



**Cairngorms**  
National Park Authority  
Ùghdarras Pàirc Nàiseanta a'  
**Mhonaidh Ruaidh**

Liveable places

# Schedule 15: Heating and cooling

Cairngorms National Park Local Development Plan: Evidence Report

March 2026





# Schedule 15: Heating and cooling

March 2026

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## Requirements addressed in this schedule

Table 1 Information required by the Town and Country Planning (Scotland) Act 1997, as amended (CNPA003), regarding the issue addressed in this schedule.

Section	Requirement
Section 15(5)(a)	The principal [physical], cultural, [economic], social, built heritage and [environmental] characteristics of the district.
Section 15(5)(d)	The infrastructure of the district (including communications, transport and drainage systems, systems for the supply of water and energy, and health care and education facilities).
Section 15(5)(e)	How that infrastructure is used.
Section 15(5)(f)	Any change which the planning authority think may occur in relation to any of the matters mentioned in paragraphs (a) to (eb).
Section 16(2)(a)	To take into account — <ul style="list-style-type: none"><li>i. The National Planning Framework and</li><li>ii. Any local outcomes improvement plan (within the meaning of section 6 of the Community Empowerment (Scotland) Act 2015) for the part of their district to which the local development plan relates,</li><li>iii. Any registered local place plan (see schedule 19) that is for the part of their district to which the local development plan relates.</li></ul>
Section 16(2)(b)	Are to have regard to such information and considerations as may be prescribed.
Section 16(2)(c)	May have regard to such other information and considerations as appear to them to be relevant.
Section 16B(3)(a)	The evidence report is to set out the planning authority's view on the matters listed in section 15(5) for land in the part of the authority's district to which the local development plan will relate,
Section 16B(3)(e)	Include such other matters as are prescribed.
Section 16B(4)(c)	The evidence report is also to include a statement on the extent to which the views expressed under paragraphs (a) and (b) have been taken into account in the report.
Section 264A	In the exercise, with respect to any land in a National Park, of any power under the planning Acts, special attention shall be paid to the desirability of exercising the power consistently with



Section	Requirement
	the National Park Plan as adopted under section 12(7)(a) of the National Parks (Scotland) Act 2000 (asp 10).

## Links to evidence

### Legislation

- CNPA004 - National Park (Scotland) Act 2000
- CNPA348 - Climate Change (Emissions Reduction Targets) (Scotland) Act 2019
- CNPA634 - Natural Environment (Scotland) Bill as passed
- CNPA1199 - Heat Networks (Scotland) Act 2021
- CNPA1297 - Draft Buildings (Heating and Energy Performance) and Heat Networks (Scotland) Bill
- CNPA1298 - Energy Act 2023
- CNPA1299 - Local Heat and Energy Efficiency Strategies (Scotland) Order 2022
- CNPA1300 - The Heat Networks (Heat Network Zones and Building Assessment Reports) (Scotland) Regulations 2023

### National documents

- CNPA008 - National Planning Framework 4
- CNPA060 - Securing a green recovery on a path to net zero: climate change plan 2018 – 2032 –update
- CNPA107 - Infrastructure Plan for Scotland 2021 – 2022 to 2025 – 26
- CNPA108 - Energy Efficient Scotland
- CNPA109 - Draft Energy Strategy and Just Transition Plan
- CNPA112 - Bioenergy update – March 2021
- CNPA113 - Draft Bioenergy Policy Statement
- CNPA134 - Decarbonising heat: policy statement
- CNPA352 - Heat in Buildings Strategy 2021
- CNPA423 - Scottish Government Energy Efficiency Policy
- CNPA425 - New Build Heat Standard
- CNPA426 - Heat in Networks Delivery Plan
- CNPA428 - Opportunity areas for district heating networks in the UK: second National Comprehensive Assessment
- CNPA430 - Net Zero Public Sector Buildings Standard
- CNPA431 - Park Power Methodology Report Green Heat in Greenspaces 2021
- CNPA1003 - Local Heat and Energy Efficiency Strategies and Delivery Plans Guidance



- CNPA1004 - Scotland Heat Map: information
- CNPA1301 - Scottish Government Factsheet: Energy efficiency: Area Based Schemes
- CNPA1302 - Warmer Homes Scotland scheme
- CNPA1303 - Scottish Government Policy: Energy efficiency – Heat in buildings
- CNPA1304 - Scotland's Heat Network Fund: application guidance
- CNPA1305 - Ofgem Energy Company Obligation (ECO)
- CNPA1306 - Energy Efficiency Standard for Social Housing (ESSH): guidance for social landlords (revised February 2019)
- CNPA1307 - Scottish Industrial Energy Transformation Fund (SIETF)
- CNPA1308 - Low Carbon Manufacturing Challenge Fund: business regulatory impact assessment
- CNPA1309 - European Regional Development Fund
- CNPA1310 - Making Scotland's Future: a vision for manufacturing
- CNPA1311 - Scottish Government: Heat Networks Delivery Plan: review report 2024
- CNPA1312 - Scottish Government: Heat in buildings: future plans
- CNPA1313 - Potential heat network zones: first national assessment

### **Key agency documents**

- CNPA116 - Historic Environment Scotland Climate Action Plan 2020 – 2025
- CNPA117 - Renewable Energy Guide for Developers and Communities working with Scottish Water
- CNPA244 - NatureScot: Developing with Nature guidance

### **National Park Authority documents**

- CNPA010 - Cairngorms National Park Partnership Plan 2022
- CNPA016 - Cairngorms National Park Local Development Plan 2021
- CNPA473 - Cairngorms Wellbeing Economy Action Plan
- CNPA528 - Heritage Horizons – Cairngorms 2030
- CNPA1355 - Topic: Heating and cooling – engagement version

### **Local authority documents**

- CNPA237 - Badenoch and Strathspey Area Committee Item 6: Badenoch and Strathspey Area Plan
- CNPA355 - Moray Council Local Heat and Energy Efficiency Strategy 2023 – 2028
- CNPA356 - Moray Council Local Heat and Energy Efficiency Strategy Delivery Plan 2023 - 2028



- CNPA360 - Highland Council Local Heat and Energy Efficiency Strategy 2023
- CNPA361 - The Highland Council Local Heat and Energy Efficiency Delivery Plan: Strategic Approach
- CNPA362 - Aberdeenshire Council Local Heat and Energy Efficiency Strategy 2024
- CNPA363 - Aberdeenshire Council Local Heat and Energy Efficiency Story Map
- CNPA365 - Perth and Kinross Council Local Heat and Energy Efficiency Strategy 2024 – 2045
- CNPA370 - Angus Council Local Heat and Energy Efficiency Strategy 2024
- CNPA371 - Angus Council Local Heat and Energy Efficiency Strategy Delivery Plan
- CNPA636 - Aberdeenshire Local Outcomes Improvement Plan 2017 – 2027 (website)
- CNPA637 - Angus Community Plan 2022 – 2030
- CNPA638 - 2024 – 2027 Highland Outcome Improvement Plan
- CNPA639 - Moray Local Outcomes Improvement Plan v2
- CNPA640 - Perth and Kinross Community Plan (Local Outcomes Improvement Plan) 2022 – 2032
- CNPA1002 - Perth and Kinross Council Local Heat and Energy Efficiency Strategy Strategic Zoning Report
- CNPA1091 – 2024 – 2027 Highland Outcome Improvement Plan – Delivery Plan
- CNPA1314 - Aberdeenshire Council Local Heat and Energy Efficiency Strategy Delivery Plan

## **Community action plans**

- CNPA063 - Aviemore, Rothiemurchus and Glenmore Community Action Plan: Looking to 2030
- CNPA065 - Grantown-on-Spey Community Action Plan looking to 2030
- CNPA066 - Kingussie Community Action Plan Consultation Results: Looking to 2030
- CNPA119 - Ballater and Crathie Community Action Plan 2023
- CNPA121 - Braemar Community Action Plan
- CNPA122 - Carrbridge Community Action Plan: Looking to 2030
- CNPA125 - Dalwhinnie Community Action Plan: Looking to 2030
- CNPA129 - Laggan Community Action Plan: Looking to 2030
- CNPA130 - Mount Blair and Glenshee Community Action Plan
- CNPA131 - Nethy Bridge Community Action Plan: Looking to 2030
- CNPA132 - Newtonmore Community Action Plan: Looking to 2030
- CNPA133 - Strathdon Community Action Plan: Looking to 2030
- CNPA374 - Boat of Garten Action Plan: Looking to 2030



## Data sources

- CNPA154 - Green Heat in Greenspaces data – Scotland
- CNPA427 - Scotland's Heat Map
- CNPA432 - Green Heat in Greenspaces Settlement Profile Dashboard
- CNPA434 - Green Heat in Greenspaces Greenspace Dashboard
- CNPA439 – Scotland's Census
- CNPA534 - Scottish Index of Multiple Deprivation 2020
- CNPA1005 - Scottish energy statistics hub index

## Consultation material

- CNPA1340 - Evidence report engagement responses

## Summary of evidence

### Policy context

#### National Planning Framework 4

National Planning Framework 4 Policy 19 (CNPA008) aims to 'to encourage, promote and facilitate development that supports decarbonised solutions to heat and cooling demand and ensure adaptation to more extreme temperatures'.

The Proposed Plan should take into account the Local Heat and Energy Efficiency Strategy (LHEES) produced by all of the five local authorities which overlap the boundary of the Cairngorms National Park, namely Aberdeenshire, Angus, Highland, Moray and Perth and Kinross Councils. The spatial strategy should take into account areas of heat network potential and any designated Heat Network Zones (HNZ) in the National Park as identified by the local authorities local heat and energy efficiency strategies.

Development proposals within or adjacent to a Heat Network Zone identified in a local development plan will only be supported where they are designed and constructed to connect to the existing heat network. Existing heat networks in the National Park are identified in this report.

In line with Policy 19, where the Local Heat and Energy Efficiency Strategy has identified a potential heat network which is not yet in place, development proposals will only be supported where they are designed and constructed to allow for cost effective connection at a later date.



National Planning Framework 4 Policy 18 is closely linked to the delivery of Policy 19 in that local development plans and delivery programmes should:

- Be informed by evidence on infrastructure capacity, condition, needs and deliverability within the plan area, including cross boundary infrastructure.
- Set out the infrastructure requirements to deliver the spatial strategy, informed by the evidence base, identifying the infrastructure priorities, and where, how, when and by whom they will be delivered.
- Indicate the type, level (or method of calculation) and location of the financial or in-kind contributions, and the types of development from which they will be required.

The Proposed Plan should align with relevant national, regional, and local infrastructure plans and policies and take account of the Scottish Government infrastructure investment hierarchy and sustainable travel and investment hierarchies in developing the spatial strategy. Consistent early engagement and collaboration between relevant stakeholders will better inform decisions on land use and investment.

Policy 19 is closely linked to Policy 1, where National Planning Policy Framework 4 places significant weight on addressing the climate and nature crises and reducing greenhouse gas emissions.

Policy 19 is also linked to Policy 11, Energy, which states that local development plans should seek to realise their area's full potential for heat from renewable, low carbon and zero emission sources by identifying a range of opportunities for energy development.

Policy 19 also sets out that development proposals for buildings that will be occupied by people will be supported where they are designed to promote sustainable temperature management, for example by prioritising natural or passive solutions such as siting, orientation, and materials. This presents opportunities to incorporate nature based solutions such as green roofs in the design of new builds in a heating and cooling context. NatureScot's 'Developing with Nature Guidance' provides more information and is available here:

- <https://www.nature.scot/doc/developing-nature-guidance> (CNPA244)

Policy 2: Climate mitigation and adaption also has a bearing on the plans and strategies outlined in this section. Policy 2 has been detailed in Schedule 4: Climate change.



The North region's spatial priorities, which cover the National Park and are relevant to this policy area are:

- Protect environmental assets and stimulate investment in natural and engineered solutions to climate change and nature restoration, whilst decarbonising transport and building resilient connections.
- Support local economic development by making sustainable use of the areas' worldclass environmental assets to innovate and lead greener growth.

## Legislation and national documents

### National Parks (Scotland) Act 2000

The National Park has four distinct aims as set out in The National Parks (Scotland) Act 2000 (CNPA004). As outlined in Schedule 1: Plan outcomes, these will be amended by the Natural Environment Scotland (Scotland) Bill (CNPA634) once enacted. These are, as to be amended by the Natural Environment (Scotland) Bill:

- To conserve and enhance the area's natural and cultural heritage.
- To promote sustainable management and use of the area's natural resources.
- To promote public understanding and enjoyment of the area's natural and cultural heritage.
- To promote sustainable economic, social and cultural development of the area's communities.

All of the aims are relevant to the matters discussed in this schedule. The aims are all to be pursued collectively. However, if there is conflict between the first aim and any of the others, greater weight is given to the first aim (as set out in Section 9(6) of the 2000 Act).

### Infrastructure Investment Plan 2021 – 2022 to 2025 – 2026

Scottish Government's Infrastructure Investment Plan (CNPA107) focuses on three core strategic themes for guiding investment in decisions in Scotland, namely:

- Enabling the transition to net zero emissions and environmental sustainability.
- Driving inclusive economic growth.
- Building resilient and sustainable places.

The Infrastructure Investment Plan is closely linked to the development of the National Planning Framework 4 (CNPA008) and the Climate Change Plan (CNPA060) which aim to support the delivery of the Plan.



The Climate Change Plan update shows how Scotland will drive down emissions to meet its climate targets up to the year 2032. Scottish Government have committed to £1.6 billion investment in heat and energy efficiency in Scotland's homes and buildings. Scottish Government are rolling out the Net Zero Carbon Public Sector Buildings Standard (CNPA430), ensuring new public buildings are net zero ready.

The Plan also aims to support the Energy Efficient Scotland route map (CNPA108) which aims to transform Scotland's buildings to be warmer, greener and more efficient by 2040.

