

North Lanarkshire Local Development Plan 2

Survey Paper - Evidence Report

Topic 11 Energy (including Topic 19 Heating and Cooling)

Purpose of Topic Papers

We are currently identifying and assessing the evidence available for each policy topic area identified in NPF4 and the Scottish Government's local development planning guidance.

We will issue online surveys for each topic, or group of topics, outlining:

- the relevant information and datasets we have identified so far
- our assessment of the evidence gathered, based on the identified information and datasets
- any potential connections to other topic areas
- potential implications for site selection at the Proposed Plan stage, and
- potential implications for the Local Development Plan

This will be an early opportunity for you to confirm if we have identified the appropriate evidence, provide any other evidence you have or would like us to consider, and offer your views on our initial considerations of the use and implications of the available evidence.

We will then consider the responses to the surveys and what they mean for our evidence base. This will help inform the preparation of our Evidence Report later this year.

Some of the information gathered are particularly technical on a specific topic, and may not be relevant to everyone. We welcome comments on all or some of the information published. There will be more opportunities to comment as we progress through the LDP preparation process.

1. Introduction

- 1.1 The Planning (Scotland) Act 2019 requires planning authorities to prepare an Evidence Report that contains sufficient information to enable the authority to prepare a Local Development Plan.
- 1.2 The Evidence Report has two main functions. The first is that it should set out the evidence that will be used to inform and prepare a new Local Development Plan. The second is for local authorities to identify the issues they think based on the evidence presented that need to be addressed by the new Local Development Plan, and for other interested parties and stakeholders to express what they think are the issues.
- 1.3 There are specific matters that the Evidence Report must cover; these are set out in the Planning (Scotland) Act 2019:
 - *the principal physical, cultural, economic, social, built heritage and environmental characteristics of the district;*
 - *the principal purposes for which the land is used;*
 - *the size, composition, health, and distribution of the population of the district;*

- *the housing needs of the population of the area, including, in particular, the needs of persons undertaking further and higher education, older people and disabled people;*
- *the availability of land in the district for housing, including for older people and disabled people;*
- *the desirability of allocating land for the purposes of resettlement;*
- *the health needs of the population of the district and the likely effects of development and use of land on those health needs;*
- *the education needs of the population of the district and the likely effects of development and use of land on those education needs;*
- *the extent to which there are rural areas within the district in relation to which there has been a substantial decline in population;*
- *the capacity of education services in the district;*
- *the desirability of maintaining an appropriate number and range of cultural venues and facilities (including in particular, but not limited to, live music venues) in the district;*
- *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);*
- *how that infrastructure is used; and*
- *any change which the planning authority thinks may occur in relation to any of the matters mentioned above.*

1.4 This survey paper examines the Energy evidence surrounding the Energy and Heating and Cooling topics for the forthcoming North Lanarkshire Local Development Plan 2 (NLLDP2). The paper identifies what evidence and information has been sourced and subjected to an initial assessment as to the relevance of that evidence and information to NLLDP2.

1.5 Key points from the evidence and information on this topic are highlighted and potential future relevance is discussed with a view to this informing the approach in progressing the Evidence Report and NLLDP2 more generally.

1.6 The final Evidence Report will detail the stakeholder engagement and public survey that has taken place in developing its conclusions and will highlight the agreements and disputes that have arisen through this process.

2. Identification of Relevant Evidence

2.1 The relevant evidence has been identified through an evaluation of the Energy and Heating and Cooling topics and assessment of available information linked to the topics. Where available evidence shared by external stakeholders has been included. Should additional evidence become available we will consider its implications for the Evidence Report.

3. **Consideration of Relevant Evidence**

- 3.1 The following is an explanation of evidence sources which have been used in this Survey Paper and are considered potentially relevant for NLLDP2.

Main evidence considered:

Source: Onshore Wind Policy Statement (December 2022)

Reason for using the Evidence: This statement, which is the culmination of an extensive consultative process by the Scottish Government with industry, statutory consultees and the public, sets an overall ambition of 20 GW of installed onshore wind capacity in Scotland by 2030. The statement set out that while imperative to meet Scotland's net zero targets it is also vital that this ambition is delivered in a way that is fully aligned with, and continues to enhance, our rich natural heritage and native flora and fauna, and supports our actions to address the nature crisis and the climate crisis.

Links to Evidence: [Onshore Wind Policy Statement - Scottish Government \(Dec 2022\)](#)

Source: Hydrogen Policy Statement (December 2020), UK Hydrogen Strategy (August 2021) and Hydrogen Action Plan (December 2022)

Reason for using the Evidence: The action plan sets out the opportunities and potential barriers to the growth of our hydrogen economy in Scotland. These include the development of supply chain opportunities, including electrolyser manufacturing, production costs analysis, hydrogen demand and use case, as well as hydrogen production location requirements and export infrastructure, all of which will aid and inform the development of our hydrogen policies.

Links to Dataset / Evidence: [Hydrogen Policy Statement - Scottish Government \(Dec 2020\)](#)
[UK Hydrogen Strategy - UK Government \(Aug 2021\)](#)
[Hydrogen Action Plan - Scottish Government \(Dec 2022\)](#)

Source: Renewable Electricity Growth (Scottish Government March 2024)

Reason for using the Evidence: Updated figures on Scotland's energy generation for 2023.

Links to Evidence: [Renewable Electricity Growth - Scottish Government \(March 2024\)](#)

Source: Scottish energy statistics hub index

Reason for using the Evidence: Interactive tool which is a 'one-stop shop' for all Scottish energy data. Each page in the Hub has an interactive chart, commentary and data, with options to download charts and data. The Hub will be updated when new or revised data is available, so will always show the latest picture of Scottish energy statistics.

Links to Evidence: [Scottish Energy Statistics Hub \(Scottish Government\)](#)

Source: NLC Climate Plan: Action on Climate Together 2030

Reason for using the Evidence: Sets out the context of the climate emergency in relation to North Lanarkshire and is a forerunner of producing and publishing our detailed climate action plan and begin to build our planned routemap to 2030.

Links to Evidence: [Climate Plan - North Lanarkshire Council \(2021\)](#)

Source: Climate Change (Scotland) Act 2009 as amended by the Climate Change (Emissions Reduction Targets) (Scotland) Act 2019.

Reason for using the Evidence: This introduces a legally binding target for Scotland to achieve net zero greenhouse gas emissions (GHG) by 2045, with interim targets for emission reductions of 75% by 2030, and 90% by 2040. Scotland's Climate Change Plan sets out the ambition to reduce emissions, particularly from heating buildings, which accounts for around 20% of Scotland's GHG emissions.

Links to Evidence: [Climate Change \(Scotland\) Act 2009](#)
[Climate Change \(Emissions Reduction Targets\) \(Scotland\) Act 2019](#)

Source: Draft Energy Strategy and Just Transition Plan

Reason for using the Evidence: Draft route map of actions the 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.

Links to Evidence: [Draft Energy Strategy and Just Transition Plan - Scottish Government \(Jan 2023\)](#)

Source: Heat Networks (Scotland) Act 2021 and Heat Networks Delivery Plan: Review Report 2024

Reason for using the Evidence: The Heat Networks Act places a duty on local authorities to carry out a review to consider whether one or more areas in its authority is likely to be particularly suitable for the construction and operation of a heat network. As part of this Act, it requires that the Heat Networks Delivery Plan (HNDP) is reviewed every two years.

Links to Evidence: [Heat Networks \(Scotland\) Act 2021](#)
[Heat Networks Delivery Plan: Review Report 2024](#)

Source: North Lanarkshire Council Local Heat and Energy Efficiency Strategy and Delivery Plan

Reason for using the Evidence: The Local Heat and Energy Efficiency Strategy (LHEES) is an important document setting out our long-term plan for improving the energy efficiency of buildings in North Lanarkshire and reducing greenhouse emissions resulting from the heating of buildings.

