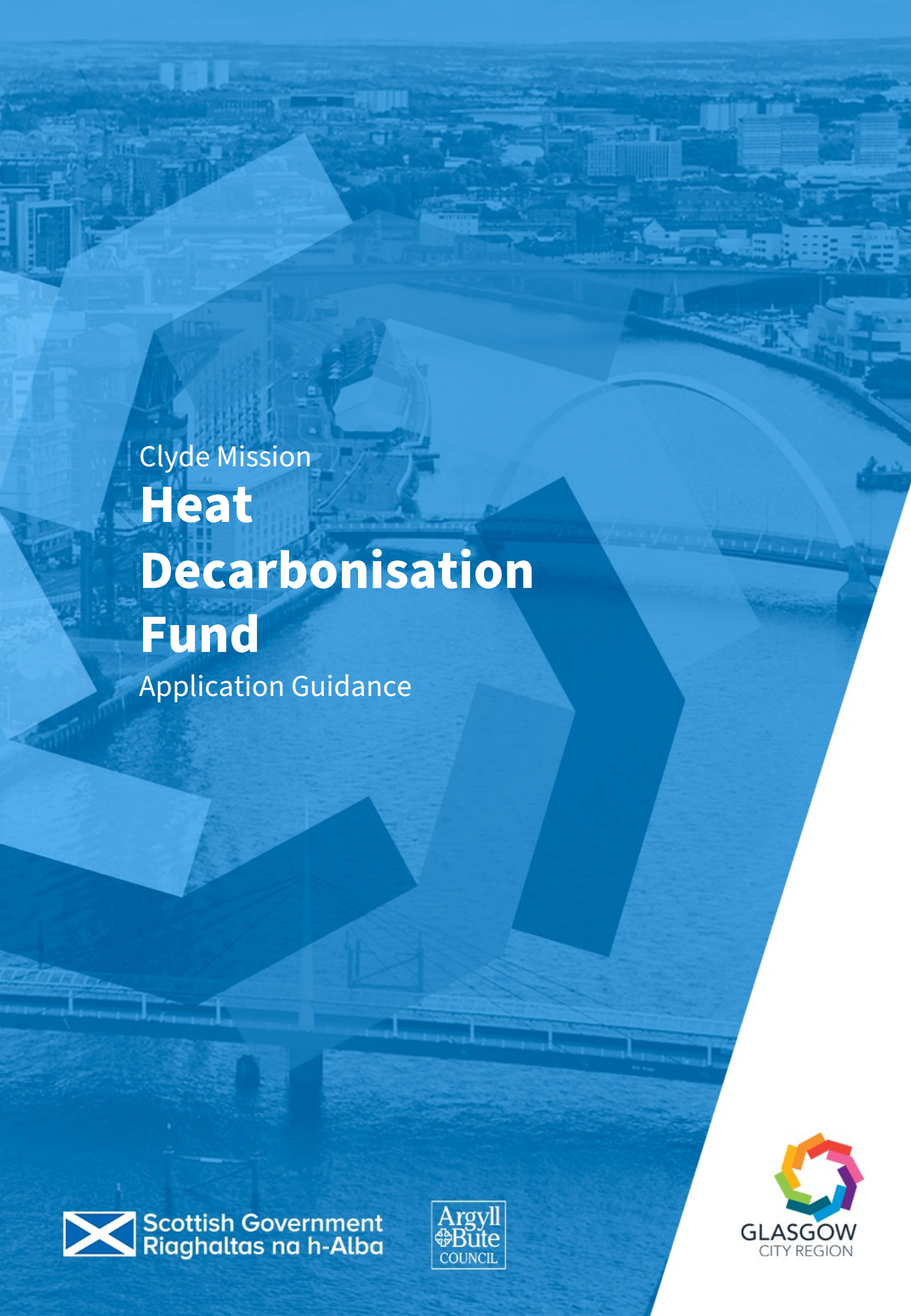

Clyde Mission

Heat Decarbonisation Fund

Application Guidance

Scottish Government
Riaghaltas na h-Alba

Argyll Bute Council

Glasgow City Region

Contents

Glossary

Term	Definition
CM-HDF	Clyde Mission Heat Decarbonisation Fund
DH	District Heating
GCR	Glasgow City Region
HNSU	Heat Network Support Unit
EfW	Energy from Waste
SHNF	Scotland's Heat Network Fund

1. Introduction

This guidance outlines the Clyde Mission Heat Decarbonisation Fund, its objectives and application process. It should be used to guide applicants through the submission of the funding application. It is part of the application pack, which includes the following documents – the full content of which should be reviewed by applicants prior to applying.

CH-HDF Application Guidance
CH-HDF Grant Application Form
CM-HDF Technology Benefits Realisation Framework
CM-HDF Benefits Realisation Framework
CM-HDF Grant Agreements Templates

All of these documents are available at: glasgowcityregion.co.uk/HDF

Applicants are strongly encouraged to use the online application system* to enhance data collection and processing efficiency while helping to reduce paper waste and carbon emissions.

If you need any clarification or help filling in your application, contact: ClydeMission@glasgow.gov.uk

The guidance is subject to annual reviews and may be updated. Any revisions will be announced on the fund's dedicated website, where the most current version of all documentation will always be available.

* HDF Online Application System - https://arcg.is/Le4u8

2. Grant Scheme Overview

Clyde Mission is a national development priority with the objective of:

"Making the Clyde an engine of sustainable and inclusive growth for the city, the region, and for Scotland."

In August 2023, the Scottish Government transferred lead responsibility for Clyde Mission to Glasgow City Region (GCR) and Argyll and Bute Council. The Clyde Mission Heat Decarbonisation Fund (CM-HDF) is administered by GCR and funded by the Scottish Government.

CM-HDF offers grants towards capital expenses, and in some cases, expenses which can be 'capitalised', to public and private organisations to develop heat decarbonisation projects. For further details on eligible costs refer to Section 3.2.

The aims of the CM-HDF are to:

- Stimulate capital funding for high impact heat decarbonisation projects in the Clyde Mission corridor.

- Provide necessary funding to support district heat decarbonisation projects in both the public and private sectors, ensuring economic viability for installation and operational phases.

- Offer targeted supplementary funding to bridge funding gaps and enhance the viability of eligible projects.

2.1 When can you apply?

You can submit an application for funding at any time. Applications will be assessed periodically over the year and deadlines prior to each assessment will be published on www.glasgowcityregion.co.uk/HDF. Potential applicants are strongly encouraged to discuss their project with the GCR Place team prior to submitting an application.

Applicants are encouraged to complete the simple Eligibility Test* prior to submitting their application, as this will help to identify at an early stage whether the project is likely to meet the scheme's basic requirements.

*HDF Eligibility Test - https://arcg.is/1Lare50

3. About the Fund

3.1 Objectives

The overall fund allocation is £25 million over three years, subject to annual reviews. The fund is intended to complement, rather than duplicate, other sources of support.

The maximum funding application per project is up to 50% of eligible project cost

There will be limited funding available each year of the scheme for capitalisable project development activities. For further details on eligible costs refer to Section 3.2.

Projects that can demonstrate the ability to mobilise quickly may be prioritised.

Projects are expected to demonstrate strategic alignment with the scheme's objectives, focusing on:

- Acceleration of heat decarbonisation by supporting the transition from fossil-fuel heating systems to low-carbon alternatives, contributing to Regional and national carbon reduction targets.

- Targeted investment by prioritising projects located within the Clyde Mission corridor, building directly on the evidence base and strategic direction set by the Clyde Mission Energy Masterplan.

- Alignment with policy priorities by ensuring consistency with local, Regional, and national policy context, thereby maximising economic, environmental, and social benefits.

- Particular alignment with the Local Heat and Energy Efficiency Strategy (LHEES), if published for the project's area.

- Leveraging co-funding opportunities by facilitating potential co-funding with the Heat Network Support Unit (HNSU) to enhance economic viability, with CM-HDF support directed to elements of projects not covered by HNSU funding.

Targeted additional funding support examples:

- Renewable Electricity Generation: Renewable electricity generation to power low-carbon and/or renewable low carbon heat generation (private - direct, or virtual Power Purchase Agreement (PPA))

- Flexibility Model: Supports lower-cost primary energy through thermal and electrical storage, linked to a controls module.

- Building Readiness: Prepares buildings for district heating.

- Heat Network Extensions: Enables extensions from existing heat networks to improve financial viability, system efficiency and impact.

- Heat distribution: Distributing heat from generation source.

- Particular alignment with the Local Heat and Energy Efficiency Strategy (LHEES), if published for the project's area.

