



Making a positive difference
for energy consumers

SP Transmission Plc
320 St. Vincent Street
Glasgow
Scotland
G2 5AD

Direct Dial: 020 7901 7295

Email: Marzia.Zafar@ofgem.gov.uk

Date: 31/01/2023

Dear SP Transmission Plc,

Strategic Innovation Fund – Approval of the Material Change request for SP Transmission Plc / A Holistic Hydrogen Approach to Heavy Duty Transport

The Strategic Innovation Fund (SIF) supports network innovation that contributes to the achievement of Net Zero, while delivering net benefits to energy consumers. It facilitates collaboration with other public funders of innovation so that activities appropriately funded by network consumers are coordinated with activities funded by Government, and funding gaps are avoided. The SIF Governance Document sets out the governance and administration of the SIF.¹

On 1 August 2022, Scottish Power (SP) Transmission Plc was awarded SIF Funding for A Holistic Hydrogen Approach to Heavy Duty Transport (the Project).² The Project is examining the energy options for decarbonising the rail system. Further to this decision, on 12 August 2022 Ofgem³ issued a SIF Project Direction.⁴

On 12 December 2022, SP Transmission Plc submitted a Material Change request for the Project to the Authority. The Material Change request was submitted due to:

- Network Rail was unable to join the Project as a subcontractor due to the Funding Party and Project Partner being unable to agree to terms. As a result, the Funding Party is requesting that part of its SIF Funding requested (£74,502) be reallocated to Project Partner Ricardo – AEA Limited, who has an existing contracting

¹ <https://www.ofgem.gov.uk/publications/updated-sif-governance-document>

² <https://www.ofgem.gov.uk/publications/strategic-innovation-fund-round-1-alpha-projects-approved-funding>

³ The terms the "Authority", "Ofgem", "we" 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.

⁴ <https://www.ofgem.gov.uk/publications/sif-round-1-alpha-phase-project-directions>

relationship with SNC Lavalin, and will subcontract SNC Lavalin to complete the work packages originally allocated to Network Rail. With this change, the Funding Party does not anticipate any change to the Project's deliverable or timely delivery of the Project in the Alpha Phase.

The Material Change request proposed the following changes to the schedule of the SIF Project Direction issued on 12 August 2022:

- In Annex 1, in the Project Finances table, reducing the SIF Funding requested by SP Transmission Plc by £74,502 to £61,065 to reflect the reallocation of SIF Funding from SP Transmission to Ricardo-AEA Limited. As a result of this change, also amending the total Project costs for SP Transmission to £76,128 and reflecting that the unchanged Project contribution from SP Transmission now constitutes 20% of their total project costs.
- In Annex 1, in the Project Finances table, increasing the SIF Funding requested by Ricardo-AEA Limited by £74,502 to £199,638 to reflect the reallocation of SIF Funding from SP Transmission to Ricardo-AEA Limited. As a result of this change, also amending the total Project costs for Ricardo-AEA Limited to £214,983 and reflecting that the unchanged Project contribution from Ricardo-AEA Limited now constitutes 7% of their total project costs.

Ofgem's review

As set out in chapter 1 of the SIF Governance Document, Ofgem is the decision-maker in the SIF. Furthermore, as set out in chapter 6, Ofgem will consider requests to change SIF Project Directions on a case by case basis, and will engage with monitoring officers on Projects to support its decision in relation to such requests. However Ofgem must be satisfied that the changes continue to ensure that the Project satisfies the Eligibility Criteria specified in chapter 2.

Ofgem has reviewed this Material Change request submitted by SP Transmission and has engaged with the monitoring officer on the Project. Ofgem has reviewed the reasoning for the Material Change submitted by the Funding Party and considers it to satisfy the Eligibility Criteria in chapter 2 of the SIF Governance Document because:

- The reallocation of SIF Funding from SP Transmission Plc to Ricardo-AEA Limited for subcontracting purposes does not constitute any change to the Project Partners in the Project.
- The reallocation of SIF Funding from SP Transmission Plc to Ricardo-AEA Limited for subcontracting purposes allows the Project to utilize Ricardo's existing contracting

relationship with SNC Lavalin and deliver the milestones in a timely manner during the Alpha Phase.

- Network Rail has provided verbal reassurance that they will continue to be stakeholder in the Alpha Phase.

Decision

As a result of the reasons outlined above, Ofgem approves of this Material Change request. In accordance with Section 17 of the Project Direction issued on 12 August 2022 and paragraph 6.22 of the SIF Governance Document, the amended SIF Project Direction for SP Transmission Plc / A Holistic Hydrogen Approach to Heavy Duty Transport is published in the Schedule 1 of this letter. The amended SIF Project Direction is effective as of the date of this letter and, unless stated otherwise, supersedes the SIF Project Direction issued on 12 August 2022. The letter constitutes notice pursuant to section 49A (Reasons for decisions) of the Electricity Act 1989 and 38A (Reasons for decisions) of the Gas Act 1986.

If you would like to discuss any of the issues, you can contact Ofgem via networks.innovation@ofgem.gov.uk. Alternatively, you can contact UKRI via SIF_Ofgem@innovateuk.ukri.org.

Yours sincerely,

Marzia Zafar
Deputy Director of Strategy & Decarbonization
For and on behalf of the Authority

Schedule: Amended SIF Project Direction

1. PROJECT DETAILS

SIF Project Direction reference:

SPT/A_Holistic_Hydrogen_Approach_to_Heavy_Duty_Transport/ /SIFZET/Rd1_Alpha

Application number: 10037453

Project title: A Holistic Hydrogen Approach to Heavy Duty Transport

Innovation Challenge/Project Phase: Zero emission Transport / Alpha Phase round 1

Project start date: August 1, 2022

Project end date: January 31, 2023

SIF Approved Amount for SIF Funding: £401,864

2. PREAMBLE

This SIF Project Direction is issued by the Gas and Electricity Markets Authority (the "Authority") to SP Transmission Plc (the "Funding Party") pursuant to the SIF Governance Document issued pursuant to Special Condition 9.19 of the Electricity Transmission Licence (the "Licence"). It sets out the conditions to be complied with in relation to A Holistic Hydrogen Approach to Heavy Duty Transport (the "Project") as a condition of it being funded under the SIF Funding Mechanism.⁵

Unless otherwise specified, defined terms in this SIF Project Direction have the meaning given to them in the Licence or Appendix 1 of the SIF Governance Document.

References to specific sections of the Funding Party's Application in this SIF Project Direction are, for ease of reference, made by referring to the section number in the Funding Party's Application.

3. PROJECT SPECIFIC CONDITIONS

In accepting funding for the Project, the Funding Party is subject to the following Project-specific condition(s):

Condition 1

The Funding Party must not spend any SIF Funding until contracts are signed with the Project Partners named in Table 1 for the purpose of completing the Project.

Table 1. Project Partners

University of Leeds
Ricardo – AEA Limited

⁵ The SIF Funding Return Mechanism is defined in the SIF Governance Document.

Condition 2

The Funding Party must report on the financial contributions made to the Project as set out in its Application. Any financial contributions made over and above that stated in its Application should also be reported and included within the Project costs template.

Condition 3

The Funding Party must participate in all meetings related to the Project that they are invited to by Ofgem, UKRI and BEIS during the Alpha Phase.

Condition 4

The Funding Party must make reasonable endeavours in the Alpha Phase to engage with Health and Safety (HSE) and Office of Rail and Road (ORR) to identify any opportunities to provide support and Project monitoring opportunities.

Condition 5

As part of its end of Project Phase report, the Funding Party must include in a confidential annex to the end of Project Phase report, an explanation as to whether it has or has not sought to obtain a licence exemption to perform a hydrogen demonstration.

Condition 6

As part of its end of Project Phase report, the Funding Party must include in a confidential annex to the end of Project Phase report, a review on the flexibility of green hydrogen for rail traction and provide a summary of the any benefit it could unlock for the energy users.

Condition 7

The Funding Party must make reasonable endeavours in the Alpha Phase to engage with an industry advisory group, such as Transport Scotland, to discuss the Project.

4. COMPLIANCE

The Funding Party must comply with Special Condition 9.19 of the Electricity Transmission Licence (the "Licence"), the SIF Governance Document and with this SIF Project Direction.

5. SIF APPROVED AMOUNT

The SIF Approved amount of £401,864 (as detailed under Section 1: Project details of this Project Direction) will be recovered by National Grid Electricity System Operator from GB customers and transferred to the Funding Party. The Funding Party is responsible for notifying National Grid Electricity System Operator of the bank account details to which

transfers must be made, in addition to completing Annex 2 of this SIF Project Direction. If a Funding Party is required to return funding to National Grid Electricity System Operator, the reverse applies. The Funding Party must provide bank account details to National Grid Electricity System Operator within two weeks of accepting this SIF Project Direction.

6. PROJECT BUDGET

The Project Budget is set out in Annex 1 of this SIF Project Direction.

The Funding Party must report on expenditure against each line under the category total in the Project Budget and explain any projected variance against each line as part of its detailed report which will be provided, in accordance with Chapter 7 of the SIF Governance Document. The Funding Party must report variations in the Project budget as outlined in Chapter 6 of the SIF Governance Document.

7. PROJECT IMPLEMENTATION

The Funding Party must undertake the Project in accordance with the commitments it has made in the Application and with the conditions of this SIF Project Direction. These include (but are not limited to) the following:

- (i) undertake the Project in accordance with its Application,
- (ii) complete the Project on or before the Project completion date as detailed under section 1 of the schedule of this SIF Project Direction, and
- (iii) disseminate the learning from the Project at least to the level described in chapter 3 of the SIF Governance Document. Dissemination of learning must be carried out whether the Project was concluded successfully or otherwise.

8. REPORTING

Ofgem and UKRI may issue guidance (and amend it from time to time) about the structure and content of the Project reporting required by Chapter 6 of the SIF Governance Document. The Funding Party must follow this guidance in preparing the reports.

The Funding Party must submit an end of Project Phase report to UKRI monitoring officers for the Alpha Phase. Within this report, the Funding Party must submit information related to questions on Project delivery as detailed in chapter 6, table 4 of the SIF Governance Document.

9. MONITORING

The Funding Party must comply with any reasonable request for information by its monitoring officer at UKRI and related deadlines. Ofgem, with the support of UKRI, will

together monitor Project delivery, impacts and benefits. Throughout the term of the Project, progress is monitored by UKRI through a monitoring officer. The monitoring officer is the first point of contact for official notifications, queries and correspondence with UKRI and the Authority, unless otherwise required by this SIF Project Direction.

As detailed in Chapter 6 of the SIF Governance Document, meetings with the monitoring officer will take place at regular intervals, as advised by Ofgem or the monitoring officer during the delivery of the Project, and at the end of each Project Phase.

10. EVALUATION

The Funding Party has acknowledged when it submitted its Application for this Project, that reporting information and data gathered during the Project's timescales (as detailed in Section 1 of this SIF Project Direction) will be used to evaluate Project performance. In addition, the Funding Party may be required to provide requested information outside of the Project timescales and, in particular, for the period from the Project end date to the end of the SIF Programme. Further data and reporting information may be requested (frequency and method based on requirement) outside of standard monitoring and reporting requirements as deemed necessary. Further data and information requirements must be complied with by the Funding Party and Project Partners.

11. DATA SHARING

As set out in Chapter 3 of the SIF Governance Document, the Funding Party must follow Data Best Practice Guidance with regards to all data gathered or created in the course of a Project. We expect the Funding Party to document any reasons, such as commercial sensitivities, for desensitising data. As defined by, and in accordance with, Data Best Practice Guidance, Funding Parties must have a data triage process. Where multiple Project Partners are collaborating on a Project, the consortium must adopt a consistent Open Triage Process for the data related to the Project. Ofgem may require that Project information and data is also shared with other specified parties, such as parties working on complementary innovation funding programmes (subject to redaction of sensitive data).