Links to Evidence: [Local Heat and Energy Efficiency Strategy Report \(northlanarkshire.gov.uk\)](#) and
[LHEES Delivery Plan \(northlanarkshire.gov.uk\)](#)

<p>Source: The Landscape Capacity Study for Wind Turbine development Background Report (November 2018)</p> <p>Reason for using the Evidence: This report comes in two parts; the first part is the strategic overview of capacity for wind energy development across the Clydeplan Strategic Development Plan area and is designed to be complemented by the more detailed; second part that is local analysis of sensitivity and capacity contained in the LUC Report specifically for North Lanarkshire.</p> <p>Links to Evidence: The Landscape Capacity Study Wind Turbine development Background Report (Nov 2018)</p>
<p>Source: The Electric vehicle public charging infrastructure statistics: April 2024</p> <p>Reason for using the Evidence: The Electric vehicle public charging infrastructure statistics: April 2024 publication provides further information on charging devices in the UK.</p> <p>Links to Evidence: Electric Vehicle Charging Devices by Local Authority (2024)</p>
<p>Source: The Plan for North Lanarkshire (2019)</p> <p>Reason for using the Evidence: The plan sets out the vision for North Lanarkshire to be a place to Live, Learn, Work, Invest and Visit. NLLDP2 will be a tool to assist in the realisation of this vision. The vision consists of five priorities that are comprised of 25 high level Ambition Statements. These statements amongst other issues cover refocussing town centres, maximising the use of marketable land, and maintaining a clean, safe and attractive environment and specific to this topic look to transform our natural environment to support wellbeing and inward investment and enhance it for current and future generations and ensure we keep our environment clean, safe and attractive.</p> <p>Links to Evidence: The Plan for North Lanarkshire</p>

4. **Assessment of Evidence**

National Context

- 4.1 The Scottish Government has had a long-standing target to generate the equivalent of 100% of gross Scottish electricity consumption (total energy generation minus exports) from renewable sources by 2020, with figures showing that Scotland reached 98.8% in 2020.
- 4.2 The National Grid Future Energy Scenarios projected that Scotland's peak demand or electricity would at least double within the next two decades and thus required a substantial increase in installed capacity across all renewable technologies.

Renewable Electricity Growth (2024)

- 4.3 New figures for 2023 published in March 2024 show that Scotland's capacity for electricity generation from renewable sources increased by 10% within a year, with the largest growth coming in offshore and onshore wind installations. The figures for 2023

show that Scotland continues to generate more electricity than it uses and that more than three quarters of the renewable electricity generated in Scotland in 2023 came from wind technologies, while the second largest producer was hydro technologies at almost 14%.

- 4.4 Scottish Energy Statistics for the final quarter of 2023 detail 15.3 Gigawatts (GW) of renewable electricity capacity operating in Scotland, with a further 25.9 GW in the planning pipeline from 517 projects. This compared to 13.9 GW of capacity operating in 2022.
- 4.5 The energy landscape in the UK is swiftly evolving in response to global efforts to curb climate change. Traditional energy production methods are decreasing in importance, while renewable energy sources are experiencing significant growth. It is imperative to enhance the coordination of essential plans, policies, and strategies across various sectors such as housing, planning, economy, transport, natural resources, and energy. This alignment is crucial to steer investments and actions towards advancing decarbonization goals and achieving net-zero carbon emissions.
- 4.6 The Scottish Government is committed to reducing energy consumption as a response to climate change which is outlined in the Climate Change (Scotland) Act 2009 as amended by the Climate Change (Emissions Reduction Targets) (Scotland) Act 2019. This introduces a legally binding target for Scotland to achieve net zero greenhouse gas emissions (GHG) by 2045, with interim targets for emission reductions of 75% by 2030, and 90% by 2040. Scotland's Climate Change Plan sets out the ambition to reduce emissions, particularly from heating buildings, which accounts for around 20% of Scotland's GHG emissions.
- 4.7 Maximising the proportion of energy derived from renewable and low-carbon sources such as wind, water, and solar is pivotal for Scotland and the UK as a whole to uphold a stable energy supply and mitigate the causes and impacts of climate change by curbing carbon emissions. This transition not only fosters environmental sustainability but also yields economic advantages stemming from increased business investment in renewable and low-carbon energy technologies.
- 4.8 Energy consumption patterns are shifting due to the decarbonization of energy grids and the impacts of climate change. In Scotland, approximately 20% of the energy supply is currently sourced from electricity, while the majority, accounting for about 24% for transport and over 50% for heating, relies on carbon-based fuels. There is a pressing need to electrify a substantial portion of transport and building heating to align with decarbonization goals. The Transition to zero-carbon energy generation will intensify the demand for renewable energy generation and energy storage solutions. The expansion of electricity supply must therefore be expanded at markedly accelerated rates compared to the pace observed over the past century in order to keep pace with these requirements.

Draft Scottish Energy Strategy and Just Transition Plan (2023)

- 4.9 The Draft Scottish Energy Strategy and Just Transition Plan sets out how Scotland will by 2045 have a flourishing, climate friendly energy system that delivers affordable, resilient and clean energy supplies for Scotland's households, communities and business. This will deliver maximum benefit for Scotland, enabling us to achieve our wider climate and environmental ambitions, drive the development of a wellbeing economy and deliver a just transition for our workers, businesses, communities and regions. The plan envisages that by 2030, Scotland's main energy-using sectors - heat

in buildings, transport, industry and agriculture - will be using energy more efficiently, and the energy they do use will be largely decarbonised, helping to deliver against our economy-wide statutory climate change targets.

Onshore wind: policy statement (2022)

- 4.10 The policy statement sets out the Scottish Government's vision for the Onshore Wind Sector and how this can be achieved. The Key aims include an onshore wind capacity target of at least 20 GW by 2030, representing an 11GW of capacity by the end of this decade and more than doubling the current 9GW of operational onshore wind. In order to assist in achieving this target the Scottish Government proposes to establish an Onshore Wind Strategic Leadership Group (SLG) that will lead the delivery of the 2030 target and comprise members of government, industry, supply chain stakeholders and community groups.

Hydrogen Policy Statement (Scot Gov 2020) and UK Hydrogen Strategy (2021)

- 4.11 The Hydrogen Policy Statement outlines the Scottish Government's support for the strategic growth of a strong hydrogen economy in Scotland. In terms of the UK context the UK Hydrogen Statement sets out the UK Government's approach to developing a thriving low carbon hydrogen sector in the UK, with the ambition for 5GW of capacity by 2030. The Strategy outlines the role of hydrogen in meeting net zero targets, the existing opportunity within the UK, a strategic framework, a roadmap for the economy, and the UK Government's commitments for a hydrogen economy.

Hydrogen Action Plan (2022)

- 4.12 The Hydrogen action plan outlines the strategies to be implemented over the next five years to bolster the advancement of a hydrogen economy. It underscores the pivotal roles that both offshore and onshore wind industries could play in facilitating and supporting hydrogen projects in Scotland. Moreover, the plan delineates how the outlined actions will contribute to a just transition toward achieving net zero emissions. The plan explores the export opportunities that would emerge for Scotland with the establishment of a hydrogen economy, while also forecasting Scotland's trajectory in this industry for the coming decades. A primary objective is for Scotland to achieve the capacity to produce 5 GW of hydrogen by 2030 and subsequently scale up to 25 GW by 2045.

Heat Networks Act (2021)

- 4.13 The Heat Networks Act places a duty on local authorities to carry out a review to consider whether one or more areas in its authority is likely to be particularly suitable for the construction and operation of a heat network. The 2021 Act aims to accelerate the deployment of heat networks in Scotland through the introduction of a regulatory system that boosts confidence in the sector and provides greater certainty for investors. As part of this Act it requires that the Heat Networks Delivery Plan (HNDP) is reviewed every two years.

Heat Networks Delivery Plan: Review Report 2024

- 4.14 Whilst the data the Scottish Government currently has about heat networks has significant limitations, they previously estimated that in 2018, 1.15 TWh of heat was supplied via heat networks in Scotland. Their current best estimate for 2022 is 1.35 TWh of heating and cooling supplied via heat networks. This equates to just under 2% of non-electrical heat consumption in Scotland.

- 4.15 There are over 1,090 known heat networks supplying heating and cooling to domestic and non-domestic properties and industry in Scotland. Across these networks:
- 66% (720) were communal heating schemes and 30% (332) were district heating networks (4% unknown).
 - 33% (454 GWh) of the heat supplied was via communal heating, and 66% (898 GWh) supplied by district heating.
 - over 30,000 homes and 3,000 non-domestic properties are connected to heat networks.
 - the data suggest that heat networks in Scotland generate 1.7 TWh of heat and supply around of 1.35 TWh of heat.
 - 45% of heat networks supplied 10 or fewer customers (both domestic and non-domestic). Where bulk sale occurs, which can involve one customer, such as a council, buying heat and then selling it on to individual households, such as social housing tenants, these figures may underrepresent the total number of final customers.
 - 4% of heat networks supplied 100 or more customers (both domestic and non-domestic).
- 4.16 In order to simplify the requirements on local authorities, the Local Heat and Energy Efficiency Strategy (LHEES) guidance enables them to undertake the heat network zoning review stage through their LHEES and the heat network zoning proforma provides local authorities with a flow-through process from this stage onwards. The proforma covers the receipt and consideration of building assessment reports, assessment of whether an area is “particularly suitable”, consultation with area-specific statutory consultees and the final decision of whether or not to designate.