### **Securing a green recovery on a path to net zero: climate change plan 2018 – 2032 – update**

The document (CNPA060) provides an update to the 2018 Climate Change Plan. Since that Plan Scottish Government have set new ambitious targets to end its contribution to climate change by 2045. Scottish Government have committed to reduce emissions by 75% by 2030 (compared with 1990) and to net zero by 2045. As Scotland emerged from Covid 19 the Government identified an opportunity to rebuild the economy in a way that delivers a greener, fairer and more equal society. This Plan sets out the Government's approach to delivering a green recovery and sets out a pathway to deliver its climate change targets. In line with the 2018 plan, the focus is on the period up to 2032. It sets out a number of outcomes, that are supported by policies and proposals, relating to heating and cooling. These are as follows.

The outcomes 'the heat supply to our homes and non domestic buildings is very substantially decarbonised, with high penetration rates of renewable and zero emissions heating' and 'our homes and buildings are highly energy efficient, with all buildings upgraded where it is appropriate to do so, and new buildings achieving ultra high levels of fabric efficiency' are supported by a range of policies and delivery mechanisms that include:

- Energy Efficient Scotland Delivery Schemes including the Area Based Schemes (CNPA1301) and Warmer Homes Scotland programme (CNPA1302).
- New Build Heat Standard (CNPA425): requiring new buildings to have zero emissions heating systems.
- Heat in Buildings regulation (CNPA1312).
- Scotland's Heat Network Fund (CNPA1304) offers capital grants to businesses and organisations in the public, private and third sectors to develop heat network projects.



- Net Zero Carbon Public Sector Buildings Standard will be introduced in 2021 and progressively rolled out across the public sector.
- Local Heat and Energy Efficiency Strategies (LHEES) (CNPA1003) setting out preferred heat solutions zones, guiding building owner decision making about replacement heating systems, and forming the basis for local delivery plans targeting heat and energy efficiency investment.
- Design future delivery programmes to ensure significantly accelerated retrofit of buildings, with new programmes to be in place from 2025.
- Support Heat Networks through National Planning Framework 4 (CNPA008) ensuring that local development plans take account of where a Heat Networks Zone has been identified.
- The Energy Company Obligation (ECO) requires obligated energy suppliers to deliver energy efficiency and heating measures to homes mainly insulation based measures and boiler replacements.
- The Energy Efficiency Standard for Social Housing (EESH) (CNPA1306) was introduced to improve the energy efficiency of social housing in Scotland and to help reduce energy consumption, fuel poverty and the emission of greenhouse gases.

The outcome that ‘the heat transition is fair, leaving no one behind and stimulates employment opportunities as part of the green recovery’, is supported by the following actions:

- Ensuring Local Heat and Energy Efficiency Strategies are developed through extensive engagement with local communities.
- Continue delivery of energy efficiency investment to support fuel poor households and conduct further modelling and analysis to better understand the potential impact of the heat transition on fuel poor households and the scale of, and options for, mitigation that may be required.

The outcome that ‘Scotland’s Industrial sector will be on a managed pathway to decarbonisation, whilst remaining highly competitive and on a sustainable growth trajectory’, is supported by the following policies and proposals:

- Delivery of the Scottish Industrial Energy Transformation Fund (SIETF) (CNPA1307) – to support the decarbonisation of industrial manufacturing through a green economic recovery.
- Low Carbon Manufacturing Challenge Fund (CNPA1308): to support innovation in low carbon technology, processes and infrastructure. Will be based on successful



delivery of European Regional Development Fund (ERDF) (CNPA1309) funded Advancing Manufacturing Challenge Fund (CNPA1310).

- Green Jobs Fund, to help businesses create new, green jobs, working with enterprise agencies to fund businesses that provide sustainable or low carbon products and services to help them develop, grow and create jobs. Further funding will help to ensure that businesses and supply chains across Scotland can capitalise on its investment in low carbon infrastructure such as the decarbonisation of heating and green transport.

### **Draft Energy Strategy and Just Transition Plan**

In 2023 Scottish Government opened the consultation for the Energy and Just Transition Plan (CNPA109) which will provide a route map of actions Scottish Government will take to deliver a flourishing net zero energy system that supplies affordable, resilient and clean energy to Scotland's workers, households, communities and businesses.

Ambitions are set for increased contributions from solar, hydro, marine energy and hydrogen in the energy mix, and for accelerating the decarbonisation of heating in Scotland.

As of January 2026, the final Strategy has still not been published, but if it is during the preparation of the Proposed Plan, the final version, including any amendments or revisions will be taken into account.

### **Energy Efficient Scotland**

Scottish Ministers designated energy efficiency as a national infrastructure priority in 2015, recognising the many benefits delivered by improving the energy performance of Scotland's buildings. The Energy Efficient Scotland (CNPA108) programme sets out Scottish Governments commitment delivering on this priority.

The programme aims to set out a route map for improving the energy efficiency of Scotland's buildings to reduce energy consumption leading to reduced greenhouse gas emissions. In 2018 the Scottish Government published the Energy Efficient Scotland: route map (CNPA424) which sets out the Governments programme for making Scotland's homes, businesses and public buildings more energy efficient.

### **Energy efficiency in homes**

Scottish Government published a consultation (CNPA423) on proposals for a Heat in Buildings Bill in November 2023. This sought views on the introduction of a new Heat in



Buildings Standard. This standard will require privately owned homes across Scotland to meet a minimum standard of energy efficiency before the end of 2033, and before the end of 2028 for homes in the private rented sector. It also proposes to prohibit the use of polluting heating systems after 2045. Under the plans, the new laws proposed include:

- That all homes and businesses will have to move to a clean heating system by the end of 2045
- People buying new homes and buildings before 2045 would be asked to move to a clean heating system within a set period after the sale.
- Minimum energy efficiency standards for all homes by the end of 2033, to make them warmer and less expensive to heat – private landlords would need to do this by the end of 2028.

In November 2025 the Draft Buildings (Heating and Energy Performance) and Heat Networks (Scotland) Bill was published to provide clarity to industry and stakeholders. Scottish Government now intends to introduce the Bill once the Scottish Parliament returns after the Scottish Election in May 2026. In accordance with democratic processes, plans will need to take into account the outcome of the 2026 Scottish election (CNPA1312). The Proposed Plan will have regard for the Draft Bill (CNPA1297).

### **Heat in Buildings Strategy: Achieving Net Zero Emissions in Scotland's Buildings**

Scottish Government's Heat in Building Strategy (CNPA352), published in 2021, sets out Scotland's vision for the future of heat in buildings. It sets out the actions being taken in the buildings sector to deliver Scotland's climate change commitments, maximise economic opportunities, and ensure a just transition, including helping address fuel poverty.

The Strategy sets out Scottish Government ambition that by 2033, all homes in Scotland will be at an energy efficiency of at least EPC band C (where feasible and cost effective). This will be done simultaneously with rapidly upscaling the deployment of zero emissions heating systems, with the aim that by 2030 over one million homes and the equivalent of 50,000 non domestic buildings are converted to zero emissions heat. This will be delivered by partnership working with local government through the Local Heat and Energy Efficiency Strategies.

The Strategy provides an update to the 2018 Energy Efficient Scotland Route Map (CNPA424) and the 2015 Heat Policy Statement (CNPA134) and bringing together Scottish Government's ambitions on energy efficiency and heat decarbonisation into a single framework. It reflects and supports the policies and actions set out by the Climate Change Plan (CNPA060) and the Climate Change (Emissions Reduction Targets)



(Scotland) Act 2019 (CNPA348), delivering a pathway to zero emissions in buildings by 2045. Its actions are also reflected in the Housing to 2040 Strategy.

In Scotland over 450,000 homes do not use gas as their primary heating fuel and of these, just over 260,000 use electric heating, such as storage heaters, with around 170,000 using high emission fuels including heating oil, liquefied petroleum gas (LPG) or high carbon solid mineral fuels such as coal.

This is the case for the majority if the homes in the Cairngorms National Park in the absence of a gas network. Although there is a small proportion of buildings in the National Park that will utilise renewable or low emissions heating systems, there remains a significant challenge in the National Park to decarbonise the building stock in terms of heating demand.

In order to meet Scotland's interim climate targets and ensure long term delivery of its net zero objectives, by 2030 the vast majority of the 170,000 off-gas homes that currently use high emissions oil, liquefied petroleum gas (LPG), and solid fuels (as well as at least 1 million homes currently using mains gas) must convert to zero emissions heating. By 2030, Scotland will also need to convert the equivalent of 50,000 of Scotland's non domestic properties. In energy terms, Scotland will need to reduce fossil fuel consumption for heat in buildings by at least an estimated 28 TWh, of which at least 21 TWh will be natural gas.

In addition to the existing deployment of grants and support currently being focused on cost effective energy efficient first improvements in buildings (in terms of retrofit and deployment of heat pumps for off gas grid buildings) there is a commitment to support the delivery of low and zero emissions heating networks, where suitable.

### Heat network regulation

The regulation of heat networks is devolved to the Scottish Parliament. The Heat Networks (Scotland) Act 2021 (CNPA1199) introduced powers to regulate the heat networks market in Scotland for the first time. The Act sets targets for the amount of heat to be supplied by heat networks, requiring this reaches 2.6 Terawatt hours (TWh) (3% of current heat demand) by 2027, and 6 TWh (8% of current heat demand) by 2030.

The Act also introduces heat network consents to build or operate heat networks: including creating a bespoke system of scrutiny for new networks, to ensure that they



can contribute to climate change and fuel poverty targets, before they are consented for development.

In taking forward the Heat Networks (Scotland) Act 2021, Scottish Government are working with the sector and local councils to develop the secondary legislation and guidance needed to get an effective regulatory system up and running. Scottish Government are also working with UK Government so that the legislation Scotland and UK Government develop works as seamlessly as possible for both heat network operators and consumers. Scotland's secondary legislation is planned to be phased in by 2025.

The Energy Act 2023 (CNPA1298) was passed by the UK Parliament in October 2023. This Act includes introductory powers to develop regulatory protections for heat network consumers.

### **Heat in Networks Delivery Plan 2022**

The Heat Networks Delivery Plan (CNPA426) sets out what Scottish Government are doing to expand the development of heat networks. This includes funding new projects and introducing rules to regulate the sector. The plan is reviewed every two years when Scottish Government will update on progress against its targets. The first Heat Network Delivery Plan review report was published in March 2024 (CNPA1311).

The document sets out Scottish Government's intentions to work with local government to deliver the local heat and energy efficiency strategies.

The Plan set out Scottish Government's proposals to introduce the New Build Heat Standard requiring new buildings consented from 2024 to install only zero direct emission heat sources, and, subject to devolved competence, bring forward regulatory proposals to require the installation of zero or very near zero emissions heating systems in existing buildings.

Additionally, as an initial step to increase use of waste heat, Scottish Government are considering introducing a requirement for potential heat suppliers to provide information about recoverable heat when formally requested to provide it by a relevant authority or licenced heat network operator.

To guide the development of heat networks Scottish Government has adopted the Building Connection Hierarchy, which prioritises the connection of existing buildings



based on their size, heat demand and ownership. The Building Connection Hierarchy is set out in the Heat Networks Delivery Plan.

### **New Build Heat Standard**

The New Build Heat Standard (CNPA425) requires new buildings to install climate friendly heating systems instead of oil and gas boilers.

Following a review, Scottish Government proposed changes to the New Build Heat Standard regulations in November 2024. These proposed changes have now completed the parliamentary process and officially came into force on 1 January 2025.

These changes mean that bioenergy heating systems like wood burners, and peat burning systems can:

- be installed in all new homes and buildings – putting temporary arrangements into law and expanding them to apply to all buildings
- continue to be used in existing buildings being converted and captured by this Standard

The changes will also allow any type of secondary heating in new buildings. It remains the case that fossil fuel gas and oil boilers cannot be used as a main heating system in new build homes and buildings.

### **Potential heat network zones: first national assessment**

The potential heat network zones: first national assessment (CNPA1313) carries out an analysis to identify and characterise potential zones for heat networks in Scotland. It carries out an initial, automated analysis to identify potential zones for heat networks in Scotland, based on heat demands captured within the Scotland Heat Map.

In identifying potential zones, the analysis does not take into account local development plan sites, existing heat networks and sources of waste or surplus or low carbon heat. The focus of the assessment is on the district heat network scale, defined in the Heat Networks (Scotland) Act 2021 (CNPA1199) as “a network by which thermal energy is distributed from one or more sources of production to more than one building.

The analysis identifies 647 potential zones (this is increased to 712 when potential zones are split by local authority boundaries) using the baseline screening criteria, which contain a total heat demand of 25.7 TWh/yr.



The assessment aims to support the development of policy and regulations, including informing:

- a) The Heat Networks Delivery Plan (CNPA426) (as detailed in the 2021 Act), published in March 2022 after public consultation in 2021.
- b) The local identification of potential zones for heat networks as part of local heat and energy efficiency strategies.

As the Cairngorms National Park Authority is not a local authority, it does not have a duty under the Local Heat and Energy Efficiency Strategies (Scotland) Order 2022 (CNPA1299) to prepare a local heat and energy efficiency strategy. Therefore, the Proposed Plan will be informed by the local heat and energy efficiency strategies produced by the local authorities that cover the National Park. The Plan's spatial strategy should take into account areas of heat network potential and any designated Heat Network Zones identified in these strategies.

### **Bioenergy Update March 2021**

In 2021, Scottish Government published the Bioenergy Update (CNPA112) which set out the current role of bioenergy and how that may change as Scotland moves towards a net zero future. Scottish Government identified the complex interdependencies throughout the biomass supply chain, as well as the potential competition for finite resources. The Update set out the importance of a strategic deployment of bioenergy technologies to ensure available resources are used in the most effective way. The document highlights the emerging role for Bioenergy with Carbon Capture and Storage (BECCS) as integral to achieving the negative emissions potential which will make net zero possible in Scotland.

### **Draft Bioenergy Policy Statement**

The draft Bioenergy Policy Statement (CNPA113) sets out the parameters that need to be considered when setting bioenergy use now and, in the future, to support a reduction in emissions to meet the Climate Change Plan targets (CNPA060). It identifies what Scottish Government think the priority uses of bioenergy are in the short, medium and long term, and sets out the potential domestic biomass supply that could be available as feedstock for energy production. It examines how available domestic biomass feedstock could be increased by planting energy crops. It also acknowledges the potential constraints on the use of bioenergy, the importance of having strict sustainability criteria and that biomass feedstock production and use should facilitate key sustainable development goals.



