

Heat Network Technical Assurance Scheme (HNTAS)

What's next in Heat Network Technical Standards

October 2024

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Non of this is DESNZ policy and will be subject to consultation

It represents Work In Progress and direction of travel



Introducing technical standards regulation

- In 2020, BEIS consulted on developing a regulatory market framework for heat networks to protect consumers, support market growth and develop low carbon networks
 - [Strong support received from respondents](#) to introduce mandatory minimum technical standards, and for heat network suppliers to demonstrate compliance with technical standards through an accredited certification scheme.
 - Support received for regulatory standards to build on CIBSE's CP1(2020) voluntary standards
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- Changes coming:
 - Regulation to launch in 2025, requiring certification based on outcomes (KPIs)
 - Including new build networks (~50,000 residential connections each year)
 - And existing networks (~14,000 networks with ~500,000 residential customers)
 - Communal and district networks
 - Minimum (regulatory) technical requirements, including metering and water quality
 - Other changes coming include consumer protection and zoning

Why regulate technical standards?

Poorly designed, constructed and operated heat networks often have poor outcomes

- Technical standards regulation aims at:
 - improving network performance
 - improving consumer outcomes
 - enhancing reliability
 - lowering the cost of heat
 - reducing carbon emissions



Improving performance and reliability

- Some common issues which mandatory technical standards will address include:
 - Uncontrolled flows and bypasses causing energy inefficiencies
 - Poor water quality causing corrosion and failures
 - High return temperatures causing reliability issues
 - Overly complex heat network systems causing reliability issues

Addressing each of these has the potential to lower long term costs

- For new build systems, regulation aims at avoiding these issues from the outset
- For existing systems, regulation aims to rectify these issues over time



Poor water quality causes corrosion



HNTAS vision, aim, objectives and core principles

VISION

Enable low emissions, and reliable and affordable heat to be delivered to UK communities via heat networks

AIM

Develop a heat network technical assurance scheme that ensures a minimum level of performance and reliability for heat networks in the UK

OBJECTIVES

- Reduce carbon emissions by making heat networks more efficient
 - Improve affordability by reducing capital and operational costs
- Improve consumer experience with improved reliability and quality of heat supplied
 - Improve reputation and investor confidence in heat networks
- Build evidence by better reporting of information about technical quality

CORE PRINCIPLES

Outcomes orientated

Preventative

Proportionate

Deliverable

Adaptable

Enforceable



HNTAS Core principles

Core Principle	Definition
Outcome Orientated	Focused on performance outcomes rather than process.
Preventative	Focused on preventing performance issues from arising through identification of issues, rather than taking punitive approach
Proportionate	Balance the effectiveness of assurance process against the cost of compliance
Deliverable	Based on established processes, that fit with existing contractual and delivery processes, taking into account market capacity and regulatory framework
Adaptable	Able to adjust approach as market moves down the experience curve and adapt to wider changes at a regulatory and industry level
Enforceable	Sets out clear rules and consequent required actions in the case of non compliance that are able to be enforced.





Proposed regulatory framework

- Under the Energy Act 2023, Ofgem will be the regulator of heat networks
- Ofgem can license a Code Manager to maintain the Scheme Code documents which include:
 - Technical specification
(**what** heat networks must comply with)
 - Assurance procedures
(**how** compliance is demonstrated)
 - Assessor requirements
(**who** can assess compliance)





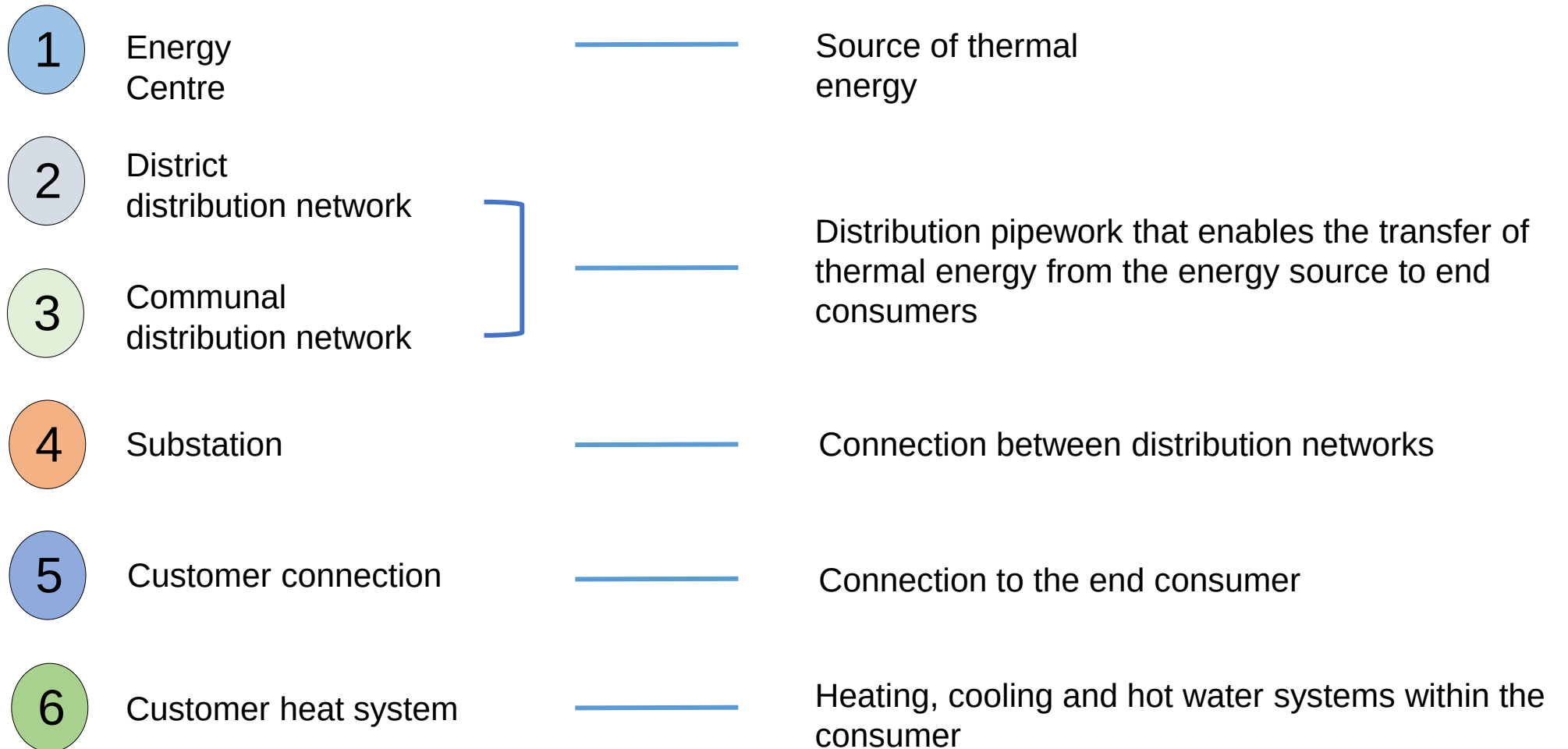
Department for
Energy Security
& Net Zero

Scheme characteristics

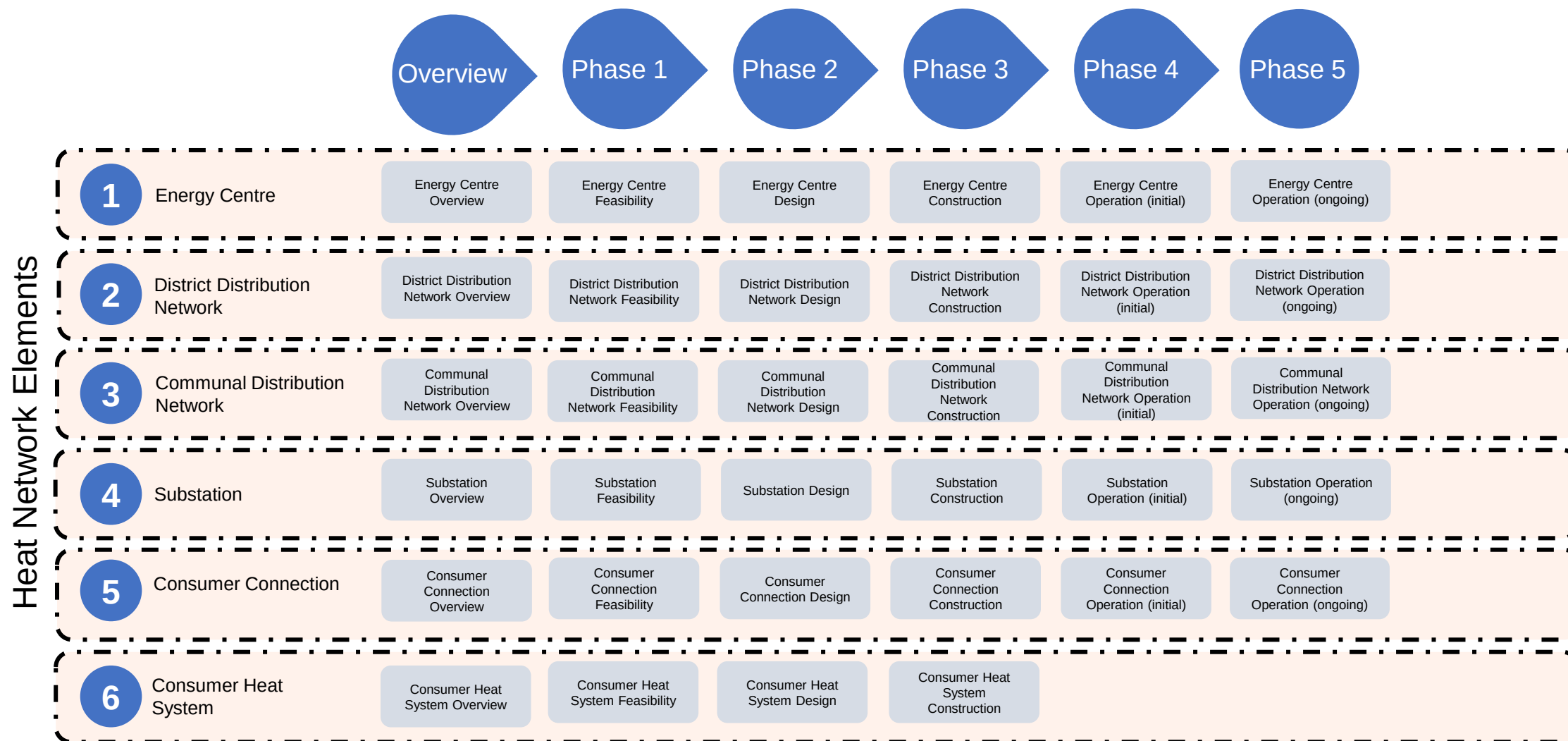




Six distinct elements within the assurance scheme



Technical specifications for each element at each phase



KPIs/ tech standards mainly based on CIBSE CP1(2020) with other industry standards and engagement inputs



Stakeholder engagement

- Extensive series of technical sub-working groups to focus on the development of normative/code documents
- 25 technical sub-working group workshops, bringing together stakeholders such as manufacturers, housing associations, Local Authorities, consultancies, developers, contractors, ESCOs, trade associations, and professional bodies
- Engagement will continue with consultation in winter 2024
- HNTAS pilot programme will run from autumn 2024 to spring 2025



Scheme characteristics

- Performance based assurance scheme – independent assessment of claims made by a responsible party as to whether minimum standards:
 - Will be achieved – Validation
 - Have been achieved – Verification

for identifiable elements of a heat network

- In order to ensure that certain performance outcomes are achieved and maintained
- With Certification that performance outcomes have been achieved at the end of commissioning and at the end of an initial 2-year operation period

