

EARBA STORAGE

A GILKES ENERGY COMPANY

Earba Pumped Storage Hydro Scheme EIA Report

Chapter 19: Socioeconomics and Tourism

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19. Socioeconomics and Tourism

19.1 Executive Summary

This Chapter reports on the assessment of the potential and likely predicted effects, including cumulative effects, of the Proposed Development on socioeconomics and tourism during construction and operation.

The assessment has been carried out in line with National Planning Framework 4 (NPF4)¹, which promotes pumped storage hydro as one of the six national priorities and to support community economic development as a result of investment in green energy proposals.

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".

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 create sustainable places.

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 development pumped hydro storage, as one of six national priorities.

The socioeconomic impact during construction and operation of the 1,800 MW pumped storage hydro scheme, with a capital cost of £1.8 billion, was assessed as having beneficial effects for the regional (The Highland Council) economy. It will create new temporary jobs through the construction programme with an average of around 500 people onsite during the construction project, and a total of 2,041 construction related years of employment, and a GVA effect of £134 million, at the Scottish level. The Proposed Development will create 46 new full-time jobs once fully operational, injecting £2.0 million per annum into the local economy. These include multiplier effects.

Construction and operational effects will bring significant GVA impacts, as well as wider additional impacts, including perception benefits, salary benefits, exchequer benefits, local supply chain opportunities and pre-development impacts.

In addition, to the quantifiable and non-quantifiable economic benefits, the Proposed Development, and other pumped storage hydro schemes, play a nationally recognised vital role in the future energy mix for Scotland and the UK. In addition, in the absence of pumped hydro storage schemes, the expansion of intermittent renewables such as wind and solar,

¹ Scottish Government (2023), National Planning Framework 4

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

and the prevention of curtailment of existing renewables due to grid capacity constraints, will not be possible. It is acknowledged within NPF4 and within the Scottish Renewables Report (The Economic Impact of Pumped Storage Hydro) that pumped storage hydro schemes are of national importance to build a robust energy network capable of achieving net zero.

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. Tourists using the local core paths and local tourist attractions may have a particular sensitivity to visual effects; however, access to tourist facilities will be largely unaffected. Hence, even where significant visual effects are predicted, negative effects of the operational phase of the Proposed Development are predicted not to have a significant effect on tourism receptors in accordance with the EIA Regulations.

19.2 Introduction

- 19.2.1 This Chapter considers the potential effects, including cumulative effects, of the Proposed Development on socioeconomics and tourism during construction and operation. As detailed in Chapter 2: The Proposed 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 socioeconomics and tourism would be equal to [and/or] lesser than the construction impacts. As such, a separate assessment of potential decommissioning effects on socioeconomic and tourism is not included in this Chapter. Where likely significant effects are predicted during construction and operation, appropriate mitigation measures are proposed, and the significance predicted residual effects are assessed.
- 19.2.2 This assessment has been carried out by MKA Economics. This Chapter has been compiled by MKA Economics, who specialise in appraising the economic viability, socioeconomic 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 Highland and Island Enterprise on their Economic Impact Assessment Framework since 2013. A table presenting relevant qualifications and experience of key staff involved in the preparation of this Chapter is included in **Appendix 1.1 – EIA Specialist Team** of this EIA Report.
- 19.2.3 This Chapter reports on the assessment of the potential and likely predicted effects, including cumulative effects, of the Proposed Development on socioeconomics and tourism during construction and operation.
- 19.2.4 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 the six national priorities and to support community economic development as a result of investment in green energy proposals.
- 19.2.5 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.
- 19.2.6 The assessment describes the methods used to assess impact, the socioeconomic and tourism baseline conditions, and the potential impacts of the Proposed Development during the construction and operational phases.

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

⁴ Scottish Government (2023), National Planning Framework 4

19.3 Scope of Assessment

Study Area

- 19.3.1 The Study Area encompasses the area over which all desk-based and field data were gathered to inform the assessment presented in this Chapter.
- 19.3.2 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, 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.
- 19.3.3 For the purposes of this Chapter, both the baseline and impact assessments define the regional area as The Highland Council (THC) area (as the planning authority), the country level area as Scotland (as the national planning authority) and the national area as Great Britain (GB).
- 19.3.4 The spatial scope for tourism effects is consistent with a 15km study area as set out in the Scoping Report.

Consultation Responses

- 19.3.5 To inform the scope of the assessment for the Proposed Development, consultation was undertaken with statutory and non-statutory bodies. Table 19.1 summarises the scoping and consultation responses relevant to the Socioeconomic and Tourism Assessment and provides information on where and/or how points raised have been addressed in this assessment.
- 19.3.6 Full details on the consultation responses and scoping opinion can be reviewed in **Chapter 4: Assessment Methodology, Scoping and Consultation**, and associated appendices.

Table 19.1 Consultation Responses

Consultee	Issue Raised	Response/Action Taken
The Highland Council Scoping Response 2022	We welcome the commitment to own chapter in the EIAR as this will ensure that these matters are appropriately addressed and not lost in other assessments. The EIAR 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 a wider socioeconomic grouping such as tourists and tourist related businesses, recreational groups, economically active, etc. The application should include relevant economic information connected with the project, including the potential number of jobs, and economic activity associated with the procurement, construction, operation and	Completion of a fully compliant socioeconomic and tourism impact assessment across development, construction and operation phases.

Consultee	Issue Raised	Response/Action Taken
	decommissioning of the development. Estimations of who may be affected by the development, in all or in part, which may require individual households to be identified, local communities or a wider socioeconomic grouping such as tourists and tourist related businesses, recreational groups, economically active, etc. should be included. The application should include relevant economic information connected with the project, including the potential number of jobs, and economic activity associated with the procurement, construction, operation and decommissioning of the development. In this regard wind farm development experience in this location should be used to help set the basis of likely impact. This should set out the impact on the regional and local economy, not just the national economy. Any mitigation proposed should also address impacts on the regional and local economy.	

Issues Scoped out of Assessment

- 19.3.7 The long-term effects associated with the decommissioning phase are not assessed. 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 socioeconomics and tourism would be equal to and/or lesser than the construction impacts.

19.4 Legislation, Policy and Guidance

Legislative Context

- 19.4.1 In terms of socioeconomic effects, this assessment has employed appraisal techniques consistent with those outlined in the Scottish Government's guidance on Net Economic Benefit and Planning⁵, and also Scottish Enterprise/Highland and Islands Enterprise's Economic Appraisal Guidance Note⁶ for the appraisal of economic development initiatives.
- 19.4.2 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.

⁵ Scottish Government, (2016), Draft Advice on Net Economic Benefit and Planning

⁶ Scottish Enterprise (2018), Impact Appraisal and Evaluation Guidance

Policy Context

Scottish National Strategy for Economic Transformation

- 19.4.3 This is the Scottish Government's statement of ambition for economic recovery following the COVID-19 pandemic⁷.
- 19.4.4 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.
- 19.4.5 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"*.
- 19.4.6 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.
- 19.4.7 Pumped storage hydro fits into the renewable energy mix, as an enabler of renewable energy rather than it being strictly renewable itself. Pumped storage hydro is a technology that allows energy to be stored, by configuring two bodies of water at different elevations so that by allowing water to flow from the higher elevation to the lower electricity can be created, while pumping water uphill allows energy to be stored.

National Planning Framework 4

- 19.4.8 The Scottish Government recently adopted new national planning guidance in the form of National Planning Framework 4 (NPF4)⁸. 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)"*
- 19.4.9 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".*

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

⁸ Scottish Government (2023), National Planning Framework 4

- 19.4.10 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."

"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."

- 19.4.11 NPF4 is clear in its desire to rebalance northern Scotland's economy to enable it to make a strong contribution towards meeting the country's ambition for a net zero and nature positive country by demonstrating how natural assets can be managed and used to secure a more sustainable future. It seeks to protect environmental assets and stimulate investment in natural and engineered solutions to climate change and nature restoration, whilst decarbonising transport and building resilient connections.
- 19.4.12 Importantly for North Scotland, NPF4 seeks to maintain and help to grow the population by taking a positive approach to rural development that strengthens networks of communities. Crucially it sets out the importance of supporting local economic development by making sustainable use of the areas' world class environmental assets to innovate and lead greener growth.
- 19.4.13 NPF4 is founded on sustainable economic growth principles and is governed by the National Strategy for Economic Transformation which confirms that the planning system should proactively support development that contributes to sustainable economic growth and to create sustainable places.
- 19.4.14 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 development pumped hydro storage, as one of six national priorities.

Scottish Government Draft Advice on Net Economic Benefit and Planning

- 19.4.15 The Draft Advice on Net Economic Benefit and Planning⁹ 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.

