



Energy
and Low
Carbon
Heat

LHEES Orientation Workshop

Getting Started

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Scottish Government
Riaghaltas na h-Alba
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ARUP

LHEES Orientation Workshop

Getting Started

Prepared by Arup

26 April 2023

Purpose

- Provide a high-level overview of LHEES, as a foundational resource, to orientate someone that is not fully familiar with this Statutory Duty
- Cover the Order that underpins this this, the Guidance and the Methodology produced
 - Touching on what each of these are, what they contain and their relative significance
- In addition, it will provide some focus on Stages 1 and 2 of the methodology and how these relate to later stages and ultimately the Strategy and Delivery Plan

This workshop will be most useful for those new or relatively new to LHEES

Also likely to be of use for those that have some interest in LHEES. but are not working on it in depth



Contents

- What are Local Heat and Energy Efficiency Strategies?
- The Local Heat and Energy Efficiency Strategies (Scotland) Order 2022
- Local Heat And Energy Efficiency Strategies and Delivery Plans – Guidance
- LHEES Methodology
 - Overview
 - Stage 1
 - Stage 2
- Available support

What are Local Heat and Energy Efficiency Strategies?

What are Local Heat and Energy Efficiency Strategies?

Context

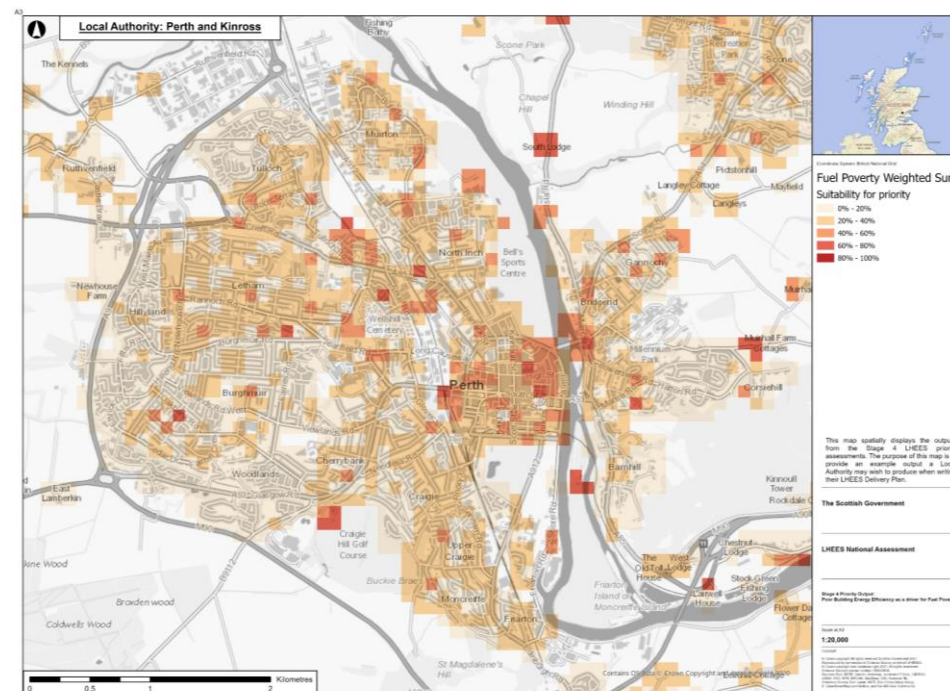
- Net zero emissions by **2045** and 75% reduction by **2030**
- We need to very rapidly increase deployment of low regrets strategic technologies – to ensure over **1 million homes are converted to zero emissions heating systems by 2030**
- Options are already available – energy efficiency, heat pumps and heat networks
- LHEES focuses on these but also has flexibility to consider wider solutions as they develop (e.g. hydrogen)
- For more detail, see the Heat in Buildings Strategy:
<https://www.gov.scot/publications/heat-buildings-strategy-achieving-net-zero-emissions-scotlands-buildings/pages/1/>



What are Local Heat and Energy Efficiency Strategies?

Purpose

- Long-term **plan for an entire local authority** area to decarbonise heat and improve energy efficiency
- Sets out how each **segment of the building stock** needs to change to reach net zero
- Identifies **strategic heat decarbonisation zones**, and sets out the principal measures for reducing buildings emissions within each zone
- **Prioritises areas for delivery** of heat decarbonisation action
- **Provide a strategic plan** which can be used to target government funding and private investment for heat decarbonisation and energy efficiency investment
- An LHEES is structured in two parts:
 - **A Local Heat and Energy Efficiency Strategy**
 - **A Local Heat and Energy Efficiency Delivery Plan**

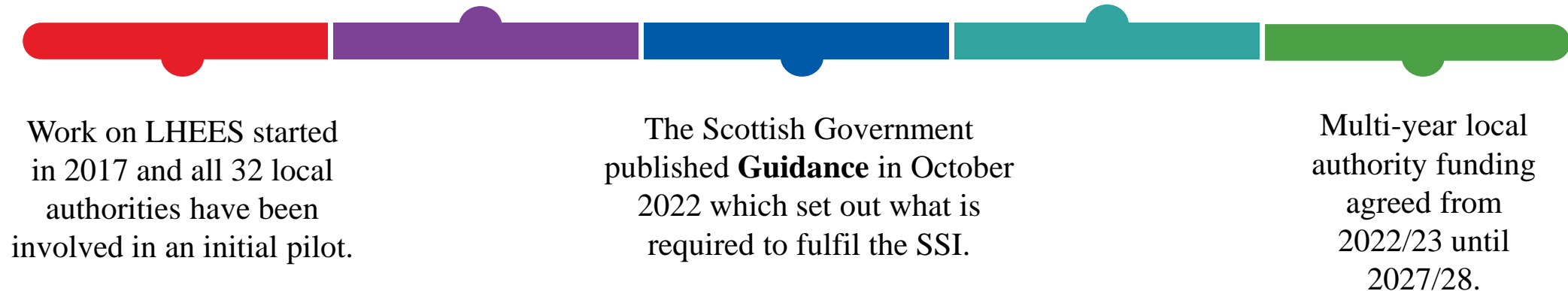


What are Local Heat and Energy Efficiency Strategies?

History

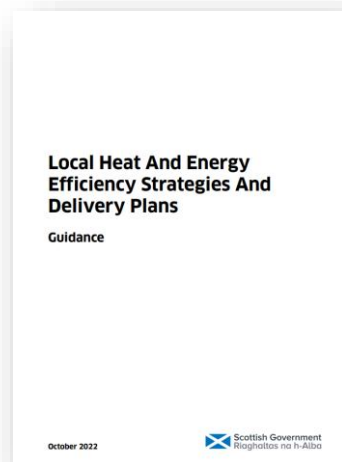
Scottish Statutory Instrument (SSI) was passed by the Scottish Parliament which **requires local authorities to have strategies and delivery plans in place by the end of 2023.**

A **Methodology** has been developed from the pilots by Zero Waste Scotland, with version 4.0 published in October 2022. This sets out how a local authority could fulfil the requirements (but not mandatory).



