



Local Heat and Energy Efficiency Delivery Plan

Report for: East Dunbartonshire Council

Ricardo ref. ED17277

Issue: DRAFT

15/08/2024

Customer:
East Dunbartonshire Council

Contact:
David Meek, 18 Blythswood Square, Glasgow, G2 4BG, UK

T: +44 (0)1235 753661
E: David.meek@ricardo.com

Customer reference:
EDC 2022/3592

Author:
David Meek
Approved by:
Jonathan Gamwell

Confidentiality, copyright and reproduction:

Signed

This report is the Copyright of East Dunbartonshire Council . It has been prepared by Ricardo Energy & Environment, a trading name of Ricardo-AEA Ltd, under contract to East Dunbartonshire Council dated 20/04/2023. The contents of this report may not be reproduced in whole or in part, nor passed to any organisation or person without the specific prior written permission of East Dunbartonshire Council . Ricardo Energy & Environment accepts no liability whatsoever to any third party for any loss or damage arising from any interpretation or use of the information contained in this report, or reliance on any views expressed therein



Ricardo reference:
ED17277

Date:
28/06/2024

Ricardo is certified to ISO9001, ISO14001, ISO27001 and ISO45001.

Ricardo, its affiliates and subsidiaries and their respective officers, employees or agents are, individually and collectively, referred to as the 'Ricardo Group'. The Ricardo Group assumes no responsibility and shall not be liable to any person for any loss, damage or expense caused by reliance on the information or advice in this document or howsoever provided, unless that person has signed a contract with the relevant Ricardo Group entity for the provision of this information or advice and in that case any responsibility or liability is exclusively on the terms and conditions set out in that contract.

Document History

Revision	Description	Prepared	Date Issued
1	Draft for Council input	DM	28/06/2024
2	Sustainability Team	NR, RS	16/08/2024
3	LHEES Working Group Feedback	FR, RS	26/08/2024

Contents

1. Abbreviations	1
2. Introduction	2
2.1 Purpose	2
3. Summary Of Actions	3
3.1 Prioritising	3
3.2 Action Plan	4
4. Monitoring and Evaluation	9
4.1 Aims for monitoring and evaluation	9
4.2 Proposed methodology and template	9

1. Abbreviations

Table 1: Abbreviations

Acronym	Description
COP	Coefficient of Performance
EDC	East Dunbartonshire Council
GIS	Geographic Information System
LDP	Local Development Plan
LHEES	Local Heat and Energy Efficiency Strategy
LPG	Liquefied Petroleum Gas
SPEN	Scottish Power Energy Networks
SSEN	Scottish and Southern Electricity Networks

2. Introduction

2.1 Purpose

This Local Heat and Energy Efficiency Delivery Plan should be considered in conjunction with East Dunbartonshire Council's (EDC) Local Heat and Energy Efficiency Strategy (LHEES).

The LHEES is primarily driven by Scotland's statutory targets for greenhouse gas emissions reductions and fuel poverty:

- Net zero emissions by 2045; and
- In 2040, as far as reasonably possible, no household in Scotland is in fuel poverty.

The purpose of the delivery plan is to present actions for East Dunbartonshire to contribute towards these national targets based upon opportunities and priority delivery areas identified in the Local Heat and Energy Efficiency Strategy.

3. Summary Of Actions

3.1 Prioritising

A thorough analysis of domestic and non-domestic buildings across East Dunbartonshire including spatial, technology and tenure aspects has been completed to allow a short list of actions to be developed. The multiple LHEES consideration and multi-criteria approach for the identification of priority delivery areas is outlined in Section 8, with the overlaying of multiple considerations in subsection 8.1.6. The areas in Table 2, which correspond with Figure 40 and Table 15 in the strategy document, have been identified to proceed with initial interventions:

Table 2: Priority Delivery Areas

Strategic Zone	Priority Delivery Areas
Bishopbriggs	Auchinairn – 02 Auchinairn – 03 Auchinairn – 04 Auchinairn – 05
Campsie	Lennoxtown – 02 Lennoxtown – 03
Kirkintilloch	Harestanes – 02 Harestanes – 03 Hillhead – 02 Hillhead – 03 Hillhead – 04 Hillhead – 05 Kirkintilloch West – 04 Kirkintilloch South – 04
Milngavie	Keystone and Douglaston – 02
Waterside	Rosebank and Waterside – 03 (note)

Note that a small proportion of the properties in the Rosebank and Waterside - 03 data zone are located in the Kirkintilloch Strategic Zone

The identified actions include:

1. District heat networks – progressing with stakeholder engagement and feasibility study for the areas that has been identified as a potential heat network zone in Kirkintilloch and Bearsden. To evaluate the potential of the opportunity in Kirkintilloch, the energy requirements and planned infrastructure at the new Lenzie Academy need to be understood and this information disseminated to key EDC staff.
2. Energy efficiency – completing the following interventions, for the authority-owned homes in the priority delivery areas, as prioritised here by cost-effectiveness in reducing heat demand:
 - All loft insulation upgrades to at least 300mm.
 - Installation of cavity wall insulation.
 - Upgrade of all hot water cylinder insulation to 80mm.
 - Internal or external wall insulation on buildings that do not have cavity wall insulation.
 - Upgrading all single glazed windows to double glazing.
3. Installation of heat pumps to homes that are suitable, prioritised in the authority-owned properties in the priority delivery areas. The remaining life of the current heating system will also need to be taken

- into consideration. Whilst the majority of dwellings are heated by gas, replacing more carbon intensive fuels such as LPG / Oil / Solid, or systems that may currently cost more to run, should be prioritised.
4. Identify what support is required for owner occupiers, private landlords, housing associations and other property owners to instal heat pump systems, decarbonise existing communal heating systems and implement energy efficiency measures. Collaborating with the private sector and signposting stakeholders to available services to drive area-wide / geographically targeted installation of zero carbon heating systems & energy efficiency measures, and sharing examples of best practice.
 5. Communal scale, Council owned heat networks – consider the options available for Council owned properties that are geographically close to one another for implementation of small-scale systems.
 - Bearsden Academy and St Nicholas Primary School
 - Kirkintilloch High School / Oxbang Primary School
 - Bishopbriggs Academy / Thomas Muir Primary School / St Helen’s Primary School
 - St Matthew’s Primary School / Wester Cleddens Primary School

The actions listed above can be applied to most dwellings in EDC – irrespective of ownership.

Once all these actions are complete, further investigations will need to be undertaken to see what the next target interventions or delivery areas should be. The approach needs to remain pragmatic.

3.2 Action Plan

Table 33 provides an action plan for the various interventions identified in this report. The responsibility for delivering these actions does not solely lie with the Council. Building owners in reviewing their assets should consider the analysis provided within the LHEES to enable them to improve the energy efficiency of their properties and decarbonise the heat of the same.

Table 3: EDC LHEES Action Plan

Action No.	Action	Area	Proposed Action Champion	Timescale
1	Ensure EDC LHEES delivery plan is shared with key internal and external stakeholders.	Stakeholder Engagement / Reporting	Sustainability Policy Team	2024
2	Ensure LHEES specific working groups are set up for continued reporting of the LHEES delivery plan and progress.	Strategic Development / Reporting	Sustainability Policy Team	2024
3	<p>Engage with other Local Authorities, universities, NHS trusts and other large public sector organisations to learn from their experience of decarbonisation and LHEES considerations on large estates. This is particularly relevant to other Local Authorities in the Glasgow City Region:</p> <ul style="list-style-type: none"> • East Renfrewshire • Glasgow City Council • Inverclyde • North Lanarkshire • Renfrewshire • South Lanarkshire • West Dunbartonshire 	Stakeholder Engagement	Sustainability Policy Team	2025 - 2028
4	Engage with the public using educational material on technologies, funding opportunities, methods to reduce heating bills and suitable tariffs to encourage early adopters of heat pumps, prioritising areas with high probability for fuel poverty and poor energy efficiency.	Strategic Development	Sustainability Policy Team	2025 - 2029
5	Engage with regional / national shared forums for lessons learnt from early adopters on heat pump operational best practices and possible cross-border collaborations for district heat networks. Results should be closely monitored and should be used as input data for the next phase of LHEES.	Reporting	Sustainability Policy Team	2027

Action No.	Action	Area	Proposed Action Champion	Timescale
6	Collate ongoing case studies of regional / EDC-level decarbonisation and fuel poverty reduction implementations, and learn from precedents, to create a live, up-to-date lessons learnt document. This includes contacting MCS ¹ /Ofgem/Scottish Government/UK Government about current heat pump performance and how to make sure high COP and a good experience is achieved.	Strategic Development	Sustainability Policy Team	2025 - 2029
7	Use the SPEN NAVI/ LANIT tool to support the development of delivery areas – use the tools to identify where key barriers or risks to deployment may be present.	Technical / Feasibility Study	GIS Team	2025 - 2029
8	Continue regular engagement with SPEN and SSEN to monitor network constraints to coordinate transition work.	Strategic Development	Sustainability Policy Team	2025 - 2029
9	Plan apprenticeships in collaboration with local colleges to develop local installer skills.	Training / Upskilling	Sustainability Policy Team and Community Learning and Development Partnership	2025 - 2029
10	Work with EDC Assets and Facilities to identify long term investment required for the interventions. Focus on the primary delivery areas first.	Strategic Development	Asset Management / Housing Capital and Private Sector Team	2025 - 2029
11	Encourage growth of local skills for heat decarbonisation and improved energy efficiency to reduce the risk of local skill shortage.	Training / Upskilling	Sustainability Policy Team and Community Learning and Development Partnership	2025 - 2029
12	Complete detailed feasibility studies on proposed heat network zones in Kirkintilloch and Bearsden subject to funding being secured.	Technical / Feasibility Study	Sustainability Policy Team and Asset Management / Major Asset Projects Team	2025 - 2026

