

Response submitted via email

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Dear Heat Networks Team,

Please find below our consultation response on Heat Networks. It is in response to the consultation outlined below, but our input could be of use in 'Future support for low carbon heat' consultation as well.

Consultation: 'Heat networks: Building a market framework'

EAUC – The Alliance for Sustainability Leadership in Education:

Response on behalf of our Members - universities and colleges in the United Kingdom and Ireland.

About the EAUC

Our passion is to create a world with sustainability at its heart. That's our vision. We exist to lead and empower the post-16 education sector to make sustainability 'just good business'.

The membership of the EAUC comprises higher and further educational institutions, with a combined budget of some £25 billion, responsible for educating over 2 million students supported by half a million staff.

We have regional and country chapters, with member institutions connected deeply with business, industry, health and civic bodies at local levels, with reach internationally via their research, innovation and student mobility.

We believe

- That UK and Irish education should be a global leader in sustainability
- That educational institutions have a responsibility as anchors in their communities to be agents of change
- That education has a unique opportunity to transform lives and communities
- That education is at the heart of global sustainability
- That every student should have access to sustainability education
- That education should reflect best practice in operational sustainability
- In being flexible and adaptable to find solutions for a resilient future
- In the value of international collaboration

Our values

- Pioneering - driving sustainability through innovation
- Independence - our own unique voice
- Collaboration - together we go further
- Role Model - leading by example
- Empowering - supporting and inspiring our members

EAUC's Approach to the Inquiry

We have discussed this consultation with members, and while we have some specific responses on each of the questions, we felt it might be useful to provide a more summarised input from the tertiary education sector as well on heat networks in universities and colleges and the challenges and opportunities experienced.

Heat networks in universities and colleges – challenges and opportunities

At present, the largest heat networks are predominantly found in the UK's largest cities and on university campuses. As such, the tertiary education sector is a key stakeholder in this discussion. Institutions that have installed them already can provide expertise from their experience in this field and have existing heat networks that can be expanded. Institutions have large populations, numerous – often old – buildings, high heat demand, and existing, effective relationships with the towns and cities they are based in. University and college campuses that do not have heat networks are therefore some of the largest and best placed potential areas for heat networks.

Heat network opportunities in the Higher and Further Education sector

The Higher and Further Education sector is currently very engaged with the decarbonisation agenda. While many institutions have been undertaking decarbonising measures for years, there is a real gearshift in the last year or so in these efforts. Partly due to the UK Government committing to net zero targets by 2050 at the latest, but also in response to the huge student movement objecting to inaction on the Climate Crisis. The sector recently created a 'Climate Commission for UK Higher and Further Education Students and Leaders' and is working on a roadmap to reach Net Zero. Decarbonisation of heat is essential in this map – and there is an opportunity for the Government to work with the sector to discuss this.

Another opportunity with Heat Networks, regarding the tertiary education sector, is skills. At the moment, there is a skills deficit when it comes to sustainability generally in the curriculum – but in this context, there is specifically a skills deficit when it comes to heat specialist engineers to support a heat network infrastructure of the scale that we can and should be aiming for over the next decade. Government should work with colleges and universities to incentivise low carbon career uptake among young people, as well as offering subsidies for people in other careers to retrain or upskill. There is a particular opportunity with this at the moment - following the Covid-19 crisis, many people are looking to retrain as their position has been (or will shortly be, when furlough is discontinued) made redundant or they are concerned about the stability of their current career.

If the tertiary education sector received specialised support from Government – akin to Scotland's 'Universities For The Future: Decarbonising Scotland' programme or the Heat Network Delivery Unit for local authorities – this would unlock huge potential in the sector to lead the way on heat networks and other decarbonising measures. It would boost investment in energy efficiency across the UK's higher and further education institutions, improve co-ordination, provide accessible support and finance for carbon reduction throughout the sector and build capacity for funding in additional years. We would envisage a Government run programme of this nature would be cross departmental, involving BEIS, DEFRA, OfS and DfE. It would also contain a review of the curriculum to ensure decarbonisation and wider sustainability education is fully embedded, and that the low carbon skills needed to deliver heat networks are being taught. We would be keen to talk about this. We would also point you to our response to the Heat Networks (Scotland) Bill Consultation submitted on 29th May to the Economy, Energy and Fair Work Committee.