- Leveraging co-funding opportunities by facilitating potential co-funding with the Heat Network Support Unit (HNSU) to enhance economic viability, with CM-HDF support directed to elements of projects not covered by HNSU funding.

3.2 Eligible costs

The grants are offered towards capital expenses, and capitalisable expenditure, which, in accordance with generally accepted accounting principles in the United Kingdom, may properly be capitalised as part of the cost of an asset. This means the costs directly attributable to the creation, enhancement or installation of the project assets, but shall exclude routine operational, administrative or overhead costs.

The list below illustrates expenditure items that may be considered capitalisable.

Project life-cycle stage	Capitalisable costs (eligible)	Non-capitalisable costs (ineligible)
Concept Development - feasibility work for preferred option	Feasibility studies directly linked to the preferred option	General strategy development not tied to a specific asset, e.g. options appraisal of multiple options
	Further design development relating to the preferred option	Communications or engagement activity not essential to asset delivery
	Engineering or technical surveys (e.g. desktop utility survey) if they inform the final design	Routine staff salaries, overheads, or administration
	Stakeholder engagement directly required to refine the design solution, secure planning, regulatory consents.	Engagement exercises not essential to the technical or statutory development of the Project
	Business case development and associated modelling, where required for capital project approval	Communications, PR, branding or marketing costs
	Specialist design input (e.g. energy modelling)	
Outline Business Case	Business case development and associated modelling, where required for capital project approval	Programme management or routine project management overheads
	Specialist design input (e.g. energy modelling)	Legal, procurement or financial advice not integral to design
	Stakeholder engagement directly required to secure planning, regulatory consents, or to refine the design solution or to secure agreement to proceed (e.g. letter of support or Memorandum of Agreement)	Engagement exercises not essential to the technical or statutory development of the Project
		Communications, PR, branding or marketing costs
Further Design Development	Architectural and engineering drawings, schematics and outline layouts	Programme management or routine project management overheads
	Specialist design input (e.g. energy modelling, structural analysis)	Legal, procurement or financial advice not integral to design
	Consultancy fees directly related to asset design	Engagement exercises not essential to the technical or statutory development of the Project

	Stakeholder engagement directly required to secure planning, regulatory consents, or to refine the design solution or to secure agreement to proceed (e.g. letter of support or Memorandum of Agreement)	Communications, PR, branding or marketing costs
	Refinement of the business case where required to support final investment decision	
Final Business Case	Business case development and associated modelling, where required for capital project approval	Legal, procurement or financial advice not integral to design
	Specialist design input (e.g. energy modelling, structural analysis)	Engagement exercises not essential to the technical or statutory development of the Project
	Stakeholder engagement directly required to secure planning, regulatory consents, or to refine the design solution or to secure agreement to proceed (e.g. letter of support or Memorandum of Agreement)	Communications, PR, branding or marketing costs
Detailed Design	Finalised technical specifications for procurement	Contract negotiation or legal fees
	Tender documentation where it forms part of asset creation	General procurement support or financial modelling
	Detailed architectural and engineering drawings	Day-to-day staff time not directly creating design outputs
	Validation or checking of designs before construction	
	Bid evaluation by technical consultants where it directly relates to ensuring the design/spec is met	
	Business case development and associated modelling, where required for capital project approval	
Construction and Installation	Construction works, groundworks and civils	Site security, cleaning or catering
	Supply and installation of plant, equipment and infrastructure	Routine staff salaries and overheads not exclusively related to delivery of asset
	Specialist contractor costs directly tied to the project	Consumables and temporary facilities not retained in the final asset
	Installation of monitoring equipment where part of the asset	Marketing, branding or PR activities

Commissioning	Commissioning of the system after installation	General project management overheads that are not tied to the actual testing
	Commissioning and final testing at handover	Production of user manuals, operation & maintenance (O&M) guides
Operation	Training if strictly required to make the asset operable (e.g. Pre-service certification training for a brand-new renewable-energy plant)	Training of end-users or operators
	Installation of a permanent monitoring subsystem that becomes part of the asset (e.g., smart-metering, SCADA sensors for the heat network)	Ongoing operation and maintenance
	Major performance-boosting retrofit performed before the next scheduled maintenance window (e.g., retro-fitting variable-speed drives on existing pumps)	Fuel, utilities and consumables
	Thermal-energy storage tank (TES) as a network buffer	Insurance, financing costs, or revenue support
	Integrated carbon-monitoring dashboard (hardware + software)	Staff salaries for routine operation

Initial stages relating to the options appraisal and feasibility, before the preferred option is identified and justified, are not grant-eligible.

CM HDF support may not be used to match fund any other Scottish Government (SG) subsidy. Cost items financed by an SG programme must be excluded from the CM HDF grant.

3.3 Subsidy controls

CM-HDF has been explicitly developed to address subsidy control requirements, ensuring interventions are proportionate, necessary, and targeted at additional decarbonisation costs.

Grants awarded under this scheme are subject to the UK Subsidy Control Act 2022* and will be offered as a subsidy in accordance with the Act. Successful applicants need to provide all information required for transparency reporting.

*https://www.legislation.gov.uk/ukpga/2022/23/enacted

Successful applicants will need to retain all relevant records relating to the grant under this scheme for the time specified within the Act and to provide evidence of compliance if requested by GCR, Audit Scotland, the UK Subsidy Advice Unit or other competent authority.

GCR will rely upon the information provided by applicants in awarding any grant, and responsibility for compliance with the UK Subsidy Control Act will rest with applicants in receipt of grant.

3.4 Value for money

Applicants must evidence Value for Money (VfM), financial need, and demonstrate how the subsidy is essential to enable the scheme's objectives. Project finances (cost plan/funding plan) will be assessed to ensure funding requests are limited to addressing the gap between viable and non-viable delivery, preventing over-compensation.

Funding cannot be used for routine maintenance, repairs, like-for-like replacement or costs that would be incurred in the normal course of business. Options appraisal is required to evidence the business-as-usual counterfactual and isolate the additional decarbonisation costs. Applications require quantification of carbon and energy savings, and a baseline indicators matrix has been prepared to guide applicants.

4. Who Can Apply?

The rules below apply to both applicants and project partners.

Eligible organisations:

- Local Authorities
- Other Public Sector Organisations (e.g. NHS, Education, Registered Social Landlords etc.)
- Incorporated legal entities (e.g. limited companies, Community Interest Companies etc.)

Eligibility conditions:

- All organisations must have a UK-based bank account.
- Organisations must demonstrate the legal and operational capacity to deliver the project.
- Applicants must confirm that they or their organisation have, or will have, a legally recognised interest in the site or building where the CM-HDF grant will be used, such as ownership or a long-term lease. Appropriate evidence must be provided, for example title deeds, land register documents, lease agreements and/or vesting certificates. Short-term leases may not be eligible, and long-term leases will be considered on a case-by-case basis, in line with similar Scottish Government public-sector heat decarbonisation funding guidance*.

*Scotland's Public Sector Heat Decarbonisation Fund – Guidance Notes (April 2025)

Ineligible organisations:

- Individuals (non-incorporated) or unincorporated associations.
- Organisations without a UK-based bank account.
- Organisations currently subject to insolvency, liquidation or similar financial restrictions.
- Organisations that do not comply with the UK Subsidy Control Act, including entities in financial distress, organisations previously found to have misused public subsidies and projects where funding would result in prohibited double-funding or distortions of competition.

For grants above £50,000, applicants should be aware that the provision of a standard security against the title of the property or asset may be required to protect the public investment.

Where the applicants are tenants of the property, a lease for a period of over 20 years will require to be in place if a standard security is to be taken over the tenants' interest in the property.

Applicants are encouraged to engage with the GCR Place Team early in the application process to discuss the standard security requirements.

5. What Projects Are Eligible?

5.1 Location

At least one element of project infrastructure (e.g. generation, storage, distribution, use) must be located within the Clyde Mission corridor illustrated in Figure 1. An interactive version of the map can be found online*.

