

**Electricity Act 1989 (Sections 36, 37, 62(3) & Schedule 8) Town and Country
Planning Act 1990 (Section 90) and the Electricity Generating Stations and
Overhead Lines (Inquiries Procedure)(England and Wales) Rules 2007**

**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”)**

**Proof of Evidence
Of
Rory Brooke of URS Corporation
On
Socio-Economics (including Tourism)
SPM/ECONOMIC/POE/BROOKE/009A**

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ABBREVIATIONS

B&B	Bed and breakfast
BHS	British Horse Society
BSc	Bachelor of Science
CC	County Council
DCO	Development Consent Order
EIA	Environmental impact assessment
ES	Environmental Statement
GIS	Geographic Information System
kV	Kilo Volt
MSc	Master of Science
NRW	Natural Resources Wales
PPW	Planning Policy Wales
SAC	Special Area of Conservation
SPEN	Scottish Power Energy Networks
SSA	Strategic Search Area
TAN	Technical Advisory Note
TCPA	Town and Country Planning Act
UDP	Unitary Development Plan
UK	United Kingdom
Updated ES	Updated Environmental Statement, 2013
WAG	Welsh Assembly Government
ZTV	Zone of Theoretical Visibility

1. **QUALIFICATIONS AND EXPERIENCE**

- 1.1 My name is Rory Brooke. I hold a BSc in Mathematics and Economics and an MSc in Town Planning. I have over 22 years of professional economic development and development planning experience and have worked as a planning consultant since 1992. I have been a member of the Royal Town Planning Institute since 1994.
- 1.2 I joined URS in 2002 and am the Head of the Economics and Development team responsible for socio-economic analysis, economic impact assessment and development planning aspects of URS operations in the United Kingdom (UK) and Europe. I have an in-depth understanding of socio-economic impact assessment and my work covers projects for both public and private sector clients.
- 1.3 Examples of my experience include: directing work to assess the socio-economic impacts and benefits of the proposed High Speed 2 route from London to Birmingham; directing work to consider recreation and amenity impacts of proposals for a new nuclear power station at Sizewell in Suffolk; and directing work on the socio-economic impact of redevelopment proposals for Battersea Power Station.
- 1.4 This proof of evidence, which I have prepared and provide for this Inquiry, has been prepared and is given in accordance with the guidance of my professional institution. I confirm that the opinions expressed are true and professional opinions.

2. SCOPE OF PROOF OF EVIDENCE

2.1 My proof of evidence addresses the following matters:

- (a) The social and economic impact of the Llandinam Scheme, including on tourism; and
- (b) The Secretary of State matter 7(c) i.e. “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” (CD/COM/011).

2.2 In Section 3 I set out the consultation feedback received by SP Manweb PLC (**‘SP Manweb’**) to its section 37 application for a single 132kV overhead line from Llandinam Repowering Wind Farm to Welshpool Substation (the **‘Llandinam Scheme’**).

2.3 In Section 4 I set out the planning policy context in Wales relevant to socio-economic issues.

2.4 In Section 5 I set out the URS assessment in the Updated Environmental Statement dated 29 October 2013 ("**Updated ES**") (CD/SPM/ES/01) of the socio-economic impacts, including on tourism, of the Llandinam Scheme. My role in this work was as project director, including working with my colleagues on the assessment and reviewing work and documents. This section also explains the method and approach taken to assess the impacts.

2.5 In Section 6 I assess the cumulative socio-economic effects of other developments in and around the study area including on employment generation, impacts on the local population, and the impacts on recreation and tourism related to people’s enjoyment and appreciation of the land based on the effects on the views.

2.6 In Section 7 I address the Secretary of State’s matter 7(c) (CD/COM/011).

2.7 In Section 8 I draw my conclusions.

3. CONSULTATION FEEDBACK ON SOCIO ECONOMIC ISSUES

Introduction

- 3.1 This section presents the main concerns raised by stakeholders in relation to socio-economic issues. My assessment as set out in the Updated ES (CD/SPM/ES/01) and presented in this proof addresses these concerns.

Consultation Comments

- 3.2 Socio-economic issues and objections have been reviewed. The below provides a summary of the socio-economic concerns that were raised. Alongside this, and to ensure that the assessment was as well informed as possible and that the concerns and interests of stakeholders were taken into consideration, consultation about potential socio-economic effects were undertaken with a range of stakeholders. This included consultation with local businesses and affected landowners. The consultations have helped inform the Updated ES (CD/SPM/ES/01).
- 3.3 Both Natural Resources Wales ("**NRW**") and Powys County Council ("**PCC**") have said that there is not sufficient evidence to support an objection to the Application of the Llandinam Scheme on socio-economic and tourism grounds (see emails dated 8 August 2013 from NRW and 29 August 2013 from PCC (at **Appendix 1** to this Proof of Evidence) and the Inquiry document 'Powys County Council SSA C – Addendum 1 Socio Economic Objection' (September 2013) (OBJ/002/OSOC/2/ADD)).
- 3.4 Below I summarise comments that represent the main concerns of other objectors. Each matter could represent the views of more than one stakeholder.
- 3.5 Welshpool Town Council suggested that "*the Inquiry should consider the individual and combined social and economic impact of the proposed developments, including on tourism*" (OBJ-629-C OSOC – Welshpool Town Council Statement).

- 3.6 The Alliance suggested that none of the six developments considered at the Inquiry should be given permission on the following socio-economic grounds: *“Industrialisation and consequent annihilation of much cherished landscape; severe damage to one of the few commercial enterprises in the affected area, namely tourism; unprecedented levels of construction traffic on access routes and demonstrable inadequacy of the proposed traffic routes. They will also inflict on the residents living in close proximity a volume and type of noise which will cause serious harm to their residential amenity”* (ALL-OSOC Alliance Outline Statement of Case).
- 3.7 The owner of a local horse tourism business suggests that their business attracts people from all over the world and that they have the following socio-economic concerns: *“...environmental impact and its effect on tourism to the area (affected by wind farms, power lines and the proposed hubs) & the impact on micro businesses, such as ours who rely on this for their livelihood. Effect on long distance trails and risks to their users and economic impact of their degradation. Those we use are the Glyndwr’s Way, Kerry Ridgeway, Prince Llewellyn Way. Effect on horses; health and safety for horse and rider & impact on horse tourism.”* (OBJ-086 & OBJ-087 Brandy Farm).
- 3.8 Berriew Community Council suggested that: *“the cumulative impact on the landscape will be detrimental to the area and adversely affect businesses in the area which rely on tourism”* (OBJ-404-OSOC Berriew Community Council). This concern is raised in relation to the cumulative impact of the various proposed energy projects and not directly in relation to the Llandinam Scheme.
- 3.9 The Abermule with Llandyssil Community Council oppose the Llandinam Scheme on the grounds of: *“traversing, and majorly affecting, three areas of high/outstanding Landmap aspect designation (namely Kerry Hills/Ridgeway; Upper Mule; Cefn y Coed Hills) and the Montgomery Historic Landscape Character Area”* (OBJ-416-OSOC Abermule with Llandyssil CC).

Statements of Cases

- 3.10 NRW makes reference to the landscape and visual impact of the Llandinam Scheme which have a bearing on the socio-economic context. NRW suggests that *“concerns will be raised regarding impacts on the Vale of Montgomery Registered Landscape of Outstanding Historic Interest in Wales, and the visual impacts and associated loss of amenity to users of recreational routes including the Kerry Ridgeway Regional Path”* (Llandinam 132kV NRW Statement of Case October, CON-003-SOC-OHL).
- 3.11 PCC *“consider that the current application will have an unacceptable impact on public rights of way due to its visual impact on from local public rights of way, including the Kerry Ridgeway, particularly in the region of Kerry Hill, Black Gate and Cider House. However, PCC consider that, if the section of the route around the Kerry Hills were undergrounded, and if suitable conditions were agreed to protect other parts of the PROW network as set out in the October 2012 Committee report, then the application route would be acceptable in terms of its impacts on PROW”* (Statement of Case for Overhead Line Application, OBJ-002-SOC-OHL).
- 3.12 The Alliance suggests that *“insufficient acknowledgment has been made of the adverse socio-economic and community effects of the Llandinam Link for those who live, work and travel within the area. This includes impacts on residents of and visitors to the key settlements of Forden and Fron Bank/Cilcewydd (as well as on other areas) and on users of public rights of way. Tourism is an important part of the local economy, with visitors attracted to the unspoilt panoramic views from (e.g.) the Kerry Ridgeway and the ancient Drover's Road. Offa's Dyke National Trail and National Cycle Route 81 both pass through the Montgomery Historic Landscape Area; their views and those from historic assets such as Montgomery and Hendomen castles will all be adversely affected. There are numerous businesses directly dependent on tourism. The area has country hotels and guest houses, pubs and restaurants, holiday cottages, camp sites and both static and touring caravan sites. Many local shops, craft workshops and cafes are*

all dependent on the tourist trade to maintain business viability" (Statement of Case for Overhead Line Application Session 3, ALL-SOC-OHL).

Summary

3.13 Concerns raised by objectors include:

3.13.1 Increased levels of construction traffic (the Alliance) – see Section 5 of my proof, construction phase impacts, paragraphs 5.18 and 5.62.

3.13.2 Impacts on residents within close proximity to the six developments (the Alliance) – see Section 5 of my proof, impacts on local community assets, paragraphs 5.17 to 5.19, paragraphs 5.24 to 5.33 and cumulative impacts upon the local population, paragraphs 6.9 to 6.12.

3.13.3 Impacts on micro businesses (such as equestrian) – see Section 5 of my proof:

(a) farms – paragraphs 5.21 and 5.35;

(b) tourist attractions (including businesses) – paragraphs 5.37 to 5.44;

(c) tourist accommodation businesses – paragraphs 5.45 to 5.52; and

(d) the wider tourism economy – paragraphs 5.53 to 5.61.

