



Chapter 14

Socio-economics, recreation and tourism

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Figure 14.1: Socio Economic Receptors



Chapter 14

Socio-economics, recreation and tourism

14.1 Executive Summary

1. This Chapter assesses the potential socio-economic effects of the proposed Development and the likely significance of these on tourism, recreation, employment generation, land use and other indirect effects.
2. The assessment has been undertaken on the basis of the development consisting of up to nineteen wind turbines each with a generating capacity of around 6 MW, solar PV generating capacity, and associated energy storage infrastructure, all of which offer opportunities for provision of goods and services from the local area as well as direct and indirect employment during construction and operation.
3. Based on the installed capacity the assessment of the proposed Development's economic impact found that:
 - The development expenditure during the construction phase is estimated to be approximately £148 million, approximately £24 million spent in the local economy and approximately £55 million spent in Scotland as a whole;
 - During the 22 months' construction phase, the proposed Development is expected to support, in net terms, 117 person-years of employment benefiting local residents. Nationally (for Scotland as a whole), the proposed Development would be expected to support approximately 315 person-years of employment;
 - During the operational phase, the proposed Development is expected to require between 3 and 5 new full time employees (engineers and technicians) locally and further posts would be created elsewhere in Scotland. Additional benefits would accrue to the local supply chain as a result of services supplied to the operation of the Renewable Energy Development;
 - The local economy would be expected to be boosted by a total of £9.5 million of net Gross Value Added¹ (GVA) during the construction period. The Scottish economy would benefit by some £36.8 million net GVA. Although this application is for consent in perpetuity', during the operational phase (over a nominal 40 year life) the proposed Development would contribute lifetime GVA of some £60.4 million to the local economy through direct, indirect and multiplier effects, and over £170 million to the economy of Scotland as a whole.
4. Information from other projects developed by SPR indicates that a wide selection of supply chain businesses could expect to benefit from the investment in the local and Scottish economy, including haulage, aggregates supply, forestry services, building services, fencing, and security. SPR is committed to employing good practice measures with regard to maximising local procurement and would adopt established good practice measures such as 'Meet the Developer/Contractor Days'.
5. In terms of the tourism and visitor economy, a number of published studies have been reviewed which indicate that the presence of the proposed Development would not have a deterrent effect on people visiting the area. This is supported by the fact that tourism in Argyll and Bute has increased in recent years. For both construction and operational phases, therefore, the socio-economic effects at the level of Argyll and Bute are considered to be beneficial.
6. With regard to recreation and tourism assets, no significant effects are expected during construction of the proposed Development subject to appropriate good practice management of construction traffic effects along the access roads to the Site and within the Site. Beneficial effects (also not significant) may be experienced by some businesses, such as accommodation businesses and shops that supply goods and services to construction workers.
7. The proposed Development includes a creative and considered package of enhancement measures to support recreational and tourism uses within the Site based on consultation with stakeholders, in particular focusing on users of and connections to the Kintyre Way. Taking account of the proposed measures, no significant adverse effects have been identified during the

¹ Gross value added (GVA) measures the contribution to an economy of an individual producer, industry, sector or region

operational phase. Whilst the primary use would remain agriculture and commercial forestry, the potential to extend the recreational use of the Site is considered to be beneficial.

8. SPR is working with local communities throughout Scotland and is committed to offering a package of community measures to local communities that would include the opportunity for community benefit payments to be made and for communities to invest in the proposed Development. To date, SPR has voluntarily awarded over £1.6 million in community benefit funding to communities in Argyll and Bute, supporting initiatives such as community facilities, environmental projects, heritage projects and skills and employment support. It is expected that any proposed income streams would provide a long term, flexible revenue which could be used to support community projects within the Kintyre area.
9. Benefits accruing from the scale and nature of the proposed income streams could, as on previous projects, have a lasting positive effect on access to resources, improvement to local amenities and quality of life of local residents as well as economic benefits. The long term nature of the income would allow the community to plan ahead, to draw in other sources of match funding to maximise the benefits and investment projects could be designed to match local priorities.
10. Overall the proposed Development is expected to have a positive economic effect that is not significant in EIA terms, and no significant adverse effect on land use, tourism and recreation. Benefits arising through spending by construction workers and operational staff, as well as through benefits packages (including potential for investment) would support local businesses and communities.

14.2 Introduction

11. The Site is located on the Kintyre Peninsula in Argyll & Bute. The Site and immediately surrounding area is upland and characterised by open moorland and forestry.
12. Local settlements are focussed along the two principal roads that serve the west and east of the Kintyre Peninsula. The town of Tarbert lies approximately 10 km to the north of the Site and there are smaller settlements nearby, including the villages of Whitehouse and Clachan along the A83 and Skipness and Claonaig along the B8001/B842. The Kintyre Way passes directly adjacent to the south of the Site and National Cycle Route (NCN) 78 follows the B8001/B842. In addition to visitors staying in Kintyre, this section of the peninsula can be used as a crossing point for people accessing Islay and Jura by ferry from Kennacraig and the Isle of Arran from Claonaig.
13. This Chapter has been prepared by SLR Consulting Ltd.

14.3 Approach to assessment & methods

14.3.1 Legislation, policy and guidance

Scottish Planning Policy (2014) (SPP)

14. SPP Paragraph 29 requires that policies and decisions should, amongst other matters, give 'due weight to net economic benefit'.
15. SPP Paragraph 169 requires that the planning system supports the transformational change to a low carbon economy, consistent with national objectives and targets. Considerations in respect of proposals for onshore wind that are relevant to this assessment include:
 - net economic impact, including local and community socio-economic benefits such as employment, associated business and supply chain opportunities;
 - the scale of contribution to renewable energy generation targets;

- public access, including impact on long distance walking and cycling routes and scenic routes identified in the national policy framework (NPF); and
 - impacts on tourism and recreation.
16. Paragraph 79 also requires that the planning system promotes economic activity and diversification including, where appropriate, sustainable development linked to renewable energy developments.

National Planning Framework 3 (2014) (NPF3)

17. NPF3 is the spatial expression of the Government's Economic Strategy and sets out a long-term vision for development and investment across Scotland over the next 20 to 30 years. NPF3 aims "to share the benefits of growth by encouraging economic activity and investment across all of Scotland's communities, whilst protecting our natural and cultural assets". A sustainable, economically active rural area, which attracts investment and supports vibrant, growing communities, is said to be essential to the Government's vision.
18. With regard to rural development, NPF3 identifies that in rural areas there should be strengthened links between people and the land, including increased community ownership of rural assets.
19. NPF3 also sets out that development of a national long-distance walking and cycling network will link key outdoor tourism locations across the country and will be an important tourism asset in its own right; as such, it is identified as a National Development. The proposed Development would not impact on such a route and no further consideration of such routes is provided in this Chapter.

Scottish Natural Heritage (2013) Handbook on Environmental Impact Assessment

20. The SNH handbook on Environmental Impact Assessment states (at E.2.4) that "the Environmental Statement may set out material considerations which could outweigh the [relevant planning] policies - such as economic benefits or benefits to other aspects of the environment that may be enhanced rather than harmed."

Scottish Government (2019) Good Practice Principles for Community Benefits from Onshore Renewable Energy Developments

21. This guidance was updated in 2019 as a result of the Scottish Government's recognition that the renewables industry is in a period of transition, following changes to UK Government support schemes. This means that new models of community benefits, and new approaches, are likely to be needed. The revised guidance places a greater focus on achieving a lasting legacy for local communities underpinned by a well-developed community action plan. The guidance notes that within the previous 12 months, 214 projects had offered community benefits packages totalling over £15 million. The guidance is supportive of renewable energy businesses that seek to offer communities a flexible package of benefits that might not necessarily be based on Scottish Government's recommended national rate of £5,000 per installed MW per year; such flexible packages of benefit should offer an element of additionality and go beyond the requirements of the planning process, and also recognise the ambition to offer the lowest cost energy for consumers.
22. The package of benefits that a renewable energy business offers may vary in line with the priorities of community/communities involved, and the size and scope of the renewable energy project. However, community benefits should relate to the specific needs and aspirations of local people. The guidance advises that possession of a community action plan is key to delivering a community's aspirations and ambitions, and guidance is provided as to how this should be developed with a view to establishing a lasting legacy.

Scottish Government (2019) Good Practice Principles for Shared Ownership of Onshore Renewable Energy Developments

23. This guidance was updated in 2019 and provides guidance on the process of a renewable energy business making an offer, and a community accepting that offer. The aim of the review was to ensure that Scottish communities continue to benefit from local projects in a manner that is appropriate for the current and future context in which renewable energy projects are developed, and advises on how local communities, renewable energy companies and local authorities can work together to achieve this.

Scottish Government (2016) Draft Advice on Net Economic Benefit and Planning

24. The draft advice on net economic benefit from the Scottish Government provides advice to developers on the methodology to be used when modelling economic benefits. The advice states the importance of using assumptions that are completely transparent, evidence-based and as accurate as possible. The assessment is expected to consider the net economic benefit by comparing the estimated economic position where the development proceeds with the position if the proposal does not go ahead.

Scottish Natural Heritage (2019) Good Practice During Windfarm Construction

25. Scottish Natural Heritage Good Practice Guidance on windfarms contains advice on management measures during construction to provide for continuing public access. Access rights may be suspended on land on which construction work is being carried out, except for routes that are core paths or rights of way. The Guidance advises that management measures should be flexible enough to take reasonable account of public access requirements and adapt as the site progresses. The Guidance emphasises the importance of effective communication. During operation, public access will often share vehicular tracks with maintenance traffic, but this position is common to a wide range of tracks used for forestry and upland estate management and is unlikely to require any special provision.

Tourism Scotland 2020

26. Tourism Scotland 2020 advises that tourism is one of Scotland's key economic contributors. It identifies four groups of assets that contribute to the tourist appeal of Scotland. These are:
- nature, heritage and activities;
 - destination towns and cities;
 - events and festivals; and
 - business tourism.

27. The document sets an aspiration to increase annual visitor spend in Scotland by £1 billion by 2020 from the baseline in 2011 (at 2011 prices). It identifies the need to develop market opportunities associated with the assets listed above.

Local Development Plan 2015

28. Argyll and Bute Council adopted their current Local Development Plan in March 2015², which includes Supplementary Guidance adopted in March 2016. This provides further detail and guidance on the policies within the LDP, and where necessary supplements these with additional policy requirements. The current Plan, approved in 2015, is therefore considered to be a relevant and up to date Development Plan to which significant weight should be attached in determining an application under S36 of the Electricity Act. With regards to socio economic and land use matters, the ABLDP Policy L11 Improving our Connectivity and Infrastructure states:

"Argyll and Bute Council will support all development proposals that seek to maintain and improve our internal and external connectivity and make best use of our existing infrastructure by ensuring that: of which the following are relevant to the proposed Development." The criteria include:

- rights of way and public access are safeguarded;
- public access within the development is delivered, as appropriate, ensuring that any special mobility and safety requirements are addressed;
- consideration is given to the promotion of access to adjoining areas, in particular to the foreshore, core path network and green network".

Supplementary Guidance (SG) May 2016

29. The SG provides further policy and guidance on the LDP policies. The following text sets out detail which is considered relevant to this Chapter.
30. SG LDP TRAN 1 – Access to the Outdoors

"This policy provides additional detail to policy LDP 11 – Improving our Connectivity and Infrastructure of the Adopted Argyll and Bute Local Development Plan.

² Argyll and Bute Council are in the early stages of preparing their new LDP, the adoption of which is not anticipated until 2020. Consultation on the Proposed LDP2 is due to take place between July and September 2019.

