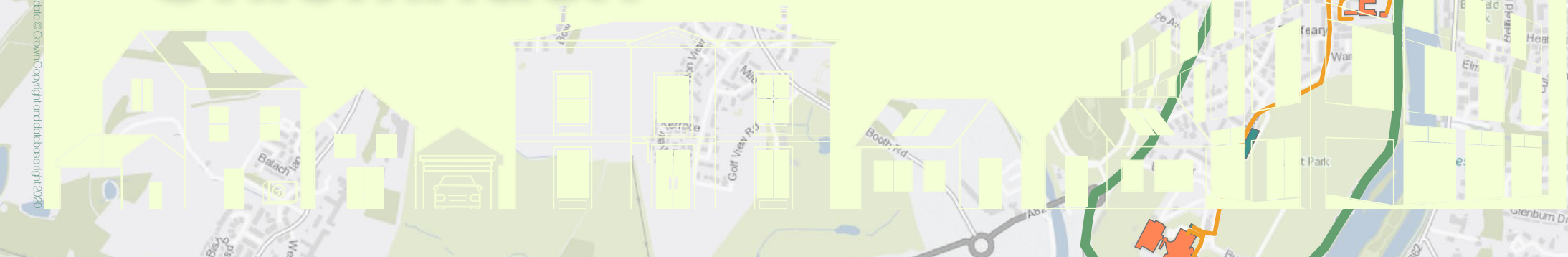
The Highland Council
Comhairle na Gàidhealtachd

Local Heat & Energy Efficiency Strategy

Executive Summary

Ro-innleachd Èifeachdas Teasa agus Lùtha Ionadail

Geàrr-chunntas Gnìomhach



Executive Summary
Geàrr-chunntas Gnìomhach

The Local Heat and Energy Efficiency Strategies (Scotland) Order 2020 has placed a duty on the Highland Council to develop and publish its first Local Heat and Energy Efficiency Strategy (LHEES) and Delivery Plan by the end of December 2023.

The LHEES sets out the long-term plan for decarbonising heat in buildings and improving the energy efficiency of buildings across the Highland Council area, framed around the LHEES Considerations, and taking local priorities into account. The LHEES Considerations are off-gas grid buildings, on-gas grid buildings, heat networks, poor building energy efficiency, poor building energy efficiency as a driver for fuel poverty, mixed-tenure, mixed-use and historic buildings. The Council has been working with internal and external stakeholders to identify local priorities and drivers and these are summarised below:

- **Decarbonisation**
- **Building repairs**
- **Energy efficiency, mixed-tenure, mixed-use, and historic buildings**
- **Supply chain**
- **Local development**
- **Community wealth building**
- **Resilience and adaptation**
- **Skills development and upskilling**
- **Skills retention**
- **Fuel poverty**
- **Net Zero Strategy, EESSH2 and local energy policies**

The Council's Strategy was developed utilising the LHEES methodology to review national and local policies, strategies and legislation; provide an overview of how the Highland Council area baseline is performing; present the Strategic Zones for the LHEES Considerations and set out what needs to be done to change buildings and relevant local infrastructure over the next 15-20 years to fulfil the Scottish Government's objectives and local priorities relating to heat and energy efficiency in buildings.

The scope of our LHEES is to:

- **Focus on energy efficiency and heat decarbonisation to identify opportunities for the domestic and non-domestic stock and set out how each segment of a building needs to change to meet local and national objectives, including Net Zero and energy efficiency to reduce fuel poverty.**
- **Identify potential heat decarbonisation zones.**
- **Identify key areas for the first iteration of LHEES to deliver against local and national priorities.**
- **Act as a prospectus for where government funding and private investment for heat decarbonisation and energy efficiency should be targeted.**

Heat Decarbonisation

Decarbonising heat through renewable energy technologies and heat network developments is key.

Heat Network Zoning

The first iteration of LHEES identifies indicative Heat Network Zones to understand the scale of potential and initial areas of focus. The outputs can be used to start work on the consideration of heat networks through follow-up work such as feasibility studies and stakeholder engagement for Heat Network Zoning, as required by the Heat Networks (Scotland) Act.

- The Council has identified several potential Heat Network Zones, existing infrastructure and constraints.
- No designated Heat Network Zones were identified because it is not a role of LHEES to designate them.
- Over 1,550 green spaces in the off-gas areas were identified that show a high potential to be used for small-scale heat networks for the nearby properties, and over 760 for the on-gas areas. Strategic Zones identified are strategic only.
- Further analysis and engagement with relevant stakeholders will be explored prior to the development or delivery of any specific programmes.