North Lanarkshire Local Heat and Energy Efficiency Strategy (LHEES) 2023

- 4.17 The Local Heat and Energy Efficiency Strategy (LHEES) is an important document setting out North Lanarkshire Council’s long-term plan for improving the energy efficiency of buildings in North Lanarkshire and reducing greenhouse emissions resulting from the heating of buildings. It covers both domestic and non-domestic buildings and sets out how each part of the building stock needs to change to meet national objectives, including achieving net-zero greenhouse emissions and removing energy efficiency as a driver of fuel poverty. It identifies strategic heat decarbonisation zones and sets out the principal measures for reducing building emissions in each zone. It will also prioritise areas for delivery.
- 4.18 The Strategy is accompanied by a Delivery Plan that has been developed in partnership with key stakeholders and provides a strong basis for action for local communities, government, investors, developers and wider stakeholders, pinpointing areas for targeted intervention and early, low-regrets measures.

National Planning Framework 4 (NPF4)

- 4.19 NPF4 Policy 11 Energy seeks to encourage, promote and facilitate all forms of renewable energy development onshore and offshore. This includes energy generation, storage, new and replacement transmission and distribution infrastructure and emerging low-carbon and zero emissions technologies including hydrogen and carbon capture utilisation and storage (CCUS). The policy is broadly supportive of wind energy developments, subject to assessment against specific criteria relating to project design and mitigation. Policy 11 supports all forms of renewable energy development

onshore and offshore. This includes energy generation, storage, new and replacement transmission and distribution infrastructure and emerging low-carbon and zero emissions technologies including hydrogen and carbon capture utilisation and storage (CCUS). It notes that LDPs should seek to realise their area's full potential for electricity and heat from renewable, low carbon and zero emission sources by identifying a range of opportunities for energy development.

- 4.20 NPF4 Policy 19 Heating and Cooling seeks to encourage, promote and facilitate development that supports decarbonised solutions to heat and cooling demand and ensure adaptation to more extreme temperatures. It notes that LDPs should take into account the area's Local Heat and Energy Efficiency Strategy (LHEES) The spatial strategy should take into account areas of heat network potential and any designated Heat Network Zones (HNZ).

North Lanarkshire Context

- 4.21 North Lanarkshire Council recognised that it must take action and declared a climate emergency in June 2019. It has committed itself and the area of North Lanarkshire to achieving net-zero by 2030. Concerned about the impact of climate change on biodiversity, the council became a signatory of the Edinburgh declaration on Post-2020 Global Biodiversity Framework.
- 4.22 The current NLLDP (2022) sets out a range of policies which contribute to tackling climate change through encouraging sustainable site selection; sustainable design, sustainable travel; integrated green infrastructure, electric vehicles, encouraging renewable energy proposals, reducing waste and pollution; encouraging recycling; promoting sustainable drainage and flood management; and the regeneration of vacant and derelict land. This approach will contribute towards reducing the areas carbon footprint, energy consumption and facilitating the transition to a low carbon economy and low carbon living.
- 4.23 The primary source of renewable energy within North Lanarkshire is onshore wind turbines, concentrated primarily in the south and central areas of the Council area. Whilst the previous policies in place have supported and provided a mechanism for significant growth in renewable and low carbon energy generation as part of the strategic approaches set out in the previous LDPs. Substantial additional renewable generation will be required to support the transition to net zero.
- 4.24 The transition to net zero carbon is also placing new pressures on electricity infrastructure, with the electrification of heat and transport all leading to a need for reinforcement and additional capacity on the grid. This may affect the phasing of new development as extra grid capacity needs to be introduced to support both the transition for existing buildings and transport as well as new development.
- 4.25 In line with the current NLLDP the Council will continue to seek to ensure that within North Lanarkshire where possible the area's potential to accommodate renewable energy technologies is maximised within the context of careful consideration to relevant environmental, community and cumulative impacts of proposals. It is recognised that a diverse mix of renewable energy sources will be required to meet the decarbonisation targets, albeit that wind energy is still likely to provide the most substantial contribution to renewable energy targets.

Onshore Wind Energy

4.26 Within the North Lanarkshire Council area, the primary source of renewable energy generation has come from wind energy developments. Several developments, including at Blacklaw Windfarm (located within South Lanarkshire, North Lanarkshire and West Lothian council areas), which make a significant contribution to meeting the Government's targets. North Lanarkshire has attempted to enable additional wind generation developments where possible in line with the requirements of The Scottish Government Onshore Wind policy statement 2022 that requires local authorities to enable wind generation as part of meeting the increased electricity demand that is anticipated. Whilst there are already a large number of consented and operational wind turbine developments present within the North Lanarkshire Council area we will continue to assess applications and their impact both individually and cumulatively in terms of their overall benefits in the drive to net zero.

4.27 The North Lanarkshire Local Development Plan (NLLDP) 2022 was informed by the Landscape Capacity Study for Wind Turbine development Background Report (November 2018) which built upon documents including the Capacity of the North Lanarkshire Landscape to Accommodate Wind Turbine Development (ASH 2008). This Study did not define capacity in terms of a level of development to be achieved, nor did it comment on cumulative impact. In 2013, there was a further Study undertaken by Bayou Bluenvironment that examined, in detail, the Landscape and Visual Sensitivity and the Capacity for wind energy within Fortissat Ward. This Report was commissioned in response to increasing pressure for wind farm development in this part of North Lanarkshire based on the Landscape Character Types from the Glasgow & Clyde Valley Landscape Character Assessment (1999). The Background Report brings together the following documents:

- LUC – Landscape Capacity Study for Wind Turbine Development in Glasgow & Clyde Valley:

Part 1 – Overview Report

Part 2 – North Lanarkshire

- URS - Review of North Lanarkshire Local Landscape Character.
- Kilsyth Hills Special Landscape Area (SLA) – Draft Statement of Importance.
- Clyde Valley Special Landscape Area (SLA).

that were required to update the

- Strategic view of landscape sensitivity to wind energy development, and available capacity for further development, across the Clydeplan Strategic Development Plan area in an Onshore Wind Energy Spatial Strategy.
- Capacity of the North Lanarkshire landscape to accommodate different scales and groupings of wind turbine development and cumulative impact.

and should be taken cognisance of in relation to wind turbine proposals.

4.28 The report identified 9 Landscape Character Types (LCT) within North Lanarkshire and set out the findings for each LCT, in terms of Sensitivity and Capacity.

4.29 The sensitivity and capacity study found that the areas with greatest capacity for future development are the Plateau Moorland and Plateau Farmland areas in the central and eastern parts of North Lanarkshire. These areas were judged to be of relatively lower sensitivity to wind turbine development in comparison to other areas. Higher sensitivity was identified in the Kilsyth Hills in the north, and the Clyde Valley in the south.

