

Energy Networks **Association response** Ofgem consultation on the future of local energy institutions and governance

May 2023

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Energy Networks Association

About ENA

Energy Networks Association represents the companies which operate the electricity wires, gas pipes and energy system in the UK and Ireland.

We help our members meet the challenge of delivering electricity and gas to communities across the UK and Ireland safely, sustainably and reliably.

- Create smart grids, ensuring our networks are prepared for more renewable generation than ever before, decentralised sources of energy, more electric vehicles and heat pumps. Learn more about our [Open Networks programme](#).
- Create the world's first zero-carbon gas grid, by speeding up the switch from natural gas to hydrogen. Learn more about our [Gas Goes Green programme](#).
- Innovate. We're supporting over £450m of [innovation investment](#) to support customers, connections and more.
- Be safe. We bring our industry together to [improve safety](#) and reduce workforce and public injury.
- Manage our networks. We support our members manage, create and maintain a vast array of electricity codes, standards and regulations which supports the day-to-day operation of our energy networks.

Together, the energy networks are [keeping your energy flowing](#), supporting our economy through [jobs](#) and investment and [preparing for a net zero future](#).

Our members and associates

Membership of Energy Networks Association is open to all owners and operators of energy networks in the UK.

- ▶ Companies which operate smaller networks or are licence holders in the islands around the UK and Ireland can be associates of ENA too. This gives them access to the expertise and knowledge available through ENA.
- ▶ Companies and organisations with an interest in the UK transmission and distribution market are now able to directly benefit from the work of ENA through associate status.

ENA members



Introduction

- ENA welcomes the opportunity to respond to the Ofgem consultation on the future of local energy institutions and governance, which comes at a critical junction for our energy system.
- The need to deliver net zero and energy independence will demand more of the nation's networks. It is essential that networks support the decarbonisation of both energy supply and of the activities of the nation. We stand ready to support the delivery of these key objectives at pace.
- There is considerable uncertainty about how net zero will be delivered. That uncertainty will continue for some time. The future regulatory framework for energy networks, including the proposals set out in this consultation document, must allow progress towards these key aims despite this uncertainty.
- To support the delivery of net zero and energy independence, the future regulatory framework needs to:
 - Support whole system thinking.
 - Support long term decision making.
 - Allow networks to deliver for customers.
 - Attract the considerable capital that will be needed.
 - Be able to respond to change flexibly and in a predictable way.
- Energy network companies recognise and support the case for evidence-based reform of energy market arrangements, systems and functions that is necessary to deliver deeper levels of decarbonisation of our energy system, and our homes, businesses, and communities.
- In the years to come, gas and electricity networks will emerge as the nerve-centre of a decarbonised economy, with their role changing from simply transmitting and distributing energy at lowest cost with greater reliability, to also facilitating the connection of, and management of the supply of energy to, a wide range of different decarbonised technologies.
- Network companies believe this transition will require network companies to work more closely together and with external parties in a fast and highly organised fashion. Decarbonised technologies adopted both by end users and the energy system itself will require a more interconnected and interdependent approach, due the behavioural characteristics of those technologies, the fuels which they are reliant upon and the volume, scale, and distribution of their uptake.
- As a reflection of that reality, we note that the proposals set out in this consultation should not be viewed in isolation from other areas of policy. Key, strategic policy interactions include but are not limited to:
 - The **Ofgem Call for Input: The Future of Distributed Flexibility** that is being run concurrently to this consultation and will have a direct impact on the proposals in it. In our response to both that Call for Input and this consultation, we set out the role we think that network companies can and should play in helping the government and the regulator meet the policy objectives related to the growth and management of flexibility markets.
 - **Future of Systems and Network Regulation** activity, also being undertaken by Ofgem. The design the successor price controls to the current RIIO-2 framework will be dependent on the roles and responsibilities of network companies, both as proposed in this consultation and in the Archetypes presented in the current Future of Systems and Network Regulation consultation. ENA's response to that consultation sets out the principles on which those different archetypes might be applied, in different scenarios.
 - The **draft Strategy & Policy Statement** by the Department of Energy Security & Net Zero (the Energy Department), which will inform how Ofgem will discharge its responsibilities in relation to strategic network planning, accelerated network infrastructure delivery, anticipatory investment,

and network connections. This can be expected to include long-term policy development decisions as well as shorter-term price control implementation decisions.

- The **Review of Economic Regulation** being undertaken by the Department of Business & Trade, which also covers the scope, duties, and responsibilities of Ofgem in relation to price control and institutional design.
- The **Review of Electricity Market Arrangements** by the Energy Department. While this is focussed on wholesale market reform, proposals for locational pricing would impact on the responsibilities and operations of network companies, and the planning of network infrastructure required to decarbonise the power sector by 2035. We note that there is still a great deal of ambiguity around the interactions between locational pricing, flexibility markets and network charging reforms and their collective potential to send locational signals.

