



# **CIBSE Decarbonisation of Heating and Cooling**

Preparing for a Heat Network Technical Assurance Scheme (HNTAS)

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# Disclaimer

- This content is still in development and subject to further change.
- This presentation does not represent a finalised position





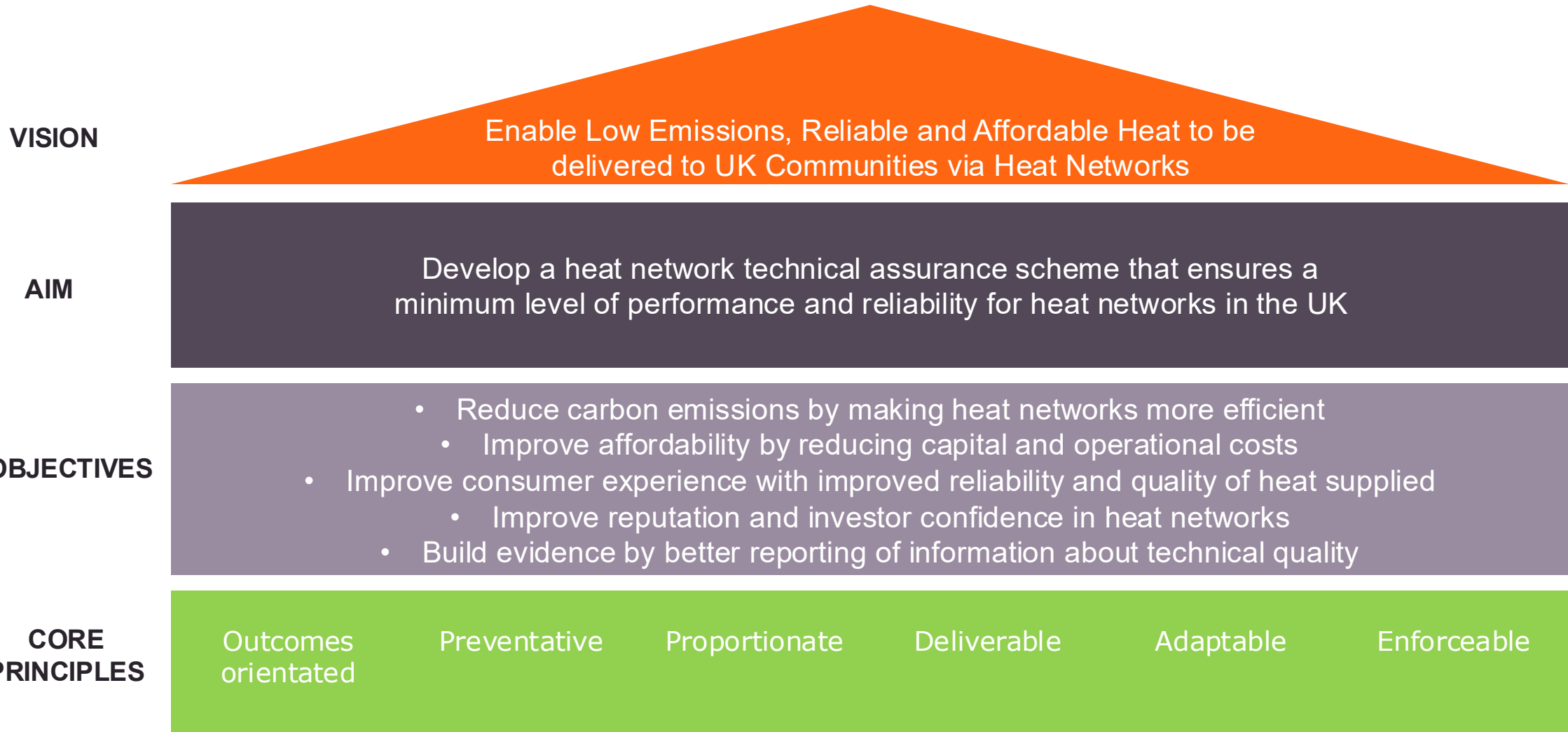
PREPARING FOR A HEAT NETWORK TECHNICAL ASSURANCE SCHEME (HNTAS)

