

Chapter 20: Socio-economics and Tourism - Contents

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20. Socio-economics and Tourism

20.1 Executive Summary

- 20.1.1 This Chapter reports on the assessment of the potential and likely predicted effects, including cumulative effects, of the Proposed Development on socio-economics and tourism during construction and operation.
- 20.1.2 The assessment has been carried out within the context of National Planning Framework 4 (NPF4)¹, which promotes pumped storage hydro as one of the six national developments, stating:
- “This national development supports pumped hydro storage capacity within the electricity network through significant new or expanded sites. This supports the transition to a net zero economy through the ability of pumped hydro storage schemes to optimise electricity generated from renewables by storing and releasing it when it is required.”
- 20.1.3 NPF4 is founded on sustainable economic growth principles and is governed by the National Strategy for Economic Transformation² which confirms that the planning system should proactively support development that contributes to sustainable economic growth and to creating sustainable places.
- 20.1.4 The Proposed Development directly supports this vision through new investment and employment which supports the vision of moving Scotland's economy towards net zero. Importantly, it directly addresses the national development priority to develop pumped hydro storage, as one of six national priorities.
- 20.1.5 The socio-economic impact during construction and operation of the Proposed Development was assessed as having beneficial effects for the regional economy. It will create new temporary jobs through the construction programme with an average of around 356 people on-site during the construction phase, and a total of 1,716 construction related years of employment. The Proposed Development would create 25 new full-time jobs once fully operational. Construction and operational effects would bring notable Gross Value Added (GVA) impacts, as well as wider additional impacts, including supporting policy ambitions, perception benefits, salary benefits, exchequer benefits, local supply chain opportunities and pre-development impacts.
- 20.1.6 Surveys of the public and business attitudes to green energy developments provide no clear evidence that the presence of an investment in an area has a negative impact on local tourism.

¹ Scottish Government (2023), National Planning Framework 4

² Scottish Government (2022), National Strategy for Economic Transformation

20.2 Introduction

- 20.2.1 This Chapter reports on the assessment of the potential and likely predicted effects, including cumulative effects, of the Proposed Development on socio-economics and tourism during construction and operation.
- 20.2.2 The assessment has been carried out in line with Scottish Government guidance on 'Net Economic Benefit and Planning'³. The guidance highlights how the net economic benefit generated by a Proposed Development can be assessed as a material consideration in the decision-making process. The assessment has also been carried out in line with National Planning Framework 4 (NPF4)⁴, which promotes pumped storage hydro as one of six national developments and to support community economic development as a result of investment in green energy proposals.
- 20.2.3 The assessment considers the likely significance of effects of the Proposed Development on the economy in both quantitative and qualitative terms. In particular, it considers the effects of the Proposed Development on employment and economic output, as well as recreational and tourism assets and activities.
- 20.2.4 The assessment describes the methods used to assess impact, the socio-economic and tourism baseline conditions, and the potential and predicted effects of the Proposed Development during the construction and operational phases.
- 20.2.5 This Chapter has been compiled by MKA Economics, who specialise in appraising the economic viability, socio-economic value, and, advising on the delivery of, economic development projects. Based at the Innovation Park at the University of Stirling the company works across sectors and geographies and has been retained by Highlands and Islands Enterprise (HIE) on their Economic Impact Assessment Framework since 2013. A table presenting relevant qualifications and experience is included in **Appendix 4.1: EIA Team**, contained within **Volume 4** of this EIA Report.

20.3 Scope of Assessment

- 20.3.1 In terms of economic effects, this assessment has employed appraisal techniques consistent with those outlined in the Scottish Government's guidance on 'Net Economic Benefit and Planning', and also Scottish Enterprise's Economic Appraisal Guidance Note for the appraisal of economic development initiatives. This guidance has been adopted by HIE to guide economic impact assessment in the Highlands and Islands.
- 20.3.2 This assessment calculates both construction and operational employment associated with the Proposed Development, and the economic effects this would have on the economy, at both a country and local authority level.
- 20.3.3 This assessment outlines the role the Proposed Development can play in supporting national and regional economic development policies and strategies. It presents an overview of the local economic conditions, assessing them against the Highland, Scottish and Great Britain (GB) situation,

³ Scottish Government, (2016), Draft Advice on Net Economic Benefit and Planning

⁴ Scottish Government (2023), National Planning Framework 4

to set the development context for the Proposed Development. Finally, it outlines the potential benefits of the Proposed Development on employment, investment, local spending, community development and the local business base, during construction and operation.

- 20.3.4 For the purposes of this Chapter, both the baseline and impact assessments define the regional area as The Highland Council (THC) area (as the local planning authority), the country level area as Scotland and the national area as GB.
- 20.3.5 The spatial scope for tourism effects is consistent with the 10 km study areas as set out in **Chapter 9: Land Use and Recreation**, and **Figure 9.1: Land Use and Recreation**.

Consultation Responses

- 20.3.6 To inform the scope of the assessment for the Proposed Development, consultation was undertaken with statutory and non-statutory bodies. **Table 20.1: Consultation Responses** summarises the relevant socio-economic and tourism responses provided as part of the Scoping Opinion from the Scottish Government's Energy Consents Unit (ECU) (October 2022).

Table 20.1 Consultation Responses

Consultee	Issue Raised	Response/Action Taken
Energy Consents Unit	Important to set out a comprehensive analysis of the socio-economic benefits (both local and national) that would be realised by construction and operation of the project.	This Chapter presents the socio-economic and tourism baseline position, the economic impact of the Proposed Development (in terms of jobs, turnover and GVA), social and wider community impacts.
The Highland Council	THC advised the EIA Report should estimate who may be affected by the development, in all or in part, which may require individual households to be identified, local communities or wider socio-economic groupings such as tourists and tourist related businesses, recreational groups, economically active, etc. THC advise that the application should include relevant economic information, including the potential number of jobs, and economic activity associated with the development.	This Chapter presents the socio-economic and tourism baseline position, the economic impact of the Proposed Development (in terms of jobs, turnover and GVA), social and wider community impacts.
The Highland Council	THC consider that all the impacts on outdoor access should all be brought together under the socio-economic, tourism and recreation heading in a comprehensive assessment of the proposal's visual and physical impacts on outdoor access during the preparatory, construction, operational and post-operational phases.	A review of recreational routes, tourism trails and Rights of Ways is considered in this Chapter, drawing on information presented in Chapter 8: Landscape and Visual Impact Assessment and Chapter 9: Land Use and Recreation . An Access Management Plan would be prepared by the appointed Principal Contractor ahead of construction commencing on-site (see Volume 4, Appendix 9.1: Draft Outdoor Access Management Plan).

Stratherrick and Foyers Community	The Stratherrick and Foyers Community Council are concerned about the proposed camp and about the housing of the proposed 200-300 workforce and impacts on local facilities.	This socio-economic impact assessment, at construction and operation, presents the likely manpower required for the Proposed Development, and timescales. This has been measured against the socio-economic and community infrastructure of the local area to assess any adverse or beneficial impact, and present mitigation where required and is detailed in this Chapter. The workers camp on-site would contain facilities such as a canteen, gym, cinema and other communal areas for the workers to use. Workers would be strongly discouraged from using facilities in Whitebridge or any other local villages. Workers who are residing at the work camp would also be transported to site by bus / transporters and would not take their own vehicles to site, which will make it difficult for workers to leave the site. The Applicant is committed to setting up a community liaison group during construction so locals can raise any issues or concerns.
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Issues Scoped Out of Assessment

- 20.3.7 The upfront effects of the predevelopment stage and the long-term effects associated with the decommissioning phase are not assessed. Predevelopment costs are underway and therefore cannot be measured and there is a lack of data and guidance requirements around the decommissioning phase. As described in **Chapter 3: Description of Development**, with proper maintenance the Proposed Development should remain functional indefinitely. If the project were to be decommissioned, it is anticipated that the potential effects on socio-economics and tourism would be equal to and / or lesser than the construction impacts.
- 20.3.8 Recreation isn't considered in detail in this Chapter as this is covered in **Chapter 9: Land Use and Recreation** and visual receptors at points of interest / paths aren't considered in detail as this is covered in **Chapter 8: Landscape and Visual Impact Assessment**.