⁹ Scottish Government, (2016), Draft Advice on Net Economic Benefit and Planning

19.4.16 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.

19.4.17 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

19.4.18 On 07 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 Plan¹⁰ has been published alongside the economic strategy. The ministerial foreword states that a just transition means:

- Skills training and education that helps to secure good, high value jobs in green industries like low-carbon manufacturing, renewables, and tech;
- Job security for those in industries that will play the biggest part in the transition - at every level - from those working in petrol stations to those on oil platforms; and
- Homes that are energy efficient and help to reduce fuel poverty.

19.4.19 The Scottish Government is currently consulting on a Draft Energy Strategy and Just Transition Plan¹¹. This sets out how the Scottish Government seeks to realise climate change ambitions, and the need to transform the way Scotland generates, transports and uses energy.

19.4.20 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 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.

19.4.21 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

19.4.22 Scotland's National Performance Framework (NperF)¹², 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

¹⁰ Scottish Government (2021), Just Transition, A Fairer, Greener Scotland

¹¹ Scottish Government (2023), Draft Energy Strategy and Just Transition Plan

¹² Scottish Government (2018), National Performance Framework

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.

19.4.23 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. The aims for Scotland set out in the NPF are to:

- Create a more successful country;
- Give opportunities to all people living in Scotland;
- Increase the well-being of people living in Scotland;
- Create sustainable and inclusive growth; and
- Reduce inequalities and give equal importance to economic, environmental and social progress.

19.4.24 It sets out and reports against outcomes and indicators which illustrate the progress Scotland is making in achieving the aims of the NPF. 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

19.4.25 The Highland Economic Forum has created an Action Plan for Economic Development in the Highlands¹³. 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, whose impacts are particularly severe in Highland, which has a relatively high dependence on public sector employment and spending.

19.4.26 The principal themes of the Action Plan are:

- To stimulate and support indigenous business growth (including new business formation, diversification, internationalisation and collaborations);
- To help maximise the impacts of the University of the Highlands and Islands (UHI) and attract national and international research funding into the area;
- To ensure that the workforce, sector by sector, has the skills to enable the region and its businesses to capitalise on opportunities;
- To address the growing problem, shared with other parts of the UK, of youth unemployment, and to attract back those with family connections with the region to help fill new job opportunities in renewables, tourism, life sciences and information technology;
- To focus on job creation that will help raise the region's relatively low average earnings in the private sector; and

¹³ Highland Economic Forum (2012), Action Plan for Economic Development in the Highlands

- Whilst creating jobs in the short-term to compensate for public sector cuts and maintain the region's growth momentum, to take a long-term strategic approach to growing the business base and creating career opportunities.

19.4.27 Specific initiatives being taken forward by the Forum's Working Groups include:

- Working with Highlands and Islands Enterprise (HIE) and the private sector provider to maximise the provision of superfast broadband in the region and the economic benefits from broadband;
- Ensuring that the region's workforce benefits to the maximum from renewable energy and related developments;
- Fostering the development of research institutes to attract national and international funding into the area, provide well paid employment, and generate commercial spin-offs;
- Improving the provision of tourism-related training, and promoting tourism and hospitality as a career;
- Encouraging business development, e.g., through collaborations, that will increase the spend of tourist visitors;
- Increasing the provision of outsourced services to regional and national organisations by Highland private sector businesses and social enterprises;
- Facilitating an increase in homeworking opportunities throughout the region;
- Exploring ways, within statutory guidelines, in which local benefit considerations can be introduced into public procurement contracts;
- Identifying and supporting small businesses with high growth potential and encouraging new business starts that will create significant new employment (including encouraging public sector staff to consider self-employment that builds on their expertise and experience);
- Best practice from other areas is being drawn upon in shaping new initiatives, and job creation targets are being developed for each new initiative. Employment measures are being promoted by Highland Works - a partnership between Highland Council, JobCentre Plus and Skills Development Scotland; and
- Whilst the focus is on the generation of new jobs through the private sector, pressure will be maintained on the Government to improve external road, rail and air links nationally and internationally. Highlands and Islands Enterprise (HIE) which covers the Highland Council Area, works to advance the development of sustainable and inclusive economic growth in the Highlands and Islands region.

Highland and Inverness City Deal

19.4.28 The Highland Council (THC) has developed a new City-Region Deal vision for Highlands, with the aim of 'Transforming the Highland Economy'¹⁴. The 'City-Region Deal' is to position the Highlands as a region of digital opportunity. This

¹⁴ The Highland Council (2016), Highland and Inverness City Deal

vision was turned into reality in 2017 when the Inverness and Highland City Region Deal was approved.

19.4.29 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. The City-Region Deal is designed to deliver the following outcomes:

- Over 1,000 direct jobs as a result of City-Region Deal projects with a further 2,200 additional jobs in the construction sector;
- A skilled labour market moving towards a high skilled high wage economy;
- A centre of excellence in rural and digital healthcare with sufficient mass to attract research and investment and fully exploit the commercial opportunities;
- Business growth through effective digital connectivity and promotion of innovation;
- Improved productivity and real wages, which are estimated to increase by almost 1.3 % and bring £100 million per annum to the regional economy;
- A rebalanced population with the aim of retaining and/or attracting 1,500 young people in the 18-29 age group over the initial 10-year deal period;
- 6,000 new houses over 20 years of which 1,800 will be affordable homes; and
- Private sector leverage from housing building and, through opening up land for commercial development, would see a return over a 20-year period of around £800 million being invested in the economy of the city and region.

Highlands and Islands 2019 – 2022 Strategy

19.4.30 Highlands and Islands Enterprise's (HIE) Strategy¹⁵ sets out a vision for Highland and Islands to be a successful, inclusive and prosperous region with a growing population.

19.4.31 Particularly important to HIE is to:

- Attract major investments;
- Retain young people and prevent out-migration;
- Support local communities to meet their needs through a place-based approach;
- Address the climate emergency through decarbonising the economy; and
- Energy has been identified as one of the main regional opportunities in the area.

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

19.4.32 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

¹⁵ Highlands and Islands Enterprise (2019), Highlands and Island Strategy

consequences have become apparent, although it is already clear that the pandemic has resulted in structural economic changes.

- 19.4.33 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.
- 19.4.34 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 2019¹⁶. 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

- 19.4.35 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.
- 19.4.36 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 pandemic¹⁷. 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.
- 19.4.37 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 environment objectives.
- 19.4.38 The actions the Scottish Government are taking is divided across six main themes to secure a jobs-focused and socially-just economic recovery, these being:
- Protecting jobs by supporting business recovery and sustainable, green growth;
 - Creating jobs through business engagement and a partnership approach;
 - Supporting access to good quality jobs through employment, skills and training;
 - Boosting local job creation through resilient people, communities and places;
 - Creating jobs and a just transition through investment-led sustainable growth; and
 - Monitoring our progress and outcomes.

¹⁶ Scottish Government (2020), Climate Change Act

¹⁷ Advisory Group on Economic Recovery (2021), Towards a Robust, Resilient Wellbeing Economy for Scotland

- 19.4.39 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.
- 19.4.40 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 principal of development.

Tourism Policy Context

- 19.4.41 In terms of relevant tourism policy, the Scottish Tourism Alliance developed The National Tourism Strategy 2030¹⁸ 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.
- 19.4.42 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.
- 19.4.43 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

- 19.4.44 Scotland Outlook 2030¹⁹ 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.
- 19.4.45 The four key priorities of Scotland Outlook 2030 are:
- Our Passionate People - We will attract, develop and retain a skilled, committed, diverse and valued workforce;
 - Our Thriving Places - We will create and develop a sustainable destination together;
 - Our Memorable Experiences - We will provide the very best, authentic and memorable experiences; and
 - Our Diverse Businesses - We will build business resilience, sustainability and profitability.

Highland Area Tourism Action Plan

- 19.4.46 In terms of regional tourism policy, The Highland Area Tourism Partnership (ATP) comprises representatives from the tourist industry and key public bodies involved

¹⁸ Scottish Tourism Alliance (2020), The National Tourism Strategy 2030

¹⁹ Ibid

in delivering tourism in the Highlands, including Visit Scotland, THC, HIE, NatureScot, Scottish Forestry, Cairngorms National Park Authority and Hi-Trans.

- 19.4.47 The Highland ATP developed a Highland Area Tourism Action Plan²⁰ 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.
- 19.4.48 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."
- 19.4.49 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.
- 19.4.50 Based on the National Strategy the growth ambitions this could mean that the value of tourism could grow from a level of £738m in 2012 to between £900m and £1.07bn by 2020. To unlock this level of growth will require a range of strategic actions to be delivered, and these are structured around the key target markets of:
- Nature, Heritage & Activities;
 - Destinations, Towns & Cities;
 - Events & Festivals; and
 - Business Tourism.
- 19.4.51 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.