Executive summary

In this consultation response, we set out how:

- A place-based approach is needed to deliver the energy network infrastructure required to facilitate greater levels of decarbonisation and enable a choice of the technologies needed to deliver that decarbonisation.
- There is a need for a market-neutral, cross-network, cross-vector and cross-sectoral function in the GB system, whose primary role is to identify, assess and co-ordinate how demand for energy is likely to develop at a regional-level during the net zero transition and to recommend optimal energy infrastructure responses at a regional and local level, to deliver the decarbonisation of our society and our economy.
- That Ofgem should focus on developing the detail of the function that is required within the framework, ahead of the specific vehicle for delivering that function.
- A Regional System Planner function could potentially fulfil that role effectively, so long as its roles and responsibilities are developed in a way that does not duplicate the roles of others (including network companies) and they are equipped appropriately to take account of the place-based specificities of net zero in each location, the social and economic challenges of decarbonisation, as well as the financial, engineering and planning considerations.
- On market facilitation, ENA's Open Networks project published in February 2023 its plans, based on stakeholder feedback, to address the need for a more focussed and outcome rather than output orientated approach to facilitating distribution flexibility markets.
- This approach is focussed on improving participation, transparency, and co-ordination in those markets, mirroring the requirements of Ofgem's proposals and so warrants an assessment by Ofgem and network companies, as part of developing the proposals set out in this document.
- There is the opportunity for the Energy Department, Ofgem and network companies to work together refine and refocus Open Networks. This opportunity exists because irrespective of a final decision on a single market entity, there will be a need to ensure Open Networks is aligned the government and the regulator's near to medium-term policy objectives.
- Network companies recognise the need to respond to the rising challenge of an increasingly interdependent and interconnected energy system, through real time operations. For network companies but also through the price control for the Future System Operator and proposed Regional System Planner function, to shift the balance towards more collaboration between actors to support this. The FSO will also need to share information and insight so that all parts of the system can operate efficiently.

Our response

Energy system planning

Q1. Do you agree with our proposal to introduce Regional System Planners as described, who would be accountable for regional energy system planning activities? If not, why not?

- Yes. There is a need for a market-neutral, cross-network, cross-vector function whose primary role is to identify, assess and co-ordinate energy infrastructure requirements at a regional and local level, to deliver the decarbonisation of our society and our economy. At this stage Ofgem should focus on developing the detail of the function that is required within the framework, ahead of the specific vehicle, as set out in detail in this response.
- The primary function should be to provide a common, co-ordinating framework that can then be contextualised by local actors and delivered by relevant bodies, such as network companies, in a way that is closely co-ordinated with national-level decision-making related to that infrastructure, including through the price control process for energy networks.
- Co-ordination and co-operation across electricity and gas networks, as well as local authorities, adjacent sectors (for example, waste, telecoms, transport, water, and heat) and other players in the energy system value chain, will be fundamental for delivering the infrastructure and technologies that are required for decarbonisation, across a variety of differing regional environmental, physical, human, and economic settings. Transparent, accountable, and consistent methodologies and systems which can be used across all these actors will therefore be required to ensure that co-ordination and co-operation is successfully delivered.
- Ofgem should clearly set out how the roles and responsibilities of the Regional System Planner (RSP) function will be introduced in a way that draws upon and enhances existing regional planning functions, including those of energy network companies, rather than simply duplicating or degrading them. This should include explicit consideration of (and consultation on) which licence and regulatory requirements on existing licensees would be affected by or would transfer to the proposed RSP function. We note and welcome that Ofgem have committed to engaging with stakeholders through workshops over the summer and hope that these will help develop this detail.
- The principle of market-neutrality is key to ensuring that all parties have confidence in the proposed RSP function, the methodologies and systems used, and that those actors such as Ofgem are confident of the provenance of the evidence on which they are basing their decisions.
- The successful discharging of the RSP function's responsibilities will be dependent on the allocation of adequate resources, expertise, and skills, which is rooted in a strength of commercial, planning and engineering expertise and experience.
- The Centralised Strategic Network Plan for electricity transmission networks that will be delivered by the Future System Operator (FSO) serves as a useful example of this at national level. A model at regional level will have to draw on cross-sectoral analysis of demand, be integrated with local and regional authority planning and will not be able to predict with the same level of granularity, as demand will be highly locationally-specific across the thousands of secondary networks in unpredictable ways.
- Although a decline in annual demand is generally seen as the trajectory for methane, it will continue to play a critical role in energy security and resilience during the energy transition, acting as an underlying insurance policy throughout, particularly in relation to the desired penetration of intermittent renewable electricity. Ongoing investment will be required in the gas network to maintain these energy security properties, and this will need to be delivered in the context of an efficient and effective whole energy

system transition, as recently acknowledged by the government's publication of 'Powering Up Britain: Energy Security Plan'.

- Hydrogen will play a major role in decarbonisation, with some certainty around its role in industry and power generation, and potential to play a significant role in transport and heat. It is therefore vital that Ofgem includes hydrogen in its thinking on national and regional infrastructure planning, again in the context of whole energy system transition and the essential need for energy security.
- For both gas and electricity transmission networks, there is a need to ensure recognition is given through a RSP function to the critical role they provide in energy security by having the infrastructure to move energy where it is needed at peak times. The role of transmission networks as integrated system owner and operators enables this to happen. A far wider view on the level of resilience is needed and the benefits to all energy consumers of having a resilient network that is the only viable and economic power generation solution at these peak times.