What are Local Heat and Energy Efficiency Strategies?

Key documents

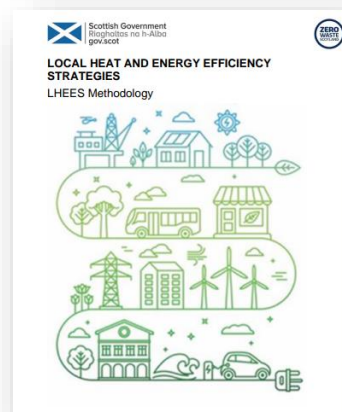


- The Local Heat and Energy Efficiency Strategies (Scotland) Order 2022

<https://www.legislation.gov.uk/sdsi/2022/9780111053935>

- Local Heat And Energy Efficiency Strategies and Delivery Plans: Guidance

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



- LHEES Methodology

Contact the SG LHEES team (LHEES@gov.scot)

The Local Heat and Energy Efficiency Strategies (Scotland) Order 2022



The Local Heat and Energy Efficiency Strategies (Scotland) Order 2022

Overview

- The Local Heat and Energy Efficiency Strategies (Scotland) Order 2022 sets out a statutory duty on all local authorities to prepare a Local Heat and Energy Efficiency Strategy (LHEES) and Delivery Plan and publish on or before 31st December 2023
- Once published, the Order states that a local authority must keep its strategy and Delivery Plan under review and publish an update LHEES and Delivery Plan at intervals of **no more than 5 years** from the previous publication
- Local authorities should have regard to the Guidance when preparing its LHEES

Definition: Strategy

Long-term strategic framework for:

- the improvement of the energy efficiency of buildings in the local authority's area, and
- the reduction of greenhouse gas emissions resulting from the heating of such buildings.

Definition: Delivery Plan

A document setting out how a local authority proposes to support implementation of its local heat and energy efficiency strategy.

Local Heat And Energy Efficiency Strategies and Delivery Plans: Guidance



LHEES Guidance

Overview

The LHEES Guidance sets out the production and content requirements for a local authority to prepare an LHEES to ensure that the Strategy and Delivery Plan contain outcomes and actions that are backed up by **robust data and analysis**, supported by **stakeholder engagement**, and that **are linked to national and local priorities, plans and targets**

The LHEES Guidance cover 4 areas:

1. *Local Heat and Energy Efficiency Strategies and Delivery Plans* – Sets out role, function and scope of LHEES; as well as overarching overview on how to use the LHEES Guidance
2. *Requirements* – Sets out legislative requirements (see separate slide on Heat Networks (Scotland) Act; national and local strategies, priorities, plans and targets that should be considered; impact assessments that should be considered; and publication requirements)
3. *Guidance to develop a Strategy and Delivery Plan* – Overview of each stage to prepare a LHEES – covering requirements, anticipated outputs and anticipated stakeholder engagement
4. *Producing Strategy and Delivery Plan Documents* – Overview of content and format of the LHEES Strategy and Delivery Plan

LHEES Guidance

LHEES Considerations

Local authorities should ensure that these Considerations are set out against their own local priorities and drivers for completing an LHEES, as well as the relevance for them

	No	LHEES considerations	Description	Analysis
Heat decarbonisation	1	Off-gas grid buildings	Transitioning from heating oil and LPG in off-gas areas	Four categories – suitability for retrofit
	2	On-gas grid buildings	On-gas grid heat decarbonisation	Four categories – suitability for retrofit
	3	Heat networks	Decarbonisation with heat networks	Linear heat density and anchor loads, gridded heat density
Energy efficiency and other outcomes	4	Poor building energy efficiency	Poor building energy efficiency	Wall, loft and glazing
	5	Poor building energy efficiency as a driver for fuel poverty	Poor building energy efficiency as a driver for fuel poverty	Wall, loft, glazing and fuel poverty
	6	Mixed-tenure, mixed-use and historic buildings	Mixed-tenure, mixed-use buildings, listed buildings, and buildings in conservation areas	Identify where alternative approach to decarbonise may be needed

LHEES Guidance

LHEES Stages

Stage 1: Set out policy landscape, local / national priorities, targets and plans. Plan stakeholder engagement.

Stage 2: Data collection to support analysis.

Stage 3: Strategic zoning and pathways to decarbonise the building stock at a local authority level.

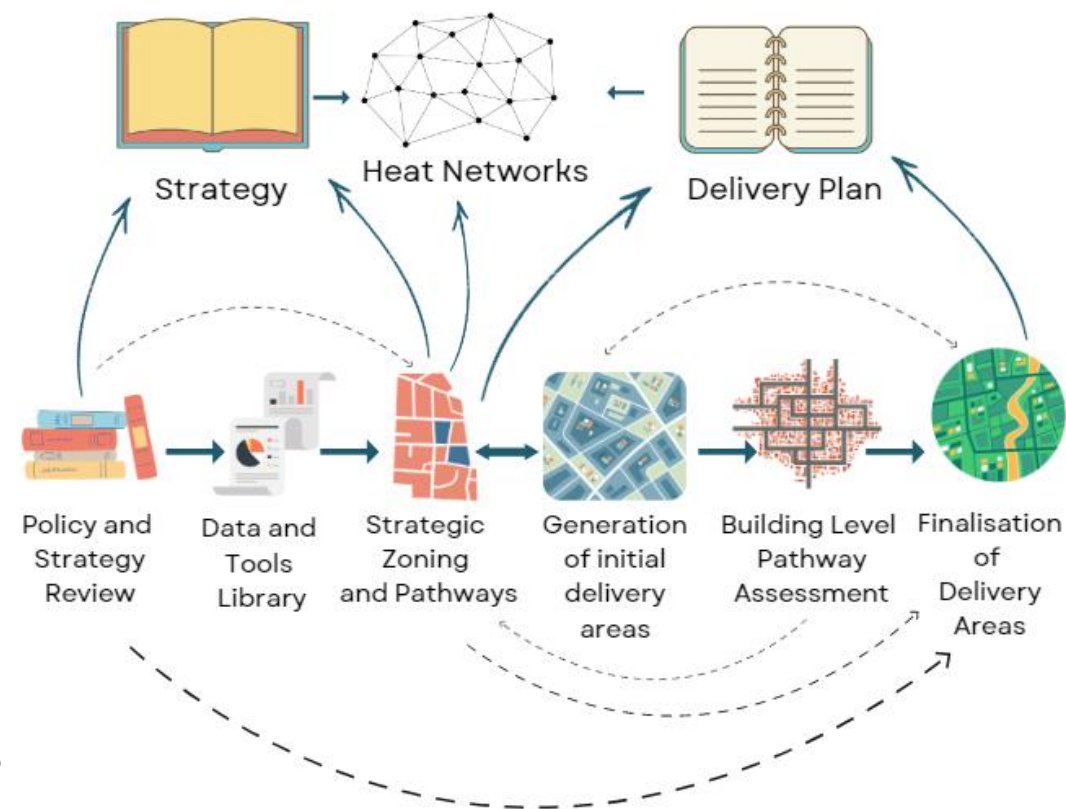
Stage 4: Generate initial Delivery Areas for each of the LHEES Considerations.

