

Funding the transition to a Future System Operator

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We are consulting on proposals to fund the Electricity System Operator (ESO), National Grid plc (NG) and National Gas Transmission (NGT) to carry out work that is needed to enable the delivery of a Future System Operator (FSO).

We are seeking responses to the questions posed in this document by 2 August 2023. Following consideration of responses, we will make our final decision on these funding proposals.

This document outlines the scope, purpose and questions of the consultation and how you can get involved. Once the consultation is closed, we will consider all responses. We want to be transparent in our consultations. We will publish the non-confidential responses we receive alongside a decision on next steps on our website at [Ofgem.gov.uk/consultations](https://www.ofgem.gov.uk/consultations). If you want your response – in whole or in part – to be considered confidential, please tell us in your response and explain why. Please clearly mark the parts of your response that you consider to be confidential, and if possible, put the confidential material in separate appendices to your response.

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Executive Summary

In April 2022, Ofgem and the Department for Energy Security and Net Zero (DESNZ)¹ jointly decided to proceed with the creation of a new, independent Future System Operator (FSO). This will be 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.

The FSO will initially take on all the existing roles and responsibilities of the Electricity System Operator (ESO), currently owned by National Grid plc (NG). It will also take on strategic network planning, long term forecasting and gas market strategy activities in respect of gas. This will involve close coordination with the Gas System Operator (GSO), a function performed by National Gas Transmission (NGT). The FSO will also take on new and enhanced responsibilities, including providing expert advice to Ofgem and government, and driving the coordinated development of the whole energy system.

Ofgem and DESNZ have a shared ambition for the FSO to become operational in 2024. Achieving this ambition is dependent on several factors, including the progress of the Energy Bill currently going through Parliament². To achieve this, Ofgem, DESNZ, ESO, NG and NGT are undertaking a substantial, coordinated programme of work. Since April 2022, we have worked closely with the three companies to understand the detailed activities that need to be carried out to deliver the FSO and to establish shared implementation plans. Our plan includes two key stages for introducing the FSO. By 'Day 1' the FSO will be established outside of NG Group, with the majority of the property, rights and liabilities it needs to discharge its statutory functions, and owned by government, but it will hold agreements with NG for the continued use of key business services. By 'Day 2' the FSO will have exited these agreements and will have its own standalone capability to perform all its functions.

The separation of the ESO and implementation of the FSO creates costs for the ESO, NG and NGT that they would not otherwise have incurred. We consider that these companies should be able to recover through price controls economic and efficient costs associated with separating ESO from NG, transforming the ESO into the FSO, and establishing the FSO's gas activities.³

¹ This decision was taken when DESNZ was part of the previous Department for Business, Energy and Industrial Strategy (BEIS).

² In the Energy Bill, the FSO is referred to as the Independent System Operator and Planner (ISOP): [Energy Bill \[HL\] - Parliamentary Bills - UK Parliament](#)

³ Our position on price control cost recovery does not include costs related to the commercial transaction for government to acquire the ESO or its business and valuation activities for establishing the FSO, which are being considered by DESNZ.

Both DESNZ and Ofgem have roles to ensure that expenditure on these activities represents value for money for energy consumers. DESNZ are responsible for assuring the specific activities being undertaken by the companies are aligned with the overall policy ambition for the FSO, whilst we are responsible for introducing appropriate funding mechanisms that promote cost efficiency in the delivery of the agreed activities.

At our request, the companies have shared details on the specific activities they intend to carry out to deliver the FSO, as well as latest estimates of the costs associated with these activities. In total, the companies forecast spending approximately £180-210m up to Day 1 and £300-390m in total by Day 2.⁴ Each company's estimated totals for the phases of up to Day 1 and between Day 1 and Day 2 are outlined in Tables 1 – 3 below. The main driver of these costs are the activities needed to separate of ESO IT from NG IT⁵, which involves a large degree of complexity and requires substantial planning and implementation work, supported by external partners.

Table 1: ESO estimated 'one-off' costs forecast for FSO implementation

Company	Up to Day 1 (£m)	Day 1 to Day 2 (£m)	Total (£m)
ESO	60 - 68	68 - 104	128 - 172

Note: 2018/19 prices, £m

Table 2: NG estimated 'one-off' costs forecast for FSO implementation

Company	Up to Day 1 (£m)	Day 1 to Day 2 (£m)	Total (£m)
NG	111 - 138	52 - 62	163 - 200

Note: Outturn prices (2022/23 prices adjusted for inflation using the Green Book rates, £m)

Table 3: NGT estimated 'one-off' costs forecast for FSO implementation (per annum)

Company	Up to Day 1	Day 1 to Day 2 (£m)
NGT	1	2

Note: Estimated cost per annum during each stage, £m

In addition to the one-off costs above, the ESO expects to incur between £4-7m of additional annual run the business (RTB) costs before Day 1, building up to £25-40m of additional RTB costs once it forms part of FSO (mainly associated with establishing new roles and standalone back-office functions). NG also expects to incur consequential costs following Day 1 FSO, driven by a loss of economies of scale from its shared functions.

DESNZ have assessed the ESO and NG's plans for separation and are comfortable that the proposals for separation are directionally aligned with the policy objectives for the

⁴ These totals are approximate figures for all companies using 2022/23 prices. In the rest of the document, we use 2018/19 price indices for ESO costs, to allow comparability with its BP2 submission.

⁵ Continued use of shared IT services was agreed as part of ESO and NG's legal separation that occurred in 2019, funded via ESO's and National Grid Electricity Transmission's price controls.

FSO.⁶ In this document, we have set out our proposals for funding FSO costs associated with delivering Day 1. These build on decisions already made as part of our Final Determinations on the ESO's RIIO-2 Business Plan 2 (BP2)⁷. We intend to consider post-Day 1 costs as part of the FSO's funding framework, and NG's consequential costs later in the year.

We believe it is in energy consumers' interests for the FSO to be introduced at the earliest sensible opportunity given the significant benefits this new organisation will deliver. As the programme to create the FSO is complex and unique, there is uncertainty around the precise implementation approach and costs in several areas at this point. For that reason, we have not performed a detailed ex-ante cost assessment. We have instead developed a set of funding proposals which allow more flexibility in funding and focus on ongoing assessment of the companies' actual delivery and costs. Our proposals include:

- Funding in principle all economic and efficient FSO separation costs for NG and NGT (extending the decision made for the ESO's costs in our BP2 Final Determinations);
- Introducing an additional pass-through term in the ESO licence for the ESO to recover NG costs, and funding NGT costs using a flexible cost recovery route which reflects these costs uncertainty and materiality;
- Applying caps to all new FSO cost recovery licence terms, equivalent to the companies' high case cost estimates (with an ability to adjust caps based on strong justifications);
- Requiring the ESO to hold an intragroup contract with NG, where NG would commit to carrying out separation activities and the ESO would provide payment to NG following DESNZ's approval of delivery and Ofgem's approval that costs are in line with pre-agreed principles;
- Introducing a reporting framework that will provide ongoing transparency over the ESO and NG's delivery of separation plans and actual spending;
- Extending ex-post disallowance powers to ESO FSO costs, but not to NG or NGT costs.

We welcome views from stakeholders on these funding proposals by 2 August.

⁶ DESNZ have not provided the same formal assessment of NGT's activities at this point given their lower relative complexity and cost materiality.

⁷ [Business Plan 2 Final Determinations - Electricity System Operator | Ofgem](#)

1. Introduction

Purpose of this document

- 1.1 We are consulting on proposals for the funding mechanisms and framework for National Grid Electricity System Operator Ltd (ESO), National Grid plc (NG) and National Gas Transmission plc (NGT) to carry out work that is needed to enable the delivery of a Future System Operator (FSO).

Background to the FSO

- 1.2 In April 2022, Ofgem and the Department for Energy Security and Net Zero (DESNZ) jointly decided to proceed with the creation of a new, independent FSO.⁸ This builds upon previous initiatives to create greater separation of the system operator by legally separating the ESO from National Grid in 2019. The FSO will be 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.
- 1.3 In our April 2022 decision, we set out that the FSO will take on a number of key roles in electricity and gas, taking a whole energy system approach when operating, planning and developing the network. The FSO would also 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, 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.
- 1.4 The introduction of the FSO affects the current ESO and Gas System Operator (GSO), owned by NG and NGT respectively, because the FSO would be founded on the existing roles and capabilities within these organisations. The FSO will take on all the existing roles and responsibilities of the ESO and longer-term planning, forecasting and market strategy activities in respect of gas.

⁸ [Department of Business, Energy & Industrial Strategy \(2021\). Proposals for a Future System Operator role](#)

- 1.5 The FSO will also have new and enhanced roles, including a statutory advisory duty to provide expert advice, analysis, and information to Ofgem and government; and an increasingly significant role in shaping the energy system and driving forward competition. For more information on the FSO, please see the government and Ofgem's response to the FSO consultation.⁹
- 1.6 The decisions made by Ofgem and DESNZ in April 2022 require primary legislation, with the Energy Bill currently going through Parliament at this time. Any decisions or references to things done by legislation, or as a result of legislative changes, set out a current policy intention but the delivery and details of that policy will be contingent on the outcome of the legislative process.

Subsequent progress on the delivery of FSO

- 1.7 Ofgem and DESNZ have a shared ambition for the FSO to become operational in 2024, subject to a number of factors including timings for the Energy Bill and delivery by key parties. We have been working closely with the ESO, NG and NGT to plan the transition to a FSO and to identify and progress the detailed implementation activities needed to enable a timely transfer of responsibilities once legislation comes into effect.
- 1.8 Ofgem and DESNZ have also been working closely with the companies to further define the details of 'Day 1' for the FSO, the first day by which the FSO will be established as a standalone entity that is owned by government and independent from NG¹⁰. This includes developing the FSO's new Electricity System Operator and Gas System Planner licences, and changes to industry codes. DESNZ and Ofgem plan to produce a FSO second consultation and policy update this summer, alongside an initial consultation on proposed licence changes.
- 1.9 To enable the introduction of the FSO, the ESO and NG will need to carry out a substantial and complex programme of work. This includes separating existing ESO functions, processes and systems from NG, and developing the ESO's current capabilities so it is ready to be transferred into government ownership as the FSO. NGT will also need to carry out work to support the establishment of the FSO's gas

⁹ [Department of Business, Energy & Industrial Strategy \(2021\). Proposals for a Future System Operator role](#)

¹⁰ For further explanation of the Day 1 and Day 2 milestones for the ESO to FSO transition, please see paragraphs 2.6 – 2.8.

activities and to develop the new ongoing relationship that will exist between the FSO and the GSO.

