

6 June 2022

FAO: Victoria Low, Head of DSO Governance
By Email to: flexibility@ofgem.gov.uk

Dear Victoria

Call for Input: Future of local energy institutions and governance

Thank you for the opportunity to input to the consultation on the future local energy institutional framework. As an independent consultant I have been working on a number of projects over the last 5 years where the issue of the needs of a local energy systems framework has been a pressing issue as local communities seek to decarbonise quickly making best use of local resources and smart energy possibilities.

Making best use of local flexible energy assets, which will ultimately involve most customers low carbon heat and transport demand, is key to a least cost low carbon energy transformation. This will need strong synergies between markets, planning and operations.

Energy planning is a key issue today. Most local communities need support in understanding how the development of the built environment and the energy system need to develop together, the opportunities and risks. Regional and local energy planning support, across power, heat and transport, is fundamental and a pressing need. The skills needed are in part in the current distribution network operators, but wider skills will be needed in any regional planning body to better understand how local communities' needs are best met, particularly around heat. Clear responsibilities and development of capability are needed soon if good long term decisions are to be supported.

The need for independent market facilitation and real time operational roles will grow as local energy systems become more complex and dynamic, but these are not the most pressing issue in the short term.

Please do not hesitate to contact me should you have any further questions about insights from specific projects.

Regards

Robert Friel CEng, MIET

Director

rob@aptenoconsulting.co.uk

1. Are the three energy system functions we outline (energy system planning, market facilitation of flexible resources and real time operation of local energy networks) the ones we should be focusing on to address the energy system changes we outline?

These describe the main activities. The most urgent need for independent broader support is in the planning of local low carbon energy systems. Recent experience on one of the flagship PFER projects indicates that identifying the best low carbon heat strategies and potential for thermal storage in both fabric and heat systems is likely to play a significant role in the development of a least cost transition for customers.

Digitalisation is important as it makes data and information available. But energy data is complex, and it needs skills and experience to interpret properly. Local communities need support to ensure that they can build policies and strategies to help their communities make the right long term choices.

Market development and real time operations will have important roles in ensuring that value created is appropriately used and rewarded.

2. Do you agree with the criteria we have set out for assessing the effectiveness of institutional and governance arrangements?

I agree with the criteria described, although I would potentially include transparency/openness. These institutions must work for and be focused on customer outcomes at a local level and the need an open and transparent customer focused culture to interface with a more technical national perspective will be important.

3. Do you agree with our assessment of how far the current institutional arrangements are, or are not, well suited to deliver the three key energy system functions?

The current arrangements are challenging and complex.

There is little co-ordinated capability in planning and the timescales for aligning energy plans and local spatial plans across heat and transport needs a long term perspective to ensure the best customer outcomes and signal the opportunities far enough in advance for commercial opportunities to be realised.

Local markets for services are only just beginning to have true value, and accessing long term value of local choices through markets is challenging. The trade-offs between investment today and costs for customers tomorrow remains a challenge for those looking to develop smart local energy systems that support lower cost solutions nationally.

4. Overall, what do you consider the biggest blocker to the realisation of effective energy system planning and operation at sub-national level?

The biggest blockers are a clear lack of accountability and a shortage of suitably skilled resources to support 300+ local communities understand their options for decarbonisation and how to support people make good decisions.

Market value is emerging but is fragmented across a number of actors and is relatively short term. It remains unclear how today's markets incentivise or reward actions that reduce long term capacity needs across the whole system from networks to generation, or how choices such as heat network emerge in a timely way to allow people to understand and engage with them over individual solutions.

5. Do you agree with the opportunities of change we outline and the potential benefits they may create?

The opportunities and synergies identified seem reasonable, but there should be a greater emphasis on customer outcomes rather than institutional actions. DNOs have seen significant changes in their cultures over the last 20 years from technical asset focused organisations to more customer centric organisations focused on consumer outcomes and RIIO regulation has played an important role in this. This is very different to central system management and must not be lost in the transition.

6. Are there additional opportunities for change and benefits that we have not set out?

There is an opportunity to establish new organisational cultures and dynamics if establishing new organisations, and it is important to define these characteristics as well as governance and responsibilities.

7. We set out a number of risks associated with change. Do you agree with these risks and the potential costs they create? Are there additional risks of change and costs that have not been set out?

The risk of separating planning functions and market functions that are inherently emergent today could be considered as relatively low. DNOs have far more customer focused real time operations focused on customer outages where the focus on customer outcomes will remain very important.

A number of DNOs considered and implemented different operational models over time which have revealed the challenges with creating a set of incentives and drivers that do not create conflicts, especially so when outages affect customers reliability of supply.

8. For each model, we have set out the key assumptions which need to be true for the model to offer the right solution. Which of these assumptions do you agree with?

Primary legislation of some form is likely to be needed. This should allow Ofgem flexibility to establish planning and operational responsibilities in a flexible manner through suitable licences. It is important that the bodies are able to take a whole system perspective, this is looking at the best way to serve local needs for heat and transport along with national whole system needs.

9. Out of the framework models we have developed which, if any, offer the most advantages compared to the status quo? If you believe there is another, better model please propose it.

Framework models 3 and 4 offer the most advantages. In Framework 4 a Regional System Planner would be a relatively easy to establish organisation and would support the emergence of IDSOs that could potentially come under the one umbrella as with the FSO. Framework 4 offers the most flexibility for change and implementation and this should be a priority driver.

10. What do you consider to be the biggest implementation challenges we should focus on mitigating?

Developing resources and processes to support planning at local level and how this can be used bottom up to support regional and national planning.

It will also be important to establish the right culture for any new organisations. Is it system focused or consumer focused?

11. Taking into account the varying degrees of separation of DSO roles from DNOs under framework model 1, do you consider there are additional measures we should consider implementing, in particular in the short term (e.g. changes in accountability etc)?

No additional comments

12. Are there other key changes taking place in the energy sector which we have not identified and should take account of?

The development of heat and heat networks needs further consideration in its interaction. Whilst there are many today, they have limited interaction with the wider energy system, but future low carbon systems need to be part of the wider planning approach and mindset.

13. What do you consider to be the most important interactions which should drive our project timelines?

The need to support the development of local energy planning as a means to better determine the needs bottom up (rather than top down assumptions as is used in the Future Energy Scenarios driving investment planning today) is likely the most urgent need. It is a challenging one as the needs of relatively small communities must be considered when looking at optimal heat strategies.

End