

**APPENDIX C – SCOTTISH NATURAL HERITAGE (SNH)**  
**Overview of Challenges & Opportunities relating to climate change**  
**Part of Convention of the Highlands & Islands Paper -28<sup>th</sup> October 2019**

Sector	Overview of challenges and opportunities
Power	<p><i>Challenges:</i> Grid connection for new renewable generation.</p> <p><i>Opportunities:</i> Support development of the whole <b>renewables</b> industry: onshore and off shore wind, wave and tidal energy, solar, hydro, biomass including potential for circular economy such as fish farm waste to create biofuel</p> <p>The Highlands &amp; Islands could be a major contributor of <b>carbon capture and storage</b></p>
Transport	<p><i>Challenges:</i> More frequent extreme weather events (such as heatwaves and floods etc) are likely to cause disruption across the transport network. Nature based solutions will complement traditional engineering measures to maintain connectivity.</p> <p>Vehicles, ferries, shipping and aviation - phasing out of internal combustion engine vehicles and increasing <b>electric vehicles (EV)</b>. Rapid development and placement of infrastructure such as EV charging points.</p> <p>Funding applications for active travel through Sustrans need rural proofing, with requirement for 50% match funding on active travel projects difficult to secure outside urban areas.</p> <p><i>Opportunities:</i> Trialling of low and zero emission flights in the Highlands and Islands by 2021.</p> <p>Significant potential around <b>e-bikes for commuting</b> (will need the right infrastructure). We are still a long way behind continental Europe (Denmark, Holland on <a href="#">infrastructure and ambition.</a>)</p> <p>Encourage investment in <b>active travel infrastructure</b> such as paths and off-road routes near to where people live and work</p> <p>Promotion of sustainable '<b>slow</b>' <b>tourism</b> - in respect of transport, it is also about encouraging visitors to make longer stays, use public transport to and within destinations, promoting hire or electric cars and ebikes and stimulating more visitor experiences based around walking and cycling.</p>
Heating, housing and development	<p><i>Challenges:</i> Decarbonising Scottish heating will be particularly challenging and will need transformation of current heating supply. Specific challenges for H&amp;I relate to off-gas grid. In addition, fuel poverty will need to be considered</p> <p>The increasing effects of climate change, including the consequences of more intense rainfall events will put existing and planned built development and infrastructure at risk.</p> <p>Similar risks are compounded within our coastal fringe with increased coastal flooding and erosion enhanced flooding due to sea level rise.</p> <p>Inverness will likely see a sea level rise of up to nearly 1 metre between now and 2100, with substantial increases in the likelihood of coastal flooding in low-lying areas.</p> <p>Rental housing for short-term lets does not require implementation of new</p>

	<p>environmental standards.</p> <p><i>Opportunities:</i> Reduction in fuel poverty levels and therefore potentially child poverty levels.</p> <p>For the region to become a ‘demonstrator’ of new and innovative technologies and systems (for example the <a href="#">Hydrogen 100 project</a>)</p> <p>Natural defences such as beaches, dunes and saltmarshes can be cost effective way of protecting buildings and infrastructure<sup>1</sup>. New and existing developments can use nature based solutions to improve resilience.</p>
Industry	<p><i>Challenges:</i> Electrification of industry will be a significant component of reducing emissions, however wider challenges remain in supporting Scotland’s oil and gas sector in the energy transition.</p> <p><i>Opportunities:</i> Use of skills and expertise from oil and gas sector to support highly productive transition. ‘Greening’ of offshore oil and gas installations by incorporating renewable technology, e.g. floating offshore wind</p>
Land Use	<p><i>Challenges:</i> Land use is already being affected by climate change and increasingly with ‘hotter dryer summers, warmer wetter winters and more flooding’.</p> <p>Uncertainty over shape and size of future rural funding support. Funding has traditionally come through government, and there is a need to look at bringing in carbon funding from private business on top of government funding.</p> <p><i>Opportunities:</i> How land is used has an essential role to play in the transition to a net zero carbon economy as well as building resilience to a changing climate. Promoting <b>nature-based solutions</b> for example through peatland restoration, woodland expansion and managing flood risk.</p> <p>Increasing resilience of coastal and river habitats to manage erosion and coastal flood risk will be important for many vulnerable Highland &amp; Island coastal zones.</p>
Marine	<p>The region has strong potential to develop the <b>blue carbon sector</b> with marine and coastal habitats that are natural stores for carbon. Many habitats and species important for blue carbon are protected under the National Marine Plan and many are also safeguarded within Scotland’s Marine Protected Area Network. There is some tension however between some marine developments and activities and the protection of environmental assets to meet other objectives, including for biodiversity.</p>

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<sup>1</sup> [Dynamic Coast - £13bn worth of infrastructure protected through natural defences](#)