Q2. What are your views on the detailed design choice considerations described?

- We agree with the detailed design choice considerations described in the consultation document, with the following comments:

Roles and responsibilities. There is a need for Ofgem to clarify the detail of the roles and responsibilities of the proposed RSP function, as a priority. It must also be clear how the RSP's recommendations and outputs would be considered and used by other stakeholders, in an accountable way, including in the price control process.

Distribution Network Operators and Gas Distribution Networks already have a strong understanding of their local network areas, based on years of experience and local knowledge, have existing stakeholder relationships based on that and are already investing and planning on a whole system basis based on obligations under RIIO-2. Distribution Network Operators are responsible for developing Long-Term Development Statements, Network Development Plans and Distribution Future Energy Scenarios (DFES), as well as for periodical business plan development, based on that knowledge and engagement. The roles and responsibilities of the proposed RSP function must draw upon, rather than duplicate and degrade, this work. Ofgem should set out clearly how that it will ensure that will be the case; a key test that it could apply to this process is who would fulfil those roles and responsibilities if the proposed RSP function did not exist.

For gas networks, particular attention is required for accountabilities owing the integral nature of ownership and operation of gas network assets, the need to ensure appropriate obligations with regards to maintaining resilient operation across the entirety of the network and the nature of activity to optimise assets across decommissioning, repurposing, and new build, as opposed to building significant volumes of new assets.

Ofgem should also clarify whether it intends the proposed RSP function to provide a delivery function, as suggested under Archetype 1 of the Future of Systems & Network Regulation (FSNR) consultation. The role of the proposed RSP function should be focussed on providing greater linkage between regional needs and adding value to network planning and delivery, to assist price control decisions by the regulator. Some ENA members believe the RSP's responsibilities should not extend to determining and procuring the means of meeting an identified need, as suggested in Archetype 1.

Those ENA members instead believe that the responsibility should sit with those who have the core competency to carry out this activity and believe that it should be the responsibility of network companies to determine the network infrastructure outcome that is required to meet regional plans. These network companies believe that DNOs and GDNs will be the ones accountable for delivery of that infrastructure, for example, for determining the locations of specific infrastructure or specifying maintenance requirements. As such, these members believe that network operators understand their

own assets best and most importantly how to maintain their assets to secure public safety, as well as how investment in anticipation of need could facilitate decarbonisation outcomes, such as quicker connections. Therefore, these network companies believe this responsibility needs to sit with DNOs and GDNs. It should be noted that these are the views of some member organisations and other organisations hold differing views.

Accountability & democratisation of energy system development. Accountability and independence are important, and they must reflect the reality that the delivery of the infrastructure and technologies needed for decarbonisation is as much a political, economic, and social challenge as it is a commercial, engineering, and technical one. The relationship between the proposed RSP function, local authorities and devolved administrations will therefore be key.

Democratic accountability and the interactions of the proposed RSP function with local authorities, devolved administrations, and other political actors (e.g., Members of Parliament) will be just as important as its technical accountability and its related interactions with infrastructure providers and Ofgem, if the proposed RSP function are to be regulated by the energy regulator through a price control process. This is particularly important considering the emerging evidence from stakeholder engagement around Hydrogen Village Trials, which demonstrates that even where a choice of technologies for heat decarbonisation is provided, there will still be the feeling that a decision to move away from existing technologies is being imposed.

Through the design of the RSP function, Ofgem should also recognise the need to address the reality that the changing demands of democratically elected institutions are not necessarily compatible with stable, long-term regulatory structures like price controls, which are designed as such to deliver stability and certainty for investors. Interactions with FSNR are key here, as incentive-based regulation for infrastructure providers, as set out under Archetype 2 of the FSNR proposals, is one option that could provide that certainty of a return to investors whilst also providing flexibility.

Ofgem should set out how it will work with the Department for Levelling Up, Housing and Communities (DLUHC), the Energy Department and local authority representative groups to ensure that this reality is reflected in its plans and that local authorities and devolved administrations are suitably equipped, as per our comments in the immediate point below.

Institutional change & maximising cross-sector and cross-vector synergies. Institutional change by itself should not be viewed as a panacea for regional planning. Consistency and transparency in planning assumptions between local planning authorities, network companies, the proposed RSP function and the Future System Operator (FSO), as well as other regional stakeholders, are a matter of ensuring the correct planning assumptions (including business development) are in place, alongside data processes and controls. This is particularly the case when striving to take a more whole systems approach to regional planning, which will require more in-depth engagement with both new and existing stakeholders than has previously been the case. Ofgem should set out how and by what regulatory mechanism it will ensure that the function will meet that requirement.

At the same time, in the interest of accountability and democratisation of the energy system (see above) the introduction of the proposed RSP function must be matched by the adequate resourcing and expertise of local authorities and devolved administrations to engage with them. At present, engagement between network companies and these bodies is already limited in scope for that reason.

