



Victoria Lower
DSO Governance Team
Office of Gas and Electricity Markets
10, South Colonnade
Canary Wharf London
E14 4PU
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E. ON UK
Westwood Way
Westwood Business Park
Coventry
CV4 8LG
eonenergy.com

Matthew Cullen
External Affairs Executive
matthew.cullen@eonenergy.com

Dear Ms Lowe

Ref : Call for Input on the future of local energy institutions and governance

Thank you for the opportunity to respond to Ofgem's call for input on the future of local energy institutions and governance. Please find below E.ON's response.

Summary

E.ON is pleased to see Ofgem addressing the question of DNO/DSO governance and its impact on driving forward the benefits identified in the Smart Systems and Flexibility Plan. We are disappointed that it has taken nearly three years since Ofgem's positional position on DSO¹ to get to this next call for input, especially given the large amount of work that was put into this question by industry through the Open Networks Project Future Worlds impact assessment back² in 2019.

We agree that Ofgem is considering the right key energy system functions (planning, market facilitation and operation) and that the assessment criteria (accountability, credibility, coordination, competency, and simplicity) are the right requirements for any new governance structure to maximise. We would suggest the addition of two more criteria; communication (in terms of ensuring that any institution has a requirement to keep stakeholders informed and looks to engage on a regular and bi-directional basis) and consistency (in terms of ensuring that all institutions are run on a similar basis across the country to ensure that all customers benefit equally and can participate).

Based on these criteria we believe that the current structure does not support accountability (as DNOs can opt to deliver a baseline, minimal DSO functionality if they choose without penalty), credibility (as DNOs as DSOs have a large conflict of interest over facilitating markets especially) and coordination (with the lack of

¹ <https://www.ofgem.gov.uk/publications/ofgem-position-paper-distribution-system-operation-our-approach-and-regulatory-priorities>

² <https://www.energynetworks.org/industry-hub/resource-library/open-networks-2019-ws3-future-world-impact-assessment-report.pdf>

progress in primacy rules between DNOs and the ESO as direct evidence). The current system is also not as simple as it might be. Of all of these issues, we believe that the DNOs lack of credibility as a DSO is the most significant stumbling block, and one which cannot be mitigated easily.

Whilst we agree with Ofgem that there are many benefits to moving away from the current system, we are concerned that the benefits and problems of each potential model are prioritised. We believe that a single body could deliver large synergistic benefits, but this must not be placed ahead of credibility which to our mind needs to be the primary focus of any new governance structure.

We do acknowledge that there are risks (that both Ofgem and the DNOs have highlighted) to moving away from the status quo to a new governance structure, but that the roadmap is easier than in previous times due to:

1. the requirement that Ofgem have placed on the DNOs to keep their DSO functions as separate from their network maintenance and building activities as possible (which some DNOs have shown more action on than others based on the draft RIIO ED2 business plans),
2. there now exists a separate system operator license that can be used as a template for a DSO license and
3. the learnings we have from the separation of the ESO from National Grid Transmission (NGT) as a template which has not led to safety issues or conflicts of interest, but which has highlighted areas of special concern e.g. IT systems.

Of the four framework models outlined by Ofgem, we have significant concerns that Model 1 (Internal separation of DSO roles within DNOs) does not offer the credibility that is so essential for local flexibility markets due to the conflicts of interest that has stubbornly remained despite the ENA's efforts, Model 4 (Interacting organisations) suffers from a lack of accountability which will be vital to drive forward the Smart System and Flexibility Plan (SSFP) and Model 3 (Regional System Planner and Operator(s)) will have fundamental issues around implementation and the potential large delays from creating such an entity. Our preferred model is that of the Future System Operator (FSO) taking on the role of the Independent Distribution System Operator such that it is accountable for many of the functions it already performs at national level, it is credible due to being an independent body by design and can possibly be delivered without the need for primary legalisation (if the new legislation for the creation of the FSO includes potential powers for the DSO roles to be incorporated into it at a later stage) which will reduce the delay to implementation.

Questions:

Question 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?

With the energy system changes outlined by Ofgem (decarbonisation of heat and transport as well as decentralisation of generation both requiring strategic investment in the electricity network infrastructure, especially at distribution level), we believe that it is essential that the three functions (planning, market facilitation, real-time network operation) are made as efficient and effective as possible to deliver the £10bn pa benefits highlighted in the Smart Systems and Flexibility Plan (SSFP)³. This has proved to work effectively in defining the regulatory areas that the ESO need to deliver upon at a national scale (planning, market facilitation and operation are the three roles used for the ESO incentive scheme) and there is no reason to believe that there will be any difference at a local level for DSOs. If anything, focussing on these three areas is even more vital for DSOs as all three are far more undeveloped than at a national level and need to be raised to a similar benchmark.