The Statement points out that in Scotland the wood fuel supply chains are efficient and for the most part based on domestic supplies, and Scotland has a large number of distilleries, including many located in remote or island locations. The by products of whisky production can be used to generate energy, or they can utilise biomass to displace fossil fuels.

Scotland's priorities for bioenergy use at a high level follow those set out by the UK Biomass Strategy. In the short term there will continue to be demand for biomass to be used in power, heat and transport. Where possible, Scottish Government will support early adoption of carbon capture utilisation and storage (CCUS) paired with bioenergy applications. In the medium term it is expected bioenergy will transition away from unabated uses towards bioenergy with carbon capture and storage (BECCS) technologies.

In the short to medium term, it is expected bioenergy will be utilised through the following:

- Power – new biogas combined heat and power plants that utilise waste resources.
- Heating – biomass or biofuel offer a solution to buildings not able to transition to clean heating systems (for example heat networks and heat pumps).
- Transport – use of biofuels for heavy duty vehicles (HDVs) and heavy goods vehicles (HGVs).
- Industry – distilleries and breweries, pulp and paper mill, wood panel and pellet production, fuel switching from fossil fuels with potential for linking to future carbon capture and storage (CCS) infrastructure.

The longer term (post 2035) use of bioenergy should prioritise bioenergy with carbon capture and storage applications where possible, and the majority of biomass uses should deliver negative emissions, but specific timing and detail will depend on how technologies develop.

The majority of Scotland's renewable heat currently comes from bioenergy, with 67% from biomass and 16% from biomethane injected to the gas grid (biomethane currently accounts for 1.65% of Scottish gas demand). For buildings, biomass boilers that burn wood pellets, chips or logs are a well established heating technology, however changes to the Building Standards in Scotland in 2024 mean that under the New Build Heat Standard (CNPA425), solid fuel burning stoves can only be installed in new homes to provide 'emergency heating' where required.



## Key agency documents

### Renewable energy guide for developers and communities working with Scottish Water

The document (CNPA117) aims to help developers and communities understand how to engage with Scottish Water to develop renewable energy and low carbon heat projects.

The document also sets out Scottish Water's Horizon project which is facilitating low carbon heat projects by enabling the extraction of heat from Scottish Water's vast wastewater network. The Horizons project is partnered with SHARC Energy Systems who provide technology to capture and distribute the heat found in the sewer network. However, due to the applied use being most efficient and practical for buildings with a circa heat demand of over 1GWh, in the National Park application of this technology would be limited.

### Historic Environment Scotland Climate Action Plan 2020 – 2025

The Historic Environment Scotland Climate Action Plan (CNPA116) sets out how they plan to transform the way they operate in response to the growing climate emergency. The actions focus on:

- How they will tackle the causes of the climate crisis and respond to the impacts.
- Changes in the way they protect and operate some of Scotland's most recognisable places and landmarks and the landscapes and infrastructure around them.
- Sharing knowledge, building resilience, and investing in sustainability to support others to address the climate emergency.

The action plan contains a number of actions specific to energy and carbon management, which encompasses matters relating to heating and cooling. These include:

- Setting a long term 'net zero' target by 2045, in line with new national emission reduction targets.
- Ensure that energy and carbon management objectives are mainstreamed within strategic and operational decision making across the organisation.
- Develop increased funding options for carbon reduction projects, including external partnerships, loan funding and potential for leasing of appliances and infrastructure.
- Support energy efficiency retrofit programmes and qualification development for construction industry, including working with Scottish Government and partners (for example the Energy Saving Trust, Home Energy Scotland) to develop toolkits such as the Energy Improvements Report to improve domestic energy efficiency.



- Continue to improve energy reduction at sites through the installation of low energy systems (for example lighting and heating), improved controls and insulation measures.

## **National Park Authority documents**

### **Cairngorms National Park Partnership Plan 2022 – 2027**

Outcome 1A of the Partnership Plan (CNPA010) aims to 'ensure the Cairngorms National Park reaches net zero as soon as possible and contributes all it can to helping Scotland meet its net zero commitments'. It is supported by Policy C2, which seeks to support the development of a low carbon, circular economy, with a particular focus on:

- Increasing renewable electricity and heat generation, especially biomass, hydro, solar, small scale wind turbines and heat exchange pumps that are compatible with conserving the special qualities of the National Park and maintain the integrity of designated sites.
- Supporting businesses and communities to use less energy, reduce emissions, improve the energy efficiency of existing buildings, generate low impact renewable energy, reduce, reuse and recycle resources, and plan for a changing climate.
- Maximising the benefits to communities through direct use of locally generated energy or, where sold to the grid, reinvesting income to support community development.
- Promoting high standards of sustainable design and efficient use of energy and materials in construction.

Policy C3 seeks to enhance the design and sense of place in new development and existing settlements, including:

- Promoting a high standard of sustainable design, energy efficiency, sustainably sourced materials and construction in new development.

The Wellbeing Economy Action Plan (CNPA473) aims to address cost of living issues which includes the need to explore long term solutions to issues such as rising heating costs.

### **Cairngorms 2030**

The Cairngorms 2030 projects (CNPA528) will support the delivery of the National Park Partnership Plan 2022 – 2027 (CNPA010). In Partnership Plan, the Park Authority have committed via objective A1 – 'Net Zero' to putting the power to tackle the climate and nature crises in the hands of people who live, visit and work in The Cairngorms National Park.



Two projects that are of relevance to heating and cooling are:

- Climate conscious communities
- Climate learning and education

The climate conscious communities project will increase awareness and deepen understanding of the climate emergency and its relevance to residents, communities, landowners and businesses in the National Park through a series of dedicated workshops. The workshops, led by Keep Scotland Beautiful, are aimed at anyone with a desire to increase their understanding and make more informed decisions to reduce their impact on the environment.

The climate learning and education project will put the voices of young people at the heart of decision making in the National Park and will empower and inspire the National Park's young people and educators to take forward pro-environmental behaviours and activity. The Park Authority is committed to adopting UNESCO's Education for Sustainable Development mission and make it relevant to the Cairngorms National Park and its people.

The new Cairngorms 2030 Community Fund is an investment in communities – with a twist. In 2026, communities won't just have the opportunity to apply for money, they will design the whole process to hand out £1 million from start to finish as part of the Cairngorms 2030 programme, supported by The National Lottery Heritage Fund. This fund will be open to projects that support projects to increase energy efficient and lower heating and cooling demand in the buildings in the National Park.

In February 2026, 18 people representing diverse communities who live in and love the Cairngorms National Park will come together to form a paid panel. This panel will make all the important choices about the fund, from eligibility criteria to maximum award amounts and how the money is distributed. There will be big decisions to be made, thoughtful conversations, and the chance to make a real impact on the future of the National Park and its communities.

## **Local authority documents**

### **Local heat and energy efficiency strategies**

See page 30 for the consideration of Local heat and energy efficiency strategies and their implications for the Proposed Plan.



## **Local Outcome Improvement Plans**

Local outcome improvement plans outline key priorities for each community board area that have been identified through a range of engagement processes and are based on the needs of local communities. They set out an approach to working with and empowering our local communities, enabling them to contribute to, influence and shape locally identified actions around the priorities to achieve improved outcomes for their areas. The five local authorities which overlap the Cairngorms National Park all have individual Local outcome improvement plans (in some cases referred to as community plans).

While the Cairngorms National Park Partnership Plan (CNPA010) is the source of the vision for the local development plan (as explained in Schedule 1: Plan outcomes) the local development plan may support the delivery of the vision and priorities of local outcome improvement plans. A summary of issues relating to this schedule for each local authority are set out below.

### **Aberdeenshire Local Outcome Improvement Plan 2017 – 2027**

The Aberdeenshire Community Planning Partnership's Local outcomes improvement plan (CNPA636) sets a 10 year vision. One of two current priorities agreed in September 2024 is place based community planning. While there are no Local Place Plans registered covering any areas in the National Park, the Proposed Plan will have regard to the community action plans.

### **Angus Community Plan 2022 – 2030**

The Angus Partnership's community plan (CNPA637) has a vision for 2030 that Angus is a great place to live, work and visit. 'Caring for our People' is one of three priorities to achieve the vision. The plan recognises that 40% of households are experiencing fuel poverty and that this is likely to grow. The partnership is exploring how to best mitigate the situation.

The plan commits, through early intervention, to support families out of crisis who need help with basic resources such as housing, heating, clothing, food, benefits and similar things.

'Caring for our Place' is another one of the three priorities. The plan explains that council housing stock is being retrofitted to reduce energy use.



### **2024 – 2027 Highland Outcome Improvement Plan**

Heating and cooling issues are not considered in the Highland outcome improvement plan (CNPA638).

### **2024 – 2027 Highland Outcome Improvement Plan Delivery Plan**

There are no references to heating and cooling issues in the Highland outcome improvement plan delivery plan (CNPA1091).

### **Moray Local Outcome Improvement Plan v2 (2016 – 2026)**

Moray Community Planning Partnership's 10 year outcome improvement plan (CNPA639) has a vision to raise aspirations 'through expanded choices, improved livelihoods and wellbeing'. It focuses on areas where Moray faces the poorest outcomes, ensuring these are central to plans, strategies and priorities. The Plan highlights that one of Moray's main issues is 'an outward migration of young people leaving school for higher education and a poor rate of return in later years'.

This could also be considered applicable in the Cairngorms National Park as there are no further education providers in the National Park. The closest further education provider to the National Park would be in Inverness. To address this Proposed Plan should support any proposal for further education campuses or teaching centres in the National Park. There are also transport considerations for accessing further education for the residents in the National Park and these matters are covered in Schedule 11: Sustainable Transport.

Under the overarching priority: raising aspirations, one of four priorities is 'building a better future for our children and young people'. In terms of outcomes, the plan states that Moray will be a place where children and young people thrive, have opportunities to learn and to reach their full potential. More information on educational attainment is available in Schedule 21: Economic development.

### **Perth and Kinross Community Plan (Local Outcomes Improvement Plan) 2022 – 2032**

Perth and Kinross Community Planning Partnership's community plan (CNPA640) has an ambition to be the best place in Scotland for everyone to live life well, free from poverty and inequality. Five priorities are identified, all of which focus on inequalities. The cost of living crisis is identified as a cross cutting issue characterised by a global economic downturn and volatility in energy prices. Identified actions under the reducing poverty strategic priority include 'supporting improved energy efficiency in homes'.



## **Badenoch and Strathspey Area Place Plan**

The Plan (CNPA237) is an overview of local priorities and opportunities expressed in existing plans, strategies and recent community engagement, it aims to provide a clear statement of identified priorities, strengths, challenges, opportunities and community aspirations within one consolidated 'Plan', which can be referred to by Council services, public services, groups and organisations operating in Badenoch and Strathspey. This will help to ensure service provision, funding and developments reflect collective community wants, needs and priorities.

The Plan is split between three headings: People, Place and Prosperity. In relation to this schedule, under the Prosperity heading the plan addresses the following priorities:  
Education and Childcare

The Area Place Plan will serve as a foundational framework from which more detailed and targeted actions can be developed. The intention is that this will be an evolving plan, and this is the first version of an area plan for the Badenoch and Strathspey region. In the first instance an action plan will be created to set out the route for delivery of the priorities within the Badenoch and Strathspey Area Place Plan. The action plan will seek to:

- Further understand and develop priorities, in discussion across all sectors
- Set out to identify the best mechanism for delivery and the range of partners to be involved
- Assess potential barriers
- Assess potential funding opportunities

The Proposed Plan will take into consideration the Action Plan once it has been published and this will inform the preparation of the Proposed Plan.

## **Community action plans**

The following action plans identified issues and / or priorities relating to heating and cooling, which includes matters related to energy generation. Detailed matters related to energy generation; transmission and distribution are available in Schedule 9: Energy.

### **Ballater and Crathie Community Action Plan 2023**

Under the Environment and Energy theme, the Action Plan (CNPA119) sets out the aim 'to strive to make Ballater and Crathie as resilient, self sufficient and carbon negative a place in which to live, work and visit as they can'. The community set the following strategic goal:



- To investigate the provision of local energy supply whether ground source, solar, hydroelectric or geothermal and how best to improve the provision of transport with less carbon dioxide generation.

It also sets the following tactical goal to:

- Promote the insulation of properties and ways to assist reduction in the need for energy.

### **Braemar Community Action Plan**

In the Action Plan (CNPA121) summary section of the document there are two actions that relate to energy. In Theme one: Visitor experience there is an action to improve energy efficiency, reduce heating bills by exploring schemes like the green deal and provide assistance to local residents and businesses. The community also set out plans to investigate district heating schemes, powered by. For example, local woodchips, wood pellets or ground source heat pumps.

Braemar Community Action Plan is currently under review, and an update is due to be published in 2026.

### **Boat of Garten Community Action Plan: Looking to 2030**

In the Action Plan (CNPA374), under the theme of 'a socially connected community' there is a suggestion to provide more affordable housing which includes the action to ensure new housing is energy efficient. There are no other implications for the Proposed Plan arising from the Action Plan relating to this schedule.

### **Carrbridge Community Action Plan: Looking to 2030**

In the Action Plan (CNPA122), under the priority aimed at building up community resilience, Carrbridge seeks to address and initiate community projects that support carbon reduction in local homes. It sets out the following actions to achieve this:

- Host an Energy Efficiency event (with experts) for advice, products, installers and sources of financial support. Especially for those with older homes
- Community knowledge share of ideas for heating / insulation of homes.
- Contact Energy Saving Trust, Community Energy Scotland, CARES<sup>1</sup>, Local Energy Scotland for support.

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<sup>1</sup> Community and Renewable Energy Scheme, run by Scottish Government.



During the public consultation the following suggestions were made supporting the proposed actions:

- Make some improvements to the village hall: more efficient heating and energy usage Community wide project to support a reduction in the carbon and energy footprints of the community's homes and its travel.
- Assistance to improve energy efficiency of existing housing stock (insulation, advice from experts etc).
- Improvements to the village hall to make it more energy efficient. (underfloor heating).