Further Guidance

- 19.4.52 An assessment of the economic impact of pumped storage hydro was recently completed for Scottish Renewables²¹. 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.
- 19.4.53 When combined with the initial six projects 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);

²⁰ Highland Area Tourism Partnership (2020), Highland Area Tourism Action Plan

²¹ Scottish Renewables (2023), The Economic Impact of Pumped Storage Hydro

- including £2.1-2.4 billion GVA and 30,700-34,600 years of employment in local area (equivalent to £79-89 million GVA and 1,080-1,200 jobs annually).
- 19.4.54 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 areas.
- 19.4.55 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 onshore and offshore wind and solar, are intermittent, flexible low carbon energy generation and storage assets are needed to support the grid, which includes energy storage.
- 19.4.56 As the established and proven technology, pumped storage hydro is well-placed to play this role. Many of the best locations for pumped storage hydro are in areas where significant renewable capacity will be added, e.g. the north of Scotland. As a result, pumped storage hydro can:
- bring savings to consumers, requiring less transmission infrastructure and other low carbon energy generation assets;
 - increase security of supply; and
 - increase the efficiency of the grid, including through reduced curtailment;
- 19.4.57 Currently, due to constraints in the electricity grid some low carbon energy produced by wind farms is not able to be connected with consumers resulting in lower or zero output (known as curtailment), which reduces the efficiency of the energy system and increases costs to consumers.
- 19.4.58 A study for Drax found that in 2021²², there was 2.3TWh of curtailment in the UK, equivalent to providing enough electricity to power 800,000 homes each year. The study undertaken by researchers at Imperial College London found that 4.5GW of pumped storage hydro could reduce curtailment by up to 11TWh in 2050²³. According to UK Wind Curtailment Monitor data²⁴, in 2022 consumers paid £215 million to turn wind farms off, and £717 million to buy gas-fired power to make up the difference. And National Grid forecasts that levels of curtailment will increase fourfold by 2030, with costs forecast to reach £2.5 billion a year by the end of this decade.
- 19.4.59 Pumped storage hydro is a compelling solution to mitigating this inefficiency and storing the excess energy. Around 60% of wind energy curtailment lasted for more than three hours, which could be stored and used at other times if long duration storage was available, of which pumped storage hydro is the most established and commercially viable.

²² LCP (2022), Renewable curtailment and the role of long duration storage

²³ Imperial College London (2021), Whole-System Value of Long-Duration Energy Storage in a Net-Zero Emission Energy System for Great Britain

²⁴ <https://reports.electricinsights.co.uk/q4-2020/record-wind-output-and-curtailment/>

19.5 Methodology

Assessment Methodology

- 19.5.1 There are no published standards or technical guidelines that set out a preferred methodology for assessing the likely socioeconomic, 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 Guidance²⁵ for the appraisal of economic development and regeneration initiatives. The assessment is also consistent with the latest Scottish Government's Draft Advice Note on Economic Benefit and Planning²⁶.
- 19.5.2 The socioeconomic assessment has been undertaken in line with the advice note, presenting the baseline position in terms and the predicted outcomes in both employment and GVA terms.
- 19.5.3 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.
- 19.5.4 The assessment has contextualised the Proposed Development both in terms of Scottish and local renewable and energy policy and identified where the Proposed Development fits within policy as well as its facilitating towards renewable targets.
- 19.5.5 Baseline conditions have been established through desktop studies. Additional information was also obtained reviewing information regarding local tourism assets, including those assessed in other technical assessments notably Landscape and Visual. This includes reference to core paths and wider access network routes, including the known routes and trails and the potential impact of the development on tourism.
- 19.5.6 The assessment considers potential impacts across the various phases of the project lifecycle, which involves two main phases (1) construction and (2) operation and maintenance. The long-term impacts associated with the decommissioning phase of the Proposed Development are not assessed, as consent will be applied for in perpetuity.
- 19.5.7 The methods applied within this assessment are based on established best practice, including methods from UK Government and industry reports.
- 19.5.8 The assessment has employed appraisal techniques consistent with environmental impact guidance published by the Institute of Environmental Management and Assessment²⁷. NatureScot²⁸ has provided guidance on

²⁵ Scottish Enterprise (2008), Impact Appraisal and Evaluation Guide

²⁶ Scottish Government (2016), Net Economic Benefit and Planning

²⁷ Institute of Environmental Management and Assessment (2009), Environmental Impact Guide

²⁸ NatureScot (2018), Environmental Impact Assessment Handbook

- assessment of effects from renewable investments on recreational amenity. This guidance has also been used to inform the approach.
- 19.5.9 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 impacts.
- 19.5.10 As there are no published standards or technical guidelines that set out a preferred methodology for assessing the likely socioeconomic, 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 significance criteria. Major or moderate effects are defined as significant in In EIA terms.
- **Negligible or No Effect:** Very little change from baseline conditions. Change is barely distinguishable, approximating to a "no change" situation;
 - **Minor:** 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 socioeconomic conditions, a small reduction / improvement in the recreational asset, or a small change in tourism spend;
 - **Moderate:** 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 socioeconomic conditions, a moderate reduction / improvement in the recreational asset, or a moderate change to tourism spend; and
 - **Major:** Major loss / improvement to key elements / features of the baseline conditions such that post development character / composition of baseline condition will be fundamentally changed. For example, a major long-term alteration of socioeconomic conditions, a major reduction / improvement of recreational assets, or a substantial change to tourism spend.
- 19.5.11 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.
- 19.5.12 In terms of socioeconomic 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.
- 19.5.13 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.

- 19.5.14 The assessment has been undertaken based on the indicative generating capacity of the £1.8 billion pumped storage facility at the Proposed Development (1,800 MW). The impacts draw on information supplied by the Applicant.

19.6 Baseline Conditions

Existing Baseline

- 19.6.1 A desk-based review of publicly available information has been undertaken to identify the key characteristics of the local economy, existing tourism and recreational facilities in the Highlands. The detailed socioeconomic baseline is presented in **Appendix 19.1** and the detailed tourism baseline is presented in **Appendix 19.2**.
- 19.6.2 In terms of a summary of the headline socioeconomic baseline findings, these include:
- The Highlands population is forecast to decrease by 1.0 %, compared to a predicted 2.5 % growth nationally over the period to 2043.
 - It is interesting to note that the Highlands is expected to see a rise of 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 and 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 between 2012 and 2020, and this continues to be a worrying trend for the Highlands. There are wards in Inverness which are in both the most deprived 10 % and 5 % in Scotland.
- 19.6.3 In terms of an overview of the tourism economy, the following can be summarised:
- Sustainable tourism 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 statistical release for these

periods is 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 sector in Scotland (£4.1 billion) and employment was 8.3 % of total employment in the sector (229,000). The tourism sector is relatively more important in Highland than on average in Scotland.
- Tourism activity is seasonal, and much of it occurs within the months between April and September. For example, the occupancy levels for hotels in Highland 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 50 miles from the Proposed Development. Urquhart Castle and Loch Ness by Jacobite, which are located approximately 60 miles away by road. Inverness is around 60 miles from the Proposed Development.
- Facilities in the area closest to the Proposed Development include:
 - Laggan Wolfrax Mountain Biking
 - Spey River Farm;
 - Dalwhinnie Distillery and Whisky Shop;
 - Creag Meagaidh National Nature Reserve;
 - Wildcat Experience; and
 - Highland Folk Museum
- The tourism sector in the Highland area is an important employer and visitors come from across the UK and globally to the Cairngorms National Park and see the range of attractions and activities. There are 2.4 million overnight visitors to Highland. The key attractions in the area are mainly outdoor activities and tourism activity is predominantly seasonal in character.
- 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.

19.7 Potential Significant Effects

- 19.7.1 This section considers the potential impacts and associated effect significance of the construction, and operation of the Proposed Development based on the typical activities described in Chapter 3: Description of Development.

Construction Effects

- 19.7.2 The total development and construction employment were estimated by the Applicant and their technical advisers. The construction effects are based on the works carried out to construct the Proposed Development. These do not include the pre-construction, or development planning works, associated with designing, planning and contracting the works. The Applicant and technical advisers have estimated there will be around 5,860 person months, or 488 person years, associated with the pre-construction activity. This is expected to run for a two year period from January 2024 to January 2026.

- 19.7.3 These total employment impacts associated with the construction phase, by type, are outlined in the table below. This shows that it is estimated that there will be approximately 3,023 person years employment (PYE) over the five-year core construction period.
- 19.7.4 It is anticipated that typically around 500 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. The final arrangement for this would be developed during detailed design and would be discussed with the planning authority.
- 19.7.5 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 19.2 summarises the breakdown of PYE across the five-year core construction period (January 2026 – December 2030).

