



Making a positive difference
for energy consumers

National Grid Electricity System
Operator Limited

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Dear Company Secretaries,

July 2023 SIF Funding Direction – Electricity Distribution Licences

The Strategic Innovation Fund (SIF) is a funding mechanism for the Electricity System Operator, Electricity Transmission and Electricity Distribution, and Gas Transmission and Gas Distribution sectors, within the RIIO-2 network price control.¹

For each round of the SIF new Innovation Challenges are launched focusing on strategic issues currently facing gas and electricity networks. Round 1 of the SIF was launched in July 2021 with four Innovation Challenges on whole system integration, data and digitalisation, heat, and zero emissions transports². Round 2 of the SIF, launched in May 2022, focuses on four new Innovation Challenges: supporting a just energy transition, preparing for a net zero power system, improving energy system resilience and robustness, and accelerating decarbonisation of major energy demands³.

Within each round of the SIF, a multi-phase approach is taken to help mitigate the risk associated with innovation: the Discovery Phase, the Alpha Phase and the Beta Phase. At the start of each Project Phase we⁴ issue a Funding Direction to direct National Grid Electricity System Operator (ESO) and National Gas Transmission (NGT) to distribute SIF Funding to the

¹ Fuller details regarding the SIF can be found here: <https://www.ofgem.gov.uk/energy-policy-and-regulation/policy-and-regulatory-programmes/network-price-controls-2021-2028-riio-2/network-price-controls-2021-2028-riio-2-riio-2-network-innovation-funding/strategic-innovation-fund-sif>

² For more information on round 1 of the SIF, including the Innovation Challenges, please see: <https://www.ofgem.gov.uk/publications/strategic-innovation-fund-innovation-challenges>

³ For more information on round 2 of the SIF, including the Innovation Challenges, please see: <https://www.ofgem.gov.uk/publications/strategic-innovation-fund-round-two-innovation-challenges>

⁴ The terms the "Authority", "Ofgem", "we", "our" and "us" are used interchangeably in this document. The Authority refers to the Gas and Electricity Markets Authority. Ofgem is the Office of the Gas and Electricity Markets Authority.

Projects we have decided to award funding to and to reconcile any unspent SIF Funding from a previous Project Phase. The Funding Direction may also include allocation of funding via network changes for UK Research and Innovation's (UKRI) role in delivering the SIF⁵.

In April 2023, we released the first SIF Funding Direction for the round 2 Discovery Phase which set out the amount of⁶:

- I. SIF Funding that must be distributed to the round 2 Discovery Phase SIF Projects that we have decided to award funding for network licensees covered by Special Condition 5.7 of the Gas Transport Licence⁷, Special Condition 9.13 of the Gas Transporter Licence⁸, Special Condition 9.19 of the Electricity Transmission Licence⁹, Special Condition 3.4 of the Electricity Transmission Licence¹⁰, but not those covered under Special Condition 9.9 of the Electricity Distribution Licence (please see the heading "SIF Funding distribution to Electricity Distribution Licensees" below for more information
- II. reconciliation required for any unspent SIF Funding from the round 1 Alpha Phase Projects
- III. the amounts required to set straight an error in the round 1 Alpha Phase Funding Direction where an incorrect amount of SIF Funding had been reconciled in the round 1 Alpha Phase Funding Direction¹¹
- IV. cover UKRI's costs operating the SIF in 2023/24 and the costs incurred and approved by Ofgem from operating the SIF in 2021/22 and 2022/23

Following a consultation and standstill period to the Electricity Distribution Licence, Ofgem is setting out the amount in this Funding Direction to be transferred to the network licensees covered by Special Condition 9.9 of the Electricity Distribution Licence which were successful in the round 2 Discovery Phase of the SIF. Accordingly, this direction sets out the amount that National Grid Electricity System Operator Limited (ESO) will ultimately recover from its customers in relation to the SIF for Electricity Distribution Licensees. Schedule 1 below sets out the amount which ESO will transfer. ESO will transfer funds to the nominated bank account as notified by network licensees as per the requirements in the SIF Project Directions. The recipient must adhere to requirements regarding project banking