Figure 1. Plateau Farmlands – North Lanarkshire Council Area

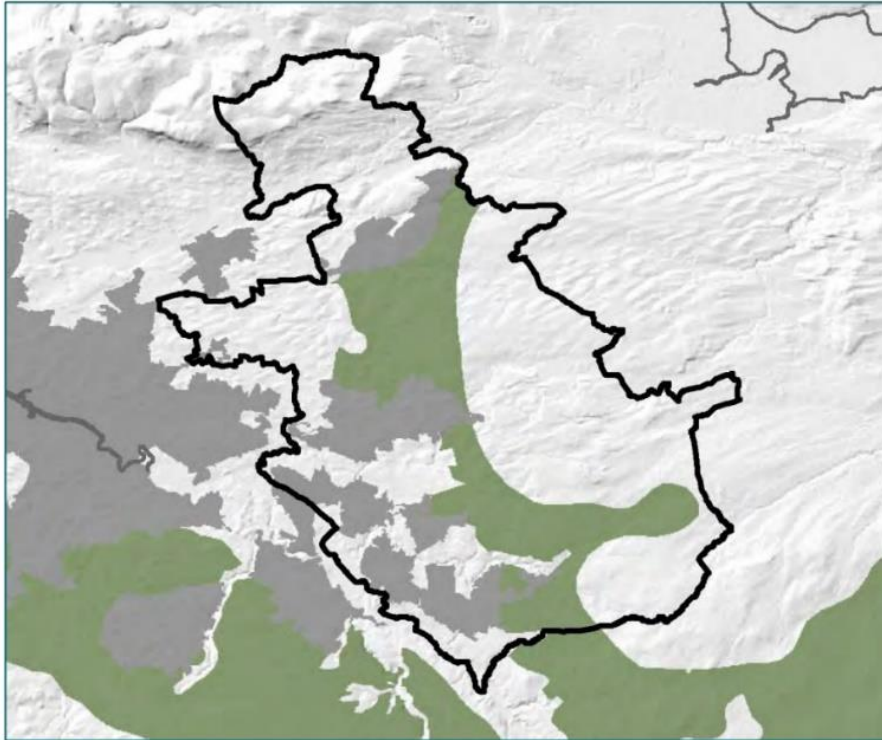


Figure 2. Plateau Moorlands - North Lanarkshire Council Area

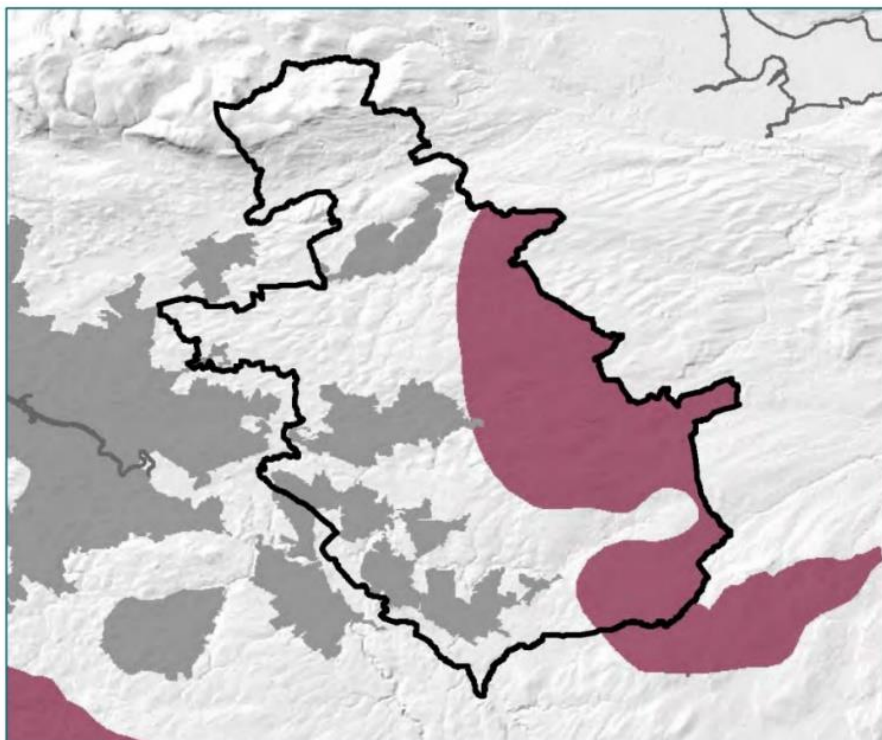
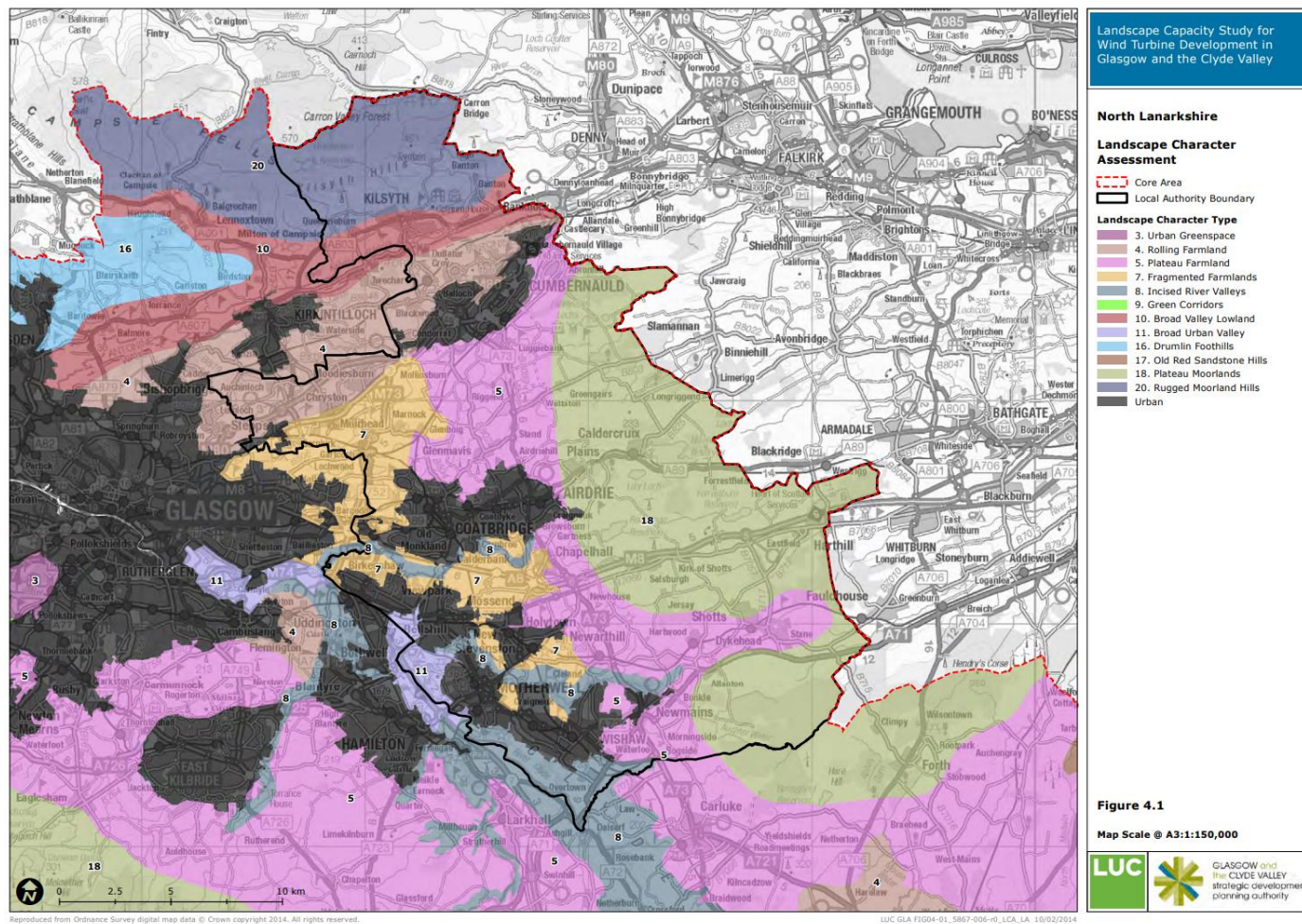


Figure 3. Landscape Character Assessment North Lanarkshire Council



Figures 1-3 Source: [The Landscape Capacity Study for Wind Turbine development Background Report \(November 2018\)](#)

- 4.30 The strategic view of landscape sensitivity to wind energy development and available capacity for further development, did not introduce a threshold beyond which development would be unacceptable. It did however set out guidelines in terms of constraints and opportunities, as to how any further development may be accommodated. The Report sought to strike an informed balance, providing strategic information which will underpin detailed analysis of cumulative impact and landscape capacity at the local level.
- 4.31 The lack of existing and proposed development in or around the areas of higher sensitivity, i.e. the Clyde and Kelvin Valleys and the Kilsyth Hills, is notable, and it is recommended that these areas are maintained as landscapes relatively free of large-scale wind energy development going forward.
- 4.32 Further development within the Plateau Moorland and Plateau Farmland may intensify cumulative effects, but this is considered preferable to dispersal of cumulative effects into currently unaffected areas of higher sensitivity, such as the Kilsyth Hills. The study highlighted the need to develop discrete foci or clusters of development within the Plateau Moorland and Plateau Farmland rather than allow a scatter of single turbines and turbine groups across the whole area. It is considered that this will continue to be a challenge for North Lanarkshire balancing the need for further wind development to meet net zero targets whilst protecting the amenity of surrounding settlements.
- 4.33 Within North Lanarkshire we currently have approximately 256.5(MW) of operational or consented generating capacity in terms of larger scale wind developments over 0.1(MW) in generating capacity.