The following Local Authority areas are included:

1. Argyll and Bute Council
2. East Dunbartonshire Council**
3. East Renfrewshire Council**
4. Glasgow City Council
5. Inverclyde Council
6. North Lanarkshire Council
7. Renfrewshire Council
8. South Lanarkshire Council
9. West Dunbartonshire Council

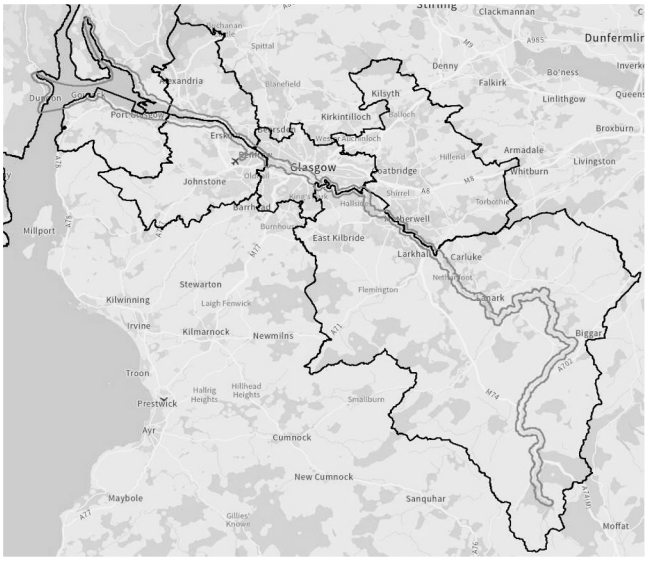

Figure 1: Clyde Mission Corridor

* https://experience.arcgis.com/experience/4de2e5197e15499db09085181e102308/page/Map-Series
** As part of Glasgow City Region

5.2 Eligible systems

Eligible projects must meet one or more of the following criteria:

- Focus on district energy connecting large/multiple properties (i.e. individual domestic homes are not eligible), including existing assets which require improvements and upgrades for economic viability;
- Contribute to heat decarbonisation;
- Reduce greenhouse gas emissions;
- Be anticipated to positively impact beneficiaries or building connections.

The eligible systems include:

- Heat energy supply;
- New or extension to existing heat network;
- Retrofit of District Heating (DH) for existing buildings;
- Electricity generation.

The eligible aspects of energy systems are illustrated in Figure 2.

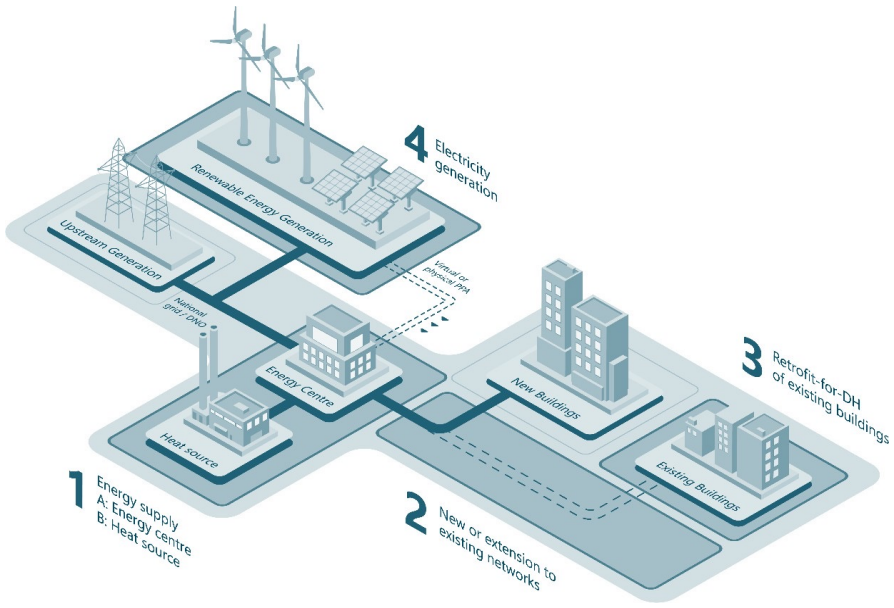

Figure 2: Eligible Systems

5.3 Eligible technology

Eligible technology includes:

- Technologies that ensure efficient district heating operation and viability.
- Use of mature technologies (Technology Readiness Level 9 minimum) to ensure short-term deployment and lower risk.
- Technologies that focus on optimising system efficiency and economics through innovative solutions (e.g., controls, flexibility markets).
- Technologies that enhance district heating efficiency, including thermal storage, controls, secondary side systems, and BMS upgrades (demand side technology).

Please refer to the technology list in Section 9 of this guidance.

6. What You Can Apply For

6.1 Scope of support

- Business case development - preparation of business cases (outline and final/full - OBC, FBC) with associated development across project life-cycle stages following the identification of the preferred option and including tender support. The number of business case stage projects supported within each financial year will be limited to prioritise physical project delivery.

- Installation and commissioning. Capital grant to reduce capital expenses (CapEx).

- Operational phase. Reduced primary energy costs (capital funding only).

Project lifecycle points related to the scope of support are highlighted in Figure 3 below. More on eligible costs can be found in Section 3.2 of this guidance.

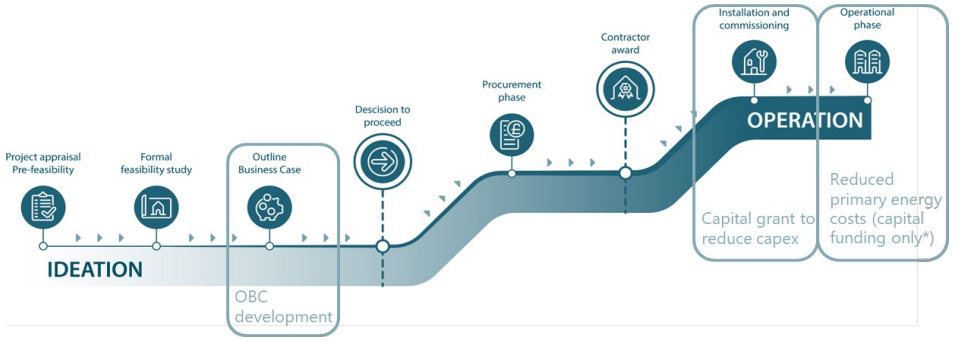

Figure 3: Project Lifecycle points for which a funding application to CM-HDF could be submitted.

6.2 Project development stage

When applying, you must identify the stage your project has reached and indicate the stages you are seeking funding for using the project life-cycle stages outlined in Section 10.1. Each stage builds on the one before it, so applications should show a logical progression.

Applicants should submit supporting information to evidence project development to date. If this information is not provided, applications may be rejected. The list of supporting information in Section 10 of this Guidance sets out what is required at each stage. As a rule of thumb, feasibility studies, surveys and baseline assessments are needed to progress to design stages; design drawings, energy modelling and cost estimates are needed to progress to technical and delivery stages. Always check that the documents you hold correspond to the stage you are applying for.

Before submitting, review your application carefully to confirm that supporting documents that evidence project development are complete, accurate, and in your possession. This continuity of evidence will strengthen your application and help the assessors to confirm eligibility.

There is no set template for how this information should be presented, however, it should be clearly referenced so that reviewers can easily identify the relevant evidence supporting your application.

7. How to Apply

7.1 Application process

1. Read the Guidance and other documents
2. Test project eligibility
3. Discuss your proposal with GCR Place team
4. Apply online
5. Independent Panel assessment and recommendation
6. Request for further details, if needed
7. GCR approval (Chief Executives' Group and Cabinet)

Up to 3 months

8. Offer of Grant
9. Monthly monitoring, reporting and applications for grant payment
10. Evaluation report at completion

7.2 Preparation

A. Assess and analyse the funding approach for your project focusing on sub-systems or elements not covered by other readily available funding streams. The fund is intended to complement, rather than duplicate, other sources of support. Where there is uncertainty regarding potential overlap with programmes such as SHNF, applicants are advised to consult with GCR at an early stage. This will enable project-specific advice to be provided and ensure that applications are not delayed, while avoiding any conflict with other funding schemes.

B. Check eligibility following a simple online eligibility test.*

C. Identify the work stage your project has currently reached and consider the work stages you are seeking funding for (Section 6.2). Prepare all documents to support your application. The list of information expected for each work stage is provided in Section 10.

D. Apply online via the Glasgow City Region website.** Online applications help to enhance efficiency and reduce carbon emissions.

E. Alternatively, you can download a copy of the application form from our website at www.glasgowcityregion.co.uk/HDF and submit it to ClydeMission@glasgow.gov.uk.

F. Provide the requested evidence, or, where this is not available or not applicable to your project, provide a clear explanation.

G. If you have engaged a professional adviser to assist with the preparation of your application, please provide details at the application stage. This is to ensure transparency and to avoid any potential conflict of interest with the independent assessors appointed by GCR.

