



Making a positive difference
for energy consumers

National Grid Electricity System
Operator Limited, National Gas
Transmission Plc

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Date: 11 August 2023

Dear Company Secretaries,

August 2023 SIF Funding Direction for the round 1 Beta Phase

The Strategic Innovation Fund (SIF) is a funding mechanism for the Electricity System Operator, Electricity Transmission, Gas Transmission and Gas Distribution sectors, within the RII0-2 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 transport².

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. Since the round 1 Innovation Challenges were launched, Projects have progressed through the Discovery Phase and the Alpha Phase, and are now at the Beta Phase for round 1. At the start of each Project Phase we³ issue a Funding Direction to direct National Grid Electricity System Operator (ESO) and National Gas Transmission (NGT) to distribute SIF Funding to the Projects we have decided to award funding to and to reconcile any unspent SIF Funding from

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 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.

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 SIF⁴.

For the Beta Phase, however, the Funding Direction is only to allocate SIF Funding to the successful Beta Phase Projects and reconcile any unspent Beta Phase Funding from Projects which have concluded their activities. As this is the first Beta Phase, no SIF Funding will be reconciled and the purpose of this Funding Direction is therefore only to confirm the amount of SIF Funding that must be distributed to the successful round 1 Beta Phase Projects.

Unlike the Funding Directions for the Discovery Phase and Alpha Phase, where SIF Funding was allocated in one instalment to network licensees, for the Beta Phase, SIF Funding is being allocated quarterly over each Project's lifetime. While all allocations of SIF Funding for the round 1 Beta Phase will be distributed by ESO and NGT at the regular quarterly intervals (beginning no later than 31 October 2023) the amounts and time period of the distributions will vary between the Projects. This is set out for all round 1 Beta Phase Projects in Tables 4 and 7 below.

Accordingly, this direction sets out the amount that National Grid Electricity System Operator Limited (ESO) and National Gas Transmission Plc (NGT) will ultimately recover from its customers in relation to the SIF. It also specifies the net amounts to be transferred between ESO and other electricity network licensees; and NGT and other gas network licensees in relation to their SIF projects.

ESO will transfer funds as set out in Schedule 1 below, and NGT will transfer funds as set out in Schedule 2 below. ESO and NGT 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 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.

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 by ESO

⁴ 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>

and NGT. Ofgem also specifies the manner in which and the times at which ESO and NGT is required to transfer that SIF Funding.

Table 1 – Network licence conditions

Network Licensee	Licence Condition
National Grid Electricity Transmission Plc (NGT)	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	Special Condition 9.13

We below specify values under two headings, which in turn feed into the calculation of the SIFF term within ESO’s and NGT’s licence.

1. The amount of SIF Funding to be distributed to network licensees who are leading Projects which we have decided to fund

To minimise cashflow risk, ESO and NGT have both forecast the value of the SIFF term in advance of this direction. The amounts for each successful Project are set out in quarterly instalments in each of the schedules according to the Project’s total length and spend profile. The quarterly allocation of SIF Funding is based on the breakdowns provided within each Project’s Application.

In time, ESO and NGT 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. A future Funding Direction will set out the SIF amounts which must be returned and reconciled from the round 1 Beta Phase Applications.

SIF Funding awarded

As per our SIF Funding Decision published on 19 July 2023, we awarded SIF Funding to 10 of the 14 Projects submitted for the round 1 Beta Phase of the SIF. The projects we decided to fund are listed in Table 2 below, along with the full amount of SIF Funding requested by each successful Project.

Table 2 – SIF Funding due to across the successful round 1 Beta Phase Projects

SIF round	Project Phase	Sector	Project name	Network licensee	Total SIF Funding⁵
Round 1	Beta	Electricity	Network-DC	Scottish Hydro Electric Transmission Plc	£5,486,794.00
Round 1	Beta	Electricity	Incentive	Scottish Hydro Electric Transmission Plc	£922,333.00
Round 1	Beta	Gas	Digital Platform for Leakage Analytics	Cadent Gas Limited	£9,496,476.00
Round 1	Beta	Electricity	Crowdflex	National Grid Electricity System Operator Limited	£18,610,355.00
Round 1	Beta	Gas	HyNTS Deblending for Transport Applications	National Gas Transmission Plc	£9,921,257.00
Round 1	Beta	Electricity	Predict4Resilience	SP Electricity Transmission Limited	£4,518,605.00
Round 1	Beta	Gas	Intelligent Gas Grid	Southern Gas Networks	£6,072,524.00
Round 1	Beta	Gas	Predictive Safety Interventions	Southern Gas Networks	£1,078,258.00
Round 1	Beta	Gas	Velocity Design with Hydrogen	Southern Gas Networks	£5,912,144.00
Round 1	Beta	Gas	HyNTS Compression	National Gas Transmission Plc	£33,303,556.00
Total of SIF Funding for Projects due to network licensees					£95,322,302.00

⁵ For the avoidance of doubt, some Project totals have been rounded to the nearest whole number as SIF Funding distributed in whole numbers. This rounding has carried through to each of the tables which follow Table 2.

The SIF Funding Return

The SIF Funding Return Mechanism is used to return any SIF Funding Return from network companies to NGT and ESO, and ultimately back to customers. 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 this is the first Beta Phase and there is therefore no SIF Funding which needs to be returned or reconciled from a previous Beta Phase. A future Funding Direction will set out the SIF amounts which must be returned and reconciled from the round 1 Beta Phase Applications.

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 as per Table 4,5,6 and 7, which is the sum of SIF Funding awarded to the licensee across multiple Projects. 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, Special Conditions 5.1 and 5.7 of NGT's Gas Transporter Licence, and the SIF Governance Document, the Authority hereby requires ESO and NGT to comply with the conditions in Schedules 1 or 2 to this SIF Funding Direction, as appropriate. Schedules 1 and 2 set out the net amounts that are to be transferred by ESO and NGT to recipients of funding, together with the manner and timescale over which these amounts will be transferred – see Tables 5 and 8 in the Schedules appended to this letter.

This SIF Funding Direction constitutes notice pursuant to section 38A (Reasons for decisions) of the Gas Act 1986 and section 49A (Reasons for decisions) of the Electricity Act 1989.

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

Yours faithfully,

Marzia Zafar
Deputy Director, Decentralisation & Digitalisation

For and on behalf of the Authority

Schedule 1: Funds to be transferred by ESO

The net amounts of SIF Funding for electricity Projects in the round 1 Beta Phase

Table 4 contains the quarterly breakdown of SIF Funding across each successful electricity Project's lifetime. 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 4 – The net amount of SIF Funding for electricity Projects in the round 1 Beta Phase

Year	Quarter	Network-DC (SHE)	Incentive (SHE)	Crowdflex (ESO)	Predict4Resilience (SPT)
1	Q1 - Oct 2023	£ 213,237	£ 281,724	£ 2,239,763	£ 456,299
	Q2 - Jan 2024	£ 197,251	£ 262,093	£ 3,032,049	£ 559,507
	Q3 - Apr 2024	£ 774,550	£ 219,797	£ 2,896,222	£ 602,032
	Q4 - Jul 2024	£ 219,890	£ 96,023	£ 2,303,861	£ 762,153
2	Q1 - Oct 2024	£ 200,488	£ 62,696	£ 3,905,569	£ 553,430
	Q2 - Jan 2025	£ 394,518	£ -	£ 2,625,944	£ 219,211
	Q3 - Apr 2025	£ 940,931	£ -	£ 1,137,537	£ 250,838
	Q4 - Jul 2025	£ 875,833	£ -	£ 387,938	£ 314,859
3	Q1 - Oct 2025	£ 618,731	£ -	£ 81,472	£ 241,263
	Q2 - Jan 2026	£ 511,510	£ -	£ -	£ 264,603
	Q3 - Apr 2026	£ 512,277	£ -	£ -	£ 137,638
	Q4 - Jul 2026	£ 27,578	£ -		£ 106,280
4	Q1 - Oct 2026	£ -	£ -		£ 50,492
Total		£ 5,486,794	£ 922,333	£ 18,610,355	£ 4,518,605

The net amounts of SIF Funding to be distributed by ESO for the round 1 Beta Phase

Table 5 contains the net amount of SIF Funding which must be distributed to each of the network licensees by ESO quarterly according to the dates set out for the Projects listed above in table 4.

Table 5 – The net amounts of SIF Funding to be distributed by ESO for the round 1 Beta Phase

Recipient	Q1 - October 2023 Year 1	Q2 - January 2024 Year 1	Q3 - April 2024 Year 1	Q4 - July 2024 Year 1	Q1 - October 2024 Year 2	Q2 - January 2025 Year 2	Q3 - April 2025 Year 2	Q4 - July 2025 Year 2	Q1 - October 2025 Year 3	Q2 - January 2026 Year 3	Q3 - April 2026 Year 3	Q4 - July 2026 Year 3	Q1 - October 2026 Year 4
SP Electricity Transmission Limited	£456,299.00	£559,507.00	£602,032.00	£762,153.00	£553,430.00	£219,211.00	£250,838.00	£314,859.00	£241,263.00	£264,603.00	£137,638.00	£106,280.00	£50,492.00
Scottish Hydro Electric Transmission Plc	£494,961.00	£459,344.00	£994,347.00	£315,913.00	£263,184.00	£394,518.00	£940,931.00	£875,833.00	£618,731.00	£511,510.00	£512,277.00	£27,578.00	£ -
Total net amount of SIF Funding to be transferred by ESO to recipients	£951,260.00	£1,018,851.00	£1,596,379.00	£1,078,066.00	£816,614.00	£613,729.00	£1,191,769.00	£1,190,692.00	£859,994.00	£776,113.00	£649,915.00	£133,858.00	£50,492.00

The net amounts that ESO must retain for its own SIF Projects

Table 6 contains the net amount of SIF Funding which ESO must retain for its own SIF Projects for its successful round 1 Beta Phase Projects. For the avoidance of doubt, no adjustments for inflation should be made to these numbers.

Table 6 – The net amounts of SIF Funding that ESO must retain for its own round 1 Beta Phase Projects

Recipient	Instalment 1 Q1 - October 2023 Year 1	Instalment 2 Q2 - January 2024 Year 1	Instalment 3 Q3 - April 2024 Year 1	Instalment 4 Q4 - July 2024 Year 1	Instalment 5 Q1 - October 2024 Year 2	Instalment 6 Q2 - January 2025 Year 2	Instalment 7 Q3 - April 2025 Year 2	Instalment 8 Q4 - July 2025 Year 2	Instalment 9 Q1 - October 2025 Year 3
ESO	£2,239,763.00	£3,032,049.00	£2,896,222.00	£2,303,861.00	£3,905,569.00	£2,625,944.00	£1,137,537.00	£387,938.00	£81,472.00

Schedule 2: Funds to be transferred by NGT

The net amounts of SIF Funding for gas Projects in the round 1 Beta Phase

Table 7 contains the quarterly breakdown of SIF Funding across each successful gas Project's lifetime. 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 7 – The net amounts of SIF Funding to be distributed by NGT for the round 1 Beta Phase

Year	Quarter	Digital Platform for Leakage Analytics (Cadent)	HyNTS Deblending for Transport Applications (NGT)	Intelligent Gas Grid (SGN)	Predictive Safety Interventions (SGN)	Velocity Design with Hydrogen (SGN)	HyNTS Compression (NGT)
1	Q1 - Oct 2023	£1,418,504	£2,759,062	£554,015	£226,918	£497,788	£2,194,449
	Q2 - Jan 2024	£1,401,113	£776,254	£488,694	£185,798	£582,365	£2,592,464
	Q3 - Apr 2024	£1,371,114	£1,623,691	£618,778	£207,549	£706,743	£2,574,493
	Q4 - Jul 2024	£1,271,114	£432,649	£415,761	£202,549	£704,636	£2,517,924
2	Q1 - Oct 2024	£1,101,114	£553,798	£635,515	£187,481	£596,040	£3,060,550
	Q2 - Jan 2025	£1,101,114	£644,209	£907,922	£67,963	£1,031,897	£4,370,174
	Q3 - Apr 2025	£1,101,114	£1,152,508	£615,482	£ -	£1,004,991	£2,436,578
	Q4 - Jul 2025	£718,437	£1,105,071	£439,360	£ -	£743,558	£1,668,605