Stage 5: Assessment at the building-level to establish interventions to decarbonise the buildings from a heating and energy efficiency perspective.

Stage 6: Identifying a range of actions to be developed in the LHEES Delivery Plan.

Stage 7: Develop LHEES Strategy, uses the outputs from Stages 1 to 3, in addition to the Heat Network zoning outputs in Stage 4.

Stage 8: Develop LHEES Delivery Plan using outputs from the LHEES Strategy and it supported by more granular Delivery Areas completed as part of Stages 4-6.



Note: Stakeholder engagement should be ongoing throughout



Heat Networks (Scotland) Act 2021

Linkages with LHEES

- The Act aims to accelerate the deployment of heat networks in Scotland through the introduction of a regulatory system aimed at boosting consumer confidence in the sector and providing greater certainty for investors.
- To fully maximise deployment strategic planning is required to:
 - identify the most suitable areas and key anchor loads (buildings) which support network development
 - maximise the use of sources of waste heat or constrained renewable energy generation to power heat networks
- The 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
- The LHEES Methodology sets out an approach to support local authorities to discharge this duty

LHEES Methodology



LHEES Methodology

Overview

- The Scottish Government have also provided an LHEES Methodology to local authorities
 - Developed by Zero Waste Scotland in partnership with several LAs, consultants and Scottish Government
- Detailed, step by step approach, including models, tools and templates, and represents best practice in how to produce an LHEES
- Local authorities **are not required** to use the methodology and are welcome to take alternative approaches to meet the requirements set out in this guidance
- Provides a strong foundation with respect to the coordination and technical roles required of LHEES
 - Local authorities can modify and advance to suit their own preferences and local context
- Structure of the Methodology follows the Stages set out in the LHEES Guidance
 - Additionally provides context on skills, knowledge and resources; and roles and responsibilities

Methodology

Context

LHEES Order

- Statutory requirements to prepare and publish an LHEES Strategy and Delivery Plan
- Formal requirements set by Scottish Ministers

LHEES Guidance

- Sets out the production and content requirements for a local authority to prepare and publish an LHEES
- Answers the '**what is required**' question

LHEES Methodology

- Sets out a step by step approach to complete an LHEES in accordance with the Guidance; not compulsory
- Answers the '**how to**' questions; not compulsory

Skills and knowledge

Overview

- An indicative summary of the main skills and knowledge that may be required to undertake an LHEES is provided, as set out in the Methodology
- The identification and setting up of project leads and governance should be considered in advance of completing this methodology
 - But could be included as part of LHEES Stage 1

Skills and knowledge	Description	Typical location
Project management and coordination (across all Stages)	<ul style="list-style-type: none"> • Overseeing LHEES process, including the completion of Stages 1-6 of this methodology • Initiating the project teams and governance structures • Coordinating data inputs from internal and external parties 	Local authority
Data analysis (LHEES Stages 2-5)	<ul style="list-style-type: none"> • Collating and analysing large datasets • Working with Geographic Information Systems (GIS) • Producing relevant outputs (tables and maps) 	Local authority / consultant
Policy awareness (LHEES Stage 1 and Delivery Plan)	<ul style="list-style-type: none"> • Setting priorities for LHEES • Understanding national and local policy and strategy drivers 	Local authority / Scottish Government
Stakeholder engagement and coordination (across all Stages)	<ul style="list-style-type: none"> • Designing surveys, hosting workshops and integrating findings into Strategy and Delivery Plans • Stakeholder engagement skills 	Local authority / consultant
Technical knowledge (across all Stages)	<ul style="list-style-type: none"> • Knowledge of building engineering and energy auditing • Understanding of energy efficiency and low carbon heat 	Local authority / consultant

Roles and responsibilities

Overview

Three levels of actors defined in Methodology:

1. Strategic – responsibility for direction at key decision points within LHEES, for management oversight and steer, and for signing off the final LHEES documentations prior to publication
2. Coordinator – responsibility for the development and delivery of the LHEES documentation prior to presenting them for senior approval, and importantly communicating with and coordinating input from the range stakeholders involved in LHEES development
3. Practitioner – responsibility for contributing to the delivery of the LHEES through application of specific technical skills, insights and understanding

Role	Responsibility	Description	Stakeholder(s)
Strategic Level			
Senior sponsor	Senior lead and champion within the LA	<ul style="list-style-type: none"> Champion for LHEES internally Oversees securing of funding, business case and justification for LHEES Advocate across the LA, setting out the benefits, rationale etc for the work Works closely with Lead project officer 	Local Authority
Project board (e.g. steering group)	Temporary group to provide strategic and advisory role for the preparation and production of the LHEES	<ul style="list-style-type: none"> Oversee and facilitate the LHEES process Includes senior sponsor, senior consultants, lead project officer, other relevant leads from across the LA 	Local authority, consultant
Coordinator Level			
Working group	Temporary group to coordinate preparation and production of the LHEES	<ul style="list-style-type: none"> Discuss and coordinate delivery of methodology Stages, Strategy and Delivery Plan Includes project manager, project officers, consultants 	Local authority, consultant
Lead project officer	Lead project officer for the preparation and production of LHEES	<ul style="list-style-type: none"> Likely to be the identified officer linked to LHEES internally Holds relationship with SG colleagues Enabler of LHEES activity 	Local authority, consultant
Heat networks lead	Coordinating activity around the Heat Networks Consideration	<ul style="list-style-type: none"> Coordination of Potential Zone identification and finalisation activity, a heat networks lead may be required for those local authorities with higher potential for heat networks 	Local authority, consultant

Models, tools and templates

Overview

- To complete the detailed practitioner approach requires the use of several models, tools, templates and GIS software packages
 - Described in more detail in Methodology
- Additionally, a template is provided for the completion of the LHEES Strategy document; and a further template is provided that sets out suggested action planning for the LHEES Delivery Plan

