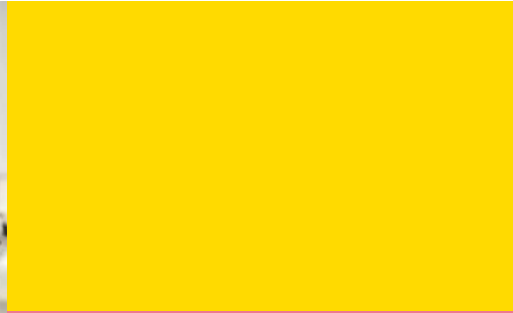


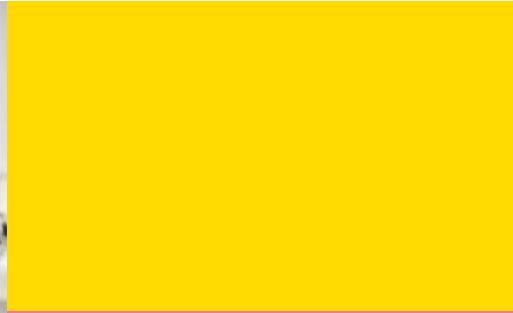
South West Net Zero Hub

5i Heat Network Project - Interdisciplinary



Introduction to the 5i Heat Network Project

Sam Moore
Project Manager
SW Net Zero Hub



Housekeeping

1. Today's 2 hour session will be recorded for sharing
2. There will be three dedicated sessions for questions
3. Q&A is allowed during speaker presentations in the chat function
4. Any unanswered questions please raise your virtual hand in the Q&A session at the end of all of the presentations and I will come to you in turn
5. All presentations will be shared with all attendees as a pack
6. Follow up support is available from the Net Zero hubs

Agenda

1500: Welcome, Introductions, Setting the Scene

- Faith Pashley, Senior Policy Manager, Ofgem
- Mike Tisdell, Heat Policy Officer, The Association for Decentralised Energy
- Q&A and Networking session

1550: Breakout rooms

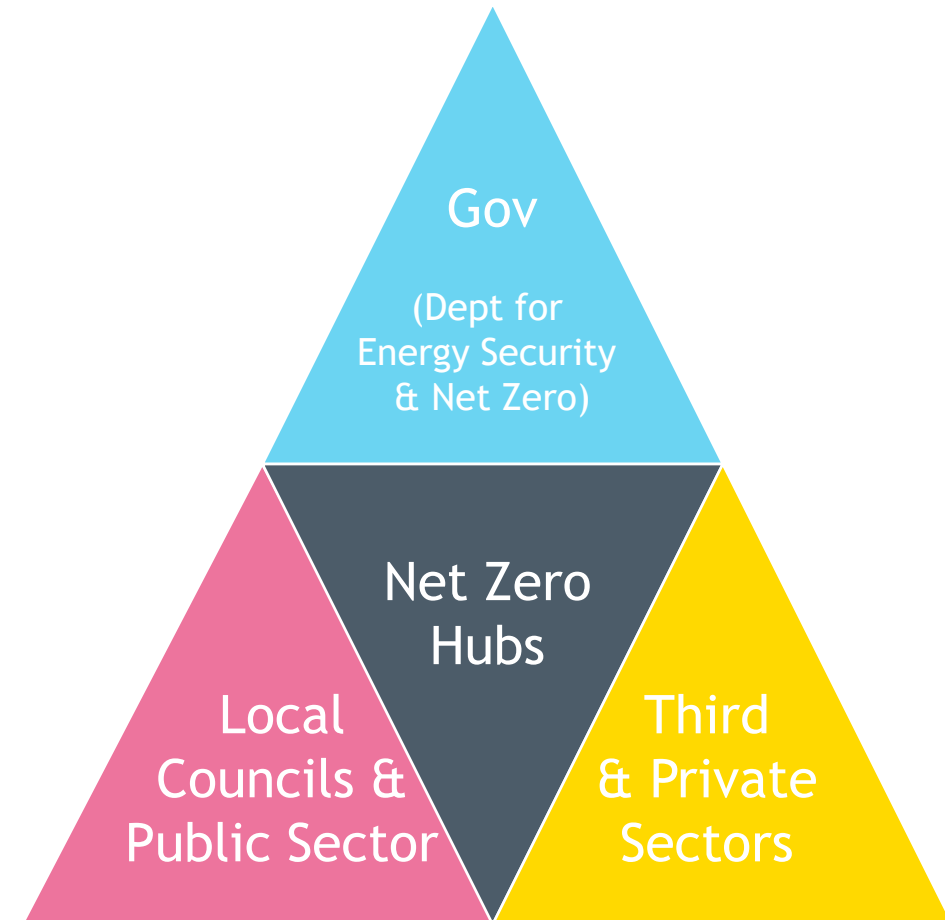
1600: Restart

- Stephen Knight, Director of Heat Trust
- Anne Pardoe, Principal Policy Manager Citizens Advice
- Q&A
- Wrap up discussion

1700: Finish

South West Net Zero Hub

The South West Net Zero Hub provides impartial advice, technical support and funding to public and not-for-profit organisations, to develop projects that accelerate emission reductions and enable the transition to a more sustainable future.



South West Net Zero Hub

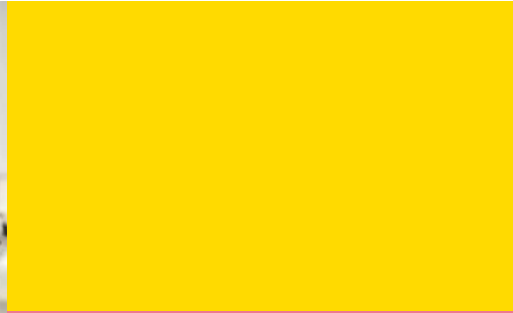


Government Net Zero Strategy established 5 regional hubs with core objectives:

1. **Attract commercial investment** and help LAs and other local public sector bodies to develop investment models which accelerate progress to net zero
2. Continue to **increase the number, quality, and scale of local Net Zero projects** being delivered across the region in line with national targets and strategies, including supporting the early-stage development and delivery of projects.
3. **Collaborate** with the Department of Energy Security & Net Zero to develop & support Net Zero elements to wider programmes & initiatives including Levelling Up
4. Support a national **knowledge transfer programme** to improve information sharing, training & evaluation
5. **Raise local awareness** of opportunities & benefits of local Net Zero investment

Ofgem Regional Energy Strategic Plans

Faith Pashley
Senior Policy Manager





Making a positive difference
for energy consumers



**SWNZH
Regional Energy Strategic Plans**

15 October 2024
Faith Pashley, Senior Policy Manager, Ofgem

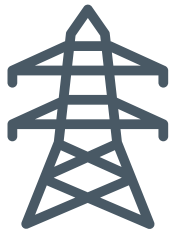
Current processes not fit-for-purpose to deliver efficient, coordinated, whole-system investment for net zero.



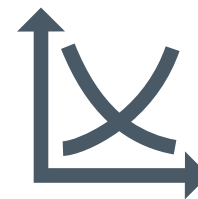
Lack of accountability and mandate for whole-system regional energy planning



Insufficient coordination between networks, local actors, and national frameworks



Single energy vector planning precludes cross-vector optimisation



Inconsistent assumptions & methodologies to assess need for anticipatory and strategic investment

Hub and spoke delivery model

Each region operates as a spoke connected to the central hub



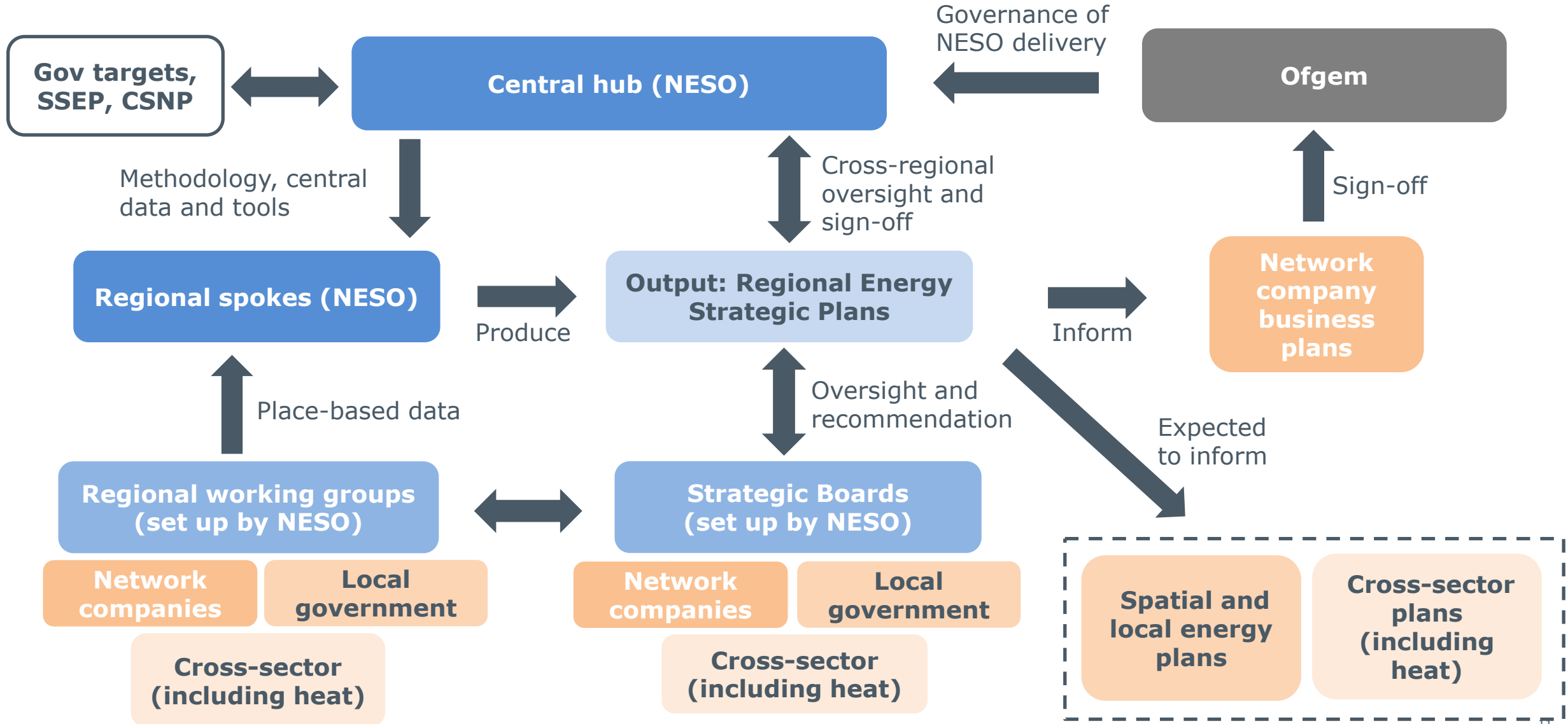
Central Hub

- Cross-regional oversight and optimisation, regional forum.
- RESP methodology (approved by Ofgem), standard assumptions, digital tools, and aggregate national level data.

