

Consultation on the System Operator: Transmission Owner Optimisation Output Delivery Incentive in RIIO-2

Subject	Details
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We¹ are consulting on the System Operator: Transmission Owner (SO:TO) Optimisation output delivery incentive (ODI) that is being trialled in the electricity transmission RIIO-2 price control. We would like views from people with an interest in electricity transmission and distribution networks. We would also welcome responses from other stakeholders and the public.

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.

¹ The terms 'we', 'us', 'our' refer to the Gas and Electricity Markets Authority (the Authority). Ofgem operates under the direction and governance of the Authority.

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1. Executive summary

1.1. We are consulting on the System Operator: Transmission Owner (SO:TO) Optimisation output delivery incentive (ODI) that operates in the electricity transmission RIIO-2 price control. The ODI was introduced into the electricity transmission RIIO-2 price control in April 2021 on a trial basis for two years.

1.2. The purpose of the SO:TO Optimisation ODI is to encourage the Electricity Transmission Owners (ETOs) to proactively identify and provide enhanced services to the Electricity System Operator (ESO) to help reduce the cost of operating the transmission system. When operating the transmission system, the ESO must work within the physical limits of the network to safely transfer power from generation sites to where it is being used by consumers. If part of the network is reaching the limit of its safe capacity, the ESO has to manage power flows on the network. One way it does this is by paying generators in the constrained region to reduce their output and paying generators in another region to increase their output. The costs incurred to balance the location of generation according to the physical limits of the network are generally termed constraint costs. The ETOs and ESO use an existing industry procedure to identify opportunities where enhanced services can help the ESO to reduce constraint costs efficiently.

1.3. At the end of 2021/22, the ETOs and ESO reported on the operation of the SO:TO Optimisation ODI in the first year of RIIO-2. Under the ODI, the ETOs delivered 11 enhanced services for the ESO that helped reduce the costs of operating the transmission system and delivered a significant net benefit for consumers of nearly £33 million (2018/19 prices).

1.4. We have assessed the outcomes of the ODI in the first trial year and discussed our findings in Chapter 3. At a time when constraint costs on the transmission system are forecast to increase to more than £2 billion in 2026, we consider that it is important that this service continues in future. Therefore, we consider it is in consumers' interest for the SO:TO Optimisation ODI to continue to operate in years 3 to 5 of RIIO-2. In this consultation, we are proposing to retain the ODI for the remainder of the electricity transmission price control.

1.5. We are also consulting on options to amend some design parameters of the ODI. We consider these changes will further increase the benefits of the ODI for consumers. First, we are consulting on options to adjust the calculation of the ODI reward that is paid to an ETO for delivering an enhanced service. Second, we are consulting on options to either increase or remove the annual financial cap on the amount of reward that an ETO can earn annually from delivering enhanced services. Further details on these consultation options are set out in Chapter 4.

1.6. The consultation closes on 15 March 2023. We want to hear from anyone interested in this consultation. Please send your response by the above date to the email address on this document's front page.

2. Introduction

What are we consulting on?

2.1. We are consulting on the System Operator: Transmission Owner (SO:TO) Optimisation output delivery incentive (ODI) that operates in the electricity transmission RIIO-2 price control.² The ODI was introduced into the electricity transmission RIIO-2 price control in April 2021 on a trial basis for two years.³

2.2. We have reviewed the outcomes of the SO:TO Optimisation ODI in the first trial year in 2021/22. Under the ODI, the Electricity Transmission Owners (ETO) helped the Electricity System Operator (ESO) to reduce the costs of operating the transmission system and delivered a significant net benefit for consumers of nearly £33 million. We consider it is in consumers' interest if the SO:TO Optimisation ODI continues to operate into years 3-5 of RIIO-T2. Therefore, we are proposing to retain the ODI for the remainder of the price control.

2.3. We are also consulting on options to amend some design parameters of the ODI. We consider these changes will further increase the benefits of the ODI for consumers. First, we are consulting on options for setting the ODI reward that is paid to an ETO for delivering an enhanced service. Second, we are consulting on options to either increase or remove the annual financial cap on the amount of reward that an ETO can earn annually from delivering enhanced services.

Background information on the SO:TO Optimisation ODI

2.4. National Grid Electricity Transmission (NGET), Scottish Hydro Electric Transmission (SHET) and Scottish Power Transmission (SPT) are licensed onshore ETOs in Great Britain. They are required to develop and maintain an economic, efficient and coordinated transmission network, compliant with relevant applicable standards, including the Security and Quality of Supply Standard (SQSS)⁴. The activity and costs incurred by the ETOs to meet these licence requirements are covered by the RIIO-2 price control, which runs from 1 April 2021 until 31

² The SO:TO Optimisation ODI is specified in Special Condition 4.7 of the Electricity Transmission Licence. A copy of the licence is available on: <https://epr.ofgem.gov.uk/> and a copy of the associated guidance document can be found here: <https://www.ofgem.gov.uk/publications/soto-optimisation-governance-document>

³ RIIO-2 [Final Determinations ET Annex](#)

⁴ Security and Quality of Supply Standard: <https://www.nationalgrideso.com/industry-information/codes/security-and-quality-supply-standards>

March 2026. The price control includes a package of ODIs to encourage the ETOs to deliver a range of outputs that improve service and the efficient operation of the transmission network.

2.5. The purpose of the SO:TO Optimisation ODI is to encourage the ETOs to proactively identify and provide enhanced services to the ESO to help reduce the cost of operating the transmission system.⁵ The ETOs and ESO use an existing industry procedure, STCP11-4, to identify opportunities where enhanced services can help the ESO to reduce constraint costs efficiently.⁶

2.6. At the end of March 2022, the ETOs and ESO reported on the operation of the ODI in the first year of RIIO-2. The results from first year were positive, with the ETOs working in collaboration with the ESO to deliver 11 enhanced service schemes. The enhanced service schemes helped to reduce the ESO's constraint costs and led to a net consumer benefit of nearly £33 million (2018/19 prices).⁷

Consultation approach

2.7. Following our review of outcomes from the SO:TO Optimisation ODI trial in year 1 of RIIO-2, this consultation is proposing to retain the ODI for years 3 to 5 of the price control, as well as some options to amend the incentive parameters. We are seeking stakeholders' views on our proposals as well as other options that could be considered to further increase the benefits to consumers of the ODI.

Context and related publications

2.8. This document is intended to be read alongside:

- SO:TO Optimisation Governance Document ⁸

⁵ As part of operating the transmission system, the ESO works within the physical limits of the network to safely transfer power from generation sites to where it is being used by consumers. If a part of the network is reaching the limit of its safe capacity, the ESO has to manage power flows on the network. One way the ESO does this is by paying generators in the constrained region to reduce their output and paying generators in another region to increase their output. The costs incurred to balance the location of generation according to the physical limits of the network are generally termed constraint costs.

⁶ The [System Operator Transmission Owner Code \(STC\)](#) is a suite of code documents which define the relationship between the ETOs and the ESO. The STCP11-4 procedure is one of the STC documents and was designed to enable the ESO to buy a service from the ETOs that help to reduce the costs of operating the GB Transmission network. A copy of the STCP11-4 procedure is available on the ESO's website: <https://www.nationalgrideso.com/document/133421/download>

⁷ In 2021/22, the transmission system constraint costs totalled £960.4 million.

⁸ <https://www.ofgem.gov.uk/publications/soto-optimisation-governance-document>

- NGET, SPT & SHET Special Licence Conditions.⁹

Consultation stages

2.9. This consultation will open on 15 February 2023 and close on 15 March 2023. We will review and publish the responses after the consultation closes. We will endeavour to publish our decision before the end of March 2023.

How to respond

2.10. We want to hear from anyone interested in this consultation. Please send your response to the person or team named on this document's front page.

2.11. We've asked for your feedback in each of the questions throughout. Please respond to each one as fully as you can.

2.12. We will publish non-confidential responses on our website at www.ofgem.gov.uk/consultations.

Your response, data and confidentiality

2.13. You can ask us to keep your response, or parts of your response, confidential. We'll respect this, subject to obligations to disclose information, for example, under the Freedom of Information Act 2000, the Environmental Information Regulations 2004, statutory directions, court orders, government regulations or where you give us explicit permission to disclose. If you do want us to keep your response confidential, please clearly mark this on your response and explain why.

2.14. If you wish us to keep part of your response confidential, please clearly mark those parts of your response that you *do* wish to be kept confidential and those that you *do not* wish to be kept confidential. Please put the confidential material in a separate appendix to your response. If necessary, we'll get in touch with you to discuss which parts of the information in your response should be kept confidential, and which can be published. We might ask for reasons why.

2.15. If the information you give in your response contains personal data under the General Data Protection Regulation (Regulation (EU) 2016/679) as retained in domestic law following

⁹ <https://epr.ofgem.gov.uk/>

the UK's withdrawal from the European Union ("UK GDPR"), the Gas and Electricity Markets Authority will be the data controller for the purposes of GDPR. Ofgem uses the information in responses in performing its statutory functions and in accordance with section 105 of the Utilities Act 2000. Please refer to our Privacy Notice on consultations, see Appendix 4.