3	Q1 - Oct 2025	£6,426	£779,654	£504,876	£ -	£21,318	£2,689,881
	Q2 - Jan 2026	£6,426	£94,361	£317,955	£ -	£21,318	£1,656,382
	Q3 - Apr 2026	£ -	£ -	£289,721	£ -	£1,490	£3,756,382
	Q4 - Jul 2026	£ -	£ -	£284,445	£ -	£ -	£1,656,382
4	Q1 - Oct 2026	£ -	£ -	£ -	£ -	£ -	£1,596,988
	Q2 - Jan 2027	£ -	£ -	£ -	£ -	£ -	£532,304
Total		£9,496,476	£9,921,256	£6,072,524	£1,078,258	£5,912,144	£33,303,556

The net amounts of SIF Funding to be distributed by NGT for the round 1 Beta Phase

Table 8 contains the net amount of SIF Funding which must be distributed to each of the network licensees by NGT quarterly according to the dates set out for the Projects listed above in table 7.

Table 8 – The net amounts to be distributed by NGT to recipients

Recipient	Q1 - October 2023 Year 1	Q2 - January 2024 Year 1	Q3 - April 2024 Year 1	Q4 - July 2024 Year 1	Q1 - October 2024 Year 2	Q2 - January 2025 Year 2	Q3 - April 2025 Year 2	Q4 - July 2025 Year 2	Q1 - October 2025 Year 3	Q2 - January 2026 Year 3	Q3 - April 2026 Year 3	Q4 - July 2026 Year 3
Cadent Gas Limited	£1,418,504.00	£1,401,113.00	£1,371,114.00	£1,271,114.00	£1,101,114.00	£1,101,114.00	£1,101,114.00	£718,437.00	£6,426.00	£6,426.00	£ -	£ -
Southern Gas Networks plc	£1,278,721.00	£1,256,857.00	£1,533,070.00	£1,322,946.00	£1,419,036.00	£2,007,782.00	£1,620,473.00	£1,182,918.00	£526,194.00	£339,273.00	£291,211.00	£284,445.00
Total net amount of SIF Funding to be transferred by	£2,697,225.00	£2,657,970.00	£2,904,184.00	£2,594,060.00	£2,520,150.00	£3,108,896.00	£2,721,587.00	£1,901,355.00	£532,620.00	£345,699.00	£291,211.00	£284,445.00

NGT to recipients														
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The net amount that NGT must retain for its own SIF projects

Table 9 contains the net amount of SIF Funding which NGT must retain for its own SIF Projects for its successful round 1 Beta Phase Projects. For the avoidance of doubt, no adjustments for inflation should be made to these numbers.

Table 9 – Net amount to be retained by the NGT for its own SIF projects

Recipient	Q1 - October 2023 Year 1	Q2 - January 2024 Year 1	Q3 - April 2024 Year 1	Q4 - July 2024 Year 1	Q1 - October 2024 Year 2	Q2 - Jan 2025 Year 2	Q3 - April 2025 Year 2	Q4 - July 2025 Year 2	Q1 - October 2025 Year 3	Q2 - January 2026 Year 3	Q3 - April 2026 Year 3	Q4 - July 2026 Year 3	Q1 - October 2026 Year 4	Q2 - January 2027 Year 4
National Gas Transmission Plc	£4,953,511.00	£3,368,718.00	£4,198,184.00	£2,950,573.00	£3,614,348.00	£5,014,383.00	£3,589,086.00	£2,773,676.00	£3,469,535.00	£1,750,743.00	£3,756,382.00	£1,656,382.00	£1,596,988.00	£532,304.00