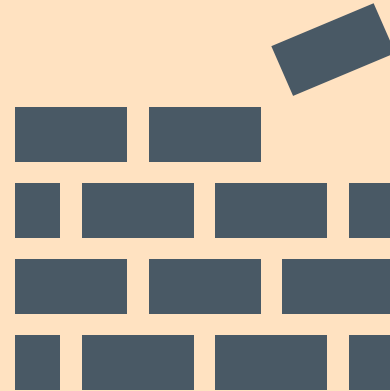
Regional Spokes

Bring together local and regional inputs to develop RESPs.

- **Strategic Boards** - oversight of RESP development and transparent deliberation of regional priorities.
- **Working Groups** - provide place-based data and insights, weigh-up technical feasibility and support cross-vector optimisation.

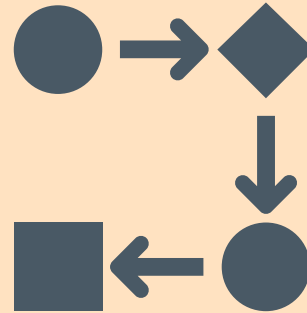


Principles, Vision & Building blocks



- ❖ Long-term vision and thematic priorities for the region
- ❖ Spatial pathways – assessment of energy demand and generation
- ❖ **Reflect** interdependencies which impact energy system planning, including **plans for heat networks**
- ❖ **Identify opportunities whole system solutions** – such as where **heat networks** could provide flexibility services to the network

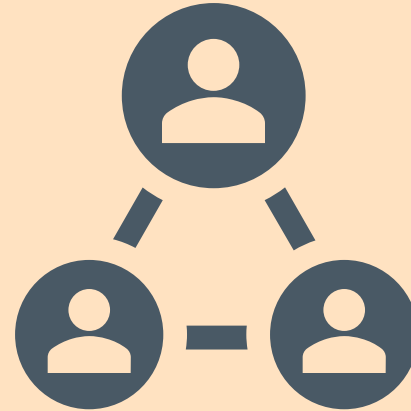
Inputs to the RESPs



Transparently bring together top-down and bottom-up inputs

- ❖ UK Government, Scottish and Welsh Government targets
- ❖ Strategic Spatial Energy Plan and Centralised Strategic Network Plan outputs
- ❖ Network, local government and cross-sector data including **heat network zone data**

Strategic Boards



- ❖ Forum to provide oversight, enable collaboration, and support whole system planning
- ❖ Democratic and distribution network company actors represented
- ❖ Considering how **cross-sector actors** are best represented



- ❖ Consultation closed on **8 October 2024**
- ❖ Responses will support shaping the policy framework
- ❖ Aim to publish a decision in early 2025
- ❖ Targeting mid/late 2025 for implementation of the role
- ❖ First RESPs produced by early 2026 to inform the setting of the next electricity distribution price control

ADE: Heat Networks Current context

Mike Tisdell

Heat Policy Officer

The Association for Decentralised Energy



Heat Networks: Current Context

Mike Tisdell - Heat Policy Officer

mike.tisdell@theade.co.uk

The Association for Decentralised Energy

15th October 2024

Decarbonising
British Heat



The Association for Decentralised Energy



We are the largest trade association in the UK representing the heat network sector and our membership includes almost all the major heat network companies who will be looking to become zone developers, as well as a range of other organisations in the heat network sector including local authorities, housing associations, supply chain, consultancies/service providers etc.

Policy and advocacy work is focused on 2 missions, one of which is

Decarbonising British Heat

A system where heat decarbonisation is driving local economic growth, and every town and city has a heat network making an offshore wind-sized billion-pound investment with the majority spent on local materials and jobs.

Central to this work currently is to try to bring heat decarbonisation into the front and centre of the political agenda.

Emerging Heat Network Framework



The ADE's policy work will particularly focus on the interaction of these streams

- **Heat Networks Consumer Regulation** (Including HNMBR - which may be subsumed into the wider regs)
- **Heat Networks Technical Assurance Scheme** (HNTAS) (which will have oversight of the design and maintenance of new, and later, existing heat networks)
- **Heat Network Zoning** (incl. details on how the scheme will deal with existing and new-build communal heating systems e.g. 'heat network ready')
- **Future Homes and Buildings Standards** (which may set high performance targets including on primary energy and carbon for both in-building and district heat networks)
- **Decarbonisation Funding Streams** (HNES, PSDS, SHDF, ECO etc. which may potentially support connections to heat networks, in-building upgrades, decarbonisation of plant etc.)
- **Rebalancing** and wider reform to the energy system (incl. any role for RESPs, NESO etc. for HNs).

Consumer Regulation



The ADE has been supportive of the introduction of regulation to the sector

Consumer regulation is an essential component of achieving rollout at scale and widening confidence in heat networks.

The **Heat Network Technical Assurance Scheme** is in large part a form of customer protection and should drive increased efficiency, reliability, and reduce issues like overheating.

Along with technical standards and the enforcement of existing (and likely strengthened) metering & billing standards, the transition to a fully regulated sector could imply significant costs for older systems, in particular.

A mechanism like the **Heat Network Efficiency Scheme** could be important in modernising schemes, particularly in the not-for-profit sector.

Consumer Regulation



For some suppliers, the new regulatory expectations will be a big change

Our key areas, where we expect members need significant lead-in time, as well as greater clarity on the anticipated expectations under the new regulatory regime are:

- A. Expectations for **debt management** and **switching meters from credit to pre-payment** (as well as repayment plans)
- B. **Self-disconnection** (incl. for pre-payment meters customers)
- C. **Guaranteed Standards of Service (GSOS)** payments amounts and automatic refunds (including where M&B is third party managed)
- D. **Heat supply agreements and standardisation of terms** (incl. expectations applied to customer review of T&Cs, sub-letting)
- E. **Quarterly reporting and monitoring data** - format and platform, as well as frequency.
- F. **Complaints Handling** (incl. the interaction with existing regulation (e.g. in the housing sector))
- G. **Vulnerability** - current definitions of vulnerability, PSRs.

Heat Network Zoning



The development of zoning policy is a key focus for members

Heat Network zoning is central to achieving a mature heat network sector, which can harness the unique benefits of district heating, including its flexibility benefits to the grid, and its ability to tap-into recoverable sources of heat.

In general, we see zoning as a **necessary but not sufficient** policy for heat networks and one which should provide additionality rather than exclusivity (i.e. it should not raise barriers to HNs outside zones).

Biggest focus for policy work on Heat networks is **cost of heat**. Zoning needs low carbon heat networks to be competitive (with the relevant counterfactual) to work. In most cases this remains self-supplied gas heating.

The details of zoning are a subject we are very engaged with, with aspects on the treatment of existing schemes, rules on pricing, connections etc. all in development.

Zone Coordinator Role (some aspects)



Pre-designation

- Preparation for zone designation.
- Building local **political** support.
- **Consultation** with relevant stakeholders on provisional zone (e.g. business, potential customers, heat sources).
- Alignment with **local planning**.

Competitive Process

- Issue local **zone market prospectus** with heat sources and relevant potential connections & some techno-economic modelling (?)
- Decide the procurement model (e.g. Proactive consent or LA JV).
- Overseeing **the competitive process** to procure zone developers (potentially with requirements on pricing, technical parameters, timings for connections (after which ZD may lose exclusivity/mandation rights) etc.).
- Signs off zone developer's **delivery plan**.

Delivery (Design & Construction) Phase

- Oversees detailed design & development incl. **engagement with buildings connecting**, as well as consent of construction phases.
- Enforcement: Deals with **appeals** re: requirement to connect, penalties etc.
- Supports process of **waste heat** contracts (using a nationally agreed methodology with standardised commercial terms & fair pricing rules)

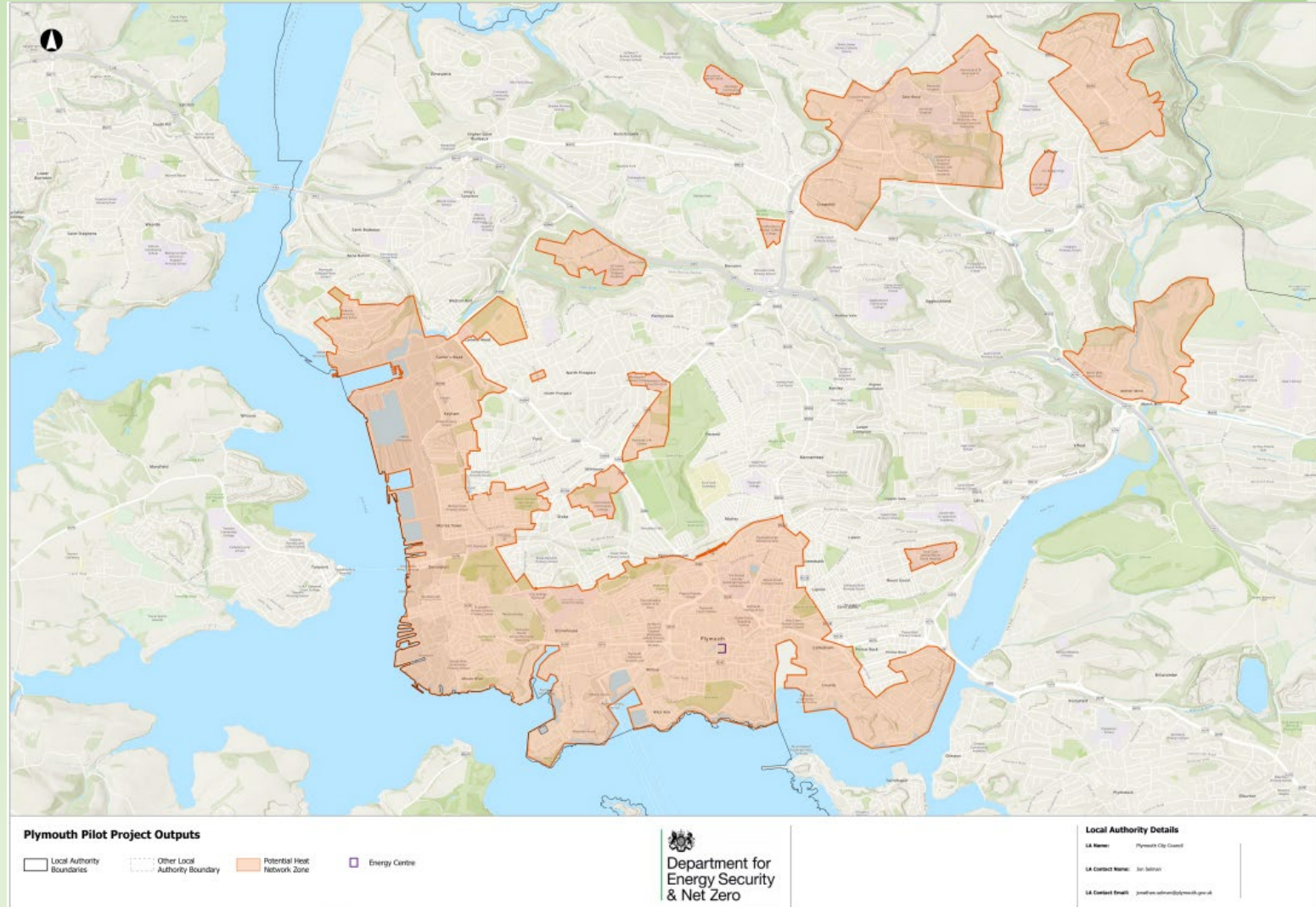
Heat Network Zoning

The essence of zoning should be larger, and more complex networks.