As part of real-time operation and the enabling function of digitalisation, we believe that real-time network monitoring across all voltage levels will be fundamental to deliver the open data and understanding of the network that the other two functions (planning and market facilitation) will depend upon to select the most effective and cost-effective roadmap towards Net Zero.

We are also highly supportive of Ofgem's acknowledgement that all three functions need to be considered in a whole system framework with the interactions between gas, heat and transport being incorporated into any potential institution/governance change.

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

We broadly agree with the five criteria selected for assessing the effectiveness of different institutional and governance models. However, as sub-national level models are more likely to involve engagement with the customer (or customer representatives such as flexibility providers/suppliers) directly we believe that the 'coordination' criteria should be divided into 'industry coordination' and 'customer engagement'. The first criteria (industry coordination) should focus on 'does this governance model best facilitate efficient working across institutions' whilst the second criteria (customer engagement) should focus on 'does this governance model best facilitate clear two-way communication with customers'. We feel that any governance model needs to consider whether any institution chosen to deliver

³ <https://www.gov.uk/government/publications/transitioning-to-a-net-zero-energy-system-smart-systems-and-flexibility-plan-2021>

a function is the best institution to communicate with customers and which customers will expect to 'hear from' on these topics.

We would also ask the question to Ofgem of whether fairness needs to be added as a criterion in terms of ensuring that any institutional arrangements allow for equality across the country. For example, allowing each DNO to deliver its own market facilitation role risks an imbalance for customers in that not all DNOs will develop this function at the same rate. This risks making some areas of the country better able to move towards Net Zero faster and leave some customers in other areas behind potentially paying a higher overall cost for their energy needs.

Question 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?

Accountability: We believe it is difficult to assess how accountable the current arrangements are, especially around market facilitation as this is a new area for the RIIO process. We await to see if Ofgem's DSO baseline expectations are sufficient and whether any DNOs look to overdeliver in this area such that the baseline is increased for subsequent price controls or whether all DNOs look to minimally deliver on this objective.

Credibility: We wholeheartedly concur with Ofgem's evaluation that DNOs suffer credibility challenges regarding the planning, market facilitation and real-time operation functions of the network due to their present dual role of owning, maintaining, and developing the network (Distribution Network Operators) whilst also being responsible for solving and delivering the most cost-effective solutions to tackling real-time network issues (Distribution System Operators). This conflict of interests has been raised numerous times by industry and to date many DNOs seem unwilling to make the governance changes needed to address this issue.

Coordination: We also see challenges under the status quo for planning coordination between different institutions. We agree that often local authorities and DNOs are unable to coordinate sufficiently due to a lack of understanding of each other's areas.

We would also highlight the lack of progress there has been in coordinating the primacy rules between local flexibility markets and national ancillary services. This topic has been a key work area for the Open Networks Project⁴ for several years, but to date there has not been any agreement and we fear that if the status quo remains then this important topic will continue to languish, preventing flexibility providers from stacking value across multiple markets.

Competency: We agree with Ofgem that DNOs do not have the experience (or competency) of other parties in running competitive flexibility markets and the status quo will require all DNOs to build up this expertise separately with high levels of duplication across all six companies i.e., IT systems, FTE experienced in market

⁴ Open Networks Project WS1A P5

design and development, marketing, and market operation. This would strike us as being not the most cost-effective option for customers. It is also not clear to us that all DNOs would develop at the same rate and to the same level of competency. If this were the case, then customers could see a postcode lottery in terms of developing local markets to be ready for Net Zero and hence an inequality in helping customers move away from gas heating and petrol vehicles.

Simplicity: We agree that the status quo concerning coordination between local and national planning (as well as markets) is very complex and needs to be simplified (which the current governance arrangements do not encourage).

We would also highlight that there are numerous entities that rely on these criteria such as energy suppliers who are best placed to talk to customers and hence can support the communication criteria outlined in Question 2, local community groups (which are very common in Europe) who can liaise with local government to inform energy plans and can help develop local government competency and flexibility providers who are also well suited to communicate with customers and who are highly skilled with respect to international examples of local flexibility markets.

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

It is our belief that the biggest blocker to delivering a cost-effective and efficient sub national network system is the lack of credibility that DNOs have to pursue the market facilitation and operation functions. As clearly laid out in the consultation, DNOs have a conflict of interest between delivering network stability through reinforcement or through competitive markets. Whilst we appreciate the efforts of the DNOs through their Flexibility First commitment⁵, we believe that there are indications of these conflict of interest starting to have a negative impact (such as the pursuit of swamping national ancillary markets with CLASS technology⁶ and the lack of willingness on the behalf of some DNOs to detail DNO/DSO separation governance changes within their ED2 draft business plans). Without trust in open and fair local flexibility markets, investor confidence in demand side response/self-generation will be limited and will not deliver the level of flexibility that the SSFP calls for.