### **Dalwhinnie Community Action Plan: Looking to 2030**

In the Dalwhinnie Community Action Plan (CNPA125) under the climate conscious community theme the community have set out a priority to 'reduce energy consumption as a village / (and for) households', The Plan sets out the community aim to investigate and seek advice and support available with the aim of setting up an information event at hall for local residents and businesses to drop in. They set out the aim to work with Laggan Community Council who expressed a desire to do something similar.

### **Grantown-on-Spey Community Action Plan**

With in the Action Plan (CNPA065) under the theme of 'a climate conscious community' there is a suggestion to make changes to the Conservation Area Management Plan. This suggestion includes the following actions:

- Remove barriers for energy improvements for example solar panels / PVC windows keeping aesthetics suitable.
- Release the 1960 / 1970s bungalows from the management plan restrictions – as they are deemed to be unfair and unjustifiable.

### **Kingussie Community Action Plan: Looking to 2030**

The Action Plan (CNPA066) includes a suggestion to explore further community energy and sustainability options under the theme of 'an economically thriving community'. This suggestion includes the following actions:

- Develop a local green energy strategy.
- Community rent rooftops for solar panels.
- Establish a community enterprise to train up young people to do retrofit projects (insulation etc.).
- Explore district heating opportunities.



- Work with the Cairngorms National Park Authority, Scottish and Southern Electricity, Highlands & Islands Enterprise (HIE), Kingussie Community Development Company, The Highland Council, the energy trust and local schools.

Matters relating to renewable energy generation in the National Park is covered in Schedule 9: Energy.

### **Laggan Community Action Plan: Looking to 2030**

Under the theme of 'a climate conscious community' in the Laggan Community Action Plan (CNPA129) sets out the priority of 'energy efficient housing / community properties' to achieve this the community will seek to:

- Improve efficiency in tenanted and community owned properties including the village hall, through inspection / advice / installation of energy cost reduction measures.
- Investigate opportunities for a village turbine (electric or hydro).

Under the theme of 'a socially connected community' the community sets out the priority of 'having affordable places to live' The community have set out the following action to achieve this:

- Community support scheme to help residents and businesses make their homes more energy efficient / better insulated (double glazing, solar panels, heat pumps, smart meters etc) this will be delivered through:
  1. Investigating advice / support available – set up an information event at hall for local residents and businesses to drop in.
  2. Exploring possible use of Scottish and Southern Electricity money for a scheme.

Under the suggestions put forward as part of their community consultation the following responses were garnered:

- The need for insulation and energy efficiency programme with support for local housing.
- Initiate a programme of insulation and energy efficiency inspections undertaken in all tenanted properties and community owned properties to reduce energy use and costs.

### **Mount Blair Community Action Plan**

The vision set out in the Mount Blair Community Action Plan (CNPA130) includes the following aim of reducing the community's carbon footprint and lowering its costs of



living, which in part can be achieved through the use of renewable energy and lowering the communities carbon footprint.

One of the main strategies, titled Infrastructure and renewable energy specifically addresses the communities' challenges in terms of high cost of fuel. To tackle this the community proposed the following priorities:

- Develop wood fuel / biomass community initiative.
- Establish collective buying scheme for oil.

The Plan also sets out the priorities under the Community and recreational facilities theme (three) to:

- Support Ballintuim Village Hall to make improvements to car parking area, install renewable and cost effective heating and other upgrades.
- Support Bridge of Cally Village Hall to improve heating system and other upgrades.

### **Nethy Bridge Community Action Plan: Looking to 2030**

Within the Action Plan (CNPA131), under the other suggestions section, the community would like to explore / see initiatives to help the community learn about better insulation and other energy efficiency measures. There are no other implications for the Heating and Cooling schedule with respect to this Plan

### **Newtonmore Community Action Plan: Looking to 2030**

Within the Action Plan (CNPA132), under the other suggestions section, the community would like to explore options for future proofing for houses with alternative heating supplies away from fossil fuels / home insulation measures. There are no other implications for the Heating and Cooling schedule with respect to this Plan.

### **Strathdon Community Action Plan: Looking to 2030**

Within the Action Plan (CNPA133) under the theme of 'a climate conscious community' the Plan includes the priority to develop community renewable energy projects. This priority includes the action to deliver advice for insulating residential properties.

## **Baseline of matters relating to heating and cooling**

This section summarises a number of matters relating to waste infrastructure, including, central heating in current households, local heat and energy efficiency strategies, heat networks, heat mapping, local area energy plans and public sector investment.



There are links between this policy area and:

- Schedule 1: Plan outcomes
- Schedule 3: Site assessment methodology
- Schedule 4: Climate change
- Schedule 5: Natural heritage
- Schedule 9: Energy
- Schedule 13: Housing
- Schedule 16: Blue and green infrastructure
- Schedule 21: Economic development

### **Central heating in current households**

The Cairngorms National Park has a significantly different profile of central heating use compared to the national average, reflecting the area's rural area and the lack of a mains gas network. The lack of central heating is one of the key indicators of deprivation used by the Scottish Index of Multiple Deprivation (SIMD) (CNPA534) in its housing domain. The most recent Scottish Index of Multiple Deprivation release was in 2020 and since then Census 2022 (CNPA439) estimates have been released that supersede the 2011 Census estimates used by the Index. Therefore 2022 Census estimates have been used in this report to report on central heating systems used in the National Park.







According to the 2022 Census, of the 8,451 households<sup>2</sup> in the Cairngorms National Park, around 4.4% have no central heating (equating to 368 households), compared to 2.1% for Scotland as a whole. There is also significant geographical variation across the National Park, with the highest rate of households with no central heating in the west, encompassing the settlements of Laggan and Dalwhinnie, where it reaches 14.4% (Figure 1). The highest rate of households with central heating is Aviemore, where just 1.4% of households lack central heating.

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<sup>2</sup> Census estimates cover occupied households only. They do not include empty homes, second homes or short term holiday lets in these estimates.



### Proportion of households without central heating

-  ≤ 2.5%
-  2.5% - 5%
-  5% - 7.5%
-  7.5% - 10%
-  10% - 12.5%
-  12.5% - 15%

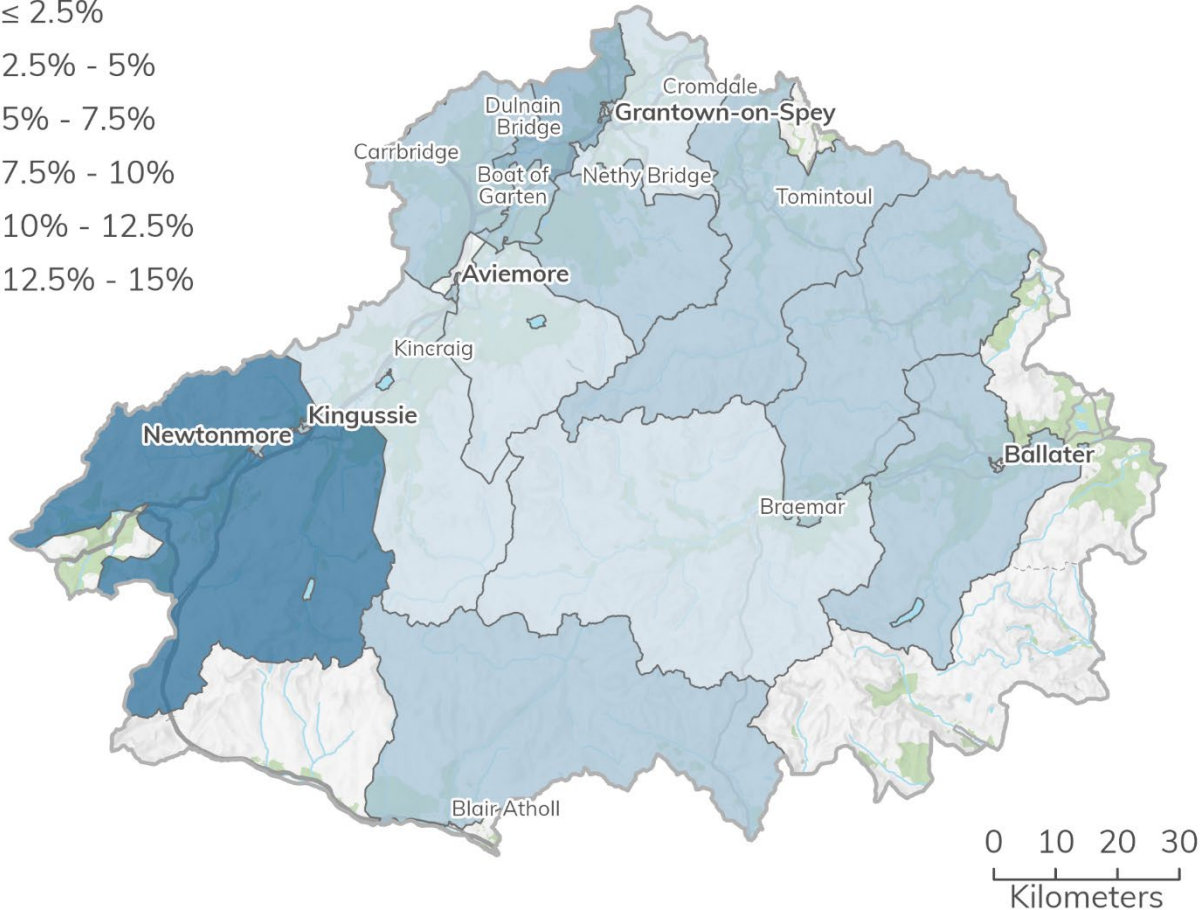


Figure 1 Proportion of households in the Cairngorms National Park with no central heating in 2022 (Census table UV407). Cairngorms National Park Authority © Crown copyright and database rights 2026 Ordnance Survey AC0000821810. Contains data © Census Scotland 2026 (CNPA439).

The most common form of central heating in the National Park is fuelled by oil, accounting for around 35.7% of households (3,015 households), compared to 5.1% for Scotland as a whole. The use of electric central heating is also significantly higher than the National average, around 25.5% (2,155 households) compared to Scotland's 9%. According to the Census estimates, only 26 households (0.3%) in the National Park received central heating from a district or communal system (Figure 2).

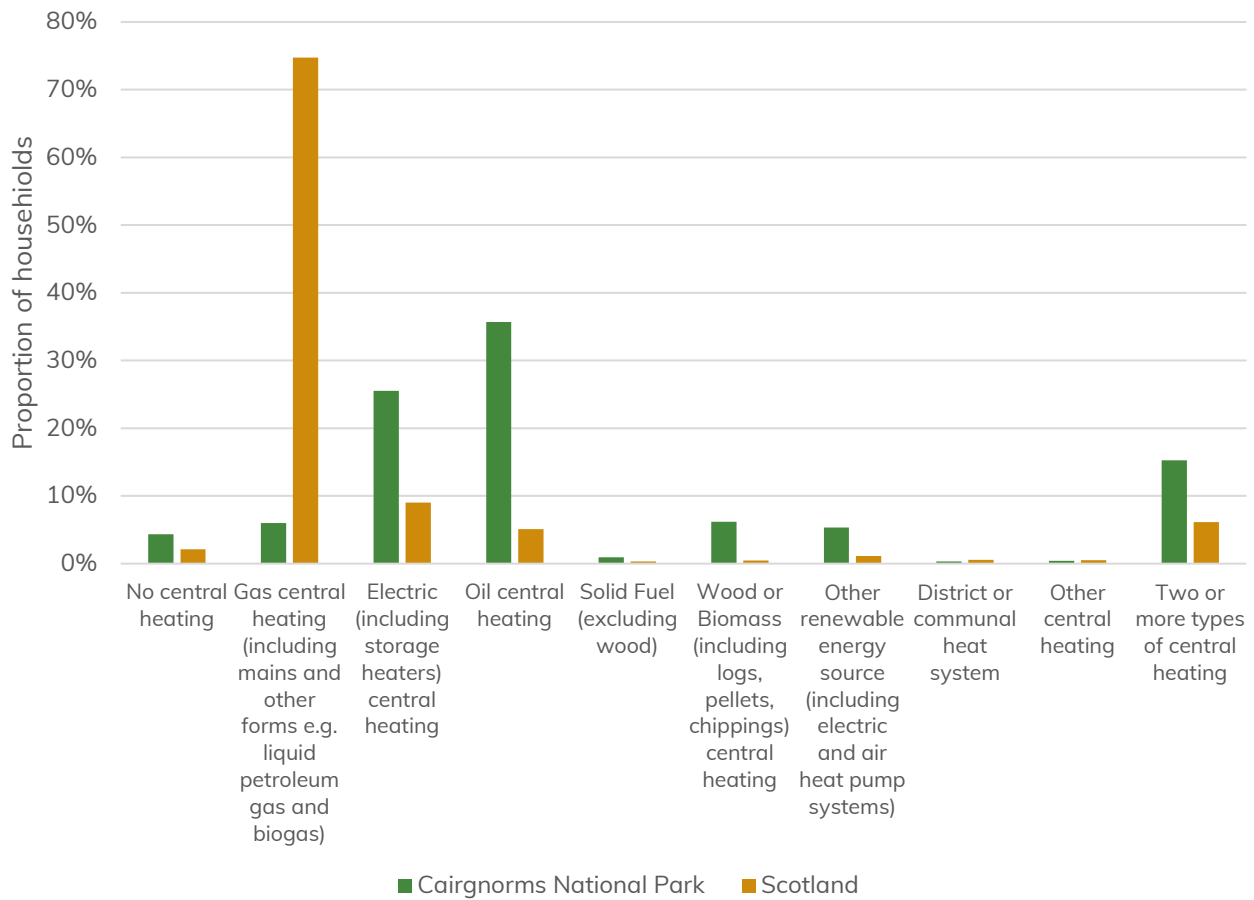


Figure 2 Central heating in households in the Cairngorms National Park and Scotland in 2022. Census table UV407 (CNPA439).

### Local heat and energy efficiency strategies

The Local Heat and Energy Efficiency Strategies (Scotland) Order 2022 (CNPA1299) places a duty on local authorities to produce Local Heat and Energy Efficiency Strategies. The Park Authority does not have this duty; therefore, the Proposed Plan must take account of the five local authority local heat and energy efficiency strategies (LHEES) covering its area.