3.13.4 The associated cumulative impacts upon tourism of different proposed schemes (Welshpool Town Council and Berriew Community Council) – see my proof Section 6, wider tourism impacts – paragraphs 6.17 to 6.31.

3.13.5 Impacts on the Vale of Montgomery (see paragraph 5.39), and other local assets (see paragraphs 5.27 to 5.33) (NRW and the Alliance).

3.13.6 Impacts on key settlements such as Forden and Fron Bank/Cilcewydd – see my proof Section 5, impacts upon the local population – paragraph 5.25.

3.13.7 Impacts on specific public rights of way and attractions (NRW, the Alliance, equestrian business and Abermule with Llandyssil Community Council) – see:

- (a) Section 5, community assets (including public rights of way) – paragraphs 5.27 to 5.33;
- (b) Section 5, tourism attractions (including public rights of way, Drover’s Way and castles) – paragraphs 5.37 to 5.44 and
- (c) Section 7, assessment of Matter 7(c).

4. **PLANNING POLICY CONTEXT**

Introduction

4.1 There is no dedicated UK legislation that specifies the detailed scope of socio-economic assessments or that provides appropriate standards and thresholds for determining the significance of impacts. However there is planning policy and best practice guidance of relevance to socio-economic impact assessment. My colleagues and I have undertaken the socio-economic assessment with reference to such policy, guidance and standards where appropriate, as well as using professional judgement and experience.

4.2 The planning policy I review in this section is organised into UK, Welsh, and local policies.

UK Policy

4.3 **The National Policy Statement for Electricity Networks Infrastructure (EN-5)** (CD/COM/003) covers planning of electricity network infrastructure, including overhead lines. No references are made to impacts on tourism though the wider economic impacts of lines are required to be considered in comparison to the costs of proposed lines and options regarding undergrounding or overhead routeing (National Policy Statement for Electricity Networks Infrastructure (EN-5), July 2011, paragraph 2.8.9).

Welsh Policy

4.4 **Planning Policy Wales (PPW) (Edition 5 November 2012)** (CD/CON/003/PLA/010) relates to the land use planning policies of the Welsh Government ("**WG**"). Within PPW it is stated that planning policy at all levels should facilitate delivery of renewable and low carbon energy in order to deliver the WG's Energy Policy Statement and UK and European Union targets on renewable energy (Section 12.8 Sustainable Energy, November 2012, p167).

4.5 PPW outlines tourism related planning policy, concerning the development of tourism attractions and amenities as well as protecting open spaces and

playing fields where they have significant amenity or recreational value to local communities (Section 11.2 Development plans and tourism, sport and recreation, November 2012, p155).

- 4.6 Development plans should “...*limit negative environmental impacts, protect the landscape, biodiversity, the historic environment and areas of special interest, and the interests of local communities.*” (Section 11.2 Development plans and tourism, sport and recreation, November 2012, p155).
- 4.7 **Energy Wales: A Low Carbon Transition (March 2012) (CD/COM/033)** sets out the Welsh Government's ambition to create a “...*sustainable, low carbon economy for Wales*”. This is linked to an aim of enhancing “*economic, social and environmental wellbeing and achieving a better quality of life for existing and future generations*” (Energy Wales: A Low Carbon Transition, March 2012, p6). Although it does not refer specifically to overhead lines it outlines wider benefits for businesses and communities in relation to renewable energy developments. The aims set out are threefold; “*Firstly, we want to maximise the long-term economic benefits, and in particular the job creation potential, for Wales... Secondly, we want to ensure that [local] communities benefit from energy... Finally, we want to carefully plan and manage the relationship between energy development and our natural environment in line with the ambition of ‘Sustaining a Living Wales’*” (Energy Wales: A Low Carbon Transition, March 2012, p6) Although this does not refer to specifically overhead lines, it is being considered within the wider context of the Llandinam Scheme and its applicability.
- 4.8 **Technical Advice Note 8: Planning for Renewable Energy (2005) (TAN8) (CD/COM/016)** fits within the context of Welsh policy regarding renewable energy infrastructure. It refers to overhead lines at Annex C and is being considered here in the wider context of the Llandinam Scheme (i.e. the cumulative impacts of the various proposed energy schemes such as wind farms).
- 4.9 TAN8 relates to land use planning considerations with renewable energy and identifies the important role that the planning system plays in achieving the

WG's commitment to deploying renewable energy (Technical Advice Note 8: Planning for Renewable Energy, July 2005, p3).

- 4.10 TAN8 identifies that there will be possible impacts on tourism and recreational opportunities within the Strategic Search Areas (SSAs) (Technical Advice Note 8: Planning for Renewable Energy, July 2005, p7).
- 4.11 TAN8 states that: “...*developers and local authorities are encouraged to enter into constructive dialogue over the positive provision for visitors to wind power projects and ways in which any negative impacts can be minimised or mitigated*”. Other impacts on ecology, landscape and historic environment are also identified as being issues to consider in renewable energy developments (Technical Advice Note 8: Planning for Renewable Energy, July 2005, p7).

Local Policy

- 4.12 **Powys Unitary Development Plan (UDP)** (CD/COM/006) fits with WG's strategic planning priorities which incorporates renewable energy generation and energy transmission infrastructure. Regarding energy generation from renewable sources, the UDP states such proposals will be approved providing that they meet the landscape, environmental and amenity requirements (Powys Unitary Development Plan, 2001 to 2016, Adopted March 2010).
- 4.13 The value of tourism to the Powys economy and particularly to rural areas is recognised in the UDP, with an acknowledgement that the tourism appeal and attraction lies largely in Powys's natural landscape. PCC states that they wish to “...*encourage 'green tourism' which is sensitive to natural and cultural assets in the area and to promote outdoor pursuits*” (p127 of UDP). The tourism policies within the UDP relate to the development of new tourism attractions and facilities, and do not reference tourism or other socio-economic impacts made by wind farms and associated power lines.

- 4.14 Within the UDP several policies and statements relating to recognised local assets and tourism attractions identified for future development concern the proposed route of the Llandinam Scheme.
- 4.15 The Montgomery canal is recognised by PCC as being an important asset to the area and the tourism economy, as well as being a Special Area of Conservation (SAC) (p138 of UDP).
- 4.16 Policy TR2 in the UDP concerns tourist attractions and development areas and identifies several areas where appropriate tourism developments will be improved, including the Leighton estate. The policy states that “...development of any kind which would have an unacceptable adverse effect upon the environmental setting of established tourist attractions will be opposed” (p130 of UDP).
- 4.17 **Powys Regeneration Strategy 2011** (May 2011) (In **Appendix 3** to this Proof of Evidence) recognises tourism as being an integral sector that still has growth potential. A primary objective of the strategy is that PCC will “nurture, develop and promote the diversity and quality of its tourism industry in order to further support the realisation of other objectives. This will particularly apply to tourism related to: outdoor sport and recreation; events; wildlife; heritage; culture; language; ‘slow tourism’; and food” (A Regeneration Strategy for Powys: A new approach, May 2011, page 35).

Summary

- 4.18 National and local policies do not make specific reference to overhead power lines in a socio-economic context and are therefore not always directly applicable but I have assessed policies relating to onshore wind to capture the wider cumulative impacts of the Llandinam Scheme, which include other proposed projects in the area such as wind farms.
- 4.19 At the UK level relevant policies refer to the wider economic impacts of onshore wind and overhead lines.

- 4.20 Welsh policies in general refer to the economic opportunities offered by renewable energy whilst acknowledging that such developments should limit negative impacts such as visual and environmental effects. The possible impacts from renewable energy development on tourism, particularly in SSAs, are acknowledged.
- 4.21 Local policies in Powys recognise the value of tourism to the local economy and identify specific tourism assets which may be impacted by the Llandinam Scheme. The relevant local policies also state that renewable energy developments need to meet landscape, environmental and amenity requirements.

5. SOCIAL, ECONOMIC AND TOURISM IMPACTS

Introduction

- 5.1 I was asked to independently assess the socio-economic and tourism impacts of the Llandinam Scheme as part of the Updated ES (CD/SPM/ES/01). I have worked with colleagues to carry out data collection and baseline work, analysis, and impacts and effect assessment. I have used this work to come to my conclusions set out below.
- 5.2 The key outputs from my work include an Updated ES Chapter with Technical Appendix, inputs in to a Statement of Common Ground and Statement of Case, preparation of this Proof of Evidence and appearance at this public inquiry.
- 5.3 My team and I have undertaken the following tasks in order to assess the socio-economic impact aspects of the Llandinam Scheme:
- 5.3.1 Familiarisation with the existing documentation on the Llandinam Scheme, including the 2009 Environmental Statement and associated Addendum ('New 132kV Overhead Line Connection from Llandinam Wind Farm to Welshpool Substation, Environmental Statement', December 2009 and 'Addendum to December 2009 Environmental Statement', December 2010) (CD/SPM/ES/02 and CD/SPM/ES/03) respectively.
 - 5.3.2 Consultation with key stakeholders including: a range of local businesses (including a golf course, caravan park, pub, bed & breakfast, and Montgomeryshire Wildlife Trust in relation to four nature reserves); and affected landowners.
 - 5.3.3 Site visits.
 - 5.3.4 Identification of resources and receptors within the impact area.
 - 5.3.5 Assessment of socio-economic impacts, and consideration of mitigation measures.