Another big blocker to the development of effective energy system planning is the lack of understanding how networks work. Achieving net-zero targets is impossible without 'grass root' movement through local governments, councils, housing associations and energy communities. Yet we cannot expect that them have a level of knowledge and expertise needed to understand network complexity. Education, knowledge-sharing and intermediaries are required to plug the gap.

⁵ <https://www.energynetworks.org/creating-tomorrows-networks/open-networks/flexibility-services>

⁶ <https://www.ofgem.gov.uk/publications/regulatory-treatment-class-balancing-service-riio-ed2-network-price-control-2022-consultation>

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

Whilst we agree that maximising functional synergies is a very important opportunity, we would be wary of pursuing this at the expense of credibility. If analysis suggested that allowing DNOs to continue to deliver all three functions delivers the most functional synergy, we would highlight that this synergy may come at the expense of deterring more innovative and lower cost options from taking part in markets that are not seen as open, transparent, and fair.

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

As highlighted in Question 3, we believe that there are opportunities and benefits associated with consolidation to avoid duplication of systems and roles. This could be true across geographies, vectors (as seen by bringing together the planning functions of the national ESO and GSO in the FSO), and voltage levels and as such are worthy of inclusion in any Ofgem analysis.

Question 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?

We agree that there are differences between the governance changes at national level (in the creation of the FSO) compared to sub-national level and that the costs and risks are likely to be larger at the sub-national level. However, we do not believe that this considers the requirement that Ofgem have placed upon DNOs to keep their DNO and DSO businesses separate and to not integrated structures or systems to make later separation problematic as outlined in the RIIO ED2 Sector Methodology⁷.

"5.52 While work is underway to consider enduring governance models, we think it is right to embed appropriate measures to facilitate separability of DSO capabilities from the DNO."

We also believe that the existence of the ESO license should make the creation of a DSO license relatively straightforward. This can then be applied to the separate DSO business that DNOs should have within their companies.

We also acknowledge that the creation of any new entity (IDSO, Regional Planner and Operator) risks significant delay should primary legislation be required. Any delay will only serve to stall local flexibility markets and should be avoided where possible. However, we would be very interested to understand whether any legislative changes would be required if an existing entity (such as the Act which introduces an FSO were to take on some (or all) of these functions. It is our belief that such a model could dramatically reduce delays and costs.

⁷ <https://www.ofgem.gov.uk/publications/riio-ed2-sector-specific-methodology-decision>

Regarding the risks that the DNOs identified in Ofgem's RFI, it is our belief that the separation of NGT and the ESO has demonstrated that safety risks around the separation of DNO and DSO functions are small (especially if DNOs follow Ofgem requirements to keep their DNO and DSO functions separate as per above). We also challenge the DNOs' suggestion that separation of the DSO functions will lead to misaligned incentives and conflicts of interest and would again point to the NGT/NGESO separation as an example. This compares with the very real conflicts of interest as documented (but not tackled) by the Open Network Project WS3 P2 Unintended Consequences and Conflicts of Interest register⁸.

We do agree that the market facilitation role is the easiest function to separate from the DNO.

Question 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?

We have commented on each of the assumptions in turn.

1. *"Three DSO roles are inextricably linked and must be performed by one electricity body"*

We do agree that the three DSO roles are highly interconnected and feed as input and output for each other. We would point to the ESO as an example of where all three functions run smoothly with each other in a single body

2. *Potential conflicts [can be] mitigated by internal governance measures*

We disagree with this assumption on the basis that Ofgem felt it necessary to legally separate NGT and NGESO for the very same reason. Whilst we acknowledge the DNOs efforts to attempt to mitigate these conflicts of interest, we believe that there has been insufficient progress in the last five years (as exemplified by the lack of detailed plans for separation of the DNO/DSO functions within the ED2 draft business plans and challenging the role of the DNO through commercial activities such as Project CLASS). It is our belief that internal governance measures will not be sufficient to prevent DSOs from following a DNO culture.

3. *Coordination takes place between institutions*

This assumption would seem to run contrary to the last assumption around conflicts of interest as coordination between internally separated institutions can easily be seen as anti-competitive and closed. The stronger the coordination (which is a good thing) between internally separated bodies is, the stronger the perceived conflicts of interest from outside the institutions will become. It is our belief that the best way to tackle this dichotomy is to have total separation between the DNO and the DSO.