Local heat and energy efficiency strategies set out the long term plan for decarbonising heat in buildings and improving their energy efficiency across an entire local authority area, framed around the considerations set out in Table 2.



Table 2 Local heat and energy efficiency strategy considerations and the National Park context.

Local heat and energy efficiency consideration	Description	Cairngorms National Park context
<b>Heat decarbonisation</b>		
Off-gas grid buildings	Identify off-gas heat decarbonisation pathways and opportunities at a strategic level and at a delivery level.	In the National Park there is no gas network so considerations relating to this consideration in the Local Authority's Local Heat and Energy Efficiency Strategies need to be prioritised.
On-gas grid buildings	Identifying potential on-gas heat decarbonisation pathways and opportunities at a strategic and delivery level.	There are no on-gas grid buildings in the Cairngorms National Park. Therefore, considerations relating to this category do not need to be prioritised.
Heat networks	Highlighting zones within a local authority where heat networks present a potential decarbonisation option	There are a number of existing heat networks and further sites suitable for new heat networks. These should be supported by the Local Development Plan.
<b>Energy efficiency and other outcomes</b>		
Poor building energy efficiency	Identify possible locations at a strategic and delivery level where poor building energy efficiency exists across the local authority.	Development will need to consider domestic energy efficiency interventions in indicative Heat Network Zones identified in the local Heat and energy efficiency strategies.
Poor building energy efficiency as a driver for fuel poverty	Identifying possible locations at a strategic and delivery level where poor building energy efficiency acts as a driver for fuel poverty.	This consideration can be used as mechanism of reducing fuel poverty and heat demand.



## Highland Council Local Heat and Energy Efficiency Strategy 2023

The Strategy (CNPA361) is a long term plan for decarbonising heat and improving energy efficiency for all buildings across the Highland Council area and the delivery plan sets out how the Council and its stakeholders propose to support implementation of its first Local Heat and Energy Efficiency Strategy.

Two examples of exemplary heat networks in the National Park covered by the Highland Local Authority are named in the Strategy:

- The Aviemore Heating Project (Albyn Housing Society Ltd)
- The Milton Burn, Aviemore

There are a number of smaller heat networks. The Strategy does not set out any other heat network projects in development in the Highland Local Authority area of the National Park.

Key conclusions outlined in the Highland Council Local Heat and Energy Efficiency Strategy include:

- The energy efficiency rating in the Highlands falls below the average for Scotland, showing that domestic dwellings in the region are less efficient. Key reasons include the buildings age, heating fuel and levels of insulation.
- A significant amount of non domestic properties in the Highlands have the potential to decarbonise. Oil heated buildings are more likely to be suitable for heat network connection as they will have wet heating distribution system. Retrofit for heat networks is likely to be less costly and complex compared to electricity heated buildings.
- Detached, semi detached and terraced properties present an opportunity to install individual heat pump installations, replacing carbon intense fuels such as oil and liquid petroleum gas (LPG) with cleaner and greener sources of energy.
- Domestic flats may be more suited to connect to a district's heating rather than to install individual heat pumps.
- Significant external funding will be required, as the Housing Revenue Account will not be sufficient to meet the funding needs to make domestic properties more energy efficiency and compliant with the Energy Efficiency Standard for Social Housing (ESSH2).
- Public buildings are required to submit building assessment reports to inform suitability for connection to heat networks. This will help improve confidence in heat demand data.



- Retrofitting listed buildings or buildings in conservation areas requires careful consideration of planning permission and a good understanding of building characteristics and design restrictions to meet the standards for energy efficiency.

The first iteration of the Highland's Local Heat and Energy Efficiency Strategy identifies indicative Heat Network Zones to understand the scale of potential and initial areas of focus. The outputs of the Strategy can be used to start work on the consideration of heat networks through follow up work for Heat Network Zoning, as required by the Heat Networks (Scotland) Act 2021.

When analysing the 'heat pump ready' property clusters in both the on and off-gas areas, over 1,550 green spaces in the off-gas areas have been identified that show a high potential to be used for small scale heat networks such as shared ground source heat pumps (GSHPs) for the nearby properties. Within the Cairngorms National Park these include areas covering Grantown-on-Spey, Nethy bridge, Aviemore and Coylumbridge and Kingussie and Newtonmore.

### **The Highland Council Local Heat and Energy Efficiency Delivery Plan: Strategic Approach**

The Delivery Plan (CNPA361) highlights that domestic heat decarbonisation and energy efficiency delivery in the Highland region is based on current available funding and programmes. The Council has secured additional external funding from Scottish and Southern Energy Renewables (SSE Renewables) to support private households classed as extreme fuel poverty to support the delivery of energy efficiency improvements. Many social housing providers in Highland are currently assessing their stock to evaluate condition. It is worth noting that in some instances, aesthetics is prioritised over energy efficiency works. The Delivery Plan sets out the following activities at a building level relating to this schedule:

- Understand capacity for retrofit at scale and costings of repair works – the outcomes are to deliver a review of stock information for domestic and non domestic Council buildings. Establish accurate costing against building stock types. It also aims to reduce fuel poverty rates through energy efficiency and heat decarbonisation works.
- Work with Historic Environment Highland Team to develop a targeted approach to historic building interventions.

The Delivery Plan also sets out actions to engage with relevant stakeholders to identify areas of collaboration across mixed tenure properties that would provide an opportunity



to decarbonise heat. In addition to engaging with the business community and private sector landlords around decarbonisation of heat.

In relation to heat networks the Delivery Plan sets out the following actions:

- Conduct feasibility studies and beyond to explore heat network delivery model options
- Engage with planners and other relevant stakeholders to discuss heat network potential and share best practices for future network expansion.
- Request fuel data to support prioritisation of low carbon technologies and heat network analysis for delivery areas. Support public sector organisations to discharge their duty to complete Building Assessment Reports (BAR).
- Engage with stakeholders to gather data and building information to investigate suitability for heat network connections and source potential.
- Engage with other local authorities for collaboration opportunities and best practices regarding heat network development.

The Proposed Plan should support Highland Council's actions to deliver retrofit solutions and deliver potential identified heat networks in the National Park.

### **Moray Council Local Heat and Energy Efficiency Strategy 2023 – 2028**

Moray Council's Local Heat and Energy Efficiency Strategy (CNPA356) is centred on a place based, locally led and tailored approach to the decarbonisation of heat in its buildings. The Strategy aims underpin an area based approach to heat and energy efficiency planning and delivery. It was developed in collaboration with key stakeholders across Moray and sets out the long term plan for decarbonising heat in buildings and improving their energy efficiency.

The main priorities set out in the Local Heat and Energy Efficiency Strategy, in relation to delivering change with regard to energy include:

- Building sustainable and climate resilient communities – this will include actions in the Delivery Plan to support communities with support for community led energy efficiency and adaptation projects.
- Delivering a just transition for the energy system.
- Tackling fuel poverty and improving health.
- Improving the energy efficiency of buildings.
- Decarbonising building heat sources – this will include identifying actions in the Delivery Plan to identify existing electricity grid capacity to meet heat



decarbonisation requirements.

The Strategy sets out the locations in Moray that have been identified as being potentially suitable for new heat networks, they do not include any areas within the Cairngorms National Park. The Strategy recognises that most domestic properties in Moray will not be in areas suitable for heat networks so individual heating solutions such as heat pumps will be the most suitable solution for these. Although not specifically mentioned it can be included this includes the smaller settlements within the National Park.

### **Moray Council Local Heat and Energy Efficiency Strategy Delivery Plan 2023 – 2028**

Moray council has also produced a Local Heat and Energy Efficiency Strategy Delivery Plan (CNPA356). Under Priority 1: Building sustainable and climate resilient communities, the Plan sets out the following actions:

- Support community led energy efficiency and adaptation projects. The Councils aims to creased number of community led projects supported, and carbon emissions saved through these projects.
- Encourage formation of community energy cooperatives.
- Enhance community resilience within local strategic planning, with the aim of ensuring integration of climate resilience measures in new developments.

Moray Council also aim to establish a Just Transition Fund<sup>3</sup> to support affected communities and businesses, with the aim of delivering increased investment in impacted communities, job creation, reduced reliance on fossil fuels for energy needs, and diversification of local economies.

The Plan also sets out actions to deliver Priority 5: Tackling fuel poverty and improving health, which include the need to:

- Identify nondomestic buildings with largest potential energy savings
- Develop a fund for initial homeowner / private landlord retrofit survey
- Create retrofit and new build living exemplars and showcase to the public and developers.

Actions aimed at delivering Priority 6: Improving the energy efficiency of buildings include promoting energy literacy and behavioural change and increasing support for low income households.

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<sup>3</sup> Under Priority 3: A just transition for the energy system.



Finally, actions addressing priority 7: Decarbonising building heat sources include the following actions:

- Designating Moray heat network zones.
- Identifying existing electricity grid capacity to meet heat decarbonisation requirements.
- Developing and implementing financial incentives for on-grid heat pump installations.
- Delivering targeted support for low income households and vulnerable communities.
- Facilitating the development and expansion of heat networks in Moray.

The Proposed Plan should support Moray Council's actions to deliver community energy projects, retrofit solutions and potential identified heat networks in the National Park.

#### **Aberdeenshire Council Local Heat and Energy Efficiency Strategy 2024**

The Local Heat and Energy Efficiency Strategy (CNPA362) for Aberdeenshire highlights the existing heat networks in Braemar, Ballater, Glen Tanar and Strathdon. No further projects or areas for heat networks are identified in the Local Heat and Energy Efficiency Strategy or Delivery Plan for areas / settlements in the Cairngorms National Park.

The Strategy also highlights the localities most at risk from poor energy efficiency driving fuel poverty. The likelihood of fuel poverty is higher in off-gas properties, which applies to almost half of Aberdeenshire. One area highlighted as most at risk from poor energy is East Cairngorms.

Alongside the Local Heat and Energy Efficiency Strategy the Council has also published a StoryMap to accompany the Strategy which is available here:

- <https://storymaps.arcgis.com/stories/24e55ad3c5894dbd87066999aea41d80>  
(CNPA363)

The StoryMap shows the existing heat networks in the Aberdeenshire Council area.

#### **Aberdeenshire Council Local Heat and Energy Efficiency Strategy Delivery Plan**

The Delivery Plan (CNPA371) sets out a number of short term actions that support the delivery of the Council's Local Heat and Energy Efficiency Strategy. The actions set out in the Plan are as follows:

- Refine data and zone mapping as the Council has identified that initial data has a lot of assumptions. Including key non domestic building data will be beneficial for



any future Heat Network zoning and selection of zones for energy efficiency measures.

- Launch a 'Warm Aberdeenshire' campaign to increase public awareness in retrofit and participation in available schemes.
- Aggregation of completed trial and feasibility data to inform new opportunities.
- Heat Network Feasibility Studies to identify viable zones and anchor loads for potential future development.

The Proposed Plan should support Aberdeenshire Council's actions to deliver improvements to building fabric through insulation etc and deliver new potential heat networks identified in the National Park.

### **Perth and Kinross Council Local Heat and Energy Efficiency Strategy 2024 – 2045**

The Local Heat and Energy Efficiency Strategy (CNPA3656) notes that to the rural nature of Perth and Kinross, the potential for heat networks in the local authority area is limited to a few urban areas and towns. As such no potential Heat Networks have been identified of areas / settlements within the Cairngorms National Park. The areas in the Perth and Kinross, that are located within the Cairngorms National Park as some of the highest areas in terms of potential benefits is widespread heat pump deployment. More information on the energy efficiency of these areas and potential energy savings and CO<sub>2</sub>e reductions that can be delivered are detailed in the Perth and Kinross Council Local Heat and Energy Efficiency Strategy Strategic Zoning Report (CNPA1002).

The Strategy highlights that when comparing areas with high energy efficiency driven fuel poverty with properties requiring lower cost retrofit options, the areas within the National Park of Blair Atholl, and Glenshee, showed some of greatest opportunity.

The Strategy highlights that for the majority of Perth and Kinross rural properties that fall outside of potential heat network zones, heat pumps will be the recommended low carbon heating source. The strategy recognises that decarbonising heat, focusing on heat networks and heat pumps, which run on electricity, places significant pressures on the grid.

The Delivery Plan, produced alongside and within the Local Heat and Energy Efficiency Strategy sets out the strategic priority of delivering decarbonised heat within a transitioning energy system, which translates to a local authority area priority of identifying off-gas homes suitable for heat pump retrofit and improving building energy efficiency to meet regulatory standards.



## **Angus Council Local Heat and Energy Efficiency Strategy 2024**

The Strategy (CNPA370) highlights that Angus is predominantly a rural council, hence the percentage of off-gas grid domestic buildings being higher than the Scottish average. The area of Angus covered by the Cairngorms National Park is of extremely low density with no intermediate or strategic settlement and rural housing that is off gas. Heat pumps and solar photovoltaic installations in the areas of the National Park within the Angus council area are recommended (alongside energy efficiency improvement measures to the building fabric), and as such no heat networks are proposed in these locations. Buildings in this area rely on a mix of oil, electricity and solid fuel heating sources (other).

Off-gas heated properties increase the risk facing local residents in this area being susceptible to fuel poverty as outlined in the Local Heat and Energy Efficiency Strategy. However, the average Scottish Index of Multiple Deprivation rating for the data zones in these areas is six, which suggests lower levels of fuel poverty, despite the Off-Gas Category 3<sup>4</sup> domestic buildings being poorly insulated and considered hard to treat. In general, the poor energy efficiency of the off-Gas Category 3 domestic buildings doesn't seem to be acting as a driver for fuel poverty.

The Strategy concludes that in terms of decarbonising heat, the poor energy efficiency of domestic buildings needs to be addressed via a 'fabric first' approach to reduce energy demand, to enable the transition to zero emissions heating systems. However, the impacts on Fuel Poverty must also be considered. Although heat decarbonisation is essential to address the climate emergency, it is essential that measures both promote decarbonisation and lower fuel costs and that the installation of a zero emissions heating system must not have detrimental effect on fuel poverty. A 'fabric first' approach to increase the energy efficiency of the building may be required in the first instance to help those in fuel poverty to manage their running costs before a zero emissions heating system is considered.

