

10 May 2023

[flexibility@ofgem.gov.uk](mailto:flexibility@ofgem.gov.uk)

The European Marine Energy Centre welcomes the opportunity to respond to Ofgem's timely inquiry into the future of local energy institutions and governance.

EMEC was founded in 2003 in Orkney, Scotland and is the only accredited wave and tidal test centre for marine renewable energy in the world. More marine energy devices have been tested at EMEC than at any other single site: EMEC has hosted 22 wave and tidal energy clients (with 35 marine energy devices) spanning 11 countries. EMEC operations have developed significantly through the years as we have gained unprecedented experience in demonstrating ocean energy technologies. Today we are also pioneering the development of a green hydrogen ecosystem in Orkney, having set up a hydrogen production plant onshore in 2016, next to our tidal energy substation.

We would welcome the opportunity to meet to discuss our views further. In the meantime, should you have any questions, please do not hesitate to contact Neil Kermode, Managing Director ( [neil.kermode@emec.org.uk](mailto:neil.kermode@emec.org.uk) ).

Yours sincerely,

Francesca Perotti

Stakeholder Engagement Officer  
European Marine Energy Centre (EMEC) Ltd  
T: +44 (0)1856 852228



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In general, EMEC agrees with the proposals as set out in the consultation. The need for there to be planning of the energy system (as opposed to polarised and competing electricity and gas) is long overdue and the arrangements as set out seem effective.

EMEC would like to take the opportunity to raise some issues which may already be accounted for, but which it would be remiss to fail to raise.

1. Tone. It remains something of a disappointment that the need to decarbonise is always framed with 'least cost'. EMEC is concerned that this narrative is limiting in that by placing cost as the first filter the opportunities for betterment and tangential benefits are apt to be missed. As an example, the introduction refers exclusively to cost on the first page and does not mention net zero until the start of page two.

EMEC is firmly of the opinion that a decarbonised energy system will be better than what we have today. The benefits from this will include air quality, better balance of payments and more employment in peripheral areas; none of these would appear to feature in the decision processes. If they did, EMEC believes different decisions would be taken and the speed of decarbonisation would pick up.

This tone is consistent with other Ofgem's publications, but EMEC believes it is out of step with public sentiment. EMEC recognises the value of the reference in 2.9 of the willingness to adapt and so hopes this is sufficient to ensure the arrangements do not fall out of step with the nation's needs.

2. Heat. It is a disappointment that there is no reference to heat in the document. Whilst this is presently outwith Ofgem's remit, its complete omission is a matter of concern. There is welcome reference to gas and the recognition that part of the network may need to be decommissioned as change occurs, but the energy system of the future will include the distribution of heat and it is anticipated that this will need to be regulated by Ofgem. Provided Ofgem are confident that the arrangements being established through this consultation would be able to extend to heat then this may not be an issue. If they could not be so extended, then EMEC would urge that the necessary changes be made.
3. Holistic Network Design. It is disappointing that, despite repeated representations, there seems to be little recognition of the potential energy sources represented by tidal and wave energy being accounted for in the Holistic Network Design. It would appear from the outside that the design is far from holistic and seems to focus on the interconnection of wind into the transmission system. Similarly, it is not clear how the use of hydrogen as a transmission vector (but then not sending it to people's houses), the production of efuels in remote areas, the use and distribution of heat all feature in plans. EMEC would urge a broader perspective be taken and would hope that the FSO does not limit itself to the present definition of 'holistic'.