



Regional Energy Strategic Plan policy framework consultation

<https://www.ofgem.gov.uk/consultation/regional-energy-strategic-plan-policy-framework-consultation#:~:text=The%20consultation%20will%20be%20open,policy%20framework%20in%20Winter%202024>

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About SAV Systems

Since 1988, SAV Systems has been supplying best practice technology solutions from leading technology partners to the building services and Heat Network industry. SAV has a strong focus and insight into the practicalities and solutions required for integrating renewable and low-carbon technologies. Since 2004 SAV has been the market leader in the design and distribution of Danfoss Heat Interface Units as well as the technology solutions for central plant equipment and metering technologies for heat networks in the UK.

SAV Systems is one of the parties working extensively for the promotion of district heating across the UK. SAV's expertise offers a unique combination of engineering reality with an in-depth understanding of the commercial and economic challenges associated with the deployment of heat networks. The Danish roots of the company allow a perspective that can offer experience from the heat decarbonisation process in Denmark. SAV have responded to questions where this particular expertise is relevant.

Overall, the proposals laid out in this consultation are mostly positive. However, it seems that heat networks have not received relevant recognition.

Today, most UK heat networks are small-scale residential 'block heating' systems supplied by localised combined heat and power plants, heat pumps, or gas or electric boilers. But as they increase in size and number, heat networks can become investable assets with operation lifespans of up to 40 years. In the next step, they can be aggregated into large-scale 'heat utilities' that utilise low-cost heat from various renewable and industrial sources.

Heat utilities are a new concept in the UK, but they've been highly successful (and profitable) in Denmark. There, they are run as professional corporate enterprises, formed either by a conglomerate of local heat networks or private companies in charge of other utilities such as electricity, gas, or water. Heat networks have been a bedrock of Denmark's national energy system for decades, with around 70% of Danish buildings connected to low-cost, low-carbon district heating.

The Government's Department for Energy Security & Net Zero has estimated that heat networks will need to be supplying almost 20% of heat by 2050 to enable the UK to reach net zero - this estimate is based on connecting all public buildings in urban areas.

As heat networks are going to supply at least 20% of heat in the UK, they should be recognized as the third large utility (beside electricity and gas) and adequately reflected in the plans. They can play an important role in the future energy system and among other benefits can offer waste heat utilization (helping industry decarbonization) and can provide flexibility (balancing electricity grid supplied by intermittent renewable sources).

SAV have been running a campaign promoting the role of heat networks. In response to this consultation, we have attached two documents on the development of heat network utilities.

Q1	What are your views on the principles (in paragraph 2.8) to guide NESO's approach to developing the RESP methodology? Please provide your reasoning.
	SAV supports the main principles. The whole energy system approach is critical. However, it is not clear how heat sector is to be represented, specifically heat networks. Heat networks have a strategic role. District heating networks should be treated as utility, and they deserve representation relevant to their role in the future energy system.
Q3	Do you agree there should be an annual data refresh with a full RESP update every three years? Please provide your reasoning.
	In the mapping of supply waste heat source seems to be missing. As they should form a majority of supply for heat networks, they should be mapped.
Q4	Do you agree the RESP should inform the identification of system need in the three areas proposed? Please provide your reasoning, referring to each area in turn.

Profiles for low carbon technology use should take into account Heat Networks Zoning and other district heating development plans (outside zones).

Heat Networks with large heat pumps and large thermal storage can provide great flexibility service for the electrical grid.

In areas with heat networks there will be none or smaller need for electrical grid reinforcement. On the other hand, sufficient electricity supply will need to be available for heat networks energy centres with heat pumps.

Utilization of waste heat is an opportunity for cheaper heat and also for industry decarbonization.

Q6

What are your views on the three building blocks which come together to form the RESP in line with our vision? Are there any key components missing?

Yes! Heat networks as a third utility are missing!

Q7

Do you agree with the framework of standard data inputs for the RESP? Please provide your reasoning.

Waste heat sources and heat highways should be considered as data input.

Heat highways are expansive, inter-city heat networks. They can capture waste heat from commercial and industrial customers and transport it directly to large population centres, just like the gas grid distributes natural gas today.

Q9

Do you agree with the framework for local actor support? Please provide your reasoning.

Network companies should be represented on the Board. These should not only include electricity and gas, but also heat networks.

Q11

Do you agree that the Strategic Board should include representation from relevant democratic actors, network companies and wider cross-sector actors in each region?

Yes. Heat networks sector should be represented on the Board.