Approach

- 5.4 My assessment has covered prediction of:
- 5.4.1 The employment created or lost from the construction and maintenance of the Llandinam Scheme line either directly or indirectly.
 - 5.4.2 The impact on the local population such as from an influx of construction workers or from the possibility of people choosing to move away from the area due to the construction of the Llandinam Scheme.
 - 5.4.3 The socio-economic impacts of direct physical effects resulting from the Llandinam Scheme being sited in a particular resource, for example, a wooden pole planted on farmland. I have used this to assess the impact on both farms / agriculture and public rights of way.
 - 5.4.4 The impacts on recreation and tourism related to people's enjoyment and appreciation of the land based on the effects on the views to and from tourism attractions, tourist accommodation and local community assets, and consequent potential impacts on tourism activity and business activity.
 - 5.4.5 The impacts on tourism more broadly from indirect effects.
- 5.5 My overall framework for the impact assessment was to determine: the sensitivity of receptors; the magnitude of impacts; and the consequent significance of effects. This assessment was made by considering findings from a range of sources including: consultations; assessments made by other disciplines (most notably landscape and visual); site visits; the use of Geographical Information Systems (GIS) (for example topographic analysis to assess which resources would have a view of the overhead line); precedents from elsewhere (including research on socio-economic impacts of overhead lines); and my professional judgement.

- 5.6 I assessed each of the impacts for both the construction and operational phases of the Llandinam Scheme. The baseline analysis identified the following as the key resources for the socio-economic impact assessment: farms/agricultural land; tourism attractions (such as castles and national/regional walking and cycling trails); tourism accommodation (such as hotels, bed and breakfasts (B&Bs) and caravan sites); local community assets (such as local walks and garden centres); tourism supporting businesses (such as retail and transport); and other businesses (not captured elsewhere). These resources were mapped and assessed in relation to the route of the Llandinam Scheme.
- 5.7 In the socio-economic context receptors are individuals, organisations or groups who are users or beneficiaries of the above socio-economic resources which could be affected by the Llandinam Scheme. So for example, this could be one business or a group of businesses (where there might be a cluster), and users of a tourism resource such as a castle or a walk.
- 5.8 Data was collected at different spatial levels according to the nature of the potential effect assessed. This informed the baseline and subsequently the impact assessment. Two main study/impact areas were identified:
- 5.8.1 2 km from the route of the Llandinam Scheme. This is in line with the landscape and visual study area. Beyond this distance it is considered that the development will be insignificant in terms of the Electricity Works (Environmental Impact Assessment) (England and Wales) Regulations 2000 (the "**EIA Regulations**") (CD/002/002) (from a landscape and visual perspective). The Landscape and Visual Impact Assessment (in particular the viewpoint analysis) (within the Updated ES (CD/SPM/ES/01)) was used to help inform the socio-economic baseline and impact assessment. 2 km was taken as a starting point as it was considered likely that the majority of direct socio-economic/tourism impacts would relate to visual impacts and fall within this envelope. Visual impacts are rarely

significant right up to the 2 km buffer and where they are significant impacts these tend to be much closer to the resource.

5.8.2 5 km from the route of the Llandinam Scheme. This is for businesses and the tourist economy only and relates to possible impacts on business activities, employment and viability rather than direct visual impacts. For example, a tourist could previously have visited one of the trails in the 2 km study area but stayed in a hotel 4 km away. If that tourist chooses not to visit the trail (or 2 km study area) because they feel the trail is no longer worth visiting due to effects resulting from the development, that hotel 4 km away could suffer a loss of business. The impacts are further considered in terms of whether the visitor would still come to the area and stay at an alternative location in the local area and so benefits on more general terms would be retained or whether their business would be lost to the local area and benefits lost.

5.9 The baseline also reviewed the wider socio-economic conditions of Powys as compared to Wales.

5.10 I have used a methodology in line with environmental impact assessment (EIA) practice we and others have used elsewhere to assess the significance of potential impacts from the Llandinam Scheme. I have determined the significance of impacts by assessing both the magnitude of the impact and the sensitivity of resources and receptors for each impact/effect.

5.11 I assessed significance by following eight steps:

5.11.1 Identifying the extent and type of the impact on the resource. For example where is the resource in relation to the Llandinam Scheme/would it have views of the Llandinam Scheme? ;

5.11.2 Identifying the consequent ability of the resource to continue to function. For example would the identified impact effect the functioning of the resource/would it have to close or stop people visiting? ;

- 5.11.3 Identifying the range of effects on the receptors as a result of the change in functionality of the identified resource. For example how will the users of the resource be affected/do they have alternative options/will it affect their enjoyment of the resource? ;
 - 5.11.4 For each effect in step three above identify the magnitude of the effect on the receptors as I have set out below;
 - 5.11.5 For each effect in step three above identify the sensitivity of the receptors to the change as I have set out below;
 - 5.11.6 Taking account of magnitude and sensitivity identify whether the effect should be described as significant as I have set out below;
 - 5.11.7 Consider and propose mitigation where appropriate and estimate any residual effects; and
 - 5.11.8 Consider situations in which the assessed combinations of effects on separate receptors could have a cumulative effect.
- 5.12 I have assessed the **magnitude** of impacts as high, medium, low or negligible. This has included an assessment of what type of effect there would be on baseline conditions and the functioning of that resource. For example whether the resource would have views of the Llandinam Scheme and if so whether this would impact upon it. In considering the magnitude of impacts on resources and effects on receptors, I sought answers to the following types of questions:
- 5.12.1 How will the impact affect the functioning of the resource? To what degree can it absorb the change? What is the severity/intensity of the impact on people's lives and activities?
 - 5.12.2 Would there be a view of the Llandinam Scheme from the resource? How much does the resource rely on visual character?

- 5.12.3 What is the temporal scope of the impact/effect? For how long does the impact/effect occur? How regularly does the impact/effect occur? Is the impact/effect temporary or permanent?
- 5.13 I have assessed the **sensitivity** of receptors as being high, medium or low. In considering the sensitivity of receptors to an effect I sought answers to the following types of questions:
- 5.13.1 What is the catchment area of the affected resource? Are there comparable alternative resources available within the relevant catchment area?
- 5.13.2 What is the nature of users? Are they local/regional/national/international? Are users concentrated in potentially more sensitive groups?
- 5.13.3 How many people are likely to experience the impact? What proportion is that of the relevant community?
- 5.14 I have then assessed **significance** based on the product of impact magnitude and the sensitivity of receptors. I have considered effects to be significant if both impact magnitude and sensitivity is high or medium. Additionally, effects are considered to be significant if impact magnitude is high and receptor sensitivity is low, or alternatively if receptor sensitivity is high and impact magnitude is low. In summary, a significant effect has equated to major and moderate adverse/beneficial effects. Other effects, equating to minor adverse/beneficial and negligible effects, have not been considered to be significant. I have summarised this in the following table.

Table 5.1 Socio-Economics – Significance Matrix

Significance		Sensitivity of receptor		
		High	Medium	Low
Impact magnitude	High	Major adverse/beneficial - significant	Major adverse/beneficial - significant	Moderate adverse/beneficial - significant
	Medium	Major adverse/beneficial - significant	Moderate adverse/beneficial - significant	Minor adverse/beneficial – not significant
	Low	Moderate adverse/beneficial - significant	Minor adverse/beneficial – not significant	Negligible effect - not significant
	Negligible	Minor adverse/beneficial - not significant	Negligible effect – not significant	Negligible effect – not significant

5.15 I have assessed effects using the following structure:

5.15.1 Socio-economic

- (a) Population – will the scheme increase/decrease the local population and what are the consequences?
- (b) Community assets – will the scheme affect assets used by local communities?

5.15.2 Economic

- (a) Employment – what employment effects will there be?
- (b) Farming and agriculture – how will they be affected?

5.15.3 Tourism

- (a) Attractions – how will they be affected?
- (b) Accommodation – how will they be affected?
- (c) Wider effects – what would the impacts be on other tourism related businesses (such as restaurants, bars and retail) if there were impacts in attractions and accommodation?

- 5.16 Although the Landscape and Visual Impact Assessment (“LVIA”) is an important input in to this assessment there is a distinction between the two assessments. The LVIA looks at the quality of visual effects whereas this assessment looks at these effects in a social and economic context. As an example, a trail may have one viewpoint of the Llandinam Scheme which is significant in visual terms. However, from a social and economic perspective, including in relation to tourism, this is considered in the context of: the number and type of people experiencing this effect; their experience of the whole and/or part of the trail they intend to walk; and of the consequent economic effects on local businesses of any anticipated change to their behaviour.

The Socio-Economic Impacts of the Llandinam Scheme – Construction Phase

Socio-Economic Impacts

Population Impacts

- 5.17 I assessed the potential impacts on the local population that could result from the temporary presence of construction workers or from people choosing to move away from the area due to the construction of the Llandinam Scheme. The employment created in the construction phase will be modest (although positive), with a staff of approximately 25, comprising four teams of five and support staff who will haul, assemble and erect the poles (Proof of Evidence of Richard Livingston on Construction and Maintenance (SPM/CONSTRUCTION/POE/LIVINGSTON/004A)), and as such have a **negligible** effect on the population and therefore is considered **not significant**.
- 5.18 Potential inconvenience could also come from increased construction traffic, increased noise, and/or disruption to local amenities from the erection of the wooden poles. Whilst the overall construction of the overhead line may take up to 14 months to complete, localised disruption will be limited to a matter of a few weeks for each section of line (Proof of Evidence of Richard Livingston on Construction and Maintenance

(SPM/CONSTRUCTION/POE/LIVINGSTON/004A)). The Llandinam Scheme stays predominantly away from densely populated areas. I do not anticipate that any of the existing population would move out of the area as a consequence of the Llandinam Scheme. Therefore, it is likely that any inconvenience experienced by the existing population will be of a temporary nature and be minimal and as such have a **negligible** effect on the population and therefore is considered **not significant**.