2.16. If you wish to respond confidentially, we'll keep your response itself confidential, but we will publish the number (but not the names) of confidential responses we receive. We won't link responses to respondents if we publish a summary of responses, and we will evaluate each response on its own merits without undermining your right to confidentiality.

General feedback

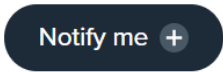
2.17. We believe that consultation is at the heart of good policy development. We welcome any comments about how we've run this consultation. We'd also like to get your answers to these questions:

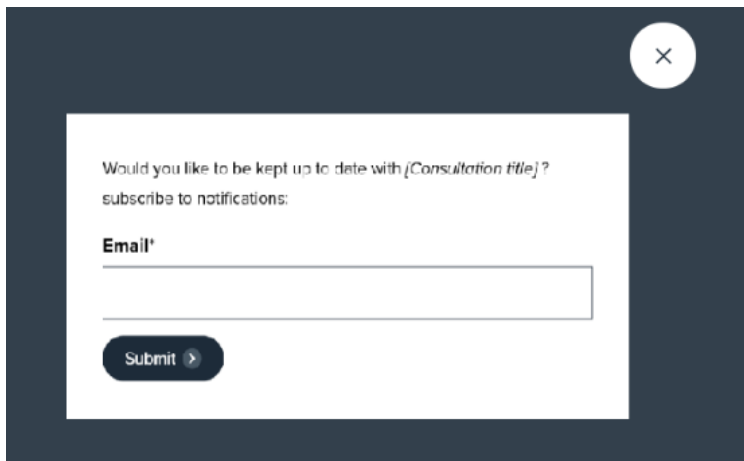
1. Do you have any comments about the overall process of this consultation?
2. Do you have any comments about its tone and content?
3. Was it easy to read and understand? Or could it have been better written?
4. Were its conclusions balanced?
5. Did it make reasoned recommendations for improvement?
6. Any further comments?

Please send any general feedback comments to stakeholders@ofgem.gov.uk

How to track the progress of the consultation

You can track the progress of a consultation from upcoming to decision status using the 'notify me' function on a consultation page when published on our website. [Ofgem.gov.uk/consultations](https://www.ofgem.gov.uk/consultations).



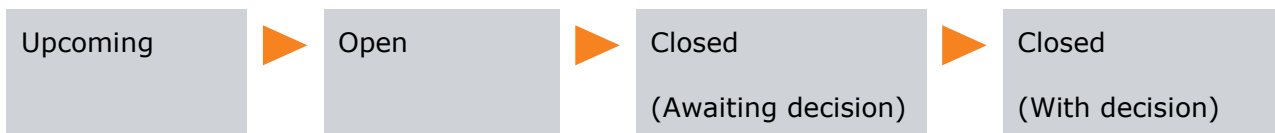


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3. The SO:TO Optimisation ODI and outcomes in year 1 of the trial

Section summary

In this section, we summarise the operation of the SO:TO Optimisation ODI trial in 2021/22 and assess the key outcomes. We highlight aspects of the ODI that we consider have worked well and some aspects that could be improved to increase the benefits for existing and future consumers.

Questions

Consultation Question 1: Do you agree that the SO:TO Optimisation ODI has delivered positively for consumers in year 1 of the trial?

Consultation Question 2: Do you agree that it is in consumers' best interests for the SO:TO Optimisation ODI to continue to operate for the remainder of RIIO-2?

Consultation Question 3: Do you agree with our assessment that there are some aspects of the ODI that could be improved to increase the benefits for existing and future consumers?

The SO:TO Optimisation ODI trial

3.1. As part of the electricity transmission RIIO-2 price control, Ofgem implemented a two-year trial incentive of the SO:TO Optimisation ODI. The purpose of the ODI is to encourage the ETOs to provide enhanced services to the ESO to help reduce constraint costs using the existing STCP11-4 procedures.

3.2. Under the STCP11-4 process, the ESO can buy an enhanced service from an ETO, where it has assessed that the service will likely reduce the costs of operating the transmission system and result in an overall net benefit to consumers.

3.3. Before contracting with an ETO to deliver an enhanced service, the ESO assesses the eligibility of the service, to ensure that it is beyond business-as-usual (BAU) activity.¹⁰ It also

¹⁰ BAU activity for the ETOs is working collaboratively with ESO to plan and deliver an efficient and cost-

undertakes a cost benefit analysis of the expected operational cost saving and the ETO's forecast costs to deliver the service.

3.4. If the ESO accepts an enhanced service under the STCP11-4 process, the ETO is eligible for a reward under the SO:TO Optimisation ODI. In the ODI trial, the reward is calculated as 10% of the forecast constraint savings from all enhanced services that an ETO delivers in a regulatory year up to a financial cap.¹¹

3.5. The ETOs and the ESO report annually on the enhanced services that are brought forward under the ODI. This includes explaining how the enhanced services differed to BAU activity and the value of benefit to consumers in terms of reduced operating costs of the transmission system.

3.6. At the end of March 2022, the ETOs and ESO reported on the operation of the ODI in the first year of RIIO-2. We have reviewed the information to assess the outcomes and the net benefits for consumers.

First-year outcomes of the ODI trial

3.7. During 2021/22, the ETOs, in collaboration with the ESO, delivered 11 enhanced service schemes. Examples of the schemes include:

- the development of dynamic weather-based ratings on loaded overhead line routes
- installing monitoring equipment to calculate real-time operating temperature and allowable circuit capacity
- raising the settings on protection equipment to give enhanced ratings.

3.8. The following table summarises the key results of the enhanced services delivered by each ETO in 2022/21.

effective programme of outages on the transmission network to facilitate new connections, network reinforcements and maintenance work.

¹¹ The annual financial caps are set out in SpC 4.7.3 of the electricity transmission licence and are specific to each ETO as follows: £1.2m SHET; £2.5m SPT; and £5.0m NGET.

Table 1 SO:TO Optimisation ODI results

ETO	Number of Enhanced Services Delivered	ESO Forecast Constraint Cost Saving	ESO Outturn Constraint Cost Saving	ETO Delivery Costs for Enhanced Services	ETO Incentive Rewards	Net Consumer Benefit
<i>NGET</i>	6	£50.2m	£37.3m	£46.8k	£5.0m	£32.3m
<i>SPT</i>	4	£4.5m	£1.1m	£56.4k	£450.6k	£628.5k
<i>SHET</i>	1	£2.6m	£0	£1.6k	£256.1k	-£257.6k
Total	11	£57.2m	£38.4m	£104.7k	£5.7m	£32.6m

Note: All £ values are in 2018/19 prices.

3.9. The ESO forecast that the potential constraint cost saving from the 11 enhanced services to be £57.2 million in total. The outturn constraint cost saving from the enhanced services delivered in the year was £38.4 million. The difference between forecast and outturn constraint cost savings is due to a variety of factors including changes in generators' return to service dates that meant that the generation background driving the constraint and system conditions were different to the assumptions used to forecast the network constraints.

3.10. The ETOS' total delivery costs for the enhanced services in 2021/22 were approximately £105,000. The total ODI reward paid to the ETOS for delivering enhanced services was £5.7 million. The net consumer benefit, which is calculated as the outturn constraint cost saving less the ETOS' delivery costs and ODI rewards, was £32.6 million.

Our assessment of the SO:TO Optimisation ODI

3.11. In our view, the ODI has been successful in driving the ETOS to identify solutions, through the STCP11-4 process, which have helped the ESO to reduce the operating costs of the transmission system. In the two years prior to the introduction of the SO:TO Optimisation ODI, the ETOS investigated four enhanced solutions under the STCP11-4 process and the ESO accepted only one. In 2021/22, the ETOS proposed a total of 20 enhanced services, with the ESO accepting more than half after assessing their potential to reduce constraint costs. The likely reason for the increase in proposals in 2021/22 is that the ETOS have changed internal processes, as well as dedicated additional resource, to identify, test and implement enhanced services through the STCP11-4 process as a direct result of the ODI.

3.12. We are also satisfied that the enhanced services accepted by the ESO are above the ETOs' normal BAU activity. We have seen evidence of the additional work involved in the identification and delivery of enhanced services. This includes engineering studies, site assessments and testing to investigate feasibility, additional costs for real-time asset monitoring and inspection, as well as ETOs managing additional asset risk to provide an enhanced service within specific bounds (ie time, capability).

3.13. We have not seen any evidence of unintended consequences as a result of introducing the ODI. For example, we've not seen evidence of any adverse behaviours in relation to how the ETOs optimise outage planning in the medium and long term because, for example, they want to use the ODI in the short term, which was originally seen as a possible risk.

3.14. Similarly, we are not aware of any adverse impacts on competition in the provision of constraint management services. This might arise, for example, if services from the ETOs under the STCP11-4 process resulted in other third parties being less willing or unable to offer constraint management services to the ESO. However, this doesn't appear to be the case. In the first year that the ODI operated in RIIO-2, the ESO successfully ran a second commercial tender and awarded contracts to 15 generators for constraint management services for the period Oct 24 to Sep 2025 on the Anglo-Scottish transmission boundary.¹²

3.15. In light of ESO's successful constraint management commercial tenders, we have also looked at whether the SO:TO Optimisation ODI is likely to be needed in the future. Over the last year, the geopolitical situation has triggered a dramatic change in the operation of the transmission network with a significant increase in network congestion in south-east England owing to an unprecedented requirement to export power to Europe through the interconnectors.¹³ In response to this issue, the ETOs have explored and delivered enhanced services to help the ESO to balance power flows on the network more efficiently than would have otherwise been the case in the absence of these enhanced services. We consider that the ETOs' proactive response is been largely attributable to the ODI.