There is often some confusion amongst local authorities and devolved administrations of their roles and responsibilities, which can act as a blocker to cross-vector planning and decision making. To date the processes which DNOs follow through DFES inputs that go beyond those of local authorities/devolved administrations and require additional spatial planning/assumptions for certain technologies. DNOs are in the process of setting up teams/resource to engage with regional stakeholders more proactively as part of their strategic planning functions, but more clarity for all actors would be beneficial.

Ofgem should work with DLUHC, the Energy Department and local authority representative groups to ensure that they are better equipped to adequately take part in the regional energy planning process.

Expertise & experience. The proposed RSP function will need to be sufficiently resourced to deal with the development of regional whole system energy plan derived from local area energy plans. Access to commercial, engineering and planning skills, expertise and experience will be necessary if it is to discharge its responsibilities successfully and credibly. In the interests of avoiding duplication of planning functions (see above) and of speedy development of the RSP function (see below), Ofgem should set out how it will interact with network companies to draw about their expertise and engineering across all these areas, helping identify where capability gaps are likely to exist. See our response to Question 4 for additional comments on this issue.

Expertise & experience case study: Safety & gas network decommissioning

Gas network companies work on the principle that so long as there is one customer that is connected to the network and using methane, then the network operator must be focussed on the safety of the entire network up to that customer. This engineering challenge has a commercial and planning impact, because it will not be possible to change an investment pattern in gas network infrastructure because only half of the original number of customers are connected.

A regional system plan needs to be at a sufficiently large enough geographic level for any decisions on gas network decommissioning to be plausible.

Co-ordination is the key role of the proposed RSP function here, it will drive benefit if it can drive consensus across a wide regional area. Worst case scenario would be for local authority A to propose electrified or hydrogen heating (and subsequent decommissioning or repurposing of the existing gas network), only for local authority B next door to propose retention of the gas network in the area for the time being. Following this case study, the gas network could also remain in local authority A's area and risk inefficient planning of the energy system in the wider region.

Timings. With the 2035 power decarbonisation target now only 12 years away, the 10GW of domestic hydrogen production target only 7 years away and other interim targets (for example, the installation of 600,000 heat pumps per year by 2028) also expected to have a major impact on energy network planning, the proposed RSP function will have an important role to play in the price control period following RIIO-2 and its successors.

Key decisions on network planning and business plan formulation for the next price control will be made within this timeframe. Therefore, Ofgem should look to ensure interim measures are in place which including drawing on existing best practice processes from network companies.

Clearly defining the RSP function's roles and responsibilities, as set out in this response above, at the earliest possible opportunity is necessary to support the speedier development of the function, both in terms setting out in what areas of resource it will or will not require, how it will prioritise developing its assigned capabilities and what areas of expertise it will rely upon external stakeholders for.

Q3. Do you have views on the appropriate regional boundaries for the RSPs?

- Boundaries will need to reflect not only the commercial, planning and engineering realities of regional system planning, but also the socio-economic and political realities too, to help ensure that they are democratically accountable and have a mandate, as set out in our response to Question 2 above.

- Planning for net zero goes beyond the energy sector and will involve a range of different political and social sensitivities. We do not think it would be appropriate for the energy sector to be seen to be directing the entire regional economic planning by imposing regional divisions based on energy network license boundaries and the latter are not consistent in any event.
- As noted above, the proposed RSP function will need to be sufficiently large enough to drive a sensible consensus for multiple local authorities for the regional energy system plan. If set at too granular a level, this could end up with sub-optimal energy network development. One local authority cannot be backing hydrogen for domestic heating, with its neighbour backing electric heating, for example.
- One suggestion is that the boundaries are aligned with those local authorities and devolved administrations. We recommend that Ofgem works with the Energy Department, and the DLUHC to consider this proposal. There may also be natural “boundaries” reflecting breaks between conurbations etc that lend themselves better to being the boundaries than any of the existing ones.
- The proposed RSP function will need to take a co-ordinated view across regions. For example, because gas and electricity networks cross over different regions, there is the potential for consumers to be on one side of a boundary with a decision on energy system planning that differs to the next. Ofgem needs to mitigate the risk that the function does not deliver the consistency and high-quality evidence for the need for investment and simply becomes an advocate for local projects. This would perpetuate the issue that Ofgem is actively seeking to resolve.
- The proposed RSP function should not delivered in a way that duplicates the planning and delivery functions of network companies but instead adds value to them. For example, it should not be responsible for determining the locations of specific infrastructure or specifying maintenance requirements but be responsible for managing and co-ordinating a regional planning framework that links back to regulatory decisions on network infrastructure.
- Navigating regional boundaries will not simply be an exercise in administration. The proposed RSP function will need to ensure that they have the right planning, financial and economic and engineering resources, and experience, to understand the real-world impact of these boundaries on their work, as the case study in our response to Question 2 sets out above.
- Clarity of communication and consistency of co-ordination with stakeholders will be key, to ensure that the proposed RSP function are drawing upon local knowledge and expertise to feed into their efforts to navigate regional boundaries.

