

Strategic Innovation Fund (SIF)

Cycle 6 Project Applications – Discovery Phase

Funding Decision and Summary of Recommendations from Expert Assessors

Date: 25 August 2026

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Introduction

Innovation is key to deliver a low-carbon energy system that is reliable, affordable, and efficient, at a pace in line with our Net Zero targets. Energy Networks must find new ways of developing and operating to facilitate the whole system energy transition.

The Strategic Innovation Fund (SIF) supports ambitious, collaborative innovation Projects that have the potential to deliver measurable consumer, environmental and system-wide benefits. Under RIIIO-3, the SIF continues to provide competitive funding across the Discovery, Alpha, and Beta Phases, and now offers a new Phase called Deployment. The Discovery Phase focuses on feasibility, the Alpha Phase on experimental development, the Beta Phase on build, operation and demonstration and Deployment Phase on rollout.

As set out in the [SIF Governance Document](#), the SIF is open to the National Energy System Operator (NESO), electricity transmission and distribution, gas transmission and gas distribution licensees.

Outcome-focussed strategic Innovation Challenges are set via the Energy Networks Innovation Taskforce and Programmatic Approach. Energy Networks are expected to propose Projects that will address the Innovation Challenges via Innovation Delivery Groups (IDGs). These IDGs will develop an Innovator Charter which sets out the delivery strategy for addressing the innovation needs of the relevant Innovation Challenge. The Innovation Charter will also set out any scope, Project Partner or compulsory contribution requirements.

In addition to the Innovation Charters, there are several Innovation Challenges open within this Cycle, these are detailed in section 2. Innovation Challenges previously published under the SIF RIIIO-2, including those issued in [Round 5](#), will remain open for a set period.

This report consolidates the Applications assessed by the Expert Assessors and sets out their recommendations to Ofgem on which Projects should be considered for SIF Funding, as well as a summary of Ofgem's Funding Decision.

Applications submitted by the deadline, and which meet the Innovation Challenge requirements, are assessed by independent Expert Assessors.

The Expert Assessors have relevant expertise and knowledge across policy, regulatory, commercial, financial and technical areas. Consistent with the SIF Governance Document, the Expert Assessors assessed each Application:

- (a) against the Eligibility Criteria in Chapter 3 of the SIF Governance Document; and
- (b) taking into consideration any additional relevant information available to them.

Eligibility Criteria are scored 1-5, with a minimum score of three for an Eligibility Criteria to be considered met. Expert Assessors may provide suggestion of a Project-specific conditions to accompany the score awarded for each Eligibility Criteria. Projects can only be recommended for funding by the Expert Assessors if all Eligibility Criteria are met.

Ofgem, taking into account the Expert Assessors' recommendations, and where necessary the National Energy System Operator (NESO)'s input will balance considerations to decide whether a Project has met each SIF Eligibility Criteria, the suitability of the Project SIF Funding and Project-specific conditions recommended. Ofgem is the sole decision-maker for the SIF.

1 Assessment Process

For the Discovery Phase there are a maximum of 5 stages in assessing eligible submitted Applications:

- Initial sift - completed by Innovate UK to confirm whether an Application complies with the Innovation Challenge-specific requirements.
- Expert Assessor evaluation – Expert Assessors review each Application and its appendices against the questions set out in the SIF Governance Document, which correspond to the Eligibility Criteria in Chapter 3.
- Expert Assessors' overall recommendations – Each Expert Assessor provides a score for each Eligibility Criteria and an overall recommendation on whether the Project should be considered for SIF Funding. A Project will be recommended

where it meets the required Eligibility Criteria threshold and no material risks have been identified that would prevent progression.

- NESO review (where applicable) - Where relevant, Applications are reviewed to determine the need for NESO involvement, including consideration of whole-system impacts, system planning and operational implications, cross-vector coordination, and interaction with NESO's statutory responsibilities.

The outcome of this review is presented in a dedicated NESO review section for each relevant Project.

- Recommended Project-specific conditions – Where areas of risk or uncertainty are identified, Project-specific conditions may be recommended. These are considered by Ofgem and, where appropriate, included in the Project Direction.
- Final decision – The consolidated Recommendations Report is provided to Ofgem. Having considered the Expert Assessors' recommendations and NESO's input, Ofgem decides which Projects will receive SIF Funding and provides brief commentary on each decision.

1.1 Meeting the SIF Eligibility Criteria

Projects submitted must meet all the Eligibility Criteria outlined in Chapter 3 of the SIF Governance Document in order to be considered for SIF Funding. For the Discovery Phase, there are eleven Eligibility Criteria which must be evidenced within an Application. The following table outlines how the scored question categories tie with the Eligibility Criteria outlined in the SIF Governance Document.

Application question category	Eligibility Criteria (Chapter 3 of the SIF Governance Document)
Lead Network (not scored)	None
Animal testing (not scored)	None
International collaboration (not scored)	None
Export licence (not scored)	None
Trusted Research and Innovation (not scored)	None
Problem statement	Eligibility Criterion 1: Projects must address the Innovation Challenges set by Ofgem

	Eligibility Criterion 10: Projects must consider the needs of the end customers and outline how these stakeholders have been, or will be, meaningfully engaged in the development and adoption of the innovation.
Portfolio Integration and Strategic Alignment	Eligibility Criterion 1: Projects must address the Innovation Challenges set by Ofgem Eligibility Criterion 9: Projects must clearly demonstrate how they build upon existing or previous innovation initiatives and articulate how they provide additional value or advancement
Video (not scored)	None
Innovation justification	Eligibility Criterion 3: Projects must involve network innovation Eligibility Criterion 4: Projects must support or, at a minimum, be consistent with the development and growth of competitive markets Eligibility Criterion 5: Projects must be innovative novel and/or risky
Impacts and benefits	Eligibility Criterion 2: Projects must have clearly identified potential to deliver a net benefit to gas or electricity consumers (whomever is paying for the innovation) and/or a whole system benefits.
Team and resources	Eligibility Criterion 6: Projects must include participation from a range of stakeholders Eligibility Criterion 10: Projects must consider the needs of the end customers and outline how these stakeholders have been, or will be, meaningfully engaged in the development and adoption of the innovation.
National Energy System Operator Involvement (Not Scored)	Eligibility Criterion 6: Projects must include participation from a range of stakeholders
National Energy System Operator Involvement Justification (Not Scored)	Eligibility Criterion 6: Projects must include participation from a range of stakeholders
Project management and delivery	Eligibility Criterion 8: Projects must be well thought through and have a robust methodology so that they are capable of progressing in a timely manner
Key outputs and dissemination	Eligibility Criterion 11: Projects must demonstrate a clear approach to open data, knowledge sharing, and dissemination of learnings

Intellectual Property Rights (IPR) (not scored)	None
Value for money	Eligibility Criterion 7: Projects must provide value for money and be costed competitively

2 Summary of Discovery Projects submitted in Cycle 6

Projects submitted to the SIF must follow the SIF Governance Document. All Phases of Application are expected to meet the Innovation Challenge focus areas and, where applicable, any specific scope or Project Partner requirements set out in the Innovation Charter(s).

For the Discovery Phase in Cycle 6:

- Applications had to be received by 24th June 2026.
- Projects can last up to five months and can request SIF Funding of up to £200,000.
- Projects were required to demonstrate the required level of Compulsory Contribution applicable to the Phase.

Funding Parties have multiple opportunities throughout the year to apply to each Phase (Discovery, Alpha, Beta, and Deployment). Therefore, we anticipate times when some Phases and Innovation Challenges will not receive any Applications.

In Cycle 6, the following Discovery Phase Projects Applications were submitted:

Innovation Challenge	No. of Applications received
Round 5 Advance energy transmission and networks	
Round 5 Dynamic modelling	
Round 5 High-energy demand point integration	
Round 5 Consumer-centric grid expansion	1
Round 5 Enhanced system visibility and control	1

Round 5 Green gas	
Round 5 Whole system optimisation	
Taskforce Innovation Challenge 1 Industrial and business connection acceleration	2
Taskforce Innovation Challenge 2 Faster build and maintenance	1
Taskforce Innovation Challenge 3 Instant use domestic energy devices	2
Taskforce Innovation Challenge 4 Eliminating energy outages	2
Taskforce Innovation Challenge 5 Decentralised system balancing	2

3 Innovation Challenge: Consumer-centric grid expansion

3.1 Overview of Projects

This sub-section covers the assessment of Discovery Phase Applications received into the 'Consumer-centric grid expansion' Innovation Challenge in Cycle 6.

In order to protect intellectual property rights (IPR), unsuccessful Projects have been redacted from the final published version.

Project reference number	Project name	Funding licensee	Total Project costs (£)	Total Project contribution (£)	Total SIF Funding requested (£)	Recommended by Expert Assessors for funding (Yes/No)	Input from NESO (Yