

A 3D architectural rendering of a city skyline. The buildings are represented as grey rectangular blocks of varying heights. A network of bright green lines is overlaid on the city, representing a green heat network. These lines run along the streets and between blocks of buildings, forming a grid-like pattern. The sky is a pale blue with soft, wispy white clouds. A semi-transparent dark blue rectangular box is positioned on the left side of the image, containing the title text in white.

Workshop 1

Green Heat Network Fund (GHNF) Transition Scheme

Introduction

An aerial view of a city with numerous grey buildings of varying heights. A network of green lines, representing heat networks, is overlaid on the city map, connecting different areas. The sky is a pale blue with some light clouds.

Tim Ward – Stakeholder Engagement Manager
Green Heat Network Fund

Agenda

- 14.00** Welcome and Introduction
- 14.05** Setting the Context – George Robinson
- 14.10** The Green Heat Network Fund: Main and Transition Schemes – George Robinson
- 14.55** The GHNF Transition Scheme – Bara Sladkova
- 15.15** Break
- 15.25** Other Support - Alex Trebowicz
- 15.35** How to Apply to the Transition Scheme - Tom Allard

Meeting Rules

PLEASE NOTE THAT THIS SESSION WILL BE RECORDED

- Please **switch off** your camera and **mute** your microphone
- The recording of this event can be made available on request
- **Questions** – please post any questions that you may have in the chat window. We'll endeavour to answer them at the end of each of the presenters' sessions.

Recording Starting

THIS SESSION IS NOW BEING RECORDED

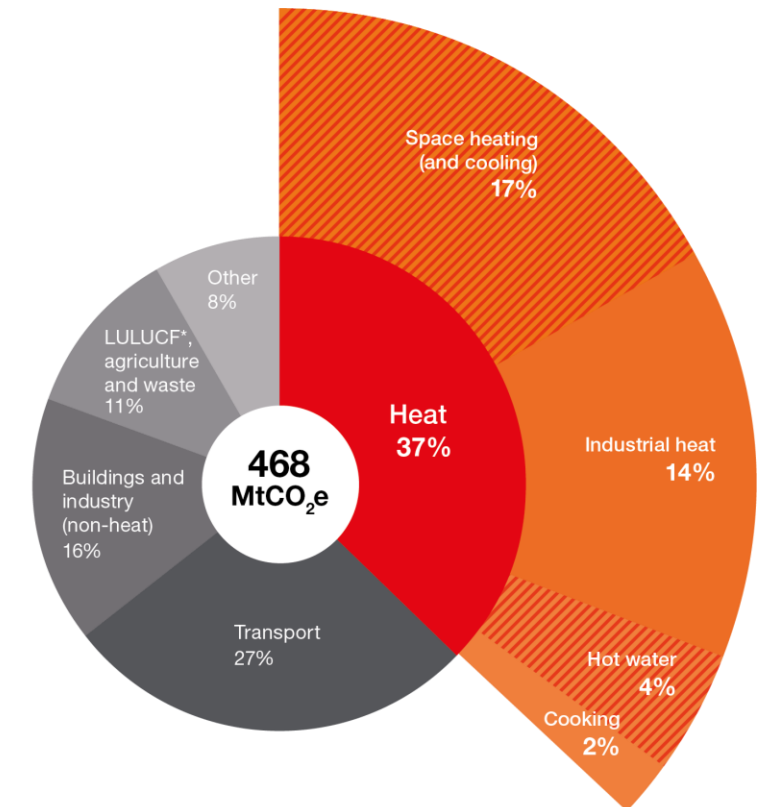
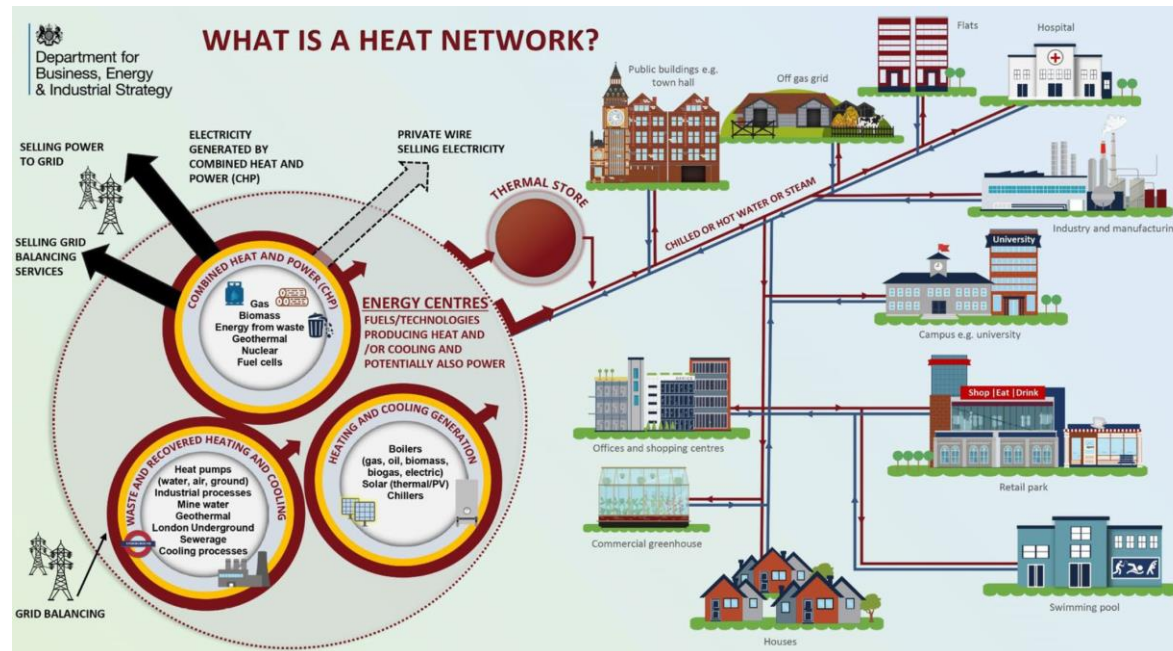


Setting the Context

George Robinson - Head of Finance and Commercial, Heat Networks
Green Heat Network Fund

Why decarbonising Heat Matters?

Decarbonising heat is essential to meeting our 2050 net zero targets.