20.4 Legislation, Policy and Guidance

- 20.4.1 This section provides an overview of policy and guidance documents of relevance to the socio-economic and tourism considerations of the Proposed Development.

Policy Context

Scottish National Strategy for Economic Transformation

- 20.4.2 This is the Scottish Government's statement of ambition for economic recovery following the COVID-19 pandemic⁵.

⁵ Scottish Government (2022), National Strategy for Economic Transformation

- 20.4.3 It sets the ambition of the next ten years as a time of huge change and; “...*extraordinary opportunity*...” and promotes Scotland as a nation with competitive advantages in the new industries generated by technological change, scientific advance and our response to the climate and nature crises.
- 20.4.4 The strategy deliberately focuses on five policy programmes with the greatest potential benefit, including to; “...strengthen Scotland’s position in new markets and industries, generating new, well-paid jobs from a just transition to net zero”.
- 20.4.5 The transition to net zero is seen not just as an environmental imperative but an economic opportunity - one where Scotland will become world leading. The identified opportunities for this competitive advantage include the construction and development of renewable energy generating technologies.

National Planning Framework 4

- 20.4.6 The Scottish Government recently adopted new national planning guidance in the form of National Planning Framework 4 (NPF4)⁶. NPF4 supersedes Scottish Planning Policy (Scottish Government, 2014), with a particular focus on supporting the development of new green energy and storage technologies. The overarching energy policy states:

“To encourage, promote and facilitate all forms of renewable energy development onshore and offshore. This includes energy generation, storage, new and replacement transmission and distribution infrastructure and emerging low-carbon and zero emissions technologies including hydrogen and carbon capture utilisation and storage (CCUS).”

- 20.4.7 In terms of the National Spatial Strategy, Pumped Storage Hydro is one of six key national developments, with NPF4 stating:

“This national development supports pumped hydro storage capacity within the electricity network through significant new or expanded sites. This supports the transition to a net zero economy through the ability of pumped hydro storage schemes to optimise electricity generated from renewables by storing and releasing it when it is required”.

- 20.4.8 NPF4 has a regional focus including the ‘North’ and has three key themes which are ‘sustainable places’, ‘liveable places’ and ‘productive places’. For the north these themes have the following priorities:

“To deliver sustainable places, Regional Spatial Strategies and Local Development Plans in this area should protect environmental assets and stimulate investment in natural and engineered solutions to climate change and nature restoration, whilst decarbonising transport and building resilient connections.”

“To deliver liveable places, Regional Spatial Strategies and Local Development Plans in this area should maintain and help to grow the population by taking a positive approach to rural development that strengthens networks of communities.”

⁶ Scottish Government (2023), National Planning Framework 4

“To deliver productive places, Regional Spatial Strategies and Local Development Plans in this area should support local economic development by making sustainable use of the area's world-class environmental assets to innovate and lead greener growth.”

- 20.4.9 NPF4 is founded on sustainable economic growth principles and is governed by the National Strategy for Economic Transformation⁷ which confirms that the planning system should proactively support development that contributes to sustainable economic growth and creates sustainable places.
- 20.4.10 The Proposed Development directly supports this vision through new investment and employment which supports the vision of moving Scotland's economy towards net zero. Importantly, it directly addresses the national development priority to develop pumped hydro storage, as one of six national developments.

Scottish Government Draft Advice on Net Economic Benefit and Planning

- 20.4.11 The Draft Advice on Net Economic Benefit and Planning⁸ states the importance of demonstrating the net economic benefit of a proposed scheme, highlighting the importance of taking economic benefits into account when determining a planning decision.
- 20.4.12 The meaning of ‘net economic benefit’ is described as the difference between the estimated economic position where the development proceeds and the position if the proposal does not go ahead.
- 20.4.13 Advice is provided on the methodology to be used when modelling economic benefits and it acknowledges that;

“...assessing the additional benefit from a proposal will usually involve making some assumptions, and is therefore not an exact science. It is important that the level of detail of any assessment is kept proportionate to the likely scale of the net economic benefit, and that assumptions made are completely transparent, evidence-based and as accurate as possible”.

Draft Energy Strategy and Just Transition Plan

- 20.4.14 On 7th September 2021 the Scottish Government provided an initial response to the final report of the Just Transition Commission. It sets out their long-term vision for just transition and provides details on their National Just Transition Planning Framework. The Just Transition Plan⁹ has been published alongside the economic strategy.
- 20.4.15 The Scottish Government is currently consulting on a Draft Energy Strategy and Just Transition Plan¹⁰. This sets out how the Scottish Government seeks to realise climate change ambitions, and address the need to transform the way Scotland generates, transports and uses energy.
- 20.4.16 The draft Energy Strategy and Just Transition Plan sets out the scale of that opportunity and provides clarity on how Scotland will prepare for a Just Energy Transition. The draft Energy Strategy and Just

⁷ Scottish Government (2022), National Strategy for Economic Transformation

⁸ Scottish Government, (2016), Draft Advice on Net Economic Benefit and Planning

⁹ Scottish Government (2021), Just Transition, A Fairer, Greener Scotland

¹⁰ Scottish Government (2023), Draft Energy Strategy and Just Transition Plan

Transition Plan sets a vision for Scotland's energy system to 2045 and a route map of ambitions and actions that, coupled with detailed sectoral plans and the forthcoming Climate Change Plan, will guide decision-making and policy support over the course of this decade.

- 20.4.17 Specifically related to renewable energy, the vision for a fairer, greener Scotland includes all energy needs being met by renewable sources by 2045.

National Performance Framework

- 20.4.18 Scotland's National Performance Framework (NperF)¹¹, first published in 2018, sets out the ambitions of the Scottish Government to provide a vision for national wellbeing across a range of economic, social and environmental factors. The framework includes 'increased well-being' as part of its purpose and combines measurement of how well Scotland is doing in economic terms with a broader range of well-being measures.

- 20.4.19 The NperF is designed to give a more rounded view of economic performance and progress towards achieving sustainable and inclusive economic growth and well-being across Scotland.

- 20.4.20 It sets out and reports against outcomes and indicators which illustrate the progress Scotland is making in achieving the aims of the NPerF. The Proposed Development has potential to support the achievement of the national outcomes, making a contribution to advancing the development of a competitive, inclusive and sustainable economy in Scotland.

An Action Plan for Economic Development in the Highlands

- 20.4.21 The Highland Economic Forum has created an Action Plan for Economic Development in the Highlands¹². The main thrust of the Action Plan is to generate new employment in the private sector and social economy to compensate for employment and earnings reductions through national public sector cuts. The impacts of these are particularly severe in Highland, which has a relatively high dependence on public sector employment and spending.

Highland and Inverness City Deal

- 20.4.22 The Highland Council (THC) has developed a new City-Region Deal vision for Highlands, with the aim of 'Transforming the Highland Economy'¹³. The 'City-Region Deal' is to position the Highlands as a region of digital opportunity. This vision was turned into reality in 2017 when the Inverness and Highland City Region Deal was approved. This formalised the commitment of £315 million worth of funding - £135 million from the Scottish Government, supported by £127 million from THC and its partners, and another £53 million from the UK Government.