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## HNTAS Overview



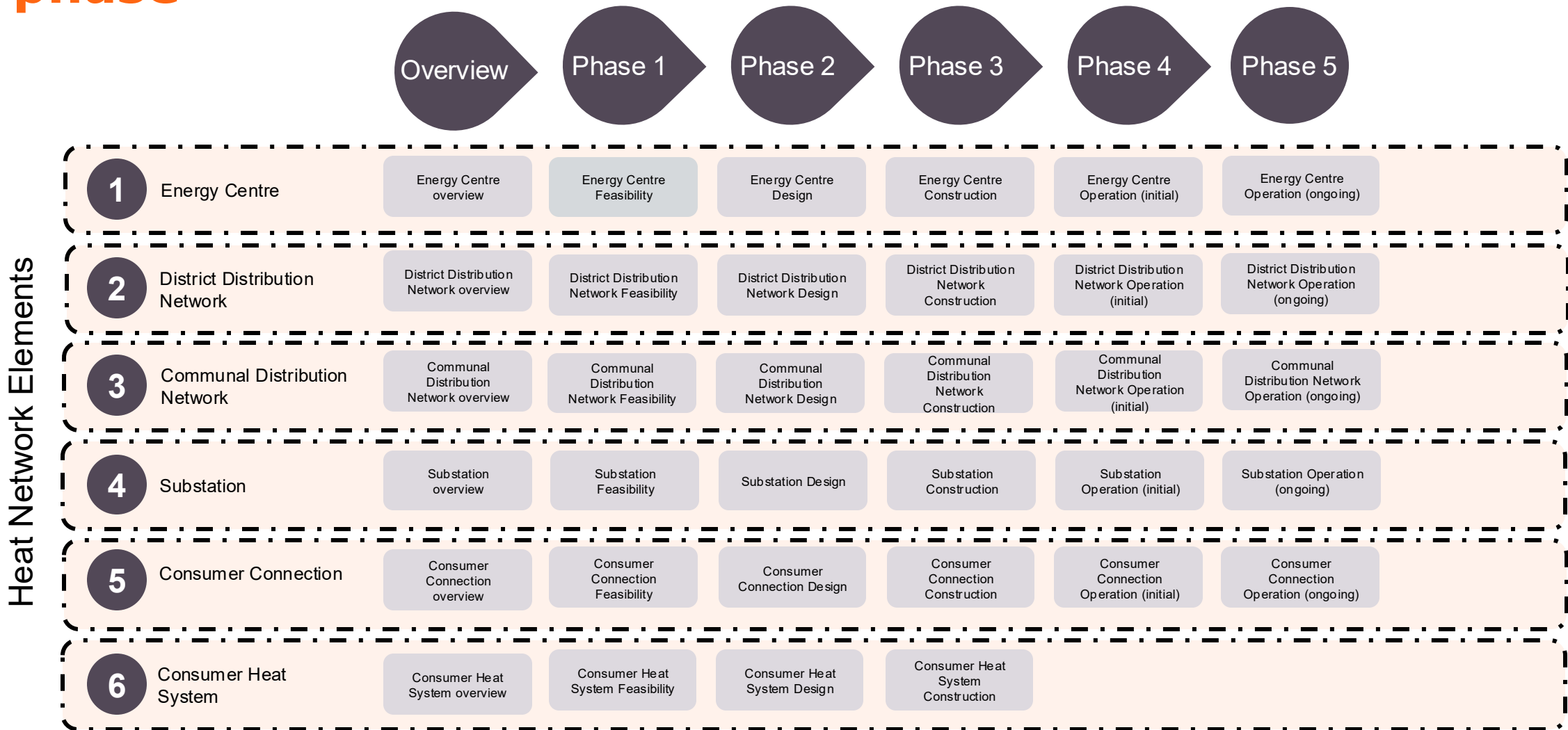
# Scheme vision, aim, objectives and core principles



