major adverse effects, SG's judgment sits very comfortably with the scale and form of the development comprised in a 132kV scheme.

254. PCC in closing on a number of occasions characterises SG's approach as being that if the assessor can envisage infrastructure which would have a greater effect, then the effect cannot be a major impact (see paragraph 650). That is a mischaracterisation of SG's approach. She neither suggests that the possibility of more harmful development is a material factor in assessing a scheme nor limits the possible magnitude or significance of effects of this particular scheme to moderate. However, the nature of the infrastructure is paramount in applying the magnitude of change criteria in GLVIA3 which are applicable across all types of development. For example, "total loss" has to apply to the nuclear power stations that PCC refers to and permeable wood pole structures. When put like this, it is plain that it is PCC's point that is bad and SG's concentration on the form and scale of the development and the consequent landscape and visual impacts of the development proposed is to be preferred. Where SG did compare the Llandinam Scheme with other energy infrastructure, for example when she explained why she thought the effects of the Neuadd Goch wind turbines on their own would amount to a major effect, this was to illustrate her judgements but was not a driver of them.

VMRHL

255. The impact of the Llandinam Scheme on the VMRHL was raised by both the Alliance[190] and NRW[191] in the context of both landscape and visual impact and cultural heritage issues. The cultural heritage effects are discussed below under Secretary of State's matter 7d. The landscape and visual impact of the Llandinam Scheme on the VMRHL is assessed in the Updated ES.[192]

256. SG assessed the VMRHL as having a medium to high sensitivity to the Llandinam Scheme in the Camlad Valley and a medium sensitivity in the rolling

[190] ALL/OHL/POE/03, §5-6.
[191] CON/003/LAND/POE/CAMPION/OHL, §6.4-6.7
[192] CD/SPM/ES/001, Vol.1, §6.7.102 and see SPM/LANDSCAPE/POE/GIBSON/006A, §8.50.

farmland to the north based on her Field Based Landscape and Visual Sensitivity Appraisal.[193]

257. The key point in relation to the impact on the VMRHL is that the magnitude of change experienced would vary considerably depending on the distance and direction of the view: more distant views would experience no or negligible change because the proposed OHL would blend in against the backdrop of landform and vegetation, whilst closer views of the OHL would cause more noticeable change, resulting in a moderate effect.[194] Whilst such an effect may be significant, it must be considered in the context of the size of the VMRHL, the great majority of which would be unaffected.

258. PRV confirmed in XX that he thought the impact of the Llandinam Scheme on the VMRHL to be acceptable.[195] It should be noted that the overall evaluation of visual and sensory criteria in the LANDMAP Thematic and Evaluation Maps shows that the great majority of the VRHL is rated as having only medium value[196] and, moreover, the relevant Powys LCA (authored by JC) states that one of the discernible landscape trends is some degree of degradation by modern development including transport infrastructure (much of it linear) and silos.

259. SPM submits, for the above reasons, that there are no landscape and visual effects on the VMRHL that would warrant refusal in whole or part.

Areas of special landscape character

260. As SG explained in her proof of evidence, areas of local or county landscape value in Powys were designated as Special Landscape Areas ("SLAs") in the superseded Powys County Structure Plan. These designations were not

[193] CD/SPM/ES/001, Vol.3a, App.6c (see Sections F and G).
[194] See, for example, CD/SPM/ES/001, Vol.4, p.118, VP19A.
[195] See also OBJ/002/SOC/OHL, §6.1.
[196] CD/SPM/ES/001, Vol.3a, App.6a, Figure 14.

retained in the Powys UDP. Protection of these areas is instead covered by general development plan policy and the use of LANDMAP as a decision making tool.[197]

Kerry Ridgeway Regional Path[198]

261. From a landscape and visual effects point of view, SG accepts that approximately 500m of the western end of the Kerry Ridgeway Regional Path would experience moderate (and, therefore, significant) landscape and visual effects from the proposed overhead line alone. Moving eastwards along the path, the Llandinam Scheme would gradually drop from view.[199]

262. The Kerry Regional Ridgeway Path would be subject to major (and, therefore, significant) landscape and visual effects when seen in combination with the proposed wind farms in SSA C (i.e. under Cumulative Scenario 3 (see below)). SG further explained that these major effects would occur with or without the Llandinam Scheme as a result of proposed wind farm development.

Severn Way Regional Path[200]

263. Neither PCC nor NRW objected to the Llandinam Scheme on the basis of any impact on the Severn Way Regional Trail. The Trail runs alongside the Montgomery Canal, following the western edge of the study area. At its closest near Garthmyl, it would run just over 1 km from the proposed overhead line. Users of the trail would have easterly views across the River Severn floodplain towards the Llandinam Scheme from a slightly elevated position just above the floodplain. Some views may be possible from the trail, but due to the intervening distance, landform and vegetation, the magnitude of change would

[197] SPM/LANDSCAPE/POE/GIBSON/006A, §7.7.
[198] See SPM/LANDSCAPE/POE/GIBSON/006A, §8.45, CD/SPM/ES/001, Vol.1, §6.7.79 and VP26, 70 and 71, respectively, p.38, 130 and 132 of CD/SPM/ES/001, Vol.4.
[199] As illustrated in VP04 at Two Tumps (CD/SPM/ES/001, Vol.4, p.8).
[200] See SPM/LANDSCAPE/POE/GIBSON/006A, §8.48 and CD/SPM/ES/001, Vol.1, §6.7.78.

be negligible, resulting in an effect of minor significance.[201] At a distance of 1km and given the nature and form of the proposed development, it is difficult to see how the impact could be anything but insignificant.

National Cycle Route 81

264. The Updated ES concluded that likely overall effect on National Cycle Route 81 would be minor and, therefore, not significant.[202] This plainly must be right. It is only a very short section of the route that is in any meaningful way affected by the proposed development. This section is right by the Welshpool substation[203] on the B4381. Whilst cyclists would have views of the end of the Llandinam Scheme, including the terminal pole, the duration of that view would be limited, so too would the extent of it, given the screening effect of the existing roadside hedge and, moreover, the cyclists are likely to be focused on what is a busy stretch of road.[204] The landscape and views at this point are also already degraded by the presence of the substation and existing OHLs.

265. The effects of the Llandinam Scheme on the National Cycle Route 81 was a particular concern of JC.[205] PRV did not object in this regard. JC's concern needs to be placed in context: as he accepted in XX, NRW does not assert that the Welshpool substation is an inappropriate end point for the connection of the LRWF. Moreover, as JC agreed in XX, this section of the cycle route is certainly not one of the reasons why it was designated as such. Given all of this and the need for the Llandinam Scheme and the energy it would deliver, the impact on the National Cycle Route 81 cannot sensibly amount to a reason to refuse this Application.

[201] CD/SPM/ES/001, Vol.4, p.54, VP40.
[202] CD/SPM/ES/001, Vol.1, §6.7.80. See also SPM/LANDSCAPE/POE/GIBSON/006A, §8.49.
[203] See VP73 and 74 (CD/SPM/ES/001, Vol.4, p.136 and 138 respectively).
[204] Note as explained below the impact would become significant under Cumulative Scenario 3 with the proposed extension to the diary at Lower Leighton Farm. However, most of this effect would be due to the dairy extension rather than the Llandinam Scheme.
[205] See CON/003/LANDSCAPE/POE/CAMPION/OHL, §6.12-6.13.

Residential receptors

266. The Alliance explicitly raises residential receptors in its closing submissions.[206] This issue is dealt with comprehensively in the Updated ES and by SG.[207] The conclusions are here adopted.

Cumulative landscape and visual effects

267. The cumulative landscape and visual effects in five scenarios[208] have been assessed by SG and the results are recorded in her proof of evidence and the Updated ES.[209]

268. SG concluded that in areas where the Llandinam Scheme would be located close to the turbines associated with wind farm development in SSA C, other single turbine planning applications, the proposed Mid Wales Connections Project and the consented dairy extension to Lower Leighton Farm there would be long-term but reversible cumulative landscape and visual effects.

269. As SG explained in EIC, the degree of significance would vary depending on the particular scenario assessed.

270. At the southern end of the Llandinam Scheme, under Cumulative Scenario 3 most of the cumulative landscape and visual effects would be related to the introduction into the landscape of the proposed Llanbadarn Fynydd and Neuadd Goch wind farms. Both of these wind farms would be located east of the A483 in a landscape which is currently largely unaffected by turbines.

[206] ALL-030, §12.67-12.68.
[207] SPM/LANDSCAPE/POE/GIBSON/006A, §8.52 and CD/SPM/ES/001, Vol.1, Table 6.11 and Vol.3a, App.6d.
[208] The scenarios are: Cumulative Scenario 1: the Llandinam Scheme + LRWF; Cumulative Scenario 2: the Llandinam Scheme + LRWF + Llanbadarn Fynydd + Llaithddu; Cumulative Scenario 3: the Llandinam Scheme + LRWF + Llanbadarn Fynydd + Llaithddu + Hirddywel + Neuadd Goch + Garreg Lwyd + Bryngydfa + the Mid Wales Connection Project + single turbines + non-energy related development; PCC Cumulative Scenario 1: the Llandinam Scheme + LRWF + Llaithddu (whole scheme); and PCC Cumulative Scenario 2: the Llandinam Scheme + LRWF + Llanbadarn Fynydd.
[209] See SPM/LANDSCAPE/POE/GIBSON/006A, section 10 and CD/SPM/ES/001, Vol.1, §6.10-6.13.