(A) Argyll and Bute Council requires development proposals to safeguard and enhance public rights of access to the outdoors* in a manner that is appropriate and proportionate to the specific site characteristics and the scale and impact of the proposed development on access issues. Accordingly, the Core Paths Plan, claimed Public Rights of Way and public rights of access to land and water under the Land Reform (Scotland) Act 2003 (LRSA) will be material considerations in assessing planning applications.

(B) Where development would have a significant adverse effect upon the public access interests identified in (A) alternative access provision will be sought at the developer's expense either by diverting the route or incorporating it into the proposed development in a way that it is no less attractive, safe or convenient for public use. Unless such appropriate provision is demonstrated.

(C) Where development would have a significant effect upon the public access interests identified in (A) the developer is required to submit an Access Plan** which addresses access issues to the satisfaction of the Council.

(D) The Core Paths Plan, claimed Public Rights of Way and public rights of access to land and water under the LRSA will be material considerations in considering planning applications.

*including; Core Paths, Launching Points, claimed Public Rights of Way, identified safe routes to school, Long Distance Routes, walking paths, cycle ways, equestrian routes, trod earth paths, waterways and significant areas where there are wider rights of public access under the LRSA i.e. woodlands, agricultural land, the foreshore and fresh water loch shores;

**This should show all the existing paths and tracks on the site, together with proposed public access provision after completion of the development and should include links to the existing path networks and the surrounding area as well as launching points and access to the foreshore or water where appropriate. For larger developments close to settlements a phased approach may be required to the management of access during construction."

Draft Economic Development Strategy March 2019

31. The Draft Argyll Economic Strategy is a key document that aims to help deliver the overarching vision of the Argyll and Bute Outcome Improvement Plan 2013 – 2023 that has been agreed with the Scottish Government. The Strategy promotes the development of a low carbon economy that generates local income. It states: "We will continue to work with our partners through the Argyll and Bute Renewables Alliance (ABRA) with a focus on tackling strategic issues that currently limit our potential to generate, distribute, allow local people to take up employment opportunities and makes best use of clean energy in our communities. This work will be informed by our Renewable Energy Action Plan (REAP) that will be kept up to date together with offering on-line advice to local communities in receipt of income from renewable energy generators and others who want to take advantage of renewable energy in the future".

Argyll and Bute Renewable Economic Development Action Plan

32. The aims of the Council's Draft Economic Development Strategy are reflected in its Economic Development Action Plan which seeks to promote:
- creation of higher value jobs and incomes
 - private and public inward investment
 - sustainable economic benefits in more peripheral, remote and fragile communities
 - community benefit funds that promote local development
 - economic benefits to businesses and households through the generation and consumption of renewable energy.

Argyll and Bute Renewable Energy Action Plan

33. The Renewable Energy Action Plan (REAP) has been developed to assist Argyll and Bute in realising its vision for the development of the renewable energy sector. The vision states:

"Argyll and Bute will be at the heart of renewable energy development in Scotland by taking full advantage of its unique and significant mix of indigenous renewable resources and maximising the opportunities for sustainable economic growth for the benefit of its communities and Scotland".

34. Key actions of the REAP fall into the following categories: Transport and Connectivity, Supply Chain, Business Land and Skills and Recruitment. Those of relevance to renewable energy developers mainly relate to enhancing supply chain opportunities and skills development to support the growth of the industry in Argyll and Bute and ensure that local people and businesses obtain the maximum benefit from the presence of renewable energy projects. The REAP also provides guidance and information to communities who may benefit from community payments or investment in renewable energy projects.

14.3.2 Study area

35. A two-tiered study area is proposed for the assessment, defined as follows:

Wider Study Area (WSA)

36. The WSA is intended to encompass the area within which significant effects, as a result of the proposed Development, on employment and the local economy could occur. The WSA is based on the administrative area of Argyll and Bute. The WSA is required for certain receptor groups because the majority of the business and labour market effects that could occur would be experienced by population and business centres located across Argyll and Bute.

Local Area of Influence (LAI)

37. The LAI forms the focus for assessment of both direct and indirect effects, as a result of the proposed Development, on those receptors that would be likely to experience effects at a more local level, specifically land use and tourism assets. The study area for the tourism assessment has been defined by a 15 km radius from the proposed Development. Local recreational receptors are considered within a 5 km radius. Facilities or notable points of focus for visitor attraction within this area have been reviewed and consideration given to those with visibility of the proposed Development as informed by the ZTV. If any significant tourism facilities are located just outside the boundary of the study area, these have been included.

14.3.3 Effects assessed in full

38. Employment and economic effects arising from the construction and operation of the proposed Development have been assessed quantitatively.
39. The assessment of the LAI includes effects on tourism receptors that are promoted regionally/nationally and are, therefore, likely to draw in visitors from outside the area.

40. Land use effects, including recreational use, on the Site during construction stage have been assessed in full.

14.3.4 Effects scoped out

41. As the construction phase of the proposed Development would be relatively short term (22 months) it is not expected that construction workers from outside the WSA would have a significant effect on the demand for housing, health or educational services. Effects on demand for such community services have therefore been scoped out.
42. Recreational activities out with the Site have been scoped out unless they are promoted regionally/nationally and are therefore likely to draw in visitors from outside the area.
43. Land use effects during the operational phase have been scoped out as the operation of the proposed Development would have minimal effect on agricultural or recreational uses.

14.3.5 Baseline determination

44. Baseline conditions have been determined using desk survey techniques, including access to Points of Interest and Address point data GIS databases.

Data sources

45. The assessment uses desk-based information sources to assess the likely effects, supplemented by consultation with relevant stakeholders where necessary and professional judgement based on previous experience. Data sources referred to in undertaking this assessment are referenced in full in this Chapter and provided in **Section 14.6**.

Field survey

46. No specific field survey has been undertaken with regard to socio-economic and land use effects, although information has been gathered where relevant from surveys undertaken in respect of other disciplines, notably landscape and visual (**Chapter 7 Landscape and Visual Impact Assessment**).

Consultation

47. The assessment has used desk-based information sources to assess the likely effects of the proposed Development, supplemented by consultation with stakeholders where necessary. Information to inform the baseline has been sought from various sources, including community councils; British Horse Society Scotland; SNH; Scotways; VisitScotland. A&BC has

been consulted on a range of issues, and particularly with regard to local rights of way and other access issues. The Kintyre Way Society has also been consulted.

48. Consultation with stakeholders has principally been conducted by way of the request for a Scoping Opinion, as described in **Chapter 6 Scoping and Consultation**. This, together with additional communication on socio-economic issues, is summarised in **Table 14.1**

Consultee	Date of correspondence	Comments	Action	Reference within EIA Report
Argyll and Bute Council	21 June 2019	Tourism and recreation are important industries for the economy of Argyll and Bute and the local area. The EIA Report should address the consequences of the development for users of the countryside, and tourism and recreation interests, including any deterrent influence the proposal may have, along with any attractive influence the presence of the proposal may generate. The proposal should not result in the unacceptable loss of amenity to individuals who enjoy recreation pursuits on land or water. The Council would recommend that consideration is given to recreational watercraft in the LVIA. It is considered that the study areas are suitable.	The assessment of socio-economic effects includes both economic effects on the local area, and effects on individual businesses and users of recreational and tourism assets. Visual effects on recreational watercraft are addressed in Chapter 7 Landscape and Visual Impact Assessment .	Section 14.4
VisitScotland	17 April 2019	Highlights that scenery and the natural environment have become the two most important factors for visitors in recent years when choosing a holiday location. It is requested that full consideration is given to Scottish Government's 2008 research on the impact of wind farms on tourism, and to provide a tourism impact assessment statement. Consideration should be given to any adverse local impacts on tourism are minimised: <ul style="list-style-type: none"> The number of tourists travelling past en route elsewhere The views from accommodation in the area 	The socio-economic assessment will take account of the findings of the landscape and visual impact assessment as part of its qualitative assessment, including potential effects on visitor numbers. This Chapter assesses the likely effects of the proposed Development on tourism receptors within the local area, and on the tourism economy as a whole, based on recent published research rather than bespoke studies. The assessment includes views from tourist routes including footpaths and bridleways, and views from accommodation businesses.	Section 14.4.3

Consultee	Date of correspondence	Comments	Action	Reference within EIA Report
		<ul style="list-style-type: none"> The relative scale of tourism impact i.e. local and national The potential positives associated with the development The views of tourist organisations, i.e. local tourist businesses or VisitScotland. 	The assessment considers both potential adverse and beneficial effects.	
Scotways	April 2019	The National Catalogue of Rights of Way does not show any rights of way affected by the site delineated in red on the applicant's plan Figure 1.1 Site Location plan . However, as there is no definitive record of rights of way in Scotland, there may be routes that meet the criteria but have not been recorded because they have not yet come to our notice. Scotways note that the Kintyre Way crosses the site, and that the applicant details core paths.	Recreational routes are shown on Figure 14.1 and described in the baseline conditions . Effects arising from the construction or operation of the proposed Development are fully assessed with respect to any routes considered to be of national importance.	Section 14.3
British Horse Society	8 May 2019	BHS' standard guidance is that there should be a separation distance of at least four times the overall height of turbines (i.e. to tip of blade) for core paths, nationally promoted routes such as Scotland's Great Trails and other promoted riding routes, as these are most likely to be used by equestrians unfamiliar with turbines. BHS recommends a target of three times overall height between turbines and all other routes which pre-date wind farm development or turbine erection, including roads. BHS encourages developers to pay regard to horses when considering surfacing of tracks and access controls (e.g. gates).	The advisory separation distances have been taken into consideration in the design of the proposed Development but has not been applied in the design of the turbine layout based on experience on other windfarm developments where horse riders regularly use tracks very close to turbines, such as Whitelee and Middleton windfarms. Details of surfacing of proposed Development access tracks will be agreed following consent	Section 14.4.3
Arran Community Council	5 May 2019	The Council would encourage any developer to consider the visual intrusion these developments will have to a tourist dependent community.	Potential effects on tourism are considered in the assessment of operational effects	Section 14.4.3

Consultee	Date of correspondence	Comments	Action	Reference within EIA Report
		The only impact of the scheme will be visual.		
A&BC Access Officer and Kintyre way Chairman (meeting with SPR)	29 May 2019	Various measures to ensure that the route of the Kintyre Way is not blocked, and enhancement measures were discussed.	Design measures, enhancements and bespoke mitigation are addressed in the assessment of effects.	Sections 14.4.2 and 14.4.3

Table 14.1: Consultation – key issues

14.3.6 Approach to assessment of effects

50. There are no published standards or technical guidelines that set out a preferred methodology for assessing the likely socio-economic effects of an onshore windfarms or solar developments. However, there is a series of commonly used methodologies and recognised approaches to quantifying economic effects both during the construction of a development and following its completion that have been widely used in other major projects. These have been adopted here and are described in the following text.

51. The approach to the socio-economic assessment is presented in two parts, addressing both the construction phase aspects of the proposed Development and the longer-term economic effects once the proposed Development is built and operational.

Assessment of likely effects on the WSA

52. This part of the assessment comprises a quantitative assessment of the likely direct, indirect and induced effects of the proposed Development on the WSA (as defined in Section 14.3.1) in terms of investment, employment, additional Gross Value Added (GVA)³ and contribution to the labour market.

53. The employment effects that are attributable to the proposed Development are divisible into three components. These are:

- **direct:** the employment and other economic outputs that are directly attributable to the delivery of the proposed Development. These include any new jobs that are created to manage and supervise the construction and operational phases of the proposed Development and that are filled by employees of SPR or the appointed Contractor (or sub-contracted employees);
- **indirect:** employment and other outputs created in other companies and organisations that provide services to the proposed Development (i.e. procurement and other supply chain effects); and
- **induced:** additional jobs and other economic outputs that are created in the wider economy as a result of the spending of employee incomes and other ripple effects that occur as a result of direct and indirect effects of the proposed Development.