3.16. In our view, the SO:TO Optimisation ODI has energised the STCP11-4 process and this has added to the ESO's toolkit for managing constraints at various places in the electricity system and over different time horizons. At a time when constraint costs on the transmission

¹² The ESO anticipates the consumer savings during the 2024/25 service term to be in the region of £70 million. For further information please see: <https://www.nationalgrideso.com/future-energy/projects/pathfinders/constraint-management/noa-constraint-management-pathfinder-phase-1>

¹³ In the nine months to Dec 2022, constraint costs for south-east England were £185 million, up from £5 million for the full year in 2021/22.

system are forecast to increase to more than £2 billion in 2026, we consider that it is important that this service continues in future.¹⁴

3.17. As part of our assessment of the SO:TO Optimisation ODI, we have also considered if the current reward rate in the ODI is value for money for consumers. In the trial, the ODI placed great significance on the ESO's forecast of future constraint cost savings as rewards are calculated as 10% of the forecast cost savings. In 2021/22, the ESO's forecast of constraint costs savings was approximately 49% more than the outturn constraint cost saving attributable to the delivered enhanced services.¹⁵ As a result of the difference between forecast and outturn constraint costs savings, the ETOs' ODI reward, in relative terms, averaged 15% of the outturn cost saving (with the remaining 85% going to consumers).

3.18. In our view, the trial has highlighted some issues with the reward setting parameters in the SO:TO Optimisation ODI, which we discuss further below.

3.19. In 2021/22, there was a tendency for the forecasts to over-estimate the potential constraint cost savings compared to the outturn. If this forecast error is due to a systematic upward bias in forecasts, then the ODI rewards will continue to exceed the 10% sharing factor envisaged for the SO:TO Optimisation ODI.

3.20. In our view, an ODI reward that is greater than 10% of the outturn constraint cost saving is not suitable in future. If the ODI reward is too highly powered, relative to other ODIs in the price control, there could be unintended consequences. For example, if the SO:TO Optimisation ODI reward dominates the ODI for network reliability, an ETO might be prepared take on excess asset performance risk on behalf of consumers, resulting in an increased risk of fault/supply failure. Alternatively, the larger reward could increase the risk of the ETOs not optimising medium-term and long-term outage planning in future.

3.21. We have also considered whether there is merit for decreasing the rate of the ODI reward that the ETOs receive for delivering an enhanced service, for example by reducing the sharing factor on constraint cost savings from 10% to 5%. A reduction in the sharing factor would mean that consumers would benefit from a larger proportion of any outturn constraint cost saving.

¹⁴ <https://www.nationalgrideso.com/document/247306/download>

¹⁵ We recognise that forecasting constraint costs is prone to error (particularly as the time horizon increases) because these depend on several factors, such as the generation background driving the constraint, the system configuration and market conditions. Such factors are not static and can fluctuate widely due to unforeseen circumstances.

3.22. We note that the SO:TO Optimisation ODI is an economic incentive to motivate the ETOs to achieve outcomes that will benefit consumers. Similar to other ODIs in the RIIO-2 price control, such as the network reliability ODI, the SO:TO Optimisation ODI is not related to underlying delivery costs of the activity but instead to the economic value of the outcome.

3.23. Typically, we employ ODIs in the network price control (rather than funding the activity directly under the price control) when there is some uncertainty about the scope and costs of activity involved, and the size of the opportunity to deliver consumer benefits. This is because ODIs drive the ETOs to explore how to achieve the outcome efficiently, such as developing new ways of working, innovating and collaborating.

3.24. When an ODI is introduced, we expect that an ETO will first adopt things that can be done most readily to achieve the outcome and when such opportunities diminish then move on to other options that require additional effort, cost more and involve more risk. As it is still early in the life of the ODI, we expect that the ETOs are investigating new types of enhanced services to help the ESO to reduce constraint costs. One risk of reducing the rate of reward at this time is that it may subdue the ETOs' innovation into new enhanced services and curtail the overall size of potential constraint cost savings for consumers.

3.25. On balance, we consider it is not appropriate to reduce the rate of reward at this time. It is possible that the potential benefit to consumers of receiving a higher proportion of any outturn constrain cost savings could be offset by fewer outturn constraint cost savings if the ETOs reduce their innovation efforts in response to a smaller incentive. Overall, we consider that the 10% rate of reward remains fair value for consumers ie for every £1 reward paid to ETOs, consumers will benefit a £9 reduction in transmission constraint costs. We welcome stakeholders' views on the rate of reward and whether or not the current sharing factor is appropriate.

