

DSO Governance Team

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## **Octopus Energy's response to Ofgem's Call for Input on the future of local energy institutions and governance**

We welcome the opportunity to feed into this early-stage review which assesses the feasibility of current local energy institutions and governance. It is useful to start laying the groundwork to develop industry-wide thinking on the most effective governance structures needed in the future, as real-time balancing and operation will become more commonplace at a local level. However, it is important that DNOs continue to make progress toward DSO separation in the short term and therefore this Call for Input and review must not stall progress. We believe some 'no regret' actions should be taken in the short term, in particular, to improve market facilitation at a local level.

Market facilitation is currently the biggest challenge that Octopus Energy faces out of the three energy system functions identified. We have focussed our response on outlining short-term changes which could improve market facilitation without the need for legislation as well as suggestions for longer-term proposals to improve this critical function which would require new legislation to implement.

Whilst we appreciate that the Open Networks project has already set out many of the steps needed for the complete separation of DSO/DNO activities, the Energy Networks Association (ENA) in its role as a trade association cannot guarantee implementation. We, therefore, believe that Ofgem must take on a greater role, possibly by articulating deliverables within the RIIO ED2 price control, to ensure DNOs are accountable and continue to drive forward progress on some of the high impact items which are imperative to encourage the increased rollout of flexibility at a local level.

We believe the following actions are 'no regret' and progress must be accelerated in the short term:

- Develop a single market platform to be used by all DNOs to procure a standard suite of flexibility products (which could later be novated into a central platform when longer-term governance structures are implemented)
- Implement complete standardisation of flexibility products between DNOs
- Develop a standardised flexibility baselining tool which is mandated for use by all DNOs
- Increase transparency and levelised access of/to all DNO flexibility requirements eg. use of markets to procure Active Network Management solutions, allowing demand side response to compete on a level playing field

These no-regret actions should be taken in parallel with further debate and design of the long-term governance structures. We do not yet have a preference for the model options you have outlined but believe there could be significant efficiency gains if a central body took on the role of market facilitation at both a national and subnational level. This body would need to have extensive digital and data management capabilities, and therefore we agree that digitalisation is a cross-cutting enabling function for effective management of the other energy system functions.

We recognise that there are also challenges with planning and operation at a local level and have therefore elaborated on particular pain points that we have experienced. We see that there could be real advantages of taking a more strategic approach to planning, including planning across multiple energy vectors, and that more closer to real-time actions will need to be taken at a local level to manage the network in the future. However, we believe there is a little more time before these issues surface at an unmanageable level.

Should you wish to discuss any of the points in our response in more detail, please don't hesitate to get in touch with the below contacts:

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Thanks,

## **Consultation Questions**

- 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 focussing on to address the energy system changes we outline?**

We agree that energy system planning, market facilitation of flexible resources and real time operation of local energy networks are the right system functions to be focussing on. Digitalisation has rightly been identified as a cross-cutting enabling function and we strongly agree that getting this right will be fundamental to ensuring the successful delivery of the three key functions which have been identified.

- 2. Do you agree with the criteria we have set out for assessing the effectiveness of institutional and governance arrangements (accountability, credibility, competence and coordination)?**

Yes, we agree with the criteria which have been set out to assess the effectiveness of institutional governance arrangements. Current sub-national governance arrangements are complex, and there is a lack of clear accountability on institutions which makes it difficult to scrutinise specific institutions' actions. To improve current governance failings at a sub-national level we strongly believe that coordination, simplicity and accountability are crucial ingredients to get right. Credibility and competence of each institution to deliver the responsibilities that have been assigned to them are also critical but this can likely be improved through the hiring of new personnel rather than a complete shift of governance arrangements.

A final criterion which could be added to assess the effectiveness of institutional and governance arrangements is responsibility. For example, in order for Local Area Energy Planning to be effective, there must be a democratically accountable body with clear mandates and power to make decisions at a regional level. This will therefore require delegation of power, and further clarity on roles for each institution to reduce areas of overlap and improve accountability.