Figure 4. Operational and Consented Wind Turbine Developments within North Lanarkshire above 0.1(MW) in Generating Capacity

Application Number	Site Address	Number of Turbines	Total Generation (MW)	Year Consented
02/00696/FUL	Black Law Wind Farm, Allanton, Shotts	2	4.4 (MW)	2004
04/01624/FUL	Greendykeside Farm, Longriggend	2	4(MW)	2006
05/02032/FUL	Braidenhill Farm, Coatbridge Road, Glenmavis	1	0.8(MW)	2006
07/00172/FUL	Greengairs Landfill Site, Meikle Drumgray Road, Greengairs	9	27(MW)	2014
07/00809/FUL	Land At Damhead Farm, Bowhouse Road, Airdrie	1	2.3(MW)	2010
08/00101/FUL	Black Law Windfarm Land South East Of Shotts	12	36(MW)	2008
08/01461/FUL	A G Barr, Westfield House, 4 Mollins Road, Cumbernauld	1	1.8(MW)	2011
10/00973/FUL	Torrance Farm, Blairmuckhill Road, Harthill	3	10(MW)	2011
11/00147/FUL	Blairmains Farm, M8 Junction 5, Harthill	2	0.2(MW)	2012

11/00378/FUL	Gaindykehead Farm, Yetts Hole Road, Coatbridge	1	0.1(MW)	2011
11/00544/CNS	Black Law Windfarm, Allanton, Shotts	11	33(MW)	2014
11/00741/FUL	Wester Hassockrigg Farm, Shotts Road, Shotts	1	0.1(MW)	2011
11/00891/FUL	Bellstane Farm, Blackbog Road, Riggend, Airdrie	1	0.5(MW)	2012
11/01384/FUL	Land East Of The Shetland Centre, Easter Glentore, Greengairs Road, Greengairs	1	0.5(MW)	2012
12/00277/FUL	Nether Bracco Farm, 21 Airdrie Road, Caldercruix, Airdrie	1	0.8(MW)	2012
12/00284/FUL	Netherton Farm, Westcraigs Road, Harthill	2	6(MW)	2012
12/00602/FUL	Site To North Of Easterton, Airdrie Road, Caldercruix	8	38.4(MW)	2019
13/01377/FUL	West Benhar Wind Farm, North Of Rimmon Cottage, Benhar Road, Shotts	8	27.2(MW)	2014
13/01820/FUL	Blairmains Farm, M8 Junction 5, Harthill	2	0.2(MW)	2014
13/01959/FUL	Site North Of Rimmon Cottage, Benhar Road, Shotts	1	0.5(MW)	2014
14/00001/FUL	Site East of Springhill And Leadloch Road, Shotts	1	0.25(MW)	2014
14/00232/FUL	Hill Of Harthill Farm, Blairmuckhill Road, Harthill	1	0.1(MW)	2014
14/00649/FUL	Knowehead Farm, Blairmuckhill Road, Harthill, Shotts	1	0.1(MW)	2014
14/01495/FUL	Site To North of Rimmon Cottage, Benhar Road, Shotts	1	0.5(MW)	2015
14/01699/FUL	Land At Murdostoun Forrest & Home Farm, Hartwood, Shotts	7	21(MW)	2019
14/01518/FUL	Land South of Stoneburn Farm, Forrestfield Road, Caldercruix	1	0.5MW	2015
14/01592/FUL	Torbrex Farm, Hulks Road, Greengairs	1	0.5(MW)	2015
14/02112/FUL	Southrigg Farm, Armadale	1	1.5(MW)	2015
15/00249/FUL	Stanebent Farm, Torbothie Road, Stane	1	0.5(MW)	2016
15/01411/FUL	Site South Of Airdrie Road, Caldercruix	4	13.2(MW)	2017
15/01944/FUL	100 Blairmuckhole And Forrestdyke Road, Harthill	1	0.5(MW)	2020
18/00256/FUL	Land East Watsonhead Farm, Watsonhead Road, Allanton	2	7.2(MW)	2020
19/00644/FUL	Southrigg Farm, Armadale	1	4.2(MW)	2023
20/00504/FUL	Brownhill Farm, West Benhar Road, Eastfield, Harthill	2	8.4(MW)	2020
23/00286/FUL	Southrigg Farm, Armadale	1	4.2(MW)	2023

Source: A Murray NLC Planning

Solar/PV Energy

- 4.34 It is recognised that North Lanarkshire has the potential for significant growth in this renewable energy generation sector. Whilst we have had relatively little in the way of large-scale applications the recent consultation from the Scottish Government for the 75MW scheme at land at Cleland (inclusive of a 25MW Battery Energy Storage Facility) is proof that there is potential to consider more developments of this type provided that the impacts can be minimised.
- 4.35 In addition the Council has utilised solar/pv on all its new council house stock as part of a suite of energy efficiency measures to increase the overall energy efficiency of such properties. It is envisaged that Solar/PV will remain a viable option for domestic properties, and since the revision of the permitted development rights, many of these systems can be installed without planning permission.

Battery Storage

- 4.36 Battery storage is expected to play an important role in the energy transition, allowing the storage of electrical energy from renewables for later use, and helping to balance grid load. Battery storage energy plants, allow excess energy to be stored and released during peak demand, or when renewable sources are not generating enough energy to meet demand. Battery Storage schemes require a connection to the electricity grid, and normally will be sited within close proximity to an existing power plant or sub-station with spare capacity or brought forward alongside renewable energy infrastructure.
- 4.37 North Lanarkshire has seen a recent rise in such applications and the benefits of co-locating them near existing renewable energy generating sources can be seen by the approval of the Battery Energy Storage System (BESS) adjacent to the existing Blacklaw windfarm and the proposals to co-locate a BESS as part of the 75MW solar PV scheme at land at Cleland noted above.

Hydrogen

- 4.38 Hydrogen could be an important contributor towards lowering greenhouse gas emissions and to minimise our impacts on the climate. Hydrogen provides a sustainable alternative to burning fossil fuels and can be used to decarbonise many parts of our economy, including industry, transport, power and heat. Hydrogen is a rapidly evolving field and the Scottish Government reaffirmed its commitment to hydrogen through the 2022 Hydrogen Action Plan and set out an ambition of 5 GW of renewable and low-carbon hydrogen production by 2030 and 25 GW by 2045.
- 4.39 Green hydrogen is produced by splitting water using renewable electricity while blue hydrogen is produced from fossil fuels plus carbon capture. Therefore, both production routes are deemed as low carbon in UK and Scottish legislation. Increased availability of hydrogen for heat will have positive implications for the suitability of hybrid heat pump systems, which may be cost effective solution.
- 4.40 Currently hydrogen is an underdeveloped fuel and is associated with high costs. The future of hydrogen prices is uncertain but may become competitive with other energy sources in the coming decades. However, without Government incentives prices for green hydrogen are unlikely to be lower cost than using direct electrical heating or heat pumps as hydrogen system efficiency is lower than using electrified heating.

- 4.41 Hydrogen may be appropriate in certain areas where there is local supply or where industrial demand creates economies of scale. The UK Government is establishing large-scale trials of hydrogen for heating and assessing the potential to blend hydrogen into the gas grid, with a final policy decision to be taken in 2026. Transported through the gas grid it could help decarbonise commercial premises and make a contribution to decarbonising home energy use however this unlikely to deliver substantial emissions savings before the late 2020s at the earliest.
- 4.42 The Scottish Governments Hydrogen Action Plan proposes a regional approach, with Regional Hydrogen Energy Hubs (geographic locations where hydrogen producers are co-located with multiple users and potential exporters). Glasgow is identified as one of the potential locations for Regional Hydrogen Hubs (No8) and Grangemouth (No9). Given the location and proximity of North Lanarkshire to both of these proposed regional hubs it is envisaged that there may be potential for benefits given our distance and excellent transport links to both.

Heat Networks

- 4.43 The Scottish Government Heat Networks (Scotland) Act 2021 supports heat decarbonisation through creating heat networks and their management as a utility. The Council is required to develop Heat Network Zone proposals to guide this process. North Lanarkshire Council has carried out an analysis of the potential for heat network zones through its LHEES and indicates several areas where heat network zones may be viable methods of delivering low carbon, low-cost heat to homes and businesses.
- 4.44 The zones include 6 % of the domestic and 11 % of the non-domestic Properties in North Lanarkshire. These low percentages highlight that heat networks are not the primary route to low carbon, affordable heat for everyone in North Lanarkshire. Future new-build developments may lend themselves better to heat networks, it is worth considering that higher density developments, such as flats or mixed-use developments, are more likely to be viable for heat networks than low-density developments.
- 4.45 One consideration for the new Local Development Plan may be whether to allocate some areas for higher density developments to improve the viability of heat networks.