*HDF Eligibility Test - https://arcg.is/1Lare50
** HDF Online Application System - https://arcg.is/Le4u8

H. For construction projects of total funding requested over £500k, applicants must include details of the proposed Community Benefits measures. For projects below this threshold, Community Benefits commitments are voluntary, although applicants are encouraged to include them in support of their application. Delivery of Community Benefits will form part of the Offer of Grant. An indicative framework of expected Community Benefits is provided in **Appendix A**, which applicants are encouraged to consider when selecting the indicators most relevant to their project.

I. The construction projects must demonstrate the technology benefits they are expected to deliver. Applicants are encouraged to consider the framework in **Appendix B**, which sets out the expected benefits for each eligible technology, when selecting the indicators most relevant to their project.

7.3 Business case

All supporting information can be submitted either as individual documents or included within the Business Case, relevant to your project's stage. This information should support the justification for awarding your project funding by addressing the following topics, supported by both quantitative and qualitative evidence as relevant:

Strategic fit

Explain how your proposal aligns with the aims and objectives of the fund and with wider local, regional and national policy.

Climate change

Describe whether climate change risks have been considered. If risks have been identified, explain how these will be addressed.

Environmental impact

Describe how the project will reduce carbon dioxide emissions from energy systems. Your response should be supported by quantitative information/ modelling of CO2 emissions and air potential quality impacts.

These will contribute to the Technology Benefits Realisation Plan – more details in Section 10.2.

Energy impact

- **Heat Generation and Delivery:** Describe the heat generation from energy systems and delivery, thermal outputs, and stakeholder connections and demand.

- **Electricity Generation and Heat Delivery:** Describe any electricity generation (e.g. wind turbine, solar or other electricity generation) where the majority will be used for heat generation/distribution. Specify how much will be used to deliver heat from energy systems (e.g. electricity used to run heat pumps to deliver low-carbon heat, or electricity used to charge thermal stores as part of a heat delivery system, or other approach). Your response should be supported by quantitative information/modelling, which will contribute to the Technology Benefits Realisation Plan – more details in Section 10.2.

- **Air Quality:** Where relevant, outline associated air quality improvements, including reductions in combustion-related emissions or local pollutant displacement resulting from electrification or low-emission heat sources. Projects should demonstrate that they will improve, or at minimum have no negative impact on, local air quality. Where possible, applicants should provide supporting evidence or modelling to show expected changes in emissions from combustion sources or local pollutant concentrations.

Social Impact

- **Fuel Poverty:** For domestic buildings, explain how you will calculate heat costs and incorporate fuel-poverty considerations, including: Identify the service area and whether it lies in a deprivation zone (e.g., SIMD).

Outline the baseline heat-cost assumptions (dwelling type, efficiency, set-point). Describe any uplift factor applied for fuel-poor households and the source of that factor. State the index (CPI/RPI) and frequency used to keep the uplift current. Note how the uplift/indexation will be shown in tariffs or billing.

- **Beneficiaries:** Provide the number of heat connections and describe the types of end-users (e.g. public/private, domestic/non-domestic buildings) that will be served with low-carbon heat.

- **Community Benefits:** Describe the community benefits your project will deliver and how these will be achieved. Your response should explain how the delivery of low-carbon heat will create wider benefits for local communities beyond carbon savings. This will support the Community Benefits Realisation Plan, if applicable. More details in Section 10.3.

- **Funding need:** Demonstrate the necessity of public funding and explain why the project cannot proceed without support, what alternative funding sources have been considered, and how the level of funding requested is proportionate. Set out the value for money case, including cost-effectiveness, leverage of other funding and the expected benefits relative to costs.

8. After You Apply

8.1 Application assessment process

The application assessment process may take up to three months to complete.

Your submitted application will be assessed by an Independent Assessment Panel, which will make recommendations via GCR governance structures for final approval. Applications will be first assessed against the eligibility criteria and budget availability. Where the panel determines that an application does not meet the eligibility requirements, GCR will provide feedback (on request) summarising the reasons for rejection.

Applicants are encouraged to complete the simple Eligibility Test * prior to submitting their application, as this will help to identify at an early stage whether the project is likely to meet the scheme's basic requirements.

Eligible proposals will be then assessed against the detailed criteria for each work stage. An indication/outline of the information expected in support of an application, together with the scoring mechanism, is outlined in Section 10. While there is no prescribed template for submission of this information, applicants must ensure that each required theme or item of information is clearly referenced.

Applications may be subject to due diligence checks to ensure information provided is accurate and robust. The findings of the due diligence process may require further evidence to be provided, identify issues to be addressed or can result in a decision not to offer grant funding.

GCR are under no obligation to approve any application for funding under this process.

*HDF Eligibility Test - https://arcg.is/1Lare50

8.2 If your application is successful

If your application is successful, you will receive an Offer of Grant, which must be signed and returned. It will be then signed by an authorised officer on behalf of the GCR, and a copy will be returned to you. At this point, the document becomes a legally binding grant agreement.

Grants will be paid in arrears upon the submission of evidence of eligible expenditure in line with the agreed cost plan included within the Schedule 4 of the Offer of Grant. Payments will be subject to receipt of monthly evaluations and monitoring reports to demonstrate that the conditions of the grant are being met by the grantee.

Standard grant templates, available to view at www.glasgowcityregion.co.uk/HDF, provide further detail, and applicants are strongly encouraged to review their content before applying.

8.3 Monitoring

GCR will monitor progress during the project's delivery. In accordance with the conditions of your Offer of Grant you must fulfil the below obligations.

- Submit monthly progress reports to the CM-HDF team evidencing progress against the project's programme, budget, and, where applicable, benefits realisation plans.

- Meet post-commissioning reporting requirements, including submission of the evaluation report capturing performance against the same criteria.

The monitoring will gather information on key agreed outcomes in Offer of Grant to monitor the progress and impact of the scheme.

9. Technology List

This section presents technologies which may potentially be funded by the CM-HDF. This list is indicative, but not exhaustive.

Technologies are presented in three categories: low-carbon heat, electricity to heat, and retrofit.

There may be energy system technologies in addition to this list which may be funded by the CM-HDF, where they are at a minimum of Technology Readiness Level 9 to ensure short term deployment and lower risk.

9.1 Low-carbon heat technologies

Low-Carbon Heat Technologies	Description	Context for use
Air source heat pump	An air source heat pump uses heat from the outdoor air giving it flexibility in design which has led to its large-scale deployment across the world.	Default technology, generally suitable for all scales of project – although for larger systems space can be challenging. The default technology choice in DESNZ HNZ modelling.
Ground source heat pump – closed loop	A closed loop ground source heat pump (GSHP) utilises the thermal energy stored in the surface of the earth. The ground is heated by exposure to sunlight and/or proximity to the earth's core and maintains a relatively consistent temperature over the year as soil compositions are not as exposed to seasonal change. A closed loop system heats a working fluid, usually glycol, around an extraction loop. The ground transfers the heat through uninsulated pipework to the circuit raising the fluid temperature. Once the working fluid passes over the evaporator and cools, it returns within the same loop to be heated again.	Suitable for medium to large projects. Usually for large scale projects, additional technology will be required.

Ground source heat pump – open loop	Open loop ground source systems utilise the thermal energy stored in aquifers beneath the surface of the earth. The aquifer is heated through proximity to the earth's core. This provides a relatively consistent temperature over the year as aquifers are not exposed to seasonal changes in atmospheric temperature. An open loop system extracts the water from an aquifer. Once cooled by the evaporator, the water is reinjected back into the aquifer at a different location.	Larger projects - higher risks due to aquifer requirement. Means more upfront at-risk capital. There is a benefit from heating and cooling on the network.
Waste heat recovery (heat pumps)	A heat recovery heat pump is used to enhance the heat that would otherwise be wasted from industrial and commercial processes (e.g. exhaust air from data centres cooling, exhaust air from tubes ventilation shaft). Through the heat recovery process, this heat can be captured and utilised for heating supply. Many waste heat sources are low-grade, and heat pumps can be employed to upgrade this heat to suitable temperature. In some instances, the heat pump may not be required.	There is limited by availability of waste heat resource. Additionally, waste heat recovery requires extensive engagement to guarantee heat supply. In nearly all instances additional technology will be required.
Wastewater heat recovery heat pump	Low-grade heat recovery systems utilise the thermal energy stored in effluent water from industry, common sources include effluent from wastewater treatment plants, cooling water from data centres, breweries, dairies and abattoirs. Cooling water is particularly effective as the elevated source temperatures allow for heat pumps to operate at greater efficiencies and the energy demand for cooling is mitigated.	Dependent on the local opportunity. Generally better suited to larger scale systems where higher upfront costs can be offset by higher heat pump efficiencies (compared to Air Source Heat Pumps).