This will include a variety of ownership models and public bodies potentially playing the roles of developer, coordinator, (wholesale) customer, heat supplier etc.

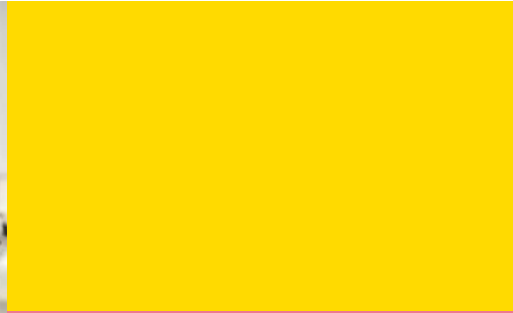
To unlock zoning district heating needs to be not only the lowest-cost low-carbon option, but cost-competitive with relevant alternatives so that commercially driven adoption is widespread.

In this respect, many issues are still unresolved, including how various regimes will enable cost reduction (i.e. through policy), the long-term future of existing fossil fuel heating, where heat decarbonisation may sit within developing policy initiatives and bodies etc.



Q&A:

Faith Pashley
Mike Tisdell



Breakout Room

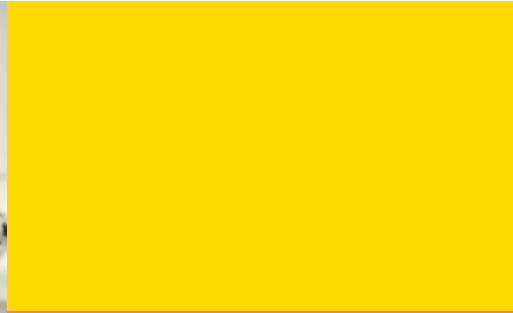
A large, horizontal, yellow brushstroke graphic with a textured, hand-painted appearance. The text "WHAT ABOUT YOU?" is written in a bold, black, sans-serif font across the center of the brushstroke.

**WHAT ABOUT
YOU?**

We are in the break - starts again soon

Host: Sam Moore, SWNZH

5i Heat Network Project
Interdisciplinary



Heat Trust:

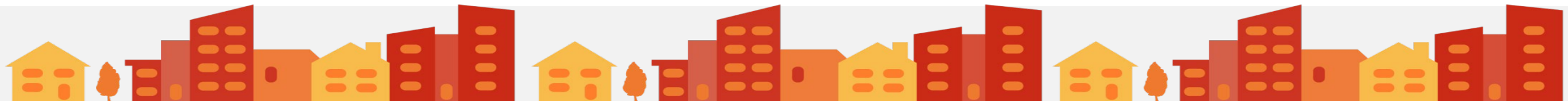
Stephen Knight
Director of Heat Trust



Heat Networks and consumer protection

Stephen Knight

Director, Heat Trust



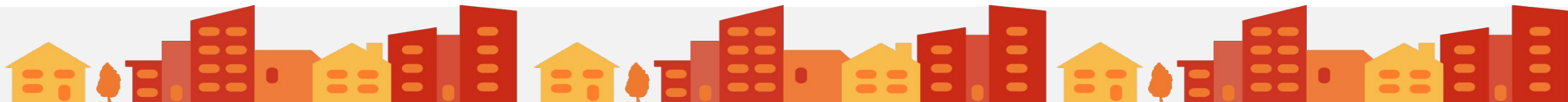
History of District Heating around the World

Maybe seen as a new technology in UK, but...

- Medieval system existed in **Chaudes-Aigues, France in 1334**, by distributing hot water from a geothermal source to buildings in the village, and has been operating ever since!
- First commercially district heating in US cities of **Lockport** and **New York** in the **1870s** and **1880s**.
- First European commercial systems in **Germany** in the **1920s**.
- The planned economies of **Soviet Union** and **China** introduced district heating in the **1930s** and **1950s**, respectively.
- Today, major district heating systems in: **Moscow, St. Petersburg, Beijing, New York, Kyiv, Seoul, Warsaw, Berlin, Hamburg, Helsinki, Stockholm, Copenhagen, Paris, Prague, Sofia, Bucharest, Vienna, and Milan**.
- Estimated **80,000** district systems **worldwide** (**6,000 in Europe**).

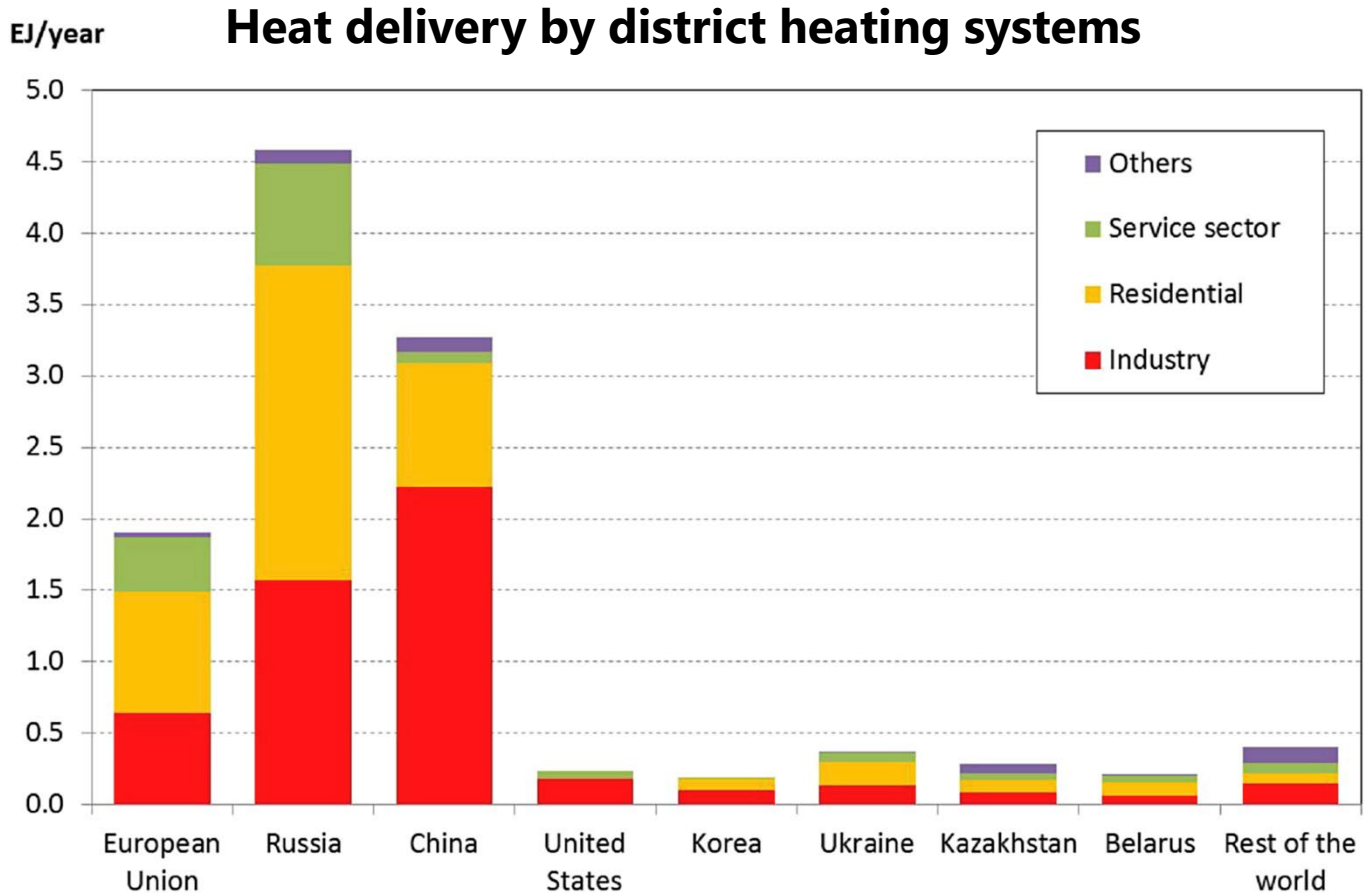


International review of district heating and cooling, Sven Werner, Halmstad University, 2017



Heat Networks around the world

A long established technology Worldwide

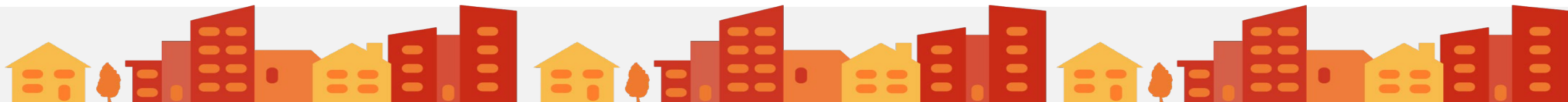


Heat deliveries in various regions and countries during 2014 with respect to user categories according to IEA.