LHEES Stage (when required)	Model/ tool/ template name	Format
Stage 1: Policy and Strategy Review	Policy and Strategy Review Template	Excel template
Stage 2: Data and Tools Library	Data and Tools Library	Excel template
Stage 3: Strategic zoning and pathways	Domestic Baseline Tool	Excel tool
	Non-domestic Baseline Tool	Excel tool
	GIS software (for visualisation)	GIS software
Stage 4: Generation of initial delivery areas	All_Buildings_Template	Excel tool
	Heat Network Zone Summary	Excel tool
	Off_Gas_Domestic_Template	Excel tool
	On_Gas_Domestic_Template	Excel tool
	GIS software	GIS software
Stage 5: Building-level pathway assessment	GIS software & PEAT	GIS software & Online Portal

Stage 1 – Policy and Strategy Review

Purpose

- Support review of local policy in national context
- Set out Indicators, Criteria and Weightings for the LHEES Priorities
- Support mapping of key internal and external stakeholders, in addition to potential funding resources
- Policy and Strategy Review Excel template supports population of relevant information to complete of Stage 1
- Preliminary guidance provided to complete this Stage, and to engage stakeholders
 - See additional capacity support on strategy review and stakeholder engagement

How Stage 1 shapes later analysis

Stages:

1. Sets out roles and responsibilities for preparation and delivery of LHEES
2. Ongoing stakeholder engagement – Supports creation of structures, forums, working groups to support completion of LHEES
3. Understand the relevance of local and regional policy/strategy to LHEES

How Stage 1 shapes Strategy & Delivery

Plan:

1. Ongoing stakeholder engagement to support Strategy consultation
2. Set out local priorities, drivers and framing to inform focus of Delivery Level Areas and associated actions

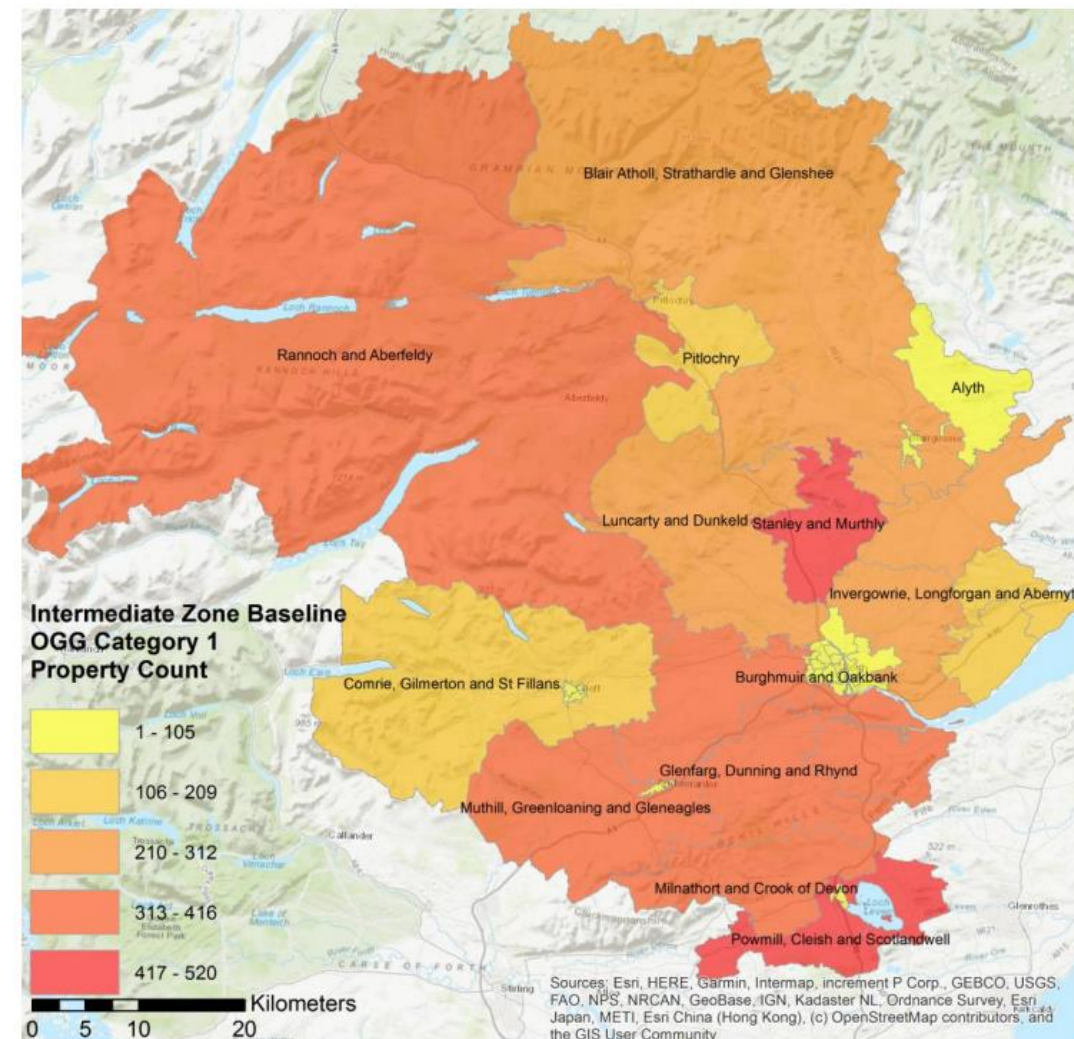
Stage 2 – Data and Tools Library

Purpose

- Identify and maintain a record of the data and tools needed and used to support of the LHEES process
- Analysis for this Stage is guided by and completed within the Data and Tools Library
- Support preparatory work for the analysis stages that follow and will be a valuable resource if data sharing is required to support delivery
- Library can be referred to and should be updated as required to maintain a comprehensive record of data and tools used during subsequent work on LHEES