Sewer heat recovery heat pumps	Sewer heat recovery utilises the thermal energy present in wastewater flowing through sewer networks, typically originating from domestic or commercial sources but can also include drainage water. In these systems, wastewater is extracted from a mains sewer line before reaching the wastewater treatment works. The constituency of wastewater requires additional infrastructure including screening and potentially maceration before a heat exchange process.	Larger sewers generally match well with heat dense areas. This is useful given spatial challenges in these areas for heat pumps. Focus will be on discrete to large district scale schemes.
Energy from Waste (EfW)	High grade systems utilise sources that are biproducts of an industrial process operating at elevated temperatures. For example, capturing a waste steam offtake in an energy from waste plant after it has passed through a steam turbine for electricity generation. Other examples include flue gases from combustion processes and the residual heat from chemical reactions in manufacturing. This heat, available as steam or gas, can be heat exchanged directly into the district heat network flow and return. As there is a general drive towards reducing waste this may result in potential long-term issues with security of supply.	Most suitable to larger networks, due to scale of heat available. Often associated with very low heat cost.
Mine water source heat pump	Mine water systems utilise pumped water from disused mine shaft systems. The mine water is at an increased and constant temperature after being geothermically heated. These high temperatures allow for a low running costs of the heat pump. In some instances, mine water is already being extracted by the coal authority to limit contamination to drinking water aquifers. This risk assessment is for solutions where drilling is required. Drilling to the exact depth of the mine system is complex and entails a very high risk and cost, if performed incorrectly, there is a potential to contaminate flows of natural water.	Resource specific, requires detailed studies to assess suitability. Several feasibility studies have progressed and found complexities meaning alternative solutions are preferred. However, in suitable sites the improved efficiencies of the systems can offset the higher costs.

Biogas Combined Heat and Power (CHP)	Biogas CHPs often use methane gas produced from an anaerobic digestion process. Biogas boilers are also often paired with an anaerobic digestor. In cases where biogas is flared from sources such as landfills, there could be an opportunity to use a biogas boiler to provide heat instead – where the biogas is of an appropriate quality and flow.	Location dependent solution, often already existing at sites with suitable resource.
Anaerobic digestion biogas	Anaerobic digestion (AD) is a natural process of degradation of organic substances in which micro- organisms break down organic matters in the absence of oxygen. As a result of this process biogas and a nutrient-rich organic material known as digestate are produced/biogas can be burned or directly fed into a boiler to produce heat. It can used in combined heat and power (CHP) to produce heat and electricity. AD can process a large range of organic wastes including sewage sludge, industrial and municipal solid waste, agricultural waste and residues and dedicated energy crops. It is also becoming increasingly common in the whisky industry.	Similar to biogas CHP, but also benefits from low grade heat from the AD process. As with biogas, contingent on suitable local context. Either related to waste (particularly wastewater) or more rural areas where suitable sources for anaerobic digestion are likely (but heat density for heat networks are less common).
Solar Thermal	Uses solar thermal collectors to capture heat, which is then fed into in the heat network. There is relatively poor seasonal alignment between generation and demand therefore very large-scale storage would be required to make best use of this technology. Additional heating technology would be required alongside the solar thermal system.	Seen at large scale in other countries but not at scale in the UK. Requires significant land or roof space for the array and significant storage capacity.
Direct electric boiler	Uses solar thermal collectors to capture heat, which is then fed into in the heat network. There is relatively poor seasonal alignment between generation and demand therefore very large-scale storage would be required to make best use of this technology. Additional heating technology would be required alongside the solar thermal system.	Not suitable for a primary heating system but can provide low carbon backup or peaking. Requires extensive electrical capacity for installation. Cheap local power could enhance viability.

Thermal store	This often takes the form of large water tanks, although there are more complex and high-density storage materials being explored. Thermal stores are key a key part of most heat networks, ensuring improved operation and heat generation technology optimisation. Increasing the size of thermal store can be a key mechanism to avoid electricity network reinforcement and benefit from low electricity prices.	Should be included in all networks. Land cost and space availability are key limiting factors to consider. The benefits will be greatest in areas where the electricity network is constrained and there is access to cheap generation.
Renewable electricity and thermal storage combination	Stores local low-cost electricity generation in a thermal store (which is substantially cheaper than batteries). If this generation was to be curtailed the cost would often be negative. This focuses on the direct linking of generation and storage rather than grid purchased cheap renewable electricity (this can happen at any scale – with old Economy 7 tariffs and storage heaters being an example of this approach).	Suitable geographies are limited, as areas of curtailment are often far from heat dense areas. This means the electrical infrastructure challenges are hard to overcome in most instances.

9.2 Decarbonisation Technologies

Low-Carbon Heat Technologies	Description	Context for use
Solar Photovoltaics Ground-mounted Roof-mounted	Generates electricity from solar energy. This electrical energy can be converted to heat in district energy schemes.	Requires significant land or roof space for the array. Power must be for thermal energy generation.
Onshore wind	Generates electricity from wind turbine(s). This electrical energy can be converted to heat in district energy schemes.	Requires significant land and planning approval for the wind turbines. Power must be for thermal energy generation.

9.3 Retrofit

Only eligible when included as a component of a heat decarbonisation package

Low-Carbon Heat Technologies	Description	Context for use
Controls	Building Energy Management Systems (BEMS) to monitor and control the use of heat.	To improve the efficiency of the district energy scheme, e.g. increase differential temperatures, optimise local storage.
Mechanical systems	Plant room interface improvements to support connection to DH, including: • 3-port to 2-port space heating/ DHW • Low loss header split • Pump(s) upgrades • Thermal/ buffer storage • Heat exchanger(s)	To improve efficiency, temperature alignment and dT.

The technologies are not eligible for funding under CM-DHF.

The technologies are not eligible for funding under CM-DHF.

Low-Carbon Heat Technologies	Description – Technologies not eligible for funding under CM-HDF	Context for use
Controls	Building Energy Management Systems (BEMS) to monitor and control the use of heat.	To improve efficiency of the district energy scheme, e.g. increase differential temperatures, optimise local storage.
Mechanical systems	Plant room, secondary side distribution.	Not considered; Secondary side distribution, heat emitters, Extensive building works, e.g. new plant room building. .
Mechanical systems	Secondary side distribution.	Not considered; Secondary side distribution, heat emitters, Extensive building works, e.g. new plant room building.
Fabric	Building fabric improvements for energy efficiency.	Not considered.
Electrical systems	Plant room interface improvements for new electrical plant • Decentralised heat pumps • Pumps/ valves • BMS upgrade • Secondary sub-station upgrade for power for district energy scheme connection	Not considered: - DNO reinforcement for building.

10. Application Assessment Criteria

Applications will be scored by an Independent Assessment Panel with a specialist sector expertise against a structured set of criteria that align with the outlined below project's life-cycle stages. The table below specifies the exact requirements for each stage.

Limited funding will be available for development stages, prioritising projects ready for implementation.

Development-stage applications and delivery/operational-stage applications will be scored separately under a tailored assessment framework to ensure fair and proportionate evaluation relative to project maturity and readiness.

The panel will also review the geographic distribution of shortlisted projects to ensure equitable funding across the Clyde Mission corridor, supporting an inclusive regional transition to low-carbon heat.

10.1 Basic Assessment Criteria

Scoring Scale (per criterion)	
High (3 pts)	Strong, evidence-based output achieved
Medium (2 pts)	Partial or indicative output achieved
Low (1 pt)	Minimal output achieved, assumptions only
0 pts	Not delivered/applicable

Project life-cycle stage	Application Supporting Information	Application Scoring Criteria
Concept Development - feasibility work for preferred option	Business Case: Feasibility study report demonstrating pathway to delivery and strategic fit with HDF and wider Net Zero goals	Clear Value for Money evidenced
		Pathway to delivery clearly defined and achievable
		Strategic fit with HDF and Net Zero
	Options appraisal (multi-technology/route)	Options appraised - long and short list
		Preferred option rationale clear
		Alignment with recognised appraisal methodology (HM Treasury Green Book or equivalent appraisal frameworks)
	High-level cost plan (CapEx/OpEx)	Robustness / accuracy / confidence of estimates (CapEx/OpEx breakdown, inclusions/exclusions clear)
		Adequacy of contingency and Optimism Bias (realistic and justified)
		Source and quality of cost data (benchmarks, market testing, or early QS input supporting figures)
	Funding strategy (outline with HDF funding need justified)	Clarity of funding route
		Strong potential of funding demonstrated
		Alignment with cost plan
	Carbon emission baseline and reduction estimate (Business as Usual vs Project scenario)	Clarity of baseline definition (evidence-based)
		Presentation of modelling approach (is the methodology appropriate and transparent)
		Clarity in wider benefits narrative articulated clearly and linked to modelling evidence