Today, district heating accounts for around 50% or more of heating in:

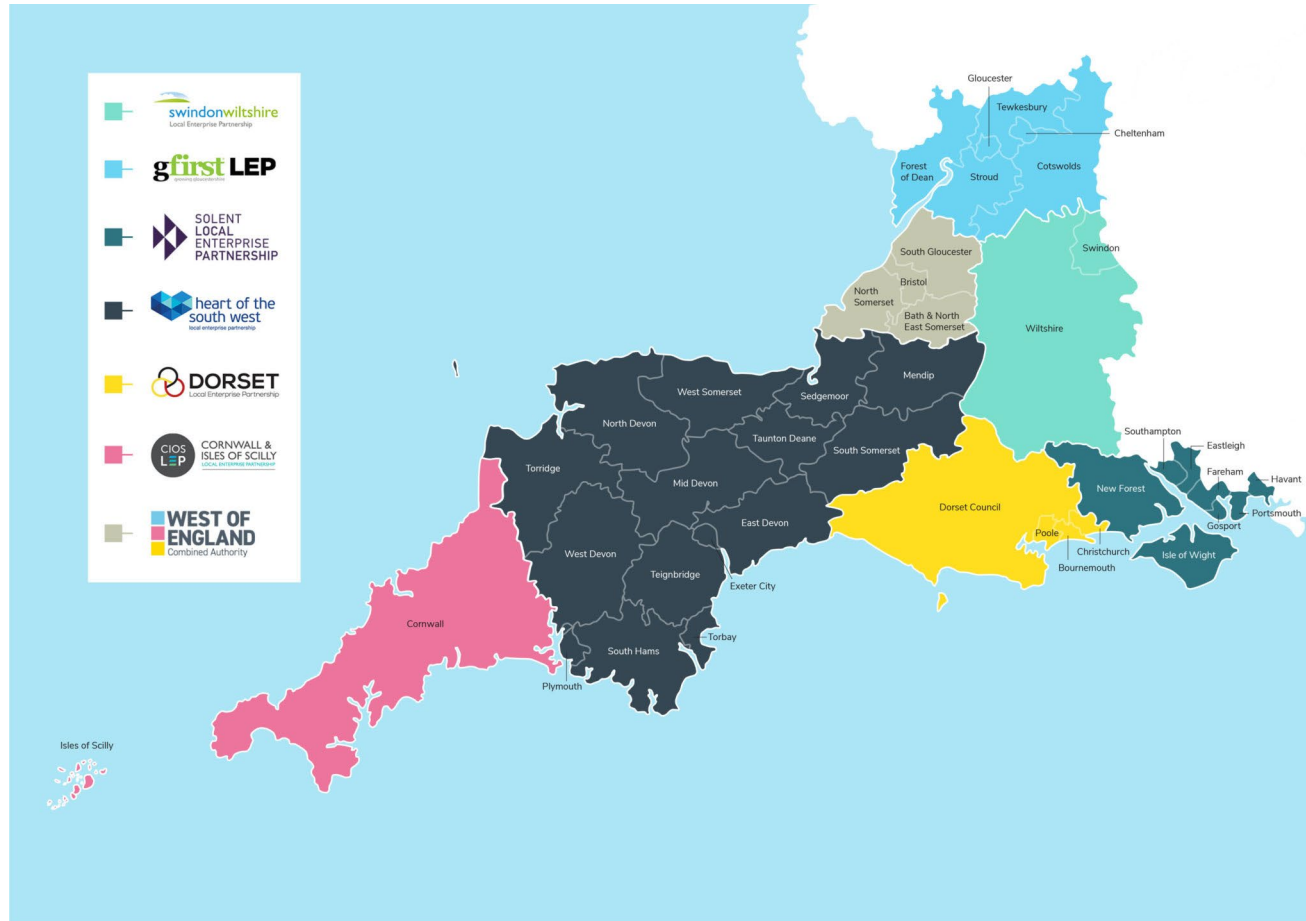
- Iceland
- Denmark
- Sweden
- Finland
- Estonia
- Latvia
- Lithuania
- Poland
- Russia and northern China.

International review of district heating and cooling, Sven Werner, Halmstad University, 2017

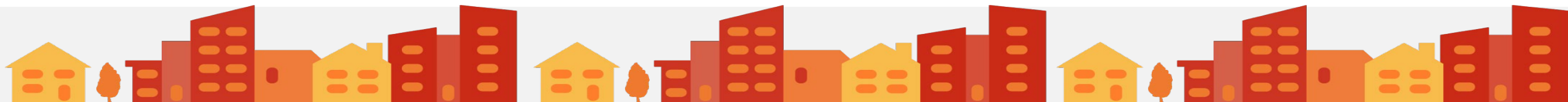


What about the South West?

According to official Heat Network Metering & Billing notifications in 2019 ...



Local Authority	Number of Communal Heating	Number of District Heating	Total number of heat networks
TOTAL South West Region	643	122	765
Bath and North East Somerset	17	7	24
Bristol, City of	91	27	118
North Somerset	22	2	24
South Gloucestershire	22	3	25
Plymouth	17	3	20
Torbay	22	4	26
Swindon	62	4	66
Cornwall	39	2	41
Wiltshire	72	36	108
Bournemouth, Christchurch and Poole	46	8	54
Dorset	58	3	61
East Devon	5	3	8
Exeter	24	2	26
Mid Devon	2	0	2
North Devon	7	3	10
South Hams	12	1	13
Teignbridge	7	1	8
Torridge	2	2	4
West Devon	3	0	3
Cheltenham	27	2	29
Cotswold	1	2	3
Forest of Dean	3	1	4
Gloucester	19	0	19
Stroud	3	0	3
Tewkesbury	6	2	8
Mendip	14	0	14
Sedgemoor	13	0	13
South Somerset	10	1	11
Somerset West and Taunton	17	3	20

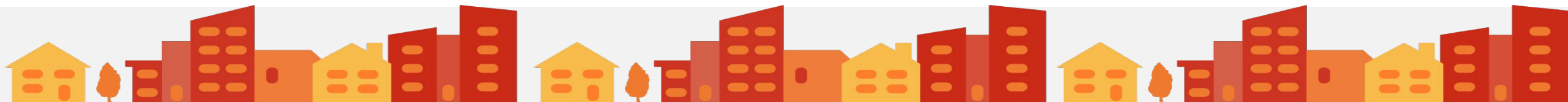


How many homes in SW are currently on heat networks?

According to official Heat Network Metering & Billing notifications in 2019 ...

Widespread non-reporting means **real figures are almost certainly significantly higher** (perhaps twice as high)

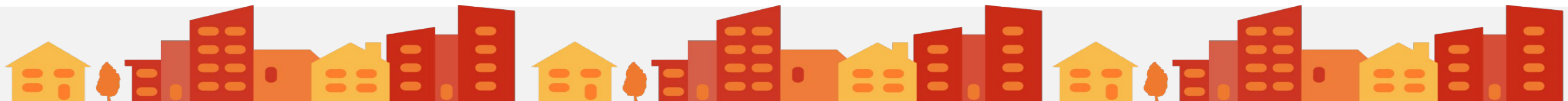
Local Authority	Residential	Commercial	Industrial	Public	Other	Total
TOTAL South West Region	24,248	1,384	15	54	25	25,726
Bath and North East Somerset	2,099	21	0	0	0	2,120
Bristol, City of	3,413	376	0	2	5	3,796
North Somerset	611	143	0	1	0	755
South Gloucestershire	754	48	0	0	1	803
Plymouth	946	2	0	0	1	949
Torbay	618	16	3	1	0	638
Swindon	2,149	223	5	3	0	2,380
Cornwall	887	154	0	13	0	1,054
Wiltshire	2,085	32	0	7	11	2,135
Bournemouth, Christchurch and Poole	2,038	110	0	0	0	2,148
Dorset	1,539	4	0	0	0	1,543
East Devon	2,252	12	0	1	2	2,267
Exeter	2,127	18	0	20	0	2,165
Mid Devon	11	0	0	0	0	11
North Devon	139	1	0	3	0	143
South Hams	234	0	0	1	0	235
Teignbridge	179	0	0	1	0	180
Torrige	123	12	0	0	1	136
West Devon	104	0	0	0	0	104
Cheltenham	466	77	0	0	0	543
Cotswold	104	4	0	0	0	108
Forest of Dean	78	0	0	0	0	78
Gloucester	294	84	7	0	0	385
Stroud	19	0	0	0	4	23
Tewkesbury	52	37	0	0	0	89
Mendip	228	0	0	0	0	228
Sedgemoor	136	4	0	0	0	140
South Somerset	135	0	0	0	0	135
Somerset West and Taunton	428	6	0	1	0	435



Heat Network consumers

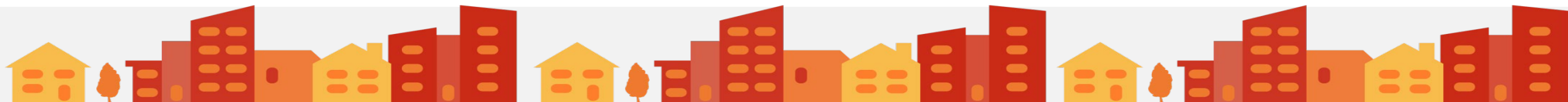
Lack of regulation

- **Monopoly energy providers**, consumers cannot switch
- Unregulated – unlike gas and electricity suppliers
- No powers to
 - cap prices or
 - step in if provider goes bust or
 - to mandate minimum service standards
 - Protect vulnerable customers
- No mandatory access to Energy Ombudsman
- No mandatory technical standards