Heat network barriers in the Higher and Further Education sector

Access to low cost capital and trust in the heat network industry are two of the biggest challenge for the education sector to overcome. Both can be achieved with suitable long-term government support to heat network infrastructure.

There are currently a lot of schemes in use or being discussed (Low Carbon Heat Support Scheme, Green Heat Networks Scheme, Non-Domestic Renewable Heat Incentive (RHI), Heat Networks Investment Project (HNIP)) and while this is to be commended, it is also confusing for the sector. The Government must co-ordinate these schemes better, under one clear 'Decarbonising Heating' heading, with clear signposting and communication. As a sector, we would certainly be keen to host webinars to discuss heat network options with interested college and universities. Also, despite universities being identified as one of the key stakeholders regarding heat networks, many of these schemes do little to incentivise them. For example, the Green Heat Networks Scheme offers only small grants of up to £4,000 for small heat pumps up to 45 kW which would be too small for most University buildings. HNIP in principle is a good grant scheme, but favours fossil-fuel technologies rather than lower carbon alternatives – and over 80 universities have now divested from fossil fuels, so will not be looking to install technologies reliant on it. In particular, we would advise the minimum system size introduced by Triple Point needs to be reduced for low carbon technologies, to support the greater uptake of such technologies. Also, sourcing and securing the HNIP funding can be time-consuming and challenging for institutions that are unfamiliar with the process. Most unsuccessful applicants fail due to a lack of detail and appropriate documentation, particularly with their business cases – so accessibility is an issue with some of these schemes. The most useful scheme for the sector at the moment is the Non-Domestic Renewable Heat Incentive (RHI)– and we would urge the Government to extend this past its current end date of March 2021. The current consultation to discuss extending this by one year is welcome, but we would urge Government to look at extending this even further. The other schemes that have been outlined would not plug the gap left by the Non-Domestic RHI for the Higher and Further Education system.

The current Heat Network Regulations have been poorly implemented, are overly complicated, and have still not issued an assessment tool to make meaningful decisions on whether heat metering must be fitted. It will be crucial to simplify and clarify these regulations to encourage the expansion of heat networks and to foster the trust in the heat network industry that is needed for further investment. Clarification is needed on whether students living in residential accommodation are treated as domestic customers.

Response to the consultation:

We have opted to respond to only the questions relevant to the Higher and Further education sector.

2. Do you agree that consumer protection requirements should not cover non-domestic consumers (other than micro-businesses)?

Please provide comments in the text box below to support your answer

Non-domestic consumers are likely to have a separate contract with additional clauses such as price inflation review mechanism, provisional agreement for future expansion, or time of use. We suggest the principles of consumer protection still apply (consumer satisfaction and support), but the execution should be slightly different.

3. Do you agree with our proposed approach to defining a heat network, including that it should cover ambient temperature networks but not ground source heat pumps with a shared ground loop? Are there heat network arrangements you think would not be covered by this and which should, or vice versa?

Regulation of heat networks should apply to all forms of heat network (including ground source systems) based on a combination of scale, population equivalent nature of the network and the volume of heat sales on the network. This is partly driven by the need for consistent regulation and standards around metering, pipework and infrastructure design and installation which is not always dictated/affected by scale. Some exceptions or tightening up the definition may need to be considered, for example, how would you define a communal VRF/VRV system, or a hybrid VRF/VRV system using water from control terminal to distribute heating/cooling?

4. Do you consider Ofgem to be the appropriate body to take on the role of regulator for heat networks? If not, what would be an alternative preference?

Yes – we are supportive of Ofgem being appointed the heat network regulator.