These effects would impact upon both the landscape around the Glog and Kerry Hill and upon users of the Kerry Ridgeway Regional Trail. However, it should be noted that these effects would arise from the presence of the wind farms alone. The presence of the Llandinam Scheme, although contributing to the overall effect, is not a determining factor in increasing the significance of effect.

271. Also in Cumulative Scenario 3, moderate cumulative landscape and visual effects would potentially arise east of Welshpool from the combined effects of the Llandinam Scheme with the consented dairy extension to Lower Leighton Farm.[210] These effects would impact upon residential, recreational and transport receptors in the area as well as the valued historic landscape around Leighton Hall estate. However, once again these effects would remain with or without the Llandinam Scheme which on its own was predicted to give rise to minor-moderate adverse effects.

272. PCC expressed concerns about the cumulative effects of sequential views of the Llandinam Scheme and other overhead lines as experienced by people moving around the area on the network of roads and footpaths. It was said that the repetition of views of wood poles and conductors along the proposed route would itself give rise to a cumulative effect.[211] In many views from the local road network, however, the undulating landform, high tree cover and presence of roadside hedgerows would mean that the wood pole structures and conductors would be screened or backgrounded, thereby reducing the prominence of the proposed overhead line. Furthermore, wooden poles are a feature of much of the landscape and are in scale with the numerous trees in the area. The robust nature of the hedgerows and their height also means that there are likely to be long time lapses between views. As SG explained in EIC, she concluded for the reasons set out above that there are unlikely to be

[210] See CD/SPM/ES/001, Vol.1, §6.11.47, 6.12.13, 6.12.25, 6.12.45. See also the cumulative viewpoints: CD/SPM/ES/001, Vol.4, p.166 on.
[211] CD/SPM/ES/001, Vol.3a, App.2d, p.40.

significant effects on the experience of the wider landscape as people move through it.

Valleys Against Destruction presentation

273. The Alliance's evidence on landscape and visual impacts was presented via the Valleys Against Destruction presentation. The presentation was put together by the Alliance. Neither the production of these materials nor the commentary upon them purported to be the work of an expert in the field. This must limit the weight to be attached to the presentation. SG, who is unquestionably an expert in the field, made the following points in EIC which need to be borne in mind when considering this material:

a. It does not purport to be a proper LVIA. No reference is made to any recognised guidelines;

b. No methodology was provided in terms of how the viewpoints were selected or on the technical parameters of the photography (camera type, lens, range, photo-height, GPS co-ordinates, angle of view etc.); and

c. There are some obvious difficulties with some of the images, for example:

i. "s29 D.jpg" is clearly taken above normal eye height providing an unrealistic viewing height. In reality much of this view would be hidden by the intervening hedge. SG also said that this photograph illustrates that a tripod was not used;

ii. Some of the photomontages appear to be unrealistic rendered. For example, in "s17 M GE.combined.jpg" the cables appear as a very solid black line and the poles are rendered white which makes

them far more prominent than would actually be the case. The photos are also very low resolution;

iii. The scale seems inaccurate. Compare the appearance of the poles on "s20 Q1 GE Combined.jpg" with the appearance on "s2 Abergele Lines-24 to 59.jpg". The distance from the ground to the cross beam in each of these images is very different;

iv. The background in some of the photographs appears distorted – possibly where images have been stitched together or where Google Earth images have been combined with photos (see, for exampled, "s22 Q2 GE combined.jpg").

274. For these reasons, SPM submits that very limited weight should be given to the Valley Against Destruction presentation.

275. Finally, it should be noted that the Alliance referred in closing to the effects of the steel work supporting the conductors:[212] this is proposed to be addressed by draft condition 4.

Conclusion

276. The residual significant effects are set out in the Updated ES.[213] Such effects are inevitable in a scheme of this nature. No areas designated of the highest scenic quality such as Areas of Outstanding Natural Beauty or National Parks would be affected by the Llandinam Scheme. Overall, as SG concludes, the landscape and visual effects of the proposed overhead line are acceptable from a landscape and visual perspective and the Llandinam Scheme could be accommodated within the landscape. Accordingly, there is no reason to refuse on the landscape and visual grounds.

[212] ALL-030, §12.62.
[213] CD/SPM/ES/001, §6.8.11-6.841.

Matter 7b: the impact of the proposed development during construction and operation on biodiversity, including trees and hedgerows and the ecological functioning of protected sites (e.g. the River Wye Special Area of Conservation and Leighton Bats Site of Special Scientific Interest); impacts on European Protected Species under the Conservation of Habitats and Species Regulations 2010 (as amended) ("the Habitats Regulations")

Introduction

277. The ecological impacts of the Llandinam Scheme have been assessed thoroughly in the Updated ES.[214] Jeremy James ("JJ") sets out the relevant legislative and policy context for the consideration of nature conservation matters.[215] KB also assesses the Llandinam Scheme against the relevant NPS, Welsh and development plan policies.[216] There is no need to repeat that evidence here; these submissions focus only on the remaining points of dispute between the parties.

278. PCC did not adduce any evidence in relation to ecology on the Llandinam Scheme. Any debate on this topic was confined between SPM, NRW and the Alliance. JJ sets out in his proof of evidence the extent of the ecological issues.[217] The outstanding issues between these parties are limited to: trees (including veteran trees) (both NRW and the Alliance), protected species (namely, dormice and bats) (NRW) and protected sites (NRW with regards to the Leighton Bat Sites SSSI).

279. Before turning to these issues the following points should be noted. Both legislation and policy require careful routeing and design of projects such as the Llandinam Scheme in order to minimise adverse effects on the nature

[214] CD/SPM/ES/001, Chpt.7.
[215] CD/SPM/ECOLOGY/POE/JAMES/005A, section 4.
[216] SPM/PLANNING/POE/BERRY/011A, §7.6.38-7.6.63 and §12.1.37-12.1.41.
[217] CD/SPM/ECOLOGY/POE/JAMES/005A, section 3.

conservation interests of the area. As to routeing, JJ explains how ecological matters influenced route selection.[218] Internationally and nationally designated wildlife sites, sensitive habitats and other locations of high conservation value have been avoided altogether where possible as part of the earliest discussions on routeing within SPM.[219]

280. As to design: the use of wood poles avoids the need for large concrete foundations and thus reduces disturbance at the pole sites. It should also be emphasised that these pole sites would have a small footprint and construction at each one would be short lived. Furthermore, the entire approach that underlies the Application – seeking consent for a 100m wide corridor – allows for the micro-siting of poles which provides the flexibility for further avoidance of ecological and other receptors (including trees and veteran trees) if a need arises.

Protected species

Introduction

281. NRW's case is that the survey information in relation to both dormice and bats[220] is insufficient in scope or approach to demonstrate whether or not there is likely to be detriment to the maintenance of the favourable conservation status of these species or to inform the mitigation strategy and thus there has been a failure to comply with legislation and policy. NRW's original concerns were veteran trees and curlew. These have now been addressed (see below with regards to veteran trees) and NRW seems to have shifted the goal posts somewhat, raising very late concerns regarding bats and dormice.

[218] CD/SPM/ECOLOGY/POE/JAMES/005A, section 5.
[219] As is illustrated in figures 7.1 and 7.2 of the Updated ES (Vol.6, CD/SPM/ES/001).
[220] Both European Protected Species: see Reg.40 of the Conservation of Habitats and Species Regulations 2010 (CD/FWL/LEG/002).

282. The ecological assessment work which is reported in Chapter 7 of the Updated ES is based upon detailed ecological surveys carried out between 2008 and 2010. The survey work in 2013 for the purposes of the Updated ES was targeted work which was expressly designed to meet the concerns that NRW had expressed up to that point regarding veteran trees and curlew in particular (as set out in its letter of October 2012).

NRW's approach

283. Paola Reason ("PR") and Jon Davies ("JD"), who gave evidence in relation to protected species, were only instructed in December 2013 almost 6 months after the inquiry opened. JD confirmed at the round table discussion that he had not visited the site at the time he wrote his proof. Indeed he only did so a week before the ecology hearing session. Importantly, PR and JD had not reviewed the totality of the evidence and, in particular, had not given any consideration to the evidence on construction methods nor did they suggest that any alternative routes would be better from an ecological standpoint.

284. NRW had not raised the issue of either dormice or bats prior to the issue of its SOC in late 2013.[221] This is despite the fact that there was extensive consultation with NRW during 2013 with the express aim of reaching agreement on the approach to the Updated ES and the survey work required, having regard to NRW's objections as set out in their letter to PCC dated 24 October 2012.

285. In its limited responses all NRW said was that it was generally happy with the bat SSSI survey method and did not comment significantly on other methods save to refer to the need "to follow best practice" (without explaining what that comprises, in its view or acknowledging that guidance is just that). The history of this consultation and the failure of NRW to advertise any of the

[221] There was no reference to dormice or bats in the CCW letter dated 6 August 2008 (App.2a, Vol.3, CD/SPM/ES/001) or in the CCW letter dated 24 October 2012 ((appended to the PCC Cabinet Report), App.02c, Vol.3a, CD/SPM/ES/001). These objections related to curlew, trees and the delivery of mitigation.

concerns now raised is detailed in JJ's proof.[222] It can be of no surprise, therefore, that JJ's proof does not focus on these issues: he had no warning of them. Happily, he was able to assist at the round table session.

286. It is unfortunate to say the least when a party raises issues at this late stage having had the opportunity to do so over a long period and having been expressly written to on numerous occasions asking for input on the very topics and documents that the NRW now chooses to attack.