Existing regulations

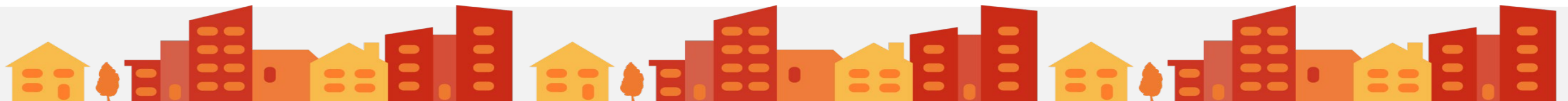
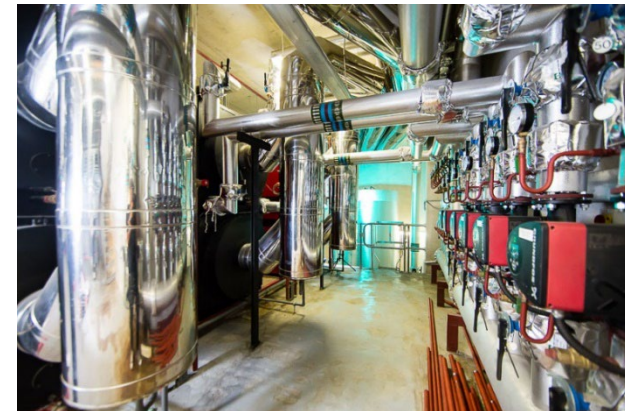
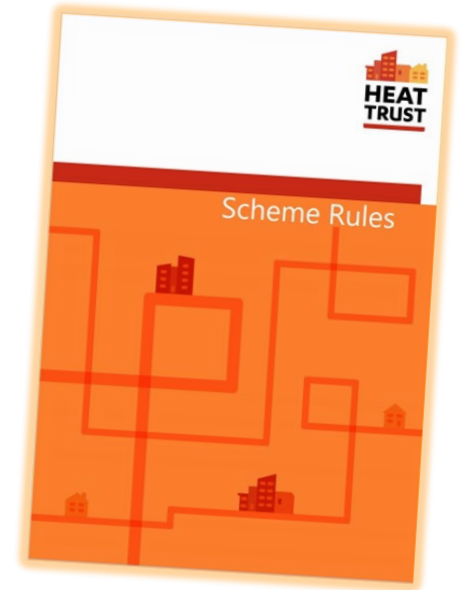
- **Heat Network (Metering & Billing) Regs 2014**
(implementing EU Directive)
 - Amended 2020
- **Landlord and Tenant Act 1985**
 - Landlord responsible for heating repairs (Section 11) – amended 1988 to include communal repairs
 - Service charges
- **Consumer Rights Act 2015**
- **Consumer Protection from Unfair Trading Regulations 2008**



Industry initiatives

In the absence of statutory framework

- CIBSE/ADE **CP1** in 2014 (updated 2020)
 - Technical standards to raise performance of new heat networks
- **Heat Trust** created in 2015
 - Consumer protection scheme (based on Ofgem rules for gas and electricity)

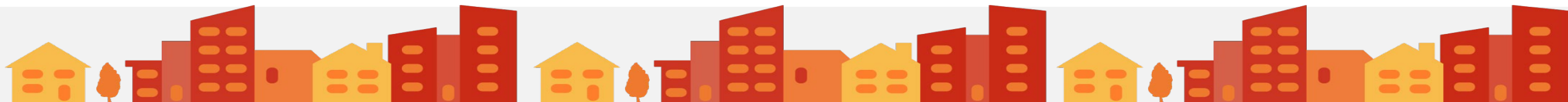


Heat Trust

Independent consumer protection scheme & consumer champion

Heat Trust is the national independent consumer protection scheme for heat networks

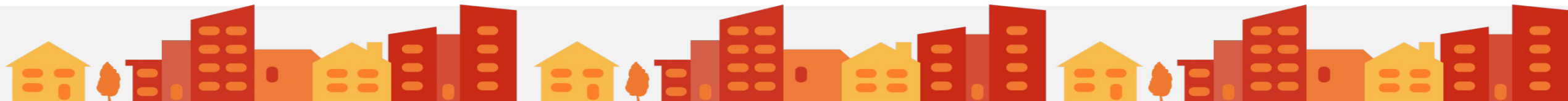
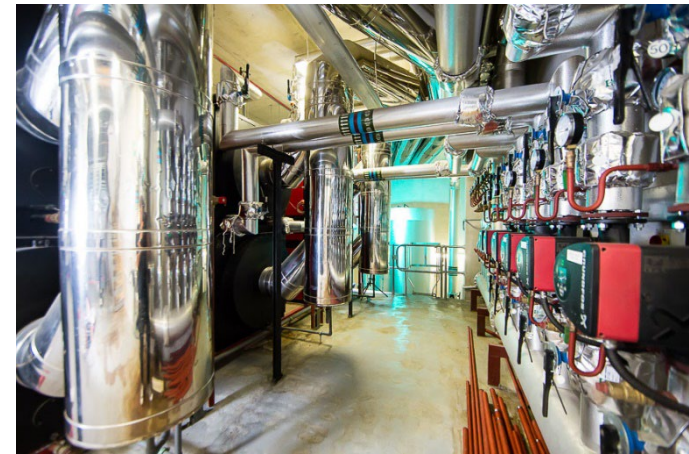
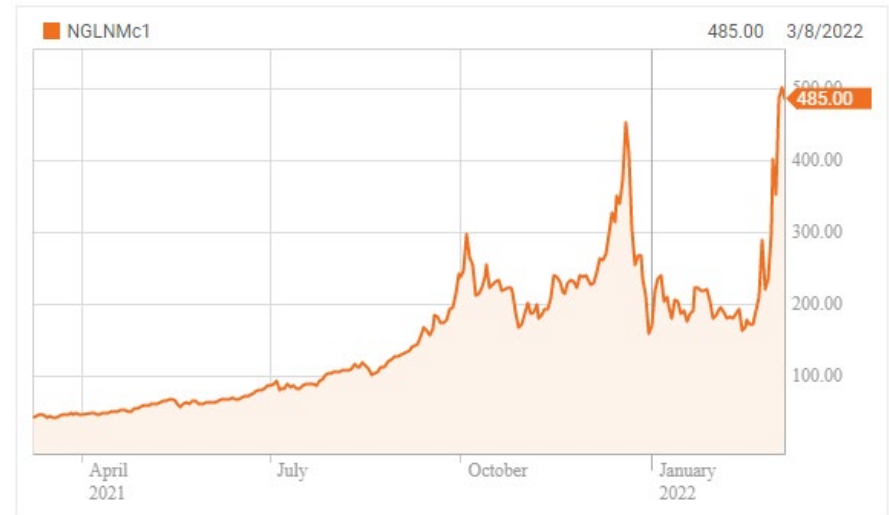
- Established by industry and government in 2015
- Scheme Rules based on gas & electricity license conditions:
 - **Guaranteed Service Standards** – and **compensation** when these aren't met (based on similar standards set by Ofgem for gas and electricity customers)
 - Protection for **vulnerable customers**
 - Access to the **Energy Ombudsman** for independent dispute resolution
- **Consumer champion** role in the heat network sector
- Doesn't cover: **Price, technical standards** (efficiency)



Consumer detriment issues

Lack of regulation AND monopoly energy supplier

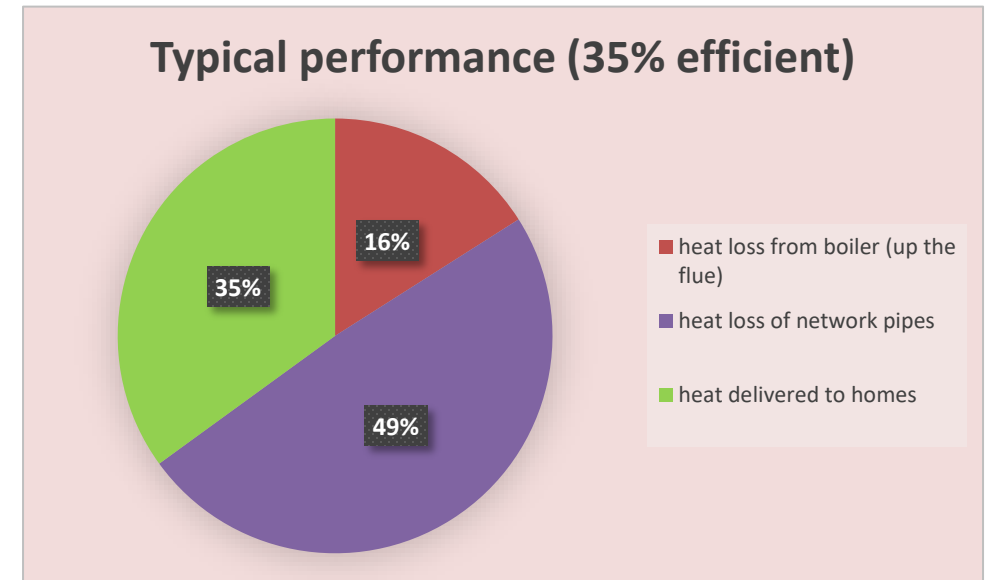
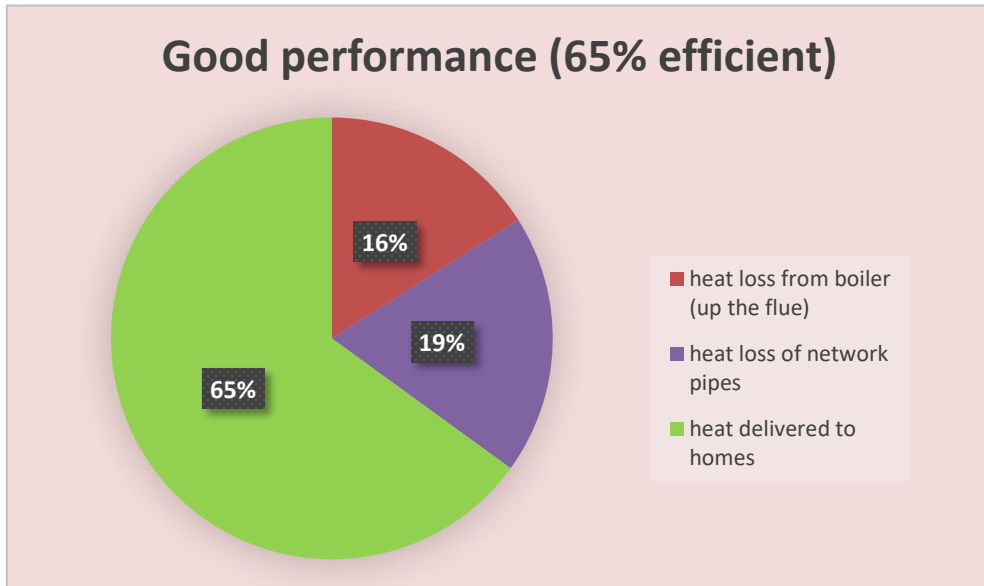
- **Price of heat** (no price cap) and subject to:
 - Unregulated commercial gas prices
 - High inefficiencies due to lack of technical standards – expensive & overheating corridors
- **Reliability**
 - Supply interruptions far too common
 - Lack of mandatory technical standards
- **Transparency & Billing**
 - Retrospective price rises
 - Customers unaware of HN until bill arrives



Consumer experience of heat networks

Why efficiency matters

Efficiency, heat losses & price



Cost of heat (assuming gas cost of 7.83p/kWh):

12 p/kWh

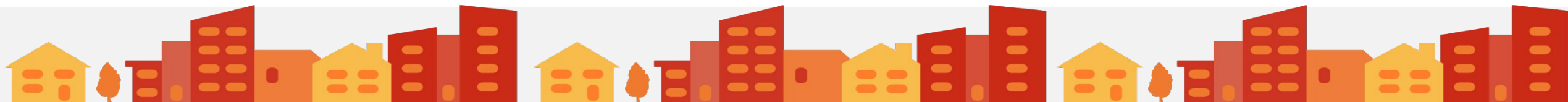
(29% more gas/CO₂ than a domestic boiler)