- 1.10 All three companies will incur costs to carry out these activities which they would not have otherwise incurred. We have therefore held discussions with the companies on providing funding for reasonable and efficient costs associated with the transition to FSO through Ofgem price control arrangements.
- 1.11 Upon the request of DESNZ and Ofgem, the ESO and NG are already undertaking initial detailed planning work on the ESO separation and introduction of the FSO. To enable this to progress, we have provided NG and ESO with the comfort that we will consult on necessary mechanisms that enable them to recover economic and efficient costs they incur to support the delivery of the FSO, prior to our final cost decisions. This agreement was subject to certain conditions being met, including delivery of a defined scope of work, regular reporting on progress, and costs not exceeding certain limits.
- 1.12 This consultation brings forward proposals on mechanisms that would enable the companies to recover these interim costs, as well all other efficient costs incurred between our final decisions on costs this autumn and the 'Day 1' point at which the FSO becomes operational in 2024.

Development of company separation plans and costs

- 1.13 In August 2022, the ESO submitted its RIIO-2 Business Plan 2023-25 (BP2). This plan set out its view on the transformational activities, high-level costs and milestones that were needed during the BP2 period to deliver the FSO.
- 1.14 Following this, DESNZ and Ofgem asked the ESO and NG to develop a more detailed blueprint for separation, that would add additional detail to the ESO's business plan submission, and also reflect the activities directly undertaken by NG. We requested that the ESO provide updated costs forecasts as part of this blueprint and that NG provide its initial forecasts. We also engaged with NGT to understand in more detail the activities it may be required to undertake to support the delivery of the FSO, their timings and the costs associated with these.
- 1.15 We agreed that DESNZ would be responsible for assessing whether the ESO and NG's plans are directionally aligned with the FSO's policy goals, and that Ofgem would be responsible and ensuring there are appropriate funding mechanisms to

allow the companies to recover economic and efficient costs associated with the agreed activities.

1.16 In Chapter 2, we provide an overview of the separation plans developed by NG and the ESO, and our current understanding of the work required by NGT. We also set out DESNZ's assessment of whether the activities align with overall FSO policy goals.

1.17 In Chapter 3 we set out the companies' current cost forecasts for the delivery of the work outlined in Chapter 2.

Scope of costs being considered

Costs in scope for price control funding in general

1.18 Through our discussions to date with the companies, we have identified the following categories of costs that could be funded through price controls in general:

- One-off costs associated with the separation of the ESO from NG;
- One-off costs associated with transforming of the ESO so it has the capabilities needed for FSO;
- One-off costs for establishing FSO gas activities; and
- Consequential and ongoing costs that may arise for the companies following the introduction of the FSO (for example, additional costs caused by changes to roles or a loss of economies of scale).

1.19 Costs out of scope for price control funding include those associated with commercial activities between NG and government (such as the costs of third-party transaction and valuation commercial advisors) or those associated with the value of the system operator businesses being acquired by government. These will be considered by government as part of any transaction process, which first needs to be enabled by legislation following royal assent of the Energy Bill.

Costs we are consulting on now and in the future

1.20 For those FSO costs that are within scope for price control funding, we are making a series of decisions reflecting the timing and nature of the costs.

- 1.21 In March this year we published our BP2 Final Determinations.¹¹ In this document we decided, in principle, to fund all economic and efficient ESO costs for the transition. We confirmed these would be funded through the ESO's licence as a new 'pass-through' item, with reputational incentives attached. We committed to consulting further on the precise details and necessary changes to the licence this year.
- 1.22 In Chapter 4 we set out our proposals for funding all three companies to deliver the work needed to enable a FSO in 2024, building on the decisions already made as part of our BP2 Final Determinations in March.
- 1.23 As outlined further in Chapter 2, the FSO transition is in two stages. . 'Day 1' is when the FSO is first established and operational and owned by government. At this stage it will hold transitional service agreements (TSA) with NG for continued access business services which are too complex to separate by Day 1 and long-term agreements with NG (LTAs) where appropriate. 'Day 2' is reached when the FSO has exited these TSAs and is operating its business services completely independently from NG, with LTAs remaining in place where appropriate.
- 1.24 The funding proposals in this document relate to those costs needed to deliver Day 1 of the FSO. The ESO's expected costs following Day 1 will form part of the FSO's funding/price control model, which we plan to set out more details on in due course. NG separation costs incurred between Day 1 and Day 2, will form part of the TSA agreed between the government and NG through the transaction process, and will therefore also be considered through the FSO's funding framework.
- 1.25 NG and NGT have also stated the possibility of consequential costs for their businesses following FSO Day 1 (for example, for NG there may be a loss of economies of scale on shared services due to losing the ESO). We agree there is the potential for at least short-term consequential costs and intend to consult on potential changes to NG group's regulated companies' price control allowances later this year once we have more certainty on the cost implications.
- 1.26 Table 4 summarises the cost areas being considered for price control funding and whether they are in scope for this consultation or a subsequent process.

¹¹ [Ofgem \(2023\). Business Plan 2 Final Determinations - Electricity System Operator](#)

Table 4: Summary of costs in scope for this consultation

Cost area	Affected companies	In scope for this consultation?	Where/when will be considered
One-off costs to separate out, transform the ESO to FSO for Day 1 ¹²	ESO, NG, NGT	Yes	n/a
Additional Run-the-Business (RTB) costs for ESO prior to Day 1	ESO	Yes	n/a
One-off separation and transformation costs from Day 1 to Day 2	FSO, NG	No	FSO funding model (incorporating TSAs agreed between NG and government in transaction process)
Additional RTB costs for the ESO part of FSO post Day 1	FSO	No	Considered as part of new FSO funding model
Consequential costs for NG and NGT following Day 1	NG, NGT	No	Consultations on totex adjustments, planned for later this year

Associated Documents

- [Department of Business, Energy & Industrial Strategy \(2021\), Proposals for a Future System Operator role](#)
- [Department of Business, Energy & Industrial Strategy \(2021\), Future System Operator: Final Impact Assessment](#)
- [ESO \(2022\), ESO RIIO Business Plan 2023-25](#)
- [Ofgem \(2023\), Business Plan 2 Final Determinations - Electricity System Operator](#)
- [Ofgem \(2022\), RIIO-2 Business Plan 2 - ESO Draft Determinations](#)
- [Ofgem \(2022\), Proposal for a Future System Operator role - Decision](#)
- [Ofgem \(2021\), Consultation on proposals for a Future System Operator role](#)

¹² We note that the timing of NGT's one-off FSO costs is uncertain, so our decision on treatment of these costs will also enable recovery for costs incurred beyond Day 1. See the proposals for funding caps in Chapter 4 for more details.

2. Company plans and activities for FSO implementation

- 2.1 This chapter provides an overview of the overall approach to establishing the FSO and the activities ESO, NG and NGT intend to carry out to support this. This is a summary rather than a detailed description. For further details, please see Chapter 15 of ESO's BP2 submission¹³, as well as NG's 'Separating ESO from National Grid' note to Ofgem, which we have published alongside this document as a separate annex.
- 2.2 In consideration of FSO implementation on Day 1 and beyond, DESNZ has assessed the NG and ESO plans for the FSO implementation, set out within the blueprint referenced in this consultation document. Based on the information provided to date, DESNZ have confirmed to Ofgem and the companies that NG and ESO's blueprint proposal is directionally aligned with the policy objectives and balances delivery of an independent FSO in a timely manner, with minimising the risk of disruption to the operation of GB energy systems during the transition.
- 2.3 DESNZ intends to continue in this overseeing role in the overarching governance of the implementation project; in particular, to seek assurance of successful delivery and the mitigation of risk to existing operations from the transition to the FSO.
- 2.4 We note that the precise approach and timing of the introduction of FSO is still subject to detailed joint planning between DESNZ, Ofgem and the companies. The overview provided in the chapter is based on our latest shared understanding of plans and activities, but these may be subject to change and further development.

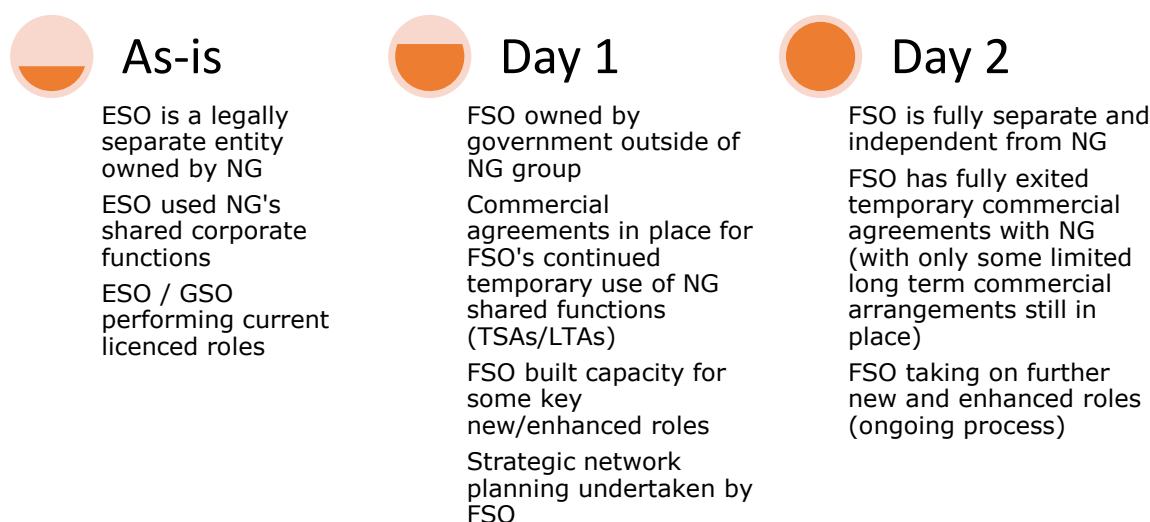
Overall approach to FSO implementation

- 2.5 The following key activities need to occur to establish the FSO:
- The ESO needs to be separated from NG (involving joint work by NG, ESO, DESNZ and Ofgem);
 - The ESO needs to develop and integrate the capabilities it will require once it becomes the FSO (led by ESO with support from NG and NGT); and

¹³ [ESO \(2022\), ESO RIIO Business Plan 2023-25](#)

- Relevant gas capabilities from NGT need to be built in the FSO (involving joint preparatory work between ESO and NGT).
- 2.6 DESNZ, Ofgem and the impacted companies have developed a phased approach to implementing the FSO, as illustrated in [Figure 1](#).
- 2.7 By Day 1, DESNZ and Ofgem’s shared ambition is for the FSO to be established as a standalone entity that is owned by government and independent from NG. It will carry out all existing ESO functions and start to deliver some new/enhanced cross-cutting functions (such as a new advisory role and new roles on energy resilience). It will have also taken on strategic network planning, long term forecasting and market strategy activities for gas.