⁵ As confirmed in our decision on the operational arrangements for the SIF on 25 August 2021, we have appointed UK Research and Innovation (UKRI) as our delivery partner on the SIF. SIF governance decision here: <https://www.ofgem.gov.uk/sites/default/files/2023-02/SIF%20Governance%20Document%20v2.1%20final%20clean.pdf>. While further detail on UKRI's role can be found here: <https://www.ofgem.gov.uk/publications/appointment-innovate-uk-uk-research-innovation-sif-delivery-partner>

⁶ For information on the April 2023 round 2 Discovery Phase Funding Direction, please see:

<https://www.ofgem.gov.uk/publications/direction-distribute-funding-strategic-innovation-fund-discovery-round-2>

⁷ Held by National Gas Transmission Plc.

⁸ Held by Cadent Gas Limited, Northern Gas Networks Limited, Scotland Gas Networks Plc, Southern Gas Networks Plc, and Wales and West Utilities Limited.

⁹ Held by National Grid Electricity Transmission Plc, SP Transmission Plc, and Scottish Hydro Electric Transmission Plc.

¹⁰ Held by National Grid Electricity System Operator Limited.

¹¹ For more information on the round 1 Alpha Phase Funding Direction please see:

<https://www.ofgem.gov.uk/sites/default/files/2022-09/Rd%201%20Alpha%20Phase%20-%20SIF%20Funding%20Direction%20.pdf>

arrangements as specified in Chapter 8 of the SIF Governance Document. If recipient network licensees anticipate any problems fulfilling these requirements, they should notify Ofgem as soon as possible.

As no Electricity Distribution Licensee was a Funding Party in round 1 of the SIF, there is no unspent SIF Funding to be reconciled in this Funding Direction. Furthermore, as UKRI's costs of operating the SIF in 2023/24 and the costs incurred and approved by Ofgem from operating the SIF in 2021/22 were included in the April 2023 Funding Direction, none of UKRI's costs are included in this Funding Direction.

Background

As per chapter 7 of SIF Governance Document and pursuant to the following licence conditions detailed in table 1 below, Ofgem calculates and, by direction, specifies the net amount of SIF Funding (less any SIF Funding Return) that is to be paid to licensees and UKRI by ESO and NGT. Ofgem also specifies the manner in which and the times at which ESO and NGT is required to transfer that SIF Funding. This Funding Direction is only for Electricity Distribution Licensees, covered by Special Condition 9.9 in table 1 below.

Table 1 – Network licence conditions

Network Licensee	Licence Condition
National Grid Electricity Transmission Plc (NGET)	Special Condition 9.19
SP Transmission Limited (SPT)	Special Condition 9.19
Scottish Hydro Electric Transmission Plc (SHE)	Special Condition 9.19
National Grid Electricity System Operator Limited (ESO)	Special Condition 3.4
National Gas Transmission Plc (NGT)	Special Condition 5.7
Cadent Gas Limited (Cadent)	Special Condition 9.13
Northern Gas Networks Limited (NGN)	Special Condition 9.13
Scotland Gas Networks plc (SGN)	Special Condition 9.13
Southern Gas Networks plc (SGN)	Special Condition 9.13
Wales & West Utilities Limited (WWU)	Special Condition 9.13
Electricity North West Limited (ENWL)	Special Condition 9.9
Northern Powergrid (Northeast) Plc (NPgN)	Special Condition 9.9
Northern Powergrid (Yorkshire) Plc (NPgY)	Special Condition 9.9
National Grid Electricity Distribution: West Midlands Plc (WMID)	Special Condition 9.9
National Grid Electricity Distribution: East Midlands Plc (EMID)	Special Condition 9.9
National Grid Electricity Distribution: South Wales Plc (SWALES)	Special Condition 9.9
National Grid Electricity Distribution: South West Plc (SWEST)	Special Condition 9.9
UK Power Networks: London Power Networks Plc (LPN)	Special Condition 9.9
UK Power Networks: South Eastern Power Networks Plc (SPN)	Special Condition 9.9