3.26. One issue with using the forecast constraint savings to set the ODI reward is that the ETOs are fully insulated from differences between forecast and outturn constraint cost savings. We consider that consumers could benefit more if the ODI rewards are linked to the outturn constraint cost saving as this would align the ETOs' and consumers' interests in the outcome of the delivered enhanced service and reduce the risk of a forecast error affecting how the outturn constraint saving is shared between an ETO and consumers.

3.27. As part of the ODI trial assessment, we have also looked at the annual financial cap and the impact on the interests of future and existing consumers. We note that the financial cap was introduced as part of the ODI trial due to potential concerns about unintended

consequences of the ODI such as adverse impacts on outage planning or a reduction in competition in third party provision of constraint management services to the ESO, as discussed above.

3.28. In 2021/22, NGET received the maximum reward under its financial cap for the enhanced services it delivered (see table 1). In August 2022, NGET advised us that in the first five months of 2022/23 it had delivered enhanced services to the ESO that are forecast to save over £86 million in constraint costs, thus had already achieved the full ODI financial cap. NGET requested that we remove the financial cap for 2022/23 so that it can continue to be incentivised to support the ESO in reducing operational costs for the benefit of consumers.

3.29. At its current level, the annual financial cap on the ODI rewards may restrict the potential consumer benefit of the ODI. Given the outlook for higher operating costs, we are concerned that the cap could unduly limit the potential consumer benefits of the ODI in future. We consider that it is not in consumers' best interests to limit the ETOs' efforts to help the ESO reduce the costs of operating the transmission system by curtailing ODI rewards at a certain level.

3.30. Overall, based on our assessment of outcomes from the first trial year in RIIO-2, we consider that the SO:TO Optimisation ODI has delivered positively for consumers. In our view, it is important that this ODI continues in future as an additional means in the ESO's toolbox to operate the transmission system efficiently. Therefore, **we are proposing to retain the ODI for the remainder of RIIO-2 with some adjustments that are also subject to this consultation.**

3.31. We consider there is scope to improve some aspects of the ODI to further benefit existing and future consumers. In Chapter 4, we set out further detail on the options we are consulting on to adjust the ODI reward setting parameters and the annual financial cap.

4. Consultation options for the SO:TO Optimisation ODI

Section summary

In this section, we set out the consultation options for making some improvements to the SO:TO Optimisation ODI to further benefit existing and future consumers.

Questions

Consultation Question 4: Do you agree with our preferred option to use both the forecast and outturn constraint cost savings in the ODI reward calculation from year 3 of RIIO-2?

Consultation Question 5: Do you agree with our preferred option for a 95% weighting on the outturn constraint cost saving in the ODI reward calculation from year 3 of RIIO-2?

Consultation Question 6: Do you agree with our preferred option to remove the annual financial cap on the ODI reward, and for this to take effect from year 3 of RIIO-2?

Consultation options for calculating the ODI reward

OPTION 1: Do nothing

4.1. The first option is to retain the status quo and make no change to the ODI reward setting parameters. The ODI reward paid to an ETO will continue to be calculated as 10% of the forecast constraint cost savings that a delivered enhanced service is expected to make.

4.2. This option gives certainty to an ETO about the ODI reward it will receive for any enhanced service approved by the ESO early in the STCP11-4 process. This means that there is no risk to the ETO of incurring expenditure to develop an enhanced service that is approved by the ESO regardless of whether the constraint cost savings are realised.

4.3. However, as noted in Chapter 3, making accurate forecasts of future constraint costs savings is challenging due to unforeseen fluctuations in the various contributory factors. As a result, consumers hold all the risk that the forecast constraint cost savings are not realised. In

such cases, the reward received by the ETO is disproportionate to the realised constraint cost savings, which also affects the consumer benefit of the ODI overall.

OPTION 2: Link the ODI reward calculation to the outturn constraint cost savings

4.4. The second option is to amend the calculation of the ODI reward by using the outturn constraint cost savings of a delivered enhanced service. The ODI reward could be calculated using only the outturn constraint cost savings or it could be calculated using a combination of the forecast and outturn constraint cost savings.

4.5. The benefit of linking the ODI reward calculation to the outturn constraint cost savings is that it will remove/reduce any undue impact of forecast error on the share of realised cost savings that go to consumers and the ETOs. It will also more closely align the ETOs' and consumers' interests in the outcome of the delivered enhanced service. This will ensure that the ETOs have a strong incentive to deliver the service as effectively as possible.