54. Construction phase job creation and investment has been assessed through the use of employment estimates provided by SPR and the estimated construction elements categories within which these jobs would fall. SPR has recent relevant experience of developing a windfarm of a similar scale (11 turbines) at Glen App Windfarm, and this experience has been used as appropriate in this assessment. The assessment addresses the potential effects of the wind turbine element of the proposed Development to the labour market and the local supply chain and economic output in terms of GVA. The estimate for construction phase GVA is calculated using the latest regional estimates for the average yield of GVA per worker for the construction and civil engineering sector in Argyll and Bute obtained from the Office of National Statistics (ONS).

55. Information gathered from the baseline data review has been used to develop a quantitative economic model which includes direct, indirect and induced effects of the development.

56. In the case of operational phase effects, quantitative economic modelling has been undertaken based on information regarding likely creation of permanent jobs provided by SPR. As well as direct job creation (e.g. facility management and

maintenance), the assessment models indirect and induced job effects (i.e. supply chain jobs and multiplier effects. Reference is also made to the potential for jobs arising from investment of funds from the proposed community investment scheme and community benefit fund). Again, experience on other windfarms in Scotland provides a detailed understanding of the likely level of local employment and expenditure during the operation of the proposed Development.

57. This Chapter assesses the significance of the likely socio-economic effects of the proposed Development based on the magnitude of the impacts and the sensitivity of the receptor groups. The following sections set out the criteria for establishing magnitude of impact and sensitivity of the receptors.

Assessment of the likely effects on the LAI

58. The proposed Development may have direct and indirect effects on tourism and recreation receptors within the LAI. This part of the socio-economic assessment comprises a qualitative assessment of the effects of the proposed Development on receptors within the LAI including core paths and rights of way, long distance routes, and tourist attractions. Recreational receptors that are not promoted regionally/nationally are not assessed in full unless they fall within the site, although they are recorded where they fall within 5 km of the site boundary. Tourism receptors include accommodation businesses.

59. As with effects on the WSA, significance of the likely socio-economic effects of the proposed Development is assessed based on the magnitude of the impacts and the sensitivity of the receptor groups. The following sections set out the criteria for establishing magnitude of impact and sensitivity of the receptors.

Sensitivity of receptor

60. There are no published standards that define receptor sensitivity relating to socio-economic assessment. As a general rule, the sensitivity of each receptor or receptor group is based on its importance or scale and the ability of the baseline to absorb or be influenced by the identified effects. For example, a receptor (such as a public footpath or a supply chain business) is considered less sensitive if there are alternatives with capacity within the study area. In assigning receptor sensitivity, consideration has been given to the following:

- the importance of the receptor e.g. local, regional, national, international;
- the availability of comparable alternatives;
- the ease at which the resource could be replaced;
- the capacity of the resource to accommodate the identified impacts over a period of time; and
- the level of usage and nature of users (e.g. sensitive groups such as people with disabilities).

61. Based upon professional judgement and experience on other large scale projects, four levels of sensitivity are used: high; medium; low; and negligible. These are defined in Table 14.2.

Sensitivity	Description
High	<p><u>The receptor:</u></p> <ul style="list-style-type: none"> • has little or no capacity to absorb change without fundamentally altering its present character; or • is of high socio-economic, recreational, or tourism value⁴; or • is of national or international importance; or • is accorded priority in national policy; or • has no alternatives with available capacity within its catchment area; or • is a destination in its own right (as regards tourism and visitor attractions)?
Medium	<p><u>The receptor:</u></p> <ul style="list-style-type: none"> • has moderate capacity to absorb change without fundamentally altering its present character; or • has a moderate socio-economic, recreational or tourism value; or • is of regional importance; or • is accorded priority in local policy; or • has some alternatives with available capacity within its catchment area; or • is a destination for people already visiting the area (as regards tourism and visitor attractions); or • forms a cluster of low sensitivity receptors.

³ Gross value added (GVA) measures the contribution to an economy of an individual producer, industry, sector or region.

⁴ Which may include being of high value to a user group of high sensitivity (e.g. mobility impaired users).

Low	<p>The receptor:</p> <ul style="list-style-type: none"> • is tolerant of change without detriment to its character; or • is of low socio-economic, recreational or tourism value; or • is of local importance; or • is accorded low priority in policy; or • has a choice of alternatives with available capacity within its catchment area; or • is an incidental destination for people already visiting the area (as regards tourism and visitor attractions)?
Negligible	The receptor is resistant to change and is of low socio-economic, recreational or tourism value or there is a wide choice of alternatives with available capacity within its catchment area.

Table 14.2: Socio-economic sensitivity criteria

62. In considering the sensitivity of a receptor it is important to remember that, in the case of socio-economic assessment, the sensitivity is often subjective and different receptors have differing sensitivities depending on matters such as the economic profile of the local area, perception of the type of development and attitude to the potential benefits of a development. This assessment is based on the assumption of a worst-case which assumes that there is a negative perception of the proposed Development.

Magnitude of impact

63. There are no published standards that define thresholds of magnitude for socio-economic, tourism or recreation impacts. In order to aid clear and robust identification of significant effects, specific and targeted criteria for defining the magnitude of impacts have been developed for this assessment based on experience on other similar projects. The following four levels of magnitude have been adopted using professional judgement: high; medium; low and negligible. These impacts can be beneficial, adverse or neutral. Criteria for each of these levels of magnitude for each receptor group are set out in **Table 14.3**.

Receptor Group	High	Medium	Low	Negligible
WSA economy	An impact that would dominate over baseline economic conditions by >10 %.	An impact that would be expected to result in a moderate change to baseline economic conditions by >5 %.	An impact that would be expected to result in a perceptible difference from baseline economic conditions by >0.5 %.	An impact that would not be expected to result in a measurable variation from baseline economic conditions.
WSA labour market	An impact that would dominate over baseline labour market conditions and/or would affect a large proportion (>10 %) of the existing resident workforce.	An impact that would be expected to result in a moderate change to baseline labour market conditions and/or would affect a moderate proportion (>5 %) of the existing resident workforce.	An impact that would be expected to result in a perceptible difference from baseline labour market conditions and/or would affect a small proportion (>0.5 %) of the existing resident workforce.	An impact that would not be expected to result in a measurable variation from baseline labour market conditions.
WSA tourism and visitor economy	An impact that would dominate over baseline tourism and visitor economy conditions.	An impact that would be expected to result in a moderate change to baseline tourism and visitor economy conditions.	An impact that would be expected to result in a perceptible difference to baseline tourism and visitor economy conditions	An impact that would not be expected to result in a measurable variation from baseline tourism and visitor economy conditions

Receptor Group	High	Medium	Low	Negligible
Tourism and visitor assets	An impact that would be expected to cause a major restriction of access to or availability of tourism and visitor assets in the LAI or would result in a major change to existing patterns of use.	An impact that would be expected to have a moderate restriction of access to or availability of tourism and visitor assets in the LAI or would result in a moderate change to existing patterns of use.	An impact that would be expected to have a small restriction of access to or availability of tourism and visitor assets in the LAI or would result in a small change to existing patterns of use.	An impact that would be unlikely to result in a noticeable difference to tourism and visitor assets in the LAI.
Land use	An impact that would lead to a major restriction on the operation of a receptor, e.g. forestry business, or complete closure of receptor.	An impact that would lead to a moderate to major restriction on the operation of the receptor.	An impact that would lead to a minor restriction on the operation of the receptor.	An impact that would lead to a negligible restriction on the use of the receptor.

Table 14.3: Magnitude of impact

Potential effects

64. The level of effect of an impact on socio-economic, recreational and land use receptors was initially assessed by combining the magnitude of the impact and the sensitivity of the receptor. The level of effects presented in **Table 14.3** provides a guide to the decision-making process.

Sensitivity or value of resource or receptor	Magnitude of impact			
	High	Medium	Low	Negligible
High	Major	Major	Moderate	Minor
Medium	Major	Moderate	Minor	Negligible
Low	Moderate	Minor	Negligible	Negligible
Negligible	Minor	Negligible	Negligible	Negligible

Table 14.4: Level of effects matrix

65. Effects may be positive (beneficial) or negative (adverse). Where an effect is classified as major, this is considered to represent a 'significant effect' in terms of the EIA Regulations. Where an effect is classified as moderate, this may be considered to represent a 'significant effect' but should always be subject to professional judgement and interpretation, particularly where the sensitivity or impact magnitude levels are not clear or are borderline between categories or the impact is intermittent.

66. The level of effects matrix shown in **Table 14-2** provides a guide to decision making but is not a substitute for professional judgement. Impacts and effects can be beneficial, neutral or adverse and these would be specified where applicable. It should be noted that significant effects need not be unacceptable or irreversible.

Mitigation

67. The assessment takes account of any environmental principles that are incorporated into the design of the proposed Development. These include good practice measures with regard to traffic management, control of noise and dust, signage and provisions for maintaining access for walkers, details of which are set out in **Technical Appendix 3.1: Outline**

Construction and Environmental Management Plan (CEMP). Any additional mitigation measures that would reduce the level of any significant effects are set out and considered prior to assessing residual effects.

14.3.7 Significance of effect

68. A statement of residual effects, following consideration of any specific mitigation measures, is provided.

Statement of significance

69. The assessment approach has been to describe the baseline conditions, to identify likely effects from construction and operation of the proposed Development, consider the sensitivity of receptors, and then to assess the likely significance of any effects. Any adverse effects considered to be 'significant' are further considered with regard to bespoke mitigation measures and residual effects following mitigation are then identified.

70. Any significant effects which would be direct, indirect, secondary, cumulative, short, medium and long term, permanent or temporary are examined and their significance assessed. These effects have been identified as being positive or negative.

14.4 Baseline conditions

71. The WSA for the assessment of socio-economic effects focuses principally on A&BC administrative area, although data for Scotland is provided for comparison as appropriate.

14.4.1 Population

72. According to the most recent mid-year estimates, the Argyll & Bute population stands at 86,800, the proportion of this population of working age (16-64) is 58%, lower than Scotland's average at 65% (NOMIS, 2017). According to the National Records of Scotland⁵, the population is expected to fall to 84,170 by 2026 (3.4% decrease). The 16-24 age group is expected to have the largest percentage decrease (-24.2%) whereas the 75 and over age group will see the largest percentage increase (+30%). This contraction in the working age population is likely to affect economic activity

14.4.2 Labour market and supply chain

73. The Office of National Statistics (ONS) Annual Population Survey reports that there were 42,300 economically active residents in Argyll & Bute in 2018, implying an economic activity rate of 79%. This is higher than the equivalent rate for Scotland as a whole (77.6 %). The Argyll & Bute employment rate of 76.5% is also higher than the Scotland average (74.1 %) (NOMIS, 2018).

74. The unemployment rate in Argyll & Bute as of September 2018 was 2.9%, 1.4 % lower than the average for Scotland as a whole (4.3 %) (NOMIS, 2018).

75. Economic inactivity (i.e. those of working age who are not employed nor seeking work) is lower in Argyll & Bute (21%) than in Scotland as a whole (22.6 %) (NOMIS, 2018).

76. The level of self-employment in Argyll & Bute (14%) as of September 2018 is higher than the Scottish average (8.4 %) (NOMIS, 2018).

77. Useful insights into the dynamics of the labour market are often revealed by consideration of the occupational structure of those in employment as shown in **Table 14.4** (NOMIS, 2018). Argyll & Bute has higher than average proportions of their workforces in caring and leisure and skilled trades occupations compared with Scotland as a whole, and a lower than average proportion of its workforce in professional roles and sales & customer service. Skilled trades occupations are likely to include skills and services that would be required for the construction and operation of the renewable energy development.