12. CYBER SECURITY

It is the responsibility of the Funding Party and all Project Partners to implement and maintain appropriate security measures to protect personal data in accordance with The GDPR (General Data Protection Regulation)⁶ and DPA (Data Protection Act) 2018⁷.

⁶ https://ec.europa.eu/info/law/law-topic/data-protection/data-protection-eu_en

⁷ <https://www.legislation.gov.uk/ukpga/2018/12/contents/enacted>

Protection of computer systems from unauthorised access or being otherwise damaged or made inaccessible must be in place alongside effective working practices. These must be maintained in line with the Funding Party's IT Management Strategies and policies.

13. PROJECT MILESTONES

The Funding Party must submit its end of Project Phase report to its monitoring officer that verifies the Project milestones have been achieved or explains why they have not.

Project milestones are outlined below in Table 3, based upon details contained within Question 7 and Appendix Question 9 in the Funding Party's.

Table 3. Project milestone⁸

Reference	Project milestone	Deadline	Evidence	SIF Funding Request (100%) ⁹
Milestone 1	On-going governance and stakeholder buy-in	January 31, 2023	Ongoing consultations with wider industry to promote the Project and secure buy-in for full Beta Phase live demonstrations.	£111,629 (28%)
Milestone 2	Assessment of flexibility services	January 31, 2023	Engagement with SPEN and National Grid to confirm flexibility service requirements. Detail experiments required to demonstrate the ability to provide flexibility services to National Grid from the H2 production facility. Value the benefits of flexible green hydrogen production for electricity & rail consumers. Develop concepts for the flexible green hydrogen production, distribution, storage & use.	£89,303 (22%)

⁸ As outlined in in the Application or Project Plan appendix.

⁹ Where Project Applications were not explicit on milestone(s) as a percentage of total SIF Funding Request, milestone(s) as a percentage of total project costs were applied to the SIF Funding Request. In some circumstances where the information needed to complete this table was not available in an Application, Funding Parties were requested to provide this information separately.

			<p>Assess the half hour demand for green hydrogen production for the selected line.</p> <p>Working with all stakeholders, to define the required demonstration scope needed to prove the benefits.</p>	
Milestone 3	Beta preparation	January 31, 2023	Completion of safety considerations, procurement & programming considerations, and test track preparations, as outlined in the Project Plan appendix.	£111,629 (28%)
Milestone 4	Hydrogen logistics	January 31, 2023	<p>Identify options for H2 refuelling equipment and party responsible for providing.</p> <p>Draft agreements for necessary H2 supply during the Beta Phase trial.</p> <p>Route mapping from H2 production facility to demonstration site.</p> <p>Route mapping from H2 train supplier to demonstration site.</p> <p>Formalise intended arrangements for delivery to the site.</p> <p>Demonstration Site equipment and material delivery workshops (e.g. assess delivery options, ability to offload via crane, civil/geography issues, proximity of overhead line etc.)</p>	£89,303 (22%)

14. USE OF LOGO

The Funding Party and the Project Partners, External Funders and Project Supporters or subcontractors¹⁰ must not use the Innovate UK/UKRI and/or Ofgem logo for purposes associated with the Project in any circumstances.

As an alternative for use of both Ofgem and UKRI logos, all external Project communications must include the following standard form of wording:

- (i) "this project is funded by network users and consumers under the Strategic Innovation Fund, an Ofgem programme managed in partnership with UKRI."

For additional guidance, refer to the communications and media guidelines for competition winners, detailed as part of your delivery pack. These guidelines are designed to help with some suggestions and encourage you to take a proactive approach to communicating about your Project.

15. SHARING OF LESSONS LEARNED

The Funding Party is required to ensure that the sharing of lessons learned and the facilitation of knowledge transfer is conducted as effectively as possible, to ensure that all parties, and therefore all consumers including future consumers, can benefit from Projects.

As contained within Chapter 3 of the SIF Governance Document, we require the Funding Party to work collaboratively to maintain the ENA Smarter Networks Portal so that all reporting and dissemination of learnings on Projects (as required by chapter 6 of the SIF Governance Document) is available via the ENA Smarter Networks Portal.