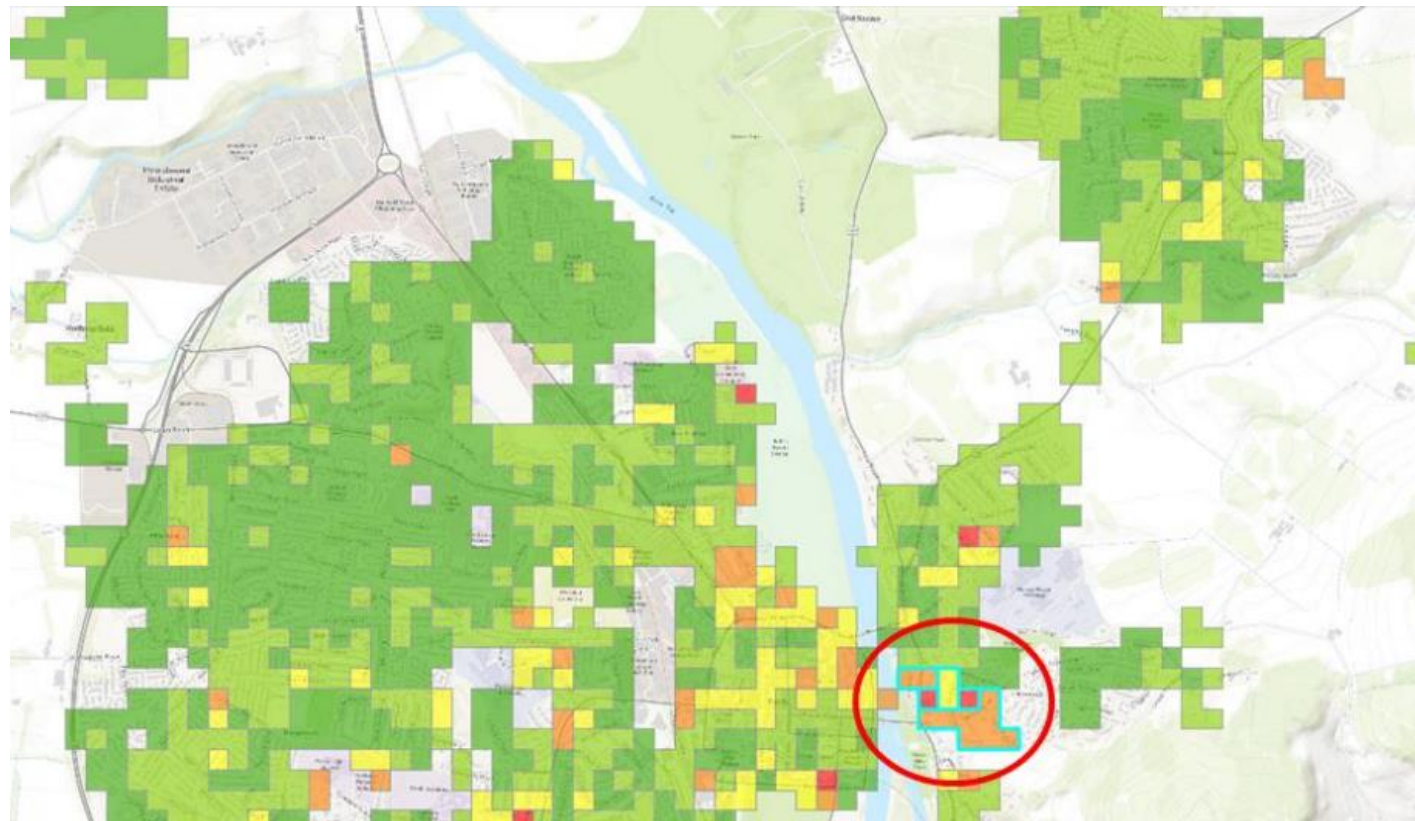
LHEES Data and Tools Library						
Row	Data Resource or Tool	Description	Data Item or Tool Use Categorisation	Summary of Use Categorisation	Data Quality / Confidence	Data Owner / Sharing
	<i>Name of data item or tool</i>	<i>High-level description of data item or tool</i>	<i>Use category</i>	<i>Comment on categorisation</i>	<i>Data quality and confidence level; highlight of concerns specific to intended use</i>	<i>Detail on ownership of datasets and how these are shared with local authorities and between local authorities and third parties</i>
1	Scotland Heat Map (SHM) (summer 2020)	Valuable spatial dataset with point-level heat demand data for all properties in Scotland / various other useful data fields and additional information layers. Updated approximately annually. Source data (including from public sector) requested at each update.	Core	Heat demand estimates for all properties in Scotland are used primarily in the Heat Networks analysis NOTE: cleansing was carried out to remove some heat demand records prior to completion of the national assessment activity for Heat Networks - see Stage 4 guidance for further detail Geographic boundaries used in analysis for all Priorities	Heat demand data is from various sources with a "Confidence" level assigned to detail: 1 being low confidence (benchmarked) to 5 being high confidence (metered data) See note in Heat Networks detailed practitioner guidance regarding cleaning of data to remove erroneous records prior to national assessment work.	All Scottish local authorities are signatories to the SHM Framework Agreement with Scottish Government SHM data can be shared with third parties through a Data Sharing Agreement (DSA) with reference to the SHM Framework Agreement
2	Ordnance Survey (OS) product data	Various mapping data, central to the development and use of Scotland's Heat Map and other GIS information sources	Core	OS product data and licenses are required to use SHM & other OS-derived datasets Key to GIS analysis elements of LHEES		Arrangements for 3rd party use of OS / OS-derived products is made through Public Sector Geospatial Agreement (PGSA)
3	Home Analytics v3.7 (Feb 2021)	Database covering all domestic properties in Scotland, built using information from the domestic EPC register and other sources; statistical models are used to provide estimates giving 100% property coverage	Core	Used extensively in the analysis stages across the LHEES Priorities NOTE: ~6 month update cycle - changes to field names and additional of fields in future releases could impact on functionality of tools and templates used within the methodology		EST manage the Home Analytics database, and can arrange access Housing Officers will likely have access within a local authority

Stage 3 Example Outputs



Example outputs from Baseline Tool (LA summary level) and Strategic Zoning output (Off-gas grid heat pump potential)