Occupation	Argyll & Bute (numbers)	Argyll & Bute (%)	Scotland (%)
1 Managers, directors and senior officials	4,100	10	8.9
2 Professional	7,100	17.3	20.7
3 Associate professional & technical	5,400	13.2	13.4
4 Administrative & secretarial	3,200	7.8	10
5 Skilled trades	6,700	16.4	11.1
6 Caring, leisure and other service	4,200	10.3	3.7
7 Sales and customer service	1,700	4.1	8.4
8 Process plant & machine operatives	2,600	6.4	6.7
9 Elementary	5,500	13.3	11

Table 14-4: Employment by occupation

78. Degree-qualified (or equivalent) residents of working age account for 45.2 % of the population of Argyll & Bute, higher than the average for Scotland as a whole (44.2 %). The proportion of the working age population with no qualifications is 8.8 % in Argyll & Bute, lower than the average for Scotland as a whole (9.7 %) (NOMIS, 2017).

79. According to the ONS Annual Survey of Hours and Earnings (ASHE) for 2018, average weekly gross earnings levels for residents of Argyll & Bute were £561.50, £1.70 lower than the Scottish average of £563.20. (NOMIS a, 2017).

80. Data on an area's business population can be obtained from the ONS UK Business Counts data series (which is sourced from the Interdepartmental Business Register (NOMIS b, 2017). This data source can be used to identify the structure of the local business base by sector: this is potentially useful in assessing the capacity of the local area to host supply chain activity for infrastructure and other large-scale construction projects such as the proposed Development. **Table 14.5** provides the latest (2017) data on the structure of the local business base, both in absolute and relative terms.

Industry	Argyll & Bute 2017		Scotland 2017
	No. of Persons	%	%
B : Mining and quarrying	175	0.5	1.3
C : Manufacturing	1,750	5.0	7.4
D : Electricity, gas, steam and air conditioning supply	300	0.9	0.7
E : Water supply; sewerage, waste management and remediation activities	175	0.5	0.8

⁵ National Records of Scotland, 2016, Argyll and Bute Council Area Profile: 2016-based Population Projections by Council Area in Scotland

Industry	Argyll & Bute 2017		Scotland 2017
F : Construction	2,000	5.7	5.7
G : Wholesale and retail trade; repair of motor vehicles and motorcycles	4,000	11.4	14.3
H : Transportation and storage	1,750	5.0	4.4
I : Accommodation and food service activities	4,500	12.9	7.7
J : Information and communication	350	1.0	2.8
K : Financial and insurance activities	200	0.6	3.4
L : Real estate activities	500	1.4	1.3
M : Professional, scientific and technical activities	1,500	4.3	6.9
N : Administrative and support service activities	3,000	8.6	7.8
O : Public administration and defence; compulsory social security	4,000	11.4	6.4
P : Education	3,000	8.6	7.9
Q : Human health and social work activities	5,000	14.3	16.3
R : Arts, entertainment and recreation	1,250	3.6	2.8
S : Other service activities	500	1.4	1.8

Table 14-5: Structure of the business population of Argyll & Bute 2017

82. The data in **Table 14.5** show that human health and social work is an important employment sector within Argyll & Bute. Accommodation and food services, often associated with tourism, are above the average for Scotland as a whole.

83. Onshore wind currently supports around 7,500 jobs in Scotland (or 58% of total onshore wind employment across the UK⁶). At Machrihanish in Argyll and Bute, the CSWind UK turbine tower manufacturing facility supports around 150 local jobs.

14.4.3 Community benefits derived from existing windfarms in the WSA

84. In 2015, the total community benefit contribution from all windfarms in Argyll and Bute to community councils/trusts was £441,000⁷. SPR's presence in Argyll and Bute has resulted in more than £1.6 million being contributed to local communities to date to help them to deliver a variety of initiatives that have provided a local benefit including:

- 174 community facilities and services projects totalling £339,025.60;
- 47 community or local event projects totalling £39,089.33;
- environmental projects totalling £30,224.45;
- 11 heritage projects totalling £11,036;
- 26 skills and employment projects totalling £26,344.48;
- 73 sport and recreation projects totalling £79,290.17; and
- 129 youth and education projects totalling £102,981.21

85. This has been through the operation of Beinn an Tuirc 1 and 2 Windfarms, Cruach Mhor Windfarm and Clachan Flats Windfarm (the operation of the consented Beinn an Tuirc 3 Windfarm will contribute further to this as well as offering a community investment opportunity). SPR's flexible approach to community benefit empowers local communities as the decision makers about which projects and initiatives are of greatest value to them when deciding what the community benefit is spent on. Since becoming operational in 2001 and 2014 respectively, SPR's Beinn an Tuirc and Beinn an Tuirc 2

⁶ Scottish Government, 2017, Onshore Wind Policy Statement

⁷ Argyll and Bute Council, 2016, Community Benefit for all Operational Wind Farms

Windfarms on the Kintyre Peninsula have together contributed more than £1 million to the communities of East and West Kintyre. As a result, local organisations have helped deliver benefits such as:

- providing essential equipment for a group of first responders in Carradale;
- supporting the refurbishment and running costs of the now re-opened Campbeltown Picture House;
- funding the licence renewal fees for local volunteer radio station, Argyll FM;
- helping "Shopper Aid" meet the costs of a wheelchair friendly vehicle, to assist local residents experiencing low mobility and/or social isolation in accessing shops, clubs, medical appointments and taking part in social activities;
- providing toilet facilities at the Gigha ferry terminal and the beach at Westport;
- purchasing and installing a stair lift at a property owned by a small local charity that offers an affordable holiday home to injured armed forces personnel and their families; and
- supporting various projects for young people, including £20,000 to Carradale Activity Play Park to replace the existing equipment for both local children and those visiting on holiday.

86. SPR has worked with Argyll & Bute Council and Allenergy (Argyll, Lomond & the Islands Energy Agency) for many years to support educational work with schools and communities across the region. Since 2015, 40% of the Beinn an Tuirc Windfarm 2 community benefit package has been committed to building upon this valuable work, including Allenergy's 'Bright Sparks' Education and Skills Development Programme which encourages and facilitates young people to seek careers in the Science, Technology, Engineering and Mathematics (STEM) related sectors, providing events, workshops and careers advice for schools and communities, particularly in the areas of Mid Argyll and the Kintyre Peninsula. In 2019 this programme included delivery of STEM workshops as part of Transition Week for local primary school pupils moving up to Campbeltown, Tarbert, and Lochgilphead High Schools. As an active member of Argyll and Bute Renewable Alliance (ABRA), SPR is also working with Argyll and Bute Council, local stakeholders and other industry representatives to ensure that renewable energy boosts the local economy and creates opportunities for local people

14.4.4 Tourism Economy

87. In 2017, Argyll and Bute received 841,000 domestic visitors resulting in a spend of £215 million (representing over 7% in terms of volume and over 7% in terms of domestic value in Scotland). Across the same period, there were 154,000 international visits raising £54 million (representing 5% in terms of volume and over 2% in terms of total international tourism in Scotland)⁸. Argyll & Bute employed 6,000 people in the sustainable tourism⁹ sector according to Tourism in Scotland's Regions 2016 (Visit Scotland, 2017). This is mid-range figures compared with other local authority areas in Scotland.

88. A report to A&BC's Development and Infrastructure Services Committee in March 2018 showed that Argyll and Bute witnessed a 6.9% increase in visitors to attractions in 2017 compared with 2016. In the same period visitors to attractions across Scotland increased by 4.5%; 2.4% points less than for Argyll and Bute.

14.4.5 VisitScotland

89. Argyll & Bute Visitor Survey 2015-2016 (Visit Scotland, 2016) combines tourism data for Argyll & Bute within the remainder of the Argyll Islands. The most popular reason for visiting this combined region is given as for the scenery & landscape (84%); sightseeing is the most popular activity (79%) followed by visiting a beach (62%) followed by a short walk (61%).

14.4.6 Local Area of Influence

90. The assessment of tourism and recreational effects considers receptors within 15 km of the Site, but for the more remote parts of the LAI any effects are expected to be restricted to visual effects during the operation phase. Consequently, the receptors addressed in this Chapter are restricted to those close to the Site (within approximately 5 km), and those more distant receptors up to 15 km that are shown in the ZTV (**Figure 7.11**) to have visibility of the proposed Development.

Land use

91. The land use at the Site is largely open moorland used for agricultural purposes, with some commercial forestry. There are no formal recreational facilities located within the Site itself, although along the southern boundary the Kintyre Way enters the Site and is located along the southern Site Boundary. The Site is also used for informal recreational activities such as

⁸ VisitScotland, 2018, Visitors to Argyll and the Isles

⁹ The definition of 'sustainable tourism' represents the SIC07 industry classifications for tourism used by Scottish Government.

walking, horse riding, and cycling. There is also a Core Path that passes through the site, which is described under Walking receptors in paragraph 102. The area proposed for the solar arrays comprises rough grazing and forestry.

Formal tourism and recreation assets

92. Formal tourism and recreational assets are generally businesses and/or attractions that charge an entry fee for admission or have a significant commercial element. There are a small number of such receptors within the LAI, although the majority are located beyond the 5 km buffer and tend to be clustered in and around the larger settlements. Businesses that provide a service to local residents and other businesses, such as shops, fuel stations and public houses may also serve the tourism economy. The formal tourism and recreation receptors within the LAI are listed below and their locations are shown on **Figure 14.1**.

- Achamore Gardens, Isle of Gigha;
- Isle of Arran Distillery, Lochranza.

93. The receptors listed in the preceding text are considered likely to draw visitors from a wide area and as such are considered of regional importance and medium sensitivity in socio-economic terms.

94. Shops and other tourism assets such as restaurants tend to be clustered in settlements such as Tarbert, Skipness, Lochranza (Isle of Arran) and Ardmish (Isle of Gigha). Such groups of receptors can be considered to be of medium sensitivity.

95. Information on accommodation businesses includes the Isle of Arran (around Lochranza) and the Isle of Gigha, but excludes Knapdale other than the northern shores of West Loch Tarbert due to the limited visibility. Within the remaining LAI there are 37 accommodation businesses, summarised as follows.

- 1 Youth Hostel;
- 2 Camping/Caravan sites;
- 5 Hotels;
- 18 Self Catering; and
- 11 Guest Houses.

96. These businesses are shown on **Figure 14.1**. None of the accommodation businesses identified are considered to be of more than local value and their sensitivity is low.

Informal tourism and recreational receptors

97. These receptors include routes and other land used for walking, cycling, horse riding and other informal recreation, together with visitor attractions that have no commercial element.

Historic buildings and monuments

98. There are a number of historic buildings and monuments within the LAI such as Tarbert Castle, Skipness Castle, Largie Castle and Dun Skeig Iron Age Fort which do not charge entry for visitors and would not be considered more than a local destination for visitors staying in or passing through the area. Although Dun Skeig was identified by SNH at scoping stage as being a popular panoramic viewpoint it is not identified on OS mapping as a panoramic viewpoint and locally there is no promotion of it nor is there any clearly marked access. The sensitivity of all historic receptors in socio-economic terms is low.

Walking

99. A long distance trail passes along the southern boundary of the Site, the Kintyre Way. This is a 161 km long distance route from Tarbert harbour to Machrihanish. It is a way-marked route that crosses the peninsula primarily on moorland and forestry land with some sections of interlinking road. Although the Kintyre Way was developed and is currently promoted primarily as a long distance walking route, it is also promoted for cycling and much of the route follows forest roads, farm tracks and other paths equally suitable for horse riding. The Kintyre Way is one of Scotland's Great Trails and is promoted nationally; it is therefore considered to be of high sensitivity.