Table 19.2: Construction Employment by Type

Construction Task	Person Years Employment
Site Establishment / Access Roads / Borrow Pits	59
Powerhouse Building	262
Tunnelling Works	341
Lower Reservoir and Control Works	155
Upper Reservoir and Control Works	279
Turbine Manufacture / Installation	532
Testing and Commissioning	117
Management and Supervision	1,278
Total	3,023

Source: Gilkes Energy

- 19.7.6 In addition to presenting the employment impacts according to main construction activity areas, the Applicant and their technical advisors have presented an estimate on the expected origin of the predicted employment benefits, these assumptions are presented in Table 19.3 below.

Table 19.3: Construction Impacts by Area

Construction Task	Percentage Split			
	Highland	Scotland	UK	Overseas
Site Establishment / Access Roads / Borrow Pits	80%	10%	10%	0%
Powerhouse Building	30%	60%	5%	5%
Tunnelling Works	25%	25%	25%	25%
Lower Reservoir and Control Works	30%	30%	30%	10%
Upper Reservoir and Control Works	30%	30%	30%	10%
Turbine Manufacture / Installation	10%	10%	10%	70%
Testing and Commissioning	20%	20%	20%	40%
Management and Supervision	25%	25%	25%	25%

Source: Gilkes Energy

- 19.7.7 The resultant impacts of the above assumptions present the following direct construction related impacts across each spatial area across the five-year core construction period.

Table 19.4: Construction Impacts by Area

Construction Task		Percentage Split			
	PYE	Highland	Scotland	UK	Overseas
Site Establishment / Access Roads / Borrow Pits	59	47	6	6	0
Powerhouse Building	262	79	157	13	13
Tunnelling Works	341	85	85	85	85
Lower Reservoir and Control Works	155	47	47	47	16
Upper Reservoir and Control Works	279	84	84	84	28
Turbine Manufacture / Installation	532	53	53	53	372
Testing and Commissioning	117	23	23	23	47
Management and Supervision	1,278	320	320	320	320
Total	3,023	737	775	631	880

Source: Gilkes Energy

- 19.7.8 Of the 3,023 construction related years of employment supported across the five-year core construction period, 737 PYE are expected to benefit the regional (Highland) economy, 1,512 PYE at the Scottish level (including Highlands), with the other 1,511 PYE benefiting non-Scottish areas.
- 19.7.9 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 excavation and support work. Information provided by the Applicant confirms that the types of staff likely to be employed in construction are shown in Table 19.5.

Table 19.5: 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	Geologist	Dumper Driver
CAD Operator	CFD Modeller	Tunnel Engineer
Survey & Monitoring	Hydraulic Specialist	Senior Tunneller
Survey & Monitoring Manager	Electrical Engineer	Boomer Operative
General Operative	General Labourer	Ecological Clerk of Works
Joiner	Steelfixer	Batching Plant Operator
Mechanical Fitter	Storeman	Security Posts
Catering Staff	Housekeeping Staff	Office Staff

Source: Gilkes Energy

19.7.10 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 £90,248 and £75,109 respectively. These figures are also drawn from the Scottish Annual Business Statistics²⁹. The resultant economic impact at the Highlands and

²⁹ Scottish Government (2021), Scottish Annual Business Statistics

Scottish levels across the five-year core construction period are shown in Table 19.6 below.

Table 19.6: Gross Employment and GVA Impacts of Construction at Highland and Scottish level

Location	PYE	GVA per PYE	Total GVA
Highland	737	£90,248	£66,512,776
Scotland	1,512	£75,109	£113,564,808

Source: Gilkes Energy / MKA Economics

19.7.11 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.

19.7.12 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. The following Table 19.7 highlights the net employment and GVA impacts after the effects of displacement.

Table 19.7: Net Employment and GVA Impacts of Construction at Highland and Scottish level

Location	PYE	GVA per PYE	Total GVA
Highland	553	£90,248	£49,907,144
Scotland	1,134	£75,109	£85,173,606

Source: Gilkes Energy / MKA Economics

19.7.13 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 to developments.

19.7.14 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.

- 19.7.15 Multiplier effects for different Scottish industries are provided by the Scottish Government³⁰, with 'Construction' having a Type II multiplier of 1.8. Type I multipliers only allow indirect effects to be calculated. The GVA per head presented for the net economic assessment is that for the entire Highlands (£44,854) and Scottish (£53,357) economies in 2020. The resultant impact of multiplier effects is shown in the Table 19.8 below.

Table 19.8: Additional Employment and GVA Impacts of Construction at Highland and Scottish level

Location	PYE	GVA per PYE	Total GVA
Highland	442	£44,854	£19,825,468
Scotland	907	£53,357	£48,394,799

Source: Gilkes Energy / MKA Economics

- 19.7.16 The following Table 19.9 presents the final net additional effects across the five-year core construction period, having taken account of both displacement and multiplier effects.

Table 19.9: Net Additional Employment and GVA Impacts of Construction at Highland and Scottish level

Location	PYE	Total GVA
Highland	995	£69,732,612
Scotland	2,041	£133,568,405

Source: Gilkes Energy / MKA Economics

- 19.7.17 Overall, taking account of displacement and multiplier effects, the Proposed Development is expected to generate 995 PYE in the Highlands and 2,041 at the Scottish level. This equates to a GVA impact of £69.7 million to the Highlands and £133.6 million at the Scottish level over the five-year core construction period.

Operational Effects

- 19.7.18 The mature operation employment levels were provided by the Applicant. The employment impacts associated with the mature operation phase, by type, are outlined in Table 19.10 below. This shows that it is estimated that 27.0 full time jobs will be created once the Proposed Development is fully operational.

³⁰ Scottish Government (2019), Supply, Use, Input-Output Tables and Multipliers

Table 19.10: Operational and Maintenance Employment Impacts by Type

Post	FTEs
Plant Manager	1.0
Chief operation engineer	0.5
Shift supervision	4.0
Shift operator	10.0
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	27.0

Source: Gilkes Energy / MKA Economics

19.7.19

19.7.20 It is envisaged that all these posts will be employed onsite and will be taken by people residing, and potentially relocating, in the Highlands. In terms of the operation, it is envisaged there will be three 8.5 to 9 hour operational shifts seven days a week, with a bit of overlap and allowance for days off. This will require ten shift operators (three per shift) and four supervisors (two per shift).

19.7.21 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 £41,118. These figures are also drawn from the Scottish Annual Business Statistics. The resultant economic impact at the Highlands and Scottish levels are shown in Table 19.11 below.

Table 19.11: Gross Employment and GVA Impacts of Operation at Highland and Scottish level

Location	FTE	GVA per FTE	Total GVA
Highland	27	£41,118	£1,110,186
Scotland	27	£41,118	£1,110,186

Source: Gilkes Energy / MKA Economics

19.7.22 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. The following Table 19.12 highlights the net employment and GVA impacts after the effects of displacement.

Table 19.12: Net Employment and GVA Impacts of Operation at Highland and Scottish level

Location	FTE	GVA per FTE	Total GVA
Highland	24	£41,118	£986,832
Scotland	24	£41,118	£986,832

Source: Gilkes Energy / MKA Economics

19.7.23 Multiplier effects (as outlined above) for different Scottish industries are provided by the Scottish Government, 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 (£44,854). The resultant impact of multiplier effects (the additional employment generated) is shown in Table 19.13 below.

Table 19.13: Additional Employment and GVA Impacts of Operation at Highland and Scottish level

Location	FTE	GVA per FTE	Total GVA
Highland	22	£44,854	£986,788
Scotland	22	£44,854	£986,788

Source: Gilkes Energy / MKA Economics

19.7.24 The following Table 19.14 presents the net additional effects, having taken account of both displacement and multiplier effects.

Table 19.14: Net Additional Employment and GVA Impacts of Operation at Highland and Scottish level

Location	FTE	Total GVA
Highland	46	£1,973,623
Scotland	46	£1,973,623

Source: Gilkes Energy / MKA Economics

19.7.25 Overall, taking account of displacement and multiplier effects, the Proposed Development is expected to generate 46 operational jobs per annum in the Highlands and therefore also 46 across Scotland per annum. This equates to a GVA impact of £2.0 million to the Highlands and Scotland per annum.

Tourism

19.7.26 MKA Economics completed business research with VisitInvernessLochNess (VILN) in March 2022, to ascertain business' views on green energy developments around scenic loch locations in the Highlands. 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, other popular responses included 'inward investment' and 'community investment'. 'Construction spend and activity' and 'jobs' were also popular;
- Only 19% felt that visitors may be persuaded from visiting an area due to the presence of a green energy development, this is above the national VisitScotland research, but only by 10% - 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.