Heat decarbonisation is the next big transformation of the energy system (affecting generation, networks, and every home and business)

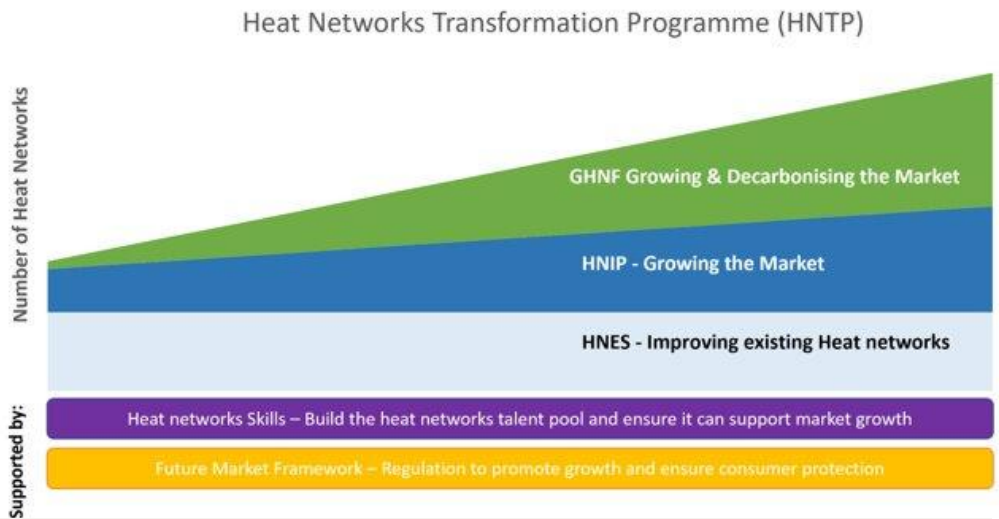
Strategic Overview

Heat networks are vital to achieving a clean, cost effective and just transition to net-zero and deliver a wide variety of benefits to the environment, consumers and the economy. Utilising otherwise wasted energy, provide grid balancing services in an increasingly electrified heat market and offer a low carbon supply of heat at competitive prices to households and businesses alike.

Large scale investment is essential to the development of this market and we are committed to ensuring that projects of the highest quality are incentivised to develop and provide low carbon heat to communities across the country.

The GHNF is a key part of BEIS' wider programme of works to enable a step change in the heat networks ambition, and will jointly deliver:

- increased volumes of low carbon heat
- the creation of new, regulated and more efficient heat networks and heat sources
- investment and jobs growth in the heat network manufacturing and technology
- creation of a more capable professional heat network sector with increased delivery capacity



HN capital investment will secure a lower cost, more efficient market that will provide the platform for future growth and ultimately play a key role in securing the government and the department's net zero ambitions by 2050.

An aerial view of a city with numerous grey buildings. A network of green lines, representing heat networks, is overlaid on the city map, connecting various areas. The sky is a light blue gradient.

The Green Heat Network Fund: Main and Transition Schemes

George Robinson - Head of Finance and Commercial, Heat Networks
Green Heat Network Fund

GHNF Objectives

GHNF Project Vision

“To incentivise heat network market transition to low carbon heat sources via targeted financial support, that will help stimulate the increased deployment of low carbon technologies at scale”.

Achieve carbon savings and decreases in carbon intensity of heat supplied

Increase the total amount of low-carbon heat utilisation in heat networks

Help prepare the market for future “low carbon” regulation and ensure compliance with existing regulations

GHNF Eligibility

“The overriding principle that governs eligibility for commercialisation and construction costs for the GHNF, is that application costs are attributed directly to delivering network operation as per the low carbon design intent. Evidence of the low carbon design intent must be submitted as part of the GHNF application.”

INELIGIBLE COSTS

Commercialisation	Construction	
Sunk costs	Sunk costs	Biomass plant if feedstock does not meet requirements
Costs not directly attributable	Construction of heat sources	First of a kind technology (Technology readiness levels 8 & 9)
	Costs of connecting heat sources where there is an existing legal obligation to do so	Exclusively agricultural or industrial process heat networks
	Tertiary heat distribution	
	Building Fabric upgrades	
	Biogas/syngas plant except if rural off-gas grid or urban where plant will be for secondary/peaking and in both cases where biogas/syngas is not manufactured on site	

GHNF Eligibility: areas that require interpretation

Communal Networks

- Can be included if meet gated metrics
- If fail on GWh/year threshold: **multiple communal networks can be aggregated into a single application to meet threshold**
 - Must be in LA endorsed M&MP study or local energy strategy
 - Confirm that will be DH ready

Existing Networks

- Cost to decarbonise is eligible but:
 - Performance report required
 - Cost to address existing network issues not eligible

Intend for maximum of 40% of annual budget to go to existing networks – reviewed annually

Rural Networks

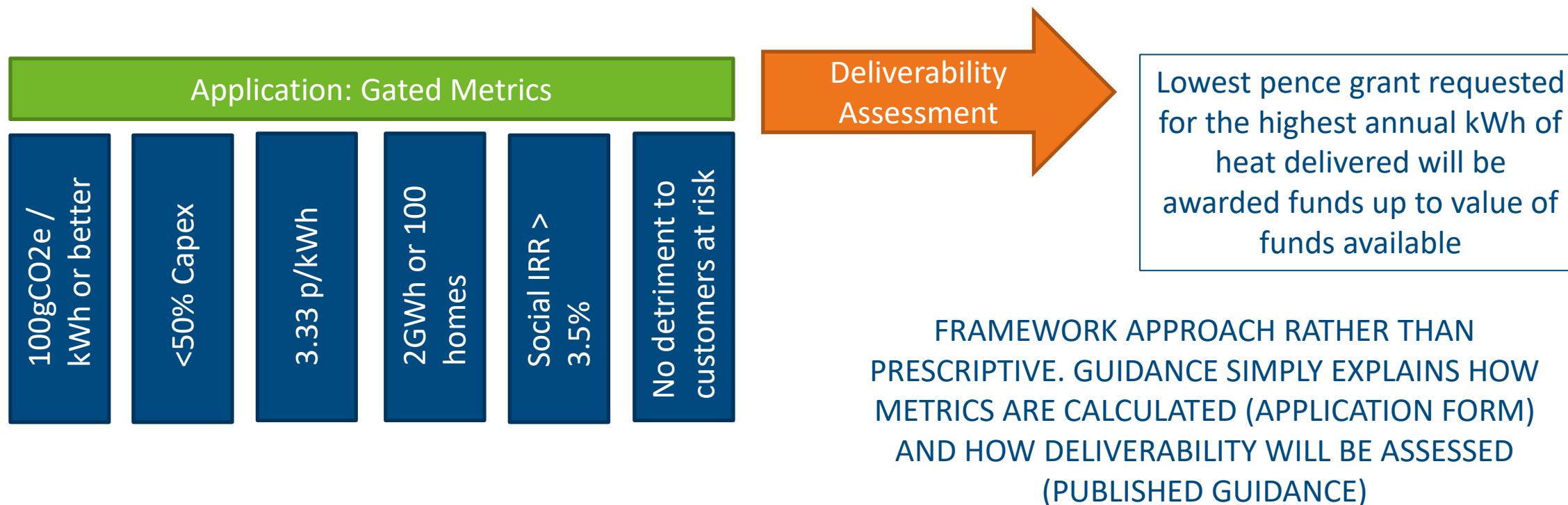
- If 2GWh not met then will pass if 100 dwellings or more to be connected 5 years from first connection

SGL vs Ambient Loop

- Ambient loop supported:
 - 2GWh/year; and
 - Centrally managed
- SGL route to market via GHNF: communal network aggregation.

GHNF Scheme design - overview

The overriding **principle** that governs eligibility for commercialisation and construction costs for the GHNF, is that application costs are attributed directly to delivering network operation as per the low carbon design intent.



Information required for application

Application form

APPLICANT INPUT SHEETS:	Main Application	Publication	Checklist	Cost-Benefit
	The core application form that requires key project values across: - Grant requested; - Cash flows; and - Energy balance	Additional information for publication purposes.	Confirmation that documentation evidence required in line with main guidance has been included in submission.	Where non heat/cooling related costs and income/savings are included it is necessary to demonstrate that such costs show VFM

- Concerted effort to substantially simplify the application form
- Separate session will be held on the detail of the application and there will be detailed guidance available as part of the transition scheme on how it should be completed

Supporting Evidence

REF	Mandatory
1.1	Completed application form
1.2	Cover note
1.3	Business case
1.4	Programme up to heat-on for all customers included in application
1.5	Customer and tariff note
1.6	Techno-economic feasibility study or equivalent
1.7	Techno-economic cash flow model
1.8	Market transformation commitment statement
1.9	Relevant technical drawings
1.11	Relevant correspondence
1.12	Energy supply agreements (binding or non-binding)
1.13	Letter(s) of support from project sponsors
1.14	Risk register and mitigation approach
1.15	Counterfactual thermal energy source(s)
1.16	Confirmation of CP1 compliance and submission of CP1 checklist for current stage
1.17	Confirmation statement of Heat Trust or equivalent customer protection

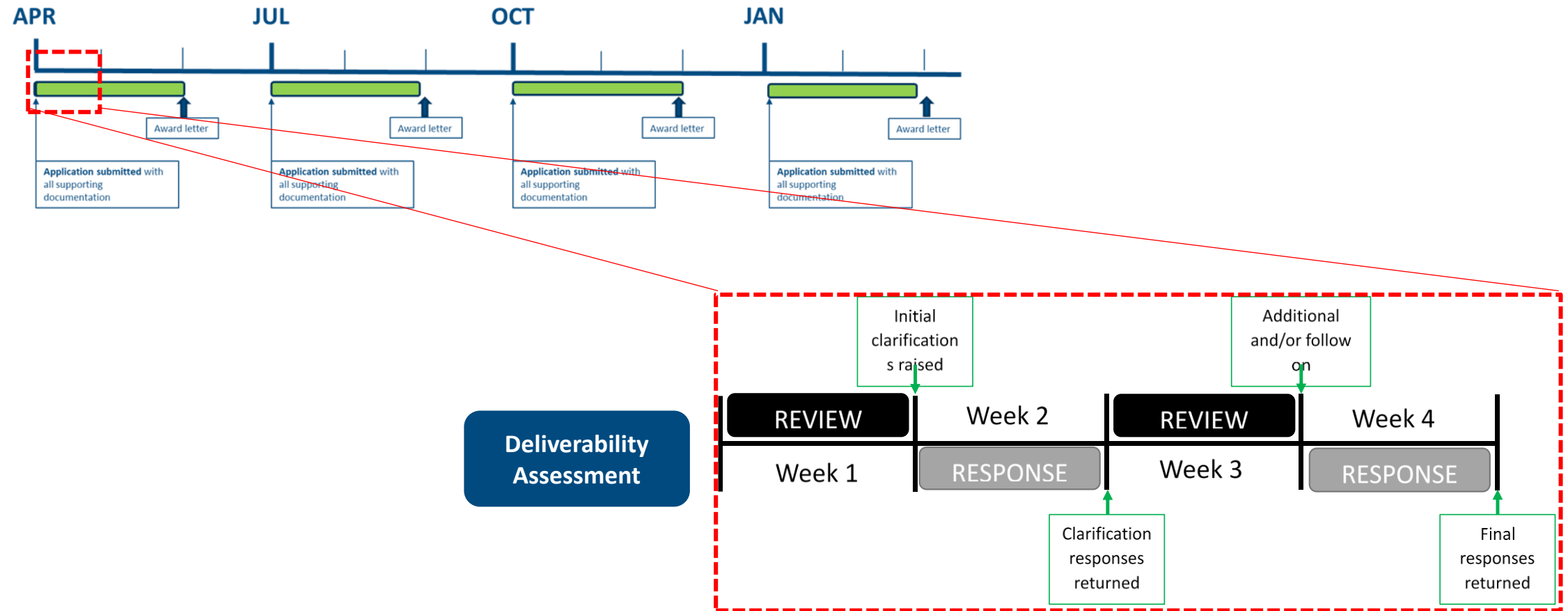
GHNF Gated Metrics on application

Metric	Minimum Score
Carbon gate	100gCO2e/kWh thermal energy delivered
Customer detriment	Domestic and micro-businesses must not be offered a price of heat greater than a low carbon counterfactual for new buildings and a gas/oil counterfactual for existing buildings
Social IRR	Projects must demonstrate a Social IRR of 3.5% or greater over a 40-year period
Minimum demand	For urban networks a minimum end customer demand of 2GWh/year (including existing customers). For rural networks a minimum number of 100 dwellings connected
Maximum capex	Combined grant requested up to but not including 50% of capex + commercialisation costs
Capped award	The total 15-year kWh of heat/cooling forecast to be delivered will not exceed 3.33 pence of grant per kWh delivered (subject to review by GHNF)
Non-heat/cooling cost inclusion	For projects including wider energy infrastructure in their application, the value of income generated/costs saved/wider subsidy obtained should be greater than or equal to the costs included.

- Assessed as an output as part of application form

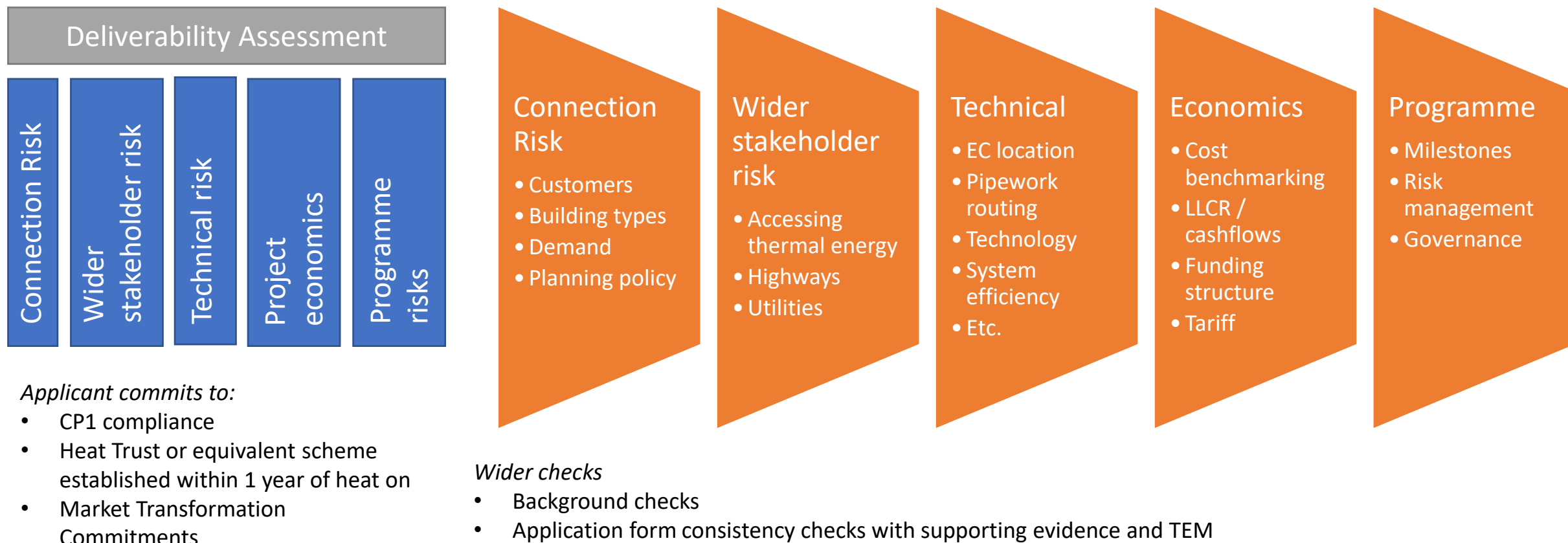
SUMMARY			
CARBON GATE	Av. gCO2e/kWh thermal energy delivered	82.18	Pass
CUSTOMER DETRIMENT OF CUSTOMERS AT RISK	customer at risk p/kWh heat delivered	13.46	Pass
SOCIAL IRR	%	7.41%	Pass
MINIMUM DEMAND	GWh/year	20.42	Pass
COMMERCIALISATION CAP	£m requested	500	Pass
MAXIMUM CAPEX	Grant as % of capex	35.00%	Pass
CAPPED AWARD - 3.33p/kWh (15 year total)	pence grant / total heat supply	1.40	Pass
NON-HEAT/COOLING RELATED COST INCLUSION			Pass
STAGE 1 ASSESSMENT			Pass

GHNF Deliverability Assessment timing



GHNH Deliverability Assessment

All areas must be assessed to be deliverable



Adjustment metrics

ADJUSTMENTS

1. Deliverability
2. Carbon
3. Volume of heat
4. Innovation
5. Expansion

Max downward adjustment = 30%

OUTCOMES	
Stage 1 pass/fail:	PASS
Sufficiently deliverable scheme?	PASS
Pence grant / kWh (pre-ADJ):	1.40
Adjustment weighting	0.85
Pence grant / kWh (post-ADJ):	1.61

Reported value

The Maths

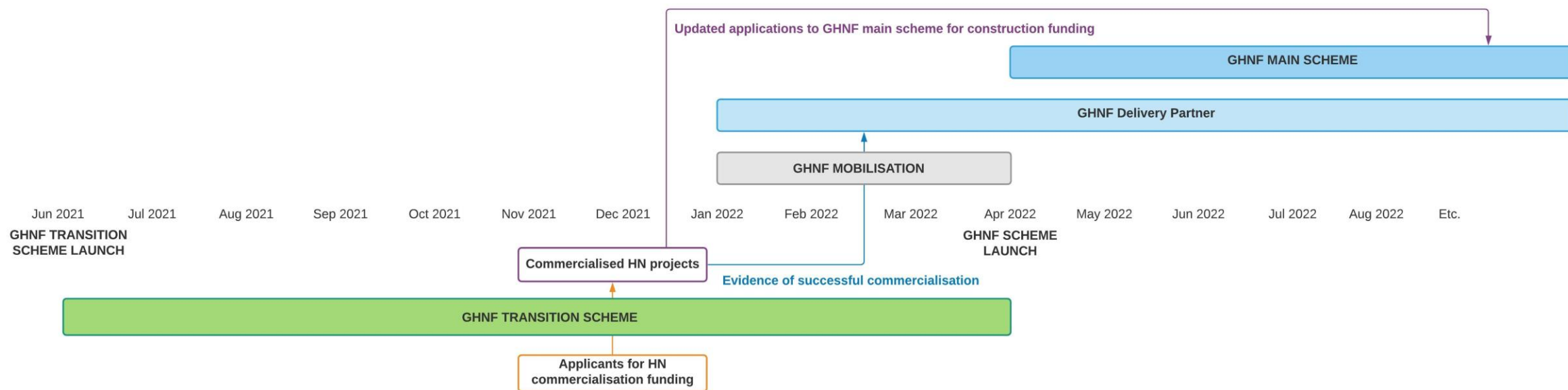
- In this example the applicant has been assessed to have been scored across the adjustment metrics of -15% (0.85).
- The pre-adjustment pence grant per kWh heat delivered is therefore adjusted by 1.15
- This gives the ranked score of 1.61

Funding round ranked value

- Following consultation and bi-laterals held, adjustment metrics are designed to reward

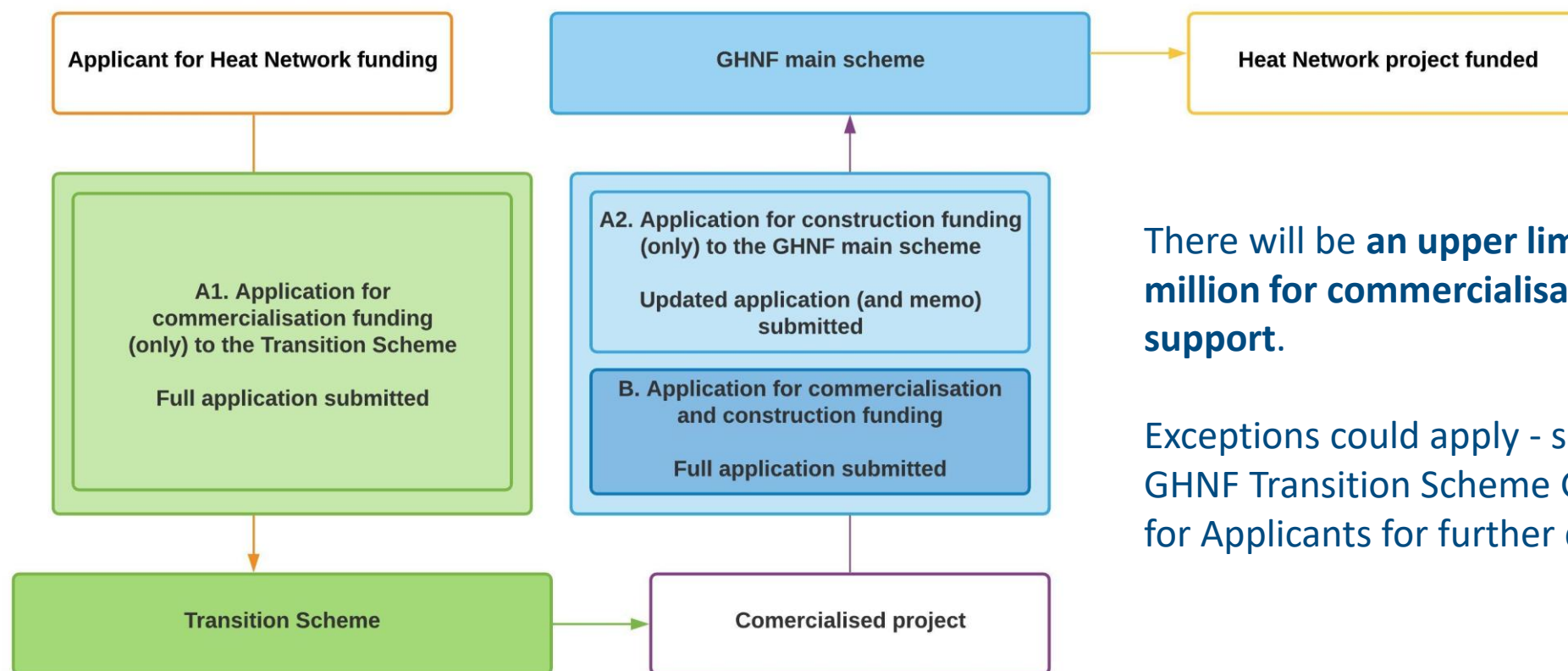
GHNF Transition Scheme overview

- £10m capital grant fund open to applicants from the public, private and third sectors
- Aims to generate a pipeline of projects that have finished commercialisation and are ready to apply for construction funding in the first year of GHNF main scheme
- Supports the commercialisation of zero and low carbon heat network projects only
- Opens to applications in July 2021 and ends at the time of GHNF main scheme launch in April 2022



GHNF Transition Scheme application and funding

Principle-based approach for cost eligibility applies to both the Transition Scheme and GHNF main scheme



There will be an **upper limit of £1 million for commercialisation support.**

Exceptions could apply - see the GHNF Transition Scheme Guidance for Applicants for further details.

GHNF Transition Scheme timescales

- Implemented by BEIS in-house
- Planning two applications rounds (July - August, August – October; highlighted in dark blue); however, the second round will open only if there is sufficient budget available
- All commercialisation payments will be made to projects by the end of March 2022
- Projects successfully commercialised through the Transition Scheme will be encouraged to apply for construction funding from the GHNF main scheme

Timeframe:	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22
Activities:												
Scheme launch												
Scheme opens for applications												
Transition Scheme Round 1												
Decision point on TS R2 opening for applications												
Transition Scheme Round 2*												
Applicants informed of results												
Funding agreements												
Drawdown of funds												
*Opening of TS Round 2 is dependent on budget availability												

Q&A



Short Break

This session will resume at 15.25

Other Support

An aerial, isometric view of a city with numerous grey and yellow buildings. A network of green lines, representing heat networks, is overlaid on the city streets, connecting various buildings and areas.

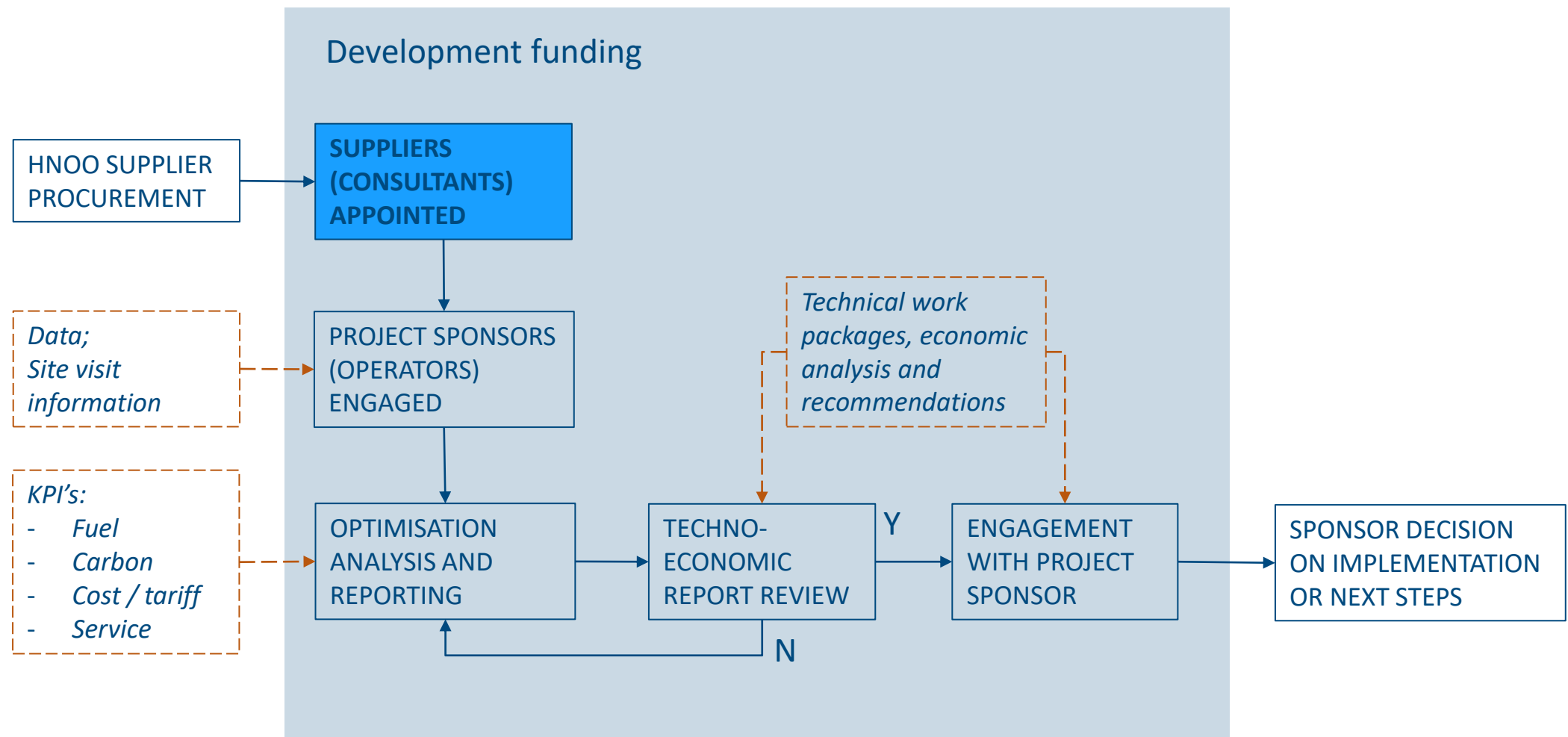
Alex Trebowicz – Project Lead, HNDU
Heat Network Efficiency Scheme introduction

