

## SO:TO Optimisation

# Output Delivery Incentive (ODI) Report - June 2023

### Introduction

The ODI is a 2-year trial (April 2021 to March 2023), aimed at encouraging the Electricity Transmission Owners (ETOs) to proactively identify and provide solutions to the Electricity System Owner (ESO) to help reduce constraint costs, in accordance with the STCP 11-4 process.

As required by Ofgem's SO:TO Optimisation Governance document, the ESO is required to submit a final report by the 31 March 2023.

### Summary

For the first year of the trial, we received 24 STCP 11-4 Enhanced Service requests from the TO's; 16 were rejected and 8 were accepted, resulting in a £42.5m forecast reduction in constraint costs.

For the second year of the trial, we received 39 STCP 11-4 Enhanced Service requests from the TO's; 1 was rejected and 38 were accepted, resulting in a **£291m** forecast reduction in constraint costs.

The 2 year trial has delivered a total of 46 enhanced solution with a forecast benefit of **£333.2m**

### Reporting

Appendix A shows all the accepted and funded STCP 11-4 request from April 2022 to March 2023. The rejected request is also detailed.

### ESO Comments

The second year of the trial has seen a considerable uplift in the number of 11-4 requests, particularly from NGET. We have seen far fewer rejections of 11-4 requests this year as the TOs and ESO have a better understanding of what constitutes an 11-4, which was established during the first year of the trial.

The ODI trial has delivered considerable benefit for the end consumer in terms of a reduction in constraint costs. We have worked with the TOs this year to understand what further information and guidance the TOs need to help identify potential high cost outages. We will continue to work with them in 23/24 to maximise the benefit that can be obtained from enhanced services.

#### **ESOs assessment on how the ODI has driven TO behaviours in relation to outage planning:**

Similarly, to last year there has been no evidence of any behaviours regarding a reduction in plan optimisation in the medium and long term due to a reliance on the ODI in the short-term which was originally seen as a possible risk.

#### **Expectations that the ESO has for future value with this incentive, including the interactions with existing or future funding mechanisms that may overlap with this ODI:**

We believe that the ODI will continue to deliver benefit to the end consumer in the future with savings in constraint costs. Overall constraint costs are forecast to rise for several years and the ESO will work with the TOs to identify areas where enhanced services could be beneficial.

**Recommendation on whether the ODI should continue operating after the initial trial period, and if so, its recommendations for improvements to the ODI and governance arrangements:**

We believe that the ODI should continue and have responded accordingly to Ofgem's recent consultation on extending the ODI out to the end of BP2.

## Appendix A – Accepted STCP 11-4 Requests

### 1. Weather based Enhancements of Overhead Line

Season	Duration/days	TO	Enhancement Of	Forecast cost savings/£	Outturn cost savings/£
Summer	16	NGET	E&W Southern Circuit	340,000	148,260
Summer	3	NGET	E&W Northern Circuit	32,000	572,004
Summer & Winter	38	NGET	E&W Northern Circuit	2,024,000	0
Summer	23	NGET	E&W Southern Circuit	29,000,000	22,575,493
Summer	13	NGET	E&W Northern Circuit	1,143,720	1,700,000
Autumn	30	NGET	E&W Northern Circuit	520,000	2,800,000
Autumn	6	NGET	E&W Northern Circuit	106,000	
Autumn	26	NGET	E&W Northern Circuit	3,000,000	1,905,698
Autumn	14	NGET	E&W Southern Circuit	10,000,000	5,300,000
Winter	79	NGET	E&W Northern Circuit	3,850,000	14,627,145

Autumn	1	NGET	E&W Southern Circuit	210,000	0
Winter	30	NGET	E&W Southern Circuit	8,000,000	2,000,000
Autumn	10	NGET	E&W Northern Circuit	7,000,000	7,000,000
Winter	3	NGET	E&W Northern Circuit	1,500,000	0
Winter	5	NGET	E&W Northern Circuit	2,500,000	0
Winter	10	NGET	E&W Southern Circuit	690,000	20,000
Winter	10	NGET	E&W Southern Circuit	400,000	0
Winter	4	NGET	E&W Northern Circuit	10,000	0
Autumn	2	NGET	E&W Southern Circuit	0	0
Autumn	2	NGET	E&W Southern Circuit	0	0
Spring 2023	14	NGET	E&W Southern Circuit	800,000	0
Spring 2022	8	NGET	E&W Southern Circuit	500,000	80,000
Winter	8	NGET	E&W Northern Circuit	0	0
Summer	8	NGET	E&W Southern Circuit	10,000,000	8,585,679
Summer	24	NGET	E&W Southern Circuit	30,000,000	
Autumn	7	NGET	E&W Southern Circuit	1,250,000	16,816,640

Summer	212	NGET	E&W Southern Circuit	14,000,000	
Spring 2023	4	NGET	E&W Northern Circuit	70,000	0
Spring 2023	3	NGET	E&W Northern Circuit	0	0
Spring 2023	4	NGET	E&W Northern Circuit	85,000	1,519,258
Spring 2023	41	NGET	E&W Northern Circuit	700,000	1,732,874

## 2. Static Temperature Enhancement

Season	Duration	TO	Enhancement Of	Forecast cost savings/£	Outturn cost savings/£
Autumn	13	NGET	E&W Southern Circuit	6,000,000	2,900,000

## 3. Rapid Post Fault Switching and Voltage Management

Season	Duration	TO	Enhancement Of	Forecast cost savings/£	Outturn cost savings/£
Winter	35	NGET	E&W Northern Circuit	10,000	0
Spring 2022	23	NGET	North West Post Fault Action	30,432,000	15,000,000
Autumn	8	NGET	E&W Northern Circuit)	0	0

## 4. Transformer Forced Cooling

Season	Duration	TO	Enhancement Of	Forecast cost savings/£	Outturn cost savings/£
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All year	Ad hoc	NGET	North SGT	7,870,000	784,500
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**5. Outage Flexibility**

Season	Duration	TO	Enhancement Of	Forecast cost savings/£	Outturn cost savings/£
Autumn	2	NGET	E&W Northern Circuit	8,500,000	8,500,000

**6. Protection Modifications**

Start Date	End Date	TO	Enhancement Of	Forecast cost savings/£	Outturn cost savings/£
All year	All year	SSEN-T	Scotland Northern Circuit	60,000,000	150,000,000
All year	All year	SPT	Scotland Southern Circuit	1,904,000.00	1,400

**7. Runback Scheme**

Start Date	End Date	TO	Enhancement Of	Forecast cost savings/£	Outturn cost savings/£
Winter	62	SPT	Scotland Southern Circuit	18,940,000	2,980,000

**8. By-pass Circuit**

Start Date	End Date	TO	Enhancement Of	Forecast cost savings/£	Outturn cost savings/£
Autumn & Winter	168	SSEN-T	Scotland Northern Circuit	30,000,000	12,367,718

**1. Intertrip Scheme**

<b>Start Date</b>	<b>End Date</b>	<b>TO</b>	<b>Enhancement of</b>	<b>Forecast cost savings/£</b>	<b>Outturn cost savings/£</b>
All year	All year	NGET	E&W Northern Circuit	2,300,000	Not implemented