Q4. Do you agree that the FSO has the characteristics to deliver the RSPs role? If not, what alternative entities would be suitable?

- There are varying views between network companies on whether the role of the proposed RSP function should be allocated to the FSO.
- There is a concern from some DNOs that the FSO risks being overburdened with duties and roles, particularly when it needs to develop its basic expertise in new areas (as compared to the ESO) such as gas/hydrogen transmission planning. This is a concern for gas networks as well, as this is likely to be additive to implementation timeframes, but also delay development of methane and hydrogen capabilities.
- However, network companies share the view that the proposals are still high level and further detail should consider the amount of relevant work being undertaken by DNOs and GDNs. As part of the process of defining the roles and responsibilities of the RSP, Ofgem should work closely with industry to ensure that it has fully explored the range of options available.
- Regardless of the chosen organisational vehicle, the companies agree that the RSP will need to develop knowledge of the regional environmental, physical, human, and economic factors in each area.

- Ofgem should prioritise setting out the detail of the role and responsibilities of an RSP (see our response to Question 3), so gas and electricity network companies can then work with the regulator to identify and develop what processes will need to be in place for the RSP to access that information from network companies, and how the RSP will also engage with local authorities, devolved administrations and other local stakeholders.
- The RSP function will need to consider how it has access to resources, skills, expertise, and experience, in the following interdependent areas:
 - Financial – in terms of understanding the investment and financing requirements and realities for new, reinforced, and repurposed energy network infrastructure.
 - Engineering – in terms of understanding the day-to-day practical engineering realities that have a strategic impact on planning and commercial decisions related to network infrastructure and the need to build in innovative solutions and purchase of flexibility services.
 - Economic – in terms of understanding the demand needs of the full range of energy users in a particular locality and the likely evolution of such demand.
 - Planning – in terms of understanding the system-wide impacts of planning decisions and how they interrelate with the commercial realities of building new network infrastructure.
 - Geographic – in terms of understanding the place-based economic geography of each region and locality and the extent to which these specificities offer distinctive opportunities and/or threats which may dictate the optimal place-based solution.
- In addition, and across all these areas, we would foresee there being a requirement for key, specialist skills in stakeholder engagement and data management.
- The extent to which the RSP function will need to access these competencies ‘in-house’ or via stakeholders will be determined by the detail of its roles and responsibilities. Clarifying in more detail the roles and responsibilities of an RSP will also help identify other requirements.
- Without being adequately equipped in each of these areas, there is a risk that the proposed RSP function would simply add an additional level of complexity to the delivery of network infrastructure required for decarbonisation, in terms of a lack of a comprehensive understanding of the issues at hand.

Market facilitation of flexible resources

Q5. Do you agree with our proposal for a single, neutral expert entity to take on a central market facilitation role? If not, why not?

Q6. Do you agree with the allocation of roles and responsibilities set out in Table 2? If not, why not?

Q7. Are there other activities that are not listed in Table 2 that should be allocated to the market facilitator or other actors?

Q8. What are your views on our options for allocating the market facilitator role?

Q9. Are there other options for allocating the market facilitator role you think we should consider? If so, what advantages do they offer relative the options presented?

- We have chosen to group our responses to Questions 5 to 9 together, as follows.

Our response to the proposals

- Network companies strongly support the key elements of the vision for market facilitation set out on p.29 in the consultation document.

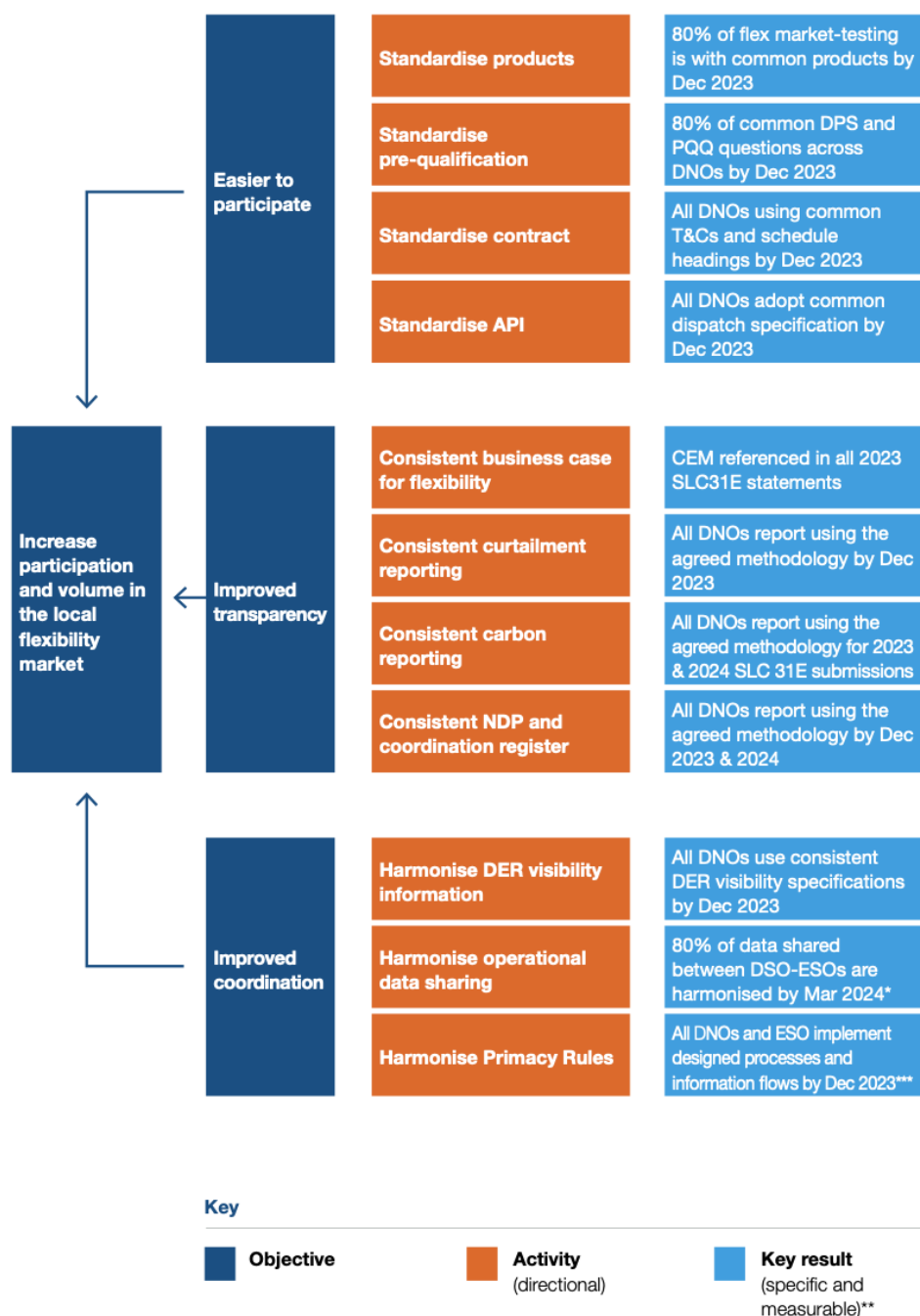
- It should be noted that gas networks provide flexibility for gas-fired (and in the future hydrogen-fired) electricity generation through making gas available and through provisions in Network Exit Agreements to obtain flexibility from National Gas Transmission. At present, this activity is not visible because gas distribution networks charges don't separate capacity (peak day demand) charges and charges for diurnal storage, but it doesn't mean that the service is not provided.
- There are varying views between network companies on whether a single market entity for market facilitation should be introduced at this time and whether that role should be fulfilled by the FSO, further to our earlier comments in this response about its growing list of roles and responsibilities. There is recognition, however, that there may be a need for that entity in the future.
- It should be noted that the work being undertaken by Open Networks is based on 2018 Open Networks Future Worlds assessment, developed in close partnership with Ofgem and the Energy Department, to both shape reforms and inform government and regulatory policy decisions through the Smart Systems & Flexibility Plan (2021).
- Crucially, and following stakeholder feedback, these objectives will be delivered by setting out specific and measurable results with clear timelines for consistent implementation. These are set out in the Open Networks 2023 Work Plan in more detail¹.
- In January this year, ENA's Open Networks set out its own proposals to focus on increasing participation and volumes in the local flexibility markets, and the changes required to the governance, participation and focus of the programme, to ensure an enhanced focused on delivery of outcomes rather than outputs.
- We believe that those proposals warrant more detailed consideration by the Energy Department and Ofgem as part of this consultation process than has been the case to date.
- Whilst network companies recognise and accept the need for changes to the programme, it is also important that the regulator recognises the progress that Open Networks has made over the last five years. Both the Energy Department and Ofgem, working in partnership with network companies as members of the Open Networks Steering Group, have played a significant role in that success:
 - 3.7GW of flexibility was tendered out in 2022 – a record amount, with 2GW of this contracted by July 2022, maintaining the UK as a European leader in local flexibility markets.
 - 2022 also saw an increase of 31% flexibility services tendered since 2021, and a 76% increase since 2020.
- In addition, in July 2019, a joint letter from Ofgem and the Department to ENA stated that "since the publication of the Smart Systems and Flexibility Plan, we have seen a positive step change in efforts to open up network needs to competition and support network coordination".
- Comprehensive stakeholder feedback² was gathered to determine how Open Networks should meet these objectives. In summary, this feedback showed the following:
 - Where Open Networks is working well:
 - There remains strong stakeholder support for the programme and its outputs. Stakeholders were unanimously in support of ENA's efforts to deliver the programme, bringing together all the network companies and the ESO.
 - The transparency of our stakeholder engagement efforts was welcomed.

¹ The *Open Networks 2023 Detailed Work Plan*, published by ENA in January 2023 is available online [here](#).

² See the *Open Networks 2023 Launch Document*, published by ENA in January 2023. Available online [here](#).

- Where Open Networks needs to improve:
 - Whilst most acknowledge the importance of Open Networks, we received feedback from stakeholders noting some concern around the speed and consistency of implementation of the outputs by the participating ENA members, resulting in limited improvement to customer experience for non-network stakeholders such as flexibility providers.
 - Focus on areas that lead to tangible results and prioritise efforts on “big ticket items” that flexibility service providers see as barriers to entering the market.
 - Improve engagement in feedback loops with industry innovation projects, sharing learnings in both directions.
- From 2023, and in-line with the vision set out by Ofgem’s proposals, the programme will take a more refined focus, which will centre on:
 - Making it easier for flexibility service providers to participate in the flexibility market by standardising products, processes, and contracts.
 - Improving operational coordination between networks and companies to remove barriers to the delivery of flexibility services,
 - Improve the transparency of processes, reporting and decision-making.
- The diagram below sets out how Open Networks will deliver these changes in 2023³, in terms of the activities it will deliver to achieve them, and the key performance indicators used to track progress. These are set out in the Open Networks 2023 Work Plan in more detail.

³ *Open Networks 2023 Launch Document*, published by ENA in January 2023. Available online [here](#).



Therefore, Open Networks remains an adaptable and flexible means of delivering the reforms needed to achieve the growth of distribution flexibility markets, including those proposals set out in the consultation document.

If a single market entity is introduced, there will be a need to ensure that any conflicts of interest that might undermine the development of flexibility markets at a distribution-level are adequately addressed.

- Some members believe that should the FSO be allocated this role, then there could be a perceived risk of a conflict of interest between the FSO's need to purchase flexibility services from the open market to meet its own obligations, and its responsibility for designing flexibility markets for distribution level services, which it does not have responsibility for purchasing services for. We would recommend that the new Market Facilitator role should be licenced and clearly require the role to act in the interest of the whole system.

Next steps, engagement & pace of change

- Regardless of a decision on the proposal for a single market entity for market facilitation, there will continue to be a near to medium-term need to ensure that Open Networks and market facilitation developments by network companies adequately meet the government and regulatory policy requirements of the Energy Department and Ofgem.
- This includes changes to the pace and the scope of reforms to the programme that are needed to meet those policy requirements. Network companies remain confident that they will be able to deliver those changes. An additional benefit of this approach is that it would allow the regulator additional time and space to consider its proposals for market facilitation reform in more detail.
- Clear, consistent, and well-co-ordinated engagement both with the Energy Department and Ofgem is key to ensuring Open Networks builds on its considerable achievements to date. The consultation document does not include an assessment of the proposed changes to the Open Networks programme that were published in January 2023 and their suitability to meet current government and regulatory policy objectives.
- Therefore, governmental, and regulatory stakeholders should work with network companies to:
 - **Assess** what elements of the Open Networks work programme, as set out as part of 2023 plans, can adequately serve their current policy objectives.
 - **Identify** what changes Open Networks can make, beyond those already set out above, to improve the pace of outcome-focussed delivery in the near and medium term (< 2 years).
 - **Determine** what accountability mechanisms could be introduced to ensure the programme and network companies better meet the government, the regulator, and wider market's requirements in terms of pace of change and outcomes.

Real-time operations

Q10. Do you agree that DNOs should retain responsibility for real time operations? If not, why not?

- Yes. Gas and electricity network companies believe that this is the correct approach given both the work that is already underway by those companies in relation to real time operations and the potential disruption that reassigning responsibilities would cause to that.
- While gas distribution network companies already manage the gas system in their respective areas in real-time, this is becoming more complex due to distributed entry of low carbon gasses, with biomethane injection and flexible electricity generation plants connected to the network. The injection of hydrogen for blending will add to this complexity.
- Real-time operation by electricity distribution network companies will need to be expanded from higher voltage networks (as is the case today) to lower voltage networks, as increasing amounts of distributed energy resources are connected.
- Greater levels of dispatch will naturally require greater levels of engagement across a far greater range of different assets displaying a greater range of differing behaviours. Networks will continue to invest in

data and the digitalisation of systems during RIIO-ED2 and beyond to ensure that they can manage operations in-line with their licence conditions.

- There is an important need to understand and plan for this enhancement of asset intelligence and development of digital systems, which must continue to be backed up by regulatory incentives. This will need to form part of the wider proposed framework for network planning. As a part of this, it is also important to note that networks may need to have access to customer smart meter and asset data, potentially in real time, to be able to operate networks efficiently.
- Specifically, network companies share the view that it is important to identify and recognise the synergies that exist both within and across planning, market facilitation and real-time operational functions of energy network infrastructure, and subsequently the important requirement to understand how and where to best draw lines regarding roles and responsibilities.
- Coordination and cooperation across electricity and gas network companies, as well as local authorities, adjacent sectors (e.g. transport) and third parties and service providers, will be fundamental for achieving net zero at lowest cost. For electricity networks, the work being undertaken through the refined scope of Open Networks (see our responses to Questions 5 to 9, above) will be key to facilitating this.
- Alongside industry engagement through their own stakeholder engagement activity as well as the Open Networks project, ESO's existing Operational Transparency Forum, which is an open technical industry forum held weekly to discuss recent operational actions we have taken in the Electricity National Control Centre and answer any questions, serves as a useful example for how network companies can engage more widely on technical and operational activity.
- We are supportive of the role that the proposed RSP function, working with network companies, and third parties and service providers such as aggregators and demand-side response providers, can play in assisting with the sharing of operational insights and effective planning. However, network companies will increasingly be dependent on all of these parties for the smooth and efficient execution of real time operations.

Next steps

Q11. What is your view on our proposed approach to the undertaking of an impact assessment as outlined in Appendix 1?

Q12. What is your view on the most appropriate measure of benefits against the counterfactual?

Q13. How should we attribute these benefits between the governance changes in the proposed option, and other changes required to achieve the benefits? We particularly welcome analysis from bodies that have undertaken an assessment of benefits, specifically how those benefits might be attributed to different policy reforms that are required to achieve those benefits.

Q14. What additional costs might arise from our governance proposals? We welcome views both on the activities that may arise and cause additional costs to be incurred, as well as the best way to estimate the size of the costs associated with those activities.

Q15. What additional costs may arise from sharing functions with several interacting organisations? We welcome views on set up cost, lost synergies, and implementation barriers.

- We have chosen to group our responses to Questions 11 – 15.
- Given the wider points made earlier in this response, there is an important need to move at pace in delivering assessment of the proposals. Network companies wish to avoid a hiatus, so it is important to ensure the assessment is completed in a timely manner.

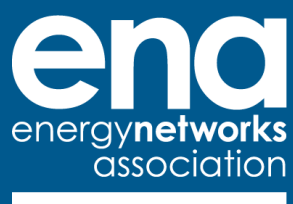
- In 2018, ENA published the Open Networks Future Worlds assessment⁴ of different system architectures that can deliver a more decentralised and decarbonised energy system.
- The final conclusions of this assessment developed using the Smart Grid Architecture Model (SGAM) were then used to develop an evidence pack for the regulator and the Department of Business, Energy & Industrial Strategy, to inform the direction in which electricity networks should evolve their business operations and market functions in line with government policy.
- These Future Worlds are summarised as follows:
 - World A: DSO Coordinates – a World where the DSO acts as the neutral market facilitator for all DER and provides services on a locational basis to National Grid in its role as the Electricity System Operator (ESO).
 - World B: Coordinated DSO-ESO procurement and dispatch – a World where the DSO and ESO work together to efficiently manage networks through coordinated procurement and dispatch of flexibility resource.
 - World C: Price-Driven Flexibility – a World where changes developed through Ofgem's reform of electricity network access and forward-looking charges have improved access arrangements and forward-looking signals for Customers.
 - World D: ESO Coordinate(s) – a World where the ESO is the counterparty for DER with DSO's informing the ESO of their requirements.
 - World E: Flexibility Coordinator(s) – a World where a new national (or potentially regional) third-party acts as the neutral market facilitator for DER providing efficient services to the ESO and/or DSO as required.
- The SGAM provided a tried and tested methodology for managing the scale of the task. In addition to this modelling work, in an exercise entitled Least Regrets Analysis, the model identified some areas of functional commonality between all five Future Worlds. Given the wide range of scenarios that the proposals in this document exist in, this approach may be of particular use.
- The Assessment was based around a broad qualitative assessment of the Future Worlds against over 30 different criteria identified by the ENA and stakeholders, under the headings set out by the Treasury's Five Case Model for assessing business cases. In addition, it considered the quantitative costs and benefits of the different Future Worlds, including how they can best help avoid network investment, reduce the cost of Balancing Services, or avoid the need to build new generation plant.
- Ofgem's assessment should ensure that it captures the following network functions, which were also used as part of the Future Worlds Impact Assessment:
 - System co-ordination.
 - Network operation.
 - Investment planning.
 - Connections and connection rights.
 - System defence and restoration.
 - Services/market.
 - Facilitation.

⁴ 'Future World Impact Assessment', by Baringa for ENA Open Networks, February 2019. Available online [here](#).

- Service optimisation
 - Charging.
- It then assessed these benefits under two of National Grid's 2018 Future Energy Scenarios (FES) – Community Renewables and Two Degrees. These Scenarios were chosen as the two scenarios which deliver government policy but through a different mixture of centralised and decentralised generation.
- Through Open Networks, network companies have also developed a Whole Energy Systems Cost Benefit Analysis assessment methodology from initial concept to functioning model by the project team this year, which is on track to be used for the Coordinated Adjustment Mechanism in the RIIO-2 price control.

Concluding remarks

- We welcome the opportunity to respond to the proposals that Ofgem have set out in this consultation.
- ENA and its members are keen to engage with the regulator on an ongoing basis as it continues to develop them in more detail, particularly in relation to the development of the Regional System Planner function and the proposed refinement and refocussing of the Open Networks project.
- Should you have any questions about the points raised in this response, please contact Edward Gill, Head of Markets Policy at ENA, via Edward.gill@energynetworks.org.



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