19.7.27 We believe, that although this research was based on businesses around Loch Ness, the findings are relevant to other loch settings in the Scottish Highlands.

19.7.28 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 Tracker³¹ 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

³¹ BEIS (2023), Public Attitudes Tracker: Energy Infrastructure and Energy Winter 2023

seen in Autumn 2021 (56 % strong support). Opposition remained very low, with just 1 % of people saying they opposed renewable energy.

- 19.7.29 Overall, the latest primary and secondary research completed confirms that the tourism sector is not adversely affected by green technology development. In fact, the tourism sector has continued to grow across Scotland as more green technologies have been developed. It is therefore unlikely that the Proposed Development will affect visitors' decision to visit the area.
- 19.7.30 In terms of visitor attraction, the Proposed Development is not situated near any of the most popular visitor attractions in the Highlands. The closest visitor attractions are around Dalwhinnie and Newtonmore, including Dalwhinnie Distillery and Visitor Centre, the Wildcat Experience and the Highland Folk Museum.
- 19.7.31 The research on green energy technology and tourism completed by MKA Economics and VisitInvernessLochNess 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.
- 19.7.32 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.
- 19.7.33 In each of the settlement areas identified in the baseline, accommodation providers primarily market themselves as a base for those visiting the Cairngorms National Park and the surrounding area and using the local walking and cycling routes. This often includes the mention of scenic views.
- 19.7.34 Mountaineering Scotland conducted a survey of its members in 2016³², which aimed to ask neutral questions about wind farms. As with a previous survey conducted in 2014 study, it lacked independent oversight, and therefore, may not be representative of broader groups of hill walkers or tourists more widely.
- 19.7.35 There is also no reason to expect the survey results to be representative of tourists more generally. When asked about the impact of wind farms on plans to walk and climb, the majority of respondents (75%) answered that wind farms have no effect on their plans, although some expressed that they may decrease their enjoyment.
- 19.7.36 Some (22%) responded that they go as often, but avoid areas with wind farms, while 1% go to the mountains less. However, 2% of respondents said they go to the mountains more often and like to see wind farms.
- 19.7.37 This suggests that the development of wind farms in Scotland has an overall positive impact on the number of people who participate in hill walking; however, it may change which parts of the country that recreational walkers utilise. It should be noted there is no comparable research on pumped storage hydro schemes.

³² Mountaineering Scotland (2016), Wind farms and mountaineering in Scotland

- 19.7.38 The areas of Dalwhinnie and Newtonmore are located east and northeast of the Proposed Development and the views from these settlements will not be adversely affected by the proposed development.
- 19.7.39 There are other small hamlets located nearer the Proposed Development but also have no visibility of the Site. There is limited accommodation in these other settlements, which also have no visibility of the Proposed Development.
- 19.7.40 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.
- 19.7.41 It is anticipated that typically around 500 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. The final arrangement for this would be developed during detailed design and would be discussed with the planning authority. The expenditure related to this level of business tourism will offer a significant injection to the local economy over the five-year construction programme, as well as the ongoing maintenance once fully operational.

19.8 Mitigation

Mitigation During Construction

- 19.8.1 No socioeconomic or tourism mitigation measures have been considered for the Proposed Development at construction stage as there are no significant adverse effects anticipated. In terms of recreation and tourism, a Draft Access Management Plan is included in **Appendix 15.1**. Furthermore, there are mitigation measures contained within the Access and Recreation Chapter, to maintain access during construction and operation, to reduce the landscape and visual effects of the Proposed Development.
- 19.8.2 This assessment demonstrates that there are beneficial socioeconomic 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 expenditure opportunities.

Mitigation During Operation

- 19.8.3 No socioeconomic or tourism mitigation measures have been considered for the Proposed Development at the operation stage as there are no significant adverse effects anticipated. In terms of recreation and tourism, a Draft Access Management Plan is included in **Appendix 15.1**. Furthermore, there are mitigation measures contained within the Access and Recreation Chapter, to maintain access during construction and operation, to reduce the landscape and visual effects of the Proposed Development.

19.9 Residual Effects

- 19.9.1 This section considers the potential residual effects and associated effect significance of the construction and operation of the Proposed Development, following the implementation of the mitigation measures proposed in Section 19.8.

Construction Residual Effects

- 19.9.2 There are potential beneficial effects in relation to the construction phase of the Proposed Development, both in employment and GVA terms in the context of local and national economies.
- 19.9.3 As no specific mitigation measures are proposed in relation to potential socioeconomics 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 socioeconomic and tourism effect in relation to construction activities are deemed to be of **moderate beneficial significance**.
- 19.9.4 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 adverse, and temporary, effects of construction and operation are mitigated in the form of the Draft Access Management Plan. The predicted residual tourism effect in relation to construction activities are deemed to be of **negligible significance**.

Operational Residual Effects

- 19.9.5 There are potential beneficial effects in relation to the construction and operational phases of the Proposed Development, both in employment and GVA terms in the context of local and national economies.
- 19.9.6 As no specific mitigation measures are proposed in relation to potential socioeconomics 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 socioeconomic and tourism effect in relation to operation activities are deemed to be of **moderate beneficial significance**.
- 19.9.7 As no specific mitigation measures are proposed in relation to potential effects on tourism during operation, the residual operation effects of the Proposed Development on tourism receptors in the study areas are as assessed in this chapter. The adverse, and temporary, effects of operation are mitigated in the form of the Draft Access Management Plan. The predicted residual tourism effect in relation to construction activities are deemed to be of **negligible significance**.

Cumulative Residual Effects

- 19.9.8 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, notably in the context of other pumped storage hydro scheme which are being developed in Highland and across Scotland. These collective, and cumulative, impacts are presented in 4.4.53 – 4.4.54. In terms of socioeconomic effects, the predicted residual cumulative effect in relation to socioeconomic activities are deemed to be of **major beneficial**

significance. The predicted cumulative tourism effect in relation to construction activities are deemed to be of **negligible significance.**

Wider Effects

- 19.9.9 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:
- 19.9.10 **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 therefore providing a role in supporting the drive for high value sector growth, increasing wages and reducing the migration of young people. In addition, in the absence of pumped hydro storage schemes, the expansion of intermittent renewables such as wind and solar, and the prevention of curtailment of existing renewables due to grid capacity constraints, will not be possible. It is acknowledged within NPF4 and within the Scottish Renewables Report (The Economic Impact of Pumped Storage Hydro) that pumped storage hydro schemes are of national importance to build a robust energy network capable of achieving net zero.
- 19.9.11 **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 UK 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 £11.3 million based on the £1.8 billion / 1,800 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 positive supply chain impacts associated with the proposed worker camp 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 five-year core construction period and over the duration of the project lifetime.
- 19.9.12 **Pre-development effects:** these have been assessed in this Chapter and considerable pre-development costs have been borne by The Applicant that have benefitted local and national firms. The Applicant and their technical advisors have estimated there will be around 5,860 person months, or 488 person years, associated with the two-year pre-construction activity. 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.

- 19.9.13 **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.
- 19.9.14 **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.
- 19.9.15 **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.

19.10 Conclusion

- 19.10.1 The socioeconomic impact during construction and operation of the Proposed Development was assessed as having significant beneficial effects for the regional economy.
- 19.10.2 The socioeconomic impact during construction and operation of the 1,800 MW pumped storage hydro scheme, with a capital cost of £1.8 billion, was assessed as having beneficial effects for the regional (The Highland Council) economy. It will create new temporary jobs through the construction programme with an average of around 500 people onsite during the construction project, and a total of 2,041 construction related years of employment, and a GVA effect of £134 million, at the Scottish level. The Proposed Development will create 46 new full-time jobs once fully operational, injecting £2.0 million per annum into the local economy. These include multiplier effects.
- 19.10.3 Construction and operational effects will bring significant GVA impacts, as well as wider additional impacts, including perception benefits, salary benefits, exchequer benefits, local supply chain opportunities and pre-development impacts.
- 19.10.4 In addition, to the quantifiable and non-quantifiable economic benefits, the Proposed Development, and other pumped storage hydro schemes, play a nationally recognised vital role in the future energy mix for Scotland and the UK. In addition, in the absence of pumped hydro storage schemes, the expansion of intermittent renewables such as wind and solar, and the prevention of curtailment of existing renewables due to grid capacity constraints, will not be possible. It is acknowledged within NPF4 and within the Scottish Renewables Report (The Economic Impact of Pumped Storage Hydro) that pumped storage hydro schemes are of national importance to build a robust energy network capable of achieving net zero.
- 19.10.5 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. Tourists using the local paths and local tourist attractions may have a particular sensitivity to visual effects; however, access to

tourist facilities will be largely unaffected. It should also be noted that there are no core paths in the development site. Hence, even where significant visual effects are predicted, negative effects of the operational phase of the Proposed Development are predicted not to have a significant effect on tourism receptors in accordance with the EIA Regulations.