Current domestic gas boiler
heat cost: **~7.5 p/kWh**

Cost of heat (assuming gas cost of 7.83p/kWh):

22 p/kWh

(140% more gas/CO₂ than a domestic boiler)

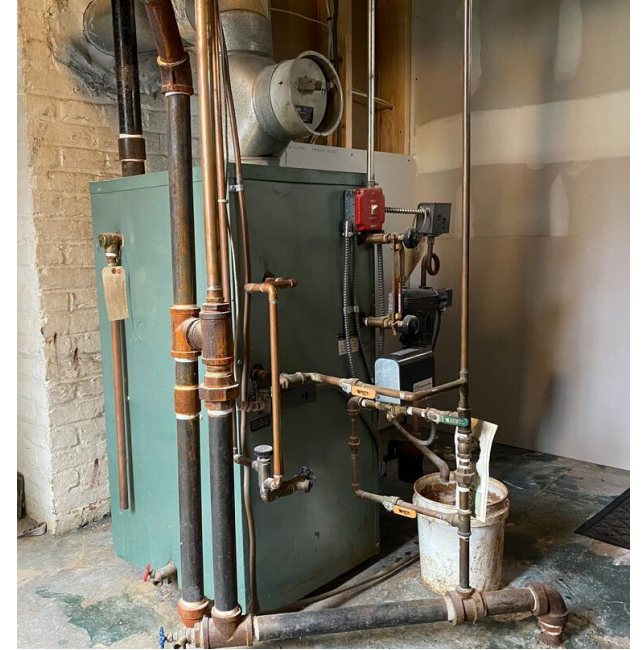
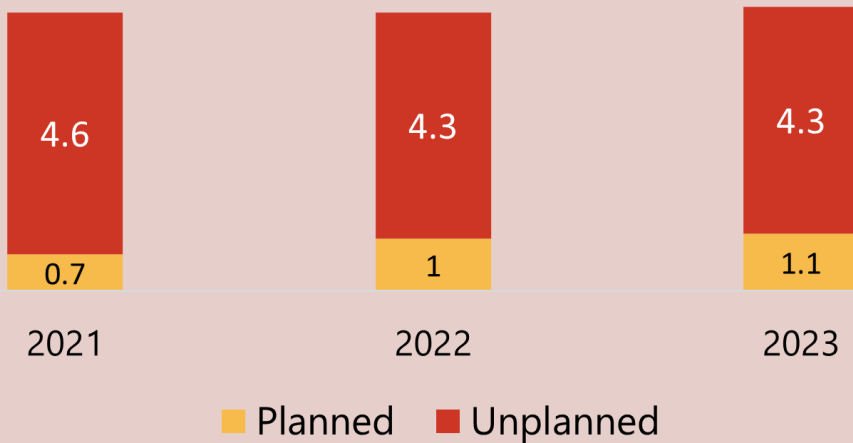


Reliability

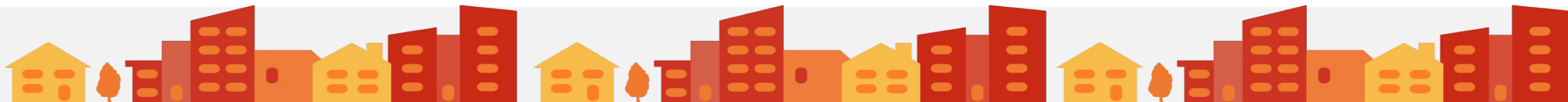
Too many unplanned supply interruptions

Average customer experiences ~5 supply interruptions per annum
(Average duration 5-6 hrs each)

Average number of heat supply interruptions experienced

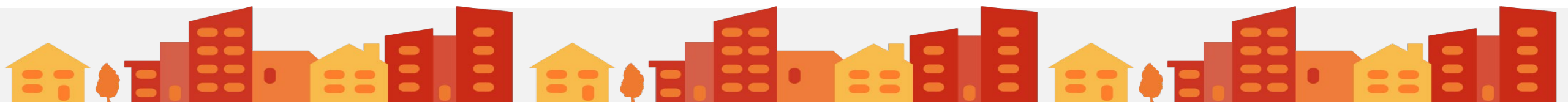
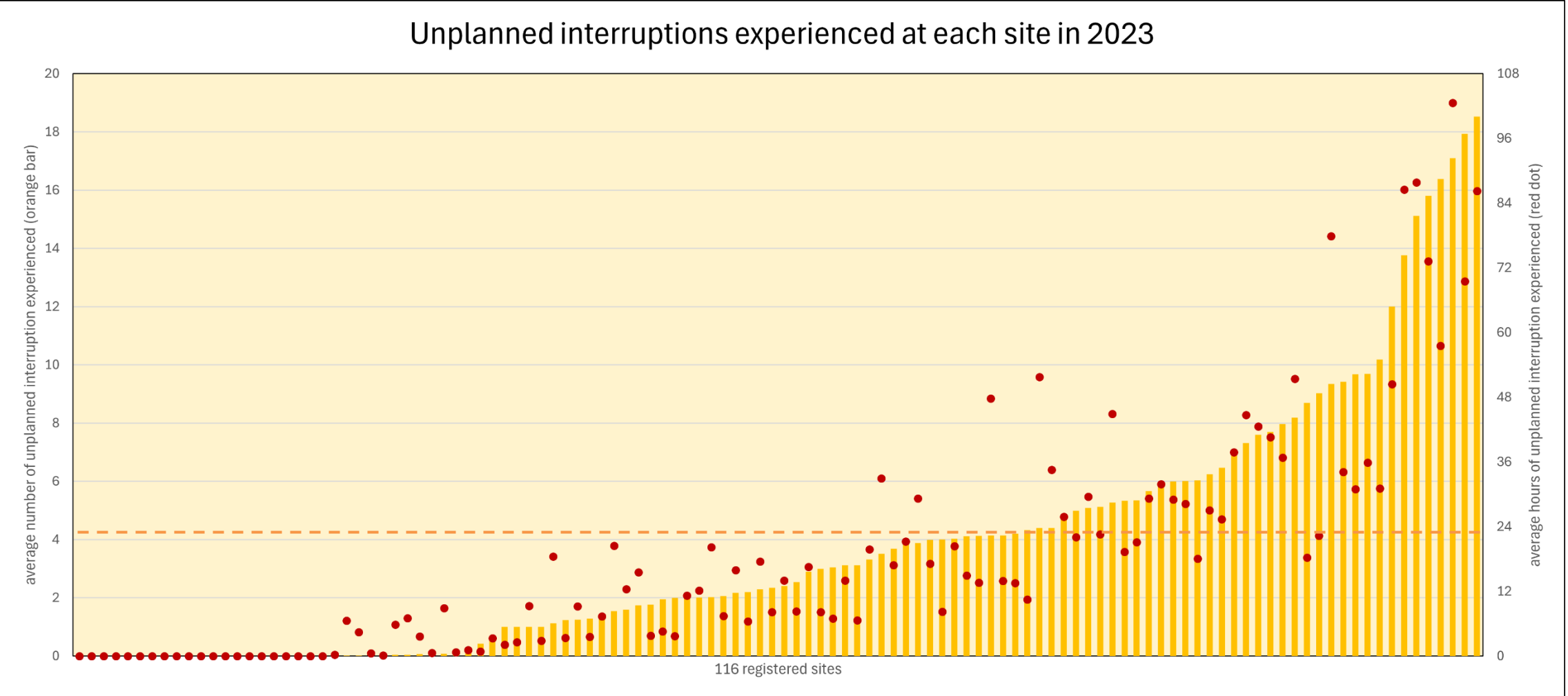


Heat Trust registered sites are likely to be amongst the most reliable, so the average across the sector could be much worse!



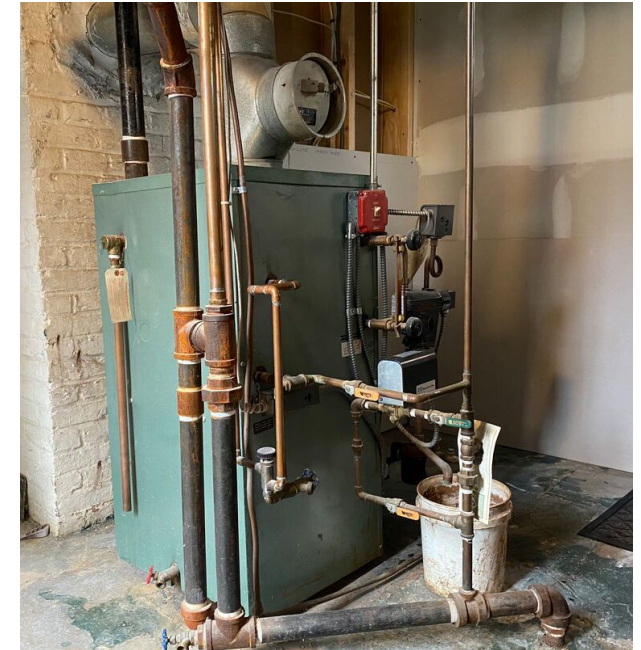
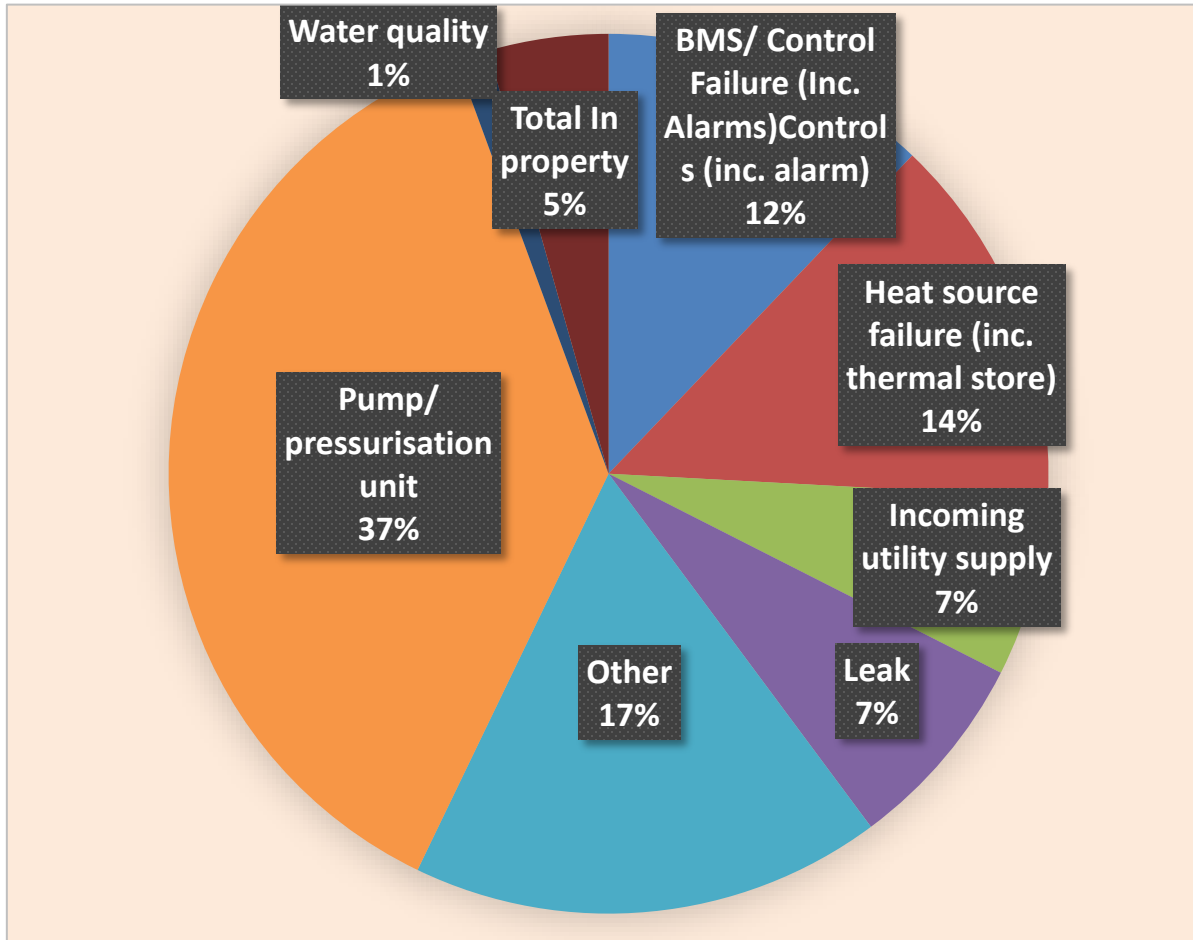
Reliability