- 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?**

We agree that current institutional arrangements have so far not been effective at delivering the change at the speed required to facilitate growth in local flexibility markets, nor has the relationship between Local Authorities and Distributions Network Operators (DNOs) been effective at strategic energy system planning at a local level.

Whilst the Open Networks project has set some ambitious goals which would go a great way to improve coordination, the pace of change has not been fast enough. The Open Networks project created a DSO Roadmap and Implementation plan which aims to give stakeholders a visual representation of DNOs progress on the activities defined in the DSO roadmap. Whilst the activities identified will significantly help to improve coordination and progress in the transition to DSOs, the commitments are not tied to any specific dates for implementation, nor does the ENA have any powers to ensure implementation by each DNO. Equally, as the DNOs and ESO have shared responsibility for improving coordination there is no clear responsibility which makes it difficult to implement and regulate.

Therefore, it is our view that unless Ofgem (or the ENA or another body) can hold the DNOs to account for the implementation of the DSO Roadmap activities, we have strong concerns that progress will not be fast enough. Furthermore continuation down this route is likely to increase the system cost of decarbonisation, and could result in an exacerbation in terms of conflicts of interest between DNO/DSO functions and between DSOs and the ESO for national requirements.

Further points assessing the current delivery of each of the three key energy system functions are outlined below:

### **Market facilitation**

We see the greatest number of problems and the greatest potential for new problems if we carry on with the current approach to the facilitation of markets for flexible resources. This is evidenced by the lack of consistency in local constraint management products between different DNOs, each DNO developing and using different platforms to procure services and varying degrees to which DNOs are tendering for use of flexibility to manage constraints. The current trajectory is not encouraging and the complexity in these markets is making it difficult for new market participants. Furthermore, a significant portion of the flexibility that DNOs make use of is outside the market. Whilst Active Network Management is a secure constraint management resource available to DNOs,

using it often results in unnecessary curtailment, hampers market innovation and prevents market procured flexibility from being able to compete. Overall this results in inefficient, higher cost constraint management and poor use of generation assets.

We have concerns that the current approach by which each DNO separately procures local flexibility products, and the ESO is responsible for national products, is already causing inefficiencies and a severe lack of strategic coordination - which results in unnecessary costs to the consumer which could have been avoided. Coordinated delivery of flexibility market platforms could lead to more liquid markets and access to a more diverse range of revenue opportunities for distributed energy resources.

### **Real-time operation of local energy markets**

We agree that to operate markets close to real-time in the future, secure digital and active integration of complex software systems will be required. DNOs do not currently have the skills and capabilities to deliver this future digital management system, and this would require significant investment in acquiring these new skills and resources - which would need to be done for each DNO, as well as the Future System Operator (FSO). Instead, this could be done once by a single organisation thereby freeing up capital for DNOs to spend on other core development activities.

The development of primacy rules for ESO and DNO services is still in its infancy. At the moment there is a lack of clarity about how services are prioritised between local flexibility products and national balancing products. This issue will become increasingly prevalent shortly, and therefore needs to be addressed to avoid market manipulation due to grey areas in market rules and policy which are not yet well defined.

### **Suitability of current energy system planning**

Whilst we agree that there have been significant challenges in the delivery of system planning at a local level, we believe that these issues can be overcome with additional investment and training for Local Authorities, and increased collaboration and coordination between DNOs, GDNs and Local Authorities to improve the effectiveness of local energy plans. Increased clarity of decision-making powers between national and local governments will also enable more strategic system-wide planning.

We agree that there is a risk that DNOs could have a bias towards the use of asset solutions rather than the use of flexible solutions, however, this could be prevented if a robust incentive scheme is delivered which effectively measures and penalises DNOs who opt for traditional network reinforcement below a predefined utilisation threshold.

Furthermore, we note that both DNOs and GDNs could have a bias towards heat decarbonisation paths that prefer their own assets. This will need to be carefully managed and will require well resourced Local Authorities with the skills and capabilities, supported by 3rd parties. Local planning will also need to be consistent with national plans, and Local Authorities must have the power to make decisions on heat decarbonisation, or it must be clear which alternative body will ultimately be responsible for these decisions.