4.6. Replacing the forecast constraint cost savings outright in the ODI reward calculation with the outturn would introduce a risk for an ETO that costs incurred in the identification and early development of enhanced services that it delivers are not funded if the expected network constraint does not occur.¹⁶ This could adversely impact the ETOs level of engagement in the STCP11-4 process to the detriment of consumers ie the ETOs may put forward fewer schemes.

Our preferred option for calculating the ODI incentive reward

4.7. **Our preferred option is to combine the outturn and forecast constraint cost saving into the ODI reward calculation with a 95% weighting in favour of the outturn from year 3 of RIIO-2.** In our view, using a combination of the forecast and outturn constraint cost saving will help improve the ODI in future, by giving the ETOs a stake in the realised outturn and protecting consumers from ETOs being rewarded disproportionately relative to the realised constraint cost saving.

4.8. We also consider that a 5% weighting on the forecast constraint cost saving will be sufficient to cover an ETO's development costs on an approved enhanced service in the event that it turns out not to reduce constraint cost (the development costs are very modest in comparison to forecast constraint cost savings). At the same time, the large weighting on the

¹⁶ Under STCP11-4, the ESO only pays for the delivery costs of an enhanced services not the development costs.

outturn constraint cost savings will ensure that the ODI delivers significant consumer value with a robust 90:10 sharing factor.¹⁷

Consultation options for the annual financial cap

OPTION 1: Do nothing

4.9. The first option is to retain the ODI reward annual financial cap so that the maximum annual reward is: £1.2m for SHET; £2.5m for SPT; and £5.0m for NGET (2018/19 prices).

4.10. We note that the annual financial cap was introduced in the trial period due to the uncertainty over how the ETOs would respond to the ODI and to mitigate the risk of unintended consequences or inefficient behaviours. However, as discussed in Chapter 3, we have not seen any evidence in the trial year that such concerns have materialised.

4.11. Given the likelihood of large increases in future constraint costs until at least the end of RIIO-2, we think that retaining the annual financial cap at the current level would restrict the potential for significant cost savings delivered through enhanced services provided by the ETOs. We consider that this option is not in consumers' best interests.

OPTION 2: Increase the annual financial cap

4.12. The second option is to increase the annual financial cap to a larger maximum for year 3 to 5 of RIIO-2. This would give additional headroom for the ETOs to bring forward enhanced services before the cap restricts any additional ODI reward at a higher level.

4.13. The challenge of increasing the annual financial cap is deciding on a new level. Given the expected steep increase in future constraint costs on the transmission system, and the volatile nature of some contributing factors, such as the gas supplies in Europe, there is a high degree of uncertainty about whether a new financial cap will be suitable for purpose.

4.14. If set too low, the financial cap would likely limit the enhanced services delivered by the ETOs and unnecessarily restrict the benefits for consumers. If set at a significantly higher level, say a 10-fold increase, it raises the question about whether the cap at this new level is achieving its purpose. As noted in option 1 above, the annual financial cap was introduced in the trial

¹⁷ To illustrate the impact of our preferred option, the ODI reward in 2021/22 would have been £3.9million (versus £5.7 million) when calculated using a combination of the forecast and outturn constraint cost savings with a 95% weighting on the latter.

period to mitigate the risk of unintended consequences or inefficient behaviours. However, we did not see any evidence in the trial year that such issues have occurred. Accordingly, we think increasing the financial cap would have limited practical significance but pose a risk of unnecessarily restricting consumer benefits if the cap turns out to be too low.

OPTION 3: Remove the annual financial cap in years 3 to 5 of the RIIO-2

4.15. The third option is to remove the annual financial cap entirely from ODI rewards in future ie in years 3 to 5 of the Price Control. This means that an ETO's annual ODI reward would be unlimited to all the enhanced services that it delivers for the ESO in that year.

4.16. Given the outlook for higher operating costs, the advantage of this option is that it will ensure the ETOs strive to unlock the consumer value of enhanced services and help to reduce the ESO's operating costs of the transmission network in future.

4.17. Consumers will also be robustly protected, even with the removal of the annual financial cap, as ODI rewards will also be strongly linked to the outturn constraint cost saving rather than the forecast (as per our preferred option 2 on "Setting the ODI rewards"). As a result, the ODI rewards achieved by the ETOs will be associated with a consumer benefit of nine times the value of that reward given the 10% sharing factor.

OPTION 4: Remove the financial cap in year 2

4.18. As highlighted in Chapter 3, NGET requested that we remove the financial cap in year 2 of the ODI trial. We note that NGET continued to deliver enhanced services to the ESO after it had exceeded the financial cap for the enhanced services it had delivered up to August 2022.

4.19. We welcome NGET's actions to continue to deliver enhanced services in the interests of consumers, particularly at a critical time when so many consumers are facing a cost-of-living crisis and under considerable financial pressure.