⁸ <https://www.energynetworks.org/creating-tomorrows-networks/open-networks/distribution-system-operation-transition>

4. *Independence of DSO from DNO is necessary to mitigate potential conflicts of interest*

As outlined in Assumption 2, we believe that it is necessary to have full independence of the DSO from the DNO to remove all actual and perceived conflicts of interest, which will be the major blocker to confidence in local flexibility markets.

5. *DSO roles need to be carried out by a separate body to manage potential conflicts of interest*

Broadly the same assumption as Assumption 4

6. *There is a case for integrating planning across energy vectors at a sub-national level*

We agree that the integration of planning across vectors is becoming more and more essential to deliver whole system optimisation. This is best exemplified by the decision to create a national FSO (Future System Operator) that will bring together gas and electricity national planning functions. We believe that planning at sub national level does require more coordination with stakeholders than at national level as small loads/generators have a more disproportionate impact on the various networks. For example, the creation of a new industrial park with embedded generation, EV charging and heat networks (permission for which is a local government decision) can have significant impacts on gas, electricity, and transportation networks at a regional level which would not be true at national level.

7. *Roles are most effectively when within-function synergies are maximised, and assigned to the institution(s) with the competencies to deliver them.*

It is our belief that the majority of value (or benefit) is not found in maximising within-function synergies i.e. specialisation of roles but that the synergies between functions are more valuable. Again, we would point to the ESO as a case in point where planning informs markets and markets inform operation, but where operation then feeds back to planning. Specialisation also prevents accountability from being set, as there are no clear delineations with regard to accountability i.e. has a customer been cut off because the operation function failed, because the market did not deliver for the operation function to make use of or because planning did not account for an eventuality where the market might fail. Therefore, we would recommend a framework where cross-function synergies are maximised.

Question 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.

Of the four high level framework models developed, we have significant concerns that Model 1 (Internal separation of DSO roles within DNOs) offers the least advantages compared to the status quo as it does not sufficiently address the very real issues around credibility (conflicts of interest) that the industry has raised

several times and which, over the last five years, have not been tackled adequately. There is no reason to believe that this lack of progress will change under Model 1.

We also have concerns around the lack of accountability under Model 4 (Interacting organisations) where specialist bodies can deliver their role, but no-one party has responsibility for delivering the final output of a low carbon, least cost and secure energy system.

With Model 3 (Regional System Planner and Operator(s)), we believe that the challenge will be around ease of implementation. Creating a new body (or even assigning functions to an existing body but taking them away from other existing bodies not directly under Ofgem's authority) will need a long time to implement through primary legislation. Any long delay will stall the development of local energy and flexibility and as such significantly reduces the advantages over the status quo.

Our preferred model, Model 2 (Independent Distribution System Operator(s) (IDSO)), has the best mix of accountability, credibility and ease of implementation (especially if DSO roles are assigned to an existing body like the ESO which is unlikely to need primary legislation) and as such delivers the maximum advantages over the status quo. We acknowledge that the degree of whole system optimisation is more limited under Model 2, but it is our belief that coordination of planning across vectors is an easier (and less risky) option.

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

The biggest implementation challenge is likely to be the separation of the DSO functions from within the existing DNOs. It is our belief that DNOs have not (as a whole) delivered the business and system separation that was required of them under the RIIO ED2 Sector Methodology and will resist the removal of DSO functions from their business. As such, we believe that Ofgem should focus on policing the Sector Methodology requirements in the current RIIO ED2 business plan approval process to ensure that future separation is as simple a process as possible.

Question 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)?

It is our belief that if Ofgem do decide to implement Model 1 then Ofgem must implement additional measures to ensure conflicts of interest are removed. Ofgem can no longer allow the DNOs to self-police this barrier and must ensure that the levels of legal separation that the ESO underwent in its removal from NGT i.e. separate buildings, separate Board etc are adhered to. There are also learnings from that NGT/ESO legal separation that will need to be incorporated in any Model 1 implementation i.e., the issues around IT system separation.

Even with a thorough and strict legal separation, there will always be perceived conflicts of interest and cultural changes that will be difficult to remove, and it is exactly for these reasons that we recommend that Ofgem do not pursue Model 1.

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

There are so many changes currently taking place in the energy sector that it is difficult to know which you have taken account of. However, we believe that there is nothing that this call for input has clearly missed and which will have a major impact on any decision.

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

The main timeline that should drive this project is the period over which RIIO ED2 is in place (2023-2028). To avoid significant re-opener applications, Ofgem should look to give the DNOs as much time to prepare for any major changes as possible.