	Energy cost change estimate (Difference between Business as Usual and Project scenario). This relates to energy which is composed of heat and/or electricity	Clarity of cost calculation (BAU vs Project clearly defined)
		Credibility of cost change estimate (realistic and evidence-based)
		Robustness of data used (reliable baselines and tariffs).
	Risk/opportunities register (strategic)	Clear and comprehensive identification of risks and opportunities (well-explained, linked to project context / technology) (covers key categories: delivery, cost, funding, carbon/energy, consents, stakeholders, programme)
		Adequate risk management and mitigations proposed
	Statutory consents (e.g. environmental and planning) identified	Completeness of consents mapping
		Delivery risks associated with consenting processes identified
		Integration with programme
	Capital Investment Health Impact Assessment (CHIA) screening/ statutory impact assessments identified	Required statutory/recognised impact assessments identified and programmed, with potential risks considered and mitigating measures proposed
	High level programme	Realistic timeline proposed
		Dependencies identified
		Alignment with consents and funding strategy

	Stakeholder engagement report and strategy	Breadth of stakeholder engagement adequate to the proposals and technology
		Evidence of feedback incorporation
		Strength of community/partner support
Outline Business Case	Business Case: Feasibility study report demonstrating pathway to delivery and strategic fit with HDF and wider Net Zero goals	Clear Value for Money evidenced
		Pathway to delivery clearly defined and achievable
		Strategic fit with HDF and Net Zero
	Options appraisal (multi-technology/route)	Options appraised - long and short list
		Preferred option rationale clear
		Alignment with recognised appraisal methodology (HM Treasury Green Book or equivalent appraisal frameworks)
	Design relating to the preferred option	Completeness and clarity of design information
		Demonstration of multi-discipline coordination
	Engineering or technical surveys (e.g. ground, utilities, environmental) that inform the design	Completeness and clarity of information
	High-level cost plan (CapEx/OpEx)	Robustness / accuracy / confidence of estimates (CapEx/OpEx breakdown, inclusions/exclusions clear)
		Adequacy of contingency and Optimism Bias (realistic and justified)
		Source and quality of cost data (benchmarks, market testing, or early QS input supporting figures)

	Funding strategy (outline with HDF funding need justified)	Clarity of funding route
		Strong potential of funding demonstrated
		Alignment with cost plan
	Carbon emission baseline and reduction estimate (Business as Usual vs Project scenario)	Clarity of baseline definition (evidence-based)
		Presentation of modelling approach (is the methodology appropriate and transparent)
		Clarity in wider benefits narrative articulated clearly and linked to modelling evidence
	Energy cost change estimate (Difference between Business as Usual and Project scenario). This relates to energy which is composed of heat and/or electricity	Clarity of cost calculation (BAU vs Project clearly defined)
		Credibility of cost change estimate (realistic and evidence-based)
		Robustness of data used (reliable baselines and tariffs)
	Technology Benefits Realisation Plan*	Clarity of benefits methodology
		Credibility of projected benefits (Realistic, evidence-based assumptions aligned with the proposed technology)
		Robustness of monitoring approach (Clear plan for data collection, responsibilities, and verification)
	Risk/opportunities register (strategic)	Clear and comprehensive identification of risks and opportunities (well-explained, linked to project context / technology) (covers key categories: delivery, cost, funding, carbon/energy, consents, stakeholders, programme)
		Adequate risk management and mitigations proposedin

*Appendix B - Technology Benefits Realisation Framework

	Statutory consents (e.g. environmental and planning) identified	Completeness of consents mapping
		Delivery risks associated with consenting processes identified
		Integration with programme
	Capital Investment Health Impact Assessment (CHIA) screening/ statutory impact assessments identified	Required statutory/recognised impact assessments identified and programmed, with potential risks considered and mitigating measures proposed
	High level programme	Realistic timeline proposed
		Dependencies identified
		Alignment with consents and funding strategy
	Stakeholder engagement report and strategy	Breadth of stakeholder engagement adequate to the proposals and technology
		Evidence of feedback incorporation
		Strength of community/partner support
Further Design Development	Business Case: Outline Business Case demonstrating pathway to delivery and strategic fit with HDF and wider Net Zero goals	Clarity and credibility of Value for Money evidence
		Pathway to delivery clearly defined and achievable
		Strategic fit with HDF and Net Zero
	Design relating to the preferred option	Completeness and clarity of design information
		Demonstration of multi-discipline coordination
	Engineering or technical surveys (e.g. ground, utilities, environmental) that inform the design	Completeness and clarity of information

	Procurement strategy - working understanding of preferred procurement approach	Clarity of proposed strategy
		Evidence of supply chain engagement and market testing
		Credibility of approach to lead times, availability, and readiness
	Cost plan (CapEx/OpEx) including adequate Optimism Bias and contingencies	Robustness/accuracy/confidence of estimates (CapEx/OpEx breakdown, inclusions/exclusions clear)
		Adequacy of contingency and Optimism Bias (realistic and justified)
		Source and quality of cost data (benchmarks, market testing, or early QS input supporting figures)
	Funding strategy with HDF funding need justified	Clarity of funding need and assumptions
		Evidence of engagement with funders and market
		Credibility of integration with cost plan
	Carbon emission reduction estimate (Business as Usual vs Project scenario)	Clarity of modelling methodology and assumptions
		Transparency of quantified benefits (carbon reduction, energy savings, resilience)
		Credibility of wider benefit claims (scalability, replicability, social/economic value)

	Energy cost change estimate (Difference between Business as Usual and Project scenario). This relates to energy which is composed of heat and/or electricity	Clarity of energy cost methodology (BAU vs Project assumptions clearly defined for heat and/or electricity)
		Credibility of cost change estimate (realistic, evidence-based tariffs and consumption data)
		Robustness of underlying energy data (verified baselines and transparent inputs)
	Technology Benefits Realisation Plan*	Clarity of benefits methodology
		Credibility of projected benefits (Realistic, evidence-based assumptions aligned with the proposed technology)
		Robustness of monitoring approach (Clear plan for data collection, responsibilities, and verification)
	Risk / opportunities register	Clear and comprehensive identification of risks and opportunities (well-explained, linked to project context / technology) (covers key categories: delivery, cost, funding, carbon/energy, consents, stakeholders, programme)
		Adequacy of proposed risk management (mitigations, ownership, change control)
		Evidence of monitoring approach (Early Warnings)
	Statutory consents/permits identified and scoped within the programme	Clarity on status of required consents/permits
		Evidence of early engagement with relevant authorities
		Key approval risks identified and incorporated into the programme

*Appendix B - Technology Benefits Realisation Framework

	Statutory impact assessments (EIA, EcIA, EqIA, etc.) identified where applicable, or screening evidence confirming that a full assessment is not required	Required statutory/recognised impact assessments identified and programmed, with potential risks considered and mitigating measures proposed
	Pathway to delivery programme	Clarity of programme logic and milestones
		Critical dependencies identified
		Credibility of alignment with consents, procurement and funding strategy
	Stakeholder engagement report and strategy if applicable	Breadth of stakeholder engagement adequate to the proposals and technology
		Evidence of feedback incorporation
		Strength of community/partner support
Final Business Case	Business Case: Outline Business Case demonstrating pathway to delivery and strategic fit with HDF and wider Net Zero goals	Clarity and credibility of Value for Money evidence
		Pathway to delivery clearly defined and achievable
		Strategic fit with HDF and Net Zero
	Further design relating to the preferred option	Completeness and clarity of design information
		Demonstration of multi-discipline coordination
	Engineering or technical surveys (e.g. ground, utilities, environmental) that inform the design	Completeness and clarity of information
	Procurement strategy - preferred procurement approach	Clarity of proposed strategy
		Evidence of supply chain engagement and market testing
		Credibility of approach to lead times, availability, and readiness

	Cost plan (CapEx/OpEx) including adequate Optimism Bias and contingencies	Robustness / accuracy / confidence of estimates (CapEx/OpEx breakdown, inclusions/exclusions clear)
		Adequacy of contingency and Optimism Bias (realistic and justified)
		Source and quality of cost data (benchmarks, market testing, or early QS input supporting figures)
	Funding strategy with HDF funding need justified	Clarity of funding need and assumptions
		Evidence of engagement with funders and market
		Credibility of integration with cost plan
	Carbon emission reduction estimate (Business as Usual vs Project scenario)	Clarity of modelling methodology and assumptions
		Transparency of quantified benefits (carbon reduction, energy savings, resilience)
		Credibility of wider benefit claims (scalability, replicability, social/economic value)
	Energy cost change estimate (Difference between Business as Usual and Project scenario). This relates to energy which is composed of heat and/or electricity	Clarity of energy cost methodology (BAU vs Project assumptions clearly defined for heat and/or electricity)
		Credibility of cost change estimate (realistic, evidence-based tariffs and consumption data)
		Robustness of underlying energy data (verified baselines and transparent inputs)

	Technology Benefits Realisation Plan*	Clarity of benefits methodology
		Credibility of projected benefits (Realistic, evidence-based assumptions aligned with the proposed technology)
		Robustness of monitoring approach (Clear plan for data collection, responsibilities, and verification)
	Risk / opportunities register	Clear and comprehensive identification of risks and opportunities (well-explained, linked to project context / technology) (covers key categories: delivery, cost, funding, carbon/energy, consents, stakeholders, programme)
		Adequacy of proposed risk management (mitigations, ownership, change control)
		Evidence of monitoring approach (Early Warnings)
	Statutory consents/permits identified and scoped within the programme	Clarity on status of required consents/permits
		Evidence of early engagement with relevant authorities
		Key approval risks identified and incorporated into the programme
	Statutory impact assessments (EIA, EcIA, EqIA, etc.) identified where applicable, or screening evidence confirming that a full assessment is not required	Required statutory/recognised impact assessments identified and programmed, with potential risks considered and mitigating measures proposed

*Appendix B - Technology Benefits Realisation Framework

	Pathway to delivery programme	Clarity of programme logic and milestones
		Critical dependencies identified
		Credibility of alignment with consents, procurement and funding strategy
	Stakeholder engagement report and strategy if applicable	Breadth of stakeholder engagement adequate to the proposals and technology
		Evidence of feedback incorporation
		Strength of community/partner support
Detailed Design	Business Case: Final Business Case demonstrating pathway to delivery and strategic fit with HDF and wider Net Zero goals	Value for Money evidenced
		Strength of delivery pathway evidence
		Alignment with HDF and Net Zero objectives
	Further design relating to the preferred option	Completeness and clarity of design information
		Evidence of procurement readiness
		Demonstration of multi-discipline coordination
	Procurement strategy - preferred procurement approach	Clarity of proposed strategy
		Evidence of supply chain engagement and market testing
		Credibility of approach to lead times, availability, and readiness
	Detailed cost plan (CapEx/OpEx) including adequate contingencies	Transparency and robustness of cost plan presented (CapEx/OpEx breakdown, inclusions/exclusions clear)
		Adequacy of contingency allowances
		Credibility of cost certainty evidence (benchmarking, QS validation)

	Detailed funding strategy with HDF funding need justified	Clarity of funding assumptions and requirements
		Evidence of awards/conditional awards
		Credibility of integration with cost plan
	Carbon emission reduction estimate (Business as Usual vs Project scenario)	Clarity of modelling methodology and assumptions
		Transparency of quantified benefits (carbon reduction, energy savings, resilience)
		Credibility of wider benefit claims (scalability, replicability, social/economic value)
	Energy cost change estimate (Difference between Business as Usual and Project scenario). This relates to energy which is composed of heat and/or electricity	Clarity of energy cost methodology (BAU vs Project assumptions clearly defined for heat and/or electricity)
		Credibility of cost change estimate (realistic, evidence-based tariffs and consumption data)
		Robustness of underlying energy data (verified baselines and transparent inputs)
	Technology Benefits Realisation Plan*	Clarity of benefits methodology
		Credibility of projected benefits (Realistic, evidence-based assumptions aligned with the proposed technology)
		Robustness of monitoring approach (Clear plan for data collection, responsibilities, and verification)

*Appendix B - Technology Benefits Realisation Framework

	Risk/opportunities register	Clear and comprehensive identification of risks and opportunities (well-explained, linked to project context / technology) (covers key categories: delivery, cost, funding, carbon/energy, consents, stakeholders, programme)
		Adequacy of proposed risk management (mitigations, ownership, change control)
		Evidence of monitoring and de-risking approach (Early Warnings)
	Statutory consents/permits identified and scoped within the programme	Clarity on scope of statutory approvals required/reasonable approval path under control as reflected within the programme and risk register
		Evidence of statutory approvals/permits secured
		All approval risks mitigated or managed and incorporated into the programme
	Statutory impact assessments (EIA, EcIA, EqIA, etc.) identified where applicable, or screening evidence confirming that a full assessment is not required	Required statutory/recognised impact assessments identified and programmed, with potential risks considered and mitigating measures proposed

	Pathway to delivery programme	Clarity and completeness of programme presented (presented at sufficient detail for Stage 4, with construction, procurement, and commissioning phases visible)
		Credibility of timeline and sequencing (durations and dependencies realistic and consistent with risk register, consenting and funding strategy)
		Consideration of operational phase (outline post-delivery / handover activities acknowledged, showing pathway to operation)
	Stakeholder engagement report and strategy if applicable	Breadth of stakeholder engagement adequate to the proposals and technology
		Evidence of feedback incorporation
		Strength of community/partner support
Construction and Installation	Business Case: Capital projects <£500k - Proportionate Business Justification/ Final Business Case Capital Projects >£500k - Full Green Book 5-Case Model business case	Value for Money evidenced
		Strength of assurance provided (deliverability, risks managed, compliance with funder requirements)
		Alignment with HDF and Net Zero objectives
	Detailed design and construction package	Clarity of construction documentation provided
		Evidence of Health and Safety compliance assurance (CDM, RAMS, etc.)
		Credibility of performance monitoring plan (how design intent will be verified)

	Procurement strategy and procurement package (BoQ/ contract information/ specifications) or evidence of competitive procurement of a contractor	Clarity of procurement documentation and contract information
		Evidence of competitive procurement process proposed/ undertaken
		Credibility of commissioning and certification arrangements (assurance plan for contract delivery, testing, certification)
	Construction cost plan (CapEx/OpEx) with funding plan /budget	Clarity and robustness of budget information (CapEx/OpEx breakdown, inclusions/exclusions clear) with adequate/justified contingency allowances
		Adequate management/spend control and reporting mechanisms proposed
		Credibility of cost certainty evidence (benchmarking, QS validation, market tested/procured rates)
	Carbon emission reduction estimate (Business as Usual vs Project scenario)	Clarity of benefits realisation evidence (heat generation, carbon reduction, energy cost savings)
		Evidence of monitoring and measurement plan (post-installation)
		Credibility of sustainability and carbon management strategy
	Energy cost change estimate (Difference between Business as Usual and Project scenario). This relates to energy which is composed of heat and/or electricity	Clarity of energy cost methodology (BAU vs Project assumptions clearly defined for heat and/or electricity)
		Credibility of cost change estimate (realistic, evidence-based tariffs and consumption data)
		Robustness of underlying energy data (verified baselines and transparent inputs)

	Technology Benefits Realisation Plan*	Clarity of benefits methodology
		Credibility of projected benefits (Realistic, evidence-based assumptions aligned with the proposed technology)
		Robustness of monitoring approach (Clear plan for data collection, responsibilities, and verification)
	Risk/opportunities register mitigated/de-risked for delivery and operation	Clarity of residual delivery risks (well-explained, linked to project context / technology) (covers key categories: delivery, cost, funding, carbon/energy, consents, stakeholders, programme)
		Adequacy of mitigation and control measures proposed
		Operation phase risk identified and mitigations proposed
	Statutory consents/permits secured/with reasonable approval path	Evidence of approvals secured/ clear and achievable approval plan
		Integration of approvals status with programme and risk register
		Further permits/approvals required for the operational phase identified with a clear path to secure them
	Statutory impact assessments (EIA, EcIA, EqIA, etc.) secured where applicable, or screening evidence confirming that a full assessment is not required	Required statutory impact assessments completed, risks identified and mitigations proposed.
	Delivery and operation programme	Clarity and completeness of construction / Installation programme
		Evidence of integration of commissioning, handover, and early Operations and Maintenance.
		Credibility of operation programme outlook