Stage 4 & 5 Example Outputs



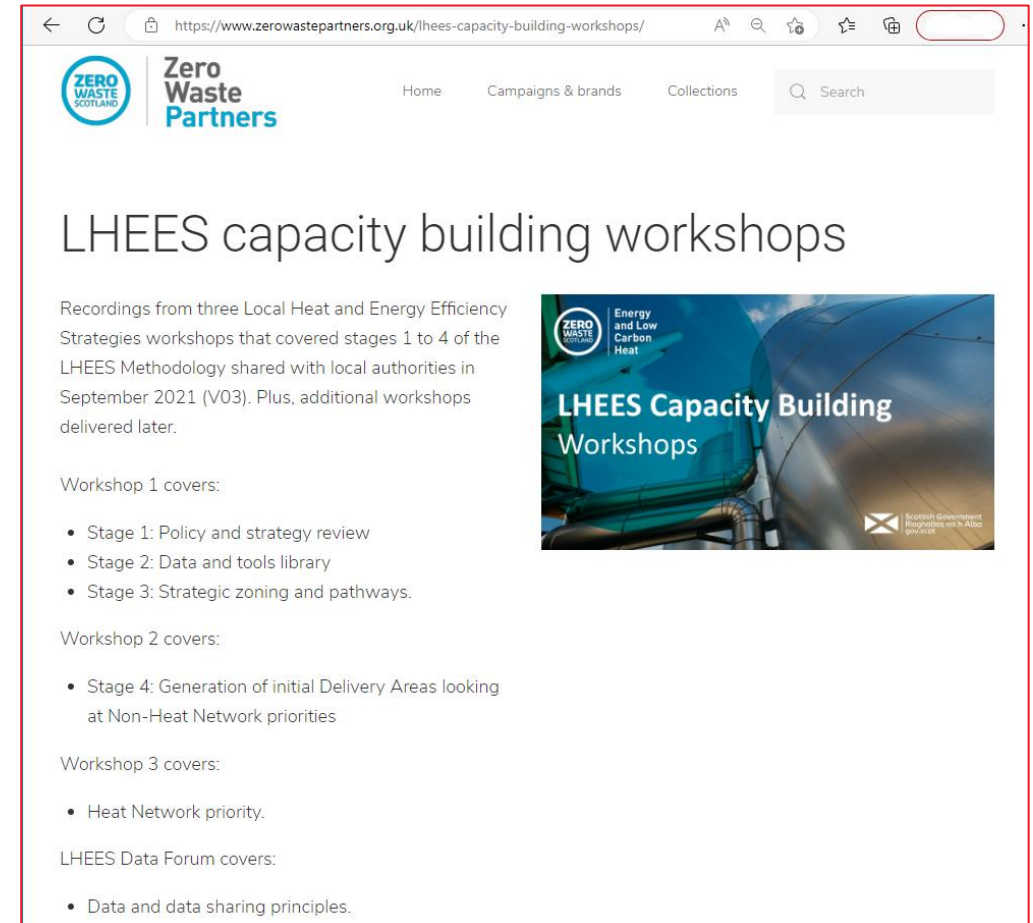
Example outputs – Delivery Area analysis and PEAT tool output

Identified measures	Measure details					Financial details							
	Measures by tenure					Costs		ECO contribution		Funding gap?	Householder contribution applied?		HEEPS contribution
	Local Authority	Owner	Private rented	RSL	Measure totals	Measure cost (£)	Unit Total funding required (£)	Available ECO (£) (for measure)	Available ECO totals (£)	Unit measure additional contribution required (£)	Part h/holder contribution amount applied?	Part h/holder contribution total	HEEPS total funding required
A-rated glazing (uPVC)	0	13	2	5	20	£3,827	£76,531	£187	£3,741	£3,640	No	£0	£72,790
Hard to treat cavity wall insulation	0	1	0	0	1	£349	£349	£487	£349	£0	No	£0	£0
Loft insulation top-up	0	3	2	2	7	£264	£1,849	£205	£1,434	£59	No	£0	£415
New insulated uPVC external doors	0	12	2	5	19	£814	£15,472	£144	£2,739	£670	No	£0	£12,734
Room in roof walls and sloping parts, 100mm insulation	0	8	0	2	10	£1,562	£15,624	£4,520	£15,624	£0	No	£0	£0
Suspended wooden floor insulation	0	12	2	5	19	£1,612	£30,628	£1,082	£20,549	£530	No	£0	£10,079
	0	49	8	19	76		£140,453		£44,435				£96,018

Available Support

Existing Capacity Building Support

- Capacity building support has been provided already to local authorities over the last couple of years
- Sessions were recorded and are being hosted by Zero Waste Scotland on their Zero Waste Partners website
- If you have difficulty accessing this contact Chris Morrison (Chris.Morrison@zerowastescotland.org.uk)
- www.zerowastepartners.org.uk/lhees-capacity-building-workshops/



The screenshot shows a web browser displaying the URL <https://www.zerowastepartners.org.uk/lhees-capacity-building-workshops/>. The page features the Zero Waste Partners logo and navigation links for Home, Campaigns & brands, and Collections. The main heading is "LHEES capacity building workshops". Below this, a paragraph states: "Recordings from three Local Heat and Energy Efficiency Strategies workshops that covered stages 1 to 4 of the LHEES Methodology shared with local authorities in September 2021 (V03). Plus, additional workshops delivered later." To the right is a promotional image for "LHEES Capacity Building Workshops" with the text "Energy and Low Carbon Heat" and the Scottish Government logo. The page lists the following workshop content:

- Workshop 1 covers:
 - Stage 1: Policy and strategy review
 - Stage 2: Data and tools library
 - Stage 3: Strategic zoning and pathways.
- Workshop 2 covers:
 - Stage 4: Generation of initial Delivery Areas looking at Non-Heat Network priorities
- Workshop 3 covers:
 - Heat Network priority.
- LHEES Data Forum covers:
 - Data and data sharing principles.



Existing Capacity Building Support

Workshop 1 - Stages 1 – 3 including tools and templates

- Overview of Stages 1 and 2
- Overview of Stage 3 – domestic baseline tool / map creation / GIS

Workshop 2 – Stage 4 for Non-Heat Network aspects

- Off Gas Grid – detailed walk through of approach
- Walk through of other non-heat network considerations

Workshop 3 – Stage 4 Heat Networks Approach

- Heat Networks introduction and LHEES analysis approach
- Walk through of Stage 4 Heat Networks Approach

LHEES Data Forum - Scottish Government, Ordnance Survey and EST

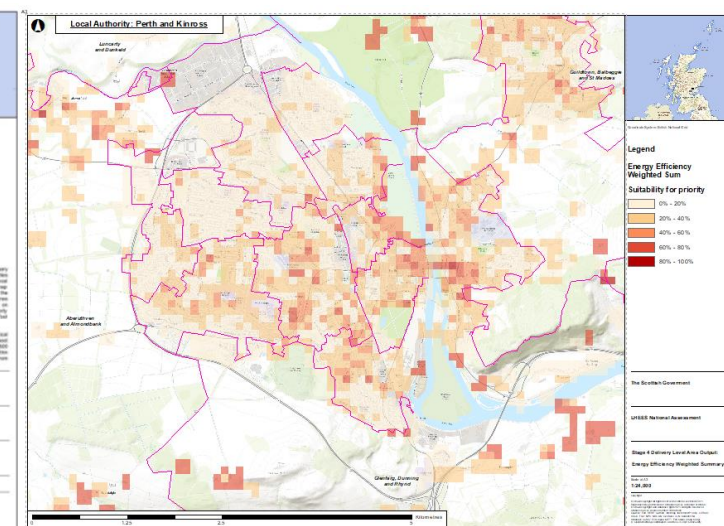
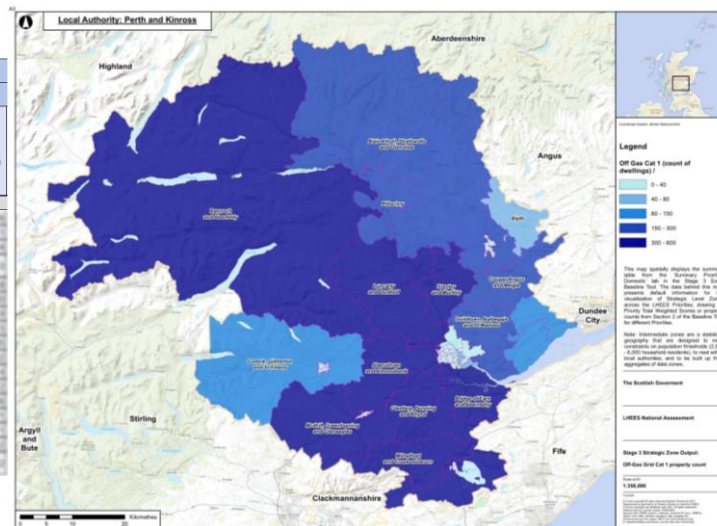
- Core data sets, data sharing agreements, Public Sector Geospatial Agreement (PSGA), Portfolio Energy Analysis Tool (PEAT)