¹¹ Scottish Government (2018), National Performance Framework

¹² Highland Economic Forum (2012), Action Plan for Economic Development in the Highlands

¹³ The Highland Council (2016), Highland and Inverness City Deal

Highlands and Islands 2023 - 2028 Strategy

- 20.4.23 Highlands and Islands Enterprise's (HIE) Strategy¹⁴ sets out a vision for Highlands and Islands to be 'a leading net zero region with a dynamic wellbeing economy, which benefits its growing population and makes a valued contribution to Scotland.'
- 20.4.24 The Strategy is guided by national policy, principally the National Strategy for Economic Transformation (NSET), it takes account of the leading role the region plays in developing sectors including energy, life sciences, creative industries, tourism, food and drink, and space. It also seeks to support the national transition to net zero targets.
- 20.4.25 The cross-cutting themes of net zero, fair and inclusive growth, and regional transformational opportunities run through the 2023 – 2028 Strategy. These represent key strategic drivers for HIE and the region in terms of what is delivered and how.
- 20.4.26 Embedding net zero throughout the strategy as a cross-cutting theme is a major component of the new strategy, which states:

'The region is already an international exemplar in renewable energy and, with our exceptional natural assets set out in this strategy, will contribute significantly to the Scottish Government's climate change ambitions. Taking climate action and ensuring the region realises economic and community benefit from a just transition to net zero is a top priority. We recognise that this should be achieved not only through what and how we target support, but how we operate.'

Climate Change Plan Update - Economic Impact of COVID-19 Recovery

- 20.4.27 The COVID-19 Pandemic has had a major detrimental impact on the local, regional and national economy. It will be some time until the longer-term consequences have become apparent, although it is already clear that the pandemic has resulted in structural economic changes.
- 20.4.28 The need for policies to promote economic recovery will therefore need to take account of specific needs of areas where the economy has been affected, as well as local opportunities for recovery.
- 20.4.29 In December 2020, the Scottish Government published an update to its 2018-2032 Climate Change Plan to set out its pathway to the new targets set in the Climate Change Act 2019¹⁵. The strategic document, which outlines plans for Scotland's green recovery from the Covid-19 pandemic, demonstrates the commitment to a recovery which develops the transition to a carbon neutral economy.

Renewable Energy and Economic Recovery

- 20.4.30 Prior to the Covid-19 pandemic, the growth of the renewable energy sector was a priority for the Scottish Government in both the transition to a net zero economy and the growth of the Scottish economy. As the Government works to recover from the pandemic, the importance of the renewable energy sector as a driver of growth remains.

¹⁴ Highlands and Islands Enterprise (2023), Highlands and Island Strategy 2023 - 2028

¹⁵ Scottish Government (2020), Climate Change Act

- 20.4.31 In 2020, the Advisory Group on Economic Recovery (AGER) to the Scottish Government, published a report outlining recommendations on how Scotland could best recover following the Covid-19 pandemic¹⁶. The report highlighted four significant areas of focus; business, education and skills, equalities and the environment, with recommendations including the prioritisation and delivery of green investment, enabling the creation of a more circular economy which would reduce negative impacts on the environment while leveraging Scotland's natural advantages, such as the availability of renewable energy.
- 20.4.32 In the response published by the Scottish Government, it outlines how it intends to apply the AGER's recommendations, supporting a recovery from the pandemic which supports Scotland's economy and develops the transition to an economy which meets environmental objectives.
- 20.4.33 It is noted in the plan that 'better planning and regulation' is required to support the economic recovery. The plan recognises that planning and regulatory systems will be crucial in supporting investment and growth as part of the economic recovery, while maintaining high standards. The Scottish Government is currently taking forward the changes introduced by the Planning (Scotland) Act 2019.
- 20.4.34 This focus on implementation of the changes already introduced alongside improved practice, is seen as the most immediate way of improving the planning service and ensuring that it supports recovery effectively. In the case of the Proposed Development, planning policy is already supportive of the principle of development.

Tourism Policy Context

- 20.4.35 In terms of relevant tourism policy, the Scottish Tourism Alliance developed The National Tourism Strategy 2030¹⁷ which confirms the importance of tourism to Scotland's economy and emphasises the resilience of the tourism industry since the start of the Covid-19 pandemic in 2020.
- 20.4.36 However, the strategy cautions that Scotland must remain competitive, by developing and changing its products and marketing in order to improve the quality of the customer experience and increase sales.
- 20.4.37 The vision is "“Together we will grow the value and positively enhance the benefits of tourism across Scotland by delivering the very best for our visitors, our businesses, our people, our communities and our environment”".

Scotland Outlook 2030 Responsible Tourism for a Sustainable Future

- 20.4.38 Scotland Outlook 2030¹⁸ has been developed by Scottish Tourism Alliance, the Scottish Government, VisitScotland, Scottish Enterprise, Highlands and Islands Enterprise, and Skills Development Scotland. Over 2500 tourism leaders and stakeholders from the Scottish tourism industry have contributed to its development.

¹⁶ Advisory Group on Economic Recovery (2021), Towards a Robust, Resilient Wellbeing Economy for Scotland

¹⁷ Scottish Tourism Alliance (2020), The National Tourism Strategy 2030

¹⁸ Ibid

Highland Area Tourism Action Plan

- 20.4.39 In terms of regional tourism policy, The Highland Area Tourism Partnership (ATP) comprises representatives from the tourist industry and key public bodies involved in delivering tourism in the Highlands, including Visit Scotland, THC, HIE, NatureScot, Scottish Forestry, Cairngorms National Park Authority and Hi-Trans.
- 20.4.40 The Highland ATP developed a Highland Area Tourism Action Plan¹⁹ to replace the previous Area Tourism Strategy. The Action Plan describes some of the key issues that need to be addressed in order to grow tourism in the Highlands, and to contribute to the national vision and aspiration.
- 20.4.41 The overarching vision of growing the visitor economy across the Highlands is: “The Highlands will be a destination of first choice for a high quality, value for money and memorable customer experience, delivered by skilled and passionate people.”
- 20.4.42 The Highlands is recognised as one of Scotland’s strongest tourism products and as such can reasonably be expected to equal or exceed the national growth rate if the actions in the strategy and this plan are delivered.
- 20.4.43 Based on the National Strategy for Economic Transformation, the growth ambitions could mean the value of tourism could grow from a level of £738 million in 2012 to between £900 million and £1.07 billion by 2020.
- 20.4.44 To achieve this growth, the Action Plan recognises both the effort and investment by individual businesses across the tourism sector and investment by public sector partners in areas such as infrastructure and services.

20.5 Methodology

Assessment Methodology

- 20.5.1 There are no published standards or technical guidelines that set out a preferred methodology for assessing the likely socio-economic, or tourism, impacts of green energy proposals. However, there are a series of commonly used methodologies and recognised approaches to quantifying economic impacts both during the construction of a development and following their completion. This assessment has employed appraisal techniques consistent with those outlined in the Scottish Enterprise Economic Impact Guidance²⁰ for the appraisal of economic development and regeneration initiatives. The assessment is also consistent with the latest Scottish Government’s Draft Advice Note on Net Economic Benefit and Planning²¹.
- 20.5.2 The socio-economic assessment has been undertaken in line with the advice note, presenting the baseline position in socio-economic terms and the predicted outcomes in both employment and GVA terms.

¹⁹ Highland Area Tourism Partnership (2020), Highland Area Tourism Action Plan

²⁰ Scottish Enterprise (2008), Impact Appraisal and Evaluation Guide

²¹ Scottish Government (2016), Net Economic Benefit and Planning

- 20.5.3 The relevant policy context and methods used to assess the impacts are described together with the baseline conditions that would exist in the area in the absence of the Proposed Development.
- 20.5.4 Baseline conditions have been established through desktop studies, these are presented in more detail in **Volume 4, Appendix 20.1: Socio-economic Baseline** and **Appendix 20.2: Tourism Baseline**. Additional information was also obtained by reviewing information regarding local tourism assets, including those assessed in other technical assessments, notably **Chapter 8: Landscape and Visual Impact Assessment** and **Chapter 9: Land Use and Recreation**. This includes reference to core paths and wider access network routes, including the known routes and trails and the potential impact of the Proposed Development on recreation.
- 20.5.5 The assessment considers potential impacts across the construction and operational phases. The long-term impacts associated with the decommissioning phase of the Proposed Development are not assessed.
- 20.5.6 The methods applied within this assessment are based on established best practice, including methods from UK Government and industry reports.
- 20.5.7 The assessment has employed appraisal techniques consistent with environmental impact guidance published by the Institute of Environmental Management and Assessment²². NatureScot²³ has provided guidance on assessment of effects from renewable investments on recreational amenity. This guidance has also been used to inform the approach.
- 20.5.8 The methodology adopted in this assessment has involved the following key stages:
- Consideration of the relevant baseline;
 - Review of the Proposed Development for potential impacts;
 - Evaluation of significance;
 - Identification of mitigation measures, where required; and
 - Assessment of residual effects.
- 20.5.9 As there are no published standards or technical guidelines that set out a preferred methodology for assessing the likely socio-economic, recreation or tourism impacts of a project of this nature, professional judgement, with reference to commonly used methodologies and recognised approaches to quantifying economic impacts, is used to determine the following significance criteria:
- Negligible or No Effect: Very little change from baseline conditions. Change is barely distinguishable, approximating to a “no change” situation;
 - Minor (Adverse or Beneficial): Changes arising from the alteration will be detectable but not material; the underlying composition of the baseline condition will be similar to the pre-development situation. For example, a small alteration of the socio-economic conditions, a small reduction / improvement in the recreational asset, or a small change in tourism spend;