100. The Kintyre Way links by ferry to the Arran Coastal Way and the Loch Lomond & Cowal Way, also Great Trails.

101. The A&BC website states that it designates 1,200 miles as Core Paths, to give sufficient public access throughout the Council area. The paths provide opportunities for walking, cycling, horse riding and other activities, for people of all abilities, although each core path is not necessarily suitable for all types of access or ability of user.

102. There is one Core Path that crosses into the Site, the C303, which follows the route of the Kintyre Way in the southern section of the Site. A further four core paths lie within the LAI:

- C533 Kintyre Way at Ronachan House, Clachan;
- C102 Dunskeif Circular;
- C462 Portachoilan to Quinhill; and
- C088 Campbeltown to Claonaig

103. Core Paths are considered to be low to medium sensitivity receptors depending on the extent to which connect with other parts of the network.

104. There is one Heritage Path in the LAI, promoted by the Heritage Paths Project (Heritage Paths, 2019) for its historic interest. The route is known as Ferry Road. It starts at the Jetty in Portachoilan and ends in Quinhill. The 1.6 km route is 2.1 km to the west of the site and follows the route of Core Path C462. Heritage Paths are medium sensitivity receptors due to their historic importance.

105. **Figure 14.1 Socio Economic Receptors** shows the routes referred to in the preceding text.

106. The Land Reform (Scotland) Act 2003 conferred general access rights over much of rural Scotland. The lack of any designated or recorded paths in other parts of the LAI, including within the Site, does not necessarily preclude the right of the public to use the area for recreational purposes including for walking, cycling and horse riding.

Cycling

107. There are two designated cycle routes that fall within the LAI identified by Sustrans National Cycle Network (Sustrans, 2019). Route 78 The Caledonia Way runs along the east coast of the Kintyre peninsula and is 3.2 km from the site at its closest point. Route 73 runs from Lochranza to Brodick on the Isle of Arran before crossing to Ardrrossan. Its most northern section falls within the LAI. As both of the routes are promoted nationally, they are considered to be of high sensitivity.

Horse riding

108. There are no designated horse riding tracks or trekking stables within the Site but it is evident from the British Horse Society's website¹⁰ that horse riders use parts of the Kintyre Way (or local diversions) including the section within the Site near Larachmor Burn.

Tourist routes, including ferries

109. The A83 and local ferry routes are considered to be key routes and are regularly used by visitors to the area, thereby forming an important part of their holiday experience. The key ferry routes comprise:

- Lochranza to Claonaig;
- Kennacraig to Port Askaig;
- Kennacraig to Port Ellen; and
- Tayinloan to Ardmish (Gigha).

110. Users of the A83 are likely to be focused more on views to the west and along the coast, which offer extensive panoramic views, than inland. The sensitivity of users of the A83 is considered to be of no more than regional importance and medium sensitivity. Similarly, users of the ferry routes are likely to be engaged in the whole experience of sailing such as wildlife sightings and the sensitivity of these routes is also considered to be of no more than regional importance and medium sensitivity.

¹⁰ http://www.bhsscotland.org.uk/uploads/5/4/5/3/5453271/kintyre_way_multi-use_access_notes.pdf

Events

111. The Kintyre Way Ultra takes place annually along 50-60 km stretches of the Kintyre Way. In 2019 and 2020 the section used has been / will be from Tayinloan to Tarbert, including the section that passes along the southern boundary of the Site, but the option exists for other sections to the south to be selected. In 2019 there were approximately 100 single entries and 16 team entries (three runners per team). The Kintyre Way Ultra is considered to be of regional importance and, therefore, a receptor of medium sensitivity.

14.5 Assessment of effects

112. This Chapter considers both construction phase and operational phase effects. The proposed Development is explained in **Chapter 3 Proposed Development**.

14.5.1 Potential construction effects Potential effects on the WSA

113. During the 22-month construction phase of the proposed Development there would be economic effects resulting from expenditure on items such as Site preparation (including forestry services), access roads, purchase and delivery of materials, plant, equipment and components. Information provided by SPR, based on experience at other windfarms in Scotland, indicates that there is expected to be a peak on-site workforce of 150 workers. Some of these workers would be sourced from the local labour market within the WSA and many more would be sourced from Scotland as a whole. The remainder of this section sets out to quantify the likely benefits to local and national jobs and the economy based on the proportion of construction expenditure that would take place within the local and national economy.

114. The largest element of the proposed Development are the 19 wind turbines. Based on SPR's experience on eight existing windfarms in south west Scotland, as detailed in the BVG Report (September 2017) 'Economic Benefits from Onshore Wind' (BVG Associates, 2017), the assumptions set out in **Table 14.6** have been made about the breakdown of the total development and capital expenditure required to develop and install the proposed Development. Expenditure comprises approximately £133.3 million for the wind turbine element, including turbines, civil engineering works, electrical plant and grid connection. The solar element would cost a further £14.7 million including PV panels, electrical infrastructure, and civil engineering works.

Item	Description	Cost (£millions)
Development expenditure	The processes up to the point of financial close or placing firm orders to proceed with construction, and project management costs incurred by SPR	7.6
Turbines/plant	The activity by wind turbine manufacturers and their suppliers, covering nacelle component manufacture and assembly and blade and tower manufacture. It includes transport, installation and commissioning. It excludes the turbine service agreement	101.6
Civil works	The activity by civil contractors and their suppliers; covering roads and drainage, crane pads, turbine foundation, meteorological mast foundations, cable trenches and buildings for electrical switch gear, SCADA equipment and its installation, and a maintenance and spare part facility	27.0
Electrical works	The activity by electrical contractors and their suppliers, covering cables, electrical switch gear, protection and control system, maintenance facilities and grid connection.	11.8
Total		148.0

Table 14.6: Breakdown of average construction expenditure for the proposed Development as a whole

Gross employment and GVA estimates

115. In estimating the amount of construction expenditure that is spent within: (1) the WSA (i.e. Argyll and Bute) and (2) Scotland, the assumptions set out in **Table 14.6** have been used as the basis for modelling. The assumptions shown in **Table 14.7** are based on experience on existing wind farm projects in south west Scotland analysed in the BVG report (BVG Associates, 2017).

Item	WSA		Scotland	
	Estimated costs	% of category total	Estimated costs	% of category total
Development expenditure	0.8	11.6%	5.1	74.4%
Turbines/plant	19.2	21.0%	20.4	22.3%
Civil works	1.3	5.3%	16.0	65.6%
Electrical works	0.2	1.8%	1.9	18.1%
Total	21.5	16.1%	43.4	32.6%

Table 14.7: Location of expenditure for wind turbines

123. Applying the above assumptions to the breakdown of expected expenditure from SPR set out in **Table 14.6**, it is expected that construction phase expenditure of the proposed Development approximately £21.5 million (approximately 16.1% of the overall total) would be spent in the WSA. An estimated £43.4 million (32.6% of the overall total) would be expected to be spent in Scotland as a whole.

124. It should be noted that the estimates in the table above assume that the wind turbine towers would be procured from a supplier based in Campbeltown (CS Wind) (unless not financially viable or turbine towers are not available), and therefore within the WSA and Scotland. If this option is not taken up there would be a smaller amount of construction phase expenditure benefiting both the WSA and Scotland. Overall, if the towers were not procured locally then overall wind turbine construction phase expenditure benefiting the WSA would reduce to an estimated £2.8 million and for Scotland it would reduce to an estimated £24.7 million.

125. For the solar areas of the proposed Development it is estimated that £1.1 million (7.5%) would be spent within the WSA. An estimated £5.7 million (39%) would be spent in Scotland as whole. The estimates of the proportion of expenditure within the WSA and Scotland are based on information on supply chain capabilities and UK content set out in the publication "Solar Powered Growth in the UK", September 2014 prepared for the Solar Trades Association by the Centre for Economics and Business Research.

126. Estimates of the expected direct construction phase employment implications of the proposed Development have been derived using the information on anticipated project expenditure set out in **Table 14.7**, as well as assumptions obtained from the following sources:

- employment and GVA multipliers for Scotland, obtained from Input-Output tables for Scotland published by the Scottish Government;
- employment and GVA multipliers for the UK obtained from Input-Output tables published by the UK Government (BEIS); and
- ratios of turnover per unit of GVA and GVA per employee have been derived from Scottish and UK Government data.

127. Using all of the sources summarised above, it is estimated that 135.1 gross person-years of employment could be generated in the WSA economy during construction of the proposed Development. The equivalent total for Scotland as a whole is 373.5 person-years. **Table 14.8** summarises the estimates of direct gross employment that have been derived for the WSA and Scotland as a whole.

Area	Person-years
WSA	135.1
Scotland (including WSA)	373.5

Table 14.8: Estimates of gross construction phase employment (person-years)

131. If the wind turbine towers are not procured locally then the estimates would reduce to 22.5 person years of employment in the WSA and 240.6 in Scotland as a whole.

132. Turning now to Gross Value Added (GVA), a total of £10.0 million of GVA additional value is expected to be generated during construction in the WSA economy. The equivalent total for Scotland it is £30.2million. These figures represent the value created in the economy resulting from expenditure in construction of the proposed Development.

133. These estimates are summarised in **Table 14.9**.

Area	GVA (£ million)
WSA	10.0
Scotland (including WSA)	30.2

Table 14.9: Estimates of construction phase gross value added (£ millions)

137. However, if the wind turbine towers were not to be procured locally then these GVA estimates would reduce to:

- WSA: £2.20 million
- Scotland: £20.9 million.

Net employment and GVA estimates

138. The focus in the assessment set out above has been on gross effects at two spatial levels (WSA and Scotland as a whole). In order to understand the potential net effects, it is necessary to take into account a number of 'additionality' concepts. Additionality takes account of the fact that the full range of goods and services required for a development may not be available within a certain area or, if available, there may be capacity constraints that result in displacement of availability for other businesses. The net effects of the proposed Development on employment and GVA would be lower than the gross effects as a result of applying the additionality factors.

139. The estimation of net effects takes into account the following additionality factors:

- **Leakage:** is the proportion of project outcomes that benefit individuals or organisations located beyond the relevant area of impact. Leakage is generally higher at a local level, although it also varies by the nature of development type; and
- **Displacement:** is an estimate of the economic activity hosted by the Site that would be diverted from other businesses in the spatial impact area (e.g. Argyll and Bute). This again varies by the nature of development type. However, construction projects of relatively limited duration are usually regarded as having very little if any displacement impact.

140. With respect to leakage, the specific assumption used here is derived from local commuting data obtained from the 2011 Census (NOMIS, 2011). The Census found that 77.4% of workers whose workplace was located in Argyll and Bute were residents of the A&BC area. The residual 22.6% workers were resident of other parts of the UK, almost all of whom reside elsewhere in Scotland.

141. These data have been used to calculate the following estimates for leakage:

- WSA: 22.6%; and
- Scotland: 0.5%.

¹¹ Note: both estimates exclude the Financial services sector and parts of the Agriculture sector.

142. The assumption used with regard to displacement is that displacement would be 5.0%. Higher levels of displacement are assumed at national level (15%).

143. In addition to considering the effects of leakage and displacement, which act to reduce the value of the project within the local economy, consideration must be given to estimating the additional jobs and economic value that would be created in the local economy through the (positive) indirect and induced effects of subsequent rounds of direct expenditure in the economy. Values for multipliers vary according to the size and complexity of the economy under consideration and are generally lower at a more localised level. The assumptions used in this assessment with respect to multiplier values are consistent with values found in the latest Scottish Input-Output tables.