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<sup>4</sup> Those with tertiary potential for heat pump retrofit (that is to say buildings in need of significant fabric upgrade / heat distribution system upgrades to be heat pump ready) or those less suited to heat pump technology, with electric (storage or direct) or biomass likely to be the most viable decarbonisation technology. Significant fabric upgrades are generally considered to be insulating the walls of solid brick and stone and timber constructed buildings, topping up loft insulation and installing double / triple glazed windows.



## **Angus Council Local Heat and Energy Efficiency Strategy Delivery Plan**

This Delivery Plan accompanies the Local Heat and Energy Efficiency Strategy, and it sets out how the Council proposes to support implementation of the Strategy. The Delivery Plan aims to transform buildings and heating systems to those that are efficient, affordable, and zero emissions. The Local Heat and Energy Efficiency Strategy set out targets against the following targets:

- Improving energy efficiency in domestic buildings.
- Reducing fuel poverty.
- Heat decarbonised in non domestic and domestic buildings.
- Heat is decarbonised via heat networks.

The overarching targets set out in the Local Heat and Energy Efficiency Strategy relating to heat networks in Angus are as follows:

- 3% of the heat demand within Angus to be supplied via heat networks by 2027.  
8% of the heat demand within Angus to be supplied via heat networks by 2030.

The Delivery Plan sets out the following strategic actions that are particularly relevant to the National Park

- Fuel poverty – Use Local Heat and Energy Efficiency Strategy to prioritise zones where poor energy efficiency is a driver of fuel poverty, to ensure a just transition to zero emissions heating through a fabric first.
- ‘Road to Net Zero’ Study for the Council’s non housing building estate – to help identify and prioritise buildings for heat decarbonisation.
- Complete feasibility studies on the five identified Heat Network Zones – subject to funding.

As the other actions in the Delivery Plan relate to the identified Heat Network Zones in the Local Heat and Energy Efficiency Strategy which are out with the National Park, there are no implications arising from them for the preparation of the Proposed Plan.

## **Heat networks**

A key consideration of the local authority local heat and energy efficiency strategies is heat decarbonisation (Priority 1), which can in part be achieved by the delivery of heat networks. The strategies also assist accelerating deployment and in meeting their duty under the Heat Networks (Scotland) Act 2021 (CNPA1199). Section 47 of the Heat Networks (Scotland) Act places a duty on local authorities to carry out a review to consider whether one or more areas in its area is likely to be particularly suitable for the construction and operation of a heat network.



Heat networks supply heat and hot water from a central source to consumers, through a network of pipes usually underground. Ofgem offer the following definitions of the two types of heat networks:

- Communal heat network: this supplies heat and hot water to a number of premises and customers within a single building. This is the most common form of heat network in the UK.
- District heat network: supplies heat to more than one building. District heat networks can cover a large area and supply many buildings.

In the context of the Proposed Plan and heat networks (also referred to as district heating) the evidence is concerned with heat networks that distribute heat from a central source to multiple buildings, reducing energy consumption.

Section 92 of the Heat Networks (Scotland) Act sets statutory targets for heat supplied by heat networks. These require the combined supply of thermal energy by heat networks in Scotland to reach 2.6 TWh of output by 2027 and 6 TWh of output by 2030. The Heat Networks (Heat Network Zones and Building Assessment Reports) (Scotland) Regulations 2023 (CNPA1300) came into force in 2023 requiring local authorities to identify, consult on and designate potential heat network zones in their areas.

Potential heat network zones are identified by the relevant local authority's local heat and energy efficiency strategies and will be developed further for adoption within the relevant council's local development plans as required by the Heat Networks (Scotland) Act 2021. Further information and guidance on Local Heat and Energy Efficiency Strategies is available here:

- <https://www.gov.scot/publications/local-heat-energy-efficiency-strategies-delivery-plans-guidance/> (CNPA1003)

### **Opportunity areas for district heating networks in the UK: second national comprehensive assessment**

The research (CNPA428) provides more detail on the geographic opportunities for low carbon heat network deployment across the country as a whole and for each of the four nations separately, including:

- An overview of current heating and cooling demand and supply in the UK.
- Detailed maps showing the spatial distribution and density of supply and demand across the UK and each nation separately.



- An assessment of the economic potential for district heating as an efficient heating solution in the UK, accompanied by maps showing opportunity areas.
- A simplified cost benefit analysis comparing heat networks with other, non networked heating solutions based on highly stylised alternative future energy pathways.
- An overview of existing, planned and possible policy measures that are or could support delivery of the economic potential.



The study represents the second UK National Comprehensive Assessment of the potential for efficient heating and cooling undertaken to meet the requirements of Regulation 4 of the Energy Efficiency (Encouragement, Assessment and Information) Regulations 2014. The study is focused on district heating networks which are seen as having a key role to play in the delivery of efficient low carbon heating. Aside from estimating current cooling demand in the UK, no further analysis on cooling was undertaken. The paper sets out the UK position that, heat is a devolved matter in Scotland and Northern Ireland, and these nations are responsible for developing their own heat policies. The study provides maps for Scotland setting out the heat demand density, heat supply density and areas with potential for economically viable heat networks.

Further detail on the opportunities in Scotland can be found at Scotland's Heat Map (CNPA1004).



## Existing and proposed heat networks

### Heat networks

-  Biomass
-  Electricity
-  Oil
-  Other
-  Unknown

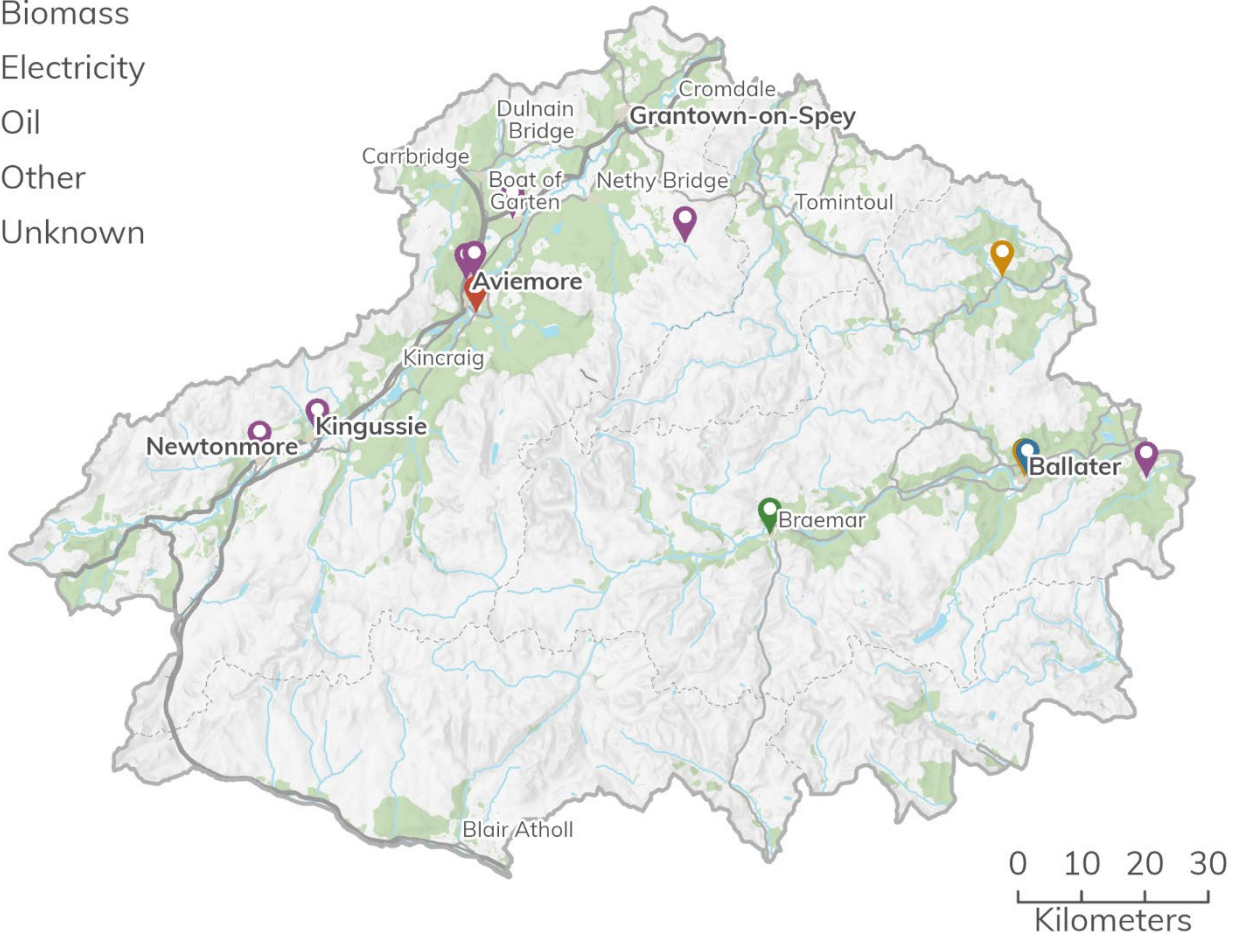


Figure 3 Existing Heat Networks in the Cairngorms National Park, 2024. Cairngorms National Park Authority © Crown copyright and database rights 2026 Ordnance Survey AC0000821810.

Existing and proposed Heat Networks in the National Park are set out in the local authority local heat and energy efficiency strategies. The proposed new heat networks build upon the Potential heat network zones: first national assessment carried out by Scottish Government and Zero Waste Scotland (CNPA1313) and the Scotland Heat Map (CNPA427). Decarbonising heat, focusing on heat networks and heat pumps, which run on electricity, places significant pressures on the electricity grid<sup>5</sup>.

In The Highland Council area of the National Park there are currently seven heat networks in operation (Figure 3), with one in development at Rothiemurchus (Table 3).

<sup>5</sup> For more information on Energy matters, please refer to Schedule 9: Energy.



There are no new heat networks proposed in the National Park within the Highland Council’s Local Heat and Energy Efficiency Strategy (CNPA361).

Table 3 Heat Networks in the Highland area of the National Park, both operational and in development. Scottish Government, 2024 (CNPA427) and Highland Council Local Heat and Energy Efficiency Strategy (CNPA361).

Location	Primary technology	Project name	Status
Newtonmore	Boiler	33 Glen Grove	Operational
Kingussie	Boiler	39 Glebe Court	Operational
Aviemore	Unknown	Rothiemurchus, Aviemore	In development
Aviemore	Boiler	Milton Side	Operational
Aviemore	Boiler	Aviemore	Operational
Aviemore	Boiler	Unit 15 Dalfaber industrial Estate	Operational
Boat of Garten	Boiler	Boat of Garten	Operational
Nethy Bridge	Boiler	Attinlea	Operational

There are no existing district heat networks in the Moray Council or Angus Council areas of the National Park (Figure 3). The Local Heat and Energy Efficiency Strategies for Moray (CNPA356) or Angus (CNPA370) do not propose any new heat networks in the National Park.

Due to the rural nature of Perth and Kinross, the potential for heat networks in the local authority area is limited to a few urban areas and towns. At present there are no heat networks, nor are there any proposed new heat network developments, in the Perth and Kinross area of the Cairngorms National Park (Figure 3).

Within the Aberdeenshire Council area of the National Park there are a number of small existing heat networks (Figure 3), five being operational and a further two in development (Table 4) (CNPA362).

Table 4 Heat Networks in the Aberdeenshire area of the National Park, both operational and in development. Scottish Government, 2024 (CNPA427) and Aberdeenshire Council Local Heat and Energy Efficiency Strategy (CNPA362).

Location	Primary technology	Project name	Status
Ballater	Ground Source	Monaltrie	In development



Location	Primary technology	Project name	Status
Ballater	Boiler	Ballater Station	Operational
Braemar	Ground Source	Kindochit	In development
Ballater	Boiler	Sluiemohr Hawthorn Grove	Operational
Ballater	Boiler	Sluiemhor Sheltered Housing	Operational
Strathdon	Boiler	Doune Court, Bellabeg	Operational
Glen Tanar	Boiler	Glen Tanar	Operational

## Scotland Heat Map

The Scotland Heat Map (CNPA427) is a GIS (geographic information system) based tool that can be used to identify opportunities to reduce carbon emissions from heat in buildings. It brings together a range of data sources available to the Scottish Government to provide estimates of heat demand at a property and area level. It provides estimates of annual heat demand for almost three million properties across Scotland. Demand is given in kilowatt hours per year (kWh/yr). Property level estimates can be combined to give values for various geographies, including settlements. Both domestic and non domestic properties are included. The dataset gives the total estimated heat demand of properties within each 2016 Settlement in Scotland in kilowatt hours per year (kWh/yr)). Heat demand is calculated by combining data from several sources, ensuring that the most appropriate data available is used for each property.

The data can be used by local authorities and Cairngorms National Park Authority to identify or inform opportunities for low carbon heat projects such as district heat networks in the National Park. Table 5 provides values for Strategic Settlements in the Cairngorms National Park. Figure 4 – Figure 8 show heat demand in these settlements by a 50m grid.



Table 5 Annual heat demand values from the Scotland Heat Map for the Strategic Settlements in Cairngorms National Park as identified in the National Park Partnership Plan 2022 (CNPA010) and Local Development Plan 2021 (CNPA016).