²² Institute of Environmental Management and Assessment (2009), Environmental Impact Guide

²³ NatureScot (2018), Environmental Impact Assessment Handbook

- Moderate (Adverse or Beneficial): Loss / improvement to one or more key elements / features of the baseline conditions such that post development character / composition of the baseline condition will be materially changed. For example, a moderate long-term alteration of socio-economic conditions, a moderate reduction / improvement in the recreational asset, or a moderate change to tourism spend; and
- Major (Adverse or Beneficial): Major loss / improvement to key elements / features of the baselines conditions such that post development character / composition of baseline condition will be fundamentally changed. For example, a major long-term alteration of socio-economic conditions, a major reduction / improvement of recreational assets, or a substantial change to tourism spend.

20.5.10 In assessing significance, consideration is given to the national, regional and local baseline situation. The magnitude of the effect is determined in proportion to the area of effect relevant to each receptor. For the purpose of the assessment, a moderate or major effect is deemed to be “significant” in terms of the EIA Regulations.

20.5.11 In terms of socio-economic factors, potential effects would be significant if the Proposed Development resulted in fundamental or material changes in population, structure of the local community or local economic activity.

20.5.12 The effect of the Proposed Development on tourism and recreation is closely related to public attitudes on green energy technologies, however, a negative opinion does not necessarily result in a material change in recreational patterns. The relevant conclusions from the most recent studies are discussed later in this Chapter.

20.5.13 The assessment has been undertaken based on the indicative generating capacity of the pumped storage facility at the Proposed Development (600 MW). The impacts draw on information supplied by the Applicant.

20.6 Baseline Conditions

20.6.1 A desk-based review of publicly available information has been undertaken to identify the key characteristics of the local economy, existing land use and tourism and recreational facilities in the study area. The detailed socio-economic baseline is presented in **Volume 4, Appendix 20.1: Socio-economic Baseline** and the detailed tourism baseline is presented in **Volume 4, Appendix 20.2: Tourism Baseline**.

20.6.2 A summary of the headline socio-economic baseline findings include:

- The Highlands population is forecast to decrease by 1.0 %, compared to a predicted 2.5 % growth nationally;
- The Highlands is expected to see a 79 % increase in the number of people aged over 75 years in the period to 2043, compared to 71 % nationally;
- 60.8 % of the regional population is of working age, compared to 63.8 % and 62.9 % at the Scottish and GB levels respectively;
- The region has a higher proportion of people who ‘want a job’ (22.3 %) compared to the GB (18.1 %) level;

- Unemployment has been falling for around two years, since the pandemic, when regional unemployment peaked at 5.4 %, Scottish unemployment at 6.1 % and GB unemployment at 6.4 %. It has been falling as the economy recovers from the Covid-19 pandemic;
- The region has a higher proportion of skilled trade; caring, leisure and service; process plant and machine operatives; and elementary occupations than the Scottish and GB levels;
- Regionally there are fewer people employed in professional, associate professional, technical, sales and customer service occupations;
- The Highland Council was one of only six local authorities to witness a further increase in deprivation, and this continues to be a worrying trend for the Highlands. There are wards in Inverness which are in both the most deprived 5 % in Scotland; and
- 15 % of the population of the Inner Moray Firth live in datazones²⁴ within the 20 % most vulnerable in Scotland, in line with the proportion across Highland (15 %) and at the Scottish level (14 %).

20.6.3 In terms of an overview of the tourism economy, the following can be summarised:

- Sustainable tourism (which is one of the six growth sectors defined in the Scottish Government's Growth Sector Database²⁵) employs 19,000 people across the Highlands and in 2018 the sector generated £320 million GVA. Figures for 2021 and 2022 are not applicable due to the onset of the Covid-19 pandemic and the significant issues encountered by tourism businesses. The statistics released for these periods are not available. However, it has been reported by third party sources that tourism continues to recover from the Covid-19 pandemic;
- GVA generated by sustainable tourism in the Highlands was approximately 7.7 % of the value added by the sustainable tourism sector in Scotland (£4.1 billion) and employment was 8.3 % of total employment in the sustainable tourism sector (229,000). The tourism sector is relatively more important in Highland than on average in Scotland;
- Tourism activity within the Great Glen is seasonal, and much of it occurs within the months between April and September. For example, the occupancy levels for hotels in Highlands and Islands are above 90 % for the months between June and August, and below 55 % between November and January;
- Some of the most popular attractions in the Highlands are more than 25 miles by road from the Proposed Development. Urquhart Castle and Loch Ness by Jacobite, which are located approximately 25 miles away by road, are both on Loch Ness. Inverness is around 20 miles from the Proposed Development. Loch Ness itself is a significant tourist attraction in the area and the lower reservoir works of the Proposed Development (including the powerhouse building) is on the shoreline of Loch Ness and extends into the loch;
- Facilities in the area closest to the Proposed Development are found in Fort Augustus and directly across Loch Ness in Invermoriston and include a selection of local shops and cafés, adventure activities such as kayaking and canoeing and several B&Bs and self-catering accommodation providers. The Falls of Foyers is a popular tourist attraction in the local area;

²⁴ Datazones are the key geography for the dissemination of small area statistics in Scotland and are widely used across the public and private sector

²⁵ Scottish Government (2023), Growth Sectors Database

- The tourism sector in the Great Glen and wider Highland area is an important employer and visitors come from all over the world to see Loch Ness and other attractions. There are 2.4 million overnight visitors to the Highlands. The key attractions in the area are mainly outdoor activities and tourism activity is predominantly seasonal in character; and
- The tourism sector near the Proposed Development is similarly seasonal with many of the hotels closed over the winter months. Outdoor pursuits are a major driver for tourism activities, as well as being used by local residents, and these are presented in more detail in **Chapter 9: Land Use and Recreation**.

20.7 Assessment of Likely Significant Effects

20.7.1 This section sets out the predicted socio-economic and tourism effects arising from the construction and operation of the Proposed Development, based on the typical activities described in **Chapter 3: Description of Development**.

20.7.2 The assessment is based on estimated employment information provided by the Applicant and technical consultants, and based on experience from other similar developments. It is set within the context of an assessment of the economic impact of pumped storage hydro, which has been reviewed as part of this assessment²⁶. The report found that pumped storage hydro can play an even bigger role in supporting the UK's energy system in the future and generate further economic impacts. To understand its potential economic impact, an increase in output capacity to around 15GW, in line with UK Government targets, and an increase in storage capacity to 272GWh by 2050 was modelled, building on the findings of the economic impact assessment.

20.7.3 When combined with the initial six projects²⁷ it was estimated that the development and construction of pumped storage hydro would require an investment of £19-21 billion. By 2050, development and construction spend could generate:

- £13.3-14.8 billion GVA and 228,700-253,700 years of employment in the UK (equivalent to £492-550 million GVA and 8,470-9,400 jobs annually);
- £2.1-2.4 billion GVA and 30,700-34,600 years of employment in the local area (equivalent to £79-89 million GVA and 1,080-1,200 jobs annually).