Heat Network Efficiency Scheme; scheme overview

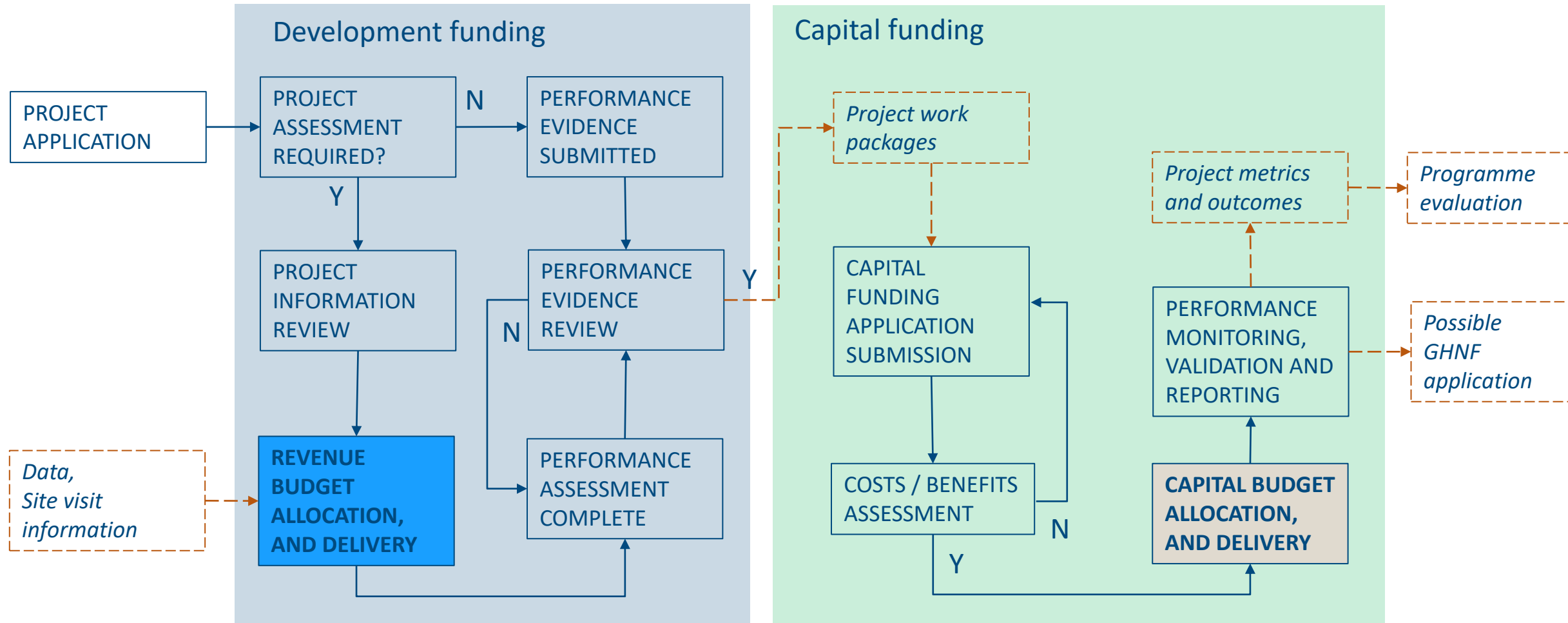
- Deploy funding to enhance performance of existing communal and district heating projects, improving outcomes for heat network customers and operators.
- Achieve carbon savings in existing heat networks;
- Improve customer outcomes;
- Increase/improve heat network performance monitoring and reporting;
- Build a policy evidence base.