19.10.6 Table 19.15 provides a Summary and Statement of Significance for Socioeconomic and Tourism.

Table 19.15: Summary

Potential Effect	Magnitude Effect	Assessed Effect	Statement of Significance
Socioeconomic - Construction Phase			
Investment	£1.8 billion	Major beneficial	Significant
Employment	995 job years at Highland level	Moderate beneficial	Significant
Employment related GVA	£70 million	Moderate beneficial	Significant
Worker Spend	£11 million	Moderate beneficial	Significant
Socioeconomic – Operation Phase			
Employment	46 full time jobs	Minor beneficial	Not Significant
Employment related GVA	£2.0 per annum	Minor beneficial	Not Significant
Tourism – Construction and Operation Phases			
Tourism Economy	Minimal / little effect due to distance and visibility from Proposed Development	Negligible	Not Significant

Appendix 19.1: Socioeconomic Baseline

19.1 Socioeconomic Baseline

Population

- 19.1.1 THC area has a population of over 238,100 residents and witnessed an increase of 2.3 % over the period 2011 to 2021 – compared to 3.4 % increase at the Scottish level and an 5.9 % rise at the national (Great Britain) level. The area has witnessed a population increasing slower than the Scottish and Great Britain (GB) increases.

Table 19.1a: Population, 2021

Population Type	Highland	Scotland	Great Britain
	(Numbers)	(Numbers)	(Numbers)
All People	238,100	5,479,900	65,121,700
Males	116,700	2,672,600	31,874,600
Females	121,300	2,807,300	33,247,100

Source: ONS Population Estimates 2020

- 19.1.2 In terms of population projections to 2043, as supplied by the National Records of Scotland³³, population across the Highlands is forecast to decrease by 1.0 %, compared to a predicted 2.5 % growth nationally.
- 19.1.3 In terms of population projections, it is interesting to note that the Highlands is expected to see a rise of 79 % increase in the number of people aged over 75 years in the period to 2043, compared to 71 % nationally.
- 19.1.4 In terms of the working age population, 60.8 % of the regional population is of working age, compared to 63.8 % and 62.9 % at the Scottish and GB levels respectively. This indicates that the area has a lower proportion of people of working age, which can be seen to be an economic challenge in terms of securing future economic prosperity.

Table 19.2a: Population Aged 16-64, 2021

Population Type	Highland	Highland	Scotland	Great Britain
	(Numbers)	(%)	(%)	(%)
All People Aged 16-64	144,700	60.8	63.8	62.9
Males Aged 16-64	71,500	61.3	64.4	63.3
Females Aged 16-64	73,200	60.3	63.2	62.6

Source: ONS Population Estimates 2020

³³ National Records of Scotland (2020), Population Projections for Scottish Areas (2018-based)

Economic Activity

- 19.1.5 Table 19.3a below highlights that the Highlands has a lower proportion of working age people who are economically active, when compared to the Scottish and GB levels. The regional area also has a higher proportion of self-employed people than recorded nationally and at the GB level.

Table 19.3a: Employment and Unemployment, 2022

Employment Type	Highland	Highland	Scotland	Great Britain
	(Numbers)	(%)	(%)	(%)
Economically Active	111,600	74.3	77.1	78.5
In Employment	107,700	71.5	74.4	75.6
Employees	90,100	60.8	66.5	66.0
Self Employed	17,600	10.7	7.6	9.3
Unemployed (Model-Based)	3,100	2.8	3.4	3.6

Source: ONS Annual Population Survey, 2022

- 19.1.6 This suggests that the region has fewer people of working age, and those who are of working age are less economically active than recorded nationally and at the GB level. This is an economic challenge and one which the Proposed Development can support. A more detailed assessment of unemployment is set out later in this section.

Economic Inactivity

- 19.1.7 Corollary to lower economic activity rates the Highlands has a higher rate of economic inactivity, as shown below.

Table 19.4a: Economic Inactivity, 2022

Unemployment Status	Highland	Highland	Scotland	Great Britain
	(Numbers)	(%)	(%)	(%)
Total	36,300	25.7	22.9	21.5
Student	N/A	N/A	22.6	26.3
Looking After Family / Home	N/A	N/A	16.7	19.8
Temporary Sick	N/A	N/A	3.1	2.2
Long-Term Sick	9,900	27.3	32.1	25.8
Discouraged	N/A	N/A	N/A	0.3
Retired	10,900	30.1	14.7	13.8
Other	N/A	N/A	10.4	11.7
Wants a Job	8,100	22.3	20.2	18.1
Does Not Want a Job	28,200	77.7	79.8	81.9

Source: ONS Annual Population Survey, 2022

- 19.1.8 It is worth noting that of those economically inactive, the region has a higher proportion of people who 'want a job' (22.3 %) compared to the GB (18.1 %) level. This suggests there is more of a desire to find work in the Highlands than recorded

nationally. Also, it is apparent that there are also a lot more retired people in the Highlands (30.1 %) compared to the Scottish (14.7 %) and GB (13.8 %) levels.

Workless Households

- 19.1.9 In terms of worklessness, there are more households in the region, compared to the Scottish and GB levels, that are workless households.

Table 19.5a: Workless Households, 2021

Workless Households	Highland	Scotland	Great Britain
Number Of Workless Households	12,100	329,200	2,866,800
Percentage Of Households That Are Workless	19.7	18.6	14.0
Number Of Children in Workless Households	N/A	102,400	1,249,200
Percentage Of Children Who Are in Households That Are Workless	N/A	12.0	10.2

Source: ONS Annual Population Survey, 2021

Claimant Count Unemployment

- 19.1.10 The latest claimant count unemployment rate highlights that the region has a lower rate than the Scottish rate, the unemployment rate is also below the GB average.

Table 19.6a: Claimant Count by Sex, May 2023

Population Type	Highland	Highland	Scotland	Great Britain
	(Numbers)	(%)	(%)	(%)
All People	3,395	2.3	3.2	3.7
Males	1,960	2.7	3.9	4.3
Females	1,435	2.0	2.5	3.1

Source: ONS Claimant Count, May 2023

- 19.1.11 At all spatial levels, unemployment has been falling for around 24 months, since March 2021, 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. It is expected that unemployment may rise in the second half of 2023 as the economy move from a period of growth to a possible recession induced by the cost of living crisis.
- 19.1.12 In terms of unemployment by age range, the regional position is better than the Scottish situations across all age ranges. It also outperforms the GB position in all age groups except those aged 16 – 17 years old.

Table 19.7a: Claimant Count by Age, October 2022

Age Range	Highland	Highland	Scotland	Great Britain
	(Numbers)	(%)	(%)	(%)
Aged 16+	3,395	2.3	3.2	3.7
Aged 16 To 17	25	0.5	0.5	0.2
Aged 18 To 24	560	3.4	4.3	4.8
Aged 18 To 21	340	3.7	4.6	4.9
Aged 25 To 49	1,895	2.8	3.7	4.2
Aged 50+	910	1.7	2.2	2.7

Source: ONS Claimant Count, October 2022

- 19.1.13 In terms of benefit claimants by type, the area has a lower rate of job seeker allowance claimants and lone parent claimants. However, it has a slightly higher proportion of disabled and bereaved claimants. It should be noted that this dataset has been discontinued and is based on figures from 2016.

Table 19.8a: Economic Activity, 2016

Benefit Claimants	Highland	Highland	Scotland	Great Britain
	(Numbers)	(%)	(%)	(%)
Total Claimants	15,040	10.4	13.0	11.0
Job Seekers	1,110	0.8	1.4	1.1
ESA And Incapacity Benefits	8,740	6.0	7.8	6.1
Lone Parents	920	0.6	0.9	1.0
Carers	2,250	1.6	1.7	1.7
Others On Income Related Benefits	220	0.2	0.2	0.2
Disabled	1,430	1.0	0.9	0.8
Bereaved	370	0.3	0.2	0.2
Main Out-Of-Work Benefits	10,990	7.6	10.2	8.4

Source: DWP Benefit Claimants – Working Age Client Group, 2016

- 19.1.14 Overall, in terms of 'main out of work benefits' the Highlands has a lower proportion of claimant than recorded at the Scottish and GB levels.

Employment by Occupation

- 19.1.15 Table 19.9a highlights the type of employment at the Highlands, Scottish and GB levels. It indicates that the region has a higher proportion of skilled trade, caring leisure and service and process plant and machine operatives and elementary occupations than the Scottish and GB levels.