287. In closing NRW said (paragraph 2.2) that they have no outstanding objections to the LRWF and, further (paragraph 5.2) that it does not challenge the route selection process. If it accepts the LRWF and the route it cannot put much store by its objections to the impacts along the route of the Llandinam Scheme. Indeed it was noteworthy how lightly the protected species issues were pursued in closing.

Dormouse

288. JJ confirmed at the ecology hearing session, as does the emboldened heading "Desk top survey" in Chapter 7 of the ES, that, contrary to JD's assumption,[223] a desk study was carried out as part of the original EIA work.

289. As the Dormouse Survey records, this process did not reveal any previous records of dormice in the Application corridor.[224] It was the PCC Ecologist who, in June 2009, said that a survey for the Newtown bypass had recorded the presence of dormice in hedges and as a result SPM commissioned the dormouse survey. It is surprising therefore, to say the least, that the inquiry is now presented with a more detailed plan showing dormice records from NRW.[225] No adequate attempt has been made to explain why these were not presented at any earlier stage or even mentioned during the extensive 2013

[222] SPM/ECOLOGY/POE/JAMES/005A, §3.3-3.5.
[223] CON/003/ECOLOGY/POE/DAVIES/OHL, §4.1.1.
[224] CD/SPM/ES/001, App.7h, Vol.3b, §1.
[225] CON/003/ECOLOGY/DAVIES/OHL, App.1.

correspondence. JD's proof of evidence included a simplified version of the NRW dormouse records as an appendix, he was unable to explain the key to this plan showing the NRW records nor explain the relevance now of what is largely historic data.

290. Indeed, JD's entire approach was – as he said – to gain "as good an understanding as you can." But as JJ explained, this approach is misplaced. What one needs is sufficient information to identify and understand the likely significant effects and to be able to establish a mitigation strategy. Indeed, as JJ pointed out, Hyder's own publically available publicity literature advocates a "pragmatic" approach where on another linear scheme it was determined by Hyder that a survey and licence was not required and a working method statement would suffice.[226] JD, of the same firm, now advocates a very different approach.

291. It is important to note that JJ was very much having regard to the form and scale of the proposed development when making his assessment, in particular, the short construction period at each pole site and the ability to micro-site within the corridor. These features of the Llandinam Scheme influence what information is reasonably required. As JJ said, if the scheme were a road, he would require much more information.

292. The SPM Dormouse Survey was focused, for obvious reasons, on the areas where there was a known presence: in proximity to Newtown and the Llandinam Scheme route corridor – the suggestion from JD to explore in detail further afield would be without benefit. As JJ explained, the NRW records tend to back up this decision. The hedgerows within the northern section of the Llandinam Scheme route are all heavily managed, making them unsuitable for dormice and the records show no dormice. The southern end is devoid of habitat and again there are no records of dormouse having been recorded as present. The records also appear to show the A483 acting as a barrier, so that

[226] SPM/010, p.4.

the area of potential habitat for dormice is confined to the section to the north of the Kerry Hill area in proximity to Newton. It is on this area that the SPM survey has concentrated.

293. JD makes various criticisms about the survey methods used by SPM. However, it is not necessary to deal with them in detail here because, as JJ explained, not only was there sufficient information on which to determine the likely significant effects and to develop an appropriate mitigation strategy but, moreover, the Updated ES takes a worst case approach and assumes the presence of dormice – recognising the limitations of surveys for this species and that it is often not possible to prove the absence of dormice in suitable habitat.[227]

Mitigation

294. The mitigation strategy, which is set out in the Updated ES, is based on this worst-case approach.[228] It includes pre-site surveys, careful timing of works, use of brashing (which provides connectivity between dormouse habitats) and ecological site supervision. JD criticises the mitigation strategy in a number of respects. However, his criticism is misplaced. For example, the criticism that the proposed mitigation measures apply only along a short section of the Llandinam Scheme is misplaced.[229] Mitigation focuses on the areas in proximity to Newtown which is where, as described above, suitable habitat and records indicate any dormice are most likely to be. Moreover, it should be remembered that the proposals are subject to a pre-construction surveys. JD further says that there has been a failure to mention seasonal constraints.[230] However, the Dormouse Survey clearly states that where tree and hedge clearance is required it should be undertaken between September and October.[231]

[227] See CD/SPM/ES/001, Vol.1, §7.6.27 and 7.9.13.
[228] CD/SPM/ES/001, Vol.1, §7.9.13-7.9.15, Table 12.2, EMP 42 and Vol.3b, App.7h, §5.1.
[229] See CON/003/ECOLOGY/POE/DAVIES, §5.2.2.
[230] See CON/003/ECOLOGY/POE/DAVIES, §5.2.3.
[231] CD/SPM/ES/001, App.7h, §5.1.

295. In any event, mitigation is to be agreed with PCC – presumably with input from NRW –under the Environmental Management Plan to be submitted and agreed under draft Condition 6. This will require pre-construction surveys and construction method statements expressly in relation to dormice. Condition 6, therefore, is capable of addressing JD's concerns.

Licensing

296. NRW's assertion that a licence will be required on the basis the works could "easily" have an effect on dormice is speculative and not based on any evidence. It ignores the fact that there will be pre-construction surveys which will, in reality, dictate whether or not a license is required. Furthermore, it ignores the patchy distribution of suitable dormouse habitat in the route corridor (cf. the abundant habitat near by but outside the corridor), the low density of the species where it has been found in Powys (only 2-3 per hectare) and, most significantly, the nature of the development proposed in that the likelihood of any one wood pole actually impacting directly upon a dormouse nest or resting place is, as JJ put it, very remote indeed. What is more, the Application for consent is for a corridor: if the pre-construction surveys do reveal a potential impact then the offending pole could be micro-sited to avoid the problem. As result, there is nothing to suggest at this stage that licensing will even be required. No party has suggested with regards to dormouse and bats that if a licence is required it would not be granted.

Bats

297. NRW's general thesis in relation to bats is similar to that with regards to dormouse; it is a general allegation of insufficiency of information, made at a very late stage in the inquiry process.

298. JJ explained at the ecology round table session that all the surveys were carried out by very experienced bat experts and provide an adequate and comprehensive description of the baseline conditions.

299. Moreover, as indicated above, SPM consulted closely with NRW and had been in correspondence with NRW in July 2013 when NRW said that it was generally happy with the methodology used.

300. NRW only now asks for tree climbing to be included as part of the survey, despite having not raised any concerns on tree roosts in any of the correspondence between NRW and SPM (and indeed NRW accepted tree climbing was not necessary in October 2012). JJ took the view that such a method would be unnecessary, costly and hazardous and noted that his team had only ever found bats twice using tree climbing surveys prior to construction. It was unlikely that bats would be found by this method given their mobility.

Impacts

301. JJ noted that the low number of bats recorded (found over insect hotspots) fitted with the landscape. It was key to appreciate the Llandinam Scheme in the context of the availability of extensive suitable foraging and habitat for bats that exists outside of the route corridor. Meanwhile, the route corridor is heavily farmed, meaning that there is limited food for bats. As such, the survey work undertaken since 2009 and the Llandinam Scheme itself need to be considered in this context.

302. JJ confirmed that the there would not be likely significant effects on bats arising as a result of the Llandinam Scheme. There is, however, potential for the loss of mature trees that may support roosting bat species. In this regard, JJ concluded that the loss of a small number of potential roost sites is unlikely to have an effect on the local bat populations given the abundance of potential roosting habitat in the surrounding landscape.

303. With respect to the potential effect of the Llandinam Scheme on bat flight paths, this could occur where poles are located in, or adjacent to, established

hedgerows or where construction access requires removal of small sections of hedgerow. However, provided mitigation measures are in place to maintain the continuity of these hedgerows (which is being provided), they are unlikely to be affected by this phase of the development.

Mitigation

304. The proposed mitigation is set out in the Updated ES.[232] Prior to works commencing, further investigations will be carried out to ascertain the extent of bat potential in those trees identified as having the potential to support roosting bats. For any tree identified as having medium or high potential for bat roosting, felling and tree management works will be carried out according to a construction method statement involving careful timing to avoid sensitive seasons for bats and working under an appropriately licensed ecologist. Where a roost is confirmed in pre-works surveys, the works will be carried out under licence and will follow a similar approach to that described in the previous sentence. Where potential bat flight paths are affected, gaps in features will be temporarily bridged using appropriate methods such as fencing, netting or brash piles. Again, mitigation is to be agreed by PCC under condition 6.

Leighton Bat Roosts SSSI

305. Further information has been provided in respect of how the Llandinam Scheme might impact upon Leighton Bat Roosts SSSI. Surveys undertaken in 2013 assessed the potential impact of the Llandinam Scheme upon Leighton Bat Roosts SSSI. The surveys confirm that the Llandinam Scheme will not impact upon the status of the SSSI.[233] Temporary flight lines will be installed to mitigate for impacts to bat commuting features until replanting has matured sufficiently.

[232] CD/SPM/ES/001, Vol.1, §7.9.7-7.9.10 and Table 7.18.
[233] CD/SPM/ES/001, Vol.1, Table 7.10.

Protected Sites

306. The Secretary of State's matter 7b explicitly refers to the River Wye SAC and the Leighton Bat Roosts SSSI. The latter is dealt with above. As to the River Wye SAC, this is dealt with in the Updated ES[234] which provides further information that confirms that there will be no likely significant effects on the SAC due to the distance of the Llandinam Scheme from the SAC, the (very) small footprint of the works proposed and the ability to use tried and tested mitigation techniques during construction to avoid pollution. NRW have come to the same conclusion.