Building-Level Decarbonisation

Domestic Stock Summary:

- There are 127,066 domestic properties on the Energy Saving Trust's Home Analytics database in the Highlands.
- 77,648 (61%) of domestic properties are in an off-gas grid area.
- Heating for off-gas areas mainly relies on fossil fuels such as oil (28%) and LPG (3%).
- Around 6,428 off-gas properties are already heated by a low or zero carbon heat.
- 19,001 of the off-gas grid properties are identified as highly suited for heat pump retrofit.
- 29,219 (23%) of off-gas grid properties require a substantial amount of retrofitting work to be heat pump ready.
- 44,492 of domestic properties in the Highlands are on the gas grid.
- 24,338 on the gas grid properties are identified as highly suited for heat pump retrofit.
- 23,613 on the gas grid properties are considered to be heat pump ready.
- 12,924 (10%) of domestic housing stock require a substantial amount of retrofitting work to be heat pump ready.
- Due to the high prevalence of fuel poverty and extreme fuel poverty, the Council and stakeholders are required to undertake a 'fabric first' approach prior to heat decarbonisation in the Highlands.

Non-Domestic Stock Summary:

- There are 16,904 non-domestic buildings on the Energy Saving Trust's Non-Domestic Analysis tool.
- These buildings account for the total heat demand of 947,753 (MWh/yr).
- Electricity is the main fuel type across the non-domestic stock. 65% (11,021) of buildings are heated by electricity, followed by oil (2,950/17%), mains gas (1,379/8%) and other fuels (1,554/9%).

Energy Efficiency

It is important to reduce energy use and heat demand, primarily with building retrofitting measures. Generating renewable electricity to support the development of decarbonised heat and local energy security is critical to the successful delivery of the LHEES and Net Zero commitments.

Domestic Stock Summary:

- Scottish Government figures indicate that 33% of households in the region are experiencing fuel poverty, compared to the national average of 24%. In addition, 22% of all households in the Highlands are facing extreme fuel poverty, which is nearly double the national average of 12%.
- Most of the domestic properties were built pre-1919 (18%), between 1950-1983 (38%), and post-2002 (18%), compared to 19%, 39% and 15% in Scotland respectively.
- The region has a higher proportion of detached properties (38%) and semi-detached properties (21%). Only a small proportion of the housing stock represents small blocks of flats or dwellings converted into flats (12%), blocks of flats (3%) and large blocks of flats (3%).
- 33% of properties are in an EPC band E-G, compared to 13% of households with EPC E-G in Scotland.
- Around 19% of solid walls, 10% of cavity, 3% of system built and 10% of timber framed walls are uninsulated.
- Around 47% of properties have 250+mm of loft insulation and 9% between 0-99mm of loft insulation.
- Most domestic properties (92%) are already double or triple glazed. Only 6% are single, or 2% partially glazed windows and the remainder unknown.
- The majority of properties are owner-occupied (59%), 19% privately rented, 16% owned by a LA and 4% by housing associations.
- It is estimated that only 7% of properties are of mixed tenure.
- 98% of buildings in the Highlands are not listed.
- Although domestic renewables were not part of the LHEES methodology, they provide an opportunity to meet the decarbonisation of heat in the short term, especially when combined with storage and electric heating.

Non-Domestic Stock Summary:

- 6,697 (40%) of non-domestic buildings were built post-1983, 6,722 (40%) pre-1919 and 2,955 (18%) between 1949-1983. Only 490 (3%) of buildings were built between 1919-1949.
- 54% (9,191) of non-domestic buildings have a floor area between 100-500m2, 28% (4,701) between 0-100m2, 9% (1,510) between 500-1000m2 and 9% (1,502) 1000+m2.
- The non-domestic stock in the Highland Council areas are classed as very remote rural (7,613 / 45%), other urban areas (2,902 / 17%), remote rural (2,351 / 14%), very remote small town (1,760 / 10%), accessible rural (1,078 / 6%) and remote small town (1,200 / 7%).

Accompanying the Strategy is the high-level Delivery Plan, which enables the Highland Council and partners to work towards delivery of the changes identified in the Strategy. The Delivery Plan will be built on the evidence-base from the Strategy to better target key priority areas, help understand what actions can currently be delivered, particularly given the changing policy landscape as well as understanding that new future policies and programmes will be developed. A continuity of engagement with both internal and external stakeholders is critical to support the delivery of LHEES and embedding LHEES within the local governance structures and processes.

The first iteration of the Strategy and Delivery Plan will cover the next 5 years and will be kept under review. An updated Strategy and Delivery Plan will be published at intervals of no more than 5 years, after the date of publication of the first LHEES and Delivery Plan.