UK Power Networks: Eastern Power Networks Plc (EPN)	Special Condition 9.9
SP Energy Networks: Distribution Ltd (SPD)	Special Condition 9.9
SP Energy Networks: Manweb Plc (SPMW)	Special Condition 9.9
Scottish and Southern Energy Power Distribution: Scottish Hydro Electric Power Distribution Plc (SHEPD)	Special Condition 9.9
Scottish and Southern Energy Power Distribution: Southern Electric Power Distribution Plc (SSEPD)	Special Condition 9.9

To minimise cashflow risk, ESO have forecast the value of the SIFF term in advance of this direction. In time, ESO must reconcile their forecast values of the SIFF term against the actual values specified in this direction to ensure the amount of funding ultimately recovered from consumers is accurate.

SIF Funding awarded

As per our SIF Funding Decision published on 03 April 2023¹², we awarded SIF Funding to 53 of the 65 Projects submitted for the round 2 Discovery Phase of the SIF. As this Funding Direction is only for network licensees covered by Special Condition 9.9 of the Electricity Distribution Licence, the 31 SIF Projects covered by this licence that we have decided to fund are listed in table 2 below.

Table 2 – SIF Funding due to Electricity Distribution Licensees for Projects

SIF round	Project Phase	Sector	Project name	Network licensee	Instalment 1 (August 2023)
Round 2	Discovery	Electricity	Shifting Currents	WMID	£ 99,040.00
Round 2	Discovery	Electricity	Diversified Flexible Queue Management	NPgN	£ 147,151.00
Round 2	Discovery	Electricity	Artificial Forecasting	NPgN	£ 126,722.00
Round 2	Discovery	Electricity	Power Block	LPN	£ 42,355.00
Round 2	Discovery	Electricity	CReDo+ Climate Resilience Demonstrator	EPN	£ 112,284.00

¹² For more information on the round 2 Discovery Phase Projects awarded SIF Funding please see: <https://www.ofgem.gov.uk/publications/strategic-innovation-fund-round-2-discovery-projects-approved-funding>

			(extension to new climate risks).		
Round 2	Discovery	Electricity	Net Zero Terrace	ENWL	£ 129,519.00
Round 2	Discovery	Electricity	EV Respond	WMID	£ 121,384.00
Round 2	Discovery	Electricity	VIVID	SSEPD	£ 94,459.00
Round 2	Discovery	Electricity	Guidelight	LPN	£ 119,628.00
Round 2	Discovery	Electricity	SHIELD	EPN	£ 82,163.00
Round 2	Discovery	Electricity	Retrometer	ENWL	£ 148,081.00
Round 2	Discovery	Electricity	LEO-N	SSEPD	£ 141,756.00
Round 2	Discovery	Electricity	Tyseley Environmental Enterprise District	SWEST	£ 145,216.00
Round 2	Discovery	Electricity	Planning Regional Infrastructure in a Digital Environment (PRIDE)	EMID	£ 130,641.00
Round 2	Discovery	Electricity	Inform	NPgN	£ 123,196.00
Round 2	Discovery	Electricity	Proportional Investment Of Networks in Energy Efficiency Retrofit (PIONEER)	EMID	£ 125,446.00
Round 2	Discovery	Electricity	Indus	EPN	£ 141,349.00
Round 2	Discovery	Electricity	Heatropolis	LPN	£ 146,195.00
Round 2	Discovery	Electricity	Full Circle	LPN	£ 108,453.00

Round 2	Discovery	Electricity	Lightspeed	LPN	£ 140,552.00
Round 2	Discovery	Electricity	Park & Flex	LPN	£ 108,554.00
Round 2	Discovery	Electricity	Heat Risers	LPN	£ 92,341.00
Round 2	Discovery	Electricity	Watt Heat	LPN	£ 86,697.00
Round 2	Discovery	Electricity	REWIRE (RESidential Whole System Integrated RESilience)	ENWL	£ 149,947.00
Round 2	Discovery	Electricity	Dynamic Networks	SSEPD	£ 139,273.00
Round 2	Discovery	Electricity	D-suite	SPMW	£ 131,875.00
Round 2	Discovery	Electricity	Resilient Customer Response	NPgN	£ 117,889.00
Round 2	Discovery	Electricity	CommsConnect	SPN	£ 110,138.00
Round 2	Discovery	Electricity	WARN (Weather Alerts and Risk analysis for Network operators)	SPN	£ 109,647.00
Round 2	Discovery	Electricity	Connectrolyser	EPN	£ 118,525.00
Round 2	Discovery	Electricity	Trinity	EPN	£ 134,793.00
Total of SIF Funding for Projects due to network licensees					£ 3,725,269.00