*Appendix B - Technology Benefits Realisation Framework

	Community Benefits Realisation Plan** Capital projects <£500k – voluntary Capital Projects >£500k – compulsory	Clarity of planned community benefits and delivery mechanisms proposed
		Evidence of measurement and tracking methodology
		Credibility of partnerships and delivery
Commissioning	Business Case: Final Business Case demonstrating pathway to delivery and strategic fit with HDF and wider Net Zero goals	Value for Money evidenced
		Strength of delivery pathway evidence
		Alignment with HDF and Net Zero objectives
	Technical design	Completeness and clarity of design information
		Evidence of procurement readiness
		Demonstration of multi-discipline coordination
	Procurement / purchase approach	Clarity of proposed approach
		Evidence of supply chain engagement and market testing
		Credibility of approach to lead times, availability, and readiness
	Detailed cost plan (CapEx/OpEx) including adequate contingencies	Transparency and robustness of cost plan presented (CapEx/OpEx breakdown, inclusions/exclusions clear)
		Adequacy of contingency allowances
		Credibility of cost certainty evidence (benchmarking, QS validation)

**Appendix A – Community Benefits Realisation Framework

	Carbon emission reduction estimate (Business as Usual vs Project scenario)	Clarity of modelling methodology and assumptions
		Transparency of quantified benefits (heat generation, carbon reduction, energy cost savings)
		Credibility of wider benefit claims (scalability, replicability, social/economic value)
	Energy cost change estimate (Difference between Business as Usual and Project scenario). This relates to energy which is composed of heat and/or electricity	Clarity of energy cost methodology (BAU vs Project assumptions clearly defined for heat and/or electricity)
		Credibility of cost change estimate (realistic, evidence-based tariffs and consumption data)
		Robustness of underlying energy data (verified baselines and transparent inputs)
	Technology Benefits Realisation Plan*	Clarity of updated benefits projections (Refined benefits estimates reflecting as-built design and commissioning plan)
		Credibility of predicted in-use performance (Evidence-based commissioning assumptions; realistic early operating performance expectations)
		Robustness of monitoring & verification approach (Commissioning-linked monitoring arrangements are specified and ready to implement)

*Appendix B - Technology Benefits Realisation Framework

	Risk/opportunities register	Clear and comprehensive identification of risks and opportunities (well-explained, linked to project context / technology) (covers key categories: delivery, cost, funding, carbon/energy, consents, stakeholders, programme)
		Adequacy of proposed risk management (mitigations, ownership, change control)
		Evidence of monitoring and de-risking approach (Early Warnings)
	Statutory consents/permits	Clarity on scope of statutory approvals required/reasonable approval path under control as reflected within the programme and risk register
		Evidence of statutory approvals/permits secured
		All approval risks mitigated or managed and incorporated into the programme
	Statutory impact assessments (EIA, EcIA, EqIA, etc.) where applicable, or screening evidence confirming that a full assessment is not required	Required statutory impact assessments completed, risks identified and mitigations proposed
	Pathway to delivery programme	Clarity and completeness of programme presented (presented at sufficient detail for Stage 4, with construction, procurement, and commissioning phases visible)
		Credibility of timeline and sequencing (durations and dependencies realistic and consistent with risk register, consenting and funding strategy)
		Consideration of operational phase (outline post-delivery / handover activities acknowledged, showing pathway to operation)

Operation	Business Case: Proportionate justification case demonstrating pathway to delivery and strategic fit with HDF and wider Net Zero goals	Clarity of Value for Money evidence
		Evidence that operational objectives are considered
		Alignment with HDF / Net Zero outcomes
	Technical description	Completeness and clarity of design information
		Evidence of procurement readiness
		Demonstration of multi-discipline coordination
	Procurement / purchase approach	Clarity of proposed approach
		Evidence of supply chain engagement and market testing
		Credibility of approach to lead times, availability, and readiness
	Detailed cost plan (CapEx/OpEx) including adequate contingencies	Transparency and robustness of cost plan presented (CapEx/OpEx breakdown, inclusions/exclusions clear)
		Adequacy of contingency allowances
		Credibility of cost certainty evidence (benchmarking, QS validation)
	Lifecycle OpEx baseline and forecast	Clarity of operational cost assumptions and methodology
		Evidence that costs are realistic and linked to operational strategy
		Credibility of OpEx projections and savings validation
	Performance/operation baseline and strategy	Clarity of baseline and performance targets
		Evidence of realistic, achievable performance assumptions
		Credibility of approach to deliver and monitor benefits

	Carbon emission reduction (Business as Usual vs Project scenario)	Clarity of benefits realisation evidence (heat generation, carbon reduction, energy cost savings)
		Evidence of monitoring and measurement plan (post-installation)
		Credibility of sustainability and carbon management strategy
	Energy cost change (Difference between Business as Usual and Project scenario). This relates to energy which is composed of heat and/or electricity	Accuracy of reported energy cost change (Clear comparison of actual costs vs BAU scenario for heat and/or electricity.)
		Quality of in-use data and evidence (Verified metered data, billing records, and transparent calculation methods.)
		Credibility of benefits realisation (Demonstrated delivery of expected cost savings or justified variance.)
	Technology Benefits Realisation Plan*	Clarity of operational benefit targets (Clear carbon, cost, and performance KPIs for in-use operation)
		Credibility of operational assumptions (Operational strategy, system settings, expected load profiles, and risk factors well evidenced)
		Robustness of in-use monitoring & reporting plan (Clear methods, responsibilities, data sources, and reporting cycle for verifying benefits)

*Appendix B - Technology Benefits Realisation Framework

	Statutory consents/permits	Clarity on scope of statutory approvals required/reasonable approval path under control as reflected within the programme and risk register
		Evidence of statutory approvals/permits secured
		All approval risks mitigated or managed and incorporated into the programme
	Statutory impact assessments (EIA, EcIA, EqIA, etc.) where applicable, or screening evidence confirming that a full assessment is not required	Required statutory impact assessments completed, risks identified and mitigations proposed.
	Monitoring/evaluation and reporting strategy and plan	Clarity and completeness of monitoring and evaluation methodology
		Evidence of reporting mechanisms and responsibilities
		Credibility of evaluation approach to track operational performance

More information on details required within the Business Case is provided in Section 7.3.

10.2 Technology Benefits Realisation Plan

For projects at delivery and operational stages, applicants must provide modelling and supporting evidence for Heat Generation, Carbon Reduction and Energy Cost Savings.

These metrics will define the quantitative benefits that the project aims to achieve and will be captured within the Technology Benefits Realisation Plan.

The detailed Technology Benefits Realisation Framework, included in **Appendix B**, sets out the scoring criteria to be applied at both the assessment stage and during post-delivery evaluation.

This framework ensures a consistent and transparent approach to measuring, monitoring, and reporting the technical benefits delivered through the Clyde Mission Heat Decarbonisation Fund.

Scoring Framework		**Max points = 12**	
Stage	**Scoring Basis**	**Scale**	**Purpose / Timing**
Baseline Scoring (Assessment)	Predicted quantitative outputs and relative performance against BRP thresholds (MWh, CO_2, £)	High = 3 pts, Medium = 2, Low = 1, N/A = 0	Project appraisal and funding award
Evaluation Scoring (Delivery)	% of profiled target achieved in operation (verified data)	High ≥ 70 %; Medium 30–70 %; Low < 30 %, N/A = 0	Quarterly/annual monitoring and post-completion review

10.3 Community Benefits Realisation Plan

For construction projects of total funding requested over £500k, applicants must include details of the proposed Community Benefits measures. For projects below this threshold, Community Benefits commitments are voluntary, although applicants are encouraged to include them if they wish these to be considered by the assessment panel in support of their application.

Applicants should set out how their project will contribute to the community wealth building, capturing these commitments within the Community Benefits Realisation Plan. Delivery of Community Benefits will form part of the Offer of Grant.

An indicative framework of expected Community Benefits is provided in **Appendix A**, sets out detailed indicators across key benefit areas. Applicants are encouraged to consult it when selecting the indicators most relevant to their project. The appendix also includes the scoring criteria to be applied at both the assessment stage and during post-delivery evaluation, ensuring a consistent and transparent approach to measuring, monitoring, and reporting the community benefits delivered through the Clyde Mission Heat Decarbonisation Fund.

Scoring Framework		Max points = 6	
Stage	**Scoring Basis**	**Scale**	**Purpose / Timing**
Baseline Scoring (Assessment)	Expected Community Benefits and Delivery Credibility Assesses the strength, realism, and evidence base of the applicant's proposed Community Wealth Building (CWB) commitments	High = 3 pts, Medium = 2, Low = 1, N/A = 0	Used during project appraisal and funding award
Evaluation Scoring (Delivery)	Achievement of Community Benefit Outputs, Outcomes and Impacts Assesses both in-year progress and final delivery against agreed targets in the Community Benefits Plan	High ≥ 80 %; Medium 40–80 %; Low < 40 %, N/A = 0	Used for quarterly/annual monitoring and post-completion review