307. As to protected sites more generally, the Updated ES concludes that the Llandinam Scheme would not result in any significant effects on any other designated sites. [235]

Trees[236]

308. JJ began in relation to the impact of the Llandindam Scheme on trees by taking the inquiry to the ecological constraints plan:[237] as JJ explained, this shows frequent stands of ancient woodland scattered widely through the landscape. The areas in between are over-farmed land of low ecological interest with scatterings of other woodland, trees and hedges. Impacts on trees are, in short, inevitable. However, JJ was satisfied that, on balance, the Llandinam Scheme, even with the number of trees it will affect, has been very successful at avoiding woodland and reducing the inevitable effects on trees and hedges that a linear scheme in this area will have. Further, JJ concluded that alternative routes would not result in materially different numbers of trees being lost. The trees to be felled in the case of the Llandinam Scheme are not considered by JJ to be of ecological interest. SPM has confirmed that the Black

[234] See, in particular, CD/SPM/ES/001, Vol.3b, App.7a.
[235] See CD/SPM/ES/001, Vol.1, Tables 7.10, 7.11, 7.14 and 7.15.
[236] See SPM SPM/ECOLOGY/POE/JAMES/005A, §8.12, 12.3 and 12.4
[237] SPM/ECOLOGY/POE/JAMES/005C, App.1.

Poplar can be retained. JJ also confirmed, in an update to his proof, that further work is being carried out by SPM to investigate whether the one remaining veteran tree can be avoided by micro-siting. It is not clear it can be at this stage. But work to date has reduced impacts on veteran trees from over 10 to a single tree.

Mitigation

309. On its projects, SPM reinstates vegetation, trees and hedgerows which are unavoidably removed or displaced during construction operations and also has a policy of discretionary planting as an additional enhancement commitment. This will include replanting with native, broadleaved species where non-native conifers have been felled. Measures may also include the reinforcement of existing hedgerows, new tree planting within hedgerows, tree planting along field boundaries or woodland block planting. Such enhancements are normally delivered through landowner agreements during the wayleaves and easements process.

Conclusion

310. With regard to the key issues raised by NRW and the Alliance in their SOC, it is submitted that: first, the impacts to veteran trees have, as set out, above been almost entirely avoided and, secondly, as JJ explained the information is sufficient to determine there would be no likely significant effects in relation to dormouse and bats and to develop an appropriate mitigation strategy. The suggestion by NRW in closing (paragraph 6.2) that these fundamental requirements have not been fulfilled is plainly wrong for the reasons explained by JJ.

311. In summary, impacts to ecological features are small scale, temporary and largely avoidable (due to the ability to micro-site). In terms of the overall planning balance, JJ concludes that the residual effects upon ecological

receptors are negligible. As such, there are no reasons to refuse the Application on ecological grounds.

Matter 7c: the relative merits of the proposed development, any alternatives considered and likely effectiveness of mitigation measures to address: the impact of the proposed development on the use and enjoyment of land in the vicinity, including farming activities and on users of Rights of Way, including the Kerry Ridgeway Regional Path, Severn Way Regional Path and the National Cycle Path near Welshpool

312. The effect on farming activities and the public rights of way identified in this matter have already been addressed under matter 7(a) (landscape) and matter 6 (socio-economics).

313. RB sets out his conclusions on this matter in detail in his proof and that evidence is adopted and not repeated here for the purposes of closing.

314. In short, whilst he identifies the sensitivity of the users of the public rights of way to be generally high, the impacts are sufficiently slight to result in no significant effects. This is principally because the effects of the Llandinam Scheme are high localised and do not impact on the great majority of the route.

315. In closing PCC suggested (paragraph 661) that whilst the users of the Kerry Ridgeway Regional Trail will not experience adverse effects throughout the trail, experiencing effects in the first section is more likely to discourage users. It has no basis on which to make that submission. PCC, whilst indicating in its original SOC that it would call a witness on public rights of way,[238] decided in the end not to do so and did not produce any quantitative evidence on users of the rights of way even though it took RB to task for not doing the same. Contrary to PCC's assertion, RB was plainly right to take into account the consultation responses and his professional judgment is both the only and sound evidence before the inquiry on this matter.

[238] OBJ/002/SOC/OHL, §9, §12.1.3.

Matter 7d: the relative merits of the proposed development, any alternatives considered and likely effectiveness of mitigation measures to address the impact of the proposed development on cultural heritage

Introduction

316. The impacts of the Llandinam Scheme on cultural heritage assets are assessed in Chapter 8 of the Updated ES[239] as well as by David Bonner ("DB") in his proof of evidence.[240]

317. As DB explained in EIC, he joined the SPM team in December 2013[241] following receipt of a letter from the Welsh Government in which it was reported that Cadw, the Welsh Government advisor on cultural heritage matters, who had previously described the environmental impact assessment work as "*extremely thorough and well considered*",[242] had examined the Updated ES and advised that the impacts on a number of cultural heritage assets had been overestimated.[243] DB's assessment was not 'very late' (PCC's closing paragraph 681). Rather, it was in response to the Welsh Government letter dated December 2013.

318. In light of this, DB was asked to review Chapter 8 of the Updated ES and to give evidence at the inquiry. DB concluded, much as Cadw had, that a number of judgments in the cultural heritage chapter of the Updated ES were perhaps too conservative, albeit that overall the Updated ES was both robust and comprehensive.

[239] CD/SPM/ES/001, Vol.1, Chpt.8.
[240] SPM/HERITAGE/POE/BONNER/010A, see, in particular, section 8.
[241] DB confirmed in Re-X that he had sufficient time and familiarity with the Llandinam Scheme and surrounding area to form his judgment.
[242] SPM/026.
[243] CON/001/007.

Cadw

319. There is no suggestion from Cadw that the Llandinam Scheme should be refused in whole or part as a result of cultural heritage impacts. The views of Cadw, given its status and purpose, should be accorded very significant weight. Cadw's comments on individual assets are dealt with below. However, its overall conclusions are worth setting out here.

320. First, Cadw accepts the conclusions of the ASIDOHL2 assessment as set out in the Updated ES and does not have concerns in relation to VMRHL. Secondly, it concludes that the majority of impacts arising as a result of the Llandinam Scheme will be slight. Thirdly and importantly, Cadw recognises that at distances of 200m and more the nature of an OHL mounted on wooden poles is such that it takes the view that it would be unlikely to affect any sense of place or the interpretation of cultural heritage assets.[244] It is, therefore, highly significant that, as Cadw points out, only two SAMs are located within the Application corridor and a further one between 100 and 200m from the OHL corridor. Finally, whilst there will be a small number of major adverse impacts that would arise as a result of the Llandinam Scheme, these would be localised and only for the life of the Llandinam Scheme, such that Cadw does not have significant concerns.[245]

Policy

321. As set out above, there is no specific guidance in EN-5 on cultural heritage or that indicates that undergrounding should be considered as a result of cultural heritage impacts. However, EN-1 does provide guidance on cultural heritage matters.[246] As Andrew Croft ("AC") agreed in XX, the requirement placed on the applicant is to provide a description of the significance of heritage assets

[244] CON/001/007.
[245] See SPM/026.
[246] CD/COM/001, §5.8.

affected by a proposed development (in a manner proportionate to the importance of the asset) and to ensure that the extent of the impact of the proposed development on the significance of the assets (including their setting) can be understood. As AC accepted, there is no mention of "substantial harm" in EN-1 in the context of any assessment that an applicant is required to make themselves. What is required is an assessment of significance that will set the scene for the decision-making of the Secretary of State.[247] Chapter 8 of the Updated ES, therefore, fulfils precisely the requirements imposed on an applicant by EN-1.

322. The concept of "substantial harm" is introduced under the sub-heading "*[IPC] decision making*". It is a test for the decision-maker to apply and a different task from establishing the significance of impacts (the task with which DB (and SPM) was tasked). Paragraph 5.8.14 states in so far as material:

> "*There should be a presumption in favour of the conservation of designated heritage assets and the more significant the designated asset, the greater the presumption in favour of its conservation should be…Significance can be harmed or lost through alteration or destruction of the heritage asset or development within its setting. Loss affecting any designated heritage asset should require clear and convincing justification. Substantial harm to or loss of a grade II listed building park or garden should be exceptional. Substantial harm to or loss of designated assets of the highest significance, including Scheduled Monuments; registered battlefields; grade I and II* listed buildings; grade I and II* registered parks and gardens; and World Heritage Sites, should be wholly exceptional."*

323. As AC accepted, "substantial harm" must be a very high level of harm. It is a term which is used in conjunction with total loss – as MHQC put it, in XX of AC, it is an "extreme" form of harm. Moreover, as AC agreed in XX, substantial harm and a major adverse effect in EIA terms are not necessarily one and the same: a major adverse effect can exist without there being "substantial harm". AC said that "substantial harm" lies at the upper end of the spectrum of major

[247] See CD/COM/001, §5.8.8-5.8.10.

adverse effects, which reinforces the conclusion that "substantial harm" is a high level of harm. This much is confirmed by case law (see *Bedford Borough Council v Secretary of State* [2013] EWHC 2847 (Admin) in which the judge said that the term "substantial harm" was not limited to physical harm but "*one was looking for an impact which would have such a serious impact on the significance of the asset that its significance was either vitiated altogether or very much reduced.*"[248] In the end whether there will be "substantial harm" is a matter of judgment for the decision-maker on the particular facts.