Settlement	Area	Heat demand density	Heat demand total
	km <sup>2</sup>	GWh/yr/m <sup>2</sup>	GWh/yr
Aviemore	2.58	19.66	50.72
Ballater	0.93	27.6	25.56
Grantown-on-Spey	1.34	30.3	40.48
Kingussie	1.15	20.4	23.39
Newtonmore	1.35	14.25	19.17

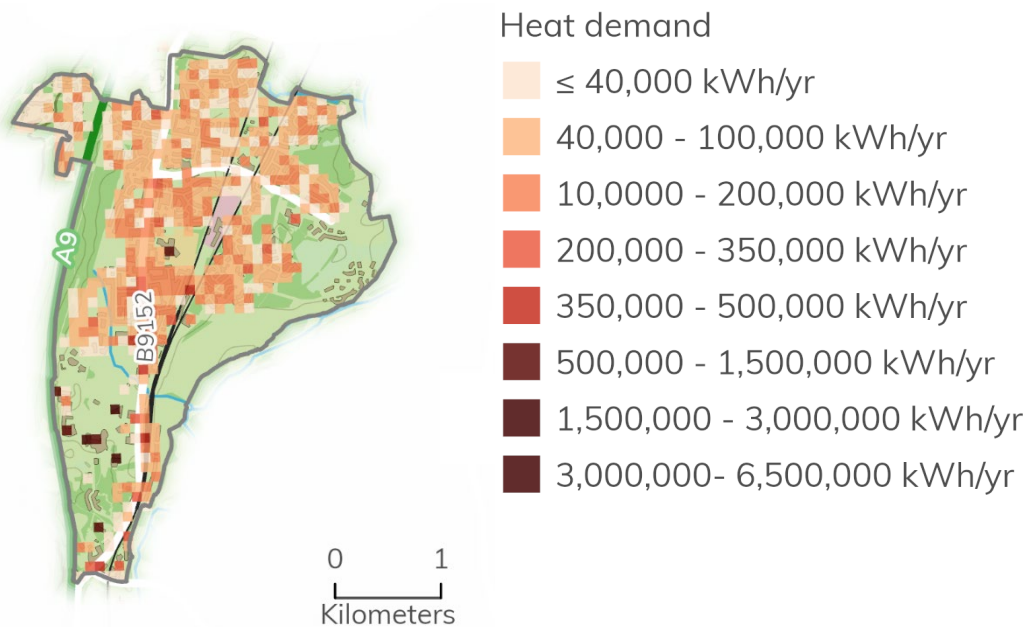


Figure 4 Heat demand by 50m grid in Aviemore.

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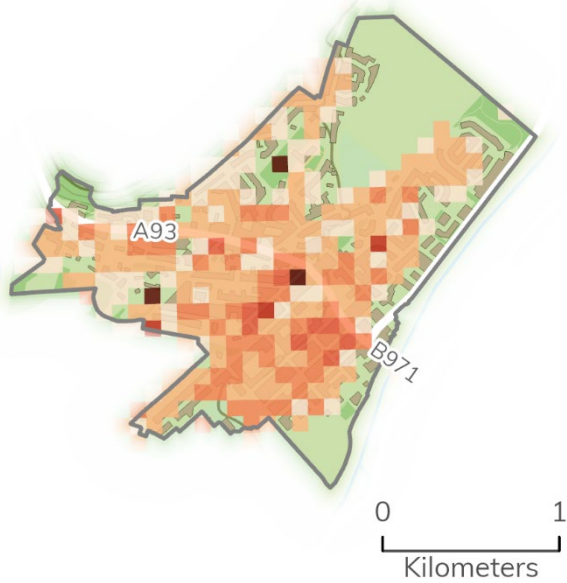


Figure 5 Heat demand by 50m grid in Ballater.

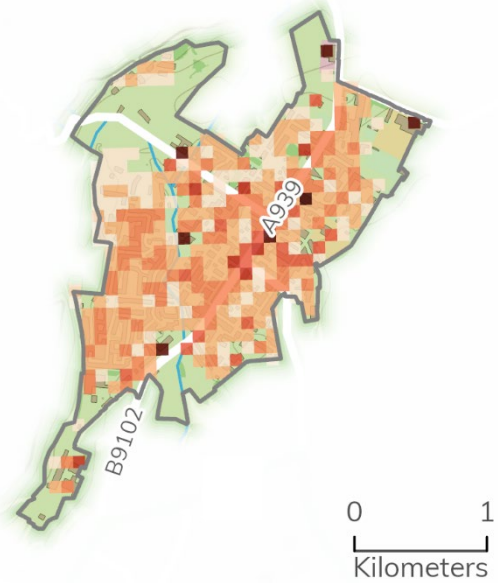


Figure 6 Heat demand by 50m grid in Granttown-on-Spey.

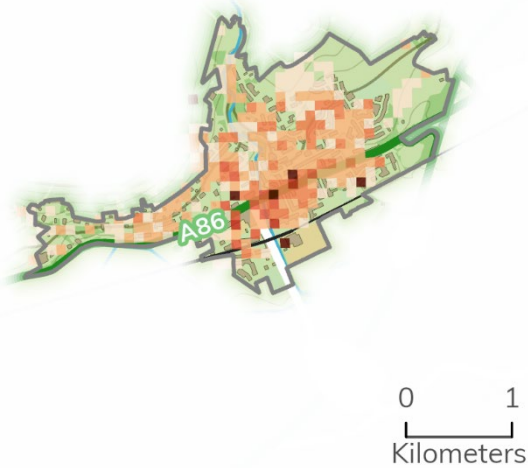


Figure 7 Heat demand by 50m grid in Kingussie.

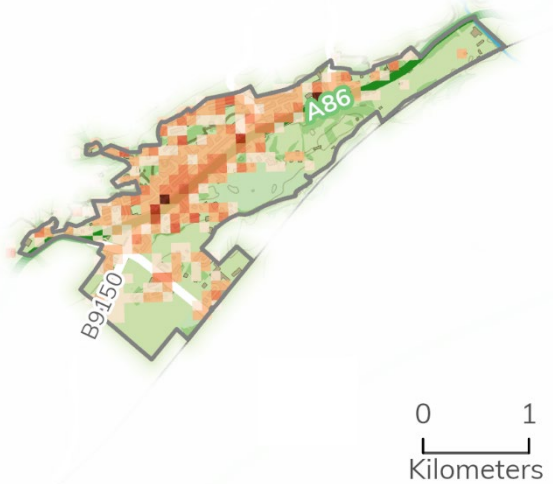


Figure 8 Heat demand by 50m grid in Newtonmore.

Legend on page 45.

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The Scotland Heat Map can be accessed here:

- <https://heatmap.data.gov.scot/custom/heatmap/> (CNPA427).

More information on the Scottish Heat Map tool and methodology can be found here:

- <https://www.gov.scot/publications/scotland-heat-map-documents/> (CNPA1004)

Heat demand (non electrical) statistics are provided for local authority areas in Scotland from the Scottish Energy Statistics Hub. However, as the data is not available at the National Park's geography, no data can be included in this paper. The Hub may be accessed here:

- <https://www.gov.scot/publications/scottish-energy-statistics-hub-index/> (CNPA1005)

## **Greenspace heat network capacity**

Greenspace Scotland (CNPA154) has worked with a wide range of partners across the public and private sector on a Scotland wide programme to explore the contribution that green and blue spaces can make to the Scottish Government's ambitions to decarbonise the energy system.

The Green Heat in Greenspaces (GHIGs) project was set up to identify and quantify specific opportunities in green and blue spaces within settlements across Scotland to support low carbon heat solutions (heat pumps and district heat networks). The project considers ground source and water source heat generation potential, as well as consideration of specific indicators for promising sites for district heat networks as the key infrastructure required for enabling the transportation of renewable heat from green and blue spaces to nearby buildings.

As part of this methodology, the Scottish Government's Scotland Heat Map was used as an address base and starting point for the demand assessment. More information on the methodology used to collate the data and produce the map can be accessed here:

- <https://www.greenspacescotland.org.uk/Handlers/Download.ashx?IDMF=335590f1-e4bb-4dea-b2fd-904fe6b1e3c8> (CNPA431)

The Green Heat in Greenspaces Settlement Profile Dashboard can be viewed here:



- <https://gscot.maps.arcgis.com/apps/dashboards/f2f378969d21430cab5c8e14529e56e5> (CNPA432)

The Green Heat in Greenspaces Greenspace Dashboard can be viewed here:

- <https://gscot.maps.arcgis.com/apps/dashboards/cb44d859b4934da0ad09221012f42274> (CNPA434)



Figure 9 Green Heat in Greenspaces data for Aviemore.



Figure 10 Green Heat in Greenspaces data for Ballater.

#### District heat network viability

- Highest viability
- High viability
- Viable
- Greenspaces

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Figure 11 Green Heat in Greenspaces data for Granttown-on-Spey.

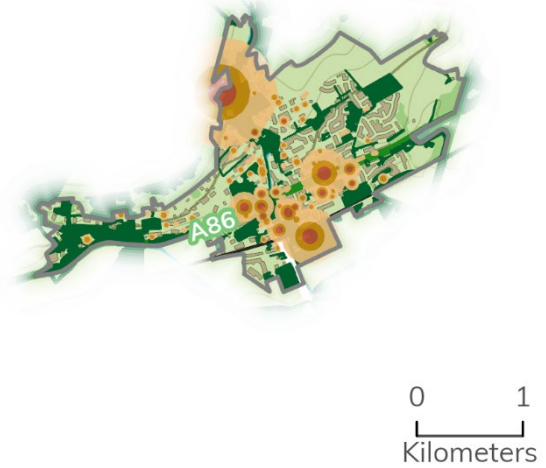


Figure 12 Green Heat in Greenspaces data for Kingussie.

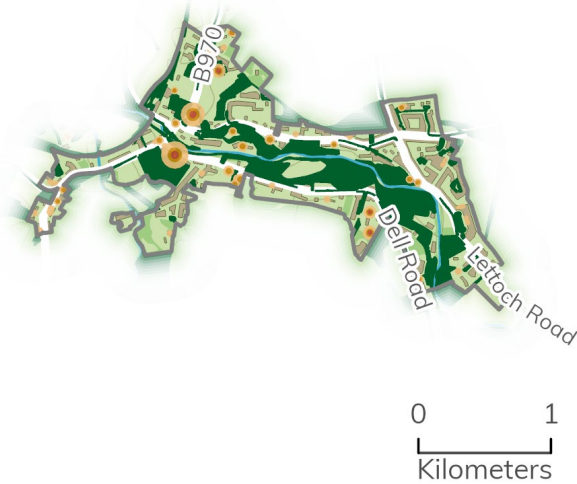


Figure 13 Green Heat in Greenspaces data for Nethy Bridge.



Figure 14 Green Heat in Greenspaces data for Newtonmore.

Legend on page 48.

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The project provides information and analysis at a settlement level. The following settlements in the National Park were investigated for their potential opportunities in terms of potential for ground source heat capacity from greenspaces:

- Aviemore (Figure 9 and Table 6)
- Ballater (Figure 10 and Table 7)
- Grantown-on-Spey (Figure 11 and Table 8)
- Kingussie (Figure 12 and Table 9)
- Nethy Bridge (Figure 13 and Table 10)
- Newtonmore (Figure 14 and Table 11).



Table 6 Detailed potential for district heating networks in Aviemore. Green Heat in Greenspaces data 2021 (CNPA432).

<b>Ground Source Heat</b>	
Percentage of the settlement area that is suitable greenspace to generate ground source heat.	20% (High)
Potential ground source heat capacity from greenspaces	96,731 MWh/year (High)
Percentage of annual heat demand that could be met from ground source heat in greenspaces	100% (High)
<b>Water Source Heat</b>	
River source heat potential (High / Medium / Low)	High
Static water body source heat potential (High / Medium / Low)	Medium
<b>District Heat Networks</b>	
Suitability for district heat networks	High
Estimated number of higher demand (>50 MWh/yr) public buildings	7
Suitability for district heat networks – public buildings only (High / Medium / Low)	High
Percentage of heat demand from higher demand public buildings (High / Medium / Low)	High
Current number of district heat networks	3
Heat density class (High / Medium / Low)	Low
<b>Energy from Waste</b>	
Potential of energy from waste plants as heat source (High / Medium / Low)	No
<b>Heat General</b>	
Total heat demand	38,387 MWh/year
Total of heat demand addresses	2,027
Average heat demand per heat address	19 MWh/year
Percentage homes off gas grid (High / Medium / Low)	High
Percentage of homes in fuel poverty (High / Medium / Low)	Medium
Percentage homes in extreme fuel poverty (High / Medium / Low)	Medium
Percentage of social housing (High / Medium / Low)	Medium
Percentage of pre 1949 residential properties (High / Medium / Low)	Low
Percentage of residential properties SAP (Standard Assessment Procedure) classes D – G (High / Medium / Low)	High



Table 7 Detailed potential for district heating networks in Ballater. Green Heat in Greenspaces data 2021 (CNPA432).

<b>Ground Source Heat</b>	
Percentage of the settlement area that is suitable greenspace to generate ground source heat.	15% (High)
Potential ground source heat capacity from greenspaces	23,118 MWh/year (Medium)
Percentage of annual heat demand that could be met from ground source heat in greenspaces	89% (High)
<b>Water Source Heat</b>	
River source heat potential (High / Medium / Low)	High
Static water body source heat potential (High / Medium / Low)	Low
<b>District Heat Networks</b>	
Suitability for district heat networks	Medium
Estimated number of higher demand (>50 MWh/yr) public buildings	6
Suitability for district heat networks – public buildings only (High / Medium / Low)	Medium
Percentage of heat demand from higher demand public buildings (High / Medium / Low)	Medium
Current number of district heat networks	3
Heat density class (High / Medium / Low)	Medium
<b>Energy from Waste</b>	
Potential of energy from waste plants as heat source (High / Medium / Low)	No
<b>Heat General</b>	
Total heat demand	26,076 MWh/year
Total of heat demand addresses	1,159
Average heat demand per heat address	22 MWh/year
Percentage homes off gas grid (High / Medium / Low)	High
Percentage of homes in fuel poverty (High / Medium / Low)	High
Percentage homes in extreme fuel poverty (High / Medium / Low)	High
Percentage of social housing (High / Medium / Low)	Low
Percentage of pre 1949 residential properties (High / Medium / Low)	Medium
Percentage of residential properties SAP (Standard Assessment Procedure) classes D – G (High / Medium / Low)	High



Table 8 Detailed potential for district heating networks in Grantown-on-Spey. Green Heat in Greenspaces data 2021 (CNPA432).