# Six distinct elements within HNTAS assurance scheme

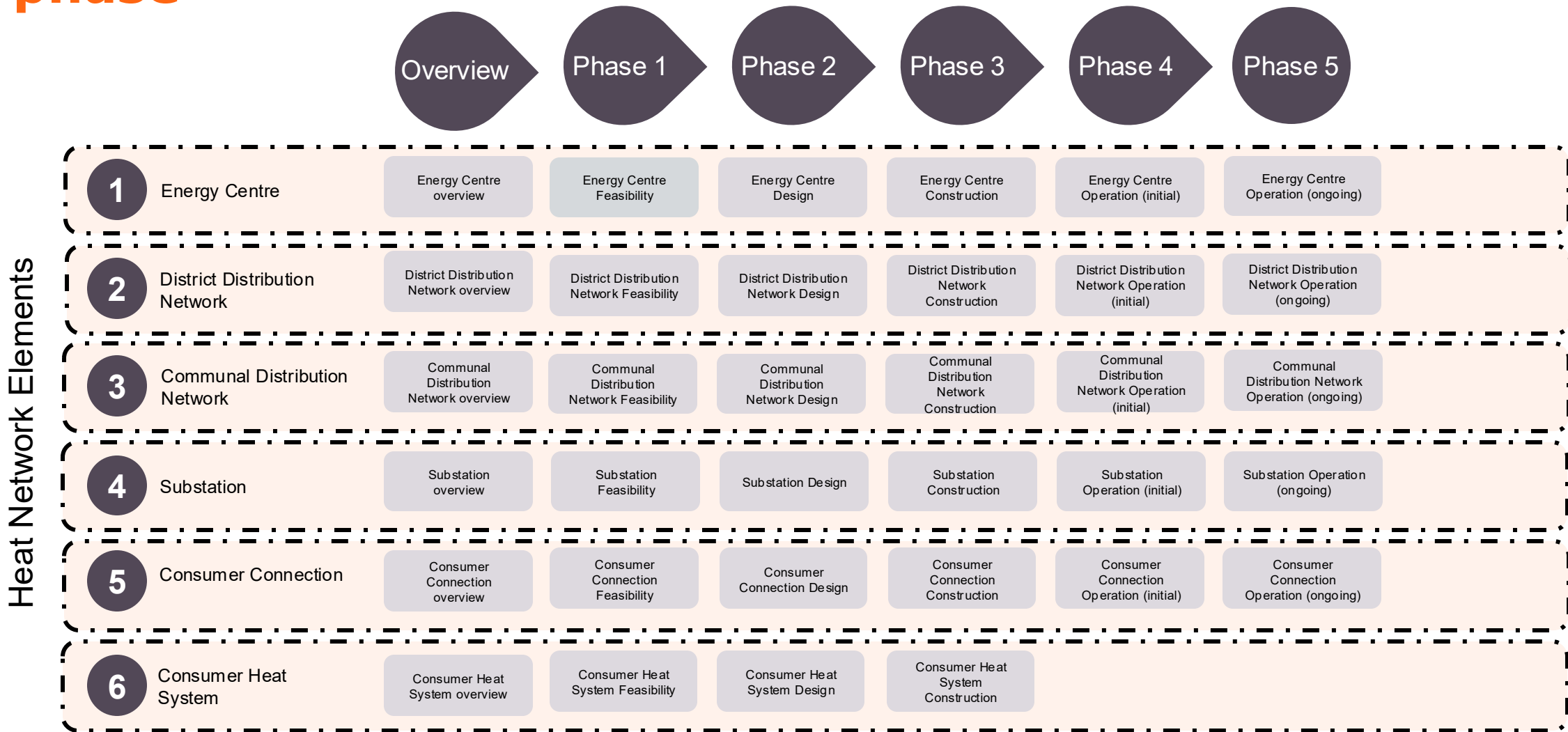
1	<b>Energy Centre</b>	A source of thermal energy
2	<b>District Distribution Network</b>	Distribution pipework that enables the transfer of thermal energy from the energy source to end consumers
3	<b>Communal Distribution Network</b>	
4	<b>Substation</b>	Connection between distribution networks
5	<b>Consumer Connection</b>	Connection to the end consumer
6	<b>Consumer Heat System</b>	Heating, cooling and hot water systems within the consumer boundary