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

In our view, a few key blockers are preventing the realisation of effective energy system planning and operation at a sub-national level. These are:

- the lack of coordination in terms of market facilitation both between DNOs and at a national level
- limited visibility of the Low Voltage network to inform network planning and forecasting of flexibility requirements
- the gap in skill set and lack of progress made in improving monitoring at a local level and developing the digital management system required for effective real-time system operation
- the lack of clarity around who can take planning decisions (Local Authorities or national government) and which organisation has the final say in different application proposals
- the lower order prioritisation which is given to whole system coordination and planning for the decarbonisation of heating and transport, and the associated electricity demand requirements

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

Yes, we agree with the opportunities for change which have been outlined.

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

By increasing the synergies between the three energy system functions there is also an opportunity to move towards more strategic whole system planning at a local level. This is particularly relevant for the decarbonisation of heat, where the interaction between gas and electricity networks must be considered upfront to devise the most effective approaches to decarbonise heat at district and regional levels.

We believe it is also important to consider the cost savings which could be realised from improved governance - as this should reduce the likelihood of conflicts of interest between the ESO and DSOs and will result in less costly whole system balancing costs.

**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 chance and costs that have not been set out?**

As Ofgem have rightly identified - time and resource constraints are a key risk if the decision is made to proceed with change. However, given this is considering long-term opportunities for change this should give sufficient foresight to plan resourcing effectively.

We believe that it is equally, if not of more importance, to assess what can be done with current governance structures in the short term to increase and simplify access to distributed energy resources and domestic flexibility in the provision of grid and network services. Reviewing the long-term vision for local governance structures should not distract us from addressing and improving current issues, and therefore we are concerned about the knock-on impacts that such a review could result in.

We agree that upfront consideration of price control arrangements is important if any new entities are created as a result of the decision. There will clearly be a crossover between functions for the new entities created and those already existing, and therefore it is important that where multiple parties share the responsibility that all relevant entities are measured on performance through the price control. For example, if a new entity is created to facilitate and operate markets - it will be important that both this new entity and the DNOs are measured on levels of curtailed generation on the network, as this will partly be due to the DNOs ability to build network infrastructure quickly to manage constraints and forecast them, as well as the new entities ability to tender for and dispatch the right flexible services to manage the local network.

**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?**

Firstly it is worth noting that there are many variations of the four model options which could be envisaged and the assumptions will vary with each different model. The assumptions currently listed are extremely light touch and there are certainly some key assumptions missing that will need to be worked through in the next phases of this project. See the below list which names a few things that will need to be reviewed and thought through in more detail in the next phase of the review:

- How price control arrangements or incentive schemes would be developed and enforced for each organisation involved in local energy operation.
- The internal separation of DSO roles within DNOs assumes that all DNOs have the capability and rapid investment into skills and IT infrastructure to support near real-time market operation and facilitation.
- The 'regional system planner and operator' option assumes that planning poses the most significant gap in coordination. In our view market coordination poses the greatest risks if we continue on the current trajectory. Therefore we are proposing a central body to take on the role of market facilitator at both a national and subnational level, which assumes that market facilitation poses the biggest barrier and therefore coordination of markets is deemed the priority function to fix.

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

Given the limited detail shared on each of the model options, we do not currently have a clear preference for any one model option, nor do we believe any single option is capable of addressing all of the current governance issues at a subnational level. Instead, we would like to reiterate that we currently experience the greatest number of challenges with the market facilitation system function that has been outlined. In our view, the best option to improve market facilitation would be for one central body to take on the market facilitator role and coordinate across subnational and national markets. This central body could develop the digital capabilities needed to facilitate and operate markets efficiently, concentrating the requirements for building a digital system capable of extensive balancing and tendering capabilities with only one organisation. This body could



also evolve the single market platform, which we encourage Ofgem to mandate DNOs to start developing, into a single register of all assets on the system. This platform could be used to prequalify assets for services and for market participants to submit bids/offers which the body then processes. This approach should reduce conflicts of interest between DNOs and the ESO, will simplify the development of primacy rules if one body is responsible for all market facilitation, and could greatly improve simplicity for market participants.

