

10 March 2023



To set the target for combined supply of thermal energy supplied by heat networks in Scotland reaches at least 7 TWh of output by 2035.

Table of summary of Options 1-3 for target(s)

Option for potential 2035 target (and FNA dataset)	Heat supplied (TWh)	Comparator: current non-electrical heat consumption ^A
Option 1 (FNA Medium Potential)	6	8%
Option 2 (FNA Medium Potential)	7	9%
Option 3 (FNA Higher Potential)	12.5	16 %
Table notes: ^A BEIS: Sub-national total final energy consumption data		

We will review the 2035 heat network target and, if appropriate, other heat network targets once more evidence is available, such as LHEES (Local Heat and Energy Efficiency Strategies) and heat network zones designated by local authorities.

Further information can be found in our [consultation paper](#), including:

- Legislative background and policy context
- Options developed and supporting research

[Proposed targets](#)

1. What is your opinion of the proposal to set the 2035 target for the combined supply of thermal energy supplied from heat networks to “at least 7 TWh” of output?

The previous target set in the 2021 Act of Heat networks to reach 2.6 TWh of thermal energy to be supplied by heat networks by 2027 and 6TWh by 2030 are ambitious to achieve as the target doubles in three years. Whereas, achieving 7TWh by 2035 seems attainable if we meet the 6TWh target in 2030.

Looking holistically, the plan lacks practicalities on a technical front. There are significant viability challenges to achieve the ambition of the set target in the time frame and not to mention a significant infrastructure and skills gap required to execute this plan.

Additional practicalities to be considered include use aspects, for example unlike in residential development, it is difficult to adapt heat networks to bespoke commercial office space.

The heat networks agenda is fragmented and for effective delivery there should be coordination and mapping of the heat districts. The heat districts plans should be phased in alignment with local development plans and regional spatial strategies to achieve effective implementation. For instance, in the case of Glasgow city centre the full deployment of a heat network to 1,314 buildings would take 12 years^[1]. The execution of this plan should ideally require phasing and alignment with the local development plan to minimise disruption.

This proposal is a strong facilitator of decarbonizing the built environment also it is a part of a wider supportive policy environment required to deliver the Net Zero goals.

^[1] <http://www.heatvision2030.com/>

2. Are there particular considerations in setting this target that may help to reduce the depth and/or rate of fuel poverty?

There are a few recommendations we would suggest to reduce the depth and rate of fuel poverty, as well as make this legislation more adaptable for wider public policies:

1. Equalising the tax on unit prices of electricity and gas. This would make it cheaper to use electricity to supply heat pumps and help in reducing fuel poverty. It would bring down the cost of electricity through heat networks.
2. A lack of building specific technology is a barrier in executing the vision of new Heat Network legislation.
3. Renewable energy would need to be backed up. There should be a contingency plan for this and investment into micro solutions will accelerate the process. Energy Network Association (ENA) has guidelines on Carbon Capture that can be brought in for short term approach.
4. To increase consumer confidence for heat networks there should be consumer protection, which the Scottish Parliament does not have devolved powers to make laws on. It is expected that this gap will be filled by UK legislation which should boost consumer confidence.
5. Another complimentary measure to drive the demand by potential consumers is to incentivise connecting to heat networks, which would attract investment to deliver the goals.

3. Are there any other issues that you would like to highlight in relation to the 2035 heat network target?

While we support the transition to net-zero, we cannot ignore the practical obstacles of installing heat pumps and this may act as a barrier to achieving the heat network target on time. Our members have raised difficulties with the installation of heat pumps specifically in commercial office spaces which often requires greater electrical capacity than those being installed in more regular residential properties.

In the same vein, we would like to highlight the importance of contingency planning, especially for hospital and school buildings which may rely on single-source heating. We would recommend encouraging the use of electric batteries and smart thermal storage to help capture and manage heat until it is needed which in turn, will help to build resilience in buildings that have a high electrical demand.

It is also worth noting that we feel resourcing challenges will also impact the delivery of the heat network target. Recent research from Nesta highlights that the UK currently has 3,000 trained heat pump engineers, that is a shortfall of at least 22,000 skilled workers if we are to keep pace with the UK-wide targets.