LHEES National Assessment

Overview

- Provides initial outputs to local authorities from the LHEES Methodology
 - Alleviating some of the analytical burden; acting as a ‘first pass’ to support production of local authority LHEES
- Assessment make use of the issued methodology for LHEES (Version 3.0 NOT current Version 4.0), together with the core datasets and default national Indicators, Criteria and Weightings
- If used, it is strongly recommended local authorities critically review the input assumptions, content and output generated using their local knowledge, considering local policies, strategies and areas of focus, as well as any additional or supplementary data
- Provides an indication of the outputs required for an LHEES, and the types of map outputs and data tables an authority may wish to produce for their final LHEES Strategy and Delivery Plan

Intermediate Zone	Local Authority	General													
		Total number of domestic properties	Loft insulation: 0-99mm (number)	Loft insulation: 0-99mm (% of IZ)	Single Glazed Windows (number)	Single Glazed Windows (% of IZ)	Uninsulated walls (number)	Uninsulated walls (% of IZ)	Solid Brick or Stone (number)	Solid Brick or Stone (% of IZ)	Timber Frame (number)	Timber Frame (% of IZ)	Cavity Construction (number)	Cavity Construction (% of IZ)	System Built (number)
Perth and Kinross	Aberuthven and Almondbank	1,000	100	10%	100	10%	100	10%	100	10%	100	10%	100	10%	100
Perth and Kinross	Ayth	1,000	100	10%	100	10%	100	10%	100	10%	100	10%	100	10%	100
Perth and Kinross	Auchterarder	1,000	100	10%	100	10%	100	10%	100	10%	100	10%	100	10%	100
Perth and Kinross	Blair Atholl, Strathardle and Glaschee	1,000	100	10%	100	10%	100	10%	100	10%	100	10%	100	10%	100
Perth and Kinross	Blairgowrie East (Rattray)	1,000	100	10%	100	10%	100	10%	100	10%	100	10%	100	10%	100
Perth and Kinross	Blairgowrie West	1,000	100	10%	100	10%	100	10%	100	10%	100	10%	100	10%	100
Perth and Kinross	Bridge of Earn and Abernethy	1,000	100	10%	100	10%	100	10%	100	10%	100	10%	100	10%	100
Perth and Kinross	Burghmuir and Oakbank	1,000	100	10%	100	10%	100	10%	100	10%	100	10%	100	10%	100
Perth and Kinross	Central and South Inch	1,000	100	10%	100	10%	100	10%	100	10%	100	10%	100	10%	100
Perth and Kinross	Comrie, Gilmerton and St Fillans	1,000	100	10%	100	10%	100	10%	100	10%	100	10%	100	10%	100
Perth and Kinross	Cougar Angus and Meigie	1,000	100	10%	100	10%	100	10%	100	10%	100	10%	100	10%	100
Perth and Kinross	Craff North	1,000	100	10%	100	10%	100	10%	100	10%	100	10%	100	10%	100
Perth and Kinross	Craff South	1,000	100	10%	100	10%	100	10%	100	10%	100	10%	100	10%	100
Perth and Kinross	Enrol and Inchture	1,000	100	10%	100	10%	100	10%	100	10%	100	10%	100	10%	100
Perth and Kinross	Gannochy and Walnut Grove	1,000	100	10%	100	10%	100	10%	100	10%	100	10%	100	10%	100
Perth and Kinross	Glenfarg, Dunning and Rhynd	1,000	100	10%	100	10%	100	10%	100	10%	100	10%	100	10%	100
Perth and Kinross	Guldhed, Balgownie and St Madocs	1,000	100	10%	100	10%	100	10%	100	10%	100	10%	100	10%	100



LHEES National Assessment

Local Authority Guidance Report

Contents:

- Purpose of the LHEES National Assessment
- Overview of the datasets used and default assumptions
- LHEES Methodology stages covered (including any adjustments)
- Local Authority packaged outputs
- Adding GIS data into GIS software – including the use of a layer file and interrogating point level data
- What to do next with the LHEES National Assessment outputs

For access to the National Assessment Outputs for your local authority, contact the SG LHEES Team (LHEES@gov.scot)