Under this option, we foresee that DNOs will still be responsible for monitoring their networks and determining flexibility requirements, but will communicate this to this central body who then tenders out for the required services. Therefore DNOs will still need to invest significantly in IT capabilities and monitoring equipment to ensure they work towards full visibility of their networks down to a Low Voltage level, however, they will not be required to build the systems themselves to tender for services and dispatch assets in real-time.

We have concerns with the first and last model options; 'internal separation of DSO roles within DNOs' and 'interacting organisations'. For the first option, which is most comparable to the current path we are on, there are serious risks regarding conflicts of interest between competing DNO and DSO responsibilities - as distribution companies will have internal conflicts between wire and non-wire solutions to address constraints dependent on the separated internal function. We also believe that this option has the greatest potential to result in conflicts of interest between ESO and DSO procurement of flexibility services. For the final option, we are struggling to fully understand the proposal that has been outlined as it lacks clarity. Whilst we agree that existing core capabilities should be utilised for each organisation, we have concerns that this option could exacerbate complexity and lack of coordination in addressing the three energy system functions outlined.

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

Recruiting the right talent to ensure this digital management system can be built at pace and adapted when there are new services and changes to market rules will be crucial to ensure smooth real-time operation in the future. Significant investment will be needed to ensure software engineers, data scientists and other skilled technical specialists are attracted to the industry. We believe this will be challenging given the demand for these skills in other sectors and therefore this central body, or whoever takes on the role of market facilitation at a national level, must begin the recruitment drive as soon as possible.

This work mustn't delay progress in enabling DSO transition in the short term - as we need to continue driving forward progress to unlock much-needed flexibility from distributed energy resources. There are risks associated with uncoordinated organic growth in local flexibility markets if we carry on with the status quo. Therefore Ofgem should ensure that there is continued action in the near term to remove conflicts of interest and that the potential for longer-term governance reform does not result in pushing back the resolution of all the difficult and pressing problems which exist today.

Coordinating this reform with other industry-wide reforms already underway will also be challenging as there are areas of overlap. It is therefore important that the impacts are considered and that Ofgem feeds in outputs from this process into BEIS' Review of Electricity Market Arrangements (REMA) project, FSO proposals and Local Area Energy Planning.

**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)?**

Yes, we do. Progress must continue to be made in the short term whilst we wait for the implementation of longer more transformative governance reform. To drive forward short term progress there needs to be increased accountability and enforcement of DNO commitments, as outlined in the Open Network's Implementation plan. It would be beneficial if Ofgem took on a strengthened role to track progress of DNOs in their transition, and especially to monitor progress in several areas which are fundamental for DNOs to progress regardless of the preferred model option. Historically progress has been slow on the implementation of these products but they are fundamental to ensure transparency and increase customer confidence in DNOs capabilities to manage their networks. These include areas such as the development of a single market platform to be used by all DNOs or if not at least common API and backend website architecture, a standard suite of flexibility products which is consistent across all DNOs, and increased transparency in DNOs choices to use flexible connections, procured flexibility or investment in network infrastructure for network management.

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

We ask that Ofgem considers this work in parallel with the emerging and recently established policy topics such as; BEIS' REMA project, Ofgem's Access Significant Code Review (SCR), Ofgem's Distribution Use of System (DUoS) SCR, and the establishment of the Future System Operator.

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

Legislation will likely be needed for some of the more transformative governance structures proposed, which will drive timescales for the implementation of the long-term governance approach. Given this timing constraint, any change which does not require legislation but helps lay the groundwork for the future governance structure should be implemented as soon as possible. This will ensure institutions and impacted stakeholders are well-positioned to adopt changes as a result of legislation change when parliamentary time allows.

Depending on the preferred model option Ofgem decides on, the outcomes from this project may need to feed into the FSO reform process. Regardless of the preferred model option - local energy institutions must engage closely with the FSO to ensure that all energy system functions are delivered effectively in the coming years.