Table 19.9a: Employment by Occupation, 2021 - 2022

Occupation Type	Highland	Highland	Scotland	Great Britain
	(Numbers)	(%)	(%)	(%)
Soc 2020 Major Group 1-3	43,000	40.0	49.0	51.6
1 Managers, Directors And Senior Officials	9,400	8.8	7.9	10.4
2 Professional Occupations	18,900	17.5	25.9	26.2
3 Associate Professional Occupations	14,700	13.7	14.9	14.8
Soc 2020 Major Group 4-5	21,600	20.0	18.2	18.8
4 Administrative & Secretarial Occupations	10,300	9.6	9.3	10.0
5 Skilled Trades Occupations	11,200	10.4	8.8	8.7
Soc 2020 Major Group 6-7	23,100	21.5	16.6	14.5
6 Caring, Leisure And Other Service Occupations	12,500	11.6	8.9	8.0
7 Sales And Customer Service Occupations	10,600	9.8	7.7	6.4
Soc 2020 Major Group 8-9	20,000	18.5	16.1	15.1
8 Process Plant & Machine Operatives	N/A	N/A	5.6	5.6
9 Elementary Occupations	13,300	12.4	10.5	9.5

Source: ONS Population Survey, 2022

- 19.1.16 Regionally there are fewer people employed in professional, associate professional, technical, sales and customer service occupations.

Jobs

- 19.1.17 The region has a lower proportion of full-time jobs and more part-time jobs than the Scottish and GB levels.
- 19.1.18 In terms of industry of employment, the Highlands have higher rates of water supply related posts, construction jobs, wholesale and retail trade, accommodation and food service occupations, education, health and social work jobs and arts, entertainment and recreation posts.
- 19.1.19 The construction sector is well represented at the Highlands level, suggesting the local area is well positioned to benefit from aspects of The Proposed Development, as shown in Table 19.10a below.

Table 19.10a: Employee Jobs, 2021

Employment Type	Highland	Highland	Scotland	Great Britain
	(Numbers)	(%)	(%)	(%)
Total Employee Jobs	109,000			
Full-Time	69,000	63.3	66.4	68.1
Part-Time	39,000	35.8	33.6	31.9
Employee Jobs by Industry				
B: Mining and Quarrying	400	0.4	1.0	0.1
C: Manufacturing	6,000	5.5	7.1	7.6
D: Electricity, Gas, Steam and Air Conditioning Supply	1,250	1.1	0.7	0.4
E: Water Supply; Sewerage, Waste Management and Remediation Activities	2,000	1.8	0.8	0.7
F: Construction	8,000	7.3	6.1	4.9
G: Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles	17,000	15.6	14.4	14.4
H: Transportation and Storage	4,500	4.1	4.2	5.1
I: Accommodation and Food Service Activities	12,000	11.0	7.6	7.5
J: Information and Communication	2,250	2.1	3.1	4.5
K: Financial and Insurance Activities	800	0.7	3.1	3.6
L: Real Estate Activities	1,500	1.4	1.5	1.8
M: Professional, Scientific and Technical Activities	5,000	4.6	6.5	8.9
N: Administrative and Support Service Activities	6,000	5.5	8.0	8.9
O: Public Administration and Defence; Compulsory Social Security	6,000	5.5	6.6	4.6
P: Education	9,000	8.3	8.7	8.8
Q: Human Health and Social Work Activities	19,000	17.4	15.9	13.7
R: Arts, Entertainment and Recreation	3,500	3.2	2.5	2.3
S: Other Service Activities	2,000	1.8	1.8	1.9

Source: ONS Annual Population Survey, 2021

19.1.20 The region has a lower proportion of mining and quarrying roles, manufacturing employment, Information Technology and Communications (ITC) roles, financial service posts, professional services, administrative, public administrative related

jobs and education posts. The manufacturing sector is underrepresented which may affect the region's ability to benefit from The Proposed Development.

Businesses

- 19.1.21 In terms of the business base, the Highlands has a higher proportion of micro enterprise and smaller business units (in terms of employment numbers) than witnessed at the national (Scottish) level. The incidence of larger businesses is lower in the regional level than recorded nationally as shown in Table 19.11a.

Table 19.11a: Business Counts, 2022

Business Type	Highland	Highland	Scotland	Scotland
	(Numbers)	(%)	(Numbers)	(%)
Enterprises				
Micro (0 To 9)	9,590	88.8	152,470	87.8
Small (10 To 49)	1,060	9.8	17,775	10.2
Medium (50 To 249)	130	1.2	2,730	1.6
Large (250+)	25	0.2	675	0.4
Total	10,805	-	173,655	-
Local Units				
Micro (0 To 9)	11,345	83.1	177,455	81.2
Small (10 To 49)	1,960	14.4	33,375	15.3
Medium (50 To 249)	315	2.3	6,580	3.0
Large (250+)	25	0.3	1,060	0.5
Total	13,645	-	218,470	-

Source: Inter Departmental Business Register, 2022

Qualifications

- 19.1.22 In terms of education attainment levels, the region has a lower proportion of higher qualified residents and also has a lower proportion of residents with no qualifications than recorded at the Scottish level as show in Table 19.12a. The region does have a higher proportion of people with mid-level qualifications.

Table 19.12a: Qualifications, 2021

Qualification Type	Highland	Highland	Scotland	Great Britain
	(Numbers)	(%)	(%)	(%)
Individual levels				
NVQ4 and Above	63,500	44.8	50.0	43.6
NVQ3 and Above	88,100	62.3	64.8	61.5
NVQ2 and Above	118,600	83.8	79.6	78.1
NVQ1 and Above	129,100	91.2	86.4	87.5
Other Qualifications	N/A	N/A	5.8	5.9
No Qualifications	7,600	5.4	7.8	6.6

Source: ONS Annual Population Survey, 2021

Earnings

- 19.1.23 In terms of earnings, both weekly wages pay, the region has higher rates than those achieved at the Scottish and GB levels as presented in Table 19.13a. However, the hourly rates are mainly below the Scottish and GB levels.

Table 19.13a: Earnings by Place of Residence, 2022

Employee Type	Highland	Scotland	Great Britain
	(£)	(£)	(£)
Gross weekly place			
Full-Time Workers	664.3	640.3	642.2
Male Full-Time Workers	678.3	675.1	687.2
Female Full-Time Workers	626.3	604.7	584.5
Hourly pay – excluding overtime			
Full-Time Workers	16.39	16.59	16.37
Male Full-Time Workers	16.10	16.91	16.97
Female Full-Time Workers	16.63	16.29	15.49

Source: ONS Annual Survey of Hours and Earnings, 2022

Scottish Index of Multiple Deprivation

- 19.1.24 The Scottish Index of Multiple Deprivation (SIMD) ranks all of the 6,976 data zones across Scotland³⁴. The data zones are ranked from 1 (most deprived data zone) to 6,976 (least deprived).
- 19.1.25 The ranking is based on a number of indicators across seven categories: income, employment, health, education, skills and training, housing, geographic access and crime. Data zones ranked between 1 and 1,185 are the most deprived 15 % of data zones and those ranked between 1 and 1395 are the most deprived 20 %.
- 19.1.26 THC has 21 data zones (from a total of 312 Highland data zones) designated within the most deprived 20 % in Scotland, this is an increase from SIMD 2012 when the local authority had 17 wards designated within the most deprived 20 % in Scotland. Although the Highlands cannot be deemed to be an area of deprivation, there remain pockets of deprivation, largely in and around Inverness, Fort William, Wick and Dingwall and this position has worsened over the period from 2012 to 2016.
- 19.1.27 A review of the SIMD in 2020³⁵, highlights that THC 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 10 % and 5 % in Scotland.

³⁴ Scottish Government (2016), Scottish Index of Multiple Deprivation

³⁵ Scottish Government (2020), Scottish Index of Multiple Deprivation

Local Baseline

- 19.1.28 A headline overview of the local economy, which is defined as the Inner Moray Firth area.
- 19.1.29 A review of Highlands and Islands Enterprise's Economic Profile for Inner Moray Firth³⁶ has been completed and the following summary of the local area is presented below:
- Total population was 158,253 in 2020, an increase of 2.9 % from 2011;
 - Population density (20 people per sq. km) is higher than that for the Highlands and Islands;
 - (12 people per sq. km) but lower than the Scottish average (70 people per sq. km);
 - The Inner Moray Firth has a younger age profile than the Highlands and Islands but older than Scotland;
 - An Economic Activity rate (81.6 %) in line with the Highlands and Islands (80.9 %) but higher than Scotland (79.4 %);
 - A percentage of self-employed (10.6 %) above the Scottish average Scotland (8.4 %) but lower than the Highlands and Islands (10.6 %); and
 - An employment rate (80.2 %) above the Highlands and Islands (77.5 %) and higher than Scotland (77.5 %).
- 19.1.30 The Inner Moray Firth experienced population growth between 2011 and 2020. While the population is projected to decline by 2043, there is variation across the area. It has a younger age profile than the average regionally, although still a higher dependency ratio than nationally at 62.6 %, compared to 56.5 % nationally, in other words it has an older age demographic.
- 19.1.31 The Inner Moray Firth area will need to respond to the requirements of young people who have been disproportionately affected economically by given its younger age profile than the rest of the region.
- Inner Moray Firth is likely to be harder hit than the Scotland average, but fare better than more remote parts of the region given:
 - Expected GVA decrease of -£756m across Highland in 2020, a decline of 11.7 %, in line with the regional average (11.7 %) but higher than the national level (10.7 %);
 - While the area has a higher share of employment in the five sectors most exposed to COVID-19 overall compared to regionally and nationally (43 % compared to 41 % and 38 % respectively), Inner Moray Firth has a more diverse sector employment base than other parts of the region increasing its relative resilience;
 - Its existing vulnerability to Brexit (Highland is ranked 19th of 32 Scotland local authorities), although Inner Moray Firth is likely to be more resilient than more rural parts of Highland; and

³⁶ HIE (2020), Inner Moray Firth Economic Profile

- 15 % of the population of Inner Moray Firth live in datazones within the 20 % most vulnerable in Scotland, in line with the proportion across Highland (15 %) and nationally (14 %).