324. But a decision-maker will need to apply the term consistently. EN-1 applies to all energy infrastructure projects, from nuclear power stations to the wood pole scheme before this inquiry. As AC agreed in XX, the Llandinam Scheme falls right at the bottom end of the spectrum of infrastructure projects to which the NPS suite of documents applies. Indeed, the visual comparison of electrical infrastructure provided by RL[249] shows that Llandinam Scheme as a 132kV line on HDWP supports is right at the lower end of the spectrum of electricity infrastructure: the Llandinam Scheme is about 14m tall, which compares to a 46m lattice tower required to carry a 400kV line.

325. AC's assessment provides no scope for the Secretary of State to apply the term consistently when dealing with far larger applications, unless the Secretary of State is simply to underground all larger electrical connection schemes. It is precisely this point that Cadw is getting at in its December 2013 letter, where it suggests some of the effects as assessed in the Updated ES may have been too conservative. In short, it is essential to take into account the scale and form of the development proposed and the wider context in which the policies will apply.

[248] Paragraph 25 of the judgment. As PCC states in its note on legal submissions, that judgment needs to be read in the light of the Court of Appeal decision in *Barnwell Manor Wind Energy Limited v East Northamptonshire District Council* [2014] EWCA Civ 137, in particular, with regards to the application of section 66 of the Planning (Listed Buildings and Conservation Areas) Act 1990. However, there is no adverse comment on the conclusion in *Bedford* in relation to the level of harm to which "substantial harm" refers.

[249] SPM/CONSTRUCTION/POE/LIVINGSTON/004C, App.1.

326. In the end, as AC accepted, it is for the decision-maker to place any "substantial harm" in the balancing exercise. For this reason it does not, of itself, require undergrounding – other factors will be at play, as is demonstrated by PCC's conclusions (through MC at this inquiry) that the Llandinam Scheme need not be undergrounded as it passes the Bryn Cwmrhiwdre mound (MG280) despite AC's conclusion that on the basis of cultural heritage impacts alone undergrounding would be warranted.

Significant effects: Section B

Introduction

327. AC confirmed his view in XX that outside of Section B (including through the VMRHL) there was no need for undergrounding arising from cultural heritage concerns.[250]

328. SPM/024 tabulates the results of the assessments of cultural heritage assets within Section B that are contained in the Updated ES and the proofs of evidence of DB and AC. It is only four of these assets that AC assesses as being substantially harmed: MG280 (the Bryn Cwmrhiwdre mound); MG062 (early medieval cross dyke); MG063 (early medieval cross dyke); and 1896 (the Black Gate Enclosure). It is these assets on which these closing submissions focus.

329. PCC have reproduced SPM/024 in its closings (page 316) but missed the oral correction DB made to Black Gate. His assessment was it was minor adverse (not significant). This is reflected in the commentary below on Black Gate.

Bryn Cwmrhiwdre (MG280)[251]

[250] See his analysis at OBJ/002/HISTENV/POE/CROFT/OHL, §6.18 which shows level of harm on all the relevant cultural heritage assets as less than substantial.
[251] See CD/SPM/ES/001, Vol.1, §8.5.64.

330. DB's views on the impact of the Llandinam Scheme on this asset are set out in his proof of evidence.[252]

331. MG280 is located at the southern end of Section B where PCC does not ask that the Llandinam Scheme be undergrounded. As a result, PCC accepts "substantial harm" to this asset and consequently that there is no cultural heritage justification for undergrounding at the southern end of the route. Moreover, this means on PCC's own case – and at this location – the Llandinam Scheme meets the "wholly exceptional" test. As we suggest later this is an important concession in the context of the planning balance.

332. DB explains that there are unlikely to be any direct effects on the asset as a result of construction – the OHL will be about 30m away from the centre of the asset and, in any event, the span and length of the poles are more than adequate to clear the barrow – but given its proximity to the OHL, specific mitigation is proposed on a precautionary basis to deal with any potential direct effects.[253] Cadw have expressly said that the mitigation strategy for MG280 is satisfactory.[254]

333. Inevitably, there will be indirect effects on the asset's setting (and these cannot be mitigated).[255] An observer is likely to view the earthwork from the public road to the north, with the proposed OHL passing in between. As DB said, there would be a strong visual intrusion and both he and Cadw agree with the assessment in the Updated ES that the indirect effects on MG280 will likely be large/ very large and, therefore, significant. DB agrees with AC's view that there would be substantial harm.

334. However, it is important to recognise, first, that these effects will diminish rapidly with distance as set down in the Cadw letter; second, the visual

[252] SPM/HERITAGE/POE/BONNER/010A, §8.12 and 8.36.
[253] See CD/SPM/ES/001, Vol.1, Table 8.16 and CON/001/007.
[254] CON/001/007.
[255] CD/SPM/ES/001, Vol.4, p.84, VP2.

relationship with the Glog on which AC places some importance is already compromised by vegetation (as AC himself accepts);[256] and, third, as AC also recognises,[257] two small wind turbines have already further degraded the setting of this asset; fourth, AC states that other important elements of the asset's setting would remain essentially unaffected (views to the east and south).

335. Accordingly, no party suggests that the impacts on MG280 are sufficient to warrant refusal in part.

Early medieval cross dyke (MG062 and MG063)[258]

336. This section contains three scheduled lengths of an early medieval cross dyke of which these assets form two. As DB also explained, there is a further recently discovered section between MG062 and MG063.[259] These assets are medieval boundary markers and as such have an important relationship with the landscape but also a very large setting due to the dyke's linear nature.

337. DB explains that there are unlikely to be any direct effects on the asset as a result of construction of the Llandinam Scheme, given the nature of the proposed development and the fact that it oversails an apparant gap in the asset. As such there should be no direct effects but, nonetheless a scheme of precautionary mitigation is proposed with which Cadw are satisfied.[260]

338. As to the indirect effects on the assets' settings, these are complex and varied due to the dyke's linear nature and the topography it traverses. DB considers these impacts in detail.[261] Indeed, these assets are examples of where DB concludes that the Updated ES was overly cautious.

[256] OBJ/002/HISTENV/POE/CROFT/OHL, §6.28.
[257] OBJ/002/HISTENV/POE/CROFT/OHL, §6.27.
[258] See CD/SPM/ES/001, Vol.1, §8.5.39.
[259] See CD/SPM/ES/001, Vol.6, Figure 8.2, Asset number 84868.
[260] See CD/SPM/ES/001, Vol.1, Table 8.16 and CON/001/007.
[261] SPM/HERITAGE/POE/BONNER/010A, §8.37-8.40.

339. The indirect effects on these assets will be different depending on the viewpoint. Compare VP26[262] – in which the OHL is seen in a broad landscape – with VP84[263] where the effect of the proposed development on the setting of the dyke is much more intimate and, therefore, significant. However, context is important here and the landscape already contains a number of man-made features including a road, fences, poles, dilapidated buildings the metal roofs of which, DB pointed out in EIC, catch the sun as well as the many linear features such a tree breaks/ plantations. But perhaps the most important point is this: as DB said in Re-X when taken to VP71,[264] in simple terms the Llandinam Scheme does not materially alter our understanding of the monument – it was a boundary maker and the viewer remains able to understand on which side of the boundary marker he stands. It is too simplistic to say as PCC does (see paragraphs 702 and 706 of PCC's closing) that the bisection of a linear boundary feature is substantial. There is no physical bisection and the significance of the boundary maker can be well-understood post development. That is the critical point. Importantly too, the effects of the Llandinam Scheme would no longer remain following the decommissioning of the development. Any indirect effects are, therefore, reversible.

340. DB concludes, therefore, that the assessment in the Updated ES is too cautious and the magnitude of effect has been over-estimated such that the effects are not significant. This is as a result of, first, the design in terms of materials and form, secondly, the fact that the Llandinam Scheme is frequently backdropped by land or vegetation in relevant views, thirdly, the linear nature of the monument and its setting, for which there are restricted views on account of landform and vegetation, and, finally, the existing modern intrusions into the landscape as set out above. Whilst DB accepts there may be impacts on these assets that at a localised level are significant, overall given the length and nature of the dyke allied with the form of the proposed development, DB

[262] CD/SPM/ES/001, Vol.4, p.86.
[263] CD/SPM/ES/001, Vol.4, p.152.
[264] CD/SPM/ES/001, Vol.4, p.132.

concludes that the harm is not significant. He confirmed in EIC that the harm was less than substantial.

341. If DB's views are accepted then on AC's own case these monuments would not justify undergrounding. Moreover, the potential archaeological dis-benefits of undergrounding between these monuments which have been outlined above must not be forgotten.

Black Gate (1896)[265]

342. As DB said in EIC, this asset is difficult to find, is not designated, dated and even its precise nature is uncertain. This is clear from the asset's description which hesitantly concludes that it is not a ring barrow but a henge.[266] Whilst AC states that the visual relationship with the surrounding landscape is important to its setting, the reality is that the enclosure sits in a modern field surrounded by plantations/ windbreaks such that the potential effects of the Llandinam Scheme are not the same as if it were in an open landscape. This can be seen from the aerial photos attached to the description. Moreover, the OHL is back-dropped against trees at this location. Given all of this, DB concludes that the effects are not significant and the harm is less than substantial.

Other assets in Section B

343. Whilst it is not necessary to deal with those assets in Section B to which AC attributes less than substantial harm, AC does rely on the general historic nature of the landscape and, in this regard, carefully highlights the lines of sight between certain assets as depicted by blue arrows (labelled "Key Visual Links between Heritage Features") on MAC2.[267]

[265] See CD/SPM/ES/001, Vol.1, §8.5.109.
[266] OBJ/002/HIST/007.
[267] OBJ/002/PLANNING/POE/CARPENTER/OHL, MAC2.