Heat Network Zones

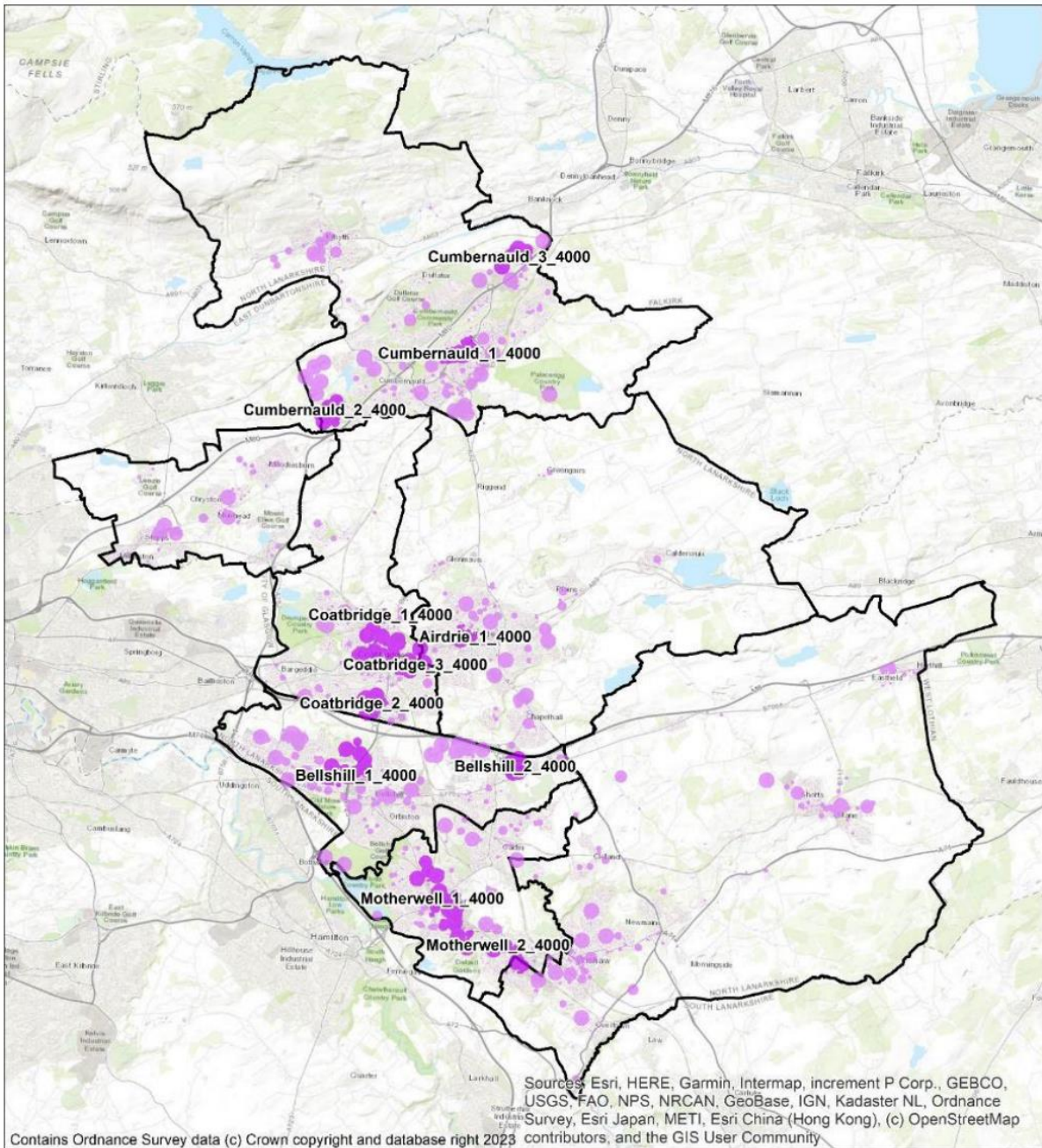
- 4.46 North Lanarkshire Council's LHEES identifies five potential heat network zones: Motherwell, Airdrie, Bellshill Coatbridge and Cumbernauld, each with varying high and low confidence that a heat network could be developed.

The areas in Motherwell, Coatbridge and Cumbernauld offer the best combination of initial viability, potential future expansion and diversity of heat loads.

The LHEES states that Bellshill has fewer large Council owned heat loads than Motherwell and Cumbernauld. The property types in the two identified heat network areas of Bellshill are also less likely to use heating systems which are suitable for connection to heat networks. However, opportunities to improve the Council's understanding of the energy use of the businesses in these areas, will be considered as part of any future engagement. As for Airdrie, the analysis showed that the area is reliant on a small number of high heat consumption buildings and therefore the likelihood of long-term viability is low, based solely on the existing buildings. However, regeneration projects are planned in the area and heat networking opportunities could

be reconsidered as part of those developments where the proposed additional buildings in the town centre would increase the heat load.

Figure 5. North Lanarkshire Potential Heat Network Zones - Baseline



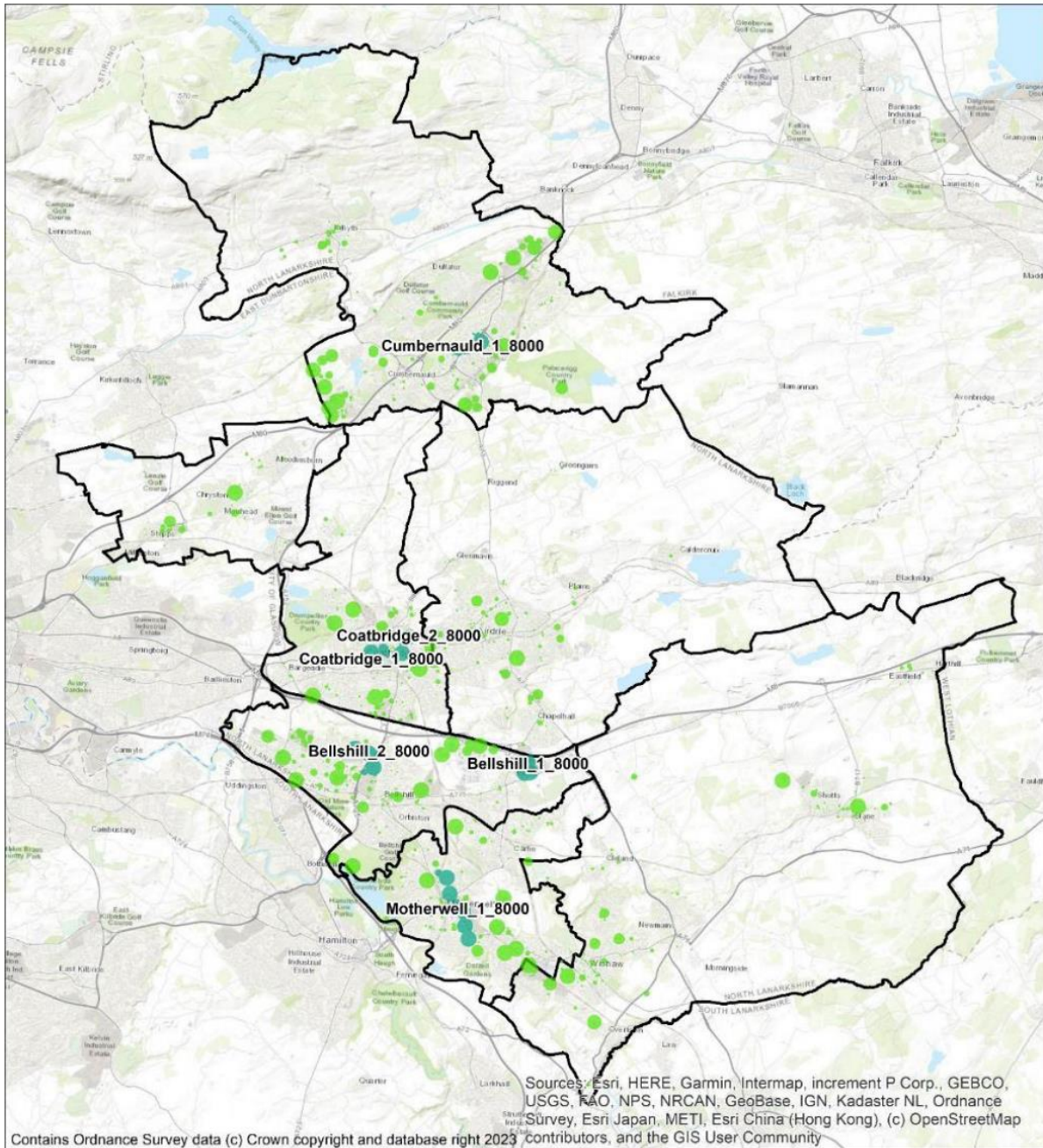
Heat Demand (MWh)

- <15,000
- >15,000

Purple shades represent a baseline assessment (4000 kWh/y/m). Pale shade represents an area within which the total demand of all buildings is <15,000 MWh/y. Dark shade represents an area within which the total demand of all buildings is >15,000 MWh/y. Highlighted and numbered areas are those with the largest total demands in North Lanarkshire.