144. The additionality assumptions used in this assessment are summarised in **Table 14.10**.

Additionality factor	WSA	Scotland
Leakage	22.6%	0.5%
Displacement	5.0%	15.0%
Multipliers	0.29	0.44

Table 14.10: Additionality assumptions

Source: Leakage assumption based on 2011 Census data

148. The use of these additionality assumptions, taking account of both negative factors (leakage and displacement) together with positive multiplier factors, to estimate the **net** additional effects of the construction of the proposed Development results in the net employment and GVA set out in **Table 14.11**.

Area	Net person years of employment	Net GVA (£millions)
WSA	117.4	9.5
Scotland (including WSA)	315.0	36.8

Table 14.11: Estimates of net additional construction phase effects

151. In net terms, the proposed Development is expected to support 117.4 person-years of employment benefiting residents of Argyll and Bute. Assuming a 22-month construction period, this is equivalent to an average of 107.6 persons employed over a 2-year period.

152. As of March 2019, there were approximately 39,300 residents of Argyll and Bute in employment (NOMIS, 2019). The addition of employment opportunities equivalent to 117.4 jobs to this total would increase the total number in employment by approximately 0.3%. The effect on the total local employment base is considered to be negligible (but positive) and so not significant.

153. Assuming that the wind turbine towers are procured locally, the local economy would also be expected to be boosted by a total of £9.5 million of net additional GVA during the construction period. In annual terms this is equivalent to a boost to local output of around £18.7 million per annum.

154. Based on data sourced from ONS GVA reference tables for 2016 (updated to 2018 prices using GDP price deflators published quarterly by HM Treasury), the value of economic output (GVA) for Argyll and Bute was approximately £1,976 million.¹¹ The addition of approximately £8.7 million of GVA per annum to this total would increase the size of the local economy in output terms by approximately 0.44% over a 22-month period during the construction phase. This effect on local GVA is just below the threshold (0.5%) for a low (beneficial) level of impact that is positive but negligible and not significant.

155. At the national level, the proposed Development would be expected to support 315 person-years of employment benefiting residents of Scotland and would generate £36.8 million net GVA. Assuming a 22-month construction period, this is equivalent

to an average of 289 jobs over a two-year period for residents of Scotland and £33.7 million net GVA per annum. This effect on national employment and GVA is considered to be negligible (but positive) and not significant.

156. **Table 14.12** provides a summary of the above estimates for net employment and GVA created as a result of the proposed Development.

Summary – total net employment and GVA during the construction phase

Area	Net employment		Net GVA	
	Person-years employment (based on 22-month construction period)	Total net GVA (£ millions)	Annual net GVA (£ millions)	
WSA	107.6	9.5	8.7	
Scotland (including WSA)	289	36.8	33.7	

Table 14.12: Summary of net employment and GVA benefit arising from construction

161. If the option of procuring the wind turbine towers locally was not pursued, the net employment impact on the WSA would be lower, at 19.5 person-years employment. This would boost the total number of local jobs by approximately 0.05%. This level of impact is negligible (but beneficial) and not significant.

162. If the option of procuring the wind turbine towers locally was not pursued, the net GVA impact on the WSA would also be lower, at about £2.1 million. This is equivalent to about £1.9 million p.a. during the 22-month construction period. This would boost the local economy by around 0.1%. This effect on the GVA of the WSA would be negligible (but positive) and not significant.

163. If the option of procuring the wind turbine towers locally was not pursued, the net GVA impact on Scotland would be lower, at about £25.4 million. This is equivalent to about £23.3 million p.a. during the 22-month construction period. This would boost the national economy by around 0.02%. This effect on national GVA is considered to be negligible (but positive) and not significant.

164. Also, the expected impact on national employment under this option would be to decrease the net impact to around 268 FTE jobs per year during the construction period. This is considered to be negligible (but positive) and not significant.

Embedded measures

165. Procurement of goods and services can have an important effect on the local economy. The potential level of expenditure calculated above shows that, for the proposed Development, local contract spend (within the WSA) could be approximately £21.5 million over the proposed Development (planning) period and 22 month construction period.

166. The types of supply chain companies in addition to the wind turbine tower supplier located near Campbeltown that could benefit from this expenditure are wide ranging, and are likely to include the following:

- haulage and transport services;
- traffic management;
- materials supply, e.g. aggregates;
- plant and equipment hire;
- vehicle servicing / tyres;
- forestry services;
- fencing;
- fuel;
- security;
- waste management;
- building construction, electrical, plumbing, roofing, flooring, plastering, decorating and joinery services;
- signing and lighting;

- telecommunications;
- drainage;
- planting and seeding;
- cleaning;
- catering;
- professional services; and
- accommodation.

167. SPR is committed to employing good practice measures with regard to maximising local procurement and would adopt established good practice measures such as those set out in the Renewables UK Good Practice Guidance 2014: 'Local Supply Chain Opportunities in Onshore Wind' (RenewablesUK, 2014). SPR has a strong track record of developing onshore windfarms in Scotland, and experience from previous windfarm construction projects is that expenditure in local goods and services is widely spread and makes a difference to existing businesses.

168. SPR works with a variety of Tier 1 / Tier 2 contractors who are actively encouraged to develop local supply chains throughout the local area, and work with subcontractors to invest in training and skills development. This is demonstrated in SPR's most recent windfarm procurement at Beinn an Tuirc 3 in which it has awarded the contract for turbine towers to CS Wind from Campbeltown. SPR proposes to run 'Meet the Developer / Contractor Days'. Local companies (especially Small and Medium Enterprises (SMEs)) would be invited to attend these days, which would be held locally, to meet with representatives across the SPR development, construction and operational teams, as well as SPR's Principal Contractors. This would provide SPR and contractors with the opportunity to brief local businesses on the types of contracts being let during the lifetime of the proposed Development.

169. In terms of a quantitative assessment of effects, the provision of goods and services by local businesses (within the WSA) has been taken into account in the assessment of employment and GVA estimates reported in the previous section. At this stage in the development process it is not possible to quantify economic benefits in respect of individual supply chain companies, as contracts would not be let until consent is granted. However, it is evident from recent SPR experience in Scotland (including the eight windfarms in south west Scotland subject of the BVGA report on economic benefits (BVG Associates, 2017) that suppliers of a wide range of goods and services within Argyll and Bute and Scotland as a whole would obtain benefit from the proposed Development.

Effects on tourism economy

170. The construction period is expected to last approximately 22 months and would benefit the local economy through expenditure on purchases of accommodation, food, drink, fuel, etc. that are needed to sustain the construction workforce. These beneficial effects would be experienced mainly by businesses within the tourism sector, or those that are partly dependent on tourism for their income e.g. the retail sector. These likely effects are included within the quantification of the indirect employment effects that are reported in **Table 14.11**.

171. Anecdotal evidence received by SPR on other windfarm construction projects shows that local businesses such as accommodation providers welcome the enhanced level of occupancy that is achieved due to construction contractors using their accommodation on a year-round basis, including periods of the year that are traditionally considered 'low season'. The benefits of increased business, although temporary, can allow businesses to invest in improvements that would not otherwise be affordable, leading to a long-term enhancement. Construction of the solar arrays is likely to produce a similar benefit, albeit for a more limited period.

172. The positive effects arising during the construction period are expected to more than offset any possible temporary losses to the tourism economy that may occur in the event that tourist visitors were deterred (for example, if holiday accommodation was in use by construction workers) during this phase.

173. Whilst overall effects on the tourism economy are considered to be negligible and not significant, the benefits to individual businesses may be substantial and may indeed be significant. However, until such time as contracts are let it is not possible to identify the level of benefit to individual businesses.

14.5.2 Potential effects on the LAI

Land use

174. The Site comprises partly privately-owned commercial forest and partly agricultural land. Commercial forestry is not regarded as a receptor for EIA purposes. Effects of the proposed Development for felling, restocking and forest management practices are described in **Technical Appendix 3.2: Forestry**.
175. Commercial forests are dynamic and their structure continually undergoes change due to normal felling and restocking by the landowner; natural events, such as windblown, pests or diseases; and external factors, such as a windfarm development. The Applicant is committed to providing appropriate compensatory planting to mitigate the loss of woodland area, as described in **Technical Appendix 3.2**.
176. Effects on informal recreation uses within the Site are assessed below with regard to recreational assets and activities. The principal land use within the Site with regard to recreation and tourism is the use of the Kintyre Way, which lies just within the southern boundary, for walking and other recreational activities.

Tourism and recreation assets

Formal tourism and recreation receptors

177. Accommodation businesses in the LAI are expected to benefit from construction if workers seek accommodation in the local area. Similarly, shops, pubs and other service providers would be expected to benefit from workers using these businesses during the construction period.
178. Accommodation and other tourism businesses that are close to the construction Site and / or are located close to the access route to the Site may experience adverse effects as a result of construction traffic passing the property. Within the LAI there is one guest house and two self-catering businesses along the A83 between the Site entrance and Tarbert, and there are a number of businesses in Tarbert including restaurants, public houses and takeaways.
179. An assessment of effects on road users and other sensitive receptors has been undertaken in **Chapter 12 Access, Traffic and Transport**. The assessment takes account of embedded good practice measures to minimise impacts of construction traffic on other highway users, including users of nearby businesses. Additional mitigation in the form of a Construction Traffic Management Plan (CTMP) is proposed to actively mitigate the effects on vulnerable road users including cyclists and walkers. An outline CTMP is provided as **Technical Appendix 12.2 CTMP**.
180. The purpose of the outline CTMP is to provide preliminary details of proposed traffic management measures and associated interventions that would be implemented during the construction phase of the proposed Development in order to minimise disruption and ensure safety. The outline CTMP would be supplemented with additional information as appropriate by SPR's appointed contractor(s), prior to commencement of construction activities. The CTMP would be used during the construction phase of the proposed Development to ensure traffic to, from and on the site is properly managed.
181. The Access, Traffic and Transport assessment concludes that, subject to the proposed mitigation measures, construction traffic would not have a significant effect on community severance, road safety and vulnerable road users including walkers and cyclists.
182. None of the other accommodation and tourism businesses are located along the access routes to the Site, and therefore they are not expected to experience any direct adverse effect arising from construction traffic.
183. As the sensitivity of the accommodation and tourism businesses within the LAI is low, and the magnitude of adverse effects would also be low due to the proposed traffic management measures described in TMP, the level of effect on businesses along the construction traffic route would be negligible (adverse) and not significant. This effect would be further reduced if these receptors attract business from construction staff staying in the area. The impact on other businesses unaffected by construction traffic would be beneficial, although as the sensitivity is low the level of beneficial effect is not expected to be more than negligible. Effects on individual businesses may be higher especially where they are regularly used by construction staff, as this affords them regular income that is not seasonally dependent, but until contracts are let and construction commences it is not known which businesses would benefit.