Impacts on Local Community Assets

- 5.19 The only resources likely to be temporarily affected are the few properties that lie in close proximity to the individual pole locations and the roads and lanes, which will be used for the limited construction traffic. I judge that the small-scale effects will not fundamentally modify the landscape. Based on the short-term nature and relatively minimal level of activity I expect that the magnitude of the visual impacts during construction would be **negligible** and as such, regardless of the sensitivity, all impacts would be **not significant**.

Economic Impacts

Employment

- 5.20 The employment created in the construction phase will be modest (although positive), with a staff of approximately 25, comprising four teams of five and support staff who will haul, assemble and erect the poles. Alongside this there will be additional employment created in the manufacture of the wooden poles and overhead lines depending on where that is undertaken. The exact number of jobs created in connection with the supply contract is unknown, however, I expect that this is likely to be fewer than five full-time equivalents for a relatively short period of time. Based on this I expect that the construction of the Llandinam Scheme would have a positive but **negligible** effect on employment locally and therefore is considered **not significant**.

Farming/Agriculture

- 5.21 Construction operations at each pole position are likely to be measured in days rather than weeks. There have also been negotiations with all landowners over which route the Llandinam Scheme follows to ensure that any impacts are kept to a reasonable minimum. Therefore the effect in all cases is expected to be **negligible** and as such all impacts would be **not significant**.

Tourism Impacts

- 5.22 I have assessed that the construction activities that could have a visual impact on tourism would be the same activities as set out in the local community assets above. Although tourists are potentially more sensitive to change than the receptors of local community assets (as a key motivation behind their visit is the attractiveness of the landscape) I still consider that due to the short term nature and relatively minimal level of construction activity that the magnitude of the visual impacts would be **negligible** and as such all impacts would be **not significant**.
- 5.23 As the visual impacts are not expected to be significant it is unlikely that there would be any wider tourism impacts. Therefore I consider that the effects of the construction process on tourism would **not be significant**.

The Socio-Economic Impacts of the Llandinam Scheme – Operational Phase

Socio-Economic Impacts

Population Impacts

- 5.24 Potential impacts on the local population could result from the arrival of a number of workers to the area in order to maintain the Llandinam Scheme or from people choosing to move away from the area due to negative impacts upon the landscape/their amenity value. Maintenance will be achieved through routine line patrols or helicopter patrols as part of a general maintenance regime every 2 years. In addition, a tree management

programme will ensure a safe clearance distance is maintained from the line (Proof of Evidence of Richard Livingston on Construction and Maintenance (SPM/CONSTRUCTION/POE/LIVINGSTON/004A)) and as such the employment impacts would be minimal.

- 5.25 Chapter 6.0: Landscape & Visual of the Updated ES (CD/SPM/ES/01) assesses the visual effects of the Llandinam Scheme upon settlements. This reviewed the overall effect upon 13 different towns and villages as well as undertaking a Residential Visual Amenity Assessment which includes an assessment of visual effects on individual properties. The assessment on towns and villages illustrated that 10 of the 13 areas would suffer negligible / minor effects with the remaining three (Forden, Fron Bank/ Cilcewydd and Sawmills) likely to experience a medium magnitude of change, resulting in a moderate effect, whether the Llandinam Scheme would be seen on its own or in combination with the existing lines. Whereas, seven individual properties were predicted to experience significant visual effects - it is predicted that these properties or groups of properties (Castle View, Castle Court, Gwyn's Barn, a group of properties on the approach road to Edderton Lodge in Fron, Rhydwhyman Crossing Cottage, Caerhowel Smithy and Borfa-wen) would experience moderate and therefore significant effects. This assessment concluded that none of these seven properties would be likely to have the visual component of their residential amenity affected to the point where they become 'unattractive and thus unsatisfactory places in which to live'. For the other properties, whilst the Llandinam Scheme may be visible, it would not be a particularly dominant component of the view.
- 5.26 The vast majority of local residents would be unaffected by views of the Llandinam Scheme, furthermore there would not be any significant effects on local community assets (as I set out below) I therefore conclude that any impact on the population would be minimal and as such have a **negligible** effect on the population and therefore is considered **not significant**.

Impacts on Local Community Assets

5.27 Local community assets were mapped, site visits were made and topographic analysis was undertaken. This analysis provided an assessment of those resources that would have a view of the Llandinam Scheme taking into account the terrain and pole height. Beyond 2 km, although the Llandinam Scheme may be visible, the moderating effects of perceptibility means that effects beyond this distance would not be significant in terms of the EIA Regulations as per the LVIA. Therefore I have not assessed those local community assets outside 2 km. The following table summarises the assessment of local community assets. **Map 3 in Appendix 2** to this Proof of Evidence illustrates the location of the local community assets.

Table 5.2 Local Community Assets Visual Impacts Assessment Summary

Resource	Map Ref	Magnitude	Sensitivity	Significance
Northern Area				
Coed-y-Dinas Garden, Home and Country Centre	N8	Negligible	Low	Negligible impact - not significant
Derwen Garden Centre and Show Gardens	N6	Negligible	Low	Negligible impact - not significant
Leighton Hall	N11	Negligible	Low	Negligible impact - not significant
Llyn Coed Y Dinas Walk	N12	Low	Medium	Minor adverse impact - not significant
Powis Castle and Estate Walk	N10	Negligible	Medium	Negligible impact - not significant
Welshpool, Yr Allt and Montgomery Canal Walk	N2	Negligible	Medium	Negligible impact - not significant
Central Area				
Abermule and Bettws Cedewain Cycle Trail	C8	Low	Medium	Minor adverse impact - not significant
Abernant Garden	C5	Negligible	Low	Negligible impact - not significant

Resource	Map Ref	Magnitude	Sensitivity	Significance
Cefn Bryntalch Hall	C7	Negligible	Low	Negligible impact - not significant
Hendomen and Dolydd Hafren Nature Reserve Cycle Trail	C6	Low	Medium	Minor adverse impact - not significant
Lakeside Golf Course	C4	Low	Low	Negligible impact - not significant
Montgomery to Abermule Cycle Trail	C9	Low	Medium	Minor adverse impact - not significant
Southern Area				
Abermule Nursery Gardens	S2	Medium	Low	Minor adverse impact - not significant
Cwm-Weeg	S7	Negligible	Low	Negligible impact - not significant
Route Wide				
Montgomery Canal/Towpath	R1 / R3	Negligible	Medium	Negligible impact - not significant

5.28 Nine out of the 15 resources identified by applying the above analysis would have negligible magnitude predominantly because of the intervening distance from the resource to the Llandinam Scheme, vegetation cover and the overall perceptibility of the line. It is also unlikely that the presence of an overhead line would deter visitors from certain resources such as a garden centre.

5.29 Five resources are anticipated to experience a low magnitude impact. These are instances where there would be some limited views of the Llandinam Scheme. A number of trails (Abermule and Bettws Cedewain, Hendomen and Dolydd Hafren, and Montgomery to Abermule) pass under the Llandinam Scheme but although the view would be prominent, it would be for a limited period of time and for a small fraction of the overall trail.

- 5.30 The Abermule Nursery Garden has been assessed as potentially having a medium magnitude of change as it is close (0.2 km) to the Llandinam Scheme with prominent views but with some reduced perceptibility by the presence of trees.
- 5.31 Eight resources would have a low sensitivity. This is because the users of the resources are generally from a small catchment area (i.e. from local towns and villages). There are also often similar local amenity resources in the study area.
- 5.32 The remaining seven resources are walks and cycle trails and are classified as medium sensitivity. These walks and trails are an important local asset with the landscape usually playing a strong role in the level of enjoyment. The users of these resources are again predominantly from a small catchment area.
- 5.33 Overall, the potential impacts on all local community assets are classified as **not significant**.

Economic Impacts

Employment

- 5.34 The majority of components of overhead lines are low maintenance and once installed would require only infrequent work. Based on this I conclude that the operation of the Llandinam Scheme would have a **negligible** effect on employment locally and therefore is considered **not significant**.

Farming/Agriculture

- 5.35 Negotiations with all landowners over which the Llandinam Scheme route follows have been undertaken to ensure that any impacts are kept to a minimum. The feedback from consultation with the landowners is a general acceptance of the Llandinam Scheme, with a few isolated issues such as when/where to gain access to land still to resolve. Therefore I expect that the magnitude would be **negligible** and as such, regardless of the sensitivity, all impacts would be **not significant**.

Tourism Impacts

5.36 All tourist attractions and accommodation in the study area were mapped and a topographic analysis was undertaken. This analysis provided an assessment of those resources that would have a view of the Llandinam Scheme taking into account the terrain and pole height. Beyond 2 km, although the overhead line may be visible, the moderating effects of perceptibility means that effects beyond this distance would not be significant in terms of the EIA Regulations (CD/002/002) as per the LVIA (within the Updated ES (CD/SPM/ES/01)). Therefore I have not assessed those tourist attractions and accommodation outside 2 km. Although I have examined these in the wider tourism impacts, as set out below.

Impacts on Tourist Attractions

5.37 The following table summarises the assessment of tourist attractions. **Map 1** in **Appendix 2** to this Proof of Evidence illustrates the location of the tourist attractions.