Some good performance – but too many poor performers

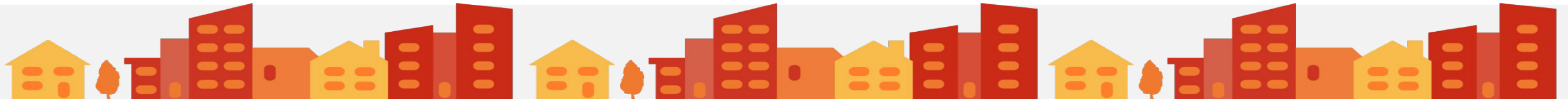


Reliability

Causes of unplanned interruptions

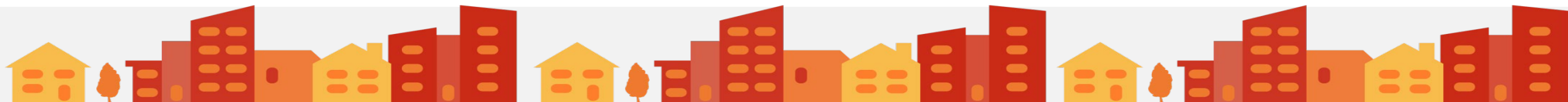
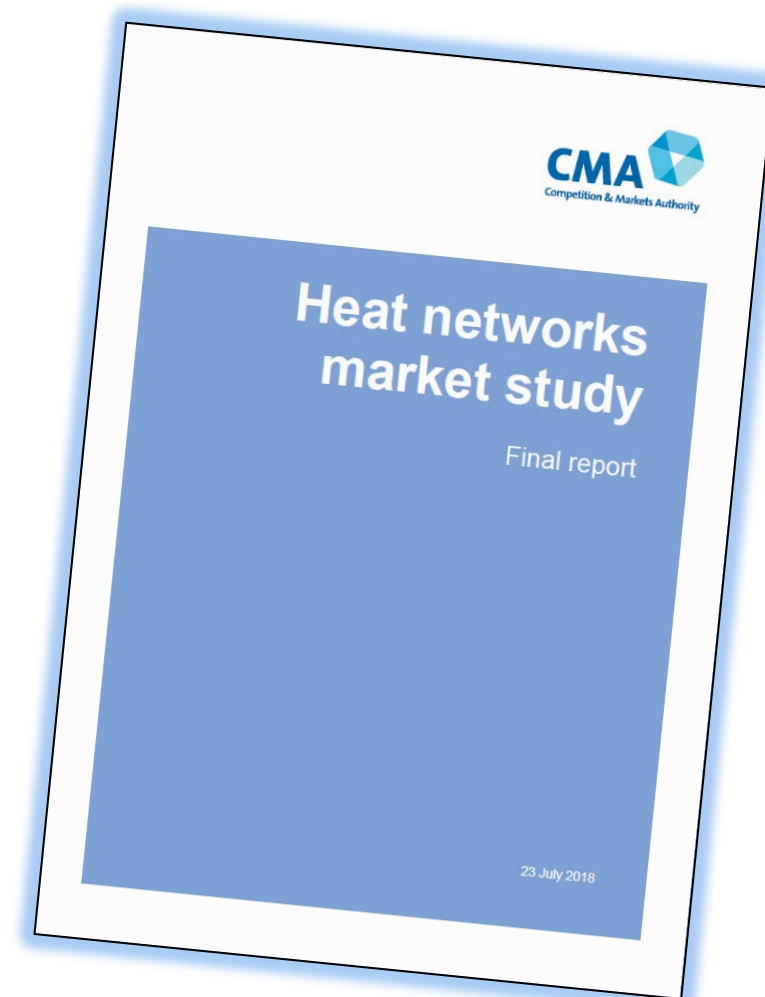


Pump failure could be a symptom of a poorly optimised network, or poor water quality



Long road to Heat Network Regulation

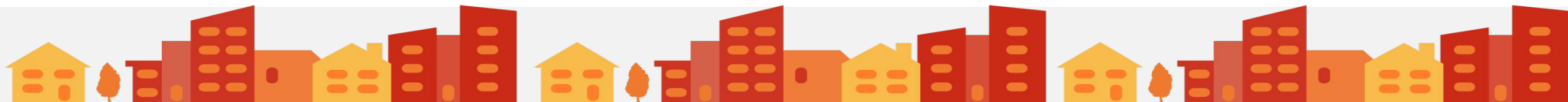
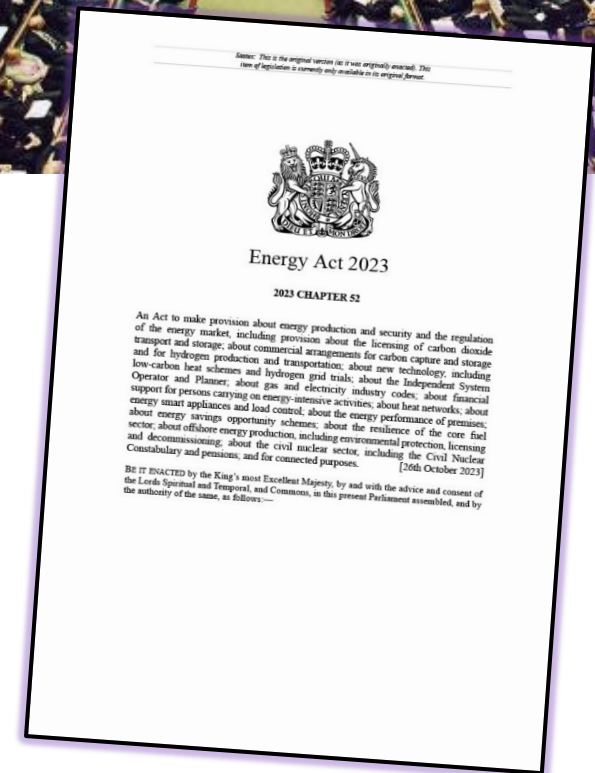
- 2017 (Dec) - **CMA market study** launched into heat networks
- 2018 (July) - **CMA report** – recommends heat network regulation
- 2020 (Feb to June) – Government '**Building a Market Framework**' consultation
- 2021 (Dec) – Gov. response to 'building a market framework'
- 2022 (May) – **Energy Bill** announced in Queen's Speech
- 2023 (Oct) – **Energy Act 2023** receives Royal Assent



Energy Act 2023

Heat network regulations:

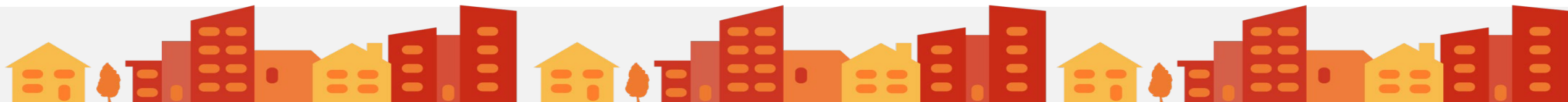
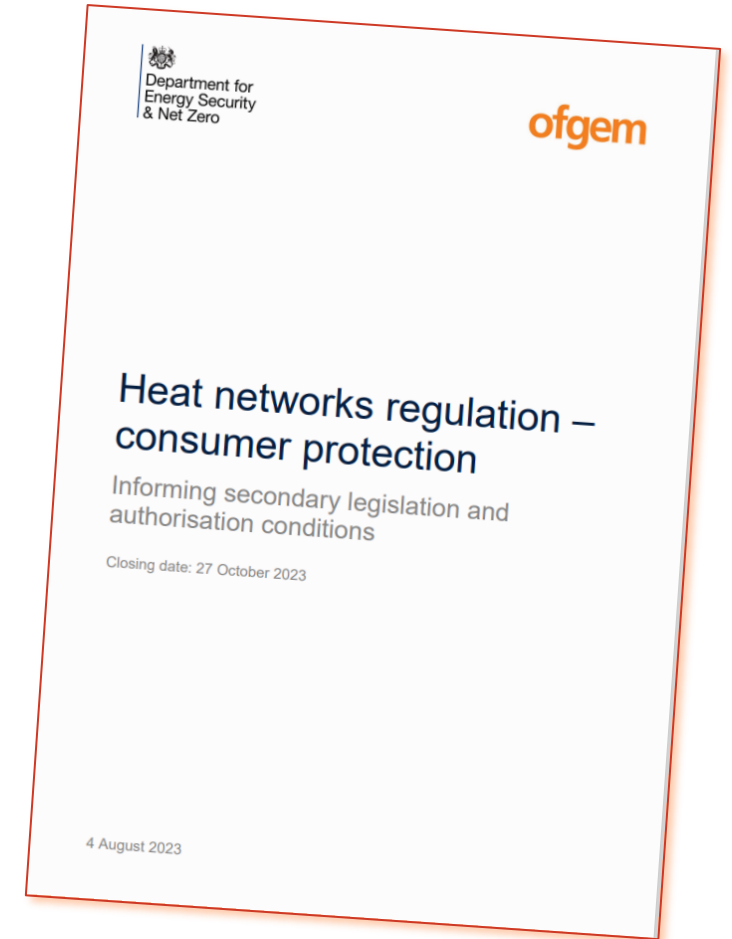
- **Ofgem** to be regulator
- **Ombudsman** dispute resolution for consumers
- Consumer advocacy body (**Citizens Advice**)
- Authorisation regime with conditions on
 - Consumer protection (inc price)
 - Technical standards
 - Step-in and supplier of last resort
- Installation and maintenance licenses
- **Heat Network Zoning**