4.20. However, we note that NGET's proposal would result in a retrospective change to the ODI financial cap. As a result, there is little scope for this option to achieve extra consumer benefits in the remaining period of year 2, which ends on 31 March 2023, over and above the benefits that have already been delivered.

4.21. We note that the purpose of an ODI is to drive future behaviour to achieve consumer benefits. However, Option 4 would result in a retrospective removal of the financial cap in year

2, resulting in a larger annual payment to NGET but has little scope to achieve significant additional consumer benefit in the remaining period to the end of March 2023. In our view, there is limited added value to be achieved by Option 4, and it is not in existing and future consumers' interests.

Our preferred option for the ODI reward financial cap

4.22. **Our preferred option is to remove the annual financial cap in future years 3 to 5 of RIIO-2.** Option 3 will drive the ETOs to proactively identify enhanced services and deliver additional consumer benefits in future. In our view Option 3 best achieves our Primary Objective to protect the interests of existing and future consumers.¹⁸

¹⁸ The Gas and Electricity Market Authority's Principal Objective is set out in section 3A of the Electricity Act 1989.

5. Next Steps

5.1. We welcome your responses to this consultation, both generally, and in particular on the specific questions in Chapters 3 and 4. Please send your response to: anna.kulhavy@ofgem.gov.uk. The deadline for response is 15 March 2023.

5.2. We will consider responses to this consultation before publishing a decision on the SO:TO Optimisation ODI. The SO:TO Optimisation ODI is set out within Special Condition 4.7 of the electricity transmission licence. Therefore, any changes to the design parameters of the ODI will require a Statutory Consultation to amend the licence.

5.3. If we decide to adjust the ODI, we will publish the proposed licence changes at the same time of decision.

Appendices

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Appendix 1 – Consultation questions

Consultation Question 1: Do you agree that the SO:TO Optimisation ODI has delivered positively for consumers in year 1 of the trial?

Consultation Question 2: Do you agree that it is in consumers' best interests for the SO:TO Optimisation ODI to continue to operate for the remainder of RIIO-2?

Consultation Question 3: Do you agree with our assessment that there are some aspects of the ODI that could be improved to increase the benefits for existing and future consumers?

Consultation Question 4: Do you agree with our preferred option to use both the forecast and outturn constraint cost savings in the ODI reward calculation from year 3 of RIIO-2?

Consultation Question 5: Do you agree with our preferred option to use a 95% weighting on the outturn constraint cost saving in the ODI reward calculation from year 3 of RIIO-2?

Consultation Question 6: Do you agree with our preferred option to remove the annual financial cap on the ODI reward from year 3 of RIIO-2?

Appendix 2 – Privacy notice on consultations

Personal data

The following explains your rights and gives you the information you are entitled to under the General Data Protection Regulation (GDPR).

Note that this section only refers to your personal data (your name address and anything that could be used to identify you personally) not the content of your response to the consultation.

1. The identity of the controller and contact details of our Data Protection Officer

The Gas and Electricity Markets Authority is the controller, (for ease of reference, "Ofgem"). The Data Protection Officer can be contacted at dpo@ofgem.gov.uk

2. Why we are collecting your personal data

Your personal data is being collected as an essential part of the consultation process, so that we can contact you regarding your response and for statistical purposes. We may also use it to contact you about related matters.

3. Our legal basis for processing your personal data

As a public authority, the GDPR makes provision for Ofgem to process personal data as necessary for the effective performance of a task carried out in the public interest. i.e. a consultation.

3. With whom we will be sharing your personal data

We will not share your personal data with any third parties.

4. For how long we will keep your personal data, or criteria used to determine the retention period.

Your personal data will be held for six months after the project has closed.

5. Your rights

The data we are collecting is your personal data, and you have considerable say over what happens to it. You have the right to:

- know how we use your personal data
- access your personal data
- have personal data corrected if it is inaccurate or incomplete
- ask us to delete personal data when we no longer need it
- ask us to restrict how we process your data
- get your data from us and re-use it across other services
- object to certain ways we use your data
- be safeguarded against risks where decisions based on your data are taken entirely automatically
- tell us if we can share your information with 3rd parties
- tell us your preferred frequency, content and format of our communications with you
- to lodge a complaint with the independent Information Commissioner (ICO) if you think we are not handling your data fairly or in accordance with the law. You can contact the ICO at <https://ico.org.uk/>, or telephone 0303 123 1113.

6. Your personal data will not be sent overseas.

7. Your personal data will not be used for any automated decision making.

8. Your personal data will be stored in a secure government IT system.

9. More information For more information on how Ofgem processes your data, click on the link to our "[Ofgem privacy promise](#)".