5. Do you agree that the proposed regulatory model is appropriate for the regulation of heat networks?

We would suggest the project sponsor is the primary regulated body and responsibility can be delegated to the developer / operator as required. The sponsor will therefore ensure impactful promotion of the heat network and show preference to heat networks rather than individual heating and cooling assets in other relevant planning.

However more clarity would be helpful on determining whether students living in residential accommodation are included in scope of domestic customer. If they are, this could be complex for universities to navigate in terms of the regulation and information required to provide consumers. However, if the university is classed as one whole customer, this is more appropriate. Depending on whether a university operates a wholly owned subsidiary energy company, making the university the customer, could again impact simplicity of reporting.

In the recent requirement to (re)notify BEIS of a heat network, the Education category had been removed from the report. This differed from initial notification in 2015 and set a little confusion around domestic customer definitions for the purposes of reporting – again, whether the university counted as one customer.

7. Do you agree that direct consumer protection requirements during the operation and maintenance project stage should be regulated, such as pricing, transparency and quality of service?

Yes

9. Should there be a size threshold above which larger schemes are subject to more detailed regulation and scrutiny? If so, what type of threshold would you consider most appropriate?

Yes. Appropriate regulation should promote technical excellence and continuous improvement as large schemes will be best able to drive the market forward. Regulation should also include backstops to avoid excessive biased commercial dominance and bad practices detrimental to consumers.

10. Should an optional licence be available for entities seeking rights and powers? If not, what other approaches could be considered?

Yes to support smaller players on the market

11. Are there any other adjustments that could be made to the proposed model to enable it to work better?

Yes. We would suggest the project sponsor is the primary regulated body and responsibility can be delegated to the developer / operator as required. The sponsor will therefore ensure impactful promotion of the heat network and show preference to heat networks rather than individual heating and cooling assets in other relevant planning.

12. Are there circumstances in which transitional arrangements should be introduced? If so, in what circumstances might these apply and for what length of period?

Yes. Heat networks are likely to be very diverse in their layout, commercial arrangement and heating/cooling source.

15. Do you agree that imposing fines and removing a licence/authorisation are an appropriate and adequate set of enforcement actions for the regulator of the heat network market?

Yes. Ofgem has experience in this.

16. Do you agree that the regulator should have powers to impose penalties at the entity level which are proportionate to its size, in a scenario where there are repeated or systemic failures across multiple schemes owned or operated by the same entity?

Yes. A reward / penalty system could be explored to encourage good performance and innovation.

17. Do you agree that the regulator should have powers to revoke an authorisation for single networks owned or operated within a group scenario, so that the entity would still be authorised or licensed to operate those networks within the group that remain in compliance? If not, what alternative approach might the regulator take?

Yes.

23. Do you agree that heat suppliers should be responsible for developing information and guidance for prospective consumers? If yes, what minimum information should be included?

Yes. The Heat Trust should be consulted. Heat suppliers should be required to supply regular information and feedback.

26. Do you agree that the regulator should have powers to mandate and enforce price transparency? Can you foresee any unintended consequences of this?

Yes, partially. Price transparency must be fair, considering comparable price variables. For example, is it a unit rate with annual standing fees? The Heat trust can be used for reference

27. What are the current barriers to publishing and maintaining accurate information on fixed charges, unit rates and tariffs? What are the main reasons for information on pricing not being available at present?

We are not aware of a standard and mandatory price structure. For example, a natural gas CHP powered heat network may be cheaper than a future proofed low carbon heat network. More must be done in this area to ensure incentivisation is not only pricing orientated but also based on longevity, and carbon reduction.

28. Do you agree that there should be clear, consistent rules on what costs should be recovered through fixed and variable charges?

There should be clear and consistent rules. But we would advise caution with regard imposing fixed and variable costs, as variable and fixed portions will depend on each project. Whole life costs and transparency are more important.