DESNZ/Ofgem consultation

Government plans for **consumer protections (Aug-Oct 23)**

- **Government response April 24**
- Ofgem - **Ongoing stakeholder engagement**
- **Key challenges**
 - Identifying controlling entities (who to hold accountable)
 - Registering heat suppliers & networks
 - Collecting monitoring data
 - Metering – ‘Open’ building class to be abolished
 - Ensuring ‘fair pricing’ (with no price cap)
 - ‘cost recovery’ model of housing management ...
v supplier and customer
- **Further consultations planed for late this year**
- **‘Go-live’ date not yet fixed (“in 2025”?)**

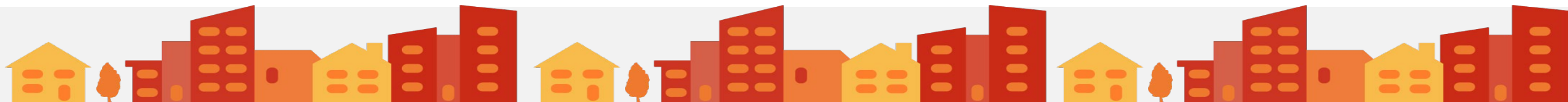


Heat Network regulations – mandatory technical standards

Heat Networks Technical Assurance Scheme

Ofgem Authorisation conditions with include requirement for Certification by **Heat Network Technical Assurance Scheme (HNTAS)**

- New heat networks will need to demonstrate high performance at commissioning and after 2 years of operation
- Each element of heat network will require to be signed off by assessor at every stage of design and build
- Ongoing monitoring of performance
- **Existing heat networks** will need to meet minimum levels of performance within a few years and to perform to a 'good' standard within a few further years. **COST??**
- Consultation and Pilot due to start soon
- Regulations due to start 'in 2025'...?



Before the General Election was announced...

Upcoming consultations

We (DESNZ/Ofgem) will be consulting on the following policy areas in **summer**:

- Technical standards and metering **(Dec?)** **Nov?**
- Step-in arrangements
- Consumer protection, including:
 - vulnerability
 - complaints
 - guaranteed standards of performance
 - billing

This will include the authorisation conditions which give effect to the policy

- Ofgem's administering of the Scottish licensing regime
- Authorisation application process

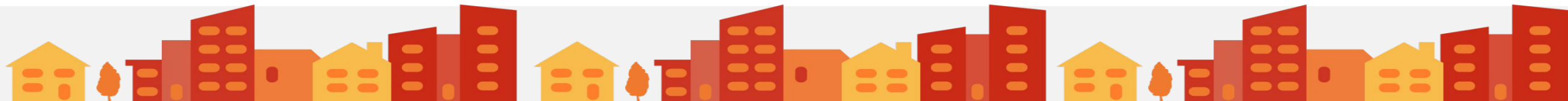
And consult on the following policy areas in **autumn**: **Early 25?**

- Pricing protection



Department for
Energy Security
& Net Zero

ofgem



What can you do now?

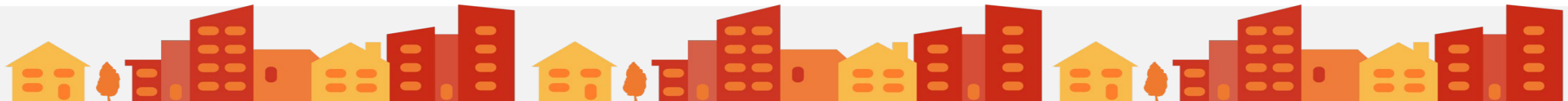
Get regulation-ready



**GET
READY**

“By joining Heat Trust now, organisations will not only be able to demonstrate the quality of their service to consumers right now, but they will also be better prepared for the transition to regulation.”

Department for Energy Security and Net Zero



Heat Trust role in preparing sector

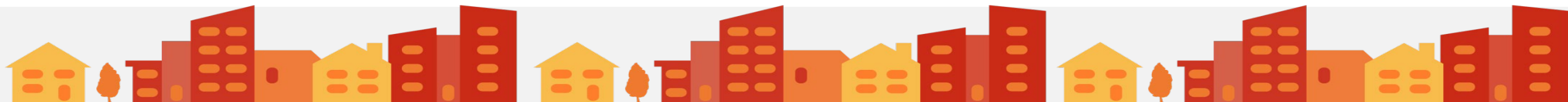
Consumer protection scheme for heat networks

The best route to being *regulation-ready*

Heat Trust rules are **based on Ofgem license conditions**:

- Starting point for Ofgem heat network rules
- Scheme application process involves a review of **supply arrangements** and evidence of compliance
- **Monitoring** – get used to submitting regular data on compliance
- **Audits** to give deeper review of compliance
- Early access for consumers to the **Energy Ombudsman**

Scheme continues to have an active application pipeline



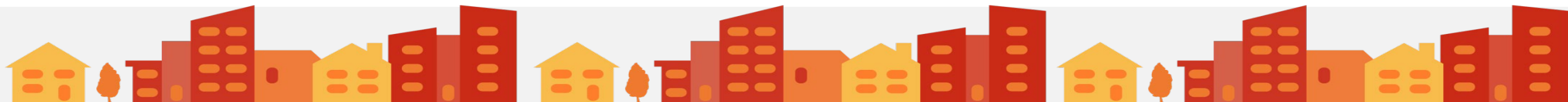
Heat Trust role throughout transition

Consumer protection champion for heat networks

Heat Trust will continue during initial/transition period of regulation to ensure no gap in oversight or protections

"In order to ensure continuity of consumer protections, we expect heat suppliers who are registered the with Heat Trust to remain registered until the start of Phase 3, when full protections will be in place."

DESNZ & Ofgem, April 2024



Questions?

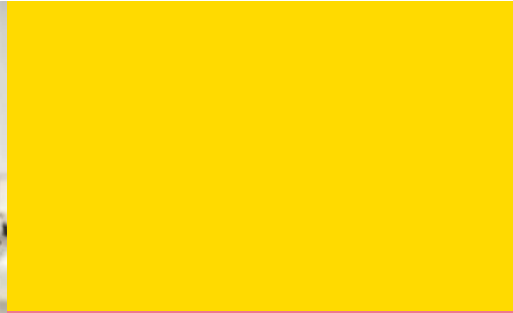
Stephen Knight, Director

stephen.knight@heattrust.org



Citizens Advice: Statutory advocacy and advice in the heat network market

Anne Pardoe
Principal Policy Manager



Statutory advocacy and advice in the heat network market

**citizens
advice**

Anne Pardoe

About me

Anne Pardoe, Principal Policy Manager for Heat Networks

- Responsible for our heat networks advocacy
- Recruited a brand new team at Citizens Advice
- Prioritising the delivery of new regulation for heat network customers and ensuring it is fit for purpose

Introducing Citizens Advice



We are national charity and network of local charities offer confidential advice online, over the phone, and in person, for free. We cover England and Wales.

We give face to face, phone, web chat and online advice to millions of people every year.

Our services collect substantial data on the everyday problems people face and we use this to advocate for changes to policy.

Our role in the energy market

We have been the statutory body in the electricity and gas market since 2014.

We expect to expand our role to include heat networks from next year.

Until
2008



Until 2013



Until 2014



From April
2014



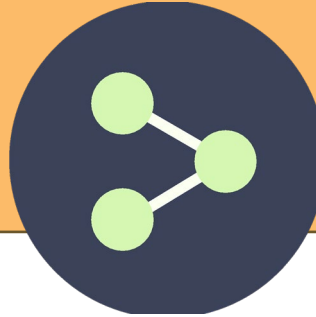
From June
2022



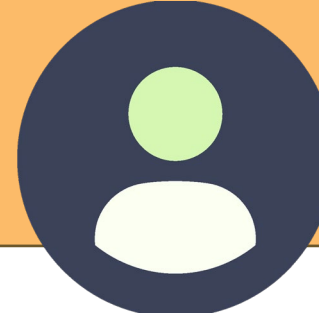
The role of a statutory advice and advocacy body



**Advocating
for better
policy and
market
outcomes**



**Providing
first-tier
energy advice**



**Providing
case handling
services to
consumers in
vulnerable
situations**

Our advocacy priorities over the next year

Growing our evidence base on heat networks

Building strong, broad stakeholder relationships within the sector

Shaping the development of the regulatory framework

Proactive research and policy development on debt and affordability



We expect our advice in the electricity and gas market to be similar to heat networks, with a few notable exceptions

Bill or tariff support

Income maximisation and debt

Interruptions with supply

Smart meters

Understanding new technologies

Energy efficiency schemes

Resolving consumer complaints

Making referrals to the Ombudsman or the second tier service

Questions?



Thank you

Anne Pardoe

Anne.Pardoe@citizensadvice.org.uk



Q&A:

Anne Pardoe
Stephen Knight



Panel discussion and wrap up

Faith Pashley: Ofgem

Mike Tisdell: ADE

Anne Pardoe: Citizens Advice

Stephen Knight: Heat Trust

Sam Moore: SWNZH



And finally...

1. Thank you for your time today
2. We will be making the recording of today available on our website and on the website of other Hubs to share learning on this topic
3. Final event 15 Nov 2024 at 1500: [5i Heat Network Project](#)
4. Please share your [feedback here](#) and help us make these webinars more actionable and useful
5. Please do consider signing up to our newsletter (every two months): [South West Net Zero Hub Newsletter](#)
6. Email: sam.moore@WestOfEngland-CA.gov.uk