# Technical Specifications for each element at each phase



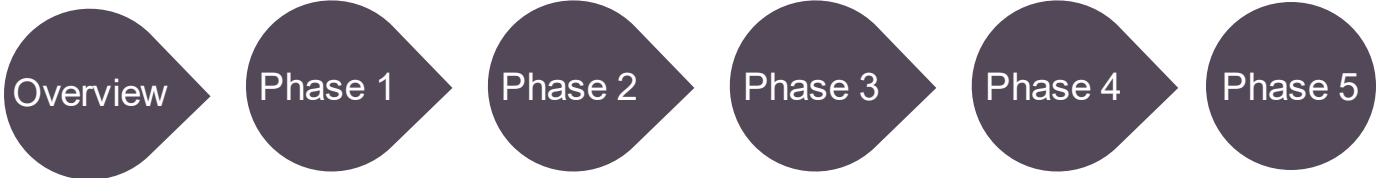
34 individual Technical Specifications

# Assessment Procedures for each element at each phase

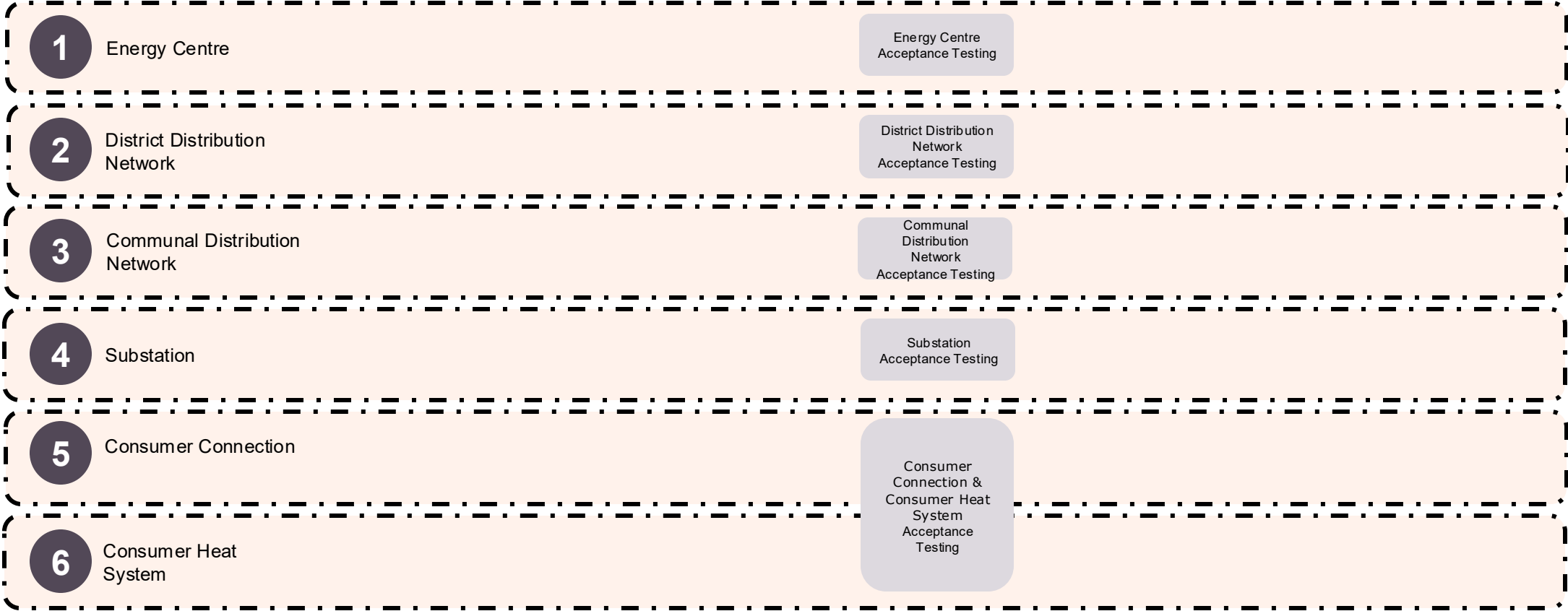


34 individual Assessment Procedures

# Acceptance Testing Specifications for use at the end of Phase 3



Heat Network Elements



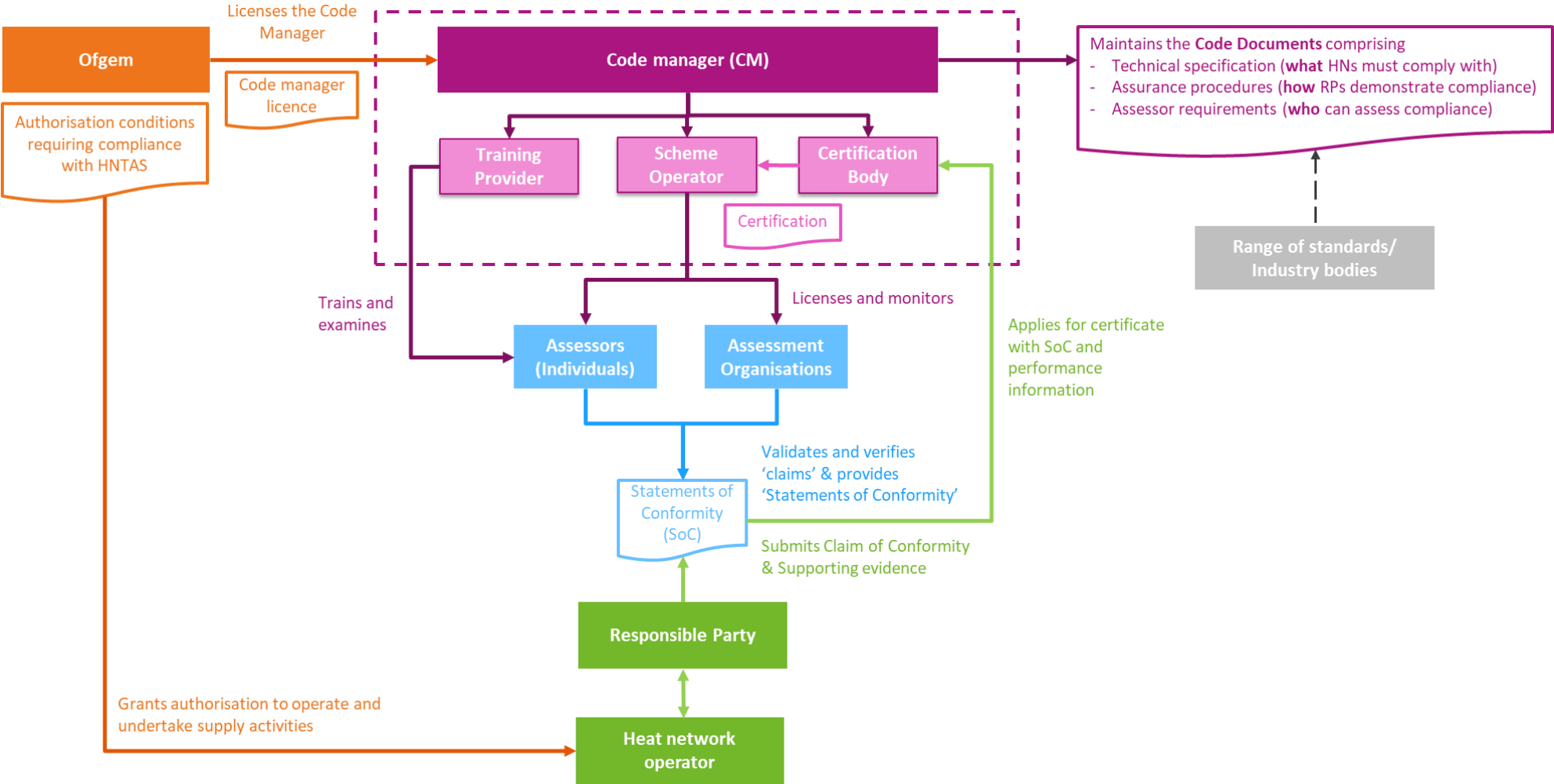
5 individual Acceptance Testing Specifications




# Duty holders

- The scheme is licensed by Ofgem and run by the Code Manager.
- Assessors are licensed to assess conformity of Heat Networks to HNTAS.
- Designated Parties ensure the design, construction and operation of the element meets the HNTAS Technical Specification and provide evidence to the Responsible Party to submit claims.
- Responsible Parties submit claims to Assessors.
- Responsible Parties receive Statements of Conformity (SoC's) if their Claim and Supporting Evidence conforms to HNTAS requirements.
- Responsible Parties apply for Certification once all stages/milestones have been completed.