29. Do you agree that the regulator should have powers to undertake investigations on pricing and to enforce directions and remedy actions, where there is sufficient evidence that these could lower prices for consumers?

Yes

30. Do you agree that price regulation in the form of a price cap or regulation of profits should not be implemented at this point in time? Please explain your answer.

Yes - whole life costs and transparency are more important.

31. What might cause price regulation to become an appropriate intervention in future? What evidence would be required to demonstrate this?

Evidence of regulator investigation could be a trigger

32. Do you agree that consumers on heat networks should have comparable levels of service and protection as consumers in other regulated utilities? How do we ensure the associated compliance costs of such protections remain proportionate?

Yes. We would advise the Government to request advice regarding best practice from the Heat Trust on this point.

34. Do you agree that all new schemes should be subject to minimum technical standards (once developed), given the potential impact on system performance and end consumers?

Yes.

36. Do you agree that regulated entities should demonstrate they are compliant through an accredited certification scheme?

Yes.

37. What do you consider to be the most appropriate approach to setting the technical standards?

Ensuring prioritisation of decarbonisation, first and foremost, followed by reliability of service and a fair deal for the consumer.

45. Do you agree that these access rights would primarily be used to install and maintain pipework, or do you anticipate that they would be used for other purposes?

Yes, access rights would mainly be for pipework, as well as boreholes and thermal stores.

48. Do you agree that heat networks should be given equivalent powers to other utilities to install and keep heat network pipes underneath roadways? Are you aware of any potential unintended consequences?

Yes they should have equivalent powers – heat networks are essential to the decarbonisation of the heat sector.

49. Do you agree that licensed heat network developers should be granted permitted development powers similar to other statutory undertakers? Are you aware of any potential unintended consequences?

Yes – they should be permitted similar development powers.

50. In addition to permitted development rights specified (install or replace pipes or electricity cabling; erect small temporary structures and small ancillary buildings, machinery or apparatus), are there any other activities to which a permitted development right should apply?

Yes. Boreholes and thermal / energy storage should be included as well. The Higher and Further Education sector is keen to see clarity regarding the rights of operators to enter streets and footways in order to install and maintain heat networks as necessary, as this is currently an area of concern for those HE and FE institutions that have systems that are within local authority adopted streets and roads.

51. Do you agree that the administrative burdens of being statutory consultees would be disproportionate for heat networks?

Yes – however there should be a duty to inform of development in their area.

52. Beyond improving the guidance on non-statutory consultees, do you think that there are any other areas of government guidance that could be improved to ensure that heat networks are more routinely consulted on relevant development in their areas?

Heat networks developers should be consulted on planning issues to ensure no opportunities are missed to integrate heat networks in early stages of projects. The Local Government Association, and the Ministry of Housing, Communities and Local Government are crucial to the expansion of Heat Networks, they must have a better understand of what they are, how they work, and why it is essential more are put in place as part of the UK's net zero necessity.

54. Do you agree that consumers should have access to information on the energy performance and percentage of low-carbon generation of their network?

Yes – transparency is key.

55. Do you agree that regulation is necessary to encourage decarbonisation of heat networks over the period to 2050? Are there alternative means by which government could act to support the decarbonisation of heat networks?

Yes, regulation is important. Decarbonisation will not occur without it. There must be more education and awareness – the Government should look to encourage and support this in the education sector.

Are there alternative means to decarbonise heat networks?

Yes, put a higher price on carbon.

56. How could the Environmental Permitting Regulations be amended to ensure that waste-heat sources connect to networks when it is cost-effective and feasible to do so? What do you consider are the main barriers for waste heat sources to be connected to heat networks?

Ensure planning requirements favour waste heat by default.

57. Which sources of industrial and commercial heat could government bring within the scope of the Environmental Permitting Regulations in addition to the sources already being identified?

Low grade and ambient waste heat sources.

We thank you for the opportunity to input on this important topic, and look forward to discussing further opportunities for heat networks in the Higher and Further education sector.

Yours sincerely



Iain Patton
CEO