LHEES National Assessment Local Authority Output Report

Summary of local authority level packaged outputs





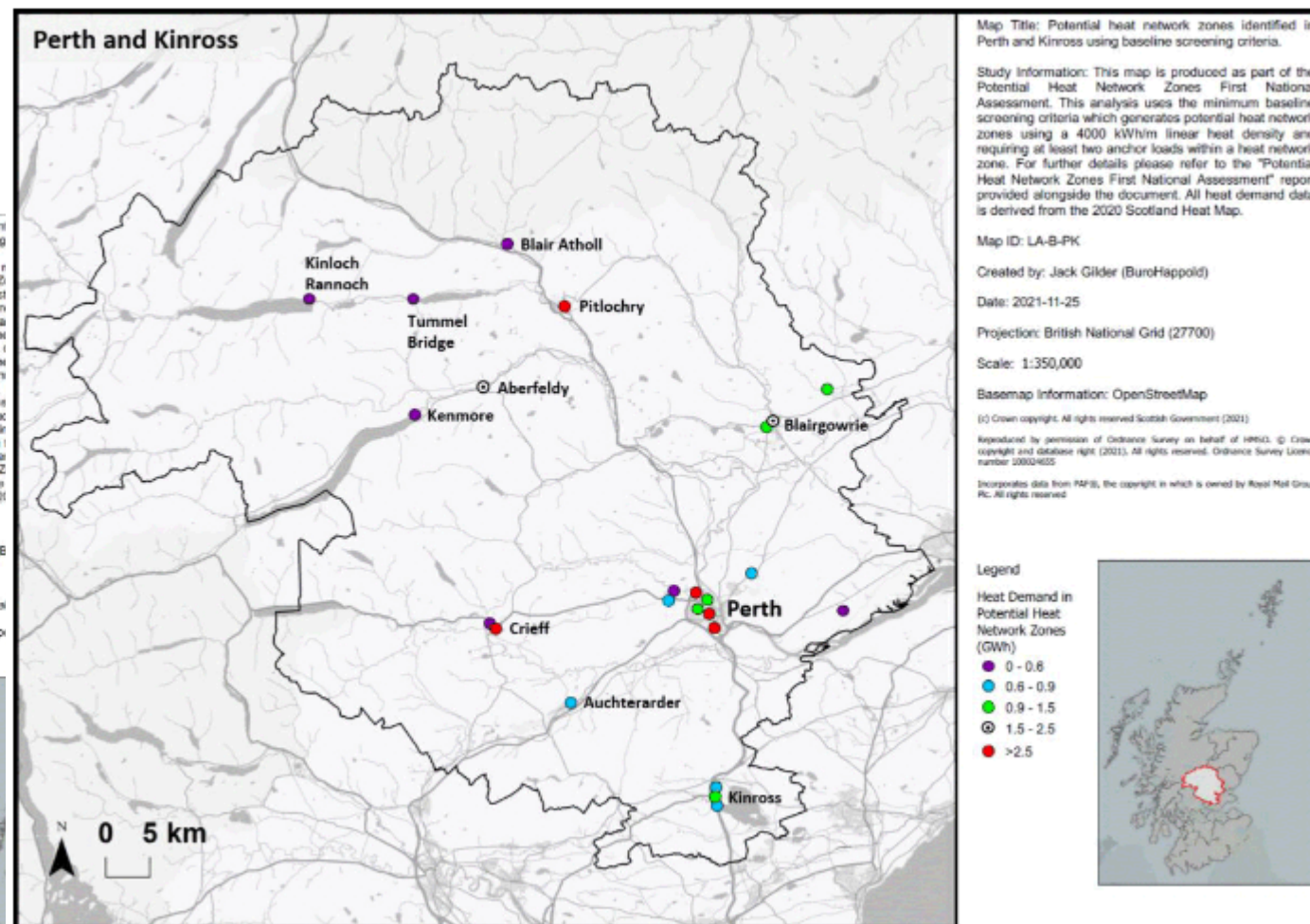
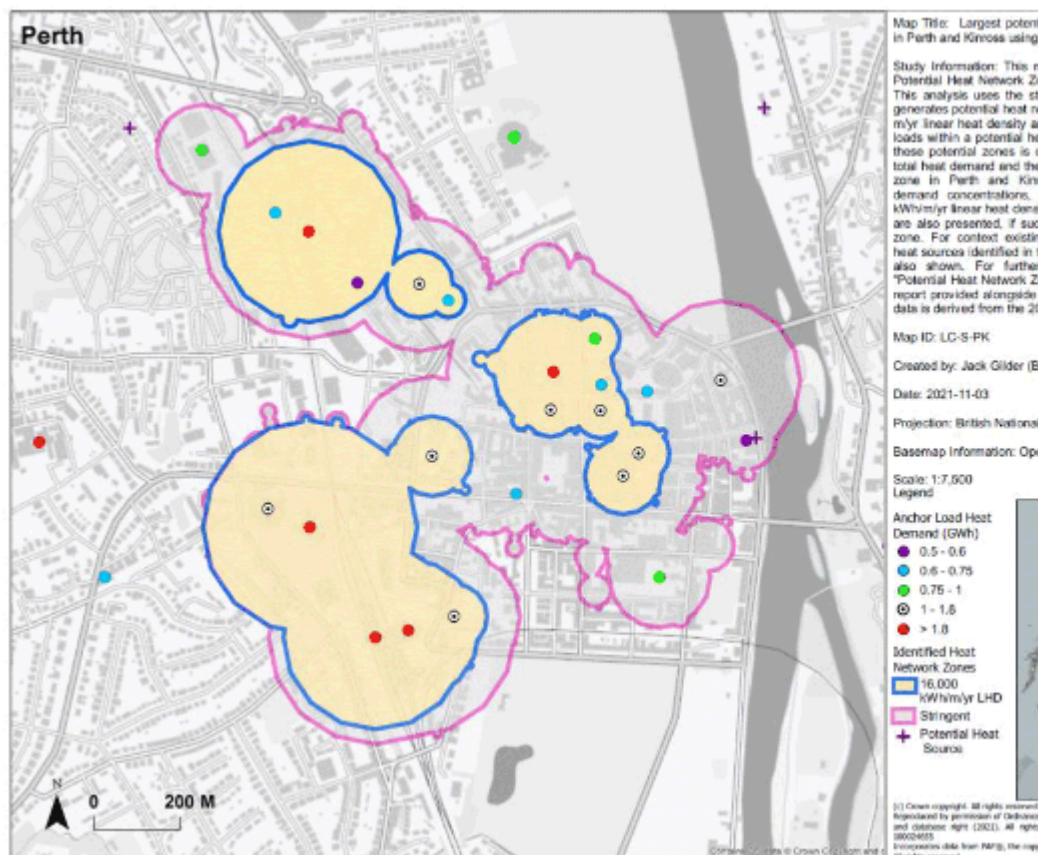
First National Assessment of potential Heat Network Zones

Overview

- Analysis to identify and characterise potential zones for heat networks in Scotland
- Focused on potential zone identification through assessment of heat demand density
- Provided an initial, automated assessment using national datasets of the areas that are most suited to heat networks from a demand density perspective
- Did not take into account local development plan sites, existing heat networks and sources of waste or surplus or low carbon heat. This information required local information that is not available in a uniform manner nationally
- Did not consider the economic viability or the detailed technical or stakeholder related aspects of project opportunities within potential zones
- Outputs (Maps, Shapefiles) provided to all local authorities as part of the LHEES National Assessment
- Link [here](#) – includes methodology, assumptions etc; Also a guide produced by Zero Waste Scotland

First National Assessment of potential Heat Network Zones

Example outputs





Other Capacity Support in this Series

#	Day / Date	Time (duration)	Workshop title	Teams link
1	Wed 26/04	1530-1630 (60mins)	Orientation session – getting started	Join the meeting
2	Thurs 27/04	1000-1200 (120mins)	Non-Domestic Approach – overview and demonstration	Join the meeting
3	Fri 28/04	1000-1200 (120mins)	QGIS demonstrations	Join the meeting
4	Thurs 04/05	1430-1630 (120mins)	Stakeholder Engagement toolkit	Join the meeting
5	Fri 05/05	1000-1100 (60mins)	National and Local Strategies, Priorities and Targets	Join the meeting
6	Thurs 11/05	0930-1130 (120mins)	Heat Network Approach – overview and demonstration	Join the meeting

ARUP



Energy
and Low
Carbon
Heat

LHEES Orientation Workshop

Getting Started



Scottish Government
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