# Scheme framework



# Assurance Roles & Duty Holders

 Assessment Point & Statement of Conformity (SoC) for each element

Certification Organisations (CO's)

Certificate 1

Certificate 2



Assessor Organisations & Individuals (AO's & AI's)

Ongoing

Gateways

1

2

3

4

PHASE 1:  
FEASIBILITY

PHASE 2:  
DESIGN

PHASE 3:  
CONSTRUCTION

PHASE 4:  
OPERATION (Initial 2  
years)

PHASE 5:  
OPERATION  
(Ongoing)

Stage 1  
Concept  
Design

Stage 2  
Developed  
Design

Stage 3  
Technical  
Design

Stage 4  
Construction  
Design

Stage 5  
Installation

Stage 6  
Commissioning

Stage 7  
Operation &  
Maintenance

Stage 8  
Ongoing  
Monitoring

Designated  
Designer

Designated  
Contractor

Designated  
Operator

HNTAS Coordinator

Responsible Party (RP)



FAIRHEAT



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## HNTAS Training Structure



# Training structure

Modules	Who is the module aimed at?	Format
Introduction to HNTAS	Everyone	Online
Responsible Person role and duties	Responsible Persons	Online
HNTAS Coordinator role and duties*	HNTAS Coordinators	Online
Assessor role and duties	Assessors	Online
Element and KPI overview	Everyone	Online
HNTAS Design	Assessors and Designated Parties	Online & Workshop
HNTAS Construction		
HNTAS Operation		
Consumer System Acceptance Testing		
Energy Centre, District & Communal Distribution and Substation Acceptance Testing		
Existing Systems*	Assessors and Responsible Persons*	Online & Workshop

# Introduction to HNTAS

**Training module providing a foundational overview of HNTAS, serving as a key introduction to support subsequent modules.**

- Key topics covered:
  - Why do we need HNTAS?
  - Framework and concepts
  - Heat Network Elements
  - Pathways
  - Duty holders, documentation and assessments
  - Worked examples

# Responsible Party and Assessor Role and Duties

## **Training modules to introduce the Responsible Party and Assessors to their role and duties under HNTAS.**

- The Responsible Party and Assessor training will cover the following key topics from their role's perspective:
  - Overview of role
  - Assessment principles
  - Normative documents and structure
  - Assessment process
  - Non-conformities, dispensations and technical change management
- The Assessor Role and Duties training will cover additional key topics such as levels of assessment and Assessment Activity worked examples.

# Element and KPI overview agenda

**Training module providing a comprehensive overview of HNTAS elements, including their associated performance monitoring points and key performance indicators (KPIs).**

- Assessors and Designated Parties must complete this training module before progressing to HNTAS design, construction, operation and acceptance testing modules.
- This module is made up of 6 submodules for each HNTAS element, which will cover:
  - Element introduction
  - What is in scope?
  - Typologies
  - Performance Monitoring Points
  - Key Performance Indicators (KPIs)



# HNTAS Design, Construction and Operation

**Training modules to introduce HNTAS Technical Requirements, Performance Monitoring Requirements and Key Failures for each HNTAS Element at each HNTAS Stage and how they are assessed.**

- These modules are broken down by each HNTAS element at each HNTAS stage into submodules. These submodules cover:
  - Key themes
  - Key Failures
  - Performance Monitoring Points
  - Key Performance Indicators (KPIs)
  - HNTAS Requirements, Assessment Activities and Levels of Assessment

# HNTAS Design, Construction and Operation

HNTAS Design		HNTAS Construction			HNTAS Operation
Stage 1 Energy centre	Stage 2-3 Energy centre	Stage 4 Energy centre	Stage 5 Energy centre	Stage 6 Energy centre	Stage 7 Energy centre
Stage 1 District distribution	Stage 2-3 District distribution	Stage 4 District distribution	Stage 5 District distribution	Stage 6 District distribution	Stage 7 District distribution
Stage 1 Communal distribution	Stage 2-3 Communal distribution	Stage 4 Communal distribution	Stage 5 Communal distribution	Stage 6 Communal distribution	Stage 7 Communal distribution
Stage 1 Substation	Stage 2-3 Substation	Stage 4 Substation	Stage 5 Substation	Stage 6 Substation	Stage 7 Substation
Stage 1 Consumer connection	Stage 2-3 Consumer connection	Stage 4 Consumer connection	Stage 5 Consumer connection	Stage 6 Consumer connection	Stage 7 Consumer connection
Stage 1 Consumer systems	Stage 2-3 Consumer systems	Stage 4 Consumer systems	Stage 5 Consumer systems	Stage 6 Consumer systems	

# Acceptance Testing

## Training modules to introduce Acceptance Testing for each HNTAS Element.

These modules will cover:

- Overview and aims
- Acceptance Testing process
- Role of Assessors
- Prerequisites
- Requirements for Acceptance Test
- Methodology for demonstrating requirements
- Nonconformity approach
- Reporting



# Thank you

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Any Questions?