Figure 1 – Phased implementation approach for the FSO



- 2.8 DESNZ and Ofgem’s aim is for Day 1 to happen in 2024 (subject to several factors, including timings of the Energy Bill). Given the complexity of some aspects of separating the ESO business from NG, we anticipate that the FSO will need to have transitional service agreement (TSAs) agreed with NG at Day 1 for the continued use of some existing NG corporate services, such as IT, digital, and people. This will enable the FSO to be established whilst minimising disruption to critical activities, such as operating the system. As a principle all parties share an ambition to limit the need for and length of any TSAs or LTAs. Typically, we would expect TSAs to be a maximum of 24 months.
- 2.9 By Day 2, the ambition is for the FSO to have exited all TSAs with NG, with only some limited LTAs remaining where appropriate (eg, property and telecoms). The

FSO will be taking on further new and enhanced roles as part of an ongoing process and will have a leading responsibility for whole energy system planning and coordination.¹⁴

2.10 In the sections below, we summarise the activities each company plans to undertake to deliver the separation and transformation FSO. As the focus of this document is the costs needed to get from 'As-is' to 'Day 1', we have also set out our latest understanding of the specific aims for Day 1 for each activity.

ESO activities

2.11 The ESO's BP2 submission provided an indicative plan for the transformational activities the ESO would have to undertake to become the FSO. This was consulted upon as part of our BP2 Draft Determinations¹⁵. This section provides a summary of the key activities, capturing some key updates provided to us by the ESO following the BP2 plan submission.

2.12 In line with the policy ambition, the ESO's goal is that the FSO should be an innovative, world-leading organisation at the heart of Great Britain's energy system and the delivery of net zero. It hopes to create an organisation that supports security of supply and resilience, drives efficiency and value for the consumer and provides a whole energy system view to optimise decision-making and action in the decarbonisation of power, heat and transport. To do this, it plans to; leverage data and digital technology to engage transparently across industry and society and act as a trusted partner and adviser to government, the regulator and industry, with deep engineering, data and technology expertise at its core.

2.13 The activities ESO will undertake are summarised below. This reflects the current intent, but we note that this may be subject to change between now and Day 1 as the role of the FSO develops (for example, due to policy decisions by DESNZ and Ofgem).

2.14 These activities fall within the following broad categories, as in the ESO's BP2 submission:

- People
- Systems & Data

¹⁴ [Department of Business, Energy & Industrial Strategy \(2021\), Proposals for a Future System Operator role](#)

¹⁵ [Ofgem, 2023. "Business Plan 2 Final Determinations - Electricity System Operator"](#)

- Assets
- Contracts
- Transaction/legal
- Transition & Transformation Management

People

People: description of activity and Day 1 aims	
Description	<p>The ESO considers its success in achieving the FSO is fundamentally linked to its people. The ESO intends to attract, retain, engage, and develop talented individuals with the passion and capability to drive the energy transition. This will involve additional recruitment activity; designing and implementing a new talent scheme; onboarding all ESO staff onto the FSO.</p> <p>The FSO will need to stand up its own capability in the back-office functions fundamental to running any organisation. The ESO will also need to build capability for its new and enhanced FSO roles between now and Day 2. The ESO has increased clarity of the timing and scope of these roles compared to its BP2 submission and has been able to update its plans and costs accordingly.</p>
Current Day 1 aims	<ul style="list-style-type: none"> • All existing ESO staff onboarded to the FSO • FSO staff in back-office functions are sufficiently trained to ensure business continuity of critical internal and external processes through the transition, and the FSO has critical in-house resource in place alongside TSAs with NG. • FSO has put in place and developed the whole energy system capability and resources it needs to carry out new/enhanced Day 1 roles, which we expect to include: <ul style="list-style-type: none"> ○ Establishing a new Advisory Function to provide independent, credible expert advice to government; ○ Initiating a shift towards cross-vector strategic network planning and gas market strategy; and ○ Establishing an Office of Resilience and Emergency Management to effectively provide whole energy system analysis, insight, and identification of resilience opportunities. • Introduction of a new talent scheme • At Day 1, the FSO should have greater clarity on how its new roles will continue to evolve and the capabilities required to achieve Day 2 and beyond.

Systems and Data

System and Data: description of activity and Day 1 aims	
Description	<p>The ESO considers that establishing the FSO as a technology and digitally enabled business means that transforming its IT capability is a large and ambitious part of its plan. The ESO sees IT change as a critical and highly complex part of its transformation programme, with a high degree of interaction with NG given the ESO's current IT portfolio is part of NG's shared IT function.</p> <p>BP2 set out the ESO's high level ambition for its approach to IT separation. This included establishing TSAs from NG on Day 1 and setting up fully independent IT systems and services for Day 2. Since BP2, by working closely with NG, the ESO has developed a better understanding of scope for IT separation and delivery.</p> <p>The approach will involve creating new platforms and infrastructure for the FSO and eventually migrating/replacing all required applications to this new infrastructure. This will involve the separation of both 'direct' applications and 'indirect' applications from NG. Direct applications are systems directly owned by ESO but hosted by NG (for example, systems critical for operating the system). Indirect applications are those that are owned by NG which provide services on behalf of multiple NG companies (such as payroll, finance). The ESO is also developing a strategy with NG to ensure ongoing Cyber Security for FSO and creating infrastructure to receive unstructured data (e.g., Microsoft SharePoint) from NG.</p> <p>One of the most complex systems to separate is the Enterprise Resource Planning (ERP) system and its associated applications. This links together HR, Finance, Payroll and Procurement systems. After refining planning assumptions with NG, the ESO and NG plan to 'logically' separate the ERP by Day 1, with the FSO accountable for 'physical' separation by Day 2. In practice, this means that on Day 1, the physical ERP will remain hosted by NG but with data separated for FSO.</p>
Current Day 1 aims	<ul style="list-style-type: none"> • FSO has access to the IT and systems needed to effectively operate from Day 1, with robust TSAs in place for continued use of required IT services from NG and a clear plan for exit from TSAs by Day 2. • A migration strategy for direct applications will be developed, to enable the smooth transition of operational applications from NG infrastructure to FSO specific infrastructure. • An independent National Security Vetting process for new personnel joining ESO will be set up in readiness for Day 1, this a joint activity with NG. • Design activity for Day 2 completed.

Assets

Assets: description of activity and Day 1 aims	
Description	<p>To deliver the FSO, the ESO considers it will need to make one-off changes to refit existing property (including with new branding) and introduce new facilities. This includes:</p> <ul style="list-style-type: none"> • Introducing a new Contingency Control Centre; • Fitting out the new London office; and • Fitting out the new Warwick office. <p>Establishing a standalone back-office function and taking on new FSO roles will require additional office space to accommodate the increases staff numbers.</p>
Current Day 1 Aims	<ul style="list-style-type: none"> • TSA in place for existing Control Centre contingency with longer term plan for establishing a new Contingency Control Centre in place. • A London office space will be available. • Existing Warwick office will be re-branded and able to accommodate new FSO roles. Longer term plan in place for Warwick office. • Wokingham office will be re-branded.

Contracts

Contracts: description of activity and Day 1 aims	
Description	<p>The ESO will need to ensure contracts are set up for the FSO and ensure dedicated legal support is available for this. This activity also includes introducing and socialising the new FSO branding.</p>
Current Day 1 Aims	<ul style="list-style-type: none"> • All required contracts set up for FSO. • New FSO branding established.

Transaction & legal

Transaction & Legal: description of activity and Day 1 aims	
Description	<p>The ESO needs legal support in relation to primary/secondary legislation, the governance framework and licence and code development.</p>
Current Day 1 Aims	<ul style="list-style-type: none"> • Day 1 legal framework in place with ESO carrying out necessary code changes.

Transition and Transformation Management

Transition and Transformation Management: description of activity and Day 1 aims	
Description	<p>The delivery of the FSO is a large and complex program which requires robust oversight, planning, project management and implementation. The ESO's programme management team is the delivery resource required to establish the FSO. It includes the capability to deliver the separation from NG, design the new FSO organisation and deliver the legislative and infrastructure requirements to ensure it takes place.</p> <p>The ESO has built a team to lead the critical aspects of the programme and be the interface between the leaders of the ESO, NG separation teams, specialist internal and external delivery resource and ESO operational teams.</p>
Current Day 1 Aims	<ul style="list-style-type: none"> • ESO's programme management function has supported and facilitated the delivery of the full scope of ESO activities needed to deliver Day 1 plans.

NG activities

2.15 Since the publication of the ESO's BP2, NG and ESO have worked closely to refine activities and assumptions and create a joint blueprint, containing both ESO and NG activities. Alongside this document we have published a note provided by NG sharing its overview of the activities it needs to carry out to support the separation of the ESO and its current cost estimates.

2.16 The largest and most complex area of activity for NG is the separation of ESO IT. A substantial amount of NG's activity relates to planning, governing, and delivering this IT separation. The activities NG is planning to undertake are summarised below. These activities fall within the following broad cost categories:

- IT and digital
- Programme
- People and culture
- Business services
- Property
- Procurement
- Pensions
- Other functions

IT & Digital

IT and Digital: description of activity and Day 1 aims	
Description	<p>NG considers that IT separation is by far the most complex area of the transition to FSO. NG and ESO have worked closely together since BP2 and are further developing a detailed integrated plan to set out the specific activities, deliverables, timing, and dependencies for full implementation of the required IT separation. This will follow the broad approach for Day 1 and Day 2 outlined in the section on ESO activities. NG's work to logically separate out the ERP system is a key component of the overall IT separation plan.</p> <p>NG has defined the 'as-is' application and service landscape and has agreed a series of design principles with the ESO which includes timelines, ways of working, and governance. NG's next phase is to implement the required changes to systems for Day 1. This will also include the definition of TSA schedules, and consequential impacts for NG.</p> <p>NG will also assess which data will be required by the FSO to ensure they can operate from Day 1, with a plan to migrate and/or separate the data and access and provide a framework enabling FSO to access historical information post separation. Some activities are expected to occur after Day 1 as systems are physically separated and TSA processes (e.g. Payroll) are unwound.</p>
Day 1 Aims	<ul style="list-style-type: none"> • FSO has access to the IT, data and systems needed to effectively operate from Day 1, with robust TSAs in place for continued use of those services still required from NG at Day 1 and a clear plan for exit from TSAs by Day 2. • Data on ERP and non-ERP (indirect) systems will be logically separated, where required for FSO. • Infrastructure requirements complete, capturing design and configuration. • Enhanced security controls will be introduced enabling FSO specific access controls, including the ring-fencing of unstructured data sources (such as SharePoint and file repositories). • FSO specific branding will be introduced on systems and communications channels (internal and external) where feasible for Day 1. • TSA and LTA services defined to enable continuity of service from Day 1 until full physical separation.

Programme

Programme: description of activity and Day 1 aims

<p>Description</p>	<p>NG has developed programme management function to deliver the NG activities necessary to support the delivery of Day 1 of the FSO. This will deliver overall management of NG’s ESO separation activities and ensure a best practice approach.</p> <p>The function will support workstream leads in creating a holistic view of separation through aligned plans, tracked interdependencies, and change management to the plan. It will also provide PMO support to workstreams, with IT the priority area.</p> <p>This activity will also provide other key central services on behalf of the whole programme, including: reporting to external bodies; ensuring consistency across workstreams and providing second lines assurance for the whole programme delivery; supporting technical integration; implementing change management procedures; and ensuring the correct accountability and delivery of the unstructured data workstream.</p>
<p>Day 1 Aims</p>	<ul style="list-style-type: none"> • NG’s programme management functions have ensured the successful delivery of NG’s Day 1 FSO plans. • NG has successfully coordinated with and provided the information required by external parties to enable a successful Day 1 separation.

People and culture

<p>People and culture: description of activity and Day 1 aims</p>	
<p>Description</p>	<p>To the extent required, NG aims to assist ESO in developing an FSO organisation design which fulfils DESNZ’s policy objectives. After this, NG aims to support the development of departmental plans to build the required people capability. NG anticipates these plans to include a blend of NG employees moving over to ESO and recruitment of additional personnel before NG finalise the transition with knowledge transfer to the new FSO teams to enable a successful Day 1.</p>
<p>Day 1 Aims</p>	<ul style="list-style-type: none"> • NG has supported the ESO to recruit and onboard the people it needs to carry out its Day 1 roles.

Business services

<p>Business Services: description of activity and Day 1 aims</p>	
<p>Description</p>	<p>NG intends to support the ESO in establishing the business services it will need to operate as FSO, offering TSAs for Day 1 where the FSO will need time to further build the required capability.</p>

Day 1 Aims	<ul style="list-style-type: none"> • FSO has business service functions that enable it to operate effectively as standalone organisation, with TSAs in place where further capability is being developed. • FSO owns and operates the Record to Report, Purchase to Pay and Order to Cash Processes and may have TSAs in place where further capability needs to be developed (e.g. Joiners to Leavers process) or the IT physical separation needs to happen.
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Property

Property: description of activity and Day 1 aims	
Description	NG aims to carrying out any necessary building works required to National Grid House (NGH) for full separation required and as well as supporting the ESO to establish the necessary leases and third-party agreements it will need as FSO.
Day 1 Aims	<ul style="list-style-type: none"> • NG has carried out any necessary physical works to NGH for Day 1 and supported the FSO to put in place necessary property agreements.

Procurement

Procurement: description of activity and Day 1 aims	
Description	<p>NG intend to support the introduction of a procurement capability for the FSO with a combination of transfers from NG and potential recruitment of new roles.</p> <p>This activity will consider the precise treatment of third-party contracts required by FSO (e.g. split, mirrored, or newly established).</p>
Day 1 Aims	<ul style="list-style-type: none"> • NG has supported the FSO to have its own procurement function.

Pensions

Pensions: description of activity and Day 1 aims	
Description	This activity is assessing the appropriate treatment of ESO staff pensions currently managed by NG. The separation approach is currently being defined through discussions between DESNZ and NG. Once agreed, NG plan to deliver this approach.
Day 1 Aims	<ul style="list-style-type: none"> • NG has delivered the actions it needs to achieve DESNZ's policy aims on pensions

Other functions

Other functions: description of activity and Day 1 aims	
Description	NG also intends to support the ESO to develop the other functions it will need from Day 1, including finance, corporate audit, insurance, tax, treasury, legal, company secretariat, strategy and external affairs, safety health and wellbeing.
Day 1 Aims	<ul style="list-style-type: none"> NG has supported the ESO to develop all other functional capabilities it needs be ready to operate independently from NG at Day 1.

NGT activities

2.17 NGT, as the owner of the GSO, also has an important role in ensuring the success of the FSO. In our April 2022 decision, DESNZ and Ofgem decided that the FSO should take on gas strategic network planning, long-term forecasting and market strategy activities.¹⁶ Real time gas system operation and associated activities would continue to be performed by NGT.

2.18 NGT has shared its understanding of the activities it may be required to undertake to support these FSO policy ambitions, as well as the costs associated with these activities.

2.19 We note that at this stage, there are still ongoing discussion between DESNZ, Ofgem, ESO and NGT on the precise approach that should be taken to establishing the scope of FSO's gas activities. The activities below are therefore based on NGT's best current understanding but could be subject to change as these discussions progress.

2.20 These activities are summarised in [Table 5](#).

Table 5: Summary of NGT activities

Activity	Description	Timing
Developing and agreeing the required business framework and processes created	Business related activities undertaken by the GSO to support the delivery of gas activities for the FSO and new ways for working between ESO and FSO. This includes: <ul style="list-style-type: none"> Programme oversight and management, governance procedures and project planning 	Up to Day 1 and potentially beyond towards Day 2

¹⁶ [Department of Business, Energy & Industrial Strategy \(2021\), Proposals for a Future System Operator role](#)

<p>by the introduction of the FSO</p>	<ul style="list-style-type: none"> • Engagement with key external stakeholders, such as ESO, DESNZ, Ofgem and other industry parties, including management of NGT comms • Providing expert input for requisite gas licence and code changes • Internal employee engagement • Identification, development and implementation of new business processes • Management and delivery of necessary changes within NGT to ensure smooth transition to new ways of working • Establishing the process to link FSO/NGT and core suppliers and for other related IT systems • Legal support, including legislative amendments, contractual changes, etc. 	
<p>Staff and skills for Day 1 gas operations within FSO</p>	<p>Once-off activities mainly associated with supporting the FSO to develop the required gas expertise, and the transfer of bespoke IT solutions, in order for the FSO to effectively carry out its Day 1 functions.</p> <p>The precise approach to this transfer of knowledge/skills is still being discussed between DESNZ, ESO and NGT.</p>	<p>Prior to Day 1</p>

DESNZ’s assessment of company plans

2.21 In consideration of FSO implementation on Day 1 and beyond, DESNZ has assessed the NG and ESO plans for the FSO implementation, set out within the blueprint referenced in this consultation document. Based on the information provided to date, DESNZ have confirmed to Ofgem and the companies that NG and ESO’s blueprint proposal is directionally aligned with the policy objectives and balances delivery of an independent FSO in a timely manner, with minimising the risk of disruption to the operation of GB energy systems during the transition.

2.22 DESNZ intends to continue in this overseeing role in the overarching governance of the implementation project; in particular, to seek assurance of successful delivery and the mitigation of risk to existing operations from the transition to the FSO.

3. Overview of company cost estimates

- 3.1 This section outlines the Day 1 cost estimates that have been presented to Ofgem and DESNZ by ESO, NG and NGT. For this consultation, the ESO has provided an interim update on any changes to separation plans and costs since their BP2 submission and NG have provided a summary of their separation plans and associated estimated costs. NG's full summary can be found as an accompanying annex to this consultation. NGT have provided a high-level view of current planning assumptions and potential costs, however we acknowledge NGT's activities still require further detailed planning.
- 3.2 To provide the full context of costs involved, we have also provided a breakdown of Day 2 costs estimated by ESO and NG in Appendix 2. However, stakeholders should note that there is a greater level of uncertainty in Day 2 cost estimates at this stage. For the avoidance of doubt, all policy proposals put forward in this consultation only apply to the up to Day 1 costs outlined in this section and may not reflect how we approach recovery of costs associated with achieving Day 2.
- 3.3 The ESO's costs are presented in 2018/19 prices to allow stakeholders to clearly compare values against the ESO's original BP2 estimates. NG and NGT have submitted their cost estimates using more up to date prices indices (NG have used 2022/23 prices, whilst NGT have used current price levels).

Overview of separation cost estimates

- 3.4 NG and ESO have identified 16 business functions (e.g. IT, business services, people and culture, pensions, etc.) that comprise the key areas of required separation activities. Across each business function, ESO and NG have provided high level separation plans and estimated costs.
- 3.5 NGT, ESO and DESNZ are still considering the precise approach that should be taken to establishing the FSO's gas activities. However, NGT have provided a high-level estimate of the activities it will undertake and associated estimated costs to achieve the FSO Day 1.
- 3.6 All figures, costs, plans, and timings outlined herein represent preliminary estimates only, and are expected to change over time. Proposals for cost recovery mechanisms outlined in Chapter 4 refer to actual costs incurred.

Table 6: ESO estimated 'one-off' costs forecast for FSO implementation

Company	Up to Day 1 (£m)	Day 1 to Day 2 (£m)	Total (£m)
ESO	60 – 68	68 – 104	128 – 172

Note: 2018/19 prices, £m

Table 7: NG estimated 'one-off' costs forecast for FSO implementation

Company	Up to Day 1 (£m)	Day 1 to Day 2 (£m)	Total (£m)
NG	111 – 138	52 – 62	163 – 200

Note: Outturn prices (2022/23 prices adjusted for inflation using the Green Book rates, £m)

Table 7: NGT estimated 'one-off' costs forecast for FSO implementation (per annum)

Company	Up to Day 1	Day 1 to Day 2 (£m)
NGT	1	2

Note: Estimated cost per annum during each stage, £m

In addition to the one-off costs above, the ESO expects to incur between £4-7m of additional annual run the business (RTB) costs before Day 1, building up to £25-40m of additional RTB costs once it forms part of FSO (mainly associated with establishing new roles and standalone back-office functions). NG also expects to incur consequential costs following Day 1 FSO, driven by a loss of economies of scale from its shared functions.

ESO Day 1 cost estimates

- 3.7 The ESO previously outlined the indicative costs it expects to incur as part of the separation process in its BP2 submission. Further planning has taken place since then and, as a result, indicative costs have been updated for the purpose of this consultation. We have provided the ESO's updated view on costs alongside the figures presented in its BP2 submission, however we recommend stakeholders revisit the BP2 submission to find further detail on the separation costs estimated by the ESO.¹⁷
- 3.8 Where estimated costs have measurably increased since the BP2 submission, we set out, later in this section, the reasons and justifications for the cost changes provided by the ESO. We recognise that at this early stage in the separation programme, it should be expected that forecasted costs will fluctuate and that they will continue to do so as further detailed plans are produced. For this reason, Chapter 4 of this consultation includes our proposals for a monitoring and

¹⁷ [ESO \(2022\), ESO RIIO Business Plan 2023-25](#)

incentive framework and programme to drive cost efficiency and transparency throughout the process.

Table 8: ESO Day 1 one-off estimated costs

Estimated one-off cost to Day 1 (£'m 18/19 prices)	BP2	Update View	
	High	Low	High
People	5	6	7
Systems & Data	15	21	25
Assets	1	1	1
Contracts	3	2	3
Transaction/Legal	1	0	0
Transition & Transformation Management	20	29	31
Estimated total	45	60	68

Table 10: ESO Day 1 high and low costs scenario run-the-business costs

Incremental annual RtB costs at Day 1 (£'m 18/19 prices)	BP2	Updated View	
	High	Low	High
Direct RtB costs	4	4	7

3.11 The ESO's updated views on costs reflect three key areas where further planning and consideration has taken place since its BP2 submission: People, Systems and Transition, and Transformation Management.

People

3.12 With regard to People costs, the ESO has forecast an additional £2m in one-off costs due to the anticipated dual running of roles ahead of the FSO being established. The change is two-fold:

- Dual running of back-office functions has been proposed to de-risk the programme, ensuring ESO has the appropriate resources in place ahead of Day 1 and sufficient time for training as well as maintaining business continuity. In practice, this would involve recruiting for roles that will shadow roles in NG for a period of time; and
- Costs now account for new critical IT capabilities being resourced with the ESO ahead of Day 1 to de-risk IT transitions.

3.13 The ESO has also forecast an additional increase in RtB costs pre-Day 1 by £3m. This reflects new planning details to increase headcount from 82 FTEs, as stated in its BP2 submission, to 157 FTEs across the advisory, whole energy network planning and markets roles, and the Office of Energy Resilience and Emergency Planning. A brief overview of the changes across these roles includes:

Advisory

3.14 On consultation with DESNZ, an increased remit has been identified for the FSO's advisory role, requiring a more flexible and agile range of FTEs to the true scale and scope of work required. As such, advisory costs have been benchmarked against previous ad-hoc requests and activities such as Future Energy Scenarios and Energy System Catapult, as well as the ability to respond to 2 – 3 requests per year immediately after Day 1 (e.g. requests to support the Review of Electricity Market Arrangements).

Whole Energy System Network Planning

3.15 In the detailed design process, it was identified that cultural and governance integrations between Gas and Electricity Network planning should be a focus ahead of Day 1 in order to reflect the shift to cross-vector strategic planning on Day 1. To do this, additional costs have been attributed to certain systems and data capabilities that will need to be developed in 2023.

Whole Energy System Market Strategy

3.16 As part of this role, additional costs have been attributed to recruiting a team ahead of Day 1 to begin taking a whole energy system approach, considering market interactions and how best to implement a joined-up approach to gas, electricity and other markets in the future.

The Office of Energy Resilience and Emergency Planning (OREM)

3.17 From Day 1, OREM will need to provide whole energy system analysis, insight and be able to identify resilience opportunities. Additional costs have been attributed to developing this capability early, where possible, including required IT and data systems.

Systems and Transition

3.18 The ESO set out its high-level approach to IT and system change for the transition to an FSO as part of its BP2 submission. As an area with a high degree of complexity, further development of the ESO's approach has resulted in an estimated £10m increase in costs for this area of work. The key cost drivers for this increase are set out below.

Approach to Enterprise Resource Planning and connected applications (ERP)

3.19 In consultation with DESNZ and to ensure a timely separation, the ESO and NG are planning to pursue logical separation of the ERP systems for Day 1, opposed to both physical and logical as was assumed in the ESO's BP2 submission. The physical ERP will remain hosted by NG on Day 1 and it will be the responsibility of the FSO to undertake physical separation by Day 2. As a result, a £3m increase in the ESO's one-off costs has been attributed to this shift in this responsibility and planning assumptions.

Dual run costings

3.20 In aiming to reduce the risk of an extended separation period and reliance on TSAs, the ESO is aiming to stand-up and run production services while it may still be operating under TSAs. This will de-risk BP2 proposals by delivering foundational services as soon as possible and ensure business continuity distributing go-live dates over the transition period. An indicative increase of £7m has been attributed to ESO one-off costs as a result of dual running plans.

Transition and Transformation Management

3.21 The ESO has established a transition and transformation team to lead critical aspects of the work programme. This team currently comprises ESO employees (48%), specialist contractors (18%) and third-party support (34%). Further development of ESO's delivery requirements have indicated an estimated increase in one-off costs of £11m.

3.22 The three key cost drivers of this increase have been attributed to: the need for greater collaboration with NG on agreeing the scope and boundaries for IT separation activities; a broader delivery scope from ESO base assumptions for new FSO whole energy roles; and the ESO's own assumed Day 1 date of the FSO moving from October 2023 to a date in 2024. As a result of this, the internal resourcing of this team is planned to increase from ~50 to ~80 FTEs.

NG Day 1 Cost estimate

- 3.23 To support this consultation, we requested that NG provide a summary of the separation activities they are planning for Day 1 and the estimated costs it expects to incur. We requested that this report should describe how NG have estimated costs, what is driving the key cost areas and how it will aim to ensure costs are economic and efficient. In this section we provide a summary of the estimated separation costs requested, however for further detail, stakeholders should refer to the accompanying annex produced by NG.
- 3.24 NG formed their cost request by first creating a financial and people baseline, covering applications and services, defining third-party contracts and identifying capital investments. It then established the key design principles, ways of working and required governance for the separation process. In addition, NG identified any areas likely to rely upon TSAs as part of its high-level separation plan and the associated cost to achieve. These estimates also drew upon NG’s recent divestment experiences and input from external partners.
- 3.25 The table below sets out the low to high costs scenarios for NG’s Day 1 separation costs, split across key business functions.

Table 11 - NG one-off estimated costs ranges to achieve Day 1

Business Function		Day 1 (£m)	
		Low	High
IT	Applications	7	9
	Security	2	3
	Platforms and infrastructure	16	19
	Unstructured data	1	2
	Commercial	7	10
	ERP	35	44
	Central programme costs	5	6
Programme	National Grid resources	2	2
	Third party	21	21
	Blueprint separation	6	6
Procurement		1	2
Pensions		4	8
Property		0	1
Business services		1	1
People and culture		1	2
Other functions		1	1

Estimated total	111	138
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Note: Outturn prices (2022/23 prices adjusted for inflation using the Green Book rates, £m)

3.26 NG has provided an approximate percentage split for internal and external resource allocation. Separation costs are primarily attributed to external resources (referred to as external contractors and advisors in Figure 2 below), with an approximate split of 86% external and 14% internal resources across the entire programme.

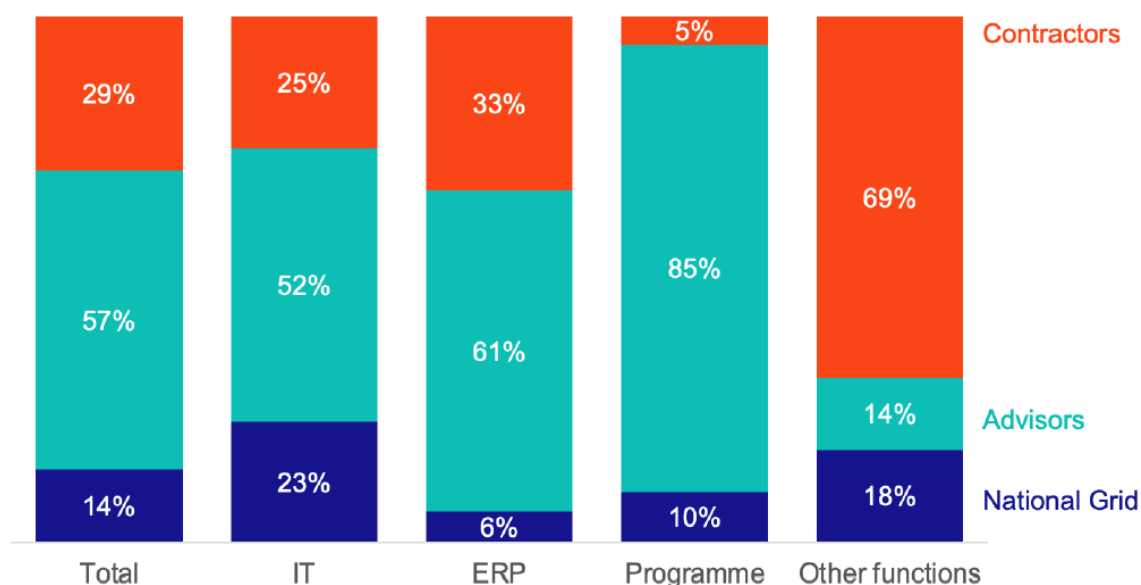


Figure 2 Resource allocation split as a percentage of cost to achieve

Source: See accompanying annex to this consultation from National Grid

3.27 As part of NG’s approach to ensuring costs are efficient and economic, it intends to maintain a small internal permanent core team that can be supplemented by external resources on a temporary basis.

3.28 Where NG requires support from external resources that have previous experience and close working knowledge of NG operations, it will competitively tender work through its supplier framework. This includes a general management consultancy framework and an application development and maintenance framework, each of which have been or will be refreshed in the timeline of the project. For work in niche areas requiring expertise not available through NG’s supplier frameworks, broader tenders to externally contracted resources will be necessary.

3.29 As is evident from Table 10, there are three key drivers to the costs NG will incur as part of achieving the Day 1 destination: IT, ERP, and programme management costs. The following section outlines, at a high level, the purpose of these business functions and the scale of separation required.

Enterprise Resource Planning software (ERP)

3.30 ERP software currently provides a broad suite of back-office business processes for ESO, across SAP finance management, workforce analytics and payroll, consisting of approximately 50 applications. The system is also critical for the billing processes of balancing services use of system (BSUoS), transmission network use of system (TNUoS) and connections charges.

3.31 For Day 1, NG intends to have achieved logical separation of ERP software. This includes:

- Separation of people and organisation structures established in the FSO;
- Finance and business services processes separate, with process and controls operated by FSO;
- Direct and in-direct contracts separated with the FSO managing its direct contracts;
- All projects and assets are separated and managed by FSO directly; and
- All shared technology with National Grid to be separated with anticipation costs charged to FSO through a TSA.

3.32 Under each of these areas there is an expectation that TSAs may be required as part of efforts to ensure the maintenance of normal service operation.

Non-ERP related IT costs

3.33 The ESO benefits from utilised services that are shared across NG's multi-national operating model. These shared services support and enable the ESO to perform critical IT business functions, including: 1. Strategy, regulation and planning, 2. Application development and maintenance, 3. Cyber and physical security, 4. Digital platforms, infrastructure and networks, 5. Commercial services.

- 3.34 NG categorise these services into two distinct portfolios, direct services that are dedicated to the ESO and indirect services which are shared across all NG entities. Direct services include ESO dedicated applications for operating balancing, network control and commercial market systems as well as infrastructure services required for these systems. Indirect services include end-user computing (such as computer and mobile devices) and back-office applications (such as ERP, HR, finance, tax and treasury systems). These systems are built upon shared IT infrastructure for on-premises and cloud servers, covered by shared cyber and physical security capabilities.
- 3.35 To establish dedicated and standalone FSO IT capabilities, NG plan to separate approximately 300 applications, hosting and IT infrastructure, networks (including operation telecommunications), 170 existing contracts, cyber security capabilities, data and end user devices. NG's non-ERP IT separation plans will focus on logical separation for Day 1 and will only pursue physical separation, where determined to be necessary. It is vital that the approach to achieving these separation activities ensures the reliable and resilient operation of Great Britain's electricity system. This builds upon existing separation of data put in place for the previous legal separation activities in 2019 and System Operator Functions Information (SOFI) requirements¹⁸.

Programme costs

- 3.36 Programme costs are primarily split between internal NG team members and external advisors. The majority of costs for this area are attributed to external advisors. The estimates provided for this category are pre-market tested estimates, however since providing this information NG have conducted market testing for some of these programme costs and have onboarded a consultancy.
- 3.37 Programme costs are attributed to the following key activities:
- Programme management to provide expertise and advice on planning separation activities, including coordinating third-parties;
 - PMO support to high priority workstreams such as IT and ERP separation activities;

¹⁸ For more information about SOFI requirements see [here](#).

- External reporting and monitoring to be shared with DESNZ, Ofgem, HM Treasury and other external bodies;
- Change management to provide guidance to NG, undertaking impact assessments for people, process and systems across functions; and
- Allocation of unstructured data held outside standard systems to the ESO, ensuring ongoing compliance to legal and regulatory obligations.

NGT Day 1 cost estimates

3.38 NGT, ESO and DESNZ are still considering the precise approach that should be taken to establishing the FSO's gas activities. However, we requested that NGT produce a high-level estimate of the activities it will undertake and associated costs to achieve the FSO Day 1 Destination.

3.39 As highlighted in Chapter 2, NGT currently expects its costs to be broadly categorised by:

- GSO costs for developing and agreeing the required business framework and processes created by the introduction of FSO; and
- Staff training costs for Day 1 operations by the FSO.

3.40 For the first category, NGT have estimated that based upon current planning assumptions, its costs would total c.£900,000 per annum. Costs to achieve Day 1 could therefore be roughly £0.5-£1.5m depending on complexity and timing. NGT have also noted these activities and costs could continue beyond Day 1 up to Day 2. This figure has been estimated using a flattened average out charge rate for 6 FTEs, and includes PMO, expenses and potential contractor costs. It also includes senior leadership and legal resource. This has not yet been validated and is an approximate estimate.

3.41 For the second category there are no costs estimates at this time as the approach and requirements are still being considered by ESO, NG and DESNZ. However, we do not expect these to be material relative to total FSO costs.

Consequential Costs

National Grid

- 3.42 We acknowledge the potential consequential costs that may result for NG due to their divestment from ESO. NG have shared in their annex that accompanies this consultation the types of costs that may be incurred and initial views on mitigations that could be put in place.
- 3.43 Consequential costs arise due to NG operating a shared services model amongst its subsidiary companies. Divestment and separation of ESO from the group reduces NG's ability to take advantage of the economies of scale and synergies between business units.
- 3.44 NG's annex contains a summary of the areas where they expect these costs (such as staff, contracts, pensions, property and capital expenditure in technology) and the mitigations they plan to put in place as part of the separation programme. We expect it will not be possible to fully mitigate all consequential costs, at least in the short term, and NG have indicated that this may be the case with regard to some staffing costs and continued operation of National Grid's existing enterprise systems.

National Gas Transmission

- 3.45 NGT have noted that there is also the potential for incremental FTE requirements created within the GSO as a result of FSO needs, although at present they do not expect to incur them. Our joint April 2022 decision with BEIS on FSO gas roles confirmed that gas system activities should be allocated based on efficiency and capability between the FSO and GSO.¹⁹ This is expected to not create any lower or higher FTE requirements in the GSO. However, NGT note that if this changes then there could be knock on consequential costs.

Our approach to consequential costs

- 3.46 We consider that the appropriate route for funding any consequential costs for NG is through adjustments to the RIIO-2 totex allowances for National Grid Electricity Transmission (NGET) and National Grid Electricity Distribution (NGED). We are not consulting on the recovery mechanism for these costs in this consultation. We plan

¹⁹ [Department of Business, Energy & Industrial Strategy \(2021\). Proposals for a Future System Operator role](#)

to publish a further consultation later this year, once we have received detailed estimates from NG. This will aim to provide stakeholders with greater clarity on the scope of these costs and our proposals for how they could be recovered.

- 3.47 If further detailed planning identifies any consequential knock-on impacts for NGT, we would also look to address that through a consultation on changes to NGT's RIIO-2 or subsequent totex allowance.

Consultation questions

- FSOQ1. Do you have any views or comments on the Day 1 cost estimates presented by ESO, NG and NGT?

4. Funding proposals for Day 1 costs

4.1 In this section we outline our proposed overall approach to the Day 1 estimated costs outlined in Chapter 3 and our subsequent funding proposals for ESO, NG and NGT. These proposals build on the decisions we made in our BP2 Final Determination for the ESO.²⁰ It includes further proposals to:

- Allow in principle NG and NGT to recover the economic and efficient separation and transformation costs they incur to deliver the FSO;
- Introduce a new pass-through term in the ESO's licence for the ESO to recover economic and efficient costs paid to NG for Day 1 FSO separation activities;
- Either introduce a new pass-through term in NGT's licence or adjust existing RIIO-2 totex allowances for NGT to recover Day 1 FSO costs;
- Apply caps to all new FSO cost recovery pass-through terms to limit risks to consumers;
- Require the ESO to hold an intra-group contract with NG for the delivery of Day 1 separation activities, which would enable the ESO to pay NG for the work following DESNZ and Ofgem approval and safeguard consumers;
- Set out defined Cost Recovery Principles²¹ which guide what NG costs should be allowed through the new ESO pass-through term;
- Require the ESO to participate in a framework for reporting progress with FSO transition costs and outputs (with NG involvement set out via the arrangements for the intra-group contract);
- Extend existing ex-post disallowance powers to the ESO's FSO costs, but not to NG or NGT costs.

Our overall approach to cost requests

4.2 We previously consulted stakeholders on our approach to funding the ESO's separation activities in our BP2 Draft Determinations. We decided at BP2 Final Determinations that all of the ESO's efficient and economic costs should be recoverable through a new 'pass through' item in the ESO's licence, and that this should not be classed as totex or added to the ESO's RAV. For the ESO, we are therefore building on previous decisions with detailed incentives proposals and

²⁰ [Ofgem \(2023\). Business Plan 2 Final Determinations - Electricity System Operator](#)

²¹ Our proposed terms and conditions for determining eligible costs for recovery as further outlined in paragraphs 4.44 – 4.47.

considering its latest cost estimates as part of this. For NG and NGT, this is the first time we have consulted on FSO costs and funding proposals.

- 4.3 As set out in Chapter 2, it is DESNZ's role to assess the plans put forward by the companies to ensure they are directionally aligned with the over-arching policy intent of the FSO. We are therefore not consulting on the target destination forest out in the companies' FSO plans, but rather the mechanisms for recovering the efficient costs for delivering the destination assessed and confirmed by DESNZ.
- 4.4 Due to the unique and complex nature of the programme to deliver the FSO there is still some uncertainty about the precise implementation plans and costs that the companies will incur to deliver these plans. We currently lack the comprehensive detail on costs, activities and outputs that would be necessary for a traditional ex-ante cost assessment. For this reason, we are not providing a strong view at this time on whether the cost requests submitted by the companies are efficient and economic.
- 4.5 At the same time, we consider there is considerable value to consumers from enabling continued progress by the companies on delivering the FSO. This is reflected in our rationale for each of our proposals, where we've looked for opportunities to remain flexible to the uncertainties that remain, while retaining our ability to scrutinise costs and establish consumer protections. We consider it is in all parties' interests for there to be a formalised ongoing process between now and Day 1, which will ensure timely delivery of the FSO and protections for consumers.

Funding proposals

Principle of funding NG and NGT costs

Background

- 4.6 The creation of the FSO is a programme that has been initiated by Ofgem and DESNZ. By supporting Ofgem and DESNZ's ambitions to establish an independent FSO, NG and NGT will face costs that would not have been incurred otherwise.
- 4.7 The funding of separation costs related to ESO via price control has recent precedence. In 2017, we decided to allow costs incurred during the legal

separation of the ESO from NG should be recovered between ESO's and National Grid Electricity Transmission's (NGET) price controls.

Consultation position

4.8 Our proposal is that NG and NGT are allowed in principle to recover all efficient and economic costs incurred in order to establish a standalone FSO, based upon actual spend. Specifically, this is for costs related to separating the ESO from NG, transforming the ESO so it is ready to become FSO, and establishing the FSO's gas activities.

Rationale for consultation position

4.9 We consider that timely and cost-effective delivery of the FSO is within consumer's best interests as it will facilitate Net Zero, whilst also maintaining a resilient and affordable system.

4.10 We believe work is required by NG and NGT in order to establish the FSO in line with government's policy ambitions. To ensure NG and NGT's commitment and dedication to this significant undertaking in advance of Day 1, we believe it is necessary for NG and NGT to be assured that all efficient and economic costs incurred for establishing the standalone FSO will be fairly reimbursed.

Funding Mechanism for NG cost recovery

Background

4.11 We consider there to be three main options for the recovery of NG's incurred separation costs. The first option is through the ESO's main funding mechanism, which would classify the costs as ESO totex and be reported within the ESO's existing value for money reporting for BP2.

4.12 The second option would be to allow funds to be recovered through a traditional totex allowance on either the ESO or another NG regulated entity with an accompanying totex incentive mechanism. This would mean any underspend or overspend compared to the totex allowance would be shared between NG and consumers.

4.13 Lastly, we considered a similar approach to our decision on the ESO's FSO costs, by introducing a new pass through item in the ESO's licence. The new condition

would not be classed as totex nor would it contribute towards the ESO's Regulated Asset Value (RAV).

Consultation position

4.14 Our proposal is to create a new pass through item in the ESO's licence that would not be classed as totex nor contribute to the ESO's RAV. The ESO would pay NG directly for agreed FSO costs and recover these through this term.

Rationale for consultation position

4.15 We believe that a totex adjustment or a totex incentive mechanism is not a viable recovery route due to the lack of detailed plans and costs currently available. An ex-ante cost assessment at this stage would likely require broad assumptions that would not reflect the complexity of the separation programme or be able to accommodate the remaining uncertainty. It would add significant delays to the FSO project to fund using an ex-ante method as further detailed plans are produced.

4.16 We also considered the effects of allowing funds to contribute towards the ESO's RAV or to be classed as totex. We are proposing to fund economic and efficient FSO costs as a 'pass-through' as we believe our main focus should be on the effective delivery of FSO transition which is critical for the sector transition, and this changes but does not itself add to the ESO/FSO value. This is consistent with our decision for the ESO's FSO costs in BP2.

4.17 The use of a pass-through term does not mean the costs would not be subject to any incentives or scrutiny. The new condition proposed for the ESO's licence would provide a clear route for specifying the treatment of funds passed onto NG, which should allow for greater ongoing control and transparency of separation costs than might be expected through a totex adjustment. Further details of our proposals for implementing this recovery route are set out later in this chapter.

Funding Mechanism for NGT costs

Background

4.18 We have considered two ways in which NGT's FSO costs could be funded:

- Make an adjustment to NGT's RIIO-2 totex allowances; or

- Introduce a new pass-through term in NGT's licence.

Consultation position

4.19 We propose to implement a funding route which is flexible and reactive to the current policy uncertainty around gas related FSO activities and proportionate to the size of the costs. We will consider further whether this means adjusting NGT's RIIIO-2 totex allowance or introducing a new pass-through term for FSO costs in the NGT licence.

Rationale for consultation position

4.20 An adjustment to NGT's totex allowance could provide a recovery route with minimal administrative burden, however with the present uncertainty on costs, a new pass-through term may minimise consumer risk.

4.21 In terms of the outcome of each of these options, we do not expect there to be a significant difference considering the relatively low materiality of costs currently estimated. However, it is important that our approach is proportionate and flexible to changes in current planning assumptions, without becoming administratively burdensome. The best approach should become clearer as plans are further developed.

4.22 We expect to further engage with NGT on the best option to avoid windfall gains or losses and negate the administrative burden of introducing and operating multiple licence changes.

4.23 Overall, given the low materiality of the current cost estimates we consider that risks to consumers from both options are limited. For the avoidance of doubt, we currently consider both options to be viable routes to pursue.

Caps on ESO, NG and NGT FSO costs

Background

4.24 We have considered different approaches to ensuring that consumers are protected from inefficiency, programme delays and significant changes to plans, which in turn could increase costs.

4.25 While elsewhere in this Chapter we will further outline our approach to assessing and gaining assurance that outputs have been delivered and costs have been efficient, we believe that a final backstop should be in place for actual spend.

Consultation position

4.26 We propose to set a cap on values allowed through pass-through terms for the ESO, NG and NGT, to act as a final backstop to protect consumers from significant unforeseen cost increases. For NGT, this is subject to a pass-through approach being adopted rather than a totex adjustment.

4.27 We propose a cap is set at the high-cost scenarios estimated by ESO and NG, where the ESO’s cap includes both their one-off and RtB estimated costs up to Day 1. For NGT we propose a cap of £1.5m. This is based on NGT’s current forecast annual cost for Day 1 costs with a small uplift which assumes a later and more complex implementation of Day 1 with some additional contingency built in.

4.28 We recognise that there could be circumstances where economic and efficient costs incurred exceed the cap proposed. As such, we propose to have the discretion to direct changes to the cap if clear evidence emerges that the initial high-case scenarios do not reflect the full scale of costs. Should ESO, NG or NGT begin to forecast costs that begin to approach the cap, significant justification will be required and we will work with the companies to understand what is driving cost increases and consider measures to address this.

Table 12: summary of cap proposals

Area	Proposal
ESO Cap	£75m
NG Cap	£138m
NGT Cap	£1.5m (subject to using a pass-through approach to funding)
Implementation	Specified in the new conditions for the pass through items in the ESO’s and NGT’s licence.
Change process	Ability for authority to direct changes to the cap where strong justifications are provided.

Rationale for consultation position

4.29 We believe that without sufficient information to conduct an ex-ante cost assessment, the purpose of a cap is a final backstop for consumer protection.

Setting the cap at the high-cost scenario is not representative of what we believe to be efficient and economic costs for the separation programme.

- 4.30 The next sections outline our assurance, monitoring and cost review processes for NG and ESO that work as an active measure to ensure only efficient and economic costs are recovered. The cap enables us to hold the companies to account to providing a high standard of evidence and justification for significant unforeseen cost increases.
- 4.31 We recognise that changes to costs may come from external factors, requiring changes to the programme that may be out of the ESO's, NG's or NGT's control. We do not intend to prevent the companies from recovering economic and efficient costs where circumstances change. Any additional increase to caps will require a high level of justification and clear explanation of the drivers. Depending on the specific circumstances, we may introduce further measures or conditions to oversee any further incurred costs.
- 4.32 We note that NGT anticipate continuing to incur FSO related costs beyond Day 1. We consider that our ability to direct a new cap value will allow us to revisit post Day 1 NGT costs once there is more certainty on the required work/timings.

Requirement on the ESO for an intra-group contract with NG

Background

- 4.33 As NG is effectively providing a service to help the ESO transform and prepare itself to be FSO, we consider it is appropriate for NG's FSO costs to be recovered by the ESO through its licence. However, the relationship the ESO has with NG is different from a normal third-party service provider as NG is the ESO's parent company. The ESO may have less influence over NG's actions than a normal service provider.
- 4.34 We also do not directly regulate NG's spending or activities as they are not a licensed entity. Although we have a regulatory relationship with the ESO which is currently owned by NG, we are in the unique situation where this relationship is due to be broken as ownership is transferred. This will occur while NG is completing separation work paid for by energy consumers. We therefore need a funding framework that provides assurance to NG that it will be paid for

separation work by ESO/FSO but also provides a clear commitment on NG to deliver in terms of costs and outcomes.

4.35 As discussed, we currently do not have the comprehensive detail necessary to conduct an ex-ante cost assessment of NG's cost request. Therefore, any funding approach needs to build in a strong element of ongoing assessment.

4.36 We have considered the following broad options for this:

- Rely on delivery obligations and efficiency incentives on only the ESO (leaving NG and ESO to agree their own arrangements for payment of work);
- Formalise a contract obligation and framework in the ESO's licence and give Ofgem and DESNZ ongoing oversight of the delivery of the contract and payment; or
- Conduct a full ex-post review of delivery and costs by NG and direct the ESO/FSO to transfer an amount to NG following completion of the work.

Consultation position

4.37 We propose to introduce an obligation on the ESO to hold and enforce an intragroup contract with NG for the delivery of FSO separation activities (option 2 above). The contract would commit NG to carry out separation activities and the ESO/FSO to paying NG for the delivery of separation activities subject to:

- NG participating in a reporting framework on costs and delivery;
- DESNZ validating on the basis of information provided that NG has delivered or is on track to deliver certain agreed outputs; and
- Ofgem confirming the cost submissions, including all invoiced values, are aligned with pre-agreed Cost Recovery Principles.

4.38 The licence requirement on the ESO would specify certain contents that would be required in the contract, outlined in Table 12. We expect Ofgem and DESNZ to be involved in the development of the contract and we will need to provide final approval before it is signed.

4.39 We expect further iteration with the ESO and NG on the precise details on this contractual framework and the overall process for payment of funds to NG. We also note that we expect a degree of flexibility around the content in the contract and the degree to which this could be supported by some details being set out in an associated document, referenced in the contract.

Table 93 - Proposed Contract contents

Contract contents	Description	Purpose
Delivery Schedule	A schedule of the key deliverables for Day 1, including expected dates and any major interim milestones.	Sets out the key deliverables that NG must deliver for payment.
Cost Recovery Principles	The principles NG must follow for any costs that are submitted to the ESO.	Used by Ofgem for final approval for ESO to release funds to NG.
Reporting requirements	The information the ESO and NG (via the ESO) must submit to Ofgem/DESNZ.	Supports assurance and enables Ofgem/DESNZ to understand progress on an ongoing basis in order to make timely decisions.
Payment Schedule	Confirms when payment should be made to NG by ESO/FSO and on what conditions.	Creates certainty on payment terms.
Change mechanisms	Sets out the circumstance in which the contract can change, such as the Delivery Schedule's deliverables and dates.	Enables contract to react to changing circumstances and plans.
Other contract terms	Other normal contract provisions, such as force majeure terms, limitations of liability and remedies.	Formalises contract and ensures it is robust and clear on terms.

Rationale for consultation position

- 4.40 The aim of our proposals is to create a funding mechanism that provides a clear and structured approach to NG's cost recovery, while building in robust consumer protections. This will provide certainty to all parties on separation plans and their links to costs recovery. We believe our approach incentivises cost efficiency and transparency whilst also being flexible enough to react to unforeseen changes in plans and costs.
- 4.41 We do not believe relying solely on obligations on the ESO (Option 1 above) will provide sufficient protection to consumers given the lack of a formal regulatory relationship between Ofgem and NG, the limited control the ESO may have over NG and the fact that any ex-post action taken may only occur once there is a new owner. Ensuring any ex-post clawback/disallowance applies to a previous owner could be legally complex and create unnecessary uncertainty for NG following Day 1.
- 4.42 Equally, conducting a full ex-post assessment and then subsequently directing the FSO to transfer funds to NG could create misaligned expectations, unnecessary risk and uncertainty for NG during the delivery phase. This could add material risk of FSO implementation delays.

- 4.43 We consider it is in all parties' interests for there to be a formalised ongoing process between now and Day 1 which ensure that final decisions made at the end of the process can be made quickly and based on information already gathered and understood by DESNZ and Ofgem.
- 4.44 We note that the specific timing of payments made to NG by ESO could have implications for the ESO's available working capital and the wider BSUoS charging arrangements. We will consider these issues further to ensure that any final payment mechanisms avoid undue risks or distortions.

Cost Recovery Principles

Background

- 4.45 A funding agreement between ESO and NG would require principles and conditions to outline under what circumstances costs are considered to be legitimate and eligible to be released from ESO to NG. As outlined above, these principles and conditions would be set by Ofgem, directly embedded into any funding contract and used by us to make any final payment approvals.
- 4.46 While we expect further iteration of the contract proposal through this consultation, we have set out below our initial proposals for funding conditions that we believe should guide any contractual arrangement and our approval of funds.

Consultation position

- 4.47 The conditions in table 14 represent our initial view of the principles and conditions NG must meet in order to recover its actual spend from the ESO.

Table 14: Proposed Cost Recovery Principles

Proposed Cost Recovery Principles

All costs recovered through ESO's licence must be for activities which have clear benefit to energy consumers of Great Britain (ie, by contributing to the successful, timely and high-quality implementation of an independent FSO)

Other costs, such as costs which are not incurred by NG for the purposes of separating out ESO and supporting its transformation to FSO, will not be allowed.²²

²² For example, costs not allowed include those falling in cost categories where price controls have not been identified by Ofgem and DESNZ as a route for recovery, such as NG transaction costs and third-party advisory costs associated with the commercial transaction.

All costs must relate directly to outputs specified by the Delivery Schedule, unless otherwise directed by Ofgem and DESNZ.
Only costs that have been reviewed by Ofgem and have been explicitly approved as eligible following our review are recoverable.
Where arrangements are put in place for transitional service agreements (TSAs), these will be taken into account in distinguishing eligible costs for recovery.
Ofgem may determine costs as ineligible for recovery should they reflect demonstrably inefficient and wasteful expenditure (DIWE). ²³

Rationale for consultation position

4.48 Pre-defined funding conditions will simultaneously help protect consumers and create certainty for NG on the terms of cost recovery. When funding costs via a pass-through approach rather than an ex-ante totex approach, it is important to ensure expectations are aligned. We consider the principles above strike the right balance between protecting consumers but not being overly onerous that they could create disproportionate risk for NG.

FSO transition reporting framework and incentives

Background

4.49 In our BP2 Final Determinations we outlined our high-level decision to introduce reporting and incentives on the ESO to create transparency on progress towards FSO transition, and to incentivise timely and efficient FSO delivery.²⁴ We stated that we would follow-up with detailed proposals once we had further information on the costs and outputs for the FSO transition.

4.50 As part of our decision on the reporting and incentives framework we set out the outline for the approach, which included: the length, design, value and reporting and monitoring.

Table 15: BP2 Final Determination FSO transition regulatory and incentive framework decisions

Incentive and reporting framework	BP2 Final Determination
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²³ Please see paragraphs 4.44-4.56 of our Final Determinations – ESO Annex for further details on our disallowance policy for demonstrably inefficient or wasteful expenditure: <https://www.ofgem.gov.uk/publications/rrio-2-final-determinations-transmission-and-gas-distribution-network-companies-and-electricity-system-operator>

²⁴ [Ofgem \(2023\). Business Plan 2 Final Determinations - Electricity System Operator](#)

Scheme length	To final delivery of a standalone FSO with interim progress assessments to be set in line with transition plan and timetable
Scheme design	Evaluative assessment focused on delivery and spending with potential use of KPIs/performance measures
Scheme value	Reputational only
Reporting & Monitoring	Report against key delivery milestones and costs. Coordinated with wider BP2 process and new Cost Monitoring Framework where appropriate.

4.51 As outlined above, we propose that NG will be required to participate in reporting to us and DESNZ via its contractual arrangements with the ESO. We broadly expect areas to report on would include progress of the delivery schedule, actual spend, updated forecasts, emerging risks and changes to separation activities. We consider it makes sense for this to be coordinated with our previous decision to introduce a reputational incentive on the ESO for FSO delivery and we therefore intend to introduce one overall reporting framework for both ESO and NG.

4.52 Detailed proposals for reporting would be developed by the ESO and NG through its contract development process and approved by Ofgem and DESNZ. We are setting out proposals on the high-level requirements that should be met for the detailed proposals.

Consultation position

4.53 We propose that the FSO transition reporting and incentives framework will be focused on both ESO’s and NG’s costs and progress against contracted deliverables. The requirements on NG’s participation in this framework would be set as part of the formal contractual arrangements with the ESO, as outlined above.

4.54 We propose the following positions on the specific details of the incentive and reporting framework:

Table 16: Specific regulatory and incentive framework proposals

Area	Proposals
Licence obligations	We will set high level expectations on the minimum standards associated with the delivery of the FSO transition, including an overall obligation on the ESO to deliver the required Day 1 separation works (including by taking reasonable measures to ensure NG performs its contract deliverables).

Reporting to Ofgem and DESNZ and content of reporting	<p>Regular reporting against key delivery and milestones in the Delivery Schedule, (provided via the formal contractual agreement) including progress, actual spend, updated forecasts, emerging risks and mitigations, changes to separation activities and FTE updates. Specific KPIs/performance measures will not be set. We may require more frequent and detailed reporting for identified high-risk/cost activities</p> <p>Publication of an 'End of Day 1'²⁵ report.</p> <p>We expect reporting on costs to clearly relate back to company low/high estimates. Where costs approach the high case estimates, justification is required to explain why this scenario is unfolding. We also expect this to include details of mitigations to manage the quality, cost and overall timeline of delivery.</p> <p>Reporting and monitoring expected to be in line with current processes as much as possible and where appropriate.</p>
Frequency of reporting	Once a month (at minimum) until 'Day 1', with expectations for regular engagement and responses to ad hoc requests.
Monitoring & Assessment	Ofgem will provide ad hoc feedback on transition delivery performance throughout the regulatory and incentive period to ensure funding expectations are aligned.
Transparency to stakeholders	<p>Monthly reports on costs and delivery progress published by ESO, as part of its existing BP2 reports.</p> <p>At least one interactive event led by ESO to update stakeholders on progress with plans and costs during the scheme.</p> <p>Ofgem will make public our final approval of funding to NG under the contract proposal, as well as any instances of DIWE expenditure by the ESO.</p>

Rationale for consultation position

4.55 We have proposed to set high-level general expectations on the minimum standards associated with the delivery of the FSO transition. As we do not have a detailed transition plan, these expectations should ensure the correct measures, alongside a suitable degree of detail and justification, are taken to deliver a high-quality and cost-effective transition to the FSO.

4.56 We expect the ESO and NG to report against key deliverables and milestones in the Delivery Schedule. This will enable Ofgem to continually assess the ESO's and NG's performance through intermediate progress assessments linked to key stages of the transition. However, we do not propose to include specific

²⁵ An 'End of Day 1' report would cover all activities for the Day 1 delivery phase, as described in Chapter 2.

- KPIs/performance measures given the evolving nature of the FSO programme. We expect the ESO and NG to provide sufficient justification against the Delivery Schedule and cost forecasts to demonstrate effective delivery.
- 4.57 The frequency of reporting will be dependent on the risk associated with each transition activity, so that high-risk activities are reported on more often. We expect the main area of focus for ESO would be Systems and Data, followed by Transition and Transformation Management.
- 4.58 Reporting should be aligned, as much as possible, with current processes such as the existing joint forums for FSO implementation. This should ensure that associated reporting remains proportionate considering the existing levels of governance and oversight in place. In addition, we will consider the scheduling of within-period feedback to ensure there are timely opportunities for feedback from Ofgem. In addition, we expect the ESO to engage with wider stakeholder groups on progress made, where appropriate to do so, to enable stakeholders to also provide feedback and ensure transparency in the process.
- 4.59 We have proposed to give the companies feedback, in line with key deliverables and milestones, throughout the transition period. This feedback should enable the companies to course correct during the scheme and provide Ofgem's view of overall performance during the period at the end of scheme. We propose Ofgem will conduct an 'End of Day 1' assessment, focusing on costs and delivery. We will publish the outcomes of our assessment to ensure transparency.
- 4.60 We do not consider that NGT should be obliged to participate formally in this reporting framework, as NGT's expected spend is of a relatively low materiality. NGT already participates in ongoing joint FSO planning and assurance processes, which provides transparency on their activities. If NGT's spend were to increase from current estimates, we may review this position.

Ex-post disallowance of DIWE

Background

- 4.61 A key requirement for all network companies is that they only recover economic and efficient spend as part of their totex. Ofgem has the ability to disallow

demonstrably inefficient and wasteful totex expenditure (DIWE) from companies' Regulatory Asset Values (RAV) after it is spent.²⁶

- 4.62 As part of our BP2 Final Determinations, we provided further guidance on how we might consider and apply disallowance of DIWE to ESO. We also introduced a cap on annual DIWE expenditure for ESO to limit its financial risk.
- 4.63 Pass-through terms are not classed as totex, so our standard disallowance powers do not automatically apply. We therefore need to consider whether to extend these powers to the new pass-through terms.

Consultation position

- 4.64 We propose to extend our ability to disallow DIWE to the FSO transition costs directly incurred by ESO. This would not include costs that it is recovering on behalf on NG. We do not propose to change ESO's current disallowance cap. We also do not propose to extend disallowance of DIWE to NGT's pass-through costs.

Rationale for consultation position

- 4.65 We consider it is important to apply the disallowance of DIWE to ESO's FSO costs as an important incentive and backstop protection. This is particularly important as ESO's FSO costs are not being included as part of ESO's financial incentive framework. We do not intend to change the size of the cap on ESO's disallowance as we consider the current level of cap to provide a sufficient incentive.
- 4.66 We do not consider this ex-post power needs to apply to NG costs, as our proposed framework provides a role for Ofgem to confirm that no DIWE has been identified in NG costs before payment is made.
- 4.67 We do not consider we need to apply disallowance of DIWE to NGT costs as their materiality is low. We may revisit this position if current NGT cost estimates materially change.

²⁶ Please see paragraphs 4.44-4.56 of our Final Determinations – ESO Annex for further details on our disallowance policy for demonstrably inefficient or wasteful expenditure:
<https://www.ofgem.gov.uk/publications/rrio-2-final-determinations-transmission-and-gas-distribution-network-companies-and-electricity-system-operator>

Summary of proposals and consultation questions

4.68 Table 17 summarises all of the proposals outlined in this chapter and sets out which companies they apply to.

Table 17 10 - Summary of proposals for each company

Proposal	ESO	NG	NGT
Funding efficient cost in principle	Decided in BP2	X	X
Pass through in ESO licence	Decided in BP2		
Either pass through in NGT licence or existing RIIO-2 totex allowance			X
Caps on pass-through terms	X	X	X
Regulated intra-group contract	X	X	
Cost Recovery Principles		X	
FSO transition reporting framework and incentives	X	X	
Ex-post disallowance of DIWE	X		

4.69 We welcome views from stakeholders on any aspects of our funding proposals, and, in particular, on the following specific question:

FSOQ2. Do you agree with the cost recovery proposals outlined in Chapter 4?

FSOQ3. Are there any other consumer protections that we should consider?

5. Next steps

Next steps on FSO cost recovery

- 5.1 This consultation will be open for 6 weeks and will close on 2 August 2023. We encourage responses from all interested stakeholders. We aim to publish our decisions in September 2023 which will build on and finalise the decisions made in this consultation. Our decisions will consider all consultations responses received.
- 5.2 We will consult on the detailed implementation on the policy and funding positions outlined in this document through changes to the licence. We expect to publish shortly follow this publication.
- 5.3 We expect to consult on the scope of any consequential costs from NG and our proposals for how they could be recovered later in the year, once we have received further detail.

Appendix 1 – Cost estimates: Day 1 – 2 and ESO RtB

Please note that the cost estimates found in the tables below are provided as further context for stakeholders and are not within the scope of this current consultation. The policy proposals set out in Chapter 4 relate solely to the 'up to Day 1' cost estimated summarised in Chapter 3.

Table 18: National Grid Day 2 high and low costs scenario one-off separation costs

Business Function		Day 2 (Outturn £'m 2022/23 prices)	
		Low	High
IT	Applications	7	10
	Security	11	14
	Platforms and infrastructure	8	9
	Unstructured data	0	0
	Commercial	5	7
	ERP	-	-
	Central programme costs	7	8
Programme	National Grid resources	1	1
	Third party	11	11
	Separation blueprint	-	-
Procurement		-	-
Pensions		1	2
Property		-	-
Business services		-	0
People and culture		-	-
Other functions		-	-
Grand total		52	62

Table 19: ESO Day 2 high and low costs scenario one-off separation costs

Estimated one-off cost (£'m 18/19 prices)	BP2		Updated view	
	Low	High	Low	High
People	5	7	8	11
Systems & Data	38	54	54	70
Assets	20	39	19	40
Contracts	3	4	3	3
Transaction/Legal	1	1	0	0
Transition & Transformation Management	38	38	44	47
Grand total	104	142	128	172

Table 20: ESO Day 2 high and low costs scenario run-the-business costs

Incremental annual run the business costs (RTB) (£'m 18/19 prices)	BP2		Updated view	
	Low	High	Low	High
Direct RtB costs	9	9	13	19
Non-IT indirect RtB costs	11	13	2	9
IT indirect RtB costs	2	11	10	12
Grand total	22	34	25	40

Appendix 2 – Consultation questions

This appendix lists the consultation questions in this document.

- FSOQ1. Do you have any views or comments on the Day 1 cost estimates presented by ESO, NG and NGT?
- FSOQ2. Do you agree with the cost recovery proposals outlined in Chapter 4?
- FSOQ3. Are there any other consumer protections that we should consider?