Informal tourism and recreational receptors

184. The Kintyre Way passes along the southern boundary of the Site for approximately 5 km but would not be used or affected by construction traffic other than for minor works associated with the delivery of the bird hide and some limited works for creating accesses into the Site from the Kintyre Way. Users of the Kintyre Way would have views of construction activities at certain points along this section of the Kintyre Way, although views would be intermittent due to topography. There would also be disturbance in some locations for limited periods of time due to noise of construction of plant and machinery.
185. It is likely that many users of the Kintyre Way would consider the construction activities to have an adverse impact on their enjoyment of the route, although others may find the activities of interest. Walkers are more likely to experience a negative impact as they travel through this section of the route more slowly than cyclists and runners and are more likely to be there to appreciate the scenery.
186. The Kintyre Way is one of Scotland's Great Trails and is considered to be a receptor of high sensitivity as it is not only a recreational asset but also has a value to the tourism economy. However, it is not expected to be directly affected by construction activities, other than very localised work to construct the proposed enhancement measures including:
- recreational access paths providing access to the site from the Kintyre Way;
 - installation of bird hide close to the Kintyre Way;
 - walker's shelter close to the Kintyre Way; and
 - signage and access to archaeological features adjacent to the Kintyre Way.
187. Indirect effects (visual and noise) would be experienced intermittently by certain users along the section of the route that passes through the Site, and for a temporary period of up to 22 months. The impact on this receptor is assessed as low due to the intermittent and temporary nature of the effect. As the value of the receptor is high, this would give rise to a moderate level of effect. A moderate level of effect may be significant.
188. There is a general right of access over most rural areas in Scotland and it is therefore to be expected that members of the public may use parts of the Site for walking, cycling and horse riding. Public access across the Site would need to be managed during construction for safety reasons, and recreational users may need to be excluded from parts of the Site for periods of time (other than the Kintyre Way and Core Path C303 which will remain open unless required to be closed for safety reasons for short periods while the enhancement measures are implemented). Measures for ensuring public safety during construction will be set out in the Construction Environmental Management Plan (CEMP), an outline of which is provided at **Technical Appendix 3.1**, and periods of exclusion would be kept to the minimum necessary for safe working. The CEMP will set out measures to ensure that recreational users of the Site are informed of the construction work and directed into safe areas where there would be no conflict with plant and machinery. The impact of excluding the public from the site for a short term temporary period is therefore considered to be low. As the sensitivity of the receptor is low, the level of effect would be negligible and not significant.

Events

189. The annual Kintyre Way Ultra would not be directly affected by construction activities. Runners would pass through any areas affected by construction activities relatively quickly and are unlikely to be adversely impacted, but supporters and other spectators may experience disturbance depending on the location of construction activities relative to watering points, relay change points and other key race locations. The level of impact is difficult to determine due to uncertainty at this stage as to whether construction works would be taking place close to the Kintyre way while the event is being held, but is considered that the worst case impact would be medium. As the sensitivity of the receptor is medium, the level of effect may be as high as moderate, which may be significant.

Embedded mitigation

190. The proposed Development, as described in **Chapter 3 Proposed Development**, incorporates good practice measures for limiting the adverse effects of the construction works. The principal potential effects arising from construction tend to relate to construction traffic affecting use of the local highway network and onsite tracks and forestry roads for recreational users. Measures are set out in **Chapter 3 Proposed Development** and also in **Chapter 12 Access, Traffic and Transport** relating to how delivery of goods and services would be managed during construction so as to minimise impacts on sensitive receptors. The proposed management measures would be further developed in the CEMP that would be adopted prior to construction commencing. An outline CEMP is provided in **Technical Appendix 3.1**.

Proposed mitigation

191. A moderate level of effect has been assessed with regard to certain users of the Kintyre Way, which may be significant. It is therefore proposed that measures should be put in place to inform users of the Kintyre Way about the construction activities, including details of the construction period, the benefits of wind and solar energy, and the enhancement measures that are proposed to be installed once construction is complete. These measures would be incorporated in the CEMP. It is considered that this mitigation would reduce the impact to negligible, resulting in a level of effect that is minor and not significant.

192. With regard to the Kintyre Way Ultra, it is proposed that the CEMP should provide for liaison with organisers of the Kintyre Way Ultra to inform participants and supporters of the construction activities taking place, and if appropriate to arrange for construction activities near key race locations to be temporarily suspended or relocated during the day of the event. Alternatively, site management could work with event organisers to ensure that during the construction period (up to two events over the 22-month construction period) the race is run over other sections of the Kintyre Way. It is considered that the proposed mitigation would reduce the impact to negligible, resulting in a level of effect that is minor and not significant.

Residual construction effects

193. Allowing for the implementation of the proposed mitigation measures and embedded mitigation such as the good practice construction measures contained in the CEMP, no residual adverse construction effects are expected.

Cumulative effects

194. There is potential for cumulative effects to arise in relation to the construction of a number of prospective or consented projects as described in **Chapter 5 Environmental Impact Assessment** should the construction phases overlap with the proposed Development. Effects could be experienced on local roads used by tourists if construction traffic were to use the route proposed for the proposed Development. However, **Chapter 12 Access, Traffic and Transport** has assessed the proposed routes for construction traffic accessing these windfarms and has found that they would not utilise any of the local road network identified for the proposed Development, and therefore there would be no cumulative effects. No other constructive cumulative effects are expected.

**14.5.3 Potential operational effects
Potential operation effects on the WSA**

195. When the proposed Development is operational, should it be consented, a team of personnel to provide servicing, maintenance, repairs and other operational support, would be required. Based on information obtained from SPR and through experience of this type of work on similar projects, it is estimated that 3 - 5 engineers and technicians (full time equivalent) would be needed to provide operational support to the project. All of these staff are expected to be based within the study area.

196. In addition, further jobs are expected to be supported directly and indirectly elsewhere in Scotland during the operational phase.

197. As well as the direct impacts on employment during the construction phase there would also be indirect effects generated throughout the operational phase. Indirect effects arise from the placing of contracts with other businesses – both in the local area and elsewhere in Scotland – supplying services and materials to the project during its operational phase. Examples of such supply chain activity would include the procurement of:

- site and building maintenance and cleaning (e.g. electricians, painters, roofing and flooring contractors, etc);
- waste management and recycling to provide services for hazardous and non-hazardous materials;
- civil engineering contractors for road maintenance, ditching, crane pad repairs, grass cutting, weed control, road furniture and gate repair etc;
- maintenance of fencing;
- fuel supplies;
- plant and equipment hire;
- crane companies to provide lifting services;
- snow clearing;
- panel cleaning;
- supply of consumable items (e.g. lubricants and oils, spare parts, office supplies, etc.);
- statutory turbine & solar inspections;
- catering for meetings and visits; and

- in addition, local shops, cafes, accommodation providers and hotels often experience an increase in business during the operational phase (e.g. extra technicians onsite for during windfarm maintenance and servicing).

198. In order to convert gross direct and indirect jobs into net additional jobs, assumptions are needed for leakage and for the potential value of induced effects. For this project the following assumptions are used:

- Leakage: it is assumed that 22.6% of jobs benefit non-WSA residents. This assumption is based on Census 2011 commuting data for the district.
- Displacement: it is assumed that displacement effects (e.g. jobs lost in other local businesses as a result of the project) are zero
- Induced effects: it is assumed that the value of the induced multiplier at the spatial level of the WSA is 9%. This is a standard assumption for assessments of this kind.

199. Based on normal assumptions for leakage and the potential knock-on effects of expenditure multipliers (induced effects only), it is estimated that between 4 and 7 net additional (FTE) jobs would be created at the spatial level of the WSA during the lifetime of the operational phase of the project, i.e. leakage and displacement would be offset by multiplier effects.

200. As at March 2019, there were 39,300 jobs located within the WSA (NOMIS, 2019). The addition of between 4 and 7 permanent jobs to this total would be positive but negligible. The effect on the local employment base is therefore considered to be negligible (but positive) and so not significant.

201. The annual effects on economic output (measured by Gross Value Added) during the operational phase of the project have been estimated based on the average performance of other onshore windfarms developed by SPR. The assessment has been undertaken at two spatial levels: the WSA and for Scotland as a whole.

202. Although the application for the proposed Development is for consent in perpetuity, the overall operational impacts of the proposed Development are assessed on the basis of a nominal 40-year operational period. This would generate local GVA worth a cumulative total of £60.4 million (undiscounted). This total is comprised of:

- £31.1 million of direct GVA (51% of the total);
- £20.7 million of indirect (local supply chain) GVA (34%); and
- £8.6 million of additional GVA attributable to downstream multiplier effects in the local economy (14% of the total).

203. **Table 14.14** below sets out the operational results and also the average annual effects over the nominal 40-year operational period used for the purposes of analysis.

Local area results	Direct	Indirect	Induced	Total
'Lifetime' GVA	31.1	20.7	8.6	60.4
Annual GVA	0.78	0.52	0.21	1.51

Table 14.14: GVA £m (undiscounted)

204. **Table 14.15** below sets out similar results, but this time at the spatial level of Scotland as a whole. Here, the (undiscounted) total operational period lifetime effects are estimated to amount to just over £170.8 million, comprising:

- £83.8 million of direct GVA (49% of the total)
- £55.9 million of indirect GVA (33%)
- £31.1 million of additional GVA attributable to downstream multiplier effects across the Scottish economy (18% of the total).

Scotland results	Direct	Indirect	Induced	Total
'Lifetime' GVA	83.8	55.9	31.1	170.8
Annual GVA	2.10	1.40	0.78	4.27

Table 14.15: GVA £m (undiscounted)

205. The level of effects on both the local (WSA) economy and Scotland as a whole would be negligible (but positive) and not significant.

Embedded mitigation (WSA)

206. SPR would seek to secure positive benefits for the local economy by encouraging the use of local labour, manufacturers and suppliers where possible during the operational phase. The majority of jobs during the operational phase would be related to turbine/solar maintenance and civils maintenance works. SPR runs a graduate trainee scheme which lasts for two years and involves on the job training and placements in various parts/locations of the SPR business including Renewables.

Community Benefit and Community Investment

207. For the proposed Development, SPR is committed to offering a package of community benefits to local communities that could include not only the opportunity for community benefit, but also for local communities to invest directly in the operational Renewable Energy Development.

208. SPR has started to engage with local stakeholders to identify which communities would be appropriate to participate in these benefits, keeping local communities informed as the project progresses and, in line with Scottish Government guidance, providing information in a timely manner so the communities are able to fully assess the opportunity.

209. As an active member of Argyll and Bute Renewable Alliance (ABRA), SPR is working with A&BC, local stakeholders and other industry representatives to ensure that renewable energy provides the potential to boost the local economy and create opportunities for local people.

210. It is expected that any proposed income streams from these community benefit payments and profit from investment in the project could be used to support community projects within the local area. Local communities would have the flexibility to choose how the money is spent and prioritise it for the things which matter most to them. The host community of West Kintyre Community Council has developed a Community Action Plan for 2017-2023¹² which gives an indication as to the type of initiatives that might be considered important within the West Kintyre Community Council area, including the following:

- creation of all ability tracks & paths, development of the Kintyre Way and development of recreational facilities at Tayinloan playing fields;
- improved broadband and mobile phone services;
- provision of community bus service;
- supporting creation of small businesses and providing bursaries for further training;
- purchase and conversion of unused buildings for community and small business use; and
- improved promotion of West Kintyre as a place to live, work and raise a family.

211. Benefits would accrue from the scale and nature of the proposed income streams associated with the proposed Development and, depending on the choices made, could have a lasting positive effect on access to resources, improvement to local amenities and the quality of life of local residents as well as economic benefits. The long-term nature of the income would allow the community to plan ahead, to draw in other sources of match funding to maximise the benefits and investment projects could be designed to match local priorities.

212. Whilst the quantum of funding that would be available is currently uncertain, it is clear from the level of community funding that has been delivered to date by other windfarms in Argyll and Bute, which totals £1,639,513 (as at summer 2019), that the

proposed community investment measures could offer real socio-economic benefits to the local community and do have the potential to be significant.

Effects on tourism and visitor economy

213. A review was undertaken of relevant literature published on the impact of windfarms on tourism and the tourism economy. This provides context to the assessment of the effects of the proposed Development on specific tourism and recreation receptors. There is no equivalent body of literature on solar farms.

214. This section provides a summary of the review findings, which is undertaken in the context of the acknowledged importance of tourism to the Scottish economy, and the recognition that the character and visual amenity value of Scotland's landscapes is a key driver of tourism in Scotland. The VisitScotland Visitor Experience Survey 2015/16 confirms the basis of this argument with its ranking of the key factors influencing visitors when choosing Scotland as a holiday location. In this study, over half of visitors rated scenery and the natural environment as the main reason for visiting Scotland: a majority of visitors to Scotland were attracted by the landscape, scenery and the wider environment, which supports important visitor activities such as walking, cycling, wildlife watching and visiting historic sites.