20.7.4 By 2050 the operational impact of additional pumped storage hydro could be:

- £169 million GVA and 3,710 jobs in the UK;
- including £42 million GVA and 650 jobs in the local Highland area.

20.7.5 To meet the UK Government's Net Zero by 2050 target, substantial increases in clean, renewable energy are required. As many of these technologies, such as offshore wind, are intermittent, flexible low carbon energy generation and storage assets are needed to support the grid.

²⁶ Scottish Renewables (2023), The Economic Impact of Pumped Storage Hydro

²⁷ Red John, Glenmuckloch, Cruachan Expansion, Corrievearkie, Coire Glas, and Balliemeanoch

Construction Effects

- 20.7.6 The total development and construction employment were estimated by the Applicant's technical advisers. These total employment impacts associated with the construction phase, by type, are outlined in **Table 20.2: Construction Employment by Type**. This shows that it is estimated that there would be approximately 1,716 person years employment (PYE) over the four-year period.
- 20.7.7 It is anticipated that typically c.356 workers on average would be working on-site, but this would vary throughout the construction period dependent on works to be conducted. It is anticipated that construction workers would be accommodated in a temporary workers camp on-site, within the Whitebridge Plantation. The proposed location of this workers compound is illustrated on **Volume 2, Figure 3.1: Proposed Development**. The final arrangement for this would be developed during detailed design and would be discussed with the planning authority.
- 20.7.8 The employment impacts during the construction phase are reported in PYE because the contracts would be for fixed lengths. Person years measures the number of years of full-time employment generated by a project. For example, an individual working on this project for 18 months would be reported as 1.5 person years. The following table summarises the breakdown of PYE across the four-year core construction period.

Table 20.2: Construction Employment by Type

Construction Task	Person Years Employment
Site Establishment / Access Roads	47.00
Dam Construction	262.00
Tunnelling Works	514.00
Powerhouse & Lower Control Works	190.00
Electrical & Mechanical Installation	263.00
Above Ground Buildings	32.00
E&M Testing & Commissioning	20.00
Project Management, Supervision and Administration	388.00
Total	1,716.00

Source: Fichtner

- 20.7.9 In addition to presenting the employment impacts according to main construction activity areas, the Applicant and their technical advisers have presented an estimate on the expected origin of the predicted employment benefits. These assumptions are presented in **Table 20.3: Construction Impacts by Area**.

Table 20.3: Construction Impacts by Area

Construction Task	Percentage Split by Area			
	Highland	Scotland	UK	Overseas
Site Establishment / Access Roads	80%	10%	10%	0%
Dam Construction	40%	40%	20%	0%
Tunnelling Works	5%	10%	20%	65%
Powerhouse & Lower Control Works	15%	15%	30%	40%
E&M Installation	5%	10%	15%	70%
Above Ground Buildings	40%	40%	20%	0%

E&M Testing & Commissioning	10%	10%	15%	65%
Project Management, Supervision and Administration	40%	40%	20%	0%

Source: Fichtner

20.7.10 **Table 20.4: Total Direct Employment Impacts** illustrates the direct construction related impacts across each spatial area across the four-year core construction period.

Table 20.4: Total Direct Employment Impacts

Construction Task	PYE	Percentage Split by Area			
		Highland	Scotland	UK	Overseas
Site Establishment / Access Roads	47.00	37.60	4.70	4.70	0.00
Dam Construction	262.00	104.80	104.80	52.40	0.00
Tunnelling Works	514.00	25.70	51.40	102.80	334.10
Powerhouse & Lower Control Works	190.00	28.50	28.50	57.00	76.00
E&M Installation	263.00	13.15	26.30	39.45	184.10
Above Ground Buildings	32.00	12.80	12.80	6.40	0.00
E&M Testing & Commissioning	20.00	2.00	2.00	3.00	13.00
Project Management, Supervision and Administration	388	155.20	155.20	77.60	0.00
Total	1,716.00	379.75	385.70	343.35	

Source: Fichtner

20.7.11 Of the 1,716 construction related years of employment supported across the four-year core construction period, 379.75 PYE are expected to benefit the regional (Highland) economy, 765.45 PYE at the Scottish level (including Highlands), with the other 950.55 PYE benefiting non-Scottish areas.

20.7.12 A high proportion of the economic and employment impacts would come from the tunnelling works and the powerhouse and lower control works, which require extensive digging and support work. Information provided by the Applicant confirms that the types of staff likely to be employed in construction are shown in **Table 20.5: Construction Employment Posts**.

Table 20.5: Construction Employment Posts

Construction Posts		
Project Director	Surveyor	Mechanical Engineer
Engineering Manager	Chain Person	Hydro Engineer
Construction Manager	Quality Manager	High Voltage Specialist
HSE Manager	Quality Engineer	Quantity Surveyor
Commercial Manager	Sub-Agent	Topographic Surveyor
Works Manager	Section Engineer	Setting out Engineer
Permanent Works Design Manager	Site Engineer	Site Agent
Temporary Works Co-ordinator	Project Manager	Foreman
Temporary Works Supervisor	Project Engineer	Clerk of Works
Geologist	Structural Engineer	Ganger
Planner	Geotechnical Engineer	Excavator Operator

CAD/BIM Manager	Assistant Geologist	Dumper Driver
CAD Operator	CFD Modeller	Tunnel Engineer
Survey & Monitoring	Hydraulic Specialist	Senior Tunneler
Survey & Monitoring Manager	Electrical Engineer	Boomer Operative
General Operative	General Labourer	Ecological Clerk of Works

Source: Fichtner

- 20.7.13 In order to calculate the economic effect of new jobs, the GVA per head for civil engineering related projects in the Highlands and Scotland are utilised, in this case £70,953 and £63,769 respectively. These figures are also drawn from the Scottish Annual Business Statistics²⁸. The resultant economic impact at the Highlands and Scottish levels across the four year core construction period are shown below.

Table 20.6: Gross Employment and GVA Impacts of Construction at Highland and Scottish Level

Location	PYE	GVA per PYE	Total GVA
Highlands	379.75	£70,953	£26,944,402
Scotland	765.45	£63,769	£48,811,981

Source: Statera / MKA Economics

- 20.7.14 Economic impact assessments must also consider the effects of displacement as a result of the Proposed Development having an adverse effect on other economic assets and activities. Displacement occurs when the Proposed Development takes labour, land and/or capital from other firms / projects within the area being assessed.
- 20.7.15 Due to the unique nature of the Proposed Development, displacement levels are not expected to be significant. However, there is expected to be some displacement and for the purposes of accounting for displaced activity it is assumed that displacement would be 25 % at both the regional and national levels. **Table 20.7: Net Employment and GVA Impacts of Construction at Highland and Scottish Level** highlights the net employment and GVA impacts after the effects of displacement.

Table 20.7: Net Employment and GVA Impacts of Construction at Highland and Scottish Level

Location	PYE	GVA per PYE	Total GVA
Highlands	284.81	£70,953	£20,208,301
Scotland	574.09	£63,769	£36,608,986

Source: Fichtner / MKA Economics

- 20.7.16 Evidence has shown that investment in construction projects can have strong 'multiplier effects'. This is where output in a certain part of the economy generates economic activity in other areas of the economy. Multipliers can measure how new capital investment in energy projects can generate additional income across the economy, including for people who live near developments.

²⁸ Scottish Government (2020), Scottish Annual Business Statistics

- 20.7.17 Economic assessments must consider multiplier effects, which are the further economic activity associated with additional income and supplier purchases. An increase in 'final demand' for a product and an associated increase in the output of that product, where other producers of goods and services respond to this increased demand, is known as the 'direct effect'. This can run right through the supply chain, known as the 'indirect effect'. As employment increases so too do levels of household income, some of which is spent on other goods and services, and this is known as the 'induced' effect.
- 20.7.18 Multiplier effects for different Scottish industries are provided by the Scottish Government²⁹, with 'Construction' having a Type II multiplier of 1.8. The GVA per head presented for the net economic assessment is that for the entire Highlands (£40,611) and Scottish (£44,860) economies in 2020. The resultant impact of multiplier effects is shown in the table below.