Source: [Local Heat and Energy Efficiency: Strategy and Delivery Plan | North Lanarkshire Council](#)

Figure 6. North Lanarkshire Potential Heat Network Zones - Stringent



Stringent Heat Demand (MWh)

- <15,000
- >15,000

Green shades represent a stringent assessment (8000 kWh/y/m). Pale shade represents an area within which the total demand of all properties is <15,000 MWh/y. Dark shade represents an area within which the total demand of all properties is >15,000 MWh/y. Highlighted and numbered areas are those with the largest total demands in North Lanarkshire.

Source: [Local Heat and Energy Efficiency: Strategy and Delivery Plan | North Lanarkshire Council](#)

The potential heat network zones identified in the LHEES are provisional only and are subject to feasibility studies to assess the viability of these areas to support heat networks, and of connecting to other potential heat sources to support heat networks, such as energy from waste and mine water geothermal energy.

The Drumgray Energy Recovery Centre, under construction, could be connected to potential heat network zones in Cumbernauld, Airdrie and Coatbridge. Options for the Motherwell network include heat pumps sourcing heat from the River Clyde, mine water or air.

The zones will be progressed with stakeholder engagement, detailed modelling and evaluation. The LHEES Delivery Plan sets out that feasibility studies on proposed heat network zones are expected to be complete by 2028.

Gas Infrastructure

- 4.47 Within North Lanarkshire 90% of the domestic properties have access to the gas network, which is 7% higher than the national average of Scotland which is 83%. The conversion of the gas network to accommodate the delivery of hydrogen will require a long term coordinated commitment of investment by the Scottish Government in order to cover gas transmission and distribution, the production of low carbon hydrogen, and the replacement or adjustment of existing consumer and industrial equipment. As noted above the geographical location of North Lanarkshire between the proposed Glasgow and Grangemouth regional hydrogen hubs may offer additional opportunities for North Lanarkshire in this regard.

Electric Vehicle Charging Infrastructure

- 4.48 As of the beginning of April 2024, there were 59,670 public electric vehicle charging devices available in the UK. North Lanarkshire is continuing to support the delivery of Electric Vehicle (EV) charging across North Lanarkshire with 269 Electric Vehicle (EV) chargers available at dedicated hubs across Lanarkshire as of April 2024. The charging hubs are installed at locations which best suited the needs of the local community to help them make the switch to EV and are available across sites including train stations, libraries, community centres and country parks. North Lanarkshire are in the top 20% of UK local authorities in terms of total EV charger devices per area (269) and total public 50kW and above (126) and just outside the top 20% (78.8%) for devices per 100,000 people. More EV charging points are being made available and much of this increasing capacity is now being installed at new housing and commercial developments.

Scottish Power Energy - Network Development Plan (NDP)

- 4.49 The primary objective of the NDP is to provide information on available network capacity to accommodate demand and generation growth, and interventions which will increase network capacity (such as flexibility use and reinforcement). The NDP is a medium-term outlook and is designed to sit between short-term Long Term Development Statements (LTDS) and long-term Distribution Future Energy Scenarios (DFES) forecasts.
- 4.50 Forecasting and modelling showed that customer-led changes out to 2050 are far beyond what the network, Scottish Power Energy Network (SPEN's) operational systems, and SPEN's internal processes are designed for. This creates four core areas that SPEN must deliver:

- Create additional network capacity so they can accommodate their customers' EVs, heat pumps, and generation;
 - Manage increasing complexity to safeguard the distribution network and whole system, and to enable new markets and services to operate safely;
 - Respond to increasing network criticality as their customers become increasingly dependent on their electricity supply for all their activities.
 - Manage deteriorating asset condition as utilisation and criticality increase due to greater levels of demand and generation.
- 4.51 Scottish Power Energy Networks (SPEN) have produced an interactive indicative map showing the main areas of constraint in terms of grid supply point and primary substations. Heat map distribution data for each substation and circuit can be viewed at on the SPEN Open Data Portal. It is noted that there are a number of Grid Supply Point constraints identified in areas such as Cumbernauld, Coatbridge and Wishaw as well as a larger number of Primary Substation and EHV Circuit Constraints identified in those areas as well as surrounding areas such as Kilsyth, Greenfaulds, Airdrie, Garsherrie, Bellshill, Chapellhall, Newhouse, Newarthill, Carfin, Motherwell, Shotts, Allanton, Wishaw and Overtown.
- 4.52 It is clear from the above constraints identified the Council will need to engage with SPEN at an early stage to identify the grid improvements that are required to accommodate the electrical supply needs for existing and planned development outlined in the proposed plan. It will be key to ensure that the programmed delivery of sites aligns with the investment plans of SPEN, ensuring sites are feasible for delivery. Furthermore, given the greater electricity generation and consumption on new-build properties, due to electrification of heat and transport, and the provision of EV charging and heat pumps rather than gas boilers will also need to be factored into calculations. Under the Building (Scotland) Amendment Regulations 2023 (New Build Heat Standard), any new buildings applying for a building warrant from 1st April 2024 must use a 'zero direct emissions heating system', such as a heat pump or heat network.

5. Potential Connections in Evidence

- 5.1 The Plan for North Lanarkshire is the council's main strategy for the area to improve services and outcomes for the communities who live here. It provides a shared ambition for inclusive growth and prosperity for all. It sets a path for the council and partners to follow. The Plan covers a wide range of activities that can impact on carbon emissions and help to make North Lanarkshire a more sustainable place to 'live-learn-work-invest-visit'.
- 5.2 In the UK the past four decades have been warmer than the one before. In North Lanarkshire it is expected that the average summer temperatures will increase, and the number of rainy days will reduce. The volume of rain on summer's wettest day will increase. Our winters are expected to be milder. Whilst the impact of climate change may seem to be less severe locally, in recent years we have seen an increase in severe weather events. These can affect us through:
- *Travel Disruption*
 - *Emergency Response Situations*
 - *Loss of power supply*
 - *Landslides*
 - *Flooding*
 - *Disruption to service Delivery*

- 5.3 The council recognised that it must take action and declared a climate emergency in June 2019. It has committed itself and the area of North Lanarkshire to achieving net-zero by 2030. Concerned about the impact of climate change on biodiversity, North Lanarkshire Council became a signatory of the Edinburgh declaration on Post-2020 Global Biodiversity Framework.

Energy - implications for topic 1 tackling the climate and nature crises and topic 2 climate mitigation and adaptation

- 5.4 It is clear that in order to realise our climate change ambitions, we need to transform the way Scotland generates, transports and uses energy. The draft energy Strategy and Just Transition Plan (2023) sets out a vision that by 2045 Scotland will have a flourishing, climate friendly energy system that delivers affordable, resilient and clean energy supplies for Scotland's households, communities and business. This will deliver maximum benefit for Scotland, enabling us to achieve our wider climate and environmental ambitions, drive the development of a wellbeing economy and deliver a just transition for our workers, businesses, communities and regions. In order to deliver that vision, this strategy sets out clear policy positions and a route map of actions with a focus out to 2030 that the Scottish Government will take and the changes that the UK Government must deliver.
- 5.5 We must change the way we use energy – reducing demand across our heat and transport sectors and replacing fossil fuel demand with zero carbon technologies. Low cost, renewable electricity will be critical for decarbonising our energy use, along with significant volumes of renewable and low-carbon hydrogen in harder-to-decarbonise sectors.
- 5.6 The plan sets out the following actions to ensure that:
- People have access to affordable clean energy.
 - Communities and places can participate and benefit in the net zero energy transition.
 - We have a supportive policy environment, maximising the impact of government expenditure and attracting private investment.
 - Scotland is home to a multi-skilled energy workforce, boosting our domestic supply chain and manufacturing capabilities.
 - Scotland's net zero energy system is continuously innovative and competitive in domestic and international markets.