Table 5.3 Tourist Attractions Impacts Assessment Summary

Resource	Map Ref	Magnitude	Sensitivity	Significance
Northern Area				
Llyn Coed y Dinas Nature Reserve	N5	Negligible	Medium	Negligible impact - not significant
Powis Castle	N4	Negligible	High	Minor adverse impact - not significant
Powysland Museum and Montgomery Canal Centre	N2	Negligible	Medium	Negligible impact - not significant
Severn Farm Pond Nature Reserve	N3	Negligible	Medium	Negligible impact - not significant
Central Area				
Dolydd Hafren Nature Reserve	C2	Negligible	Medium	Negligible impact - not significant
The Old Bell Museum	C5	Negligible	Low	Negligible impact - not significant
Red House Nature Reserve	C6	Negligible	Medium	Negligible impact - not significant

Resource	Map Ref	Magnitude	Sensitivity	Significance
Southern Area				
The Kerry Ridgeway	S4	Negligible	High	Minor adverse impact - not significant
Route wide				
Glyndwr's Way National Trail	R4	Negligible	High	Minor adverse impact - not significant
Offa's Dyke Path National Trail	R3	Negligible	High	Minor adverse impact - not significant
Severn Way	R2	Negligible	Medium	Negligible impact - not significant
Sustrans National Cycle Trail 81	R1	Negligible	High	Minor adverse impact - not significant
The Vale of Montgomery	R5	Low	Medium	Minor adverse impact - not significant

5.38 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 line. It is also unlikely that the presence of an overhead line would deter visitors from certain resources such as a museum. A number of the walks and trails have been classified as experiencing negligible magnitude of impact though they will have views of the Llandinam Scheme. I discuss this in more detail in Section 7 below.

5.39 I have classified the Vale of Montgomery as experiencing low magnitude of impact as it would be crossed by approximately 6 km of the Llandinam Scheme. However this is only a small proportion of the Vale of Montgomery. The 2009 visual assessment suggests that the vast majority of the historic landscape would be unaffected but there will be some noticeable views from parts of it.

5.40 I have classified the Old Bell Museum as low sensitivity as it received a relatively modest 2,500 visitors in 2010. It costs £1 to enter with seasonal visiting hours. There are likely to be a mixture of local visitors and visitors

from outside the area but it is unlikely that the presence of overhead powerlines further afield (they are not visible from or at the museum) would directly deter someone from visiting an indoor museum.

5.41 I have classified seven resources as medium sensitivity. These users are likely to include visitors from outside the local catchment area but more regional than national. The landscape will usually play an important role in the enjoyment of the resource.

5.42 The remaining five resources are classified as high sensitivity. These are for walks/trails that have a national draw and where the landscape plays an important role in the enjoyment of the resource.

5.43 Overall, the potential impacts on all of the tourist attractions are classified as **not significant**.

5.44 Reference has been made to other tourist attractions through objections which are summarised below:

5.44.1 Montgomery Castle – I initially reviewed and ‘screened out’ the castle from the assessment due to the intervening distance (just under 2 km), the vegetation cover as well as the topography and as such there would be no significant effects upon the resource.

5.44.2 Hendomen Castle – I have not assessed this castle in a tourism context as I do not believe it is a tourist attraction per se but more a heritage asset, as such it has been assessed in Chapter 08: Cultural Heritage of the Updated ES (CD/SPM/ES/01).

5.44.3 Drover’s Road – I have not assessed Drover’s Road in a tourism context as I do not believe it is a tourist attraction.

Impacts on Tourist Accommodation

5.45 The following table summarises the assessment of tourism accommodation. **Map 2** in **Appendix 2** to this Proof of Evidence illustrates the location of the tourist accommodation.

Table 5.4 Tourism Accommodation Impacts Assessment Summary

Resource	Map Ref	Magnitude	Sensitivity	Significance
Northern Area				
The Cock	N19	Low	Low	Negligible impact - not significant
Edderton Hall*	N17	Low	Medium	Minor adverse impact - not significant
Heath Cottage	N18	Low	Low	Negligible impact - not significant
Holiday Cottage	N23	Low	Low	Negligible impact - not significant
Orchard Cottage	N8	Negligible	Low	Negligible impact - not significant
The Royal Oak	N10	Negligible	Medium	Negligible impact - not significant
Severn Caravan Park	N14 / N15	Low	Medium	Minor adverse impact - not significant
Severn Farm B&B	N11	Low	Low	Negligible impact - not significant
Square and Compass	N16	Low	Low	Negligible impact - not significant
The Westwood Park	N9	Negligible	Low	Negligible impact - not significant
Central Area				
Argae Hall Caravan Park	C12	Low	Medium	Minor adverse impact - not significant
Caemwgal Farmhouse B&B	C9	Low	Medium	Minor adverse impact - not significant
Fiddlers Cottage	C14	Negligible	Low	Negligible impact - not significant
Garthmyl Hall	C11	Negligible	Medium	Negligible impact - not significant
The Nags Head	C10	Negligible	Medium	Negligible impact - not significant
The Railway Inn	C3	Medium	Low	Minor adverse impact - not significant
Smith Caravan Park	C18	Negligible	Medium	Minor adverse impact - not significant
The Tavern Caravan Park	C4	Medium	Medium	Moderate adverse impact -

Resource	Map Ref	Magnitude	Sensitivity	Significance
				significant
Southern Area				
The Dolfor Inn	S14	Negligible	Low	Negligible impact - not significant
Holly Cottage	S2	Low	Low	Negligible impact - not significant
The Kerry Lamb	S11	Negligible	Low	Negligible impact - not significant
The Old Vicarage	S15	Negligible	Low	Negligible impact - not significant

* The Statement of Case On Behalf Of SP Manweb Plc (SPM-SOC-OHL) suggests that there was a significant effect upon Edderton Hall. This was due to an error in the Updated ES (CD/SPM/ES/01) and has now been updated in an Errata Note.

5.46 10 out of 22 tourist accommodation resources are anticipated to experience negligible magnitude of impact predominantly because of the intervening distance from the resource to the Llandinam Scheme, vegetation cover and the overall perceptibility of the line.

5.47 I have classified 10 resources as experiencing low magnitude of impact as they would have some limited views of the Llandinam Scheme but with low perceptibility.

5.48 I have classified two resources as experiencing a medium magnitude of impact. These resources are likely to have views of the Llandinam Scheme and visitors are likely to value the landscape characteristics and the accessibility to leisure pursuits. However, views will only be possible from certain rooms/ caravans and will not affect all users.

5.49 I have classified 13 resources as low sensitivity as there are a substantial number of similar alternatives in the study area, visitors are not wholly interested in the landscape and may include business users and those attending a special event

5.50 Nine resources are classified as medium sensitivity. These users are likely to include visitors who are attracted to the area because of the landscape, for example the resources are close to regional/national walks/trails. There are often a substantial number of similar alternatives in the study area.

- 5.51 Overall I have classified the potential impacts on 21 of the 22 tourist accommodation as **not significant**. The Tavern Caravan Park is just over 0.3 km to the west of the Llandinam Scheme with clear visibility of the proposed development likely at the east of the site. Although there are a high number of other holiday parks in the study area the nature of the ownership of the static caravan units means that owners could be sensitive to changes in the local landscape character which in turn could influence future behaviours, such as the length of trip, the frequency of visiting, and propensity to renew caravan berth subscriptions at the end of the contract period.
- 5.52 With the above in mind, the Tavern Caravan Park would potentially experience a medium magnitude of change and medium sensitivity which will result in a **moderate adverse** impact on the resource. This moderate impact is **significant**. In my professional opinion, although there could be a small reduction in visitor numbers at this resource, the visitors are not likely to be deterred from the area due to these identified impacts and have the ability to stay elsewhere in the study area. The local economy is not likely to be affected by this adverse significant impact. Furthermore, if the proposed mitigation is undertaken, the residual effect would be **minor** and **not significant** (see paragraph 5.65).

Wider Tourism Impacts (up to 5 km)

- 5.53 There are significant impacts on only two particular attractions, assets and accommodation. My following assessment goes beyond these conclusions and explores the interconnections between the different attractions, assets, accommodation and supporting businesses to form a view on the collective impacts and effects.
- 5.54 In order to assess the potential impacts on tourism I have triangulated various research strands and assessments including:
- 5.54.1 The development of a tourism baseline across the 5 km study area as well as Powys. This included an assessment of the main visitor attractions, accommodation, tourism supporting businesses (such as

restaurants, transport and retail), the importance of tourism employment and the wider economic profile.

5.54.2 The previous impact assessment of all tourist attractions, accommodation and local community assets that are within 2 km of the Llandinam Scheme.

5.54.3 Site visits to the study area.

5.54.4 A review of a number of case studies assessing impacts of similar schemes. These case studies include both ex ante and ex post analysis.

5.55 The study area includes some key tourism assets including the towns of Welshpool, Montgomery and Newtown, Powis Castle and the surrounding countryside and the number of national and regional leisure trails. Tourism related industries help support almost one in ten (9.2%) jobs in the study area. However a substantial number of these jobs are in supporting industries such as retail and transport which are not wholly dependent on tourism. From my experience of Powys, day visitors (rather than staying visitors) make up the majority of tourists. Day visitors spend, on average, less money than staying visitors and will not utilise overnight accommodation and are more likely to use tourist supporting businesses (such as bars and restaurants) outside the study area.

5.56 No visitor attractions would be expected to see a significant adverse impact as a result of the Llandinam Scheme but five could be expected to see minor adverse (although not significant) impacts, these are the Kerry Ridgeway, Glyndwr's Way National Trail, Offa's Dyke Path National Trail, the Sustrans National Cycle Trail 81 and the Vale of Montgomery.

5.57 Caravan parks make up a significant proportion of the available bed stock. There is also a high level of repeat visitors within the study area. These two issues suggest a high proportion of visitors who live within a reasonably close drive time.