Table 20.8: Additional Employment and GVA Impacts of Construction at Highland and Scottish Level

Location	PYE	GVA per PYE	Total GVA
Highlands	227.85	£40,611	£9,253,216
Scotland	459.27	£44,860	£20,602,852

Source: Fichtner / MKA Economics

- 20.7.19 The following table presents the final net additional effects across the four-year core construction period, having taken account of both displacement and multiplier effects.

Table 20.9: Net Additional Employment and GVA Impacts of Construction at Highland and Scottish Level

Location	Total PYEs	Total GVA
Highlands	512.66	£29,461,518
Scotland	1,033.36	£57,211,838

Source: Fichtner / MKA Economics

- 20.7.20 Overall, taking account of displacement and multiplier effects, the Proposed Development is expected to generate 512.66 PYE in the Highlands and 1,033.36 at the Scottish level. This equates to a GVA impact of £29.5 million to the Highlands and £57.2 million at the Scottish level over the four-year core construction period.
- 20.7.21 Construction is predicted to result in a temporary **Moderate Beneficial** (significant) effect on the economy in Highland (regional level), and a temporary **Moderate Beneficial** (significant) effect on the economy in Scotland (national level).

Operational Effects

- 20.7.22 The operation employment levels were provided by the Applicant. The employment impacts associated with the operation phase, by type, are outlined in **Table 20.10: Operation and**

²⁹ Scottish Government (2019), Supply, Use, Input-Output Tables and Multipliers

Maintenance Employment Impacts by Type. This shows that it is estimated that 25.0 full time jobs would be created once the Proposed Development is fully operational.

Table 20.10: Operation and Maintenance Employment Impacts by Type

Post	FTEs
Plant Manager	1.0
Chief operation engineer	0.5
Shift supervision	4.0
Shift operator	8.0
Chief maintenance engineer	0.5
Mechanical engineer	1.0
Electrical engineer	1.0
Control and protection engineer	0.5
Civil engineer	1.0
Technicians	3.0
Safety officer	0.5
Environment & social compliance officer	0.5
Secretary	0.5
Labourer	2.0
Cleaner	1.0
Total	25.0

Source: Fichtner

- 20.7.23 It is envisaged that all these posts would be employed on-site and would be taken by people residing in the Highlands.
- 20.7.24 In order to calculate the economic effect of new jobs, the GVA per head for professional, scientific and technical work in the Highlands are utilised, in this case £37,126. These figures are also drawn from the Scottish Annual Business Statistics³⁰. The resultant economic impact at the Highlands and Scottish levels are shown below.

Table 20.11: Gross Employment and GVA Impacts of Operation at Highland and Scottish level

Location	PYE	GVA per PYE	Total GVA
Highlands	25.0	£37,126	£928,150
Scotland	25.0	£37,126	£928,150

Source: Fichtner / MKA Economics

- 20.7.25 As noted in the construction phase, economic impact assessments must also consider the effects of displacement. For the Proposed Development, displacement levels are not expected to be as significant as the construction related activity and it is assumed that displacement would also be approximately 10 % during operation and maintenance at both the regional and national levels.

³⁰ Ibid

Table 20.12: Net Employment and GVA Impacts of Operation at Highland and Scottish Level highlights the net employment and GVA impacts after the effects of displacement.

Table 20.12: Net Employment and GVA Impacts of Operation at Highland and Scottish Level

Location	PYE	GVA per PYE	Total GVA
Highlands	22.5	£37,126	£835,335
Scotland	22.5	£37,126	£835,335

Source: Fichtner / MKA Economics

20.7.26 Multiplier effects (as outlined above) for different Scottish industries are provided by the Scottish Government³¹, with 'Repair and Maintenance' having a Type II multiplier of 1.9. The GVA per head presented for the net economic assessment is that for the entire Highland economy (£40,611). The resultant impact of multiplier effects (the additional employment generated) is shown in **Table 20.13: Additional Employment and GVA Impacts of Operation at Highland and Scottish Level**.

Table 20.13: Additional Employment and GVA Impacts of Operation at Highland and Scottish Level

Location	PYE	GVA per PYE	Total GVA
Highlands	20.25	£40,611	£822,373
Scotland	20.25	£40,611	£822,373

Source: Fichtner / MKA Economics

20.7.27 **Table 20.14: Net Additional Employment and GVA Impacts of Operation at Highland and Scottish Level** presents the net additional effects, having taken account of both displacement and multiplier effects.

Table 20.14: Net Additional Employment and GVA Impacts of Operation at Highland and Scottish Level

Location	Total PYEs	Total GVA
Highlands	42.75	£822,373
Scotland	42.75	£822,373

Source: Fichtner / MKA Economics

20.7.28 Overall, taking account of displacement and multiplier effects, the Proposed Development is expected to generate 42.75 operational jobs per annum in the Highlands and therefore also 42.75 across Scotland per annum. This equates to a GVA impact of £822k to the Highlands and Scotland per annum.

³¹ Ibid

20.7.29 The operation phase is predicted to result in a **Minor Beneficial** (not significant) effect on the economy in Highland (regional level), and a temporary **Minor Beneficial** (not significant) effect on the economy in Scotland (national level).

Tourism

20.7.30 MKA Economics completed business research with Visit Inverness Loch Ness (VILN) in March 2022, to ascertain the views of business views on green energy developments around Loch Ness. This was based on a survey of VILN members and found that:

- Only 10 % of respondents noted that they were not supportive of green energy investments in the Loch Ness area. This is consistent with VisitScotland’s own research of consumers, which stated that 90 % of visitors were not dissuaded from visiting or revisiting an area which had sight of a renewable development;
- ‘Green sustainable energy’ was seen as one of the main benefits of a new green energy proposal, with other popular responses including ‘inward investment’ and ‘community investment’. ‘Construction spend and activity’ and ‘jobs’ were also popular;
- Only 19 % felt that visitors may be persuaded from not visiting an area due to the presence of a green energy development. This is above the national VisitScotland research, suggesting businesses are slightly more nervous than visitors about the impact of renewable developments on local tourist trade; and
- 71 % of responding businesses noted that the community financial flows produced by green energy schemes were important to local communities.

20.7.31 These findings can be corroborated with more recent national surveys completed by the Business, Energy and Industrial Strategy (BEIS) Department of the UK Government. Their latest Public Attitudes Tracker³² found that in Winter 2022, 85 % of people said that they supported the use of green energy, such as hydro schemes to provide electricity, fuel and heat, with 52 % strongly supporting this. These levels remained stable from Spring 2022 but were slightly lower than those seen in Autumn 2021 (56 % strong support). Opposition remained very low, with just 1 % of people saying they opposed renewable energy.

20.7.32 Overall, the latest primary and secondary research completed confirms that the tourism sector is not adversely affected by green energy development. In fact, the tourism sector has continued to grow across Scotland as more green technologies and projects have been developed. Based on this research, it is therefore unlikely that the Proposed Development would affect visitors’ decision to visit the area.

Visitor Attractions

20.7.33 In terms of visitor attractions, the Proposed Development is not situated near any of the most popular visitor attractions in the Highlands. The closest visitor attractions are around Fort Augustus, including the Caledonian Canal, and the Caledonian Canal Visitor Centre. These are located approximately 10 miles from the Proposed Development.