It is envisaged that by 2030, we will significantly increase domestic production of renewable electricity and hydrogen, and our energy use will be largely decarbonised. The transformation of Scotland's energy system will help us to achieve our net zero and interim climate targets. Our biodiversity, habitats and natural environment will have been protected and enhanced as part of the energy transition.

- 5.7 Securing positive effects for biodiversity is one of six statutory outcomes for our National Planning Framework 4 (NPF4). The just transition must support Scotland's and therefore North Lanarkshire Council's ambitions for restoring and regenerating biodiversity and improving the health and quality of our natural environment. Any trade-offs between the energy transition and nature goals must be carefully assessed and managed. The Environment Strategy sets out the Scottish Government's commitment to tackling the twin climate and nature crises. It highlights that these crises are

intrinsically linked, and it is essential to take a joined-up approach to tackling them. This includes adopting nature-based solutions to energy that also support biodiversity.

- 5.8 The Plan for North Lanarkshire is the council's main strategy for the area to improve services and outcomes for the communities who live here. It provides a shared ambition for inclusive growth and prosperity for all. It sets a path for the council and partners to follow. The Plan covers a wide range of activities that can impact on carbon emissions and help to make North Lanarkshire a more sustainable place.
- 5.9 The council along with the other North Lanarkshire Partnership members (NHS, Police, Fire and Rescue, Scottish Enterprise and Voluntary Action North Lanarkshire) identified climate action as a key priority for the community planning partnership. The ACT Now Plan was developed by the NLP and is an integration of each of the partners' climate aims and ambitions. A new co-ordinating group was formed to take the plan forward. This partnership group will help to highlight climate issues and develop opportunities for local initiatives and climate action.
- 5.10 The council's climate plan ACT2030 will continue to feed into the work of this group. To further develop the council's strategic approach to tackle climate change we have identified the need for the following:
- we will develop a new engagement strategy in consultation with our partners and communities to ensure that we make the most of opportunities to share information, consult and work together to achieve net-zero by 2030.
 - Following the publication of Scottish Government guidance, we will develop our Local Heat and Energy Efficiency Strategy. The purpose of this strategy is to reduce energy demand and decarbonise the heat supply of all buildings in North Lanarkshire.
 - We will continue to work with our partners in Climate Ready Clyde to deliver the Regional Adaptation Strategy. We intend to ensure that our local authority area is prepared to meet current and future climate change by developing an Adaptation Plan for North Lanarkshire.
- 5.11 The Scottish Government's Climate Change Plan update was published in December 2010. The next full plan is due to be completed by early 2025. To achieve net zero by 2045, Scotland has committed to reducing emissions by 75% (compared to 1990) by 2030. As part of this, around 50% of homes and non-domestic buildings will need to convert to a low or zero carbon heating system by 2030. An investment of £1.6 billion has been earmarked for heat and energy efficiency over the next Parliament.
- 5.12 Scotland's transition to net zero will see a low carbon energy system displacing fossil fuel power. Over the same time, increased climate hazards such as flooding, water shortages, sea level rise and potential increases in storms, swells and wave heights will disrupt different parts of the energy system. Our increased reliance on the electricity system for example means that building network and community resilience to electricity system failures is increasingly important. This is especially so for vulnerable households and essential services.

Conclusion in terms of implications for topic 1 and 2

- 5.13 An effective energy policy will play a central role in addressing the integral challenges of climate change and biodiversity loss by promoting renewable energy, ecosystem protection, increased efficiency, equity, resilience and cooperation at the local, national and international level. The alignment of energy policies with climate mitigation and

adaptation goals will provide the mechanism going forward to ensure that North Lanarkshire can contribute significantly to a sustainable and resilient future for both the people of North Lanarkshire whilst contributing to the wider national and international efforts to tackle the climate and nature crises.

Other topic/policy overlaps stated in NPF4

5.14 It is possible that connections may exist with the following topics and in the following ways.

5.15 There is potential for some positive effects for the following topic areas:

- Topic 3 Biodiversity
- Topic 4 Natural places
- Topic 5 Soils
- Topic 6 Forestry, woodland and trees
- Topic 9 Sustainable transport
- Topic 16 Quality homes
- Topic 17 Rural homes
- Topic 25 Community wealth building

The just transition seeks to protect and enhance the quality of our natural environment which will have clear benefits for topics 3, 4, 5 and 6. The transition to more energy efficient transport that utilises largely decarbonised energy sources will also contribute positively to delivering against our economy-wide statutory climate change targets as will increased energy efficiencies contained within new build housing benefitting topics 9, 16 and 17 inclusive of the LHEES strategy to encourage energy efficiency and heat networks where feasible. It is also considered that a balanced energy strategy will offer opportunities to benefit topic 25 community wealth building.

5.16 There is potential for some negative effects for the following topic areas:

- Topic 7 Historic assets and places
- Topic 8 Green belts
- Policy 23 Health and safety
- Policy 26 Business and industry
- Policy 27 City, town and local commercial centres

It is anticipated that the requirements of the just transition will place some pressures on topic 7 with the need for adaptations related to sustainable energy efficiency. In addition, topic 8 related proposals for additional renewable energy proposals may put pressure on protected green belt locations. Potential noise from such renewable energy technologies may pose additional challenges for topic 23 and similar to the challenges for topic 7 the requirements for increased energy efficiency and adaptations to zero carbon technologies are likely to pose additional challenges for topics 26 and 27.

6. Site Selection Implications

6.1 The issues that have been identified to inform the site selection process are:

- The plan (NLLDP2) will need to build upon the current NLLDP to evaluate, articulate, and provide the strategy for the shift towards a zero-carbon energy infrastructure spanning the entire North Lanarkshire Council area. The importance of ensuring that upcoming developments align with the overarching decarbonization plan for the Council and its commitment to achieving net zero. NLLDP2 policies will require flexibility to accommodate evolving infrastructure needs and the integration of emerging technologies.
- The NLLDP2 spatial strategy will need to incorporate measures to reduce, minimise or prevent greenhouse gas emissions in light of the climate emergency declared by North Lanarkshire and the ACT2030 strategy to urgently tackle climate change and reduce the Council's overall carbon footprint to meet key targets required by the Scottish Government.
- NLLDP2 will need to continue to identify areas for new low carbon, renewable and zero emission energy generation such as wind and solar as well as opportunities for Battery Energy Storage Sites.
- Updated or new studies may be required to identify additional areas with the greatest potential for alternative energy sources within the Council area. Such a study would build upon the previous studies carried out in relation to landscape capacity and character studies and would focus on scale, visual impact, landscape capacity to absorb further development, protection of key landscape features or types (carbon rich soils for example) and include assessment in terms of potential for additional solar arrays and battery energy storage.
- NLLDP2 will continue to explore opportunities for emerging technologies such as hydrogen depending on the viability of distribution within the gas network going forward given the requirements to tackle fuel poverty and the provision of heat networks continue to be a focus of energy policy.
- The requirements of transitioning to zero carbon heat will require significant improvements to the grid and additional generation capacity. The Council will seek to work with SPEN to ensure that grid capacity issues are addressed when considering development allocations for the new LDP.
- NLLDP2 will take account of the proximity of and potential for heat network zone designation in allocating proposed development sites with consideration of sites that promote higher density developments to improve the critical mass and viability of heat networks.
- The LHEES delivery plan accompanies the Strategy and has been developed in partnership with key stakeholders, to provide a strong basis for action for local communities, government, investors, developers and wider stakeholders, pinpointing areas for targeted intervention and early, low-regrets measures. The Strategy and Delivery Plan will be reviewed and updated on an annual basis and NLLDP2 will need work in tandem to ensure compliance with a just transition to the low carbon economy.

7. Implications for North Lanarkshire Local Development Plan 2

- 7.1 Based on the evidence, analysis and views presented in this survey paper, North Lanarkshire Council currently considers that the topic policy in NPF4 for the Energy and Heating and Cooling topics should be applied as per NPF4 in North Lanarkshire as there is no need to consider locally specific policy to support decision making in this regard.