<b>Ground Source Heat</b>	
Percentage of the settlement area that is suitable greenspace to generate ground source heat.	15% (High)
Potential ground source heat capacity from greenspaces	29,061 MWh/year (Medium)
Percentage of annual heat demand that could be met from ground source heat in greenspaces	90% (High)
<b>Water Source Heat</b>	
River source heat potential (High / Medium / Low)	Low
Static water body source heat potential (High / Medium / Low)	Medium
<b>District Heat Networks</b>	
Suitability for district heat networks	Medium
Estimated number of higher demand (>50 MWh/yr) public buildings	13
Suitability for district heat networks – public buildings only (High / Medium / Low)	Medium
Percentage of heat demand from higher demand public buildings (High / Medium / Low)	High
Current number of district heat networks	0
Heat density class (High / Medium / Low)	Medium
<b>Energy from Waste</b>	
Potential of energy from waste plants as heat source (High / Medium / Low)	No
<b>Heat General</b>	
Total heat demand	32,199 MWh/year
Total of heat demand addresses	1,398
Average heat demand per heat address	23 MWh/year
Percentage homes off gas grid (High / Medium / Low)	High
Percentage of homes in fuel poverty (High / Medium / Low)	High
Percentage homes in extreme fuel poverty (High / Medium / Low)	High
Percentage of social housing (High / Medium / Low)	Low
Percentage of pre 1949 residential properties (High / Medium / Low)	Medium
Percentage of residential properties SAP (Standard Assessment Procedure) classes D – G (High / Medium / Low)	High



Table 9 Detailed potential for district heating networks in Kingussie. Green Heat in Greenspaces data 2021 (CNPA432).

<b>Ground Source Heat</b>	
Percentage of the settlement area that is suitable greenspace to generate ground source heat.	35% (High)
Potential ground source heat capacity from greenspaces	69,024 MWh/year (High)
Percentage of annual heat demand that could be met from ground source heat in greenspaces	100% (High)
<b>Water Source Heat</b>	
River source heat potential (High / Medium / Low)	High
Static water body source heat potential (High / Medium / Low)	Low
<b>District Heat Networks</b>	
Suitability for district heat networks	Medium
Estimated number of higher demand (>50 MWh/yr) public buildings	8
Suitability for district heat networks – public buildings only (High / Medium / Low)	High
Percentage of heat demand from higher demand public buildings (High / Medium / Low)	High
Current number of district heat networks	1
Heat density class (High / Medium / Low)	Medium
<b>Energy from Waste</b>	
Potential of energy from waste plants as heat source (High / Medium / Low)	None
<b>Heat General</b>	
Total heat demand	19,631 MWh/year
Total of heat demand addresses	818
Average heat demand per heat address	24 MWh/year
Percentage homes off gas grid (High / Medium / Low)	High
Percentage of homes in fuel poverty (High / Medium / Low)	High
Percentage homes in extreme fuel poverty (High / Medium / Low)	High
Percentage of social housing (High / Medium / Low)	Low
Percentage of pre 1949 residential properties (High / Medium / Low)	Medium
Percentage of residential properties SAP (Standard Assessment Procedure) classes D – G (High / Medium / Low)	High



Table 10 Detailed potential for district heating networks in Nethy Bridge. Green Heat in Greenspaces data 2021 (CNPA432).

<b>Ground Source Heat</b>	
Percentage of the settlement area that is suitable greenspace to generate ground source heat.	24% (High)
Potential ground source heat capacity from greenspaces	30,371 MWh/year (Medium)
Percentage of annual heat demand that could be met from ground source heat in greenspaces	100% (High)
<b>Water Source Heat</b>	
River source heat potential (High / Medium / Low)	Medium
Static water body source heat potential (High / Medium / Low)	None
<b>District Heat Networks</b>	
Suitability for district heat networks	Low
Estimated number of higher demand (>50 MWh/yr) public buildings	2
Suitability for district heat networks – public buildings only (High / Medium / Low)	Low
Percentage of heat demand from higher demand public buildings (High / Medium / Low)	Medium
Current number of district heat networks	1
Heat density class (High / Medium / Low)	Low
<b>Energy from Waste</b>	
Potential of energy from waste plants as heat source (High / Medium / Low)	None
<b>Heat General</b>	
Total heat demand	10,064 MWh/year
Total of heat demand addresses	427
Average heat demand per heat address	24 MWh/year
Percentage homes off gas grid (High / Medium / Low)	High
Percentage of homes in fuel poverty (High / Medium / Low)	High
Percentage homes in extreme fuel poverty (High / Medium / Low)	High
Percentage of social housing (High / Medium / Low)	Low
Percentage of pre 1949 residential properties (High / Medium / Low)	Medium
Percentage of residential properties SAP (Standard Assessment Procedure) classes D – G (High / Medium / Low)	High



Table 11 Detailed potential for district heating networks in Newtonmore. Green Heat in Greenspaces data 2021 (CNPA432).

<b>Ground Source Heat</b>	
Percentage of the settlement area that is suitable greenspace to generate ground source heat.	18% (High)
Potential ground source heat capacity from greenspaces	41,131 MWh/year (High)
Percentage of annual heat demand that could be met from ground source heat in greenspaces	100% (High)
<b>Water Source Heat</b>	
River source heat potential (High / Medium / Low)	High
Static water body source heat potential (High / Medium / Low)	Medium
<b>District Heat Networks</b>	
Suitability for district heat networks	Medium
Estimated number of higher demand (>50 MWh/yr) public buildings	3
Suitability for district heat networks – public buildings only (High / Medium / Low)	Low
Percentage of heat demand from higher demand public buildings (High / Medium / Low)	Medium
Current number of district heat networks	1
Heat density class (High / Medium / Low)	Low
<b>Energy from Waste</b>	
Potential of energy from waste plants as heat source (High / Medium / Low)	None
<b>Heat General</b>	
Total heat demand	15,534 MWh/year
Total of heat demand addresses	675
Average heat demand per heat address	23 MWh/year
Percentage homes off gas grid (High / Medium / Low)	High
Percentage of homes in fuel poverty (High / Medium / Low)	High
Percentage homes in extreme fuel poverty (High / Medium / Low)	High
Percentage of social housing (High / Medium / Low)	Low
Percentage of pre 1949 residential properties (High / Medium / Low)	Medium
Percentage of residential properties SAP (Standard Assessment Procedure) classes D – G (High / Medium / Low)	High



## Local area energy plans

Local area energy planning is a relatively new process designed to deliver effective local action and to contribute to the 2050 net zero emission target. Local authorities are setting out intentions to deliver local area energy plans (LEAPs) through the local heat and energy efficiency strategies and delivery plans.

Community led local energy plans enable local communities to look at their existing and future energy needs (in terms of power, heat and transport) and state where they see priorities for action. They may also identify opportunities that can help communities take practical action to support their current and future energy system developments.

As local area energy plans are developed, they will need to be considered in the Proposed Plan, if they cover areas that fall within the boundary of the National Park.

## Public sector investment

The Scottish Government provides financial support for public bodies through the Salix loans scheme to help fund energy efficiency projects encouraging uptake of low carbon technologies and stimulating wider investment in energy efficiency. More information on investment opportunities can be found here:

- <https://www.salixfinance.co.uk/scotland> (CNPA1006)

## Evidence gaps

No outstanding evidence gaps have been identified.

## Summary of stakeholder engagement

Public engagement on the schedule (see CNPA1355 for engagement version) was carried out from 18 November 2024 – 6 January 2025. Sixteen completed responses were received (CNPA1340).



## Summary of implications for Proposed Plan

Based on the available evidence and engagement with key agencies and other interested parties, the Park Authority consider this schedule to provide a sufficient evidence base on which to prepare the Proposed Plan.

The Proposed Plan needs to be prepared in accordance with:

- The four aims of the National Park as set out in The National Parks (Scotland) Act 2000) (CNPA004), in particular the first aim 'to conserve and enhance the area's natural and cultural heritage' and the fourth aim 'to promote sustainable economic, social and cultural development of the area's communities'.
- Section 9(6) of the 2000 Act, which states that while the aims are to be pursued collectively, if there is conflict between the first aim and any of the others, greater weight is given to the first aim.
- The spatial strategy and principles of National Planning Framework 4 (CNPA008).

In its preparation the Proposed Plan should seek to:

- Support future heat networks put forward through the local authority Local Heat and Energy Efficiency Strategies and Delivery Plans.
- Identify Heat Network Zones as set out in local authority Local Heat and Energy Efficiency Strategies.
- Take account of any local area energy plans (LEAPs) that are prepared for areas in the National Park.
- Support development that includes retrofitting a connection to a heat network.
- Support development that incorporates the use of natural solutions (nature based solutions) such as green roofs for promoting sustainable temperature management.
- Integrate climate resilience considerations into the new Local Development Plan. Including passive cooling strategies to future proof buildings and communities against the impacts of climate change.

## Statements of agreement

The following people / organisations agree that the evidence presented is sufficient to inform the preparation of the Proposed Plan:

- Historic Environment Scotland (C002)
- NatureScot (C004)
- Aberdeenshire Council Planning and Environment service (C017)
- Highland Council (C019)



The following people / organisations responded that they did not know if the evidence presented is sufficient to inform the preparation of the Proposed Plan:

- John C Forbes-Leith (C088)
- Bruce Whitehead (C072)
- George Horne (C084)
- Lewis Falconer (C092)
- Margaret Bently (C096)
- Aberdeenshire Council Sustainability Team (C016)

### **Historic Environment Scotland (C002)**

Historic Environment Scotland agreed that the evidence presented in this report correctly identifies the characteristics of the Cairngorms National Park. They did not know of any additional information that would help inform the preparation of the next Local Development Plan. They also agreed that the correct implications for the next Local Development Plan have been identified.

### **NatureScot (C004)**

NatureScot agreed that the evidence presented in this report correctly identifies the characteristics of the Cairngorms National Park and is sufficient to inform the preparation of the next Local Development Plan. However, they requested the following additions and amendments:

- Make reference to the connection between National Planning Framework 4 Policy 19 and Policy 1.
- Add reference to NatureScot's Developing with Nature guidance, which can aid the delivery of buildings with sustainable temperature management.
- Cross reference to the Natural heritage schedule.
- Add an implication that focuses on the use of natural solutions (nature based solutions) such as green roofs for promoting sustainable temperature management.

### **Park Authority response**

The schedule has been amended to reflect NatureScot's comments.

### **Scottish Environment Protection Agency (C010)**

Scottish Environment Protection Agency informed the Park Authority that they will not be providing a detailed response to this schedule.



## **Aberdeenshire Council Planning and Environment Service (C017)**

Although the Planning and Environment service did consider the evidence presented in this report sufficient to inform the preparation of the next Local Development Plan, they suggested that the Park Authority check the drivers referred to on pages 9 – 11 of the engagement paper to ensure they are up to date and relevant.

### **Park Authority response**

The drivers referred to on pages 9 – 11 of the engagement paper have been reviewed, and those no longer relevant or applicable to the National Park setting have been removed.

## **Aberdeenshire Council Sustainability Team (C016)**

The Sustainability team did not agree that the evidence presented in this report correctly identifies the characteristics of the Cairngorms National Park, because the link to Aberdeenshire's local heat and energy efficiency strategy was to its draft version.

### **Park Authority response**

Aberdeenshire's local heat and energy efficiency strategy was adopted following the launch of engagement on the evidence. The Evidence Report has therefore been updated with the latest version of the strategy.

## **Highland Council (C019)**

Highland Council agreed the characteristics of the Cairngorms National Park have been correctly identified, that the evidence was sufficient to prepare the Proposed Plan and that the implications are correct.

## **Statements of dispute**

### **Dalwhinnie Community Council (C026)**

Dalwhinnie Community Council did not think the current characteristics had been identified or that the evidence was sufficient to prepare the Proposed Plan, or that the correct implications had been identified, because: '90% of the Cairngorms National Park was covered' by the evidence base, but extremities like Dalwhinnie were not.

### **Park Authority response**

The schedule focuses on a proportionate response, presenting the information required to address National Planning Framework 4, Policy 19 Heating and cooling. Place based



information is presented according to its availability. The Park Authority does not agree that 'extremities' have not been covered, for example, information from Dalwhinnie's Community Action Plan has been drawn on in this schedule. Other schedules with information specifically about Dalwhinnie include Schedule 12: Living locally and 20 minute neighbourhoods, Schedule 17: Play, recreation and sport and Schedule 19: Flood risk and water management.

### **Lewis Falconer (C092)**

Lewis Falconer did not agree that the evidence correctly identifies the characteristics of the National Park or that it is sufficient to prepare the Proposed Plan, because:

- The cost of connecting properties in very remote or secluded areas is prohibitively expensive.
- Power cuts are fairly common in very remote or secluded areas and it would therefore be 'very shortsighted' to legally force people to have one source of renewable heating, for example, heat pumps, which run on electricity.
- People should have the right to have a second form of backup heat source, seasoned locally sourced wood, which should never be outlawed.

### **Park Authority response**

The Park Authority is not proposing connecting all the domestic properties in very remote or secluded areas to a community heat network. It is not proposing that residents of the National Park give up their wood stoves as a secondary heat source. In terms of identifying potential heat network delivery, the direction is taken from the local authority local heat and energy efficiency strategies, as required by National Planning Framework 4.

### **Paul Scott Peacock (C103)**

Paul Scott Peacock does not agree that the evidence presented in this report is sufficient to inform the preparation of the next Local Development Plan and that the implications were incorrect on that basis. This is because:

- It does not cover individual house efforts that could be made, namely insulation, air sourced heat pumps and solar.
- There's no mention of ECO 4 and whether it is working.
- Addressing the amount of existing poor housing heat performance (EPC of D or worse) should be prioritized over attempting heat networks or 'costly and difficult' network ground source systems.
- Home Energy Scotland, who have a lot of knowledge on home Energy efficiency improvements, should be consulted.



### **Park Authority response**

The Local Development Plan cannot address or influence changes within the existing building stock that do not require planning permission. Therefore, including information on adaptations to existing properties is not proportional.

### **Tom Flynn (C112)**

Tom Flynn agreed that the evidence presented in this report correctly identifies the characteristics of the Cairngorms National Park, however, did not agree that that the evidence presented in this report is sufficient to inform the preparation of the next Local Development Plan – no explanation was given.