215. A key source of data on the economic impact of windfarms on tourism in Scotland is the 2008 Moffat Report (Moffat Centre, 2008), commissioned by the Scottish Government. This study considered whether there would be any reduction in tourism employment and income for Scotland as a whole as a result of the impact of windfarms on tourism, and concluded that the negative impact of windfarms on tourism at national level is small and any reduction in employment in tourism would be far less than the numbers directly employed in the wind power industry. Even using a worst-case scenario, the impact of windfarm applications would be very small, and would be more than balanced by the economic benefits of windfarm development.

216. The study also found that large single developments are preferable to a number of smaller developments as it is the basic intrusion into the landscape that generates the initial loss, rather than subsequent developments on the same site.

217. ClimateXChange was asked by the Scottish Government in 2012 to review evidence published since the Moffat Report and to examine what more recent research has to say about the impact of windfarms on tourism in Scotland. The report (ClimateXChange, 2012) concluded that there is no new evidence to contradict the earlier findings that windfarms have little or no adverse impact on tourism in Scotland.

218. Subsequent studies have reported similar findings. One of the most recent is the report by BiGGAR Economics on WindFarms and Tourism Trends in Scotland, published in July 2016 (BiGGAR Economics, 2016), at which time installed onshore capacity had risen from 2.0 gigawatts (GW) in 2009 to 4.9GW in 2014. During this time employment in the tourism sector also rose by over 10% in Scotland as a whole.

219. The BiGGAR study specifically addressed the expectation that any impacts associated with a windfarm development are most likely to be felt strongest in the immediate vicinity of the proposed Development. An analysis of the levels of employment in the sustainable tourism sector in the immediate vicinity of onshore windfarm developments did not find any evidence of these areas being adversely affected. On the contrary it was found that the tourism sector in the majority of areas surrounding windfarms grew faster than in the local authorities where they were situated.

220. This evidence was drawn out specifically in relation to the area immediately north of the proposed Development as the area around Allt Dearg Community Windfarm west of Loch Fyne was one of the sample study areas selected by the BiGGAR report for more detailed assessment. In Argyll and Bute as a whole, tourism-related employment grew by 40.4% in the period 2009 – 2013. In relation to the specific area around the Allt Dearg windfarm, the study found that tourism-related employment grew by 96.5% during the same period. The report to A&BC's Development and Infrastructure Services Committee in March 2018 referred to in section 14.4.3 showed that Argyll and Bute experienced a 6.9% increase in visitors in one year in the period 2016 - 2017.

221. Although the BiGGAR study did not suggest that there is any direct relationship between tourism sector growth and windfarm development, it does show that windfarms do not cause a decrease in tourism employment either at a local or a national level.

¹² West Kintyre Community Council: Community Action Plan 2017-2013

222. Recent figures released by the ONS (Q4 2018) showed a progressive increase in overseas tourists visiting Scotland of 17% between 2016 and 2017, and 10% from 2017 to 2018. This compares with only a 4% increase for the UK as a whole between 2016 and 2017, and a fall of 3% for the UK as a whole between 2017 and 2018 Ref ONS May 2019, Overseas Travel and Tourism, Quarterly.

223. The overall conclusion of this review is that published national statistics on employment in sustainable tourism demonstrate that there is no relationship between the development of onshore windfarms and tourism employment at the level of the Scottish economy, either at local authority level or in the areas immediately surrounding windfarm development. Therefore, the likely effect of the proposed Development when operational on the tourism and visitor economy is assessed as negligible and not significant.

Potential effects on the LAI

224. The proposed Development incorporates a number of design measures and site enhancements that are included in the proposed Development as a result of consultation and discussions with community groups and other stakeholders. SPR has experience of making a positive impact on long distance walks and it intends to do the same here with its planned improvements along the section of Kintyre Way that passes along the southern boundary of the Site. These include the following measures that would affect informal tourism and recreation within the Site:

- recreational access paths providing access to the site from the Kintyre Way and providing access to a view point on site with signage on views, history, ecology, archaeology;
- walker's shelter close to the Kintyre Way, the design of which would be fitting to the location, using a combination of local stone and wood;
- signage and access to archaeological features adjacent to the Kintyre Way; and
- bird watchers hide and habitat improvements, including broadleaf tree planting and the re-wetting of peat areas previously drained.

225. These proposed measures have been taken into account in the assessment of operational effects.

226. During the operational phase there are expected to be both adverse effects due to visual impacts on recreational and tourism receptors, and beneficial effects arising from the legacy of recreational paths and trails within the Site. Based on a review of the findings of the assessment in **Chapter 12 Access, Traffic and Transport**, no significant effects are expected due to maintenance vehicles using the access road and Site as this would be on an occasional basis only.

227. There would also be some minor beneficial effects on local businesses within the LAI arising from expenditure on goods and services by staff and suppliers visiting the proposed Development. This is expected to benefit local shops, food and drink businesses, and accommodation providers. Although the expenditure would be intermittent and is difficult to quantify, the benefit would be enhanced by the fact that workers visiting the proposed Development would do so all year round, unlike tourism expenditure which tends to be seasonal.

228. Visual effects on recreational receptors are assessed in **Chapter 7 Landscape and Visual Impact Assessment**, and the findings have been taken into account in the assessment below, although it is important to note that a significant landscape and visual effect does not necessarily result in a significant socio-economic effect. In assessing recreational effects, there is not a straight forward relationship between users experiencing views of turbines along sections of a route and impacts on usage. Some people may be discouraged from using the route due to the presence of turbines, but for others there may be no impact.

229. Studies undertaken in respect of other windfarm projects where users have been asked if the presence of turbines would discourage them from using a route have found that the majority would not be deterred. For example, an independent survey of tourists and day-trippers in the area around the proposed Clashindarroch Wind Farm in Aberdeenshire (Gilmorton Rural Development, 2009) found that 84% of respondents did not feel that the proposed windfarm would have an impact on their willingness to revisit the area. The survey also found that there was no difference in the attitude of walkers to other visitors in relation to their willingness to revisit.

230. Assessment of the socio-economic effects resulting from the findings of the landscape and visual assessment takes account of the fact that the visual experience forms only part of the experience for recreational users. The magnitude of impact for cyclists and horse riders may be less than for walkers as the speed of travel is likely to be faster and individual views are

experienced for a shorter period of time. Even for users who find the presence of a windfarm detracts from their experience, this may simply manifest itself in users choosing not to linger in those sections of the route that have clear views of the windfarm.

231. The principal socio-economic receptors within the LAI that have potential to be affected by visual effects arising from the proposed Development would be recreational routes (Kintyre Way, Arran Coastal Way, the Loch Lomond & Cowal Way and Core Paths), the ferry routes, the communities of Clachan and parts of Whitehouse and parts of the islands of Arran and Gigha, which are popular tourist destinations. . Other communities such as Tarbert, Skipness and Claonaig have no potential for views of the proposed Development.

232. Views from the Kintyre Way would be variable as the route passes along the southern boundary of the Site, depending on topography.

233. The assessment of Landscape and Visual effects in **Chapter 7** finds that, overall, significant operational visual effects would be contained within a 6 – 7 km radius of the proposed Development, mainly to the north and west. This includes users of the A83 between Whitehouse and Ronachan and users of the first 5 km of the route of ferry from Kennacraig. Users of other ferry routes would not experience a significant effect, nor would visitors to tourist destinations on the Isle of Arran and Isle of Gigha.

234. Recreational users of the Kintyre Way would experience a significant visual effect between the Site and the A83 at Ronachan, although elsewhere the visual effect would be minor. There would also be a significant visual effect on views from Dun Skeig, but not on the other specific viewpoints in the study area.

235. Users of the National Cycle Network would not experience significant visual effects and it is therefore considered that there would be no socio-economic effects.

236. Users of the A83 and the Kennacraig ferry are considered to be of no more than medium sensitivity in socio-economic terms. While the level of visual effect is assessed as up to moderate, and therefore significant in terms of visual effects, this level of visual effect is only experienced on a 10 km section of the route. Visitors to the area are likely to be using this section of the A83 for only a relatively short part of their journey, and similarly users of the ferry will only experience the visual effect of the proposed Development for a short part of their journey. The magnitude of the socio-economic effect is therefore assessed as low, resulting in a level of effect that is minor and not significant.

237. Users of the Kintyre Way would have visibility of the proposed Development along part of the route. As illustrated on the ZTV in **Figure 7.11**, visibility from the Kintyre Way would be limited by landform and further notable screening would also be provided by existing forestry, not illustrated by the ZTV. The section between Tarbert and Claonaig would be fully screened by landform and forestry. However, a section between Claonaig and the A83 at Ronachan would have views of the proposed Development, with the existing Freasdail Windfarm already available from here. Parts of this section would have very close range views whilst others would have views only whilst the forestry is young. Further details of views along this stretch are provided in **Chapter 7 Landscape and Visual Impact Assessment**.

238. Views from the Kintyre Way towards the proposed Development would undoubtedly be important for some users of the route, although the presence of the proposed Development would not necessarily detract from the experience for all users, as noted above in paragraph 229, especially those who may be using the Kintyre Way for active recreation such as running and horse riding. Further, the most panoramic views would generally be away for the Site towards the coast and these views are likely to form the key part of the experience for many people. However, the presence of the turbines may have a detrimental effect to the enjoyment of using the route for some people, and although this is expected to be only for a part of their journey the magnitude of impact may be medium (adverse).

Dun Skeig is of low sensitivity in socio-economic terms. As visitors walking to Dun Skeig would not be entirely focused on the view towards the proposed Development, the magnitude of effect is considered to be no more than medium and therefore the level of effect would be minor and not significant. .

Embedded measures

239. The visual impact of the presence of the proposed Development for users of the Kintyre Way is expected to be offset substantially by the embedded enhancement measures proposed (set out in paragraph 225), which would provide shelter to users, alternative access paths, and extend the experience to include cultural heritage and birdwatching. Taking account of

these proposed measures, the magnitude of impact is not expected to exceed low. As the receptor is an asset of national importance (one of Scotland's Great Trails), and therefore of high sensitivity, the level of effect is assessed as moderate. Moderate effects may be significant, but as the adverse experience is not likely to affect users for the whole of their journey, i.e., the effect would be intermittent as noted in paragraph 65, the effect is assessed as not significant.

Proposed mitigation

240. No significant effects have been identified in respect of socio-economic receptors arising from operation of the proposed Development and therefore no mitigation measures are required to reduce or remedy any adverse effect.

Residual operational effects

241. As no significant effects have been identified, and no mitigation is required, residual effects would remain as no greater than moderate (adverse) and are considered to be not significant.

Cumulative effects

242. There is potential for cumulative visual effects to arise with regard to a number of prospective or consented projects. Effects could be experienced by tourists and recreational users of long-distance routes, in particular, if sequential effects arise from the fact that users would see several windfarms from viewpoints along the route. The landscape and visual assessment has considered this potential effect in **Chapter 7 Landscape and Visual Impact Assessment** and has assessed the potential for cumulative effects and no significant effects have been identified within the LAI. No other operational cumulative effects are expected.

14.6 Summary and statement of significance

243. This assessment has considered data from a diverse range of sources to determine the likely effects of the proposed Development on the local economy and land use, together with local effects on tourism and recreation assets. The potential effects on the economy and identified assets take account of good practice embedded measures to be adopted. No specific mitigation requirements have been identified and, therefore, residual effects of the proposed Development are effectively the same as the predicted effects. Predicted adverse and beneficial effects have been assessed as not significant during both the construction and operational phases.

14.7 References

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