



Department for
Business, Energy
& Industrial Strategy

ofgem

Making a positive difference
for energy consumers

Future System Operator

Government and Ofgem's response to consultation

April 2022



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Ministerial Foreword

Our energy system is at a transformative moment. We need fundamental change to ensure we match the scale of our net zero ambitions, set out in our recent Net Zero Strategy, but also to implement this change efficiently so that consumer bill payments are kept as low as possible. This requires a shift to a more ‘whole system’ approach, coordinating the ever more integrated electricity and gas systems, both onshore and offshore, while looking ahead to the emerging markets of hydrogen and Carbon Capture and Storage. And it is necessary that the rules and governing institutions of the system adapt and evolve to support and enable this transition.

The Russia/Ukraine conflict only underlines the serious need to transition and decarbonise our energy system and focus on generating cheaper, cleaner power in Britain. This is not only vital for reaching net zero but also to our national security, and to becoming energy independent in the long-term.

The consultation which we undertook over the second half of last year has confirmed the view that a new, independent Future System Operator (FSO) can play a vital part in helping us meet these challenges. In this consultation response we set out our commitment to proceed with the creation of the FSO, as an expert, impartial body with an important duty to facilitate net zero whilst also maintaining a resilient, and affordable system. We will establish the FSO in public ownership, in a way which ensures it is truly and properly independent – not only of asset ownership and other commercial energy interests, but also from day-to-day operational control of government. As a trusted and expert body at the centre of the gas and electricity systems, the FSO will play an important role in coordinating and ensuring strategic planning across the sector. It will have an ambitious long-term vision and provide independent advice to government and Ofgem. I am hugely encouraged that both energy industry participants and consumer groups have broadly endorsed these changes and responded to our consultation with similar levels of ambition.

We acknowledge that this will affect the current electricity and gas system operators, owned by National Grid, because the FSO would be founded on some of the existing roles and capabilities within these organisations and will involve a transfer of ownership. National Grid has played a central and integral part in the energy system since privatisation, and the networks they own will continue to be a vital aspect of our resilience, affordability and decarbonisation goals. I welcome the engagement National Grid has shown with this work to date and look forward to continuing this important dialogue further in the coming period as we transition to the new arrangements.

Alongside the FSO, in our reform of energy codes we are further progressing this move towards net zero by ensuring clear strategic direction of codes. Acknowledged by the wide stakeholder support for our preferred consultation option, we will be empowering

Ofgem with new strategic functions for codes, including the ability to establish and regulate (by licence) code managers.

These are significant and exciting step changes in our approach to governing the energy system and will ensure we can drive forward the delivery of net zero for the benefit of consumers, the economy and the environment. Together with Ofgem, I am pleased to set out in this consultation response our position for how this can be achieved.

The Rt Hon Kwasi Kwarteng

Secretary of State for Business, Energy and Industrial Strategy

Jonathan Brearley Foreword

Net zero represents an unprecedented challenge, but it also presents an opportunity to design and deliver a much smarter, more flexible, and more integrated energy system, which can help keep bills affordable for all consumers. Together with BEIS, we have consulted on the future role of the system operator, a body that is key to the delivery of an energy system that achieves net zero for the benefit of consumers.

In this publication, we and government set out a commitment to create a system operator which is genuinely independent, capable of taking on a wider remit as the energy system becomes ever more complex and is focused fully on the interests of consumers. This FSO will play a vital role as the energy landscape is transformed in the drive to net zero, providing expert and impartial advice to government and Ofgem, a whole systems approach to network planning across fuels and technologies, and further driving competition across the energy sector.

Ofgem will continue to play its role as regulator to promote the high levels of operational performance, efficiency and innovation that we would expect from the FSO. We will continue to adapt and evolve our approach to drive high levels of performance for this unique model.

At the same time, we are moving forward on code governance reforms. We welcome the opportunity to become the strategic body for energy codes to support the delivery of net zero and see a real opportunity in this new role to deliver the strategic changes necessary for net zero more efficiently and effectively in the interests of consumers.

I am immensely pleased by the positive response of industry and consumer groups on these issues. The next steps following this consultation response will need to involve a wide range of stakeholders, as we bring these changes to life. Ofgem and BEIS will bring industry together on this, including beginning work to shape the new licensing and codes arrangements necessary to deliver smooth, rapid change. As we move forwards to implementation, cooperation from industry stakeholders and consumer groups will be crucial for success, and we need all stakeholders to play their part in this transition.

Jonathan Brearley
Ofgem Chief Executive

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1. Executive Summary

1.1 Introduction and consultation overview

On 20 July 2021, BEIS and Ofgem launched the Future System Operator (**FSO**) consultation. We issued the consultation as a joint document because both BEIS and Ofgem share a common vision, building on Ofgem's review of system operation published earlier last year.

The FSO consultation set out our proposals for an expert, impartial body with responsibilities across both the electricity and gas systems, to drive progress towards net zero while maintaining energy security and minimising costs for consumers. Such a new body would take on a number of key roles in electricity and gas, taking a whole energy system approach when operating, planning and developing the network. We set out that the FSO would need to be independent – not only of other commercial energy interests, but also from the day-to-day operational control of government. It would need to be accountable to consumers and ultimately citizens, resilient to operational challenges over the short, medium and long-term and excellent in terms of technical expertise and operational capability. It would need the people, assets, systems and processes to deliver on its objectives, while being supported by a sufficient and robust funding model and effective system of governance and regulation. We also set out our proposed phased implementation approach to enable a smooth transition.

The proposals set out in our consultation would affect the current electricity and gas system operators, owned by National Grid plc, because any FSO would be founded on the existing roles and capabilities within these organisations and involve a transfer of ownership. Given the wide-ranging potential roles of an FSO, these proposals would also affect other users of the electricity and gas systems. Consumers and citizens would also stand to benefit from an FSO able to drive progress towards net zero while maintaining energy security and minimising costs.

This is a joint consultation response document from government and Ofgem, therefore throughout this document, **'we' refers to the government and Ofgem collectively**. However, the specific decisions have been taken by the relevant decision-making body (see section 1.3 below for more detail on this).

BEIS and Ofgem also consulted on the future governance arrangements of the energy codes in parallel and the current position on this has also now been published in the Energy Codes Reform consultation response¹.

¹ BEIS and Ofgem *Energy code reform governance consultation (2021)*
<https://www.gov.uk/government/consultations/energy-code-reform-governance-framework>

1.2 Summary of stakeholder engagement and responses received

The FSO consultation ran from 20 July to 28 September 2021, during which period we held a webinar and Q&A session with ~100 key stakeholders and interested parties. Alongside this, we engaged closely with stakeholders that would be directly impacted by these proposals, particularly National Grid (**NG**) plc, National Grid Electricity System Operator Ltd (**NGESO**) and National Grid Gas plc (**NGG**).

We received a total of 75 written responses to the consultation. Responses were from a range of organisations and individuals, but primarily from the energy industry (including transmission and distribution network companies, generators, suppliers, NG plc, NGESO, Elexon, and Xoserve Ltd). The remainder came from trade organisations, representative bodies, consultants, public bodies, a few private individuals and other interested parties.

We are grateful to respondents to this consultation for taking the time to submit their views on the proposals. Given the large number of responses to our consultation, this document focuses on the most common or relevant points for each consultation question, rather than summarising every point made. However, we recognise the level of detail which sits beneath this and **Government and Ofgem have carefully considered all responses. The evidence and views provided have informed our approach to decisions and next steps.**

Alongside this, Ofgem have published all the non-confidential responses on their website².

1.3 Overview of our position and key decisions taken

We set out in this section an overview of the key decisions we have taken in light of the consultation responses, with more detail provided in the body of this document.

Decisions discussed in this document include the:

- decision to create an FSO;
- extent of gas and electricity functions in the FSO;
- FSO's (other) functions, duties and powers;
- FSO organisational model and ownership;
- high-level design of broader regulatory framework that will govern the FSO; and
- high-level design of legal arrangements for transition.

² Ofgem *Consultation on proposals for a Future System Operator role* (2021)
<https://www.ofgem.gov.uk/publications/consultation-proposals-future-system-operator-role>

BEIS and Ofgem have been working closely together to develop a coherent FSO policy position and design, taking into account our responsibilities over different parts of the legal and regulatory framework. However, **the key policy decisions highlighted in the previous paragraph have ultimately been taken by government, with advice and assistance from Ofgem.** BEIS and Ofgem will continue to work together to implement them.

These positions will require primary legislation, which the government plans on introducing when parliamentary time allows. Throughout this document any decisions or references to things done by legislation, or as a result of legislative changes, **set out our current policy intention but the delivery and details of that policy will be contingent on the outcome of the legislative process.** This includes the exact wording of legislative or regulatory provisions.

However, not all the detailed design features of the FSO have been decided and there is further policy development needed from BEIS and Ofgem to create the FSO. This will be implemented via a range of mechanisms, such as secondary legislation, licences, and codes. These aspects of detailed policy design and implementation will therefore be subject to ongoing engagement with stakeholders, and will follow the appropriate, established decision-making processes. See section 1.4 (Next Steps) for more detail.

1.3.1 Creation of the FSO

Government and Ofgem are committing to proceed with the creation of a new, independent FSO broadly on the lines proposed in the consultation document. We are pleased that the majority of consultation responses endorsed and agreed with our proposal and approach to creating an expert, independent FSO.

Creating the FSO will require primary legislation, as well as secondary legislation, new and updated licensing arrangements, and amendments to industry codes. This will address both the mechanisms necessary to ensure a smooth transition and the enduring arrangements that will apply to, and in relation to, the FSO.

1.3.2 Existing roles

We have decided that the **FSO will take on all the main existing roles and responsibilities of NGESO and the longer-term planning, forecasting and market strategy functions in respect of gas** (but not real-time gas system operation or Network Emergency Coordinator functions). This reflects our preferred approach in the consultation and was supported by the majority of consultation responses.

Some respondents raised concerns about the FSO taking on existing Electricity System Operator (**ESO**) code management functions. At this point, we are not proposing any changes to ESO's code administrator roles. Long-term decisions regarding the role played

by the FSO in code management will be made as part of the energy codes reform project (more detail on this can be found in the Energy Codes Reform consultation response³).

We intend to establish two new categories of licence within legislation, an Electricity System Operator licence and a Gas System Planner licence. The FSO will hold both licences with the potential to hold additional licences in future, if required.

1.3.3 FSO new and enhanced roles

We intend the **FSO to have a statutory advisory duty to provide expert advice, analysis and information to Ofgem and government**, when requested and where reasonably practical, to inform key policy decisions. We recognise and agree with calls from respondents that the FSO's expertise will also be useful to the wider energy industry and consumers. Therefore, we plan to build on the FSO's existing responsibilities (e.g. Future Energy Scenarios) within licences or associated documents, to enable the FSO to share expertise and provide guidance to others where it considers it beneficial to consumers.

As a newly independent body, the FSO will take an **increasingly significant role in shaping the energy system and driving forward competition**. The FSO should be taking a whole system approach while doing so, which means considering the interactions across electricity, gas and other emerging markets (such as hydrogen and Carbon Capture, Usage and Storage), both on and offshore, and between transmission and distribution systems. This was endorsed and considered a priority by consultation respondents. We set out more detail on our intention for the FSO's new and enhanced roles, including links to related publications, in response to Q12.

In the execution of the above and its other roles, we intend for the FSO to be a data-led organisation. To facilitate its functions, we have decided to provide **the FSO with statutory powers to request information and data from other licensees** (and exemption holders⁴).

As noted in the consultation, there are a number of other potential roles which the FSO could take on over time, for example in relation to Distribution System Operation (**DSO**), data, heat, transport, hydrogen and Carbon Capture Usage and Storage (**CCUS**). These are closely linked to other strategic work being undertaken by BEIS and/or Ofgem and therefore we will continue to review the FSO's role in relation to these areas as the policy develops. These roles may be subject to further consultation as the detail is further developed, and any necessary legislative or licensing changes are considered.

The FSO will drive our overall energy transition and advise Government and Ofgem on the long-term requirements of the energy system. The government will set out its policy

³ BEIS and Ofgem *Energy code reform governance consultation (2021)*

<https://www.gov.uk/government/consultations/energy-code-reform-governance-framework>

⁴ As described in s.98(1) of the Electricity Act 1989

package through regular iterations of its energy plan which, in turn, will be subject to scrutiny by a new panel of independent energy experts.

1.3.4 Duties and objectives of the FSO

At the heart of the FSO's operation will be a need to do its job in ways that manage the trade-offs and synergies between:

- achieving net zero;
- ensuring security of supply of electricity and gas; and
- ensuring an efficient, coordinated and economical electricity and gas system.

We intend the FSO to have a **primary statutory duty to undertake its functions in a way that best promotes these three objectives**. When delivering on this primary duty and undertaking its functions, we also intend the FSO to have a statutory duty to have regard to:

- the need to facilitate competition;
- the need to facilitate innovation;
- impacts on consumers, and consumer behaviour; and
- whole system impacts.

These duties set out the key principles that should guide the FSO in everything that it does and will also set out key areas of accountability, compliance with which will be regulated by Ofgem through licence conditions and general statutory enforcement. These duties have been informed by consultation responses and reflect the strong calls from respondents for a clear net zero remit as well as the need for a more whole systems approach and consideration of consumer impact and behaviours.

We intend for the FSO to act independently but still operate in the context of wider energy sector policy and the government's strategic objectives in this area. Government has therefore decided **to extend the existing Strategy and Policy Statement (SPS) framework to the FSO**. This will mean giving a legislative duty for the FSO to have regard to the SPS when carrying out its functions (in addition to Ofgem's existing duty)⁵, to ensure strategic alignment between the FSO, Ofgem and the government. An SPS sets out the strategic priorities and policy outcomes of the government's energy policy for Great

⁵ The Energy Act 2013 provides powers for the Secretary of State to designate a Strategy and Policy Statement (SPS) in which he would set out the Government's strategic priorities and other main considerations of its energy policy, the policy outcomes to be achieved, and the roles and responsibilities of those who are involved in implementation of that policy. The Act imposed duties on Ofgem to have regard to the strategic priorities when carrying out its regulatory functions.

Britain. We intend to provide an opportunity, through legislation, for the Secretary of State to review any existing SPS as part of the creation of the FSO, if desirable.

To supplement this, we also intend to give the FSO **a statutory duty to keep under review developments in the energy sector** (including relevant government policy initiatives) that may be relevant to the delivery of its functions. It will be important that within this framework the FSO will have a high level of independence in making operational decisions and running its day-to-day activities.

1.3.5 Organisation model of the FSO

A prime consideration in the consultation was that the FSO should be free from actual or perceived conflicts of interest from other companies with commercial interests in energy, or related sectors, but also be free from day-to-day operational control from government. We have concluded that the most effective model for realising this vision is to **establish the FSO as a public corporation⁶, with operational independence from government.**

As proposed in the consultation, **the FSO will be licensed and regulated by Ofgem, and funded by consumers through price control arrangements.** As with other regulated bodies in this sector, it will have the operational freedom it needs to manage and organise itself to effectively deliver its roles and objectives. Ensuring the independence of the FSO will be a key consideration as the FSO regulatory and governance framework is developed. This should ensure it functions as a trusted and independent voice within the energy sector. As part of price control regimes, Ofgem can implement incentive regimes for the FSO to promote high levels of operational performance, innovation and ambition. This is set out in more detail in response to Q15.

1.3.6 Xoserve and Elexon

We do not propose any changes to the ownership structure of Xoserve at this time.

Elexon's shares are owned currently by the ESO, and respondents agreed that the FSO transition impacts on Elexon. We will therefore be reviewing the ownership of Elexon and **plan to publish a separate consultation on Elexon ownership in due course**, which will set out in more detail the options under consideration.

1.3.7 Implementation approach

The FSO will be founded on the existing capabilities and functions of NGESO and, where appropriate, NGG. This will require transactions between government and NG Plc and any other relevant parties, with the parties being appropriately compensated for the elements of their businesses that are transferred into the FSO. To facilitate these transactions, we intend to create transfer schemes in legislation to ensure that the transfers include all the relevant capabilities needed by the FSO to perform its proposed functions.

⁶ Subject to an ultimate decision on classification by the Office of National Statistics

There will also be a **phased approach to implementation of the FSO**. Our aim will be to work with NG Plc, NGESO, NGG⁷ and other relevant industry stakeholders to implement an efficient transition, whilst maintaining the safety and stability of operation of the energy systems.

Key priorities during this transition will be to avoid disruption to current energy system operation activities, provide certainty to affected employees and ensure that momentum towards a net zero energy system is maintained. We recognise the multiple demands on industry, especially at present, and plan to engage industry participants at the appropriate points, to support a smooth transition to the FSO.

1.4 Next steps

We set out our next steps for establishing and implementing the FSO below:

- **Primary Legislation** - As set out above, creating the FSO and its associated duties and powers will require primary legislation, which the government plans to introduce when parliamentary time allows.
- **Secondary legislation, licensing and code amendments** - Assuming the primary legislation has been enacted, a limited amount of secondary legislation will be needed in a number of areas. New licensing arrangements will be required to ensure that the FSO is properly licensed and can be funded to undertake its activities, and other industry licences and codes will need to be modified where necessary to take account of the new arrangements, with consultation of industry stakeholders where appropriate.
- **Discussions with NG Plc, NGESO and NGG** - We will continue discussions with the key affected parties to make sure there is a plan in place for smooth transition to the new arrangements, avoiding disruption to the crucial services that NGESO and NGG currently provide. Subject to these discussions and legislation, there will be transactions between government and NG Plc and any other relevant parties, to transfer the relevant elements of their businesses into the FSO.
- **Engagement with the wider energy industry** - We will also engage with industry participants at the appropriate points, to make sure all stakeholders affected by the changes have access to the information they need to prepare for the transition to the FSO.

⁷ We recognise that the ownership of NGG may change following its proposed divestment by NG Plc, and so we will also engage with any new owners where appropriate. National Grid press release: *Sale of majority interest in NGGT and Metering* (2022) <https://www.nationalgrid.com/gt-announcement>

- **Elexon consultation** – In parallel to the above we also plan on publishing a separate consultation on Elexon ownership that will set out in more detail the options under consideration. We would welcome stakeholder responses to this consultation.

We are aiming to deliver as soon as practicable, while maintaining the safety and stability of the energy systems. **Depending on a number of factors, including timings of legislation and discussing timelines with key parties, the FSO could be established by, or in, 2024.** Government will be working closely with Ofgem to take preliminary steps to smooth the transition.

2. Case for change

2.1 Question 1 – new technical roles needed for net zero

Do you agree that net zero will create the need for new technical roles in the electricity and gas systems, and require a new approach to energy system governance?

Consultation position

We suggested that there were several areas of new or enhanced technical roles needed to drive decarbonisation at least cost while maintaining resilience, and which must be based in deep technical understanding of the energy system. These areas include network planning and development, competition to fulfil specific system needs, coordination (both across energy sectors and regionally) and developing engineering and data standards.

We highlighted that net zero will require government, Ofgem and industry to take decisions about the future development of heat, transport and energy based on high quality analysis of the whole system impacts of those decisions. It will require all these activities to be undertaken in a joined-up holistic way, that considers the impacts of individual decisions across the system rather than in isolation.

Summary of stakeholder response

The majority of respondents agreed that net zero will create the need for new technical roles in electricity and gas systems, and a new approach to governance will be required.

Generally, there was strong agreement that any new approach should be based on an integrated whole systems mindset, allowing for coordination and integration across the energy system and removal of existing siloes between electricity and gas. A few respondents highlighted the importance of understanding energy consumer preferences and energy behaviours to ensuring effective system governance. Some raised that the creation of an FSO is only the next and interim stage in the development of a comprehensive framework for system governance, for example at a regional level.

There were several strong calls for Ofgem's remit to be reformed to focus on enabling net zero in the most economic and efficient way and/or a wider review of the energy industry as reforms towards net zero happen.

Government/Ofgem response

Our position remains that net zero requires a new approach to energy system governance and will require new technical roles. As set out under Q2 below, we expect the FSO to play an important role in driving progress towards this net zero system. We therefore intend to include net zero as an objective for the FSO, alongside maintaining security of supply and

ensuring an efficient, coordinated and economical system. The FSO will have a statutory duty to undertake its functions in a way that best promotes these objectives and manage the trade-offs and synergies between them.

We fully agree with respondents that any new governance approaches should integrate a whole systems mindset and consider consumer preferences and behaviours. We intend, through primary legislation, to give the FSO a number of supporting duties to which it must have regard when undertaking its functions, which will include whole system and consumer impacts.

We acknowledge the suggestions for Ofgem's remit being reformed to focus on net zero. We consider Ofgem's existing duty, to protect the interests of current and future consumers in relation the reduction of greenhouse gases, is currently sufficient to allow them to take into account net zero. Ofgem already incorporates government's decarbonisation strategies, including net zero, in its current regulatory work. Additionally, pursuant to Energy Act 2013, Ofgem has a duty to have regard to the contents of the Strategy and Policy Statement. Such statement, once designated, would set out strategic priorities and policy outcomes of the Government's energy policy, which may include those related to the delivery of the net zero targets.

Government also recently published the Economic Regulation Policy Paper⁸ which sets out a vision for modernising the economic regulation of the utilities sector. This includes a commitment to launch a review of utilities regulators' statutory duties later this year. This review will consider the National Infrastructure Commission's recommendation that duties need to be coherent, covering price, quality, resilience, and environment. It will also consider what changes, if any, might be necessary to reflect long-term outcomes based on objectives that address future challenges, support regulators to make transparent decisions which balance their respective duties, and support greater cross-sector collaboration.

2.2 Question 2 – establishment of an FSO

Do you agree that the establishment of a Future System Operator is needed to fulfil the kinds of technical roles needed to drive net zero?

Consultation position

We suggested that the current gas and electricity system operators have a unique position at the heart of their respective systems. At their core, their responsibility is to keep each system operating in real time. This role also gives them unparalleled insight into how each system operates and relationships with other energy companies, making them well placed to fulfil new roles and functions needed to drive net zero.

⁸ BEIS *Economics regulation policy paper* (2022) <https://www.gov.uk/government/publications/economic-regulation-policy>

Summary of stakeholder response

The vast majority of respondents agreed that there is a strong case for a FSO to perform key technical roles needed to decarbonise the energy system.

There was a recognition that current system operators are not necessarily structured in a way that can take on these more coordinating roles, and a belief that the energy system needs to be considered in a holistic way, with roles needing to consider the whole system to facilitate decarbonisation. This includes visibility of the distribution systems to make effective and informed decisions on whole system planning. Network companies were keen to ensure the FSO collaborates with industry when undertaking any roles and is a listening organisation, pulling on experience, as well as having new ideas.

There were however a small number of respondents who explicitly did not agree, and a few more who agreed with the establishment of an FSO but had some concerns. Largely these concerns were due to the view that the FSO may not necessarily be best placed to be responsible for all technical roles needed for net zero. When developing the policy and roles, cooperation and transparency with wider stakeholders (including industry, government, and consumers) were cited as vital, ensuring that BEIS and Ofgem recognise where other bodies are more appropriately placed.

A couple of respondents suggested alternatives to creating an FSO. One raised that government should instead provide clear strategic direction to Ofgem using a Strategy and Policy Statement to drive forward decision making and deliver net zero. Another suggested that similar whole system changes could be made through consistent obligations on NGENSO and NGG to cooperate with each other to produce a combined output.

Government/Ofgem response

Our position remains that the establishment of an independent FSO, with a net zero objective, is needed to fulfil the kinds of technical roles needed to drive net zero. We consider that the expertise and insight into how the system operates of an FSO would make it better placed than Ofgem (and others) to fulfil most potential new roles identified.

However, we do acknowledge the concerns raised over the FSO being responsible for 'all roles' and agree that all organisations within the sector have key roles to play. When implementing new roles as part of the licensing framework or legislation, where appropriate, we expect there to be a consultation process to ensure transparency, clarity and co-operation with stakeholders.

We recognise the concerns that the FSO should be a 'listening' organisation and we intend for the FSO to collaborate and coordinate with industry in fulfilling its roles, whilst recognising that there are and will continue to be complex and challenging choices to be made.

2.3 Question 3 – an FSO with roles in both electricity and gas

Do you agree that a Future System Operator should have roles in both the electricity and gas systems?

Consultation position

The existing gas and electricity system operators are legally separate from one another, making coordination between gas and electricity roles challenging. We suggested that an independent FSO with responsibilities in both the electricity and gas systems, would be better able to fulfil the potential of its expertise and position in the system.

Summary of stakeholder response

The vast majority of respondents agreed with our position, with stakeholders seeing clear benefits and efficiency savings in whole system planning decisions and operational delivery functions.

There were only a few respondents who explicitly disagreed, largely where they saw fast progression of ESO independence as the highest priority. A few also suggested there was a weak case for the FSO having gas functions due to the electricity and gas roles being too different. There were concerns that this approach is more likely to favour electricity-oriented solutions if the FSO role on gas is considered subordinate.

A couple of respondents suggested that keeping electricity and gas system operators separate will ensure that they compete, whereas putting them together will remove incentives to improve. An alternative or interim option was raised by one to relax the restrictions that currently prevent information sharing between the two system operators outside of an emergency. They argued that this would provide more immediate benefits to the market.

Government/Ofgem response

We continue to believe that an independent FSO should have sufficient responsibilities in both the electricity and gas systems to enable whole system planning decisions. We do not currently consider that integration of the relevant gas activities will delay the progression to an FSO.

We are mindful of the need to avoid unintentionally building in an electricity bias, and we intend to set out clear whole systems expectations for the FSO in its statutory duties to help mitigate this risk. These statutory duties will inform development of the FSO licences, and future whole system roles which will require expertise across electricity and gas, as well as build-up of capability. We also intend to provide the FSO with a statutory power to request data or information from other licensees, including gas licensees such as NGG, if needed to fulfil its functions. This will enable the FSO to access the data and information it may need to undertake activities associated with gas.

We acknowledge the suggestion to relax current restrictions on information sharing between the two system operators. As set out in the consultation, we agree that information sharing between the two current control rooms could be adapted to better reflect whole system impacts and this has been reviewed as part of the Review of the Impact of a Gas Supply Shortage on the Electricity Network (**RIGSSE**) project⁹. The outcomes of this work could have implications for the FSO's information sharing arrangements when the FSO starts to operate.

In addition to this, Ofgem will continue to look at opportunities around mutual learning and operational exchanges between NGG and the ESO that can be carried forward to the FSO, and which would be worthwhile to develop the latter's whole systems role. However, we do not consider relaxing current information restrictions would be sufficient to drive genuinely 'whole system' thinking and planning, and so do not consider this work undermines the case for bringing some electricity and gas responsibilities together into the FSO.

2.4 Question 4 – an FSO independent from asset ownership

Do you agree that a Future System Operator should be entirely separate from National Grid plc?

Consultation position

We suggested in our consultation that one of the organisational characteristics needed to effectively fulfil the technical net zero roles and described in relation to our proposals for the organisational design for the FSO, is 'independent mindedness'. Among other things, this means ownership and governance that excludes other commercial interests in the energy sector, which could give rise to distortive decision-making, or perceptions of it. We suggested that to possess independent mindedness, the FSO will require a new organisational model, separate from network asset ownership, which means separate from NG plc and the current arrangements of NGEN and NGG.

Summary of stakeholder response

The vast majority of respondents agreed with our position that a FSO should be fully independent from network asset ownership, and therefore NG plc. Respondents also highlighted that it was equally important for the FSO to be independent from other energy

⁹ RIGSSE is a cross industry project under Energy Emergency Executive Committee (E3C) comprising of stakeholders from across the gas and electricity sectors, government, and Ofgem. This has reviewed the current blockers to effective coordination and response options which prioritise both energy networks, and the findings have been presented with interested industry parties. Recommendations to implement in future are due to be finalised in spring this year and, where relevant, will be consulted upon with industry in due course, with oversight by the E3C.

sector interests and have operational independence from government. Those who agreed generally considered that an independent FSO would alleviate doubts about the system operator's ability to act impartially and that the current situation may not sufficiently prioritise long-term planning of net zero at scale.

There were only a small number of respondents who disagreed. There were some concerns raised over the duplication of system operator functions which may impact on efficiency, cost and skilled resources, and a need for the FSO's functions to be clearly identified in relation to Ofgem, and others, to avoid ambiguity.

Government/Ofgem response

Our position remains that the FSO will require a new organisational model, separate from energy asset ownership and therefore separate from NG plc and the current arrangements of NGESO and NGG. We acknowledge and agree with respondents' assertion that, as well as independence from asset ownership, the FSO will also need to possess independence from other energy sector interests and government. Therefore, we have concluded that the most effective model is to establish the FSO as a public corporation, with operational independence from government. It should have the operational freedom it needs to manage and organise itself to effectively deliver its roles and objectives. See response to **Q15** in organisation design section for more detail.

We acknowledge the concerns about duplication of functions and our response on this is covered under **Q20** (risks to implementation).

2.5 Question 5 – issues with existing institutional arrangements

What issues are there with existing institutional arrangements in the UK energy system in relation to system-wide decision-making and planning?

Consultation position

We were interested in examining issues related to system-wide decision-making, coordination and planning, and sought views on where improvements could be made to existing arrangements.

Summary of stakeholder response

There were a wide range of responses to this question. The most common theme being that the current institutional arrangements of the energy system are not consistent with the government's long-term strategy, especially regarding net zero.

Many respondents were concerned about a lack of coherence, speed, or co-ordination between Ofgem, BEIS, system operators (both at a transmission and distribution level) and other parties associated with planning and decarbonising the energy system. Many also highlighted that the current institutional arrangements don't enable whole system

planning and decision making. Some argued for a more consumer-centric system, suggesting that the current governance, policy and market arrangements should be structured according to outcomes for consumers or society.

Several respondents raised concerns over the current divisions between electricity and gas, and the weak information collection and sharing between the parties (particularly across transmission and distribution). With one respondent stating that most energy companies have specialised knowledge in either gas or electricity but not both, with little incentive for knowledge sharing.

Ofgem's role was the subject of some comment, with some arguing for it to play a greater role in achieving a net zero energy system and to take a longer-term strategic position. A few proposed that carbon emission reduction targets and net zero should be reflected in government departments' and Ofgem's objectives and statutory duties.

Government/Ofgem response

Responses to this question highlighted important issues, which we will bear in mind both in work on the FSO project, and in other areas of work in the energy sector within government and Ofgem.

We agree with respondents that the FSO needs an explicit focus on net zero and to become a driver of joined up information sharing and thinking. We therefore intend to include the objectives of net zero, alongside ensuring security of supply and an efficient, coordinated and economic system as part of the FSO's primary statutory duty. We also intend the FSO to have a duty to have regard to whole system impacts (i.e. considering not just electricity or gas in isolation, but also their impact on each other, as well as with distribution networks and other emerging markets) and consumer impacts when undertaking its functions. To do so, it will need to coordinate with actors across the wider energy industry. Our response to **Q12** sets out the roles we expect the FSO to undertake, which includes coordination with distribution network operators.

We recognise respondents' calls for consistency and coherence across FSO, Ofgem and government, therefore we have decided **to extend the existing Strategy and Policy Statement framework to the FSO**. This will mean giving a legislative duty for the FSO to have regard to the Strategy and Policy Statement when carrying out its functions (in addition to Ofgem's existing duty),¹⁰ enabling greater strategic alignment between FSO, Ofgem and government. A Strategy and Policy Statement sets out the strategic priorities and policy outcomes of the government's energy policy for Great Britain.

¹⁰ The Energy Act 2013 provides powers for the Secretary of State to designate a Strategy and Policy Statement (SPS) in which he would set out the Government's strategic priorities and other main considerations of its energy policy, the policy outcomes to be achieved, and the roles and responsibilities of those who are involved in implementation of that policy. The Act imposed duties on Ofgem to have regard to the strategic priorities when carrying out its regulatory functions.

As set out in response to Q1 above, we believe Ofgem's current remit is wide enough to incorporate net zero in its current regulatory work and considerations. The government will also launch a review of utilities regulators' statutory duties later this year¹¹.

2.6 Question 6 – case studies

What examples/case studies are you aware of where net zero delivery in one part of the energy system did not adequately account for cross-system impacts or costs?

Summary of stakeholder response

There were many useful examples cited as case studies in response to this question, including offshore wind, electric vehicle charging, flexibility and network charging methodologies. As with Qs. 5 and 7, most responses tended to support the need for stronger co-ordination and strategic whole system planning, capable of looking both on and offshore, taking account of transmission and distribution developments, and looking across electricity, gas and other emerging markets.

The Offshore Transmission Network Review was highlighted as a good current example of co-ordination and cross-departmental collaboration to execute projects more affordably, with net zero in mind. However, respondents also pointed out the inefficiencies that resulted from not taking a co-ordinated approach from the outset, which demonstrated the necessity for a coordinating organisation that looks holistically at whole-system challenges. A similar lack of centralised coordination and consideration of the wider energy system was highlighted with electric vehicle charging investment.

Some respondents felt that there was an overly siloed approach to the use and deployment of flexibility in the energy system. One respondent raised that a lack of access for the ESO to more granular heat-usage and demand-side data has been a barrier to whole system analysis and planning. Network charges and the Transmission Network Use of System charging methodology were cited by several respondents as an example of the energy system not adequately accounting for cross-system impacts and being not fit for purpose to meet net zero.

Hydrogen transition and heat decarbonisation was highlighted by a few, where coordination with the wider energy system will be needed in future.

Government response

We are grateful to respondents for highlighting these useful examples and we are using these to ensure that the arrangements for the FSO are fit for purpose, as set out in response to the other questions.

¹¹ BEIS *Economic Regulation Policy Paper* (2022) <https://www.gov.uk/government/publications/economic-regulation-policy>

2.7 Question 7 – improving coordination across energy system

Where should government focus in our efforts to improve systems thinking and coordination across the energy system?

Summary of stakeholder response

There were many detailed and useful suggestions in response to this question, with many agreeing that the establishment of the FSO and the energy code reform were good first steps towards improving coordination and whole systems thinking. Ensuring the right legislative arrangements, duties and incentives for the FSO, to enable an economically efficient transition to net zero, was highlighted as a key focus here.

Respondents saw significant benefits in strategic and holistic network planning, particularly in relation to offshore networks, and establishing new market frameworks. Whole system thinking, analysis and planning was agreed by many as a focus area, particularly for the FSO. Deep technical understanding and expert whole system advice to government was also singled out by some respondents.

As with responses to Q5, many respondents called for BEIS, Ofgem and network companies to work together more and for more cohesiveness across government schemes. A clear Strategy and Policy Statement was cited by some as a focus to provide clear strategic context for Ofgem.

Timely decision making, particularly where there is some uncertainty or incomplete information, was raised by a few respondents as critical to achieving net zero. There were also several references to slow code reform being problematic for developers.

A number of respondents also called for greater clarity over roles and responsibilities of different parties, such as between DSOs and the FSO. Ensuring agility for parties to adapt their responsibilities over time, as well as evolve to address digitalisation, was also highlighted.

Government/Ofgem response

Responses to this question have highlighted important issues, and again we note and agree with the calls for strategic planning, greater coordination, whole systems thinking and quicker pace of decision-making and reform.

We are pleased respondents consider the establishment of the FSO is a good first step towards improving coordination. We will establish the FSO to drive our overall energy transition through new independent governance at the heart of the system. The FSO will advise Government and Ofgem on the requirements of the energy system for the long term. Its strategic insight will help inform our policies and programmes and investment decisions. The government will set out its policy package through regular iterations of its energy plan which, in turn, will be subject to scrutiny by a new panel of independent

energy experts. The resulting energy plan will then inform FSO advice on system implications. The regular review and update of our energy policy package, against the evolving needs of the system, will strengthen delivery and provide the continuity and visibility over government's plans which investors need to underpin investment decisions. The detailed arrangements for this, including the panel of independent experts, will be set out in due course.

Holistic and coordinated planning is an important focus area for government and Ofgem. This is being taken forward as part of the Offshore Transmission Network Review¹² and Ofgem's Electricity Transmission Network Planning Review¹³, which includes proposals for the introduction of a new Centralised Strategic Network Planning model led by a single, independent expert body. Both reviews are considering the role of the FSO.

We acknowledge concerns raised about slow code reform, which is being addressed as part of our energy codes reform work. Please refer to our consultation response on this¹⁴ for more detail.

We acknowledge the need for greater clarity of roles and responsibilities. In relation to FSO and DSO roles, Ofgem's current price control process for Distribution Network Operators (**DNOs**) has defined, standardised and set clear expectations of the DSO roles¹⁵. DNOs will have clear obligations to fulfil standardised DSO roles, incentives on DSO performance and minimum requirements to embed clearer executive level accountability for neutral decision-making between their DSO and DNO business activities, and transparency checks, for example external audits of decisions. The price control and new licence requirements will also deliver significant improvements in data availability, coordination and transparency. We expect this to deliver a significant step forward, in clarity and collaboration and the development of local flexibility markets. Alongside this, Ofgem will, this spring, issue a call for input to gather stakeholder views on potential governance reforms at the local level. This will inform the detailed work happening this year to develop and assess institutional reform options for distribution system operation.

¹² *Offshore transmission network review webpage* <https://www.gov.uk/government/groups/offshore-transmission-network-review>

¹³ *Ofgem Electricity Transmission Network Review consultation (2021)* <https://www.ofgem.gov.uk/publications/consultation-initial-findings-our-electricity-transmission-network-planning-review>

¹⁴ *BEIS and Ofgem Energy code reform governance consultation (2021)* <https://www.gov.uk/government/consultations/energy-code-reform-governance-framework>

¹⁵ *Ofgem RIIO-ED2 Business Plan Guidance (2021)* [RIIO-ED2 Business Plan Guidance | Ofgem](#)

3. Roles of the FSO

3.1 Question 8 – all existing NGESO roles

Do you agree that the FSO should undertake all the existing roles and functions of NGESO?

Consultation position

Our proposal in the consultation was for the FSO to undertake all the existing roles and functions of NGESO. We considered that there is a strong feedback loop and synergies across these roles, as well as with the potential new and enhanced roles outlined in section 3.2 of the consultation.

Summary of stakeholder response

The majority of respondents agreed with our position and the need to keep the capabilities and technical knowledge of the NGESO control room within the FSO, alongside any new capabilities and technical knowledge required for its new and enhanced roles.

However, there was a strong view from some respondents that the existing code management functions should not be undertaken by the FSO due to conflict-of-interest issues, with many preferring code management to be completely tendered out or moved to another body.

Aside from concerns raised about code management functions, only a small number of respondents explicitly did not agree with our position or expressed further concern. The most common concern was that taking on the day-to-day operations functions of NGESO could distract the focus of the FSO from strategic thinking. One respondent suggested that further consideration should be given to ensuring effective incentivisation of the FSO's real-time electricity balancing action, to prevent any conflicts or tension between short-term and long-term objectives. There were also a few concerns that this reform may lead to continuation of the status quo and not drive the change required. Suggestions included ensuring a cultural shift away from the 'siloes' mindset rather than focusing just on the roles and functions.

Government/Ofgem response

We have concluded, with the majority of respondents, that the FSO should undertake all the main existing roles and functions of NGESO.

We note the concerns over the potential for day-to-day operations to distract from strategic thinking. However, on balance we feel that the benefits of additional knowledge and expertise from the control room are vital to ensure we have an organisation with the right

capabilities to fulfil its other roles and would outweigh the minor risks of such an arrangement. To address concerns, we intend to clearly define the strategic role of the FSO within the licences, which will involve appropriate consultation with stakeholders. Ofgem will continue to have the ability to implement an incentive regime on the FSO through future price controls, which provides an additional route to promote high levels of operational performance, innovation and ambition (see response to **Q15** for more detail on incentive regime).

We agree that potential or perceived conflicts of interest must always be considered when selecting code managers. All decisions regarding the extent of the FSO's long-term involvement in code management will be made as part of our parallel initiative on Energy Code Reform¹⁶. At this point, we are not proposing any changes to ESO's code administrator roles.

3.2 Question 9 – existing gas strategic functions only (Option 1)

Do you agree there is a case for the FSO to undertake the gas strategic functions outlined in Option 1?

Consultation position

We set out in the consultation two options for how we could integrate gas within the FSO. Our preferred option in the consultation was Option 1, which would involve the FSO undertaking current gas strategic network planning, long-term forecasting and market strategy functions. Under this option, real time gas system operation and associated activities would continue to be performed by the gas transmission asset owner.

For gas, we considered the synergies between control room and network planning to be weaker than in electricity, while the potential cost and risks of separating real time operation of the gas network from the gas asset owner would be greater.

Summary of stakeholder response

Most respondents agreed that the FSO should be responsible for gas strategic functions as described under Option 1, with widespread support for the FSO undertaking long-term forecasting and market strategy functions in gas.

There was general support for the FSO being responsible for gas strategic network planning and having a whole system planning role, however some respondents recommended that boundaries with operational short-term network planning should be carefully defined. A few respondents, including NG plc, proposed a 10+ year planning horizon for gas system planning, raising concerns that the strategic planning functions set

¹⁶ BEIS and Ofgem *Energy code reform governance consultation (2021)*
<https://www.gov.uk/government/consultations/energy-code-reform-governance-framework>

out in Option 1 would result in duplication of roles. It was also highlighted that Option 1 would require an FSO to work very closely with the industry, including NGG.

Some concerns were raised regarding the balance of the FSO's functions and a potential focus on electricity over gas within its whole systems remit. Gas capability growth for FSO was recognised as being necessary to enable delivery of gas roles and to address that balance.

There were mixed views about the FSO taking on a Network Emergency Coordinator role, but strong arguments were made for retaining this with the real-time gas system operator in NGG. This was mainly because of the 24/7 operational nature of the Network Emergency Coordinator role and the need to acquire real-time control room capability. NGESO suggested the potential development of a whole energy system emergency response function through an "office of resilience and emergency management" in the future.

Government/Ofgem response

Our position remains that the FSO should undertake gas strategic network planning, long-term forecasting and market strategy functions to enable the FSO to undertake whole system planning. We intend to establish new categories of licence within legislation: a Gas System Planner licence, which the FSO will hold alongside an Electricity System Operator licence. We intend to review existing licences to ensure they function as required alongside these two new categories of licence.

However, given the concerns raised by respondents, we do not propose that the FSO take on the role of the Network Emergency Coordinator. The Review of the Impact of a Gas Supply Shortage on the Electricity Network (**RIGSSE**) has considered and is supportive of the proposals for a future whole energy system emergency coordinator or associated effective coordination and response options. We will consider, with industry, if this function is best placed in the FSO.

We acknowledge the concerns from stakeholders regarding potential duplication between the FSO's gas strategic network planning function and the planning functions that NGG will need to retain to perform its continuing functions (for example, in managing constraints and its safe network operation). While we agree that any duplication between the FSO's strategic planning role and NGG's shorter-term operational planning role should be minimised, we consider that the benefits would outweigh the additional costs and minor risks of any such duplication. We consider it is necessary for the FSO to perform the gas strategic network planning function to become fully capable of analysing whole system network requirements.

We acknowledge the point on the boundaries between the strategic role of the FSO and the operational role of NGG in gas network planning. It is our view that an active role in gas network planning and strong understanding and capability in this area within the FSO is an important factor in delivering a balanced organisation and addressing stakeholder

concerns on this point. We have an opportunity to clearly define the strategic role of the FSO further, for example in the process of developing the licence, which will involve appropriate engagement with stakeholders.

We do not plan to restrict the FSO's gas strategic network planning to only a 10+ year horizon, as it would restrict the capability of the FSO as a whole systems body and its ability to understand and propose whole system solutions to energy system constraints. It would also mean that both the FSO and Ofgem would remain dependent on the analysis of the gas network asset owner to assess the needs of gas consumers, and the development requirements of the network within meaningful investment horizons.

3.3 Question 10 – all existing GSO roles (Option 2)

Do you agree that there is not currently a case for the FSO to undertake all GSO roles and functions, including real time gas system operation, as outlined in Option 2?

Consultation position

Option 2 would involve the FSO undertaking all gas system operation roles, including real time system operation of the gas network and associated activities. Our view, set out in the consultation, was that this option currently presents significant risk, complexity and cost, without equal benefit. Therefore, we did not believe there was a case for the FSO to take on all the roles and functions of the GSO outlined in this option.

Summary of stakeholder response

Of the respondents that provided an explicit view, the majority agreed that there is not a case – at least at this present time – to pursue full separation of real time gas operation from transmission asset ownership, because of the safety and operational reasons cited in our consultation. There was also a general acknowledgement that the costs involved in doing so would currently outweigh any of the benefits.

However, some respondents did state that, whilst full gas operation separation may not be an appropriate approach at the present time, they wanted to see further investigation into the prospect of full separation in future, and to revisit the concept in conjunction with future developments in gas and hydrogen.

Several respondents explicitly did not agree with our position. Reasons cited included the speed of change in the gas industry, the development of hydrogen and the decarbonisation of the gas network. Respondents also referred to the potential opportunity for system change and transition arising from NG Plc's planned divestment of an interest in NGG¹⁷. While safety concerns were acknowledged and understood, a few respondents

¹⁷ National Grid Proposed acquisition of Western Power Distribution and strategic portfolio repositioning press release (2021) <https://www.nationalgrid.com/proposed-acquisition-western-power-distribution-and-strategic-portfolio-repositioning>

did call for further investigation into the cost and benefits of Option 2, and potential operational synergies between gas and electricity, considering change in the gas industry and the growth of hydrogen.

There were also some concerns that without full separation of gas system operation, the FSO will be imbalanced and a whole systems outlook will not be achieved, with gas marginalised and the focus of the FSO weighted toward electricity. Suggestions to mitigate this in any future change included potential exploration of sharing operational information between NGG and the FSO to support mutual learning. One respondent commented that this would be useful to allow investigation of the potential for mutual learning and synergies in progressing to a more integrated model.

Government/Ofgem response

Our position remains that Option 1 is the best option at this time, and that the minimal benefits do not currently clearly outweigh the downsides and risks of the FSO undertaking all gas system operation functions, including real time system operation.

However, we do acknowledge that several respondents to our consultation saw a current case for Option 2, arguing this approach should be adopted in line with the development of hydrogen and the speed of change in the gas industry. We anticipate that, by the late 2020s, a clearer picture will emerge on the role of hydrogen with potential increased interaction between operation of the gas and electricity networks. Hence, we will keep this under review as the gas sector evolves over the next decade.

As highlighted in response to Question 3, we will continue to look at opportunities around mutual learning and operational exchanges between existing gas and electricity system operators, and how these can be carried forward to enable the FSO's whole system duties, with particular focus on close future working with the gas system operator and transmission owner.

We also acknowledge concerns on the balance between electricity and gas that have been raised in respect of Option 1. We are mindful of the need to avoid an electricity bias, and we intend to set out clear whole systems expectations for the FSO in its statutory duties to help mitigate this risk. These statutory duties will inform development of both the electricity and gas licences that the FSO will hold, and future whole system roles which will require expertise across electricity and gas, as well as extra capability. We also believe having distinct gas and electricity licences will ensure that there is clear ownership and accountability for gas functions.

3.4 Question 11 – advisory role

Do you have views on the proposal for an advisory role? What organisations do you consider would benefit from the provision of advice by the FSO?

Consultation position

We noted that government and Ofgem will have to make important policy and regulatory decisions across many areas of the energy system over the coming decades to enable progress towards net zero. Many of these decisions would benefit from drawing on specific areas of expertise of the FSO, such as the impacts of potential government or Ofgem decisions on future system operability or network investment. Being able to request and draw on specific targeted advice from the FSO will be hugely valuable to help ensure any decisions made are robust and based on full available evidence.

Summary of stakeholder response

Most respondents agreed that the FSO should have an advisory role at the very least to BEIS and Ofgem.

A common point raised was the importance of ensuring the FSO is not the only actor providing influential advice to these decision-making bodies. Any advice from the FSO should come alongside that from other stakeholders and sectors to ensure a wide range of views. Many respondents also raised that it is important the FSO engages with the wider energy industry when providing advice and bases its views on robust evidence. There were generally strong calls for this advice to be transparent and open to scrutiny and critique.

There were mixed views as to the extent that other wider organisations should be able to formally ask the FSO to provide analysis. One respondent noted that other public organisations should be able to draw on the FSO's expertise to support delivery of policy objectives. A few others raised the usefulness of data sets and analysis being valuable to the wider market. In relation to this, many praised the FSO's existing transparency of the Future Energy Scenarios which provides useful insight across the whole energy system.

However, there were concerns that a wider advisory obligation on the FSO will result in the FSO incurring significant additional costs and could put them at an undue advantage above other consultants and forecasters. This could place a significant resource and cost burden on the FSO, particularly when there may be other organisations better placed to offer advice and support.

Many responses focused on resource, ensuring that the FSO should be sufficiently resourced to ensure any demand for its advice would not detract from its core functions. There were also some comments that the FSO will need to develop appropriate capability and expertise if it is to provide advice on the whole system.

There were mixed responses related to who should bear the costs of an advisory role, with views largely dependent on the respondent. Many argued that the price control would be the most appropriate mechanism to recover the costs of an FSO providing advice to public bodies and Ofgem. However, some expressed a concern with more costs being borne by electricity customers and the disproportionate impact on vulnerable customers compared

to progressive taxation. Most respondents considered that any other parties seeking tailored advice should bear the costs of the service, however again this depended on whether the advice was considered to benefit the network or consumers.

Government/Ofgem response

We have decided to impose a **statutory duty on the FSO to respond to requests for advice, analysis or information from government and Ofgem**, in matters related to the FSO's functions. This was supported by majority of respondents who agreed that the FSO should be able to provide advice to both. This will ensure that these decision-making bodies are able to draw on the specific technical expertise of the FSO when needed and consider 'whole system' network impacts when making important strategic policy decisions.

We note concerns about resource burden and consider the FSO should not be required to advise where it is not reasonably practical to do so, for example where the advice would be outside the FSO's competence/expertise or where the FSO had competing urgent commitments. We are not proposing government or Ofgem should be legally obliged to action the FSO's advice or change their policy stance as a result. Any advice from the FSO will be taken into consideration alongside advice, information and consultation responses from other organisations.

Our intention is for the FSO to provide advice to government and Ofgem on areas where it has expertise, for example in relation to system operability challenges and network impacts. However, the FSO may also need to gather data and information from other licensees to provide such advice. Therefore, we intend the FSO to have a statutory power to request information or data from other licensees (and exemption holders)¹⁸ to fulfil its functions, including this advisory duty.

We have considered a range of other organisations, mentioned in our consultation and by respondents, that could in theory benefit from FSO advice; but have decided against imposing a statutory duty on the FSO to respond to such organisations. We consider this would create undue burden on the FSO, given the large number of organisations who might request such advice.

However, we do recognise and support the comments from many respondents that the FSO could be an important source of expert and transparent information on the energy system, as NGENO currently does with Future Energy Scenarios. We plan to build on these existing responsibilities to enable the FSO to share expertise or provide guidance to others, where it considers it beneficial to consumers. We intend to set out further detail for this process within licences or associated documents rather than legislation. We also intend for the FSO to be open and transparent on any guidance, where deemed

¹⁸ As described in s.98(1) of the Electricity Act 1989

appropriate, whilst ensuring protection of commercially sensitive and confidential information.

We have noted respondents' views on who should bear the costs of this advice. While we intend to work out the detail as we develop the licences, it is our intention that the FSO should charge on the basis of who stands to benefit from the provision of the advice. This could be via a price control if the advice or guidance was sought for the benefit of consumers, which is our intention for any advice provided to Ofgem and/or government.

We also note the importance of issues around sharing of data across the wider energy industry; this goes far beyond just the FSO and has been considered as part of the Energy Digitalisation Taskforce report, which was published in January 2022¹⁹.

3.5 Question 12 – new and enhanced roles

Do you have any views on the other areas where we are considering new and enhanced roles and functions for the FSO?

Consultation position

We set out a number of areas where new or enhanced roles and functions are being developed for NGENSO or could be developed for the FSO in future, where we believe there are potential synergies with existing system operation functions. These include roles and functions in:

- dispute resolution
- system planning and network development
- driving competition in energy networks
- energy market design
- coordination with distribution networks
- heat and transport decarbonisation
- energy system data exchange and coordination
- future system operability, engineering standards and energy code development
- hydrogen and CCUS

¹⁹ Energy Systems Catapult *The Energy Digitalisation Taskforce report* (2022) <https://es.catapult.org.uk/news/energy-digitalisation-taskforce-publishes-recommendations-for-a-digitalised-net-zero-energy-system/?reportDownload=https://esc-production-2021.s3.eu-west-2.amazonaws.com/2022/01/ESC-Energy-Digitalisation-Taskforce-Report-FINAL.pdf>

In undertaking all its roles, we considered that the FSO should draw on its insight and expertise across the energy system. We set out that most of the other roles and functions draw on parallel pieces of work or are dependent on decisions made on decarbonisation pathways (such as CCUS and hydrogen) and will therefore be subject to further consultations by the relevant policy areas in BEIS or Ofgem.

Summary of stakeholder response

There were many useful responses and comments to this question. We have tried to summarise the overall balance of opinion on each of the key areas or roles we have identified but recognise the level of detail which sits beneath this and have taken all evidence into account. Most respondents recognised that many of the policy areas were early in development and therefore further consultation/engagement will follow.

Note that Ofgem has published all the non-confidential responses on their website²⁰.

Dispute resolution: Almost all respondents expressed strong concern with the FSO taking on dispute resolution or arbitration roles, with a large majority asserting that dispute resolution should remain with Ofgem as an independent regulator.

System planning and network development: There was strong support for more strategic and holistic whole system planning and network development roles for the FSO, ensuring it has sufficient resource to do so. Some respondents set out their support for investment decisions remaining with Ofgem, but that boundaries of roles and responsibility need to be clear. There was a concern that enhanced network planning should not be done in isolation from design, development, and delivery considerations.

Driving competition in energy networks: There were mixed views on the proposed role of FSO as the procurement body for electricity network competition. Some respondents were in favour, while others questioned if the FSO will have sufficient expertise to do this and believe this should remain with Ofgem to implement. These proposals are linked with Ofgem's Views on Early Competition in Onshore Electricity Transmission Networks consultation²¹ and BEIS's Competition in Onshore Electricity Networks consultation²².

Energy Market Design: Respondents expressed mixed views on the role of the FSO in energy market design. There was general concern with ensuring the FSO is fully independent, and recommendation that if the FSO were to take on more decision-making roles in this area, it should be made transparent and open for scrutiny, and that the FSO should be required to publish consultations. Some respondents preferred arrangements and duties related to the Capacity Market to remain unchanged, and decisions on the

²⁰ Ofgem Consultation on proposals for a Future System Operator role (2021)

<https://www.ofgem.gov.uk/publications/consultation-proposals-future-system-operator-role>

²¹ Ofgem Consultation on our views on early competition in onshore electricity transmission networks (2021)

<https://www.ofgem.gov.uk/publications/consultation-our-views-early-competition-onshore-electricity-transmission-networks>

²² BEIS Competition in onshore electricity networks consultation (2021)

<https://www.gov.uk/government/consultations/competition-in-onshore-electricity-networks>

Capacity Market to remain with the government. There was general support for the FSO taking a leading and coordinating role in developing whole system market strategy.

Coordination with distribution networks: There was strong agreement from most respondents that the FSO should coordinate with DNOs to ensure optimal system-wide planning, with calls for this role to be formalised so responsibilities and accountabilities are clear. A few suggested that the FSO and DNO/DSO will need to share significantly more data. There were mixed views on the FSO taking over DSO roles at this stage with strong concerns particularly from distribution network companies over the FSO not having the regional expertise and the level of local authority interaction required to enable decarbonisation. Most responses recognised that it is too early to determine whether it would be appropriate for the FSO to take on DSO roles, given the ongoing work on DSO governance and functions, and would welcome further detail and consultations in this area.

Heat and transport decarbonisation: There was general support for the FSO's involvement in heat and transport. However, some respondents expressed concerns about whether the FSO, being a centralised strategic body, would be best placed to develop the more localised heat and transport sectors, and that the FSO may not have the expertise in these subjects. Some suggested that the FSO's roles in heat and transport, hydrogen, and CCUS should be constrained to advice. In particular, some were not supportive of a potential role for the FSO in local energy mapping and coordination of local authorities. Most respondents requested more consultations/engagement on exactly what specific roles could look like in these areas.

Energy system data exchange and coordination: Respondents were generally supportive of the FSO having roles in data in addition to baseline capabilities required to support FSO functions like network planning. There was particular support for the FSO to set standards and ensure data is made available, consistent and transparent to the market. There was a suggestion that, given the pace of digital development, the legislation should be widely drafted to include data and digital, rather than the FSO being held back awaiting future change.

Future System Operability, Engineering Standards and Energy Code Development: While some respondents agreed that the FSO would be in a good position to provide advice on how codes and standards could affect future system operability, there was strong concern with conflicts of interest if the FSO was also the code manager. Many respondents did not agree that the FSO should be a code manager or take on the role of an Integrated Rule Making Body (linked to the Energy Code Reform consultation). Various responses suggested improvements, including more efficient processes for code modifications, having multiple code managers and keeping the FSO separate from code management.

Hydrogen and CCUS: There was general support for hydrogen and CCUS to form part of the FSO's advisory and whole systems network planning roles. However, most recognised that it is too early to determine the precise nature of further roles and would welcome further engagement and consultations on the detail of the FSO's potential responsibilities

in these areas as they become clearer. Some respondents noted the FSO's precise role in relation to hydrogen may be dependent on the extent to which hydrogen is deployed nationally.

Suggested other roles: Only a small number of respondents suggested roles that were not included in the consultation. One respondent observed that the Contracts for Difference scheme was not mentioned and suggested that the FSO could take on similar functions in the running of the current Contracts for Difference allocation rounds for electricity as NGENO currently does for the Capacity Market. A few others suggested a greater focus on innovation and removing barriers.

Moreover, several respondents commented that we should not burden the FSO with too many new roles and that it is important it keeps its focus. One respondent suggested that adding a plethora of additional responsibilities to an organisation that does not have proven capabilities in these areas is risky, potentially leading to delays or safe short-term decisions.

Government/Ofgem response

We have set out below a summary of our position on the different roles or areas, with links to relevant publications and/or consultations for reference. In addition, teams working on the relevant policy areas will take these responses into consideration where the detail of the roles are still to be developed (e.g. heat).

Dispute resolution: We considered in our consultation whether there was merit in consolidating or streamlining dispute resolution roles within the FSO, potentially including the FSO taking on a role to determine disputes between industry parties. We accept the strong concerns raised by respondents and so, in light of this, have decided against pursuing any roles for the FSO in this area.

System planning and competition: We intend the FSO to take an increasingly significant role in strategic whole systems network planning and competition, building on the existing functions and capabilities of NGENO and NGG (see responses to Qs 8-10). This was supported by the majority of respondents and the specifics of this are being further developed by a range of different policy areas with separate consultations. We will continue to engage closely with all these policy areas when developing the FSO licence and code changes.

- Ofgem has set out their vision for network planning in their Electricity Transmission Network Planning Review consultation²³, which includes proposals for the introduction of a new Centralised Strategic Network Planning model led by a single,

²³ Ofgem Consultation on the initial findings of our Electricity Transmission Network Planning Review (2021) <https://www.ofgem.gov.uk/publications/consultation-initial-findings-our-electricity-transmission-network-planning-review>

independent expert body. This body is proposed to be the FSO, given its greater independence. Ofgem will be publishing their consultation response this spring.

- In addition to this, over the next year there are a number of planned publications in relation to the Offshore Transmission Network review²⁴ as well as associated stakeholder engagement which will likely include further consultations. These will consider, amongst others, the roles and responsibilities of key parties (including an independent FSO) in enabling a more strategic approach to development and delivery of offshore wind and associated transmission infrastructure.
- Ofgem recently published a decision document on the development of early competition in onshore electricity transmission networks²⁵. This set out Ofgem's position that the ESO should prepare to undertake the role of developing the commercial model and tender process for early competition, with a view that this role should transition to the FSO. The independence of the FSO should give bidders greater confidence that options put forward have been selected without bias towards TO development and are selected in the best interests of consumers.
- Primary legislation is required to enable competition in onshore electricity networks, which government has set out its intention to introduce when Parliamentary time allows. Related to this, BEIS published a Competition in Onshore Electricity Networks Consultation²⁶ that sought views on who should be the Appointed Body, including consideration of the FSO, to run competitions at transmission level. BEIS will publish the consultation response in due course.
- BEIS and Ofgem are also due to publish an Electricity Networks Strategic Framework that will set out our wider vision for how we will facilitate an agile, flexible onshore network that will allow the rapid, transformational change required while responding to consumer and energy system needs. The FSO is considered a key part of this vision.

Markets: We expect the FSO to shape and develop the market through its system and network planning functions and to build on the ESO's role in developing balancing services markets, as well as advising BEIS and Ofgem, proactively if necessary. The FSO will also be a leading party in developing gas market strategy under the remit of its whole-system role, including publication of Gas Market Plans and leading Future of Gas forums. As set out in the consultation, it remains the case that any further roles for the FSO in relation to the Capacity Market will be considered as part of the next statutory five-year review of the Capacity Market. Any further role for the FSO in relation to the existing Contracts for

²⁴ *Offshore Transmission Network Review webpage* <https://www.gov.uk/government/groups/offshore-transmission-network-review>

²⁵ *Ofgem Decision on the development of early competition in onshore electricity transmission networks (2022)* <https://www.ofgem.gov.uk/publications/decision-early-competition-onshore-electricity-transmission-networks>

²⁶ *BEIS Competition in onshore electricity networks consultation (2021)* <https://www.gov.uk/government/consultations/competition-in-onshore-electricity-networks>

Difference scheme will also be considered as part of wider policy development on future rounds of the scheme.

Coordination with DNOs: We intend the FSO to coordinate with DNOs to ensure optimal system-wide planning, and use of flexibility and data exchange. We agree with respondents that further work is needed to establish whether it would be appropriate for the FSO to take on DSO roles given the ongoing work on reviewing DSO governance and functions. Ofgem will, this spring, issue a call for input to gather stakeholder views on potential governance reforms at the local level. This will inform the detailed work happening this year to develop and assess institutional reform options for distribution system operation.

Data: We expect the FSO to act as a data-led organisation, which will be supported by its statutory duty to have regard to the need to facilitate innovation. This means the FSO should be considering new and better ways of undertaking its functions, including the potential for better collection and use of data and digital technologies to improve consumer experience and outcomes. This will involve meeting stakeholder needs and building on the transparency, data and forecasting expectations Ofgem set out in the ESO's roles guidance in 2021²⁷.

- We also intend the FSO to have a statutory power to request information and data from other licensees (and exemption holders) to facilitate its functions, which should enable ease of data exchange.
- The Energy Digitalisation Taskforce²⁸ has identified a number of strategic data roles and proposed new data functions which may interact with the FSO. We will take the recommendations from the taskforce under consideration as we further develop any data roles allocated to the FSO.

Future system operability, Engineering standards, and Energy Code development: The Energy Codes Reform consultation response²⁹ sets out that we intend to grant Ofgem several new strategic functions for codes. As such, as part of the FSO's new statutory advisory duty, we expect the FSO to provide advice to Ofgem or government when requested and where reasonably practical to do so, including on future system operability. This is to ensure that any concerns in relation to changes to codes and engineering standards that could affect future system operability, resilience, decarbonisation, or system cost, are considered during the code change process. In addition, it is also intended for the FSO to be required, via licence changes, to advise Ofgem on an annual basis as part of Ofgem's new strategic direction setting function for the energy codes. We anticipate that this advice will highlight any implications for the codes landscape that the FSO has identified as part of its broader review function, as well as any specific code changes it

²⁷ Ofgem *Decisions on the ESO guidance documents for 2021-2023* (2021)

<https://www.ofgem.gov.uk/publications/decisions-eso-guidance-documents-2021-23>

²⁸ Energy Systems Catapult *The Energy Digitalisation Taskforce report* (2022)

<https://es.catapult.org.uk/news/energy-digitalisation-taskforce-publishes-recommendations-for-a-digitalised-net-zero-energy-system/?reportDownload=https://esc-production-2021.s3.eu-west-2.amazonaws.com/2022/01/ESC-Energy-Digitalisation-Taskforce-Report-FINAL.pdf>

²⁹ BEIS and Ofgem *Energy code reform governance consultation* (2021)

<https://www.gov.uk/government/consultations/energy-code-reform-governance-framework>

considers relevant. Ofgem will then be required to consider any such advice from the FSO; but would have discretion to decide which elements of advice to adopt and which (if any) to build on when developing the strategic direction. More detail on this, and the plan for appointing code manager functions can be found in the Energy Codes Reform consultation response.

Transport, heat, hydrogen and CCUS: We agree with respondents that decisions on roles in relation to transport, heat, hydrogen and CCUS need to be taken in the future as related policies are developed. And further consideration will be needed on which body is best placed to develop more localised sectors of heat and transport decarbonisation. The FSO will have a statutory supporting duty to consider whole system impacts and therefore it is expected that the FSO will need to consider the development of CCUS, hydrogen and heat and transport decarbonisation as part of its responsibilities in system forecasting, strategic network planning and when providing advice to government or Ofgem. However, further roles related to these areas will continue to develop as the related markets mature. These roles may be subject to further consultation as the detail is further developed, and any necessary legislative or licensing changes are considered.

We recognise respondents' concerns over the FSO taking on too many roles on "day one" and we will consider the appropriate way to build up new capabilities in the FSO as part of implementation. We are otherwise mindful of not overburdening the FSO too early in relation to completely new roles, particularly where it may not initially have the relevant expertise. It will be important that the FSO has the time needed to develop its own culture, as well as recruitment policies and plans, to ensure it is appropriately resourced to perform further new roles as they arise.

4. Organisational Design

4.1 Question 13 – characteristics and attributes of FSO

What are your views on our proposed characteristics and attributes of a future system operator and how the models presented would deliver against them?

Consultation position

We set out that in order for the FSO to fulfil the objectives for reform, it will need to possess certain high-level characteristics that are essential to effectively deliver the roles and functions we put forward. We proposed that the FSO should be:

- technically expert;
- operationally excellent;
- accountable to consumers and able to support the delivery of net zero on behalf of the public;
- independently minded; and
- resilient, both operationally and financially.

Summary of stakeholder response

Almost all respondents agreed with our proposed characteristics and attributes, with FSO independence and conflicts of interest being the most cited issues in response to this question. The majority of those who responded preferred an independent model, classified within the public sector.

Independently minded

The importance of FSO independence or being unbiased was cited by most respondents. This was seen as essential to give the FSO the ability to act impartially and advocate steps that may be unpopular but are necessary to achieve net zero. There was some wariness over this body being seen to be too close to either government or industry.

There were mixed views over the most appropriate organisational model for independence, but generally respondents thought that a privately owned model could not be truly independent from energy sector interests. However, concerns were also raised about the independence of a public body from government and Ofgem. Several responses highlighted the need for the FSO to have an independent and impartial board of directors, whether it is a public or private body.

Responses also noted the need for further development of how interactions between the FSO, government, Ofgem and network and system operators would be agreed and managed.

Accountable to consumers and supporting the delivery of net zero

There was a strong call for the FSO to have a focus on decarbonisation with a strong, clear remit for net zero to enable many of the changes laid out in the consultation. A few respondents added that the FSO should ensure a technology neutral stance when driving forward net zero. One respondent recommended that the FSO must have decarbonisation as its central remit or priority duty when balancing security of supply, consumer cost and net zero.

Respondents generally agreed that the FSO should be accountable to consumers, however some added that the FSO should go further in focusing on consumer impact and understanding the behaviour and needs of consumers.

Generally, respondents considered a public body was better placed to deliver these characteristics. Reasons cited against the private option were largely due to concerns over the prioritisation of shareholders over consumers and a private FSO not being operationally aligned with consumer interest. There were concerns that a private model would be ineffective at delivering net zero and overcoming market failures to do so. However, there were also some notable concerns that the public model might not promote optimum costs behaviours and incentivisation for delivery.

Technical skills and operationally expert

Respondents cited a need for a strong focus on attracting the talent and skilled people needed for FSO success. There were concerns around a technical skills gap if the FSO is taking on enhanced responsibilities to the ESO. One respondent highlighted that the operational and technical expertise would need to encompass electricity and gas in equal measure for a balanced view.

Many respondents considered a private body would be more competitively placed to meet these characteristics. There were concerns over a public FSO being unable to retain and attract the correct talent and being subject to more bureaucracy, policy and remuneration constraints which may lead to it being slow in its reaction to changes, and unable to compete with the private sector. Some suggested that, if public, the FSO should be free from government constraints on salary to compete with the private sector.

Other characteristics

Some respondents suggested additional characteristics. There were calls for the FSO to have greater transparency across all operations to ensure scrutiny, from data sources it uses to how it arrives at any recommendations. Several respondents cited a need for the FSO to champion data and digitalisation and improve its IT systems. Others added that the FSO needs to be innovative, flexible and agile to encourage innovation in decision making.

Government/Ofgem response

We continue to believe that the high-level characteristics described in the consultation are the ones needed to enable it to effectively deliver its roles and functions.

We note many respondents' particularly strong views on the importance of the FSO's independence, both from energy sector interests as well as government influence. We see it as critical that the FSO can exercise independence both when it comes to tasks related to the operation of energy networks as well as other roles, such as providing advice related to net zero and other issues. We will continue to develop our thinking on the FSO's governance and organisational structures to ensure its operational independence and set out in response to Q14 our conclusion on the most effective organisational model to realise this.

We recognise the need for the FSO to be technically expert and operationally excellent. We will work to enable the FSO to attract the best of the industry talent, with expertise in both gas and electricity sectors. We want the FSO to be an agile organisation able to leverage the knowledge and expertise gained through system operation to drive innovation in the energy system and the way it operates.

The statutory duties of the FSO, set out in response to Q15, acknowledge and support respondents' calls for supporting the delivery of net zero and considering the impact of consumers.

4.2 Question 14 – organisational models for FSO

Are we considering the right organisation models for the FSO? And why?

Consultation position

We set out two different possible organisational models for the FSO: (i) a standalone privately owned model, independent of energy sector interests; or (ii) a public body, with operational independence from government. We did not set out a preferred position in the consultation.

Summary of stakeholder response

Most respondents believed that the right organisational models were outlined in the consultation. The question did not specifically ask for a preference between the models described and consequently there were many responses that offered no view/preference for the specific organisational design model, instead citing the pros and cons of both.

Suitable level of independence was the most common concern mentioned in responses. This referred to both independence from energy sector interests as well as the operational control of government, and as such was raised irrespective of the preference for either organisational design model. Many responses spoke of the importance of correct incentives (for either model) as well as attracting the right talent and technical expertise to the FSO, with some believing this may be easier in the private sector model.

Of the responses which specifically expressed views on the organisational design models, the majority were in favour of the non-private model. Those that were in favour of the non-private option or described the benefits of such a model, generally referenced the benefits of independence/avoidance of conflicts of interest, better strategic alignment, greater accountability and the need for the FSO to both drive towards net zero and represent public, consumers, and energy system interests. Those in favour of a private model or who described its benefits, generally cited the benefits of operational independence from government, profit incentives, simpler transition and greater competitiveness for employees and the technical capabilities/skills needed.

A few respondents explicitly called for a not-for-profit model, or a body jointly owned by industry, which could offer an alternative to the ones presented in the consultation.

Government/Ofgem response

Responses to our consultation broadly confirmed that the most effective FSO would be one that is free from any perception of conflicts of interest with other companies with commercial interests in the energy area and related sectors, but which would also be free from day-to-day control from government and established so that it is able to provide genuinely independent advice. **We have concluded that the most effective model for realising this vision is to establish the FSO as a public corporation, with operational independence from government.** This means it would sit within the public sector, but outside of central government, and with the operational freedom it needs to manage and organise itself to deliver its roles and objectives. We want the FSO to be a trusted voice in the centre of the gas and electricity systems with world leading expertise, at the cutting edge of net zero and with an ambitious long-term vision for the sector.

We are confident that a public sector FSO, with operational independence from government, will be able to undertake the full breadth of roles described in our consultation document as well as help to deliver net zero at lowest costs to consumers. We particularly note the concerns raised in consultation responses that a private model could not be free from conflicts of interest and that it would be challenging for a privately owned organisation to drive the desired behaviours, especially around net zero. We believe that these concerns are best addressed, and associated risks best managed, through public ownership of the FSO. A publicly owned organisation will be inherently free from conflicts of interest with other parts of the energy sector and will have a consumer focus as an integral part of its role, ensuring that it considers every consumer as a stakeholder.

Free from commercial conflicts of interest, our intention is that the FSO will be trusted by industry and government. We will ensure that it is free from day-to-day operational control by government, while putting in place a performance framework that means it is not distracted or disincentivised from driving outcomes for the long-term benefit of the system. It will be transparently regulated by Ofgem, providing a known framework for sector engagement with the FSO's aims and business planning. We believe that sector stakeholders will trust the fairness of the advice provided and the markets operated by the FSO and be more willing to engage with it on that basis, as highlighted by responses to the consultation.

We recognise the risk raised in some of the consultation responses around any lack of operational independence from government limiting the agility of the FSO. While the government will be the sole shareholder, and thus retain ultimate responsibility, it will not exercise day-to-day control over the FSO's operations. The nature and limits of the government's role will be clearly and transparently described in the FSO's framework document, articles of association and other foundational governance documents. Our intention is for the FSO to be recognised for its sector leadership in driving an innovative and modern energy system.

4.3 Question 15 – regulatory and accountability frameworks

Are we considering the right elements for the FSO's regulatory and accountability frameworks? And why?

Consultation position

The consultation set out that we expect the fundamental elements of the FSO's regulatory framework to be similar for both private, shareholder owned and non-private models. It would incorporate legislation, any designated Strategy and Policy Statement (**SPS**), licences and codes, and with funding through network charges. We set out that the FSO will need to be free of conflicts of interest with energy sector interests and be free from short-term operational influence from government. Both models would make the FSO accountable to Ofgem through its licences, but the models differ depending on to whom else the FSO's leadership is accountable and how extensively financial incentives can apply.

Summary of stakeholder response

Most respondents felt that the consultation considered the right elements for the FSO's regulatory and accountability frameworks and that Ofgem should be responsible for regulation. There was general support for the FSO to have legally binding statutory objectives, as set out, and for the SPS to provide strategic focus and alignment with government policy.

A suggestion for an additional primary criterion for the regulatory and accountability arrangements was that they further a whole systems approach and achieving net zero. However, there was recognition this could require a different approach to regulation, as the drivers of FSO effectiveness and success would often relate to political accountability and reputational harm, rather than any mechanistic system of regulatory fines and penalties.

There were calls for greater clarity over the regulatory structure for an independent FSO, and the roles Ofgem and BEIS will play, particularly how an FSO which is independent of Ofgem is also accountable to them. For example, how duties are monitored, or the potential for disciplinary action should the FSO fail on standards. One respondent considered that Ofgem's regulation and remit should differ between organisational models

and be more limited under a public model. A few added that the FSO should be able to freely provide independent advice to the government and Ofgem, therefore the advice should not be accountable to Ofgem. Several respondents also raised the importance of decisions by the FSO being appealable to the Competition and Markets Authority (CMA).

The importance of a well-built incentive structure was emphasised. Respondents stated that the regulatory framework will need to ensure that returns are reasonable and aligned to the risks that the FSO is taking. Incentive schemes should ensure the organisation is focused on delivering the right outcomes for consumers and net zero, while creating a strong motivation to outperform. A few noted that the FSO could also have some level of accountability to broader stakeholder groups, including industry, consumers and workers.

There were a few calls for the FSO functions to be funded from general taxation, as the FSO functions for societal benefit, with the taxation system having the benefit of being progressive.

Government/Ofgem response

We continue to be committed to developing a proportionate and effective regulatory structure for the FSO incorporating legislation, the SPS, and licences and codes, with clear and well-defined roles for government, Ofgem and the FSO to avoid overlaps and conflict.

Legislation

At the heart of the FSO's operation will be a need to manage the trade-offs and synergies between achieving net zero, maintaining security of supply of electricity and gas, and ensuring an efficient, coordinated and economical system. The FSO will have a primary statutory duty to undertake its functions in a way which promotes these objectives, while having regard to a number of other matters including the need to facilitate competition and innovation, understanding the impact on consumers and consumer behaviour, as well as operating in a whole systems manner.

These duties will be linked to the creation of two new categories of licence for the system operator and system planner functions within the electricity and gas network, respectively. The FSO will hold both licences with the potential to hold additional licences in future, if required and provided for in future legislation. The relevant FSO activities currently undertaken by NGEN and NGG, and which are licensed through existing arrangements, will be regulated under these new licences. We intend to review existing licences to ensure they function as required alongside the two new categories of licence.

Strategy and Policy Statement

We will amend existing legislation to extend the SPS framework to the FSO³⁰. The FSO will act independently but it will still operate in the context of wider energy sector policy and

³⁰ The Energy Act 2013 provides powers for the Secretary of State to designate a Strategy and Policy Statement (SPS) in which he would set out the Government's strategic priorities and other main considerations of its energy policy, the policy outcomes to be achieved, and the roles and responsibilities of those who are involved in implementation of that policy.

the government's strategic objectives in this area. To ensure broad policy alignment and long-term strategic context, BEIS plans to set this out in an extended SPS, to which the FSO (in addition to the existing duties on Ofgem³¹) will have a duty to have regard. To supplement this, the FSO will also be required to keep relevant government policy initiatives under review³².

We intend to provide an opportunity, through legislation, for the SoS to review any existing SPS as part of the creation of the FSO, if desirable.

Licence

We have concluded that Ofgem will provide regulatory oversight of the FSO's performance. As it does with other licensees in the energy market, Ofgem will monitor the FSO's compliance with its licence obligations and statutory duties and take appropriate action where necessary. Ofgem will work to ensure that the regulatory framework in which the FSO will operate will be fit for purpose, and deliver high quality outcomes for consumers, taking into account its ownership model and remit. It will be important that within this framework the FSO will have a high level of independence in making operational decisions and running its day-to-day activities. Ensuring the independence of the FSO will be a key consideration as the FSO regulatory framework is developed.

Where appropriate, Ofgem will also implement an incentive regime on the FSO to promote high levels of operational performance, innovation and ambition. We acknowledge and agree with the consultation response comments highlighting the importance of effective incentives. We believe that a public sector organisation could be effectively incentivised to deliver desired outcomes. Detail of this framework will be openly developed and set out in, or under, the relevant licence(s).

We have noted the point raised by a few respondents on new roles within the FSO being funded by taxation. However, on balance network charging remains our intended funding stream. This is because of the desire for the FSO to remain independent of day-to-day government control, and to ensure the organisation is classified appropriately under the government accounting framework³³. There is also an expectation that establishing an FSO able to fulfil its proposed functions effectively will lead to an overall reduced burden on energy bills.

³¹ The Energy Act 2013 imposes duties on Ofgem to have regard to the strategic priorities when carrying out its regulatory functions.

³² Once designated the SPS must be reviewed every five years, but it can be reviewed earlier under certain, specified, circumstances (section 134, Energy Act 2013).

³³ Office for National Statistics *UK economic statistics sector and transaction classifications*
<https://www.ons.gov.uk/methodology/classificationsandstandards/economicstatisticsclassifications/ukeconomicstatisticssectorandtransactionclassificationstheclassificationprocess>

4.4 Question 16 – conflicts of interest

Do you have views on the level of shareholding or control involving other ‘energy interests’ and the FSO at which a conflict of interest would become a concern?

Consultation position

We did not set out a preferred position in our consultation but discussed a privately owned model as one option. This would be independent of energy sector interests and would enter the market, and Ofgem’s regulatory framework, on a commercial basis determined by its owners. One example of this is a shareholder owned company owned by, and accountable to, private shareholders that are not conflicted by other energy sector interests. It would be permitted to make a profit and pay a dividend resulting from its system operation activities.

Summary of stakeholder response

Some organisations used this question to reiterate or state their preference for the public model (and/or opposition to the private option), stating that avoiding real or perceived conflicts of interest would be impossible with private capital, which undermines one of the FSO’s key characteristics.

Where responses considered private models, the majority opposed any shareholder involvement from the energy sector with independence being critical. Several respondents felt that the energy sector would need to be broadly defined, with a few providing a suggested definition including that any owner of the FSO should not be allowed to have any ownership interest in GB energy system assets nor any ownership interest in energy technologies that might be deployed in the GB market. Several respondents suggested a number of controls that could be put in place to protect and maintain the FSO’s independence from shareholders, particularly in relation to national security. The most common suggestion was placing limits on the rights of shareholders to appoint directors to the Board, reducing the influence and control of investors. However, it was also noted by some that this creates a challenge as direct industry experience also provides value.

Government/Ofgem response

As noted in our responses above, we have concluded that a public corporation, with operational independence from government, represents the best model for the FSO. One factor in this decision is the concern of stakeholders, including a number of participants in the current energy market, that any ownership model that retained the possibility of the FSO’s owners being involved in the energy area, or even some related areas, could compromise its perceived independence and thus the credibility of its performance. Mitigating these concerns would mean imposing very strict “anti-conflict” ownership restrictions, which would likely severely limit the pool of potential owners and make a private sector model less straightforward and less attractive. While the removal of conflicts

of interest from ownership is an important outcome, we will consider how the FSO should listen to and engage with the energy sector as our policy development continues.

4.5 Question 17a – Elexon

Are we considering the right implications of our proposals for Elexon?

Consultation position

We set out in the consultation that as we consider changes to the ownership and regulatory arrangements for NGESO, we must also consider Elexon and its subsidiaries, as a change to the ownership of NGESO could directly impact Elexon. We set out that any proposals would need to ensure Elexon retains its operational independence and remains appropriately accountable to the industry it serves. If needed, we will legislate to achieve these aims.

Summary of stakeholder response

Around half of stakeholders responded to this question, with the majority of those agreeing that Elexon is directly impacted by the creation of the FSO. Any changes proposed should ensure that Elexon will retain operational independence from the FSO and ensure its ongoing accountability to the industry it serves. Many expressed that due to NGESO's limited role in the overall governance of Elexon, any changes proposed would likely not materially impact Elexon. However, several thought that more detail was needed to fully evaluate the implications.

Elexon highlighted that any changes implemented should ensure continuation of Elexon's services and must not distract from delivery of critical functions, such as the Market-wide Half Hourly Settlement programme.

A few respondents suggested bringing Elexon and Xoserve together, or at least incentivise them to work more closely together, to enable greater whole systems thinking and facilitate issues that straddle gas/electricity vectors.

Many respondents referenced the impact code governance could have on Elexon, as a key consideration of any proposed changes.

Government/Ofgem response

BEIS and Ofgem are committed to ensuring the stability and continuity of Elexon's services and roles, noting their centrality to the electricity market and within Market-wide Half Hourly Settlement. The consideration of the ownership of Elexon is driven only by the creation of the FSO. However, NGESO is the sole shareholder of Elexon and, therefore, the transfer of NGESO into public ownership requires separate work to consider whether this is also the best ownership outcome for Elexon.

Since the FSO consultation was published, we have been considering scenarios and options for Elexon ownership in cooperation with Elexon themselves, as well as some industry participants. Our core working principle remains that Elexon retains its key objectives of operational independence and remaining accountable to industry. It should also be noted that Elexon's wider governance and funding arrangements are outside the scope of this consultation and will remain in place as today.

A merger between Elexon and Xoserve is outside of the scope of the FSO project. However, the code reform consultation response does set out some changes to the way that system delivery bodies will be required to operate, which may aid in the alignment of activities between the two bodies.

We are very keen to keep working closely with Elexon themselves and wider industry and so, **a separate Elexon consultation will be published in due course, following this response. This will set out in more detail the Elexon ownership options under consideration.** Energy codes reform and its impact are discussed in the separate codes consultation response³⁴.

4.6 Question 17b - Xoserve

Are we considering the right implications of our proposals for Xoserve?

Consultation position

The consultation did not propose any changes to the industry ownership arrangement of Xoserve. We set out that we will consider the impact of our decision on the appropriate gas roles of the FSO on Xoserve.

Summary of stakeholder response

There were fewer responses regarding Xoserve compared to Elexon. From those that did respond or provide a view, generally there was agreement not to change the ownership structure of Xoserve. Respondents, including a response from Xoserve, generally saw the change to an FSO having minimal impact on Xoserve, given it is owned by gas transporters rather than the system operator, with the codes reform having much greater impact. However, there was some recognition that the impact will be dependent on the which gas roles the FSO takes on (Option 1 or Option 2), particularly the Network Emergency Coordinator.

One respondent raised concerns that the FSO should be independent of other interests in the energy industry and not have connections with these central delivery bodies. A few preferred for Xoserve to be separate from the FSO and regulated by licence.

³⁴ BEIS and Ofgem *Energy code reform governance consultation (2021)*
<https://www.gov.uk/government/consultations/energy-code-reform-governance-framework>

Government response

We do not propose any changes to Xoserve's ownership structure at this time.

Xoserve is responsible for billing for delivery of the Data Services Contract and UK Link User Agreement, so its main concern is administration of charges, revenue, and contract services. We agree with most respondents that the creation of the FSO will have a minimal impact on Xoserve.

The Codes reform and its impact are discussed in the separate Energy Codes Reform consultation response³⁵.

³⁵ BEIS and Ofgem *Energy code reform governance consultation (2021)*
<https://www.gov.uk/government/consultations/energy-code-reform-governance-framework>

5. Implementation

5.1 Question 18 – implementation approach

What is your view on the preferred implementation approach?

Consultation position

The consultation set out our preferred approach, where the existing capabilities of NGESO and NGG should, where appropriate, be the foundation of the FSO, with additional capabilities added as required to deliver the full range of functions of the FSO. We also suggested there should be a phased implementation of the FSO, with the FSO taking on all the existing capabilities and functions of NGESO as a first step, followed by phased introduction of any further functions of the FSO.

We set out that primary legislation will be needed to implement some aspects, along with any necessary secondary legislation, changes to the licensing framework, and code changes.

Summary of stakeholder response

The majority of respondents agreed that the best approach would be to build upon the existing capabilities of NGESO and NGG, to ensure continuity, to make sure that the right functions are in place from “day one” of operation, and to enable the FSO to rapidly develop the capabilities respondents considered to be a priority, such as strategic whole-system planning. Some respondents suggested that NGESO could build up capability in some of the proposed new and enhanced roles prior to its transfer to the FSO. Additionally, several respondents pointed out the culture shift required within the existing organisations to move to a whole-systems ethos for the FSO.

Most respondents agreed in principle with a phased implementation approach and considered it posed a lower risk of disruption, however many voiced concerns about the length of time for full implementation under this approach. Respondents’ concerns seemed to largely be in relation to delayed net zero benefits, increased risk of retaining ‘siloes’ working behaviours from transferring gas roles later and concern that FSO resources will be tied up in the transition phase, preventing it from progressing work that needs timely attention. As a result, a few respondents preferred a simultaneous, ‘big bang’ approach to implementation, with energy retailers, storage providers and flexible service providers most inclined to support this approach.

Government/Ofgem response

Our position remains the same as in the consultation in that the FSO should be founded on the existing capabilities and functions of NGESO and, where appropriate, NGG. We

note that the vast majority of consultees agreed with this position. This approach will require transactions between government and NG Plc and any other relevant parties, with the parties being appropriately compensated for the elements of their businesses that are transferred into the FSO. To facilitate these transactions, we intend to create transfer schemes in legislation to ensure that the transfers include all the relevant capabilities needed by the FSO to perform its proposed functions.

On the question of a phased approach to implementation, again most respondents agreed with the consultation position, and we propose to maintain this broad approach. We do however take note of respondents' concerns over the length of time to implement the FSO and the impact that extended timelines could have on delivering net zero benefits. Our aim will be to work with NG Plc, NGENSO, NGG³⁶ and other industry stakeholders to implement an efficient transition, while maintaining the safety and stability of operation of the energy systems.

5.2 Question 19 - prioritisation of new and enhanced roles

Based on the areas where we are considering new and enhanced roles and functions for the FSO, which of these should be prioritised for development?

Consultation position

We suggested that sequencing of the introduction of additional functions of the FSO should aim to prioritise functions that release the highest benefit to consumers and to net zero. However, the timing of implementation of each additional role will also depend on the complexity of the systems and assets involved, as well as the extent of changes to legislation, licences and codes required. Within the consultation we welcomed views from respondents regarding which roles and functions of the FSO they considered should be prioritised for implementation on this basis.

Summary of stakeholder response

Of those that gave a view, almost all respondents thought that whole system planning and network development should be the highest priority. Respondents felt this would provide the best value to consumers and greatest impact in supporting the delivery of net zero. There was also support for the FSO taking on its advisory role early in the implementation phase, as respondents thought this would be straightforward to add to its current roles.

Regarding the timing of other new and enhanced roles and functions of the FSO, a couple of respondents voiced the opinion that it would be sensible to wait until the end of RIIO-ED2 (the upcoming price control period for electricity DNOs) to see how well the DSO role was working, before deciding on FSO roles in this particular area. On roles in heat and transport, CCUS and hydrogen, the prevailing view was that more detail and further

³⁶ We recognise that the ownership of NGG may change following its proposed divestment by NG Plc, and so we will also engage with any new owners where appropriate.

consultation was required on each of these specific topics before respondents could give an informed opinion. A few respondents noted that implementation of the FSO's whole system planning and network development role was also a pre-requisite for the FSO to take on a role in heat and transport decarbonisation.

A few respondents commented that the FSO should not take on new roles until the existing roles of NGENSO and NGENG were fully bedded in.

Government/Ofgem response

We acknowledge and agree with the general support for prioritising the FSO's role in whole system planning and network development. In considering which functions and roles of the FSO may bring the greatest benefit to consumers and to the delivery of net zero, our early assessment also indicates that whole system planning and network development is a role that we would seek to prioritise on that basis.

We will take the views expressed by respondents, as well as the trade-off between security of supply, sustainability and affordability, into consideration in our more detailed implementation planning with NG Plc, NGENSO and NGENG.

We agree that consideration of possible future DSO arrangements, and any legislation or other changes that would be needed to give them effect, should take place in due course, not least to reflect any outcomes of Ofgem's current review of DSO governance.

5.3 Question 20 – implementation risks

What do you believe are the risks to implementation?

Summary of stakeholder response

The main risk identified by respondents was retention of employees and associated capability within the FSO, as well as concerns about skills and recruitment for the new and enhanced roles of the FSO. NGENSO and NGENG employees are highly skilled in specialist subject areas. However, there is a wider skills shortage in the GB power sector. Communicating well, setting a compelling vision for the FSO, and providing strong leadership were all seen as important to retaining employees during transition to the FSO.

Some respondents expressed concerns that recruitment for new roles could lead to a "brain drain" away from other organisations where the skills of experienced engineers are equally vital. Also, some respondents highlighted a risk that the new and enhanced roles of the FSO could place additional requirements on employees that they do not have the capacity to deliver.

The other reoccurring concern was the length of the implementation period and the uncertainty this may cause. This was both in terms of the impact on other energy industry initiatives and the delay in delivering net zero benefits across the industry.

There also was some concern, notably from gas parties, over the risk of duplication with both the new FSO and the continuing gas transmission businesses requiring employees with similar skills. Duplication was seen by these respondents not just as an issue of inefficiency and increased consumer cost, but also as creating a risk due to lack of available skilled employees. To mitigate this risk, respondents thought it essential to have clear roles and responsibilities between the FSO and industry parties, with a role for the Strategy and Policy Statement in achieving this. One respondent raised a concern that both the Transmission Owner and the FSO having responsibilities for network planning risks obscuring accountability between the parties (for example, when assets fail or there is a loss of supply event).

Some respondents expressed concerns about the risk of an electricity “bias” in the FSO, given the likely ratio between electricity and gas personnel. This they said could lead to bias in whole system planning. Other respondents raised similar concerns but felt that the bias would be to gas and electricity, rather than to other, alternative means of balancing energy systems.

Finally, a small number of respondents thought that there was a risk that nothing much would change, with the skills and culture in the FSO remaining the same. As one respondent put it, that the FSO would “fail to deliver more than the sum of its parts”.

Government/Ofgem response

We recognise the risks raised by respondents over the retention of existing employees and recruitment of new employees to the FSO. We are proposing that the FSO should be an operationally and managerially independent organisation within the public sector, with a high degree of freedom to maintain and develop its employee proposition to attract and retain the employees it needs to fulfil its existing - as well as new and enhanced - duties and functions.

The role of the FSO at the heart of GB energy systems and the transition to net zero will, we believe, enable it to offer a range of high-profile and exciting roles, which will contribute to enticing new talent into the sector. We are aware that the skills and knowledge of existing employees will be vital to the success of the FSO, and we have seen from respondents’ comments how much they are valued within the energy sector. Hence, we are committed to taking employees’ interests into account throughout the transition process and consider it vital that ongoing employment with the FSO remains an attractive option for employees. We also intend to work together with NG Plc, NGESO and NGG to help them clearly communicate the purpose of the FSO to their employees and provide as much clarity as possible at each stage about the transition process.

We understand that timely implementation of the FSO is important, not just to bring forward benefits to consumers and to net zero, but also so as not to prolong periods of uncertainty for employees during the transition process. Hence, as described in our response to Q18, our aim will be to work with NG plc, NGESO, NGG and other industry

stakeholders to implement an efficient transition, whilst maintaining the safety and stability of operation of the energy systems.

One of our key drivers for transition to the FSO is to deliver a whole systems approach to energy networks planning and operation. We are mindful of the need to avoid an electricity bias, and we will set out clear whole systems expectations for the FSO in its statutory duties to help mitigate this risk. These statutory duties will inform development of the FSO licences, and future whole system roles which will require expertise across electricity and gas. Finally, as mentioned by some respondents, an SPS can provide greater clarity on roles and responsibilities. We hope these measures also address concerns about duplication. Nevertheless, we acknowledge that there may still be some duplication of capabilities, which cannot be avoided if the objectives of our reform are to be fulfilled (see Q9).

5.4 Question 21 – potential implications of implementation

Do you have any comments on potential implications of implementation for you, your organisation, or other stakeholders?

Consultation position

Effective coordination of the project to establish the FSO will be vital to ensuring that the reform meets its objectives. The consultation suggested that BEIS and Ofgem will both have a role to play in the overarching coordination of the implementation phase and assuring a successful transition to the FSO, as well as supporting National Grid plc, NGESO, NGG and the wider GB energy industry in their readiness for the changes that creation of the FSO will entail.

BEIS and Ofgem also recognise the uncertainty that this transition may create for NGESO employees and some employees within National Grid plc, NGG and their subsidiaries.

Summary of stakeholder response

Generally, respondents suggested the transition to the FSO will affect all energy industry participants to some degree or other, if nothing else in terms of the need to respond to follow up consultations, and the potential impact on investment decisions of any uncertainty generated by the transition. Some respondents pointed out that, even if contracts with the FSO do not need to change, due diligence will still be needed on their existing contracts to confirm that this is the case.

Respondents indicated that the full implications of implementation are still unclear, partly because there is not currently a set timeline for transition to the FSO, some roles and responsibilities need further refining, and the sector is unclear about the impact on existing transformation programmes involving NGESO and NGG. The DNOs made a specific

request for their DSO programmes to have time to embed, prior to further development of the FSO's role in distribution system operation.

Where there are proposed changes that will require enhanced relationships between the FSO and other industry participants, there were calls for there to be consultation with industry. One respondent made a specific request for there to be a panel or group chaired by government/Ofgem with relevant industry experts to plan an effective transition. Several respondents commented on how well NGEN stakeholder engagement is currently done, requesting that this continues and highlighting the importance of ensuring a diverse range of views.

Responses from NG plc and NGEN saw the greatest implications of transition to the FSO as being the potential impacts to their personnel. While NGEN stated that a good proportion of its employees are positive about the transition to the FSO and the drive to delivering net zero, there is understandable concern amongst employees about the impact on their role, continuity of benefits and the consequences of separating from a large organisation. The speed of implementation was highlighted as a mitigation to prolonged uncertainty for employees. Where we received individual responses from NGEN employees, while they also were concerned about terms and conditions of employment, they were generally positive about the change too.

Government/Ofgem response

Key priorities of this transition will be to avoid disruption to current energy system operation activities, provide certainty to affected employees and ensure that momentum towards a net zero energy system is maintained. We recognise the multiple demands on industry, especially at present, and plan to engage industry participants at the appropriate points, to support a smooth transition to the FSO.

It is vitally important that all parties are ready for the transition to the FSO. Our implementation coordination arrangements referenced above will reflect the importance of ensuring all stakeholders affected by the changes have access to the information they need to prepare for the transition to the FSO in a timely manner.

Regarding impacts to the employees of NGEN, and some employees within National Grid plc, NGG and their subsidiaries, we are committed to taking employees' interests into account throughout the transition process. We consider it vital that ongoing employment with the FSO remains an attractive option for employees, as detailed in our response to Q.20. We also intend to work together with NG Plc, NGEN and NGG to help them clearly communicate the purpose of the FSO to their employees and provide as much clarity as possible at each stage about the transition process. We will ensure there is a clear plan for the implementation of the new arrangements so that the transition can take place smoothly, avoiding disruption to the crucial services that NGEN and NGG currently provide. We would expect these implementation plans to cover the detail of how and when personnel, assets and resources will transfer to the FSO.

6. Impact Assessment

We published our Impact Assessment (**IA**) alongside the FSO consultation. Around half of respondents provided comments or views to the questions posed in relation to the IA. Of those that responded we have set out a summary below and a government response to all questions at the end.

6.1 Question 22 – cost savings from whole system view

What is your view on the position there are likely to be cost savings across the energy system from an increased “whole system” view, as described in paragraphs 50-55 of the IA?

Summary of stakeholder response

There was general support for the IA’s high-level approach to quantifying benefits alongside the magnitude of benefits. Particularly, respondents noted that whole system strategic planning and coordination will drive cost savings across the energy system, and many considered benefits would be towards the higher end.

Those that expressed some disagreement noted that estimating the magnitude of benefits is purely speculative and noted the extent of uncertainties regarding the path to net zero. One respondent set out that, as a result, the estimates of savings are simply not a credible basis for decision making.

NG plc set out that whilst they agree with the potential for benefits from an increased whole system view, and even consider the benefits could potentially be greater than set out, they do not agree with the magnitude of cost savings and methodology used to arrive at this. They cited the removal of potential or perceived conflicts of interest as an example used in the cost savings, pointing out that there has been no evidence of such conflicts of interest.

Recommendations for refinement included extending the scope of 'whole system benefits' to also consider DSO activities, extending the quantified cost base, considering safety and security of supply impacts alongside costs, and including a greater number of potential risks via the creation of an FSO.

6.2 Question 23 – benefits of electricity network competition

What is your view on the conclusion that policy intervention is likely to increase the benefits of onshore electricity network competition, as described in paragraphs 53-59 of

the IA? If you agree, is the potential magnitude of savings illustrated fairly in the IA? If not, why not?

Summary of stakeholder response

Responses to this question were mixed with many respondents sceptical of this benefit materialising, or the removal of the 'perceived conflict of interest' resulting in benefits. Most of these responses, however, were more sceptical of the benefits of network competition (set out in a separate consultation) than of the main assessment of the FSO.

Several respondents noted that the costs and benefits were based on the onshore electricity competition IA written in 2016, before current net zero legislation and 2030 offshore wind target were in place and therefore further work is needed to understand consumer impact. Some respondents also raised concerns over the limited basis for the magnitude of potential savings.

6.3 Question 24 – key costs and benefits

Do you think that the impact assessment has identified and considered the key costs and benefits of policy intervention?

Summary of stakeholder response

Responses to this question were again mixed, many agreed that the IA had identified the right costs and benefits, but others provided further suggestions. Several respondents pointed out additional risks that were not included in the IA, including how the creation of FSO could delay decisions made in industry, organisational and capability failure risk and the NGENSO's legacy culture and IT systems.

Responses from NG plc and NGENSO suggested that some elements of the primary cost drivers assumed in the IA, for example work relating to splitting or duplicating IT systems, were underestimated. They also did not agree that the majority of costs of separating the ESO have already been incurred.

Other additional benefits mentioned were the improved decision making as a result of improved data sharing and digitalisation of the FSO and to factor in the benefit of the FSO 'reducing the risk' of not achieving net zero.

The main costs highlighted as needing further quantification were the loss of operational synergies, replication of roles, costs of separating IT and shared services, familiarisation and learning costs, and impacts on distribution companies.

6.4 Question 25 – distribution of impacts

Do you think that the distribution of impacts is fairly represented, with impacted groups correctly identified? Outlined in table 5 of the IA.

Summary of stakeholder response

There were fewer responses to this question, but of those that did respond most agreed that our distribution of impacts was fairly represented. Several respondents provided further suggestions including taking more account of the needs of future energy market participants, end users/consumers and wider communities.

Government/Ofgem response to all IA questions

We have now published an updated Impact Assessment³⁷ alongside this consultation response that takes into account these comments. Please refer to page 9 of this updated IA which sets out the updates and changes following our review of the consultation responses. Following comments from NG plc and NGENSO in relation to the net costs methodology we have increased our range of sensitivities to reflect possible underestimated costs.

³⁷ BEIS and Ofgem *Proposals for a Future System Operator* (2022)
<https://www.gov.uk/government/consultations/proposals-for-a-future-system-operator-role>

7. General

7.1 Question 26 – protected characteristics

We invite respondents' views on whether the proposals for energy system governance reform may have a different impact on people who have a protected characteristic (age, disability, gender re-assignment, marriage and civil partnership, pregnancy and maternity, race, religion or belief, sex (gender) or sexual orientation), in different ways from people who don't have that characteristic.

The vast majority of respondents had no further comments or additional details to add on whether the proposals for energy system governance reform would impact on people who have protected characteristics.

Of those that provided comments, several highlighted the opportunities that the FSO could have to consider the impact of changes to the energy system on consumers, including supporting those with protected characteristics. One respondent highlighted the need for early input from relevant expert groups to ensure creation of an appropriate FSO model that works for all members of society.

A comment was made about the importance of ensuring the FSO has a strong diversity and inclusion policy so that it represents the community. One respondent suggested ensuring lower-income groups are modelled in the impacts of the FSO transition, particularly ensuring they are protected if bills turn out to be higher than expected. A few respondents made specific reference to accessibility of information and the digitalisation of the energy system as a result of the reform, which could have an impact on the ability for certain groups to engage with the system.

Government and Ofgem response

The FSO will play an important role in driving progress towards a net zero system, for example providing independent expert advice to inform strategic decisions. As consumers become more active users of the system, the transition to and future engagement in a net zero energy system will have implications for energy consumers and therefore people with protected characteristics. For example, digitalisation could have implications for different protected characteristics.

It is government's intention to put consumers at the heart of the transition, and it will be critical that the FSO takes consumers into account to ensure that the future system is aligned with the needs of consumers and their different protected characteristics. As a result, we intend to create a statutory duty making consumer impact an explicit focus of the FSO's operation.

We recognise the concerns regarding potential impacts of the reforms on financially vulnerable groups who can often have certain protected characteristics. This project intends to establish an independent FSO able to drive progress towards net zero while

maintaining energy security and, importantly, minimising costs for consumers in the long-term.

Government supports vulnerable and low-income households through initiatives such as the £500 million household support fund³⁸, the Warm Home Discount, Winter Fuel Payments and Cold Weather Payments. In addition to this, government recently announced that millions of households will receive £350 of government support to help protect them from rising energy costs. The energy price cap also continues to help protect vulnerable consumers from unfair prices.

We will continue to monitor, assess and mitigate the impact of implementation of the proposals on protected characteristics.

³⁸ *Press release: Government launches £500m support for vulnerable households over winter (2021)*
<https://www.gov.uk/government/news/government-launches-500m-support-for-vulnerable-households-over-winter>

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