20.7.34 The 60-mile Caledonian Canal passes through the Great Glen and offers boat trips on the route as well as walking and cycle routes alongside it. Its main attractions are the connection to Scottish lochs

³² BEIS (2023), Public Attitudes Tracker: Energy Infrastructure and Energy Winter 2023

- and boating activities including canoeing and fishing. Ness District Salmon Fisheries Board is the local fisheries board. Other potentially relevant consultees that were contacted during scoping are the Ness & Beaully Fisheries Trust and Fisheries Management Scotland (although the former did not provide a response). Motivation for pursuing these activities are unlikely to be deterred by the Proposed Development.
- 20.7.35 Foyers is a small village located 5 miles to the east of the Proposed Development. It is an attractive settlement, with the Falls of Foyers waterfall popular amongst tourists.
- 20.7.36 Whitebridge is the nearest settlement, which is adjacent to the southern side of the Site, this area does not have any visitor attractions. The Wildside Centre is a community resource, and although it does have certain activities, such as managing the Highland Gathering and Winter Wonderland, it is not a visitor attraction.
- 20.7.37 Visitors to Dell Estate, where the Proposed Development is located, can partake in activities such as fishing, deer and game stalking, clay pigeon shooting and walking³³. Further details are provided in **Chapter 9: Land Use and Recreation**.
- 20.7.38 During operation the Proposed Development could act as a visitor attraction in itself, as it is proposed that the powerhouse building would include visitor facilities, such as an information centre and a viewing platform. Visitor access to the powerhouse building would be via organised boat trips only. Further information is provided in **Chapter 3: Description of Development**.
- 20.7.39 Attractions in the area also include several outdoor activities and highland sports. **Volume 2, Figure 9.1: Land Use and Recreation** illustrates the location of known recreational routes within 10 km of the Proposed Development. However, this Chapter does not include an assessment on these assets due to their dual use as assets for locals and visitors. Instead, potential direct impacts on these assets are assessed in **Chapter 9: Land Use and Recreation** and visual impacts on key receptors are assessed in **Chapter 8: Landscape and Visual Impact Assessment**. Assessment of potential effects of the Proposed Development on the visual amenity of recreational routes, are detailed in **Chapter 9: Land Use and Recreation** and therefore have therefore not been considered in this Chapter.

Visitor Accommodation

- 20.7.40 The research on green energy technology and tourism completed by MKA Economics and Visit Inverness Loch Ness finds no evidence of adverse impacts on the tourism sector. Nevertheless, this section considers whether there are locations where tourism behaviour in relation to accommodation providers might change.
- 20.7.41 Therefore, the proposition that tourism accommodation businesses offer, including the focus of their marketing, is relevant to assessing whether any behavioural changes might be expected.
- 20.7.42 In each of the settlement areas identified in the baseline, accommodation providers primarily market themselves as a base for those visiting Loch Ness, including the Caledonian Canal at Fort Augustus, and the surrounding area and using the local walking and cycling routes. This often includes the mention of scenic views.

³³ Available at: <http://www.dellestate.com/sport> [Last Accessed 18/10/23]

- 20.7.43 The areas of Fort Augustus and Invermoriston are located west and southwest of the Proposed Development, which includes visitor accommodation on the Glen Moriston Estate and the Loch Ness Lochside Hostel at Alltsigh. The LVIA identified temporary significant effects from some receptors around Invermoriston during the construction phase (see **Chapter 8: Landscape and Visual Impact Assessment**). However, these would reduce to not significant during operation and the views over Loch Ness will not be adversely affected by the Proposed Development in the longer term. In the longer term, it is anticipated that the powerhouse building would become a feature of architectural and recreational interest, with recreational boats, including organised tour boats, stopping at the quayside to enable visitors to call in at the visitor facilities.
- 20.7.44 The village of Foyers is located on the same side of Loch Ness as the Proposed Development and has no visibility of the Site. There is limited accommodation in Foyers, other than the seasonally operated Foyers Lodge Hotel and the Camping and Caravanning Club Site at Loch Ness Shores, which also has no visibility of the Proposed Development.
- 20.7.45 Therefore, the marketing and tourism offering that accommodation providers offer is unlikely to be affected by the Proposed Development and unlikely to result in any impact on tourists' behaviour.
- 20.7.46 The nearest settlement to the Proposed Development is Whitebridge, which has a 12 bedroom hotel, the self-catering properties within Dell Estate (four properties) and the 16 lodge Wildside Lodges.
- 20.7.47 It is anticipated that typically c. 356 workers on average would be working on-site, but this would vary throughout the construction period dependent on works to be conducted. It is anticipated that construction workers would be accommodated in a temporary workers camp on-site, within the Whitebridge Plantation. The proposed location of this workers compound is illustrated on **Volume 2, Figure 3.1: Proposed Development**. The final arrangement for this would be developed during detailed design and would be discussed with the planning authority.
- 20.7.48 Both construction and operational activity is predicted to result in a **Negligible** (not significant) effect on the tourism economy in Highland (regional level), and a **Negligible** (not significant) effect on the tourism economy in Scotland (national level).

Cumulative Effects

Cumulative Construction Effects

- 20.7.49 The following developments within the vicinity of the study area have been included in the review of potential cumulative effects (also see **Figure 1.2: Site Context**):
- Foyers Pumped Storage Scheme (operational);
 - Red John Pumped Storage Scheme (consented - Planning Ref 18/00760/FUL);
 - Bhlaraidh Wind Farm (operational);
 - Bhlaraidh Wind Farm Extension (consented - Planning Ref: ECU00004639);
 - Loch Liath Wind Farm (Scoping - Planning Ref: ECU00002182);
 - Corriearth Wind Farm (Operational);
 - Corriearth 2 Wind Farm (Appeal - Planning Ref ECU00002175);

- Dell Wind Farm (consented – Planning Ref 14/02879/FUL)³⁴; and
 - Associated Works in the form of a 275 kV switching station located to the north-east of Loch Kemp, near Dell Farm and associated cable works.
- 20.7.50 The cumulative effects of the construction phase of the Proposed Development along with those sites listed above that are yet to be constructed, would generate additional construction related spend, employment and GVA. It should be noted that there will be an element of displacement, as outlined in the effects assessment, where there will be competition for labour at various stage of the Proposed Development. However, this is expected to be minimal, with most jobs being genuinely new to the area.
- 20.7.51 As set out in the Scottish Renewables report³⁵ the development of new pumped storage hydro schemes across Scotland, and the Highlands, is expected to bring substantial employment and GVA benefits. They also support the National Development priorities in the National Spatial Strategy of NPF4.
- 20.7.52 This scale of pumped storage scheme and other green energy development activity in the area suggests there is a substantial economic opportunity in terms of cumulative investment and resultant employment impacts as local business take up the opportunities grow.
- 20.7.53 The addition of the Proposed Development would positively contribute to this and could result in increased beneficial effects in terms of job creation and opportunities for local businesses.
- 20.7.54 The cumulative effects of the operational phase of the Proposed Development along with cumulative sites as listed above would generate additional operation related spend, employment and GVA.
- 20.7.55 Construction is predicted to result in a temporary **Moderate Beneficial** (significant) cumulative effect on the economy in Highland (regional level), and a temporary **Moderate Beneficial** (significant) cumulative effect on the economy in Scotland (national level).
- 20.7.56 The operation phase is predicted to result in a **Minor Beneficial** (not significant) cumulative effect on the economy in Highland (regional level), and a temporary **Minor Beneficial** (not significant) cumulative effect on the economy in Scotland (national level).
- 20.7.57 Both construction and operational activity is predicted to result in a **Negligible** (not significant) cumulative effect on the tourism economy in Highland (regional level), and a **Negligible** (not significant) cumulative effect on the tourism economy in Scotland (national level).

20.8 Mitigation

- 20.8.1 This assessment demonstrates that there are beneficial socio-economic effects across the construction and operational phases of the Proposed Development. For example, the local economy would be supported by the Proposed Development through direct and indirect employment and

³⁴ There is a consented Dell Wind Farm but this will not be constructed as it will be superseded by the new development that is at Scoping

³⁵ Scottish Renewables (2023), The Economic Impact of Pumped Storage Hydro

- expenditure opportunities. Similarly, the tourism economy will benefit from the influx of temporary construction workers during the construction period.
- 20.8.2 The Applicant has committed to maximise the economic opportunities for the local area and business and communities in the Highland Council area, where possible as it does with all its schemes in the UK. In all cases Lead contractors are strongly encouraged to use local suppliers where they have the competency and are competitive as part of the supply chain.
- 20.8.3 An Outdoor Access Management Plan would be implemented by the appointed Principal Contractor (see **Volume 4, Appendix 9.1: Draft Outdoor Access Management Plan**). The draft OAMP would be reviewed and updated as necessary prior to commencement of construction works. Thereafter the approved OAMP would be a live document and reviewed annually during the construction period. In addition, reviews would be conducted prior to the commencement of works which may impact upon public access or have the potential for public / contractor interfaces.
- 20.8.4 Safe, alternative walking routes would be considered for informal walking routes within the Dell Estate land, and, where there is the potential for walkers / cyclists and construction traffic to share routes, a management strategy would be put in place as part of the OAMP which would set out the measures to ensure public safety.
- 20.8.5 Where construction traffic using Loch Ness / the Caledonian Canal has the potential to conflict with those engaged in water based recreational activities on Loch Ness, a Canal Management Plan would be produced in collaboration with Scottish Canals to manage construction traffic delivered to the Site via the Caledonian Canal. An outline Canal Management Plan is included in **Chapter 16: Traffic, Access and Transport**.
- 20.8.6 Contractors would engage with the local community and Dell Estate to keep them informed of the timing of construction activity and to minimise the disruption to the local community and the Estate run activities, where possible, during the construction of the Proposed Development.
- 20.8.7 Community consultation has formed part of the planning and design process and the Applicant has taken on board these views in developing the Proposed Development to minimise tourism impacts. This is further considered within **Chapter 5: Scoping and Consultation** and within the **PAC Report**.

20.9 Residual Effects

Construction

Socio-economic Residual Effect

- 20.9.1 This assessment demonstrates that there are beneficial socio-economic effects across the construction phase of the Proposed Development. For example, the local economy would be supported by the Proposed Development through direct and indirect employment and expenditure opportunities.
- 20.9.2 As no specific mitigation measures are proposed in relation to potential socio-economics effects during the construction phase, the residual construction effects of the Proposed Development on the economy are as assessed in this chapter. The predicted residual socio-economic effects in relation to construction activities are deemed to be **Moderate Beneficial** (significant) at the regional and national levels.

Tourism Residual Effect

- 20.9.3 No tourism mitigation measures have been considered for the Proposed Development as there are no significant adverse effects anticipated. In terms of public and visitor access, a Draft Outdoor Management Plan is included in **Volume 4, Appendix 9.1: Draft Outdoor Access Management Plan**.
- 20.9.4 As no specific mitigation measures are proposed in relation to potential effects on tourism during construction, the residual construction effects of the Proposed Development on tourism receptors in the study areas are as assessed in this chapter. The predicted residual recreational and tourism effects in relation to construction activities are deemed to be **Negligible** (not significant).

Operation

Socio-economic Residual Effect

- 20.9.5 This assessment demonstrates that there are beneficial socio-economic effects across the operational phase of the Proposed Development. For example, the local economy would be supported by the Proposed Development through direct and indirect employment and expenditure opportunities.
- 20.9.6 As no specific mitigation measures are proposed in relation to potential socio-economics effects during the operation phase, the residual operational effects of the Proposed Development on the economy are as assessed in this chapter. The predicted residual socio-economic effects in relation to operational activities are deemed to be **Minor Beneficial** (not significant) at the regional and national levels.

Tourism Residual Effect

- 20.9.7 As no specific mitigation measures are proposed in relation to potential effects on tourism during operation, the residual operational effects of the Proposed Development on tourism receptors in the study areas are as assessed in this chapter. The predicted residual tourism effects in relation to operational activities are deemed to be **Negligible** (not significant).

Cumulative Residual Effects

- 20.9.8 There are potential beneficial effects in relation to the construction and operation phases of the Proposed Development, both in employment and GVA terms in the context of local and national economies, in the context of the cumulative sites. In terms of socio-economic effects, the predicted residual cumulative effect in relation to socio-economic activities are deemed to be **Minor - Moderate beneficial** (not significant / significant). The predicted cumulative tourism effect in relation to construction activities are deemed to be **Negligible** (not significant).

Wider Benefits

- 20.9.9 In addition to the stated economic opportunities at the construction and operational phases, there is also a variety of wider economic impacts which are excluded from the construction and operational economic impact assessment. The wider impacts which should also be noted as having positive effects on the regional and national economies include:
- 20.9.10 **Supporting policy objectives:** The Proposed Development can play an important role in supporting regional and national policy objectives. Importantly the Proposed Development can support the ambitions set out in the national and regional economic strategies as set out earlier in this Chapter, notably a new and significant capital investment, whilst supporting the area's green credentials, supporting local business through supply chain opportunities and thereby creating jobs and offering

skills development. Furthermore, it will do so over the lifetime of the Proposed Development, providing a role in supporting the drive for high value sector growth, increasing wages and reducing the migration of young people.

- 20.9.11 **Local supply chain opportunities:** although economic multiplier effects have been included in the economic assessment it is worth noting the wide range and scale of potential 'ripple effects' notably around the expenditure of workers who visit the local area who will benefit the accommodation and food service sector. It is worth noting Renewable UK³⁶ research which estimated that the expenditure of workers who visit the local area benefit the accommodation and food service sector to the value of approximately £7,500 per MW constructed, equating to £4.5 million based on the 600 MW Proposed Development. The wider 'knock-on' impacts can in turn support the supply chain of other activities such as the spending habits of retail operations and accommodation providers. There will be considerable supply chain impacts associated with the proposed worker camps which will be established during the construction phase. In addition, there will be project staff requiring other local serviced and non-serviced accommodation on a regular basis. Worker expenditure will support the local and regional economies throughout the four-year core construction period and over the duration of the project lifetime.
- 20.9.12 **Pre-development effects:** these have not been assessed in this Chapter but considerable pre-development costs have been borne by the Applicant and have benefitted local and national firms. Pre-development activities include; technical consultancy and technical testing and analysis, legal and accounting activities and project management including management consultancy activities and civil engineering. Additional impacts related to accommodation of technical staff and their local spending habits can also be claimed as a pre-development effect.
- 20.9.13 **Income effects:** the economic analysis has focused on the GVA impact of generated employment as this is the 'real' impact on the economy. However, it is worth noting that new employment will generate additional wages and salaries, much of which will be spent in the UK.
- 20.9.14 **Exchequer impacts:** the analysis has not attempted to estimate the additional exchequer impacts as a result of taxes borne (Corporation Tax, Employer National Insurance and Irrecoverable VAT) and taxes collected (Income Tax, Employee National Insurance and non-domestic business rates). These are additional financial benefits which will support the regional and national economies.
- 20.9.15 **Perception benefits:** the employment, economic and financial impacts are enhanced through wider strategic impacts associated with strengthening the perception of the area as a place to live, work, visit and invest.

20.10 Conclusion

- 20.10.1 The socio-economic impact during construction and operation of the Proposed Development was assessed as having beneficial effects for the regional economy. The cumulative socio-economic effects are also assessed as having beneficial effects for the regional economy.

³⁶ RenewableUK (2015), Direct and Wider Economic Benefits

20.10.2 Surveys of the public and business attitudes to green energy developments provide no clear evidence that the presence of an investment in an area has a negative impact on local tourism. This position is also considered to be the same when taking account of cumulative effects.

20.10.3 **Table 20.15: Summary** provides a Summary and Statement of Significance for Socio-economic and Tourism.

Table 20.15: Summary

Potential effect	Magnitude Effect	Assessed Effect	Statement of Significance
Socio-economic – Construction Phase			
Employment	Over 500 job years at Highland level	Moderate beneficial	Significant
GVA	Almost £30 million in GVA at the Highland level	Moderate beneficial	Significant
Worker Spend	£4.5 million in local spending by construction workers	Moderate beneficial	Significant
Socio-economic – Operation Phase			
Employment	Over 42 FTEs	Minor beneficial	Not Significant
GVA	An annual injection of almost £1.0 million	Minor beneficial	Not Significant
Tourism			
Tourism Economy	Minimal / very little effect due to distance from Proposed Development	Negligible	Not Significant