344. However, as the five sections produced by DB demonstrate,[268] the topography ensures that the proposed development does not intervene in these sight lines and, consequently, cannot possibly be said to add to the case for undergrounding. The lines link the Two Tumps (MG048), the Glog Tumuli (MG121), Crugyn Round Barrows (MG122) and Bryn Cwmyrhiwdre (MG280). AC does not regard the impacts on the first three as substantial (with which DB agrees) and PCC accept the substantial harm to the Bryn Cwmyrhiwdre mound (Nb., there is already a turbine on the line from the Two Tumps to Bryn Cwmyrhiwdre). It is difficult to see, therefore, how these lines can, properly analysed, assist PCC's case.

345. As to the others: MG257 (barrow west of Cae-Betin Wood) is outside of the area which PCC seeks to be undergrounded (and, in any event, AC assesses the effects as less than substantial and DB agrees); and RD250 (Banc Gorddwr round barrow) and MG109 (Crugynau round barrow) are assessed by AC as having less than substantial harm (again, DB agrees) and such a conclusion is plainly right given their distance from the Llandinam Scheme.

Other cultural heritage matters

346. The Alliance raised a number of further cultural heritage issues which are addressed here shortly. However, whilst the Alliance tendered a proof on the subject, it did not tender an expert in cultural heritage. SPM submits that a lay proof cannot be afforded the same weight as that of an expert.

LANDMAP – historic landscape aspect

347. The Alliance placed some importance on the fact that the OHL passes through a number of outstanding LANDMAP historic landscape aspects.[269] However, as DB explained in EIC and as is confirmed by the Updated ES,[270] LANDMAP is

[268] SPM/023.
[269] ALL/OHL/POE/03, §2-4.
[270] CD/SPM/ES/001, §8.4.43.

principally a tool for the assessment of LVIAs and all five datasets are designed to be used together for landscape decision-making. LANDMAP is not intended as a tool by which to assess cultural heritage impacts alone.

VMRHL

348. NRW is not pursuing a case in relation to cultural heritage save in so far as the VMRHL falls under this heading.[271] Indeed, as JC confirmed in XX, cultural heritage matters do not fall either within the remit of his instructions nor NRW's remit. JC confirmed in XX that NRW did not suggest that there would be any direct impacts on cultural heritage assets within the VMRHL. Rather, his concerns arose from indirect impacts on the VMRHL. This issue is also addressed under landscape above.

349. The Guide to Good Practice on Using the Register of Landscapes of Historic Interest in Wales in the Planning and Development Process ("the Good Practice Guide")[272] states that RHLs are of national importance. However, as JC agreed in XX, it is important to recognise that the inclusion of an area of land on the Register of Historic Landscapes ("the Register") does not impose statutory controls on it nor does it comprise a designation.[273]

350. The Good Practice Guide recognises that landscapes are dynamic, living systems fashioned to meet current, mainly economic, needs and that what exists today is largely produced through human endeavour. As JC agreed in XX, landscapes will continue to change, they need to change and the intention of the Register is not to fossilise them or to prevent them from being altered but rather to manage them in ways that will allow the key historic elements or characteristics from the past to be retained while still meeting modern needs.[274]

[271] See the Natural Resources Body for Wales (Functions) Order 2012 as summarised in JC's proof (CON/003/LAND/POE/CAMPION/OHL, §1.6).
[272] CD/CPL/CUL/004.
[273] Indeed, this is expressly said in the Good Practice Guide (CD/CPL/CUL/004, §2.5).
[274] CD/CPL/CUL/004, §1.5.

351. Paragraph 6.4.9 of PPW explicitly states that the information on the Register should be taken into account where the proposed development would have a more than local impact on the registered area. Here, what is proposed is a linear project the form of which is, as SG and DB described it, "visually permeable," and the impacts of which, all parties recognise, recede with distance.

352. As a matter of fact the Llandinam Scheme passes through a very small proportion of the VMRHL and does not affect the great majority of the land mass within it. Accordingly, the effects are localised within the VMRHL and the conclusions of SPM, PCC and Cadw are self-evidently correct having regard to policy.

353. Nonetheless, the impacts of the proposed scheme on the VRMHL have been assessed (this is reported in the Updated ES) under the ASIDOHL2 methodology which has been designed to enable an objective assessment.[275] Both PCC and Cadw (as already indicated) accept the conclusions of this assessment.

354. What the assessment shows is that the Llandinam Scheme will traverse five of 19 historic landscape character areas ("HLCAs") which make up the VMRHL. A total of eight HLCAs sit within the study area. The overall level of significance of effect was calculated to be "fairly severe" in one instance (the Fflos HLCA), moderate in four and slight in three.

355. It is important to place these findings in context. The relevant scale laid down in the methodology goes up to "very severe". "Fairly severe" is just above the mid point of the scale (requiring a score of 16-20 out of 30 and Fflos scored 16 at the bottom of that range).[276] On the basis of the assessment, the

[275] CD/SPM/ES/001, Vol.3b, App.8a.
[276] CD/SPM/ES/001, Vol.3b, App.8a, Table 37.

significance of the effect on the Vale of Montgomery Registered Historic Landscape as a whole was assessed as moderate (a score of 10-15 out of 30). JC confirmed in XX that he did not seek to attack the conclusions of the ASIDOHL2 assessment and, indeed, NRW in its former guise had had input into the ASIDOHL2 assessment so JC was right not to.[277]

356. Indeed JC's approach (as indicated in the last sentence of paragraph 5.7 of his proof of evidence) is one which looks to the VMRHL as a whole. Such an approach is not appropriate, especially given the ASIDOHL2 methodology demands that the whole registered historic landscape is subdivided into HLCAs so that the sensitivity of the landscape can be analysed in more detail and, indeed, policy (as set out above) requires the information on the Register to be taken into account where there is more than a local impact. JC agreed in XX that this requires looking at the VMRHL at a more detailed resolution than looking at it as a whole.

357. For these reasons the conclusions of Cadw, AC and DB in cultural heritage terms (and SG and PRV in landscape terms) should be preferred. There is no basis on which to refuse the Llandinam Scheme as a result of impacts on the VMRHL.

Offa's Dyke

358. JC expressed some concern[278] about the impact of the Llandinam Scheme on Offa's Dyke as an important element of the VMRHL. It is not a concern shared by DB or AC or SG or PRV. Moreover, the ASIDOHL2 assessment, the results of which both PCC and Cadw accept, takes into account the presence of Offa's Dyke in the registered historic landscape.[279]

[277] See SPM/HERITAGE/POE/BONNER/010A.
[278] CON/003/LANDSCAPE/POE/CAMPION, §3.4 and 3.9.
[279] See, for example, §1.5.12 in relation to the Forden HLCA (CD/SPM/ES/001, Vol.3b, App.8a).

359. An assessment of the visual effects of the OHL on Offa's Dyke is provided in the Updated ES.[280] What VP38, VP69 and VP58 demonstrate is that the OHL is a considerable distance from Offa's Dyke – far more than the 200m from which point Cadw considers the effects to be limited due to the nature and form of the proposed development. Indeed, the closest Llandinam Scheme wood pole to Offa's Dyke is some 710m away. Over such distance, the intervening landform and vegetation makes the magnitude of effect negligible and the overall significance minor.

Leighton Hall complex of buildings[281]

360. The relationship between this asset and the OHL is analysed in detail by DB in a note submitted to the inquiry and its contents do not need to be repeated here.[282] DB records that the Llandinam Scheme will have no direct effect upon the fabric of any buildings in the complex. In terms of indirect effects, DB concludes that as a result of the design and form of the development, allied with the distance between the assets and the Llandinam Scheme, as well as the fact that there is clearly visible modern infrastructure in the landscape (roads, existing poles and wires etc) the effects are not significant in either landscape or visual terms. Indeed, this is a series of assets that DB concludes was assessed too conservatively in the Updated ES.

The Montgomery – River Severn Military Axis[283]

361. The Alliance expressed concerns in relation to a series of assets near the town of Montgomery:

    a. *Hendomen* (MG013):[284] the significance of the effect on this asset was downgraded by Cadw (a point not picked up by NRW in its closings

[280] CD/SPM/ES/001, Vol.1, §6.7.86. See also VP38 and VP69, p.12 and 44 respectively of SPM/LANDSCAPE/POE/GIBSON/006C and VP58, CD/SPM/ES/001, Vol.4, p.68.
[281] See CD/SPM/ES/001, Vol.1, §8.5.73-8.5.79. This is an asset the Alliance raise at ALL/OHL/POE/03, §10. See also CD/SPM/ES/001, Vol.4, p.100, VP065.
[282] SPM/027, §5.25-5.37.
[283] ALL/OHL/POE/03, §11.
[284] CD/SPM/ES/001, Vol.1, §8.5.24. See also CD/SPM/ES/001, Vol.4, p.85, VP023.

(paragraph 5.5) because of both the distance of the asset from the OHL and the presence of an existing pole mounted power line.[285] DB explained in EIC that he agreed with Cadw's judgment and further pointed out that the landform shields views of the line to the north west and west and the line is camouflaged against the railway line as it moves away from Hendomen. Whilst the Llandinam Scheme would cut across the valley, it would not be particularly exposed until a distance of approximately 1km, which is well outside the range at which Cadw state that significant effects might occur.

b. *Forden Gaer Roman Fort* (MG012):[286] again, Cadw has downgraded the impacts as assessed in the Updated ES due to the distance from the Llandinam Scheme and intervening infrastructure (including the railway) and vegetation.[287] DB confirmed in EIC that he shared Cadw's view on this asset.

c. *Rhydwhyman Crossing Cottage* (87275):[288] the effect on the setting given the proximity of the OHL is recognised to be significant. Whilst the effects are significant, no party suggests that the effects represent substantial harm.