Appendix 19.2: Tourism Baseline

19.2 Tourism Baseline

- 19.2.1 Sustainable tourism is one the six economic sectors identified by the Scottish Government as growth sectors in its 2015 economic strategy. In 2019, sustainable tourism employed 19,000 people across the Highlands and in 2018 the sector generated £320 million GVA³⁷. 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 statistical releases for these periods is not available.
- 19.2.2 The GVA generated by sustainable tourism in the Highland was approximately 7.7 % of the value added by the sector in Scotland (£4.1 billion) and employment was 8.3 % of total employment in the sector (229,000). This alongside the analysis of the industrial structure in the region suggests that the tourism sector is relatively more important in Highland than on average in Scotland.

Table 19.1b: Employment and GVA in Sustainable Tourism

Metric	Highland	Scotland
Employment (Jobs)	19,000	229,000
GVA (£m)	£320	£4,141

Source: Scottish Government

- 19.2.3 Tourism activity is seasonal, and much of it occurs within the months between April and September. For example, the occupancy levels for hotels in Highland and Islands are above 90 % for the months between June and August, and below 55 % between November and January³⁸.
- 19.2.4 The seasons are more pronounced in rural areas and this is reflected in closure of hotels during the winter period.
- 19.2.5 The Great Britain Day Visits Survey (GBDVS)³⁹ provides national and regional data on domestic daily trips across the UK.
- 19.2.6 Due to the smaller data samples at local level, the figures at local authority level are averages over the period 2017-2019. In 2019 there were 11.6 million domestic day trips in Highland, which was equivalent to approximately 8.2 % of day trips taking place in Scotland. Day visitors spent £571 million in Highland, which was equivalent to approximately 9.9 % of spend in Scotland resulting from day visits.

³⁷ Scottish Government (2020), Growth Sector Database

³⁸ VisitScotland (2019), Tourism in the Highlands

³⁹ VisitScotland (2019), Great Britain Day Visits Survey

Table 19.2b: Day Visitor Trips to the Highlands and Scotland

Metric	Highland	Scotland
Trips	11,600,000	140,800,000
Spend (£ million)	571	5,749

Source: VisitScotland

19.2.7 The most popular activities for day visitors⁴⁰ were:

- Going for a meal in a restaurant, café, hotel, pub (2.5 million day trips);
- Sightseeing on foot (1.5 million day trips); and
- Long walking, hiking or rambling (1.4 million day trips).

19.2.8 The Great Britain Tourism Survey (GBTS)⁴¹ provides a series of data on tourism across the UK, including overnight domestic trips. As with the GBDVS, data for 2019 are the average over the period 2017-2019. In 2019, there were over 1.9 million domestic overnight trips in Highland, accounting for 15.7 % of domestic overnight visits taking place in Scotland.

19.2.9 Overnight visitors to Highland spent £492 million, approximately 16.5 % of the total spend in Scotland.

Table 19.3b: Overnight Domestic Tourism

Metric	Highland	Scotland
Trips	1,950,000	12,426,000
Spend (£ million)	492	2,989

Source: GBTS / GBDVS

19.2.10 Table 19.4b features overnight tourism data for international visitors (non-UK tourists) in 2019. In 2019, there were 459,000 trips from international visitors, 14.7 % of total international visits to Scotland that year. International visitors spent £202 million in Highland, out of the total £2.5 billion spent in Scotland.

Table 19.4b: Overnight International Tourism

Metric	Highland	Scotland
Trips	459,000	3,460,000
Spend (£ million)	202,000,000	2,538,000,000

Source: VisitScotland

⁴⁰ VisitScotland (2019), Tourism in the Highlands

⁴¹ VisitScotland (2019), Great Britain Tourism Survey

- 19.2.11 The most visited attractions in Highland by visitor numbers are displayed in Table 19.5b below, as well as their respective distances from the Proposed Development. Each of the attractions is more than 35 miles away, with three being over 50 miles away.

Table 19.5b: Top 5 Most Visited Attractions in Highland

Attraction	Number of Visitors	Approximate Drivetime Distance from Proposed Development (miles)
Urquhart Castle	547,518	61
Glenfinnan Monument	462,235	45
Glencoe Visitor Centre	436,924	50
Glenmore Forest Park	427,791	35
Loch Ness by Jacobite	321,980	71

Source: VisitScotland

- 19.2.12 The other popular attractions in the region, identified by the Visitscotland⁴², within 20 miles of the Proposed Development include:
- Laggan Wolftrax Mountain Biking
 - Spey River Farm;
 - Dalwhinnie Distillery and Whisky Shop;
 - Creag Meagaidh National Nature Reserve;
 - Wildcat Experience; and
 - Highland Folk Museum
- 19.2.13 Facilities in the area closest to the Proposed Development are found in Dalwhinnie and Newtonmore and include a selection of local shops and cafés, adventure activities such as walking and mountain biking and several B&Bs, hotels and self-catering accommodation providers.
- 19.2.14 The main tourism facilities within the area are located within the population centres around Loch Laggan. These include:
- Dalwhinnie - the village of Dalwhinnie is located approximately 10 miles to the east of the Proposed Development and serves as a base for visitors as they enter the Cairngorms National Park. It is one of the highest, and coolest (temperature) villages in the UK, making it a popular location for winter walking and hiking. There is a popular walking destination along the River Truim and in Cairngorm and Monadhliath Mountains in the Cairngorm National Park. Dalwhinnie is on the Sustrans National Cycle Route 7, Glasgow to Inverness. There are several cycle routes in the area including one alongside Loch Ericht. There are a range of self-catering and B&B accommodation providers in and around Dalwhinnie.

⁴² <https://www.visitscotland.com/destinations-maps/highlands/>

- Newtonmore – is around 15 miles northeast of the Proposed Development. It is a larger settlement than Dalwhinnie. Newtonmore calls itself the "Walking Centre of Scotland", referring both to its geographical location and to the great walking opportunities locally, like the Wildcat Trail. An extension to the Speyside Way includes Newtonmore to a Long Distance Route and it has become the new end to this trail. The village is home to The Wildcat Experience - a visitor attraction specially aimed at families with children. The attraction is based on a community arts project - everyone in the village had the chance to be involved. Newtonmore is the site of the Highland Folk Museum. There are arrange of hotels, B&Bs, a campsite and self catering in the village and surrounding area.

19.2.15 In addition to the accommodation providers within these settlements, there are a range of self-catering accommodation providers in rural locations within the study area.

19.2.16 As described earlier in this section, outdoor pursuits is a popular day activity in Highland. **Chapter 15 - Recreation and Access** illustrates the location and references/names of the known recreational routes within 15km of the Proposed Development. **Chapter 15 - Recreation and Access** highlights the recreational assets within 15km, and these are also recognised as tourism assets, as they offer assets for locals and visitors. The land use and recreation assessment categorises and summarises outdoor recreational assets as:

- Paths and trails;
- Hill walking and hill summits;
- Cycling;
- Boating and canoeing; and
- Country sports.

19.2.17 This section does not seek to represent these assets, and due to their dual use as assets for locals and visitors, this section, and the assessment of effects section is based on the assessment set out in **Chapter 15 - Recreation and Access**.

19.2.18 The tourism sector in the Loch Laggan and Highland area is an important employer and visitors come from across the UK and overseas to explore the Cairngorms National Park and many attractions and activities on offer. There are 2.4 million overnight visitors to Highland. The key attractions in the area are mainly outdoor activities and tourism activity is predominantly seasonal in character. 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 15 - Recreation and Access**.