¹ [MCS Certified | Giving you confidence in home-grown energy](#)

Action No.	Action	Area	Proposed Action Champion	Timescale
13	Complete detailed feasibility studies on proposed Council-owned communal heating systems.	Technical / Feasibility Study	Asset Management Team	2025
14	Produce an annual monitoring / report of gas prices compared to typical cost of heat from heat networks to ensure potential heat networks do not worsen fuel poverty.	Reporting	Sustainability Policy Team	2025 - 2026
15	Commence development of business cases for all heat networks that are deemed feasible by feasibility studies; for both town-wide scale and Council-owned scale.	Strategic Development	Sustainability Policy Team	2026 - 2029
16	Support loft insulation upgrades in the priority delivery areas; record ongoing progress.	Implementation Projects	Housing Capital and Private Sector Team	2025 - 2029
17	Perform a stock condition survey to determine the level of intervention / investment / resources required to improve energy efficiency in EDC owned dwellings.	Implementation Projects	Housing Capital and Private Sector Team	2025
18	Support all hot water cylinder insulation upgrades in the priority delivery areas for EDC owned dwellings; record ongoing progress.	Implementation Projects	Housing Capital and Private Sector Team	2025 - 2029
19	Support internal or external wall insulation upgrades and cavity wall insulations interventions in the priority delivery areas; record ongoing progress.	Implementation Projects	Housing Capital and Private Sector Team	2025 - 2029
20	Support single to double glazing window upgrades in the priority delivery areas; record ongoing progress.	Implementation Projects	Housing Capital and Private Sector Team	2025 - 2029
21	Annual monitoring / report of gas vs electricity prices and heat pump case studies to ensure heat pumps can still reduce fuel poverty in properties with gas boilers.	Reporting	Sustainability Policy Team	2024 - 2029
22	Facilitate pilot studies / demonstration projects / field trials on heat pump deployment and operational best practises.	Implementation Projects	Sustainability Policy Team	2025 - 2028

Action No.	Action	Area	Proposed Action Champion	Timescale
23	Facilitate installation of zero direct emission heating systems in EDC properties that are currently using fossil fuel powered heating systems. Focus on the priority delivery areas to begin with and record ongoing progress.	Implementation Projects / Reporting	Assets and Facilities	2024 - 2038
24	Support, promote and facilitate heat networking opportunities and renewable energy generation opportunities through THE Local Development Plan process and in the delivery of other potential major developments such as Westerhill.	Reporting	Land Planning Policy Team	2024 - 2029
25	Facilitate the uptake of smart tech and dynamic pricing, including installation of environmental sensors. Focus on EDC properties in priority delivery areas.	Implementation Projects	Facilities Management Team and Housing Capital and Private Sector Team	2025 - 2029
26	Coordinate with Scottish Government and collect improved datasets for 5-year LHEES updates.	Reporting	Sustainability Policy Team	2025 - 2029
27	Develop a monitoring and evaluation framework for the LHEES delivery plan.	Reporting	Sustainability Policy Team	2025
28	Continue monitoring and updating the LHEES within 5-year review cycles.	Reporting	Sustainability Policy Team	2025 - 2029

4. Monitoring and Evaluation

4.1 Aims for monitoring and evaluation

One of the main reasons that an LHEES is split into a Strategy and Delivery Plan is to enable successful monitoring against actions that have been developed through the process. Neither document is stand-alone, but the Delivery Plan can be used to evaluate EDC's progress through the 5-year LHEES cycle. The Delivery Plan is intended to be a live document that may lead to shifting priorities on actions. There are also a wide range of actions that may not be achievable collectively and so prioritisation of actions will be needed – an auditable and structured resource to achieve this is needed.

4.2 Proposed methodology and template

It is envisaged that the Action Plan, Table 3, can be used to monitor and track the measures identified. A more detailed version of this Action Plan has been provided with this Delivery Plan that adds extra fields/columns to ensure accurate progress tracking can be achieved. Some of the proposed additional data entry points are/could be:

- EDC Departmental Oversight
- Action Champion
- Progress
- Timescale
- Update to original action

Having a resource that is updated during future LHEES working group/meetings allows continual updating, tracking and evaluation of actions through the 5-year LHEES process as well as informing the next iteration of the Strategy.

An example of this is shown below:

Action No.	Action	EDC Departmental Oversight	Action Champion	Progress	Timescale	Update to original action
1	Example	Example	Example	Example	Example	Example

It is envisioned that the Action Plan spreadsheet could be used to track any/all energy or decarbonisation of heat projects that occur in EDC – both those led by EDC and others that are implemented by other organisations (be that public or private sector organisations) – i.e., it does not need to be limited to the list of actions that appear in Table 3.



T: +44 (0)1273 455611
E: enquiry@ricardo.com
W: ee.ricardo.com