Heat Network Optimisation Opportunities (HNOO); Jan 20 – Mar 21

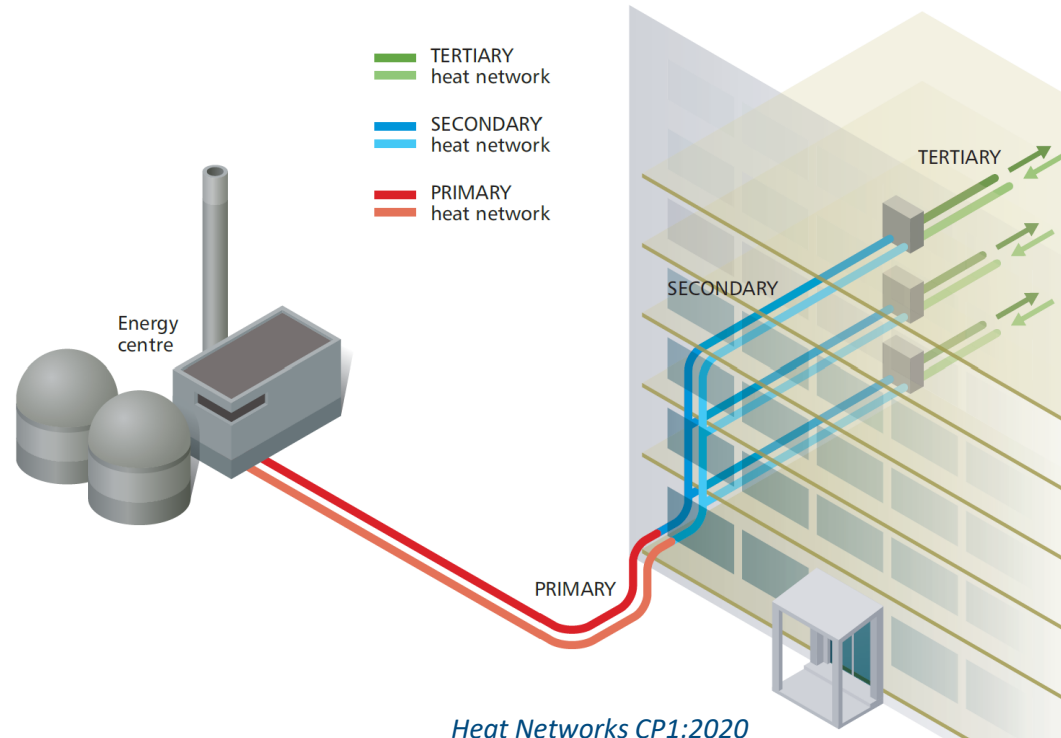


Heat Network Efficiency Scheme (HNES) – draft process flow



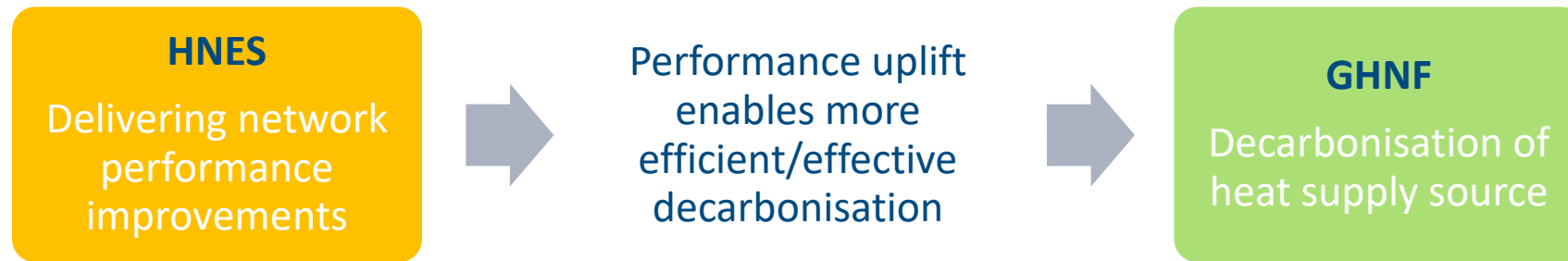
Heat Network Efficiency Scheme; draft funding measures

- Development
- Plant room
- Primary / secondary network
- Tertiary network
- Metering
- Controls



Heat Network Efficiency Scheme and GHNF

- Developing route for existing heat network projects



- HNES output reporting aligned to GHNF
 - Performance reporting
 - Key metrics



Heat Network Efficiency Scheme; current activities

- In development:
 - Business case
 - Scheme design
 - Project eligibility and assessment criteria
 - Service requirements
- Timescales



Q&A



An aerial view of a city with numerous grey buildings. A network of green lines, representing heat networks, is overlaid on the city streets, connecting various buildings and areas.

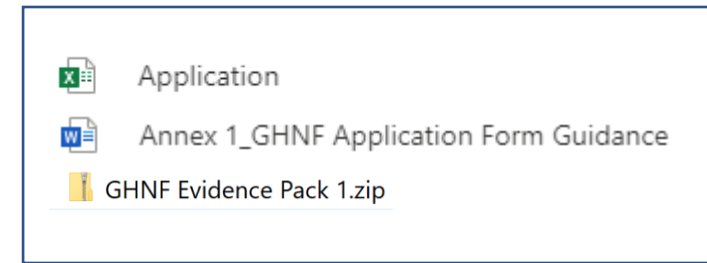
How to Apply to the GHNF Transition Scheme

Tom Allard – Heat Network Specialist
Green Heat Network Fund

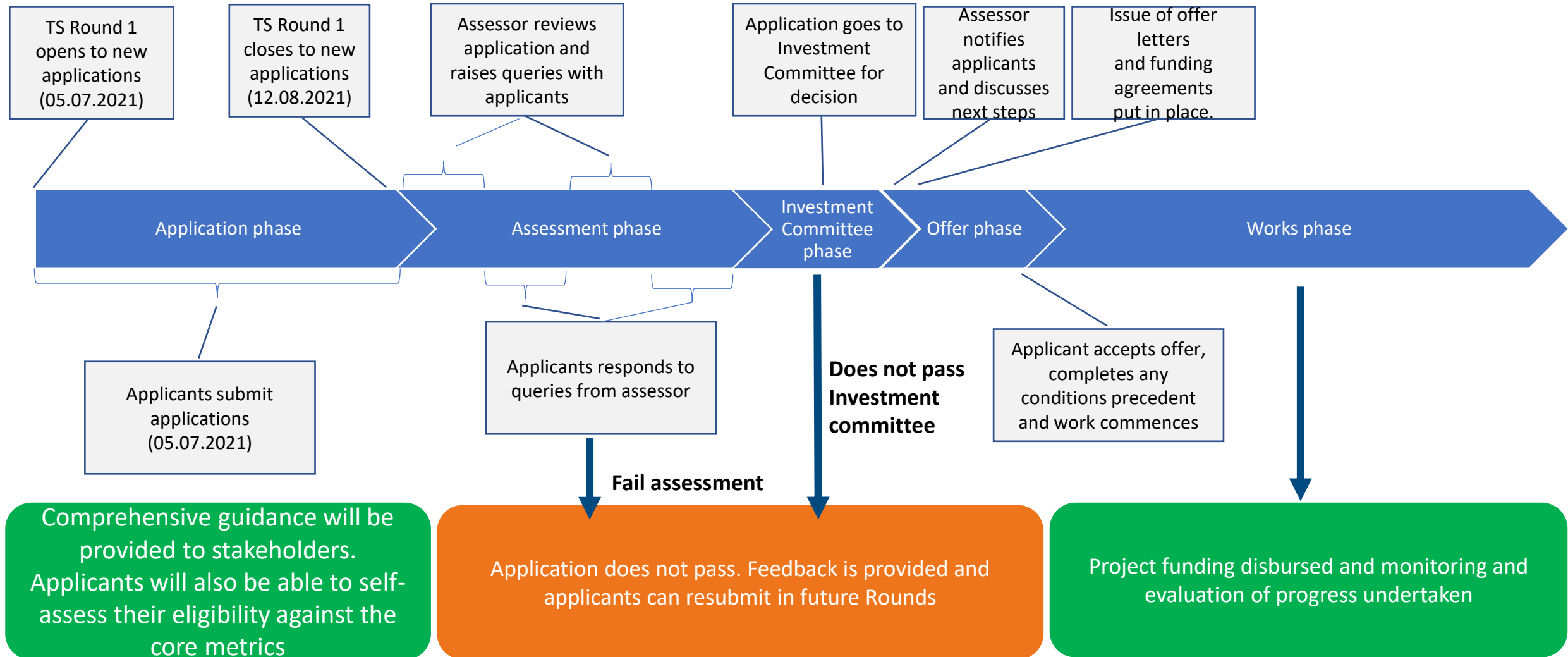
- The application process
- Document submission
- The assessment process
- Cash drawdown
- Q&A