The SIF Funding Return

The SIF Funding Return Mechanism is used to return any SIF Funding Return from Funding Parties to National Grid Plc and ESO, and ultimately back to consumers. As

detailed in chapter 7 of the SIF Governance Document, this will include unspent SIF Funding, SIF Disallowed Expenditure, SIF Halted Project Revenues, SIF Returned Project Revenues and SIF Returned Royalty Income.

There is no SIF Funding Return included within this Funding Direction because no Electricity Distribution Licensees were Funding Parties in round 1 of the SIF and therefore there is no SIF Funding to return. SIF Funding distributed to the round 2 Discovery Phase Projects will be reconciled in the round 2 Alpha Phase.

Implementation

As the learning from the SIF projects provides benefits to all network licensees and GB consumers as a whole, SIF Funding is raised across all GB customers through NTS Transportation Owner Charges (in gas) and Transmission Network Use of System Charges (in electricity).

SIF Funding is distributed by NGT and ESO to individual network licensees. This means that NGT and ESO make a net payment to each licensee per instalment, which incorporates the sum of SIF Funding awarded to the licensee across multiple Projects, less any SIF Funding Return. The network licensees are responsible for administering the SIF Funding they receive for Projects as per requirements in chapter 8 of the SIF Governance Document.

In accordance with Special Conditions 3.1 and 3.4 of ESO's Electricity Transmission Licence and the SIF Governance Document, the Authority hereby requires ESO to comply with the conditions in Schedules 1 to this SIF Funding Direction, as appropriate. Schedules 1 sets out the net amounts that is to be transferred by ESO to the recipients of funding, together with the manner and timescale over which these amounts will be transferred.

This SIF Funding Direction constitutes notice pursuant to section 49A (Reasons for decisions) of the Electricity Act 1989.

If you have further questions or want to discuss, please contact Luke Blackaby on Luke.Blackaby@ofgem.gov.uk.

Yours faithfully,

Marzia Zafar

Deputy Director, Decentralisation & Digitalisation

Signed for and on behalf of the Authority

Schedule 1: Funds to be transferred by ESO

The net amounts of SIF Funding that must be transferred by ESO to recipients

Table 3 contains the net amounts that must be transferred by ESO to Electricity Distribution Licensees, as appropriate, in the Regulatory Year 2023/2024 commencing 1 April 2023 for the round 2 Discovery Phase of the SIF. For the avoidance of doubt, no adjustments for inflation should be made to these numbers. It also sets out the manner and timescale for making payments.

Table 3 – Net amounts of SIF Funding to be transferred by ESO to recipients

Recipient	Instalment 1 (to be paid on or before August 2023)
Electricity North West Limited (ENWL)	£ 427,547.00
National Grid Electricity Distribution (WMID): West Midlands Plc	£ 220,424.00
National Grid Electricity Distribution (EMID): East Midlands Plc	£ 256,087.00
National Grid Electricity Distribution (SWEST): South West Plc	£ 145,216.00
Northern Powergrid (Northeast) Plc (NPgN)	£ 514,958.00
Scottish and Southern Energy Power Distribution (SSEPD), Southern Electric Power Distribution Plc	£ 375,488.00
SP Energy Networks: Manweb Plc (SPMW)	£ 131,875.00
UK Power Networks: London Power Networks Plc (LPN)	£ 844,775.00
UK Power Networks: South Eastern Power Networks Plc (SPN)	£ 219,785.00
UK Power Networks: Eastern Power Networks Plc (EPN)	£ 589,114.00
Total net amount of SIF Funding to be transferred by ESO to recipients	£ 3,725,269.00