16. COLLABORATION

The Funding Party must collaborate with third-party innovators as Project Partners, as well as work closely with other parties in the energy supply chain, as set out in Chapter 3 of the SIF Governance Document.

The Funding Party must collaborate with other parties and with UKRI to organise an annual conference in a format appropriate to enabling the building of consortiums and disseminating learning widely. The conference may be a single event for gas and electricity, or more than one event, as appropriate.

17. AMENDMENT OR REVOCATION

As set out in Chapter 7 of the SIF Governance Document, this SIF Project Direction may be amended or revoked under the following circumstances:

¹⁰ As detailed in the Application.

- (i) if the Funding Party considers that there has been a material change in circumstance that requires a change to the SIF Project Direction, and the Authority agrees; or
- (ii) to reflect amendments made to the Licence.

18. HALTING OF PROJECTS

This SIF Project Direction is subject to the provisions contained in Chapter 7 of the SIF Governance Document relating to the halting of Projects. By extension, this SIF Project Direction is subject to any decision by the Authority to halt the Project to which this SIF Project Direction relates and to any subsequent relevant SIF Funding Direction issued by the Authority pursuant to Special Condition 9.19 of the Electricity Transmission Licence (the "Licence").

Further to the requirements in Chapter 7 of the SIF Governance Document, in the event the Authority decides to halt the Project, to which this SIF Project Direction relates, to which this SIF Project Direction relates, the Authority may issue a statement to the Funding Party clarifying the effect of that halting decision as regards to the status and legal force of the conditions contained in this SIF Project Direction.

NOW THEREFORE:

In accordance with the SIF Governance Document issued pursuant to Special Condition 9.19 of the Electricity Transmission Licence (the "Licence") of the Licence the Authority hereby issues this SIF Project Direction to the Funding Party in relation to the Project.

This constitutes notice of reasons for the Authority's decision pursuant to section 49A (Reasons for decisions) of the Electricity Act 1989.

Failure to comply with the conditions of this SIF Project Direction means that Ofgem may treat all or part of the SIF Approved Amount received by the Funding Party as SIF Disallowed Expenditure.

ANNEX 1: PROJECT BUDGET

SIF Project Direction costs¹¹			
Cost Category	Total Project costs (£)	Project contribution (£)	Total SIF Funding requested (£)
Labour	£377,803	£40,711	£337,092
Materials	£0	£0	£0
Subcontracting	£70,980	£7,098	£63,882
Travel and subsistence	£1,000	£110	£890
Other costs	£0	£0	£0
Total	£449,783	£47,919	£401,864

Project finances				
Project Partner	Total project costs (£)	Project contribution (%)	Project contribution (£)	Total SIF Funding requested (£)
SP Transmission Plc	£150,630 <u>76,128</u>	10.20%	£15,063	£135,567 <u>61,065</u>
University of Leeds	£37,614	11%	£4,138	£33,476
Ricardo-AEA Limited	£140,481 <u>214,983</u>	11.7%	£15,345	£125,136 <u>199,638</u>
Ricardo Rail Limited	£121,058	11%	£13,373	£107,685
Total	£449,783		£47,919	£401,864

¹¹ Funding Parties were requested to provide the information in this table separate to their Application submissions.

ANNEX 2 TO SCHEDULE: TEMPLATE OF BANK ACCOUNT DETAILS TO BE PROVIDED TO NG ESO (revenue.invoice@nationalgrideso.com)

Company name:

Primary Contact Details (only one contact permitted)

First Name:

Last Name:

Email address:

Mobile phone number:

Work phone number:

Address details

Address name:

Street address:

City:

State / region:

Post code:

PO box: (if applicable)

PO box post code: (if applicable)

Banking details

These should be evidenced in non-editable format. The evidence provided must show company name and bank details and it should be dated within the last 6 months.

Any of the below documents will suffice:

- Bank statement (scanned document)
- Void cheque
- Paying in slip
- Screenshot of online banking (showing a logged in account with bank account and sort code, with browser visible)