Caerhowel to Kerry Hill

362. The Alliance lists a number of heritage assets in this section of the Llandinam Scheme in relation to which large impacts have been indentified.[289] However, as DB, explained in EIC, whilst there may be significant effects at Cilthriew (17306/17307/17308)[290] and the Henfron Moated Site (MG220),[291] in general the impacts on these assets do not warrant refusal or refusal in part of the

[285] CON/001/007.
[286] CD/SPM/ES/001, Vol.1, §8.5.23.
[287] CON/001/007.
[288] CD/SPM/ES/001, Vol.1, §8.5.98. See also CD/SPM/ES/001, Vol.4, p.161, VP94.
[289] ALL/OHL/POE/03, p.9.
[290] CD/SPM/ES/001, Vol.1, §8.5.92.
[291] CD/SPM/ES/001, Vol.1, §8.5.57.

Llandinam Scheme as a result of its design and the distance from these assets as well as existing modern infrastructure in the landscape. Again, whilst the effects are significant on these assets, no party suggests that the effects represent substantial harm. More generally, DB thought that this was an area where the impacts had been slightly overstated in the Updated ES. Cadw expressly found that the impact on the Great Cloddiau Camp (MG169)[292] had been overstated.[293]

Cefn Bryntalch Hall and Garden (7714)[294]

363. DB deals with this in some detail in his note to the inquiry.[295] Recognising that there would be no direct effects, the design and the distance between the asset and the proposed development (it would pass 1km to the south east of the Registered Park & Garden) as well as the fact that inter-visibility with key sites would be unaffected by the Llandinam Scheme, DB concluded that the harm would be Slight to Moderate/ Slight and less than substantial in EN-1 terms. Accordingly, there is no basis for refusal as a result of potential impacts on this asset.

Listed buildings

364. PCC agree that section 66 of the Planning (Listed Buildings and Conservation Areas) Act 1990 ("the Listed Buildings Act") does not apply to an application under section 37 of the 1989 Act.

365. The duty under schedule 9 to the 1989 Act is not the same as PCC suggests. The requirement on the Secretary of State under schedule 9 is clear. By virtue of paragraph 2 of Part 1 to schedule 9, he is to have regard to the desirability of preserving buildings and objects of architectural, historic or archaeological

[292] CON/001/007. See also CD/SPM/ES/001, Vol.1, §8.5.53.
[293] Note there is a footnote to the table on p.9 of ALL/OHL/POE/03 which states that the Cuckoo Hill Fort (1822) (see CD/SPM/ES/001, Vol.1, §8.5.108) is a "possible SAM." As DB confirmed this is not a designated asset.
[294] CD/SPM/ES/001, Vol.1, §8.5.69. See also CD/SPM/ES/001, Vol.4, p.89, VP36.
[295] SPM/027, §5.13-5.18.

interest. This test does not (a) expressly refer to listed buildings and (b), critically, require "special regard" to be paid. It is not appropriate to suggest the "special regard" test applies by reference to case law[296] that addresses another provision in another act and which uses a different form of words.

366. That is, of course, not to say that listed buildings are not an important consideration – they clearly are and the Inspectors and Secretary of State have all the information required before them.

367. DB has provided all the relevant listed building descriptions in an appendix to his proof of evidence.[297] Furthermore, DB and Chapter 8 of the Updated ES provide an assessment of the impacts on them.[298] SG and Chapter 6 of the Updated ES assess some of the more prominent and important listed buildings from an LVIA perspective.[299] The Llandinam Scheme will have no direct effects on listed buildings. DB sets out the indirect effects on listed buildings in his proof[300] and, as a result of a request from the Inspectors, in a note to the inquiry in relation to a number of particular listed buildings.[301] Given DB's conclusions and the test before the Secretary of State, there is no basis to withhold consent due to impacts on listed buildings.

Conclusion

368. For the reasons set out above, whilst a number of significant impacts is inevitable in a linear scheme of some 35km in length, in the case of the Llandinam Scheme all such significant impacts are almost uniformly indirect, reversible and of a localised nature. As such there are no cultural heritage impacts that warrant refusal in whole or part.

[296] Namely, the Court of Appeal decision in *Barnwell Manor v East Northamptonshire District Council* [2014] EWCA Civ 137.
[297] SPM/HERITAGE/POE/BONNER/001C, App.4. The description for Camlad houses is appended to SPM/027.
[298] CD/SPM/ES/001, Vol.1, §8.5.67-8.5.98 and Table 8.14.
[299] See CD/SPM/ES/001, Vol.1, §6.7.70-6.7.75.
[300] SPM/HERITAGE/POE/BONNER/001A, §8.51-8.56.
[301] SPM/027.

Matter 8: any other matters that the Inspector considers relevant

369. The Inspectors did not raise any further matters. There are, however, a number of other issues on which comment is required.

Traffic and transport

Introduction

370. Traffic and transport was not one of those issues on which the Secretary of State specifically requested to be informed. However, it is, of course, relevant to the Secretary of State's matter number 1 (the extent to which the Llandinam Scheme is consistent with Welsh Government and local policies). KB sets out the relevant policies in detail in her proof of evidence.[302] She concludes, in reliance on the traffic and transport chapter of the Updated ES[303] and the evidence of Alan Davies ("AD"), that the effects of the Llandinam Scheme on traffic and transport have been assessed in line with the current policy framework through the undertaking of a traffic and transport assessment. That study established that there would be no significant effects on highways from construction and operational traffic generated by the Llandinam Scheme and identified no cumulative effects to be assessed.

371. That should be of no surprise given the lack of traffic and transport objections. PCC raised no objection on this ground. Further, there is a detailed SOCG between SPM and the Welsh Government on Transport matters[304] which concludes that the Llandinam Scheme will not give rise to any likely significant

[302] SPM/PLANNING/POE/BERRY/011A, §7.6.86-7.6.97. AD also looks at the policy context: SPM/TRANSPORT/POE/DAVIES/008A, section 5.
[303] CD/SPM/ES/001, Vol.1, §11.3. Traffic and transport was considered in the original EIA scoping activities in 2008 and was found not to give rise to any likely significant environmental effects. A decision was taken in the 2009 ES not to make these topics the subject of detailed EIA. However, the issue was reviewed in the Updated ES in 2013 and is reported in Chapter 11.
[304] SPM/SOCG/CON/001/TRANS/OHL. See also SPM/TRANSPORT/POE/DAVIES/008C, App.3.

effects on the trunk road traffic either on its own or cumulatively with other development.[305]

372. The Alliance did initially raise this issue as an objection. It referred to traffic and transport in its SOC albeit only in relation to cumulative effects and the sufficiency of the Application material on this issue. It also submitted a proof of evidence on Construction Traffic from Mr Geoff Weller[306] ("GW") which addressed wider concerns than those raised in the SOC. However, when it came to oral evidence and having heard AD in EIC for SPM address in turn each of GW's concerns as expressed in his proof of evidence, GW decided that it was not necessary for him to give oral evidence – seemingly accepting of the answers AD gave in his oral evidence.

373. AD explained the transport characteristics of the Llandinam Scheme.[307] From a vehicular movement point of view, the Llandinam Scheme is of a much smaller scale than the wind farm proposals – both in terms of the size of vehicle and the total number of vehicle movements. One of the advantages of using a wood pole design is that it negates the need to install heavy concrete reinforced foundations (as would be required for a steel tower design). Consequently there is no need to construct stone haul roads to accommodate concrete handling equipment (mixers and pumps) and the larger vehicles that would be required.

Construction effects

374. The anticipated construction period is approximately 14 months. However, each local length of 5km along the line would only take a matter of weeks for that section to be constructed.

[305] SPM/SOCG/CON/001/TRANS/OHL, §5.2.
[306] ALL/OHL/POE/05.
[307] SPM/TRANSPORT/POE/DAVIES/008A, section 6 and in EIC.

375. AD explained that the delivery of the wood poles would form the most significant element with regards to transport movements for the Llandinam Scheme. In oral evidence, AD took the inquiry through each layer of the required transport movements at the construction stage; first, deliveries of the required 764 wood poles (382 pole structures) to the temporary storage areas and, secondly, local deliveries of those poles from the temporary storage areas to the individual construction sites.

376. Articulated and rigid HGVs would firstly carry the poles from the manufacturer to the temporary storage areas for the poles. The temporary storage areas will be located in areas with appropriate access to the main highway network.[308] Based on the need to deliver approximately 764 individual poles in total, each of the three temporary storage areas would have a maximum of six bulk deliveries (phased 5-10 days apart to ensure the scale of the pole stack at the storage areas does not become visually intrusive).

377. AD illustrated the type of vehicle that will be used to deliver poles to the storage areas.[309] None of the loads for the Llandinam Scheme meet the minimum thresholds for notification under the Road Vehicles (Authorisation of Special Types) (General) Order 2003[310] ("the AIL Rules") or the requirements to be part of the controlled deliveries as set out in the Strategic Traffic Management Plan ("STMP") that has been entered into by various of the other developer parties involved in this conjoined inquiry. The STMP recommendations and load control mechanisms do not, therefore, apply as the deliveries will be by normal road vehicles not subject to any special controls. AD explained that these deliveries would give rise to no highway capacity or safety issues given the very low number of vehicles required.[311]

[308] See SPM/TRANSPORT/POE/DAVIES/008C, App.1. The exact sites for the temporary storage areas have yet to be finalised.
[309] See SPM/TRANSPORT/POE/DAVIES/008C, App.2.
[310] See PM/TRANSPORT/POE/DAVIES/008C, App.4. This addresses directly one of GW's concerns (expressed at ALL/OHL/POE/05, §1.5).
[311] Thereby addressing one of GW's concerns (see ALL/OHL/POE/05, §1.9).

378. Smaller local delivery lorries[312] will take the poles from the temporary storage areas to the construction sites. AD explained in EIC[313] that the access to these sites will in many cases comprise existing farm accesses that will already be 5m+ wide and therefore capable of accommodating the delivery vehicles. The intention is to identify and use such access points, however, if the most appropriate access is not wide enough it will be improved.

379. These delivery vehicles typically carry four poles (2 H-pole sets) and will take out approximately 3 loads per day. Again, as a consequence of the low numbers of vehicles involved, AD was able to confirm that there would be no capacity issues caused.

380. GW raised a number of concerns in his proof that AD dealt with in detail in EIC. It is not necessary to traverse the detail again here. However, two points ought to be mentioned in closing.

381. First, a major concern articulated by GW on behalf of the Alliance related to a perceived need for a significant number of road closures.[314] AD confirmed that there will be no such road closures. There will be occasions on which traffic will need to be held either while difficult bends are negotiated[315] or whilst protective netting, if required, is erected over road crossings. These activities can be undertaken with short possessions normally very early in the morning or at weekends. Standard traffic management with stop/go boards and traffic signals will also be used, thus allowing movements to take place with minimal disruption. Further, as a matter of good practice, the local delivery lorries taking poles to the construction sites in an instance where there is a difficult bend or a need for protective netting will generally be accompanied by an

[312] A number of different vehicles may be used but AD describes the typical vehicle at SPM/TRANSPORT/POE/DAVIES/008A, §7.2.3 and provides an illustration of the type of 4x4 vehicles that will be used where there is a requirement to drive into a field for access at SPM/021.[312]
[313] He was responding to the concerns expressed by GW in his proof ALL/OHL/POE/05, §1.16.
[314] See ALL/OHL/POE/05, §1.8 and App.1.
[315] As AD explained, poles can be placed in a field (with landowner consent) and picked up again or passed between two vehicles.

advance warning vehicle. Advance signage will be erected to inform local residents that vehicles will be in the local area for a short period of time during identified days with contact numbers to ensure that the works are taken forward in an informed manner. The worst case scenario that AD described for road users would be a 15-20 minute delay whilst poles were maneuvered or protective netting strung. Given the advance warnings, the low road use, the extremely localised nature of the delays, their limited duration as well as the limited number of instances such action is likely to be necessary, it is submitted that even in the worst case scenario the impact would not be significant.

382. Secondly, GW raised the issue of timber and forestry movements.[316] AD addressed this in EIC. Individual and small groups of felled trees will often be left on site for the landowner. If the landowner wishes such trees to be removed, this will be done in small forestry vehicles which result in no significant traffic or transport effects. There is a single, large stand of 280 trees due to be felled which will require removal on larger forestry vehicles. But as AD said, this is a normal part of forestry operation (forestry being an activity carried on in the area) and, moreover, removal would give rise to only 10 or so loads, spread across a number of days. At these numbers, there would be no significant adverse effects.

383. Accordingly, no highway improvements will be required to accommodate any of the construction vehicles used in the construction of the Llandinam Scheme and there will be no significant adverse effects arising from the construction of the Llandinam Scheme.

Operational effects

[316] See ALL/OHL/POE/05, §1.13.

384. The transport impacts of the Llandinam Scheme will comprise routine maintenance. This will be extremely limited and would be far from significant in transport terms.[317]

Cumulative effects

385. The construction periods of each of the proposed wind farms which are the subject of this inquiry have been reviewed. The wind turbine delivery vehicles would require certain A483 improvements to be in place in order to accommodate their swept paths and it is proposed that the Llandinam Scheme would commence construction along this section (which would be completed) before the turbine deliveries requiring these works take place.

386. The advance work for the turbines required for the LRWF would be undertaken by standard construction vehicles for foundation construction. The Llandinam schemes may overlap with these construction activities. However, there is only a low risk of interaction between the HGV movements from the Llandinam Scheme and the other wind farm proposals. Good management can ensure that vehicles do not enter/leave the highway corridor whilst other vehicles are travelling along the route, thus conflicts would not occur and any delay will be minimised.

387. AD concluded that the level of potential interaction between traffic generated by the Llandinam Scheme and the wind farm construction was so small that it can safely be concluded that there will be no significant adverse cumulative effects without the need for examination of individual routes or junctions.

388. Accordingly, SPM commends the evidence of AD which demonstrates, along with the clear positions of PCC and the Welsh Government on this issue, that there are no highway or transportation reasons to withhold consent for the Llandinam Scheme. The proposed Construction Method Statement, to be secured by condition (the draft of which PCC is content with), includes a Traffic

[317] See SPM/TRANSPORT/POE/DAVIES/008A, §7.2.9-11.

Management Plan which will ensure the proper approach to traffic management is secured.

Land rights

389. SPM's position on land rights is set out in SPM/015.

Conditions

390. The Inspectors have a schedule of conditions that highlights the differences between SPM and PCC as well as the comments of these parties through the conditions session. However, one point is worth making here. PCC stated in closing (paragraph 616) that the condition proposed by SPM in relation to decommissioning opens the possibility of the line having a life in the absence of the LRWF. It is not necessary as PCC suggests for the condition to require consideration at that juncture as to whether the life of the Llandinam Scheme should be extended. Rather, the approach to take should be that the life of the Llandinam Scheme is linked to its utility as a network asset. What this means is that were the LRWF to be decommissioned but were a new generation asset to come forward in the area, then as part of consenting that new generation asset, the decision-maker at that time would have to consider the impact of the Llandinam Scheme continuing to operate as a network asset. It is a poor precedent to set for network infrastructure generally to be tied to anyone particular generating asset, regardless of the network asset's utility several decades hence.

Conclusions and overall planning balance

391. Section 12 of KB's proof of evidence sets out the overall assessment and conclusions of SPM in relation to the Llandinam Scheme and draws all of the SPM team's work and conclusions together under each of the Secretary of State's matters. It is not necessary to repeat those conclusions here but they are adopted as a short summary of SPM's position in relation to each of the Secretary of State's matters.

392. SPM has a number of duties which it must take into account and use to inform its decision making process. It must offer a connection to the owner of premises on request and deliver an economic and efficient system of electricity distribution in a manner with mitigates as far as is reasonable environmental effects.

393. The Llandinam Scheme is a product of the application of these duties. The only dispute as to whether these duties have been successfully applied is in relation to the mitigation of environmental effects, particularly landscape and visual and cultural heritage.

394. It must be remembered how narrow the real issues are. As stated at the start of these submissions, PCC, the principal objector to the Llandinam Scheme, supports and/ or accepts the need to connect the LRWF to the grid, to connect to the grid at Welshpool and, despite lengthy submissions on the route selection process, that, on balance, the route is appropriate subject to undergrounding a single section.

395. It is, of course, inevitable that a scheme some 35km in length should have some significant impacts. National policy expects as much. However, the scale and form of the development proposed is important and has served to limit these impacts, as was always intended by SPM. In short, the Llandinam Scheme is a series of wooden pole support structures, approximately 14m in

height, from which conductors would be strung. The footprint of each structure is small and the construction of it fast. In addition, SPM has the ability to micro-site within a 100m corridor to further avoid significant effects.

396. When it comes to the question of undergrounding/partial refusal of the Application which is at the heart of the matters between SPM and PCC, SPM asks, in particular, the following to be taken into account:

a. With regard to landscape: for the reasons already set out, the judgments of SG on landscape impacts are to be preferred;

b. With regard to cultural heritage: PCC on its own case accepts that the Llandinam Scheme meets the "wholly exceptional" test with regards Bryn Cwmyrhiwdre and, importantly, DB's conclusions are that the remaining assets within the PCC Option would be subject to less than substantial harm;

c. The cost dis-benefit of undergrounding (for all options) is significant;

d. The appropriate option to weigh in the balance is the SPM Option shortened at either end, given that it would be for SPM to fill any gap left by a partial refusal of the Application and that option is the engineering and technical preference expressed by those with experience. No contrary expert evidence was, in fact, adduced;

e. The wider industry context: if the proper application of EN-5 leads to this scheme being refused in part, it will lower the bar drastically of what was designed to be a high test. In the scheme of projects that meet the criteria of being NSIPs, it is plainly at the smaller end of the spectrum.

397. The Welsh Government is committed to achieving a substantial reduction in greenhouse gas emissions and a significant rise in renewable energy, expected

to be gained principally from onshore wind. The Llandinam Scheme will make the connection from an onshore wind farm in a manner that does not result in unacceptable adverse impacts. The Llandinam Scheme is crucial, therefore, to enabling a key element of the desired energy mix, the supply of renewable energy, to be provided. The merits of the Llandinam Scheme are, therefore, clear: the efficient delivery of renewable energy, both in terms of timescale and energy transmission; contribution to a low carbon economy; and economic and co-ordinated energy supply, all in a manner which does not result in unacceptable adverse impacts.

398. Accordingly, the presumption in favour of granting consent to applications for new nationally significant energy infrastructure, given the level of urgent and compelling need for such infrastructure, contained in EN-1 should, it is submitted, be applied.

399. For the reasons set out above, the Inspectors are asked to recommend and the Secretary of State is asked to grant consent for the Llandinam Scheme in full.