Run through of the application process

1. Prospective applicants should email ghnfcorrespondence@beis.gov.uk and request an application pack
2. The GHNF team will email out the application pack which will include documents such as:
 - Up to date GHNF guidance and annexes
 - the application form
 - detailed form guidance
 - supporting evidence folder pack
3. Complete the application form – which will highlight general alignment with core metrics and whether additional contingent evidence notes may be required
4. Gather supporting documentation
5. Return to the GHNF by email before the Application deadline date.



Assessment Process (round 1)



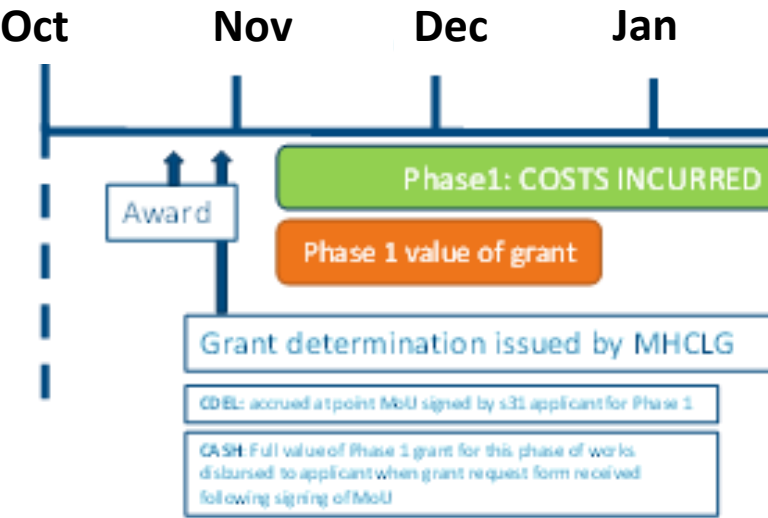
How to submit documents

- The applicant is required to provide to us a completed application form and supporting documents.
- We explain what we require and how to provide it to us in section 3.1-3.3 of the guidance.
- Once you are ready to submit your application to us:
 - Collate the application and all supporting documents into the folder pack with the relevant REFs in the appropriate folders
 - Zip the folders into clearly labelled 20mb segments.
- Return the completed application and supporting documents to us by emailing each segment to: ghnfapplicationsubmissions@beis.gov.uk.

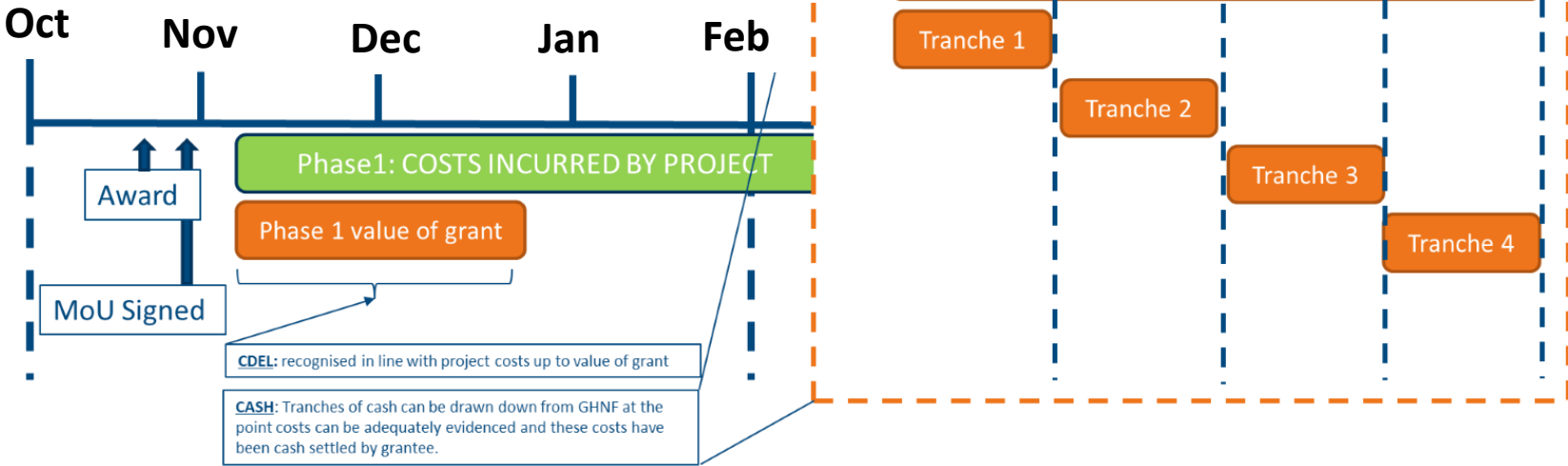
GHNH Evidence Pack 1.zip	
1.	Mandatory
1.1	Application Form
1.2	Cover Note
1.3	Business Case
1.4	Programme
1.5	Customer and tariff note
1.6	Techno-economic feasibility study
1.7	Techno-economic cash flow model
1.8	Signed supply chain commitment statement
1.9	Relevant technical drawings
1.11	Relevant correspondence
1.12	Energy supply agreements (binding on non-binding)
1.13	Letter(s) of support from project sponsors
1.14	Risk register and mitigation approach
1.15	Counterfactual thermal energy source
1.16	Confirmation of CP1 compliance and submission of CP1
1.17	Confirmation statement of Heat Trust or equivalent custo
2.	Optional Information
3.	Contingent information - Commercialisation
4.	Contingent information - Aggregation of co
5.	Contingent information - Existing network
6.	Contingent information - Rural networks
7.	Contingent information - EFW z-factor othe

Cash drawdown

Timings in year – s31 Applicant



Timings in year – s98 Applicant



Note: Subject to approvals

Q&A



Next Workshop

- We will be hosting a second workshop at 14.00hrs
Tuesday 13th July 2021
- This workshop will explore the application process in more detail
- To register your place, please email:
ghnfcorrespondence@beis.gov.uk



Thank you!