- 5.58 Although the approach, study areas and type of scheme assessed varied across the case studies, the findings were relatively consistent with each suggesting that the overall tourism impact would be minimal. In other words modest scale overhead powerlines and electricity transmission more generally do not have a significant effect on deterring visitors.
- 5.59 A common finding illustrated in the case studies and other research is that visitors', local residents' and businesses' perceptions of electricity infrastructure impacts on tourism are generally worse than the experienced impacts. For example, in the 'Scotland to Northern Ireland interconnector' project, following the introduction of the powerline an overwhelming majority (97%) reported that their business or tourist attraction had not been negatively affected.
- 5.60 The tourism offer in the study area is also quite dispersed meaning that any dis-benefits would be spread across large parts of the study area rather than being localised and as such significant socio-economic effects are less likely at individual resources.
- 5.61 Based on the above information I expect that the Llandinam Scheme would have a **negligible** impact and as such considered **not significant** on tourism across the study area.

Mitigation and Residual Effects

- 5.62 The main strategy for minimising the negative effects of the Llandinam Scheme on the socio-economic context of the area is avoidance of negative effects through careful planning, design and routeing. This is the strategy adopted by SP Manweb in the preceding routeing study, which led to the identification of the Llandinam Scheme under consideration in the Updated ES. A route was developed, which together with other constraints, responded to the socio-economic resources of the study area and avoided specific locations that were considered particularly sensitive to development

of this type. Although I did not input into this I am happy with the approach taken.

- 5.63 Another important factor in mitigating the Llandinam Scheme is the technical design of the Llandinam Scheme itself. Historically overhead lines with a capacity of 132kV have used steel lattice towers approximately 26m high. Advances in overhead line technology now means that lines of this voltage can be supported by wood poles, with steelwork carrying the insulators and cables. By using wood poles there is no requirement for large concrete foundations and the poles are lower and less intrusive than some of the alternatives, which reduces the intensity of the construction process and the potential associated disturbances through increased construction traffic.
- 5.64 I identified one potential significant effect in the operational phase. This is on the Tavern Caravan Park. The implementation of the mitigation measures will be reliant on landowner agreement, which has not been established at this point, and therefore cannot at this stage be relied upon. I therefore assume that the effects will remain significant. However, I set out the residual impacts below that would remain should consent be given and the proposed mitigation be undertaken.

Tavern Caravan Park

- 5.65 The effect before mitigation is moderate adverse and therefore significant. The magnitude of impact is classified as medium as some caravans in the east of the site would have prominent views of the Llandinam Scheme. Additional trees and hedgerows in the east of the site would limit views. This would reduce the magnitude to negligible/low depending on the amount of tree/plant cover and time of year. Therefore, I consider that the residual effect, if agreement over these measures is reached with the landowner, is **minor and not significant** (if magnitude is low).

Conclusion

- 5.66 No significant socio-economic effects would arise from the construction and decommissioning of the Llandinam Scheme.

- 5.67 In respect of the operational stage, the Llandinam Scheme would not have any significant impacts upon the local population, economy, local community assets, tourist attractions or tourism more broadly.
- 5.68 The operational stage would be expected to have a moderately significant effect upon tourism accommodation at the Tavern Caravan Park. However, residual effects at Tavern Caravan Park would be minor and not significant (if agreement over mitigation measures is reached with the landowner).

6. CUMULATIVE IMPACTS

Introduction

6.1 The cumulative socio-economic effects that I have assessed are employment generation, impacts on the local population and the impacts on recreation and tourism related to people's enjoyment and appreciation of the land based on the effects on the views.

6.2 Cumulative effects could arise from any form of development, therefore to keep the task reasonable and proportionate it was important to focus on likely significant effects – this is in line with the approach by all other disciplines in the Updated ES. Through discussions with PCC and NRW it was agreed that the assessment would include other overhead lines, wind farms, small scale wind energy developments requiring planning consent and any other major developments. In summary three scenarios were agreed:

6.2.1 Cumulative Scenario 1 – Llandinam Scheme + Llandinam Repowering Wind Farm.

6.2.2 Cumulative Scenario 2 – Cumulative Scenario 1 + other conjoined inquiry wind farms (SSA B and SSA C).

6.2.3 Cumulative Scenario 3 – Cumulative Scenario 2 + non-inquiry proposed wind farms + the Mid Wales development consent order (DCO) connections + Town and Country Planning (TCPA) development (including single turbines).

Method for Assessing Cumulative Effects

6.3 I assessed impacts on employment generation by reviewing expected employment generation from other similar (in terms of size, scale and location) wind farms in Mid Wales and elsewhere. This included Environmental Statements from the other schemes at this Inquiry and other proposed wind farms such as; Carnedd Wen, Clocaenog Forest, Esgair Cwmowen, Llanbrynmair, Llandinam Windfarm Repowering and Extension.

- 6.4 I examined the impacts on the local population and on recreation and tourism by drawing upon the landscape and visual assessment and applying it in the context of the specifics of my topic. This was because I considered it likely that the majority of direct socio-economic/tourism impacts would relate to visual impacts. Alongside this I also assessed employment impacts of the cumulative schemes. This assessment of cumulative effects was concerned with the identification and assessment of the additional effects on peoples' views arising from the Llandinam Scheme when seen in conjunction with the other projects as combined in the three cumulative schemes. These effects would result from changes in the character and content of the views experienced in particular places arising from the introduction of new elements or removal or damage to existing ones.
- 6.5 My starting point for the cumulative assessment was the viewpoints and resources identified for the Llandinam Scheme. The distance between these viewpoints and receptors and the various developments would influence the magnitude of cumulative visual effects and so contribute to the assessment of their significance. My cumulative assessment did not consider any resources outside the 2km zone of visual influence identified for the Llandinam Scheme. This is because, beyond that distance, there may be cumulative effects but these would arise from the interaction of existing and potential wind farms alone, rather than from interactions with the overhead line itself which would be too distant to give rise to significant visual effects.
- 6.6 I categorised the resources and their receptors in terms of their sensitivity to change as part of the assessment I set out earlier for the Llandinam Scheme. These assessments remained unchanged. The magnitude of visual effects, however, was potentially altered through the addition of other developments and I made judgements on this effect. As with the earlier assessment the emphasis of the cumulative assessment was on the identification of significant effects. In judging the significance of cumulative effects I assessed the following criteria:
- The susceptibility of the receptors to changes in views and visual amenity (as recorded in the earlier assessment).

- The value attached to the views they experience (as recorded in the earlier assessment).
- The nature or magnitude of effects, both in terms of size and geographical area. This differed from the magnitude of effects identified for the Llandinam Scheme depending on the visibility of the Llandinam Scheme in relation to the other proposed developments. This assessment considered the scale of the change in the view (relating to the extent of visibility, degree of screening, angle of view and distance from the development) and the degree of contrast or integration of any new features with existing features.
- The duration of the cumulative effects, including the timescales relating to the projects being considered in this inquiry, and the extent to which the cumulative effects may be considered reversible.

6.7 I then assessed the significance of cumulative effects through the application of the findings from the landscape and visual assessment, by applying my professional judgement, a combination of the sensitivity of the receptors, the magnitude of the change and whether the change was likely to be temporary or permanent, long or short term.

6.8 In line with the landscape and visual assessment typically higher levels of significance are considered to arise from:

- Developments that are in close proximity to the Llandinam Scheme and are clearly visible together in views from the selected viewpoints.
- Developments that are highly inter-visible with overlapping Zones of Theoretical Visibility (ZTVs) (as identified through overlaying socio-economic resources and the different ZTVs using GIS software). (See Chapter 6.0: Landscape & Visual of the Updated ES for information on ZTVs (CD/SPM/ES/01)) – even though the individual developments may be at some distance from the Llandinam Scheme and from individual viewpoints, and when viewed individually not

particularly significant, the overall combined cumulative effect on a viewer at a particular viewpoint may be more significant.

Socio-Economic: Population Impacts

- 6.9 No likely significant environmental impacts on population or local community assets were identified in either the construction or operation of the Llandinam Scheme in the preceding socio-economic assessment.
- 6.10 The landscape and visual cumulative assessment reviewed likely significant environmental effects on views from the towns, villages and other residential properties in the study area. This identified only one potential likely significant environmental effect. This was under Scenario 3 in Dolfor and effects are predicted to be moderate. The population of Dolfor represents less than 5% of the study area and even then it is unlikely that all residents within Dolfor would experience moderate cumulative effects (depending on which way their home faces). Therefore, it seems likely that the vast majority of the people living in towns and villages would not experience significant cumulative effects.
- 6.11 Potential likely significant environmental impacts on the local population could also result from the temporary presence of construction workers coming to the area. The employment impacts are likely to be significant (beneficial) under Scenarios 2 and 3. However, based on my professional judgement and experience from elsewhere, it is likely that only a small proportion of workers would move into the study area as many are likely to live nearby and/or move to other areas surrounding the study area and/or only work in the study area for the short-term (construction jobs).
- 6.12 Based on this I consider that the impacts on population under all three Scenarios are considered **not significant**.

Economic: Employment Impacts

- 6.13 I did not identify any likely significant employment impacts in either the construction or operation of the Llandinam Scheme in the preceding socio-

economic assessment. Each scenario will generate new jobs during the construction and operational phases of the developments considered and create demand for maintenance and repair of the operational wind farm(s) and the Llandinam Scheme from local firms and companies.

- 6.14 Under Scenario 1 the Llandinam Repowering Wind Farm will create 188 short-term jobs during the decommissioning (13 jobs) and construction phase (175 jobs) (CeltPower Llandinam Repowering Wind Farm Supplementary Environmental Information Non-Technical Summary, April 2013 (AD/CPL/019)). The number employed in the operational phase is expected to remain unchanged from the existing wind farm. I therefore expect that Scenario 1 would have a **negligible** effect on employment locally in combination with the Llandinam Scheme and therefore is considered **not significant**.
- 6.15 Under Scenario 2 there are an additional five wind farms. From reviewing the Llandinam Repowering Wind Farm (CeltPower Llandinam Repowering Wind Farm and Extension Supplementary Environmental Information Volume 1A and 1B, December 2011) (AD/CPL/009)) and other case studies (see Appendix 10a in the Updated 2013 ES (CD/SPM/ES/01)) there are usually between 30 and 50 construction jobs (Carnedd Wen for example is estimated to generate 47 jobs) created for a windfarm but in some instances there are up to 200 jobs. These five wind farms, which includes Carnedd Wen would therefore be expected to generate between 200 and 700 additional construction jobs. Therefore, including the impacts from Scenario 1, it is considered that between 400 and 900 short-term construction jobs are created in Scenario 2. The range of operational jobs generated by windfarms demonstrated in the case studies peaks at 20 but it is usually lower than this and therefore it is considered that fewer than 100 operational jobs would be created (equating to a maximum uplift of 0.5 % in employment levels in the impact area). Based on this it is expected that Scenario 2 would have a **moderate** beneficial effect on employment locally cumulatively in combination with the Llandinam Scheme and therefore is considered **significant**.

6.16 Under Scenario 3 there are a large number of other wind farms, small scale wind energy developments and other major developments. Without further information (as it is not available) about each of the other schemes it is difficult to estimate employment. However, I have taken account of: the number of schemes proposed; the assessment of Scenario 2; and the conclusions in the CeltPower Llandinam Repowering Wind Farm and Extension Supplementary Environmental Information Non-Technical Summary, April 2013 (AD/CPL/019) which assessed cumulative likely significant environmental effects (albeit of slightly different schemes) and suggested a major beneficial long-term effect. In the light of this information I consider that Scenario 3 would have a **major beneficial** effect on employment locally in combination with the Llandinam Scheme and therefore is considered **significant**.

Tourism Impacts

6.17 Below I assess the impacts on tourism by applying the same method as previously. This includes using the assessment of impacts from the Llandinam Scheme on tourism accommodation and attractions. I screened out those resources over 2 km from the Llandinam Scheme with the exception of trails/walks. Trails/walks were not excluded here (where magnitude was negligible) because there could be various points along the trail or walk where the Llandinam Scheme could be viewed but it may have only been a small section of it but in combination with other projects these could become significant.

6.18 The tourism attractions and accommodation resources were assessed in turn against each of the three scenarios before a final cumulative assessment was set out. In terms of **tourism attractions** I have made the following assessment:

Cumulative Scenario 1

6.19 No tourist attractions fall within the ZTV of both the Llandinam Scheme and the proposed projects under Cumulative Scenario 1.

Cumulative Scenario 2

- 6.20 There would be sections of the western end of Kerry Ridgeway where the Llandinam Scheme would be intermittently visible to the north. The turbines of the Llanbadarn Wind Farm would also be visible to the south-west at a distance of 2.5 km and beyond. Although the magnitude of change on this section of the trail would be medium, in the context of the overall walk and that this impact only affects a small part of it, the overall magnitude of this cumulative change is predicted to be low. The sensitivity of users is classified as high and as such the cumulative effect on the Kerry Ridgeway would be **moderate adverse** and considered to be **significant**. However, I conclude that the predicted cumulative effect would be mostly attributable to the Llanbadarn Wind Farm and as such the Llandinam Scheme would have a minor role in this overall cumulative impact. In other words, the significant effect is likely with or without the Llandinam Scheme.

Cumulative Scenario 3

- 6.21 In addition to the turbines of the Llanbadarn Wind Farm, the proposed turbines at Neuadd Goch would be visible in views at a distance of approximately 1km to the south-west of the Kerry Ridgeway. The proposed Garreg Llwyd Wind Farm would lie just less than 5km to the south and a few of its turbines may also be visible from Kerry Ridgeway. There are also two single wind turbines at the southern end of the Llandinam Scheme that would be visible from the Kerry Ridgeway. Although the magnitude of change on this section of the trail would be high, in the context of the overall walk and that this impact only affects a small part of it, the overall magnitude of this cumulative change is predicted to be medium. The sensitivity of users is classified as high and as such the cumulative effect on the Kerry Ridgeway would be **major adverse** and considered to be **significant**. However I conclude that the predicted cumulative effect would be mostly attributable to the views of the turbines of the wind farms and as such the Llandinam Scheme would have a minor role in this overall cumulative impact. In other words, the significant effect is likely with or without the Llandinam Scheme.

6.22 Where the Sustrans National Cycle Trail 81 joins the A458 and crosses the Severn Valley via the B4381, there would be views of the Llandinam Scheme in combination with Leighton Farm Dairy. There are also existing overhead lines that currently form part of the view. Although the magnitude of change on this section of the trail would be high, in the context of the overall trail and that this impact only affects a small part of it, the magnitude of this cumulative change is predicted to be low. The sensitivity of users is classified as high and as such the cumulative effect on the Sustrans National Cycle Trail 81 would be **moderate adverse** and considered to be **significant**. However I conclude that the predicted cumulative effect would be mostly attributable to the Leighton Farm Dairy and as such the Llandinam Scheme would have a minor role in this overall cumulative impact. In other words, the significant effect is likely with or without the Llandinam Scheme.

6.23 In terms of **tourism accommodation** I have made the following assessment:

Cumulative Scenario 1

6.24 No tourist accommodation fall within the ZTV of both the Llandinam Scheme and the proposed projects under cumulative scenario 1.

Cumulative Scenario 2

6.25 No tourist accommodation fall within the ZTV of both the Llandinam Scheme and the proposed projects under cumulative scenario 2.

Cumulative Scenario 3

6.26 There are four resources that would have a view of the Llandinam Scheme and the Leighton Farm Dairy. These are: Severn Caravan Park; Severn Caravan Park Bunkhouse; the Square and Compass; and the Severn Farm Bed & Breakfast. The first three are approximately 2km from the Leighton Farm Dairy and the Severn Farm Bed & Breakfast is approximately 0.5km away. In each of these instances the view of the Llandinam Scheme and the Leighton Farm Dairy would be limited. The magnitude of this cumulative

change is predicted to be low. The sensitivity of users is classified as low for the Square and Compass and the Severn Farm Bed & Breakfast and as such the cumulative effect would be **negligible** and considered to be **not significant**. Whereas the sensitivity of users at Severn Caravan Park and Severn Caravan Park Bunkhouse is classified as medium and as such the cumulative effect would be **minor adverse** and considered to be **not significant**.

Overall Tourism Impact

6.27 Here I assess the overall effect on the tourism offer, covering both attractions and accommodation. The tourism offer in the study area is mostly dispersed meaning that any dis-benefits would be spread across large parts of the study area. Based on the above information I have made the following assessment of the overall impact on tourism under each scenario:

Cumulative Scenario 1

6.28 There would be **no significant cumulative effects** on tourism overall under this scenario.

Cumulative Scenario 2

6.29 Only one resource, namely the western section of the Kerry Ridgeway would be affected and as such I suggest that there would be **no significant cumulative effects** on tourism overall under this scenario.

Cumulative Scenario 3

6.30 The Kerry Ridgeway and the Sustrans National Cycle Trail 81 would experience significant cumulative effects. Additionally, two accommodation resources would experience minor adverse (but non-significant) effects. However, as it is small sections of the two trails and only two tourism accommodation resources out of 58 that are affected I consider that there would be **no significant cumulative effects** under this scenario.

Conclusion

6.31 The significant socio-economic effects resulting from the cumulative schemes would likely be moderate beneficial and major beneficial impacts on employment under Scenarios 2 and 3 respectively, particularly during the construction phase. There are not expected to be any significant cumulative effects upon the population. Although 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 though mainly relate to the contribution of the other schemes), I judge that under both Scenarios there would be no significant cumulative effects on tourism overall because the vast majority of tourist attractions and accommodation would experience no significant effects.

7. ASSESSMENT OF MATTER 7(C)

“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.” (Secretary of State's Statement of Matters, page 5 (CD/COM/11))

Introduction

- 7.1 The Secretary of State suggested that a key matter which should be considered at this Inquiry is the impact of the Llandinam Scheme on the use and enjoyment of land in the vicinity, including farming activities and on users of Public Rights of Way (Secretary of State matter 7c) (CD/COM/11).
- 7.2 I have covered this matter in the previous section but here I present my assessment in more detail in relation to the main trails and walks in the study area. These are; the Kerry Ridgeway, Glyndwr's Way National Trail, Offa's Dyke National Trail, Severn Way, and Sustrans National Cycle Trail 81.

Kerry Ridgeway

- 7.3 The Kerry Ridgeway runs from Bishops Castle, over 15km away from the Llandinam Scheme, to Cider House Farm, approximately 0.5km away from the Llandinam Scheme. The visual assessment in the original ES (CD/SPM/ES/02) included two different viewpoints from the Kerry Ridgeway. These were at the Two Tumps, close to the Scheduled Ancient Monuments of Cross Dyke and Two Tumps Round Barrow (0.6km away from the Llandinam Scheme) and at Block Wood (1km away). A further viewpoint was assessed in the Updated ES (CD/SPM/ES/01) from the lower western end (0.6km away). The first two assessments suggested that the Llandinam Scheme would be not/barely visible. There are, however, likely to be small sections of the route where the Llandinam Scheme would be visible. The Updated ES viewpoint suggests that the Llandinam Scheme would form a noticeable new manmade feature within this rural landscape at one particular location. The high prevalence of woodlands means that the line would be

back clothed by trees for a number of sections of the ridgeway. Although this viewpoint assessment suggests that the magnitude would be low verging on medium this is at one of the nearest points of the Kerry Ridgeway to the Llandinam Scheme. This viewpoint also suggests that the Llandinam Scheme would be only intermittently visible. Alongside this the majority of the trail is much further out than this viewpoint and as such in terms of the overall trail there would only be a slight adverse visual impact. Based on the above, I have classified the magnitude of change as **negligible**.

7.4 The Kerry Ridgeway is a well promoted and popular regional trail used by pedestrians, cyclists and horse riders. It also has well used farm access. There are other local and national trails within the study area but this is one of the most popular. It is likely that a lot of the users of the trail would be sensitive to changes in the surrounding environment. Based on this I have classified the sensitivity of users of the Kerry Ridgeway as **high**.

7.5 It is therefore considered that there would be a **minor adverse** impact on Kerry Ridgeway and as such considered to be **not significant**.

Glyndwrs Way National Trail

7.6 Glyndwrs Way is a National Trail. The 217km trail is a long distance walk between Welshpool and Knighton typically taking nine days to complete. Only a small section of the trail falls within the 2km study area with the start/end point being in Welshpool. It is likely that the Llandinam Scheme would be visible for this small section. Based on the above, I have classified the magnitude of change as **negligible**.

7.7 Glyndwrs Way is one of three National Trails in Wales and forms part of the 15 National Trails that are widely promoted across the UK and overseas. Specific user services such as trail maps, information boards, accommodation and bag carriage are increasingly associated with these trails because of their national status and the volume of walkers that they attract. The trail is also promoted more locally for day trips. The majority of the trail is off-road and uses existing public rights of way and other pathways. Some sections of the trail support cyclists and horse riders.

However, the route can only be used as a long distance trail by walkers. The highlights of the trail are the views afforded over Cadair Idris, Lake Vyrnwy, the Cambrian Mountains and Y Golfa.

7.8 Trails such as Glyndwrs Way are usually used by a mix of different walker types: from beginners through to adventure walkers; and those on short/day trips through to those seeking to complete the whole trail. Shorter distance walkers will generally seek sections appropriate to their ability. For adventurers/multi-day users the availability of the trail and the challenge of completing the trail will form a significant part of the motivation. For all users, however, the quality of the landscape and setting of the trail are critical factors encouraging usage. Based on this, I have classified the sensitivity of users of the Glyndwrs Way National Trail as **high**.

7.9 It is therefore considered that there would be a **minor adverse** impact on the Glyndwrs Way National Trail and as such considered to be **not significant**.

Offa's Dyke Path National Trail

7.10 Offa's Dyke Path is another of the three National Trails in Wales. Approximately 8km of the trail is included within the 2km study area, with the line of the trail running roughly parallel to the Llandinam Scheme from the substation in Welshpool to south of Forden. The trail veers in a south-easterly direction beyond Forden in the direction of Montgomery and beyond.

7.11 Offa's Dyke is 285km in length and travels roughly along the Wales/England border. The trail usually takes around 12-14 days to complete in its entirety. The 2009 visual assessment of the landscape examined the visibility of the Llandinam Scheme from Offa's Dyke and concluded it is likely to be visible to users at certain points, particularly around Forden where the trail is at its closest point (less than 0.7km away). However it also indicates that the design of the wooden poles and the intervening distance would mean that the perceptibility of the line would be significantly reduced. An additional viewpoint was examined in the Updated ES (CD/SPM/ES/01) on one of the closest points of the trail to the Llandinam Scheme. This suggested that

although the line would be visible it would not be prominent. Based on the above, I have classified the magnitude of change as **negligible**.

- 7.12 It is felt that the profile and sensitivity of users would be similar to Glyndwrs Way and as such I have classified the sensitivity of users of the Offa's Dyke National Trail as **high**.
- 7.13 It is therefore considered that there would be a **minor adverse** impact on the Offa's Dyke National Trail and as such considered to be **not significant**.

Severn Way

- 7.14 The Severn Way is a long distance trail that roughly follows the path of the River Severn from its source at Plynlimon plateau in Mid-Wales to the Severn Estuary at Bristol. The trail is 360km in length. Although the majority of the trail follows the path of the River Severn, some sections utilise other pathways close to the river. For instance between Newtown and Welshpool the trail utilises the Montgomery Canal Towpath. This section enters the 2km study area at Abermule and Garthmyl. The visibility and perceptibility of the Llandinam Scheme from the canal is anticipated to be limited overall due to the hedgerows, although at some elevated sections the Llandinam Scheme may be visible but only for small sections of the route. Based on the above I have classified the magnitude of change as **negligible**.
- 7.15 Although the Severn Way is a long distance trail it is not a National Trail. As a result its promotion and the availability of facilities and services to support walkers is less pronounced. The best source of information is in terms of printed literature available through retailers (e.g. 'Severn Way: the Longest Riverside Walk in Britain - Official Guide', Environment Agency, 1999 and 'Guide to Severn Way East Bank', SH Gidman, 1989). However, PCC has prepared a series of leaflets for the sections of the trail that pass through the county, including between Newtown and Welshpool. The majority of the trail is off-road using existing public rights of way and other pathways, with the section along the Montgomery Canal using the towpath. The route can only be used as a long distance trail by walkers, although the Montgomery Canal section is a multi-user path that also supports cyclists.

- 7.16 As with National Trails, users will be a mix of different walker types: from beginners through to adventure walkers; and those on short/day trips through to those seeking to complete the whole trail. Shorter distance walkers will generally seek sections appropriate to their ability. For adventurers/multi-day users the availability of the trail and the challenge of completing the trail – particularly given its length – will form a significant part of the motivation. For all users, however, the quality of the landscape and setting of the trail are critical factors encouraging usage. Based on the above I have classified the sensitivity of users of the Severn Way as **medium**.
- 7.17 It is therefore considered that there would be a **negligible** impact on the Severn Way and as such considered to be **not significant**.

Sustrans National Cycle Trail 81

- 7.18 The NCN Route 81 forms part of the Sustrans network of interlinking cycle trails that cross the UK. NCN 81 connects Aberystwyth and Wolverhampton via Shrewsbury and Telford. It covers a distance of 180km. The route forms the main bulk of the Lon Cambria trail, classified as a challenging trail through the Cambrian Mountains, Elan Valley to Rhayader, and Long Mountains. The trail generally runs parallel to the north and west of the Llandinam Scheme but with a small section that enters Welshpool and falls within the 2km study area. There is only one point (along the B4381) along the trail the Llandinam Scheme would be visible to users. Two viewpoint assessments were undertaken in the Updated ES (CD/SPM/ES/01). These were taken next to the existing Welshpool substation on the B4381 and slightly further up the B4381. Both these assessments suggest that the Llandinam Scheme would be visible but only for a short period of time. In these instances the magnitude was assessed as low.
- 7.19 However, the majority of the primary trail falls outside of 2km study area and as such the Llandinam Scheme would be visible only to a very small section of this long distance trail. Based on this I have classified the magnitude of change as **negligible**.

- 7.20 The NCN 81 is actively promoted nationally as part of the Sustrans network. It is also promoted more locally as part of the Lon Cambria trail. The majority of the trail is on-road, suggesting that the trail will only be used in its entirety by cyclists. The trail is also considered a moderately challenging ride by Sustrans. We do not have information on specific usage of the trail.
- 7.21 Users of Sustrans routes tends to be a mix of cyclists seeking short distance cycle rides and multi-day rides that cover large sections or even the whole of the trail. For multi-day users the availability of the trail and the challenge of completing the trail is likely to be the primary motivation with the landscape features adding to the overall enjoyment of the experience. For those on day trips the ability to enjoy a leisurely trip in the countryside using a way-marked trail is likely to be the main appeal particularly when accompanied by safer off-road sections.
- 7.22 NCN 81 is the only Sustrans route within the study area. However there are more localised cycle trails that users of the NCN could combine their journey with. Of these one section is the off-road trail along the Montgomery Canal Towpath. It is likely that some of the users of this section of the trail would be sensitive to changes in the surrounding environment, as users of this section are more likely to be on day trips, and groups seeking safer and more sightseeing-based rides. Based on this I have classified the sensitivity of users of the NCN Route 81 as **high**.
- 7.23 It is therefore considered that there would be a **minor adverse impact** on the NCN Route 81 and as such considered to be **not significant**.

Conclusion

- 7.24 I have not identified any significant effects on the walks and trails in the study area. This is predominantly because the Llandinam Scheme, if it is in sight, will only be prevalent for such a small proportion of the overall walk/trail.

8. CONCLUSIONS

- 8.1 The design and routeing of the Llandinam Scheme has been developed to minimise its effects on visual amenity and consequently upon negative perceptions of tourists and residents alike. The Llandinam Scheme generally avoids major settlements, tourist attractions, and local amenity assets.
- 8.2 The study area is sparsely populated, has an economy which is focussed on low value added industries but with a relatively strong manufacturing and engineering base. The tourism offer is predominantly based around the natural landscape and the associated walks/trails rather than specific tourist attractions.
- 8.3 No significant socio-economic effects would arise from the construction and decommissioning of the Llandinam Scheme.
- 8.4 In respect of the operational stage, the Llandinam Scheme would not have any significant impacts upon the local population, economy, local community assets, tourist attractions or tourism more broadly.
- 8.5 The operational stage would be expected to have a moderate and therefore significant effect upon tourism accommodation at the Tavern Caravan Park. If proposed mitigation is accepted the residual effects would become not significant.
- 8.6 The significant socio-economic effects resulting from the cumulative schemes would likely be moderate beneficial and major beneficial impacts on employment under Scenarios 2 and 3 respectively, particularly during the construction phase. There are not expected to be any significant cumulative effects upon the population. Although 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 though mainly relate to the contribution of the other schemes), I conclude that under both Scenarios there would be no significant cumulative effects on tourism overall because the vast majority of tourist attractions and

accommodation would experience no significant effects. I do not expect any significant socio-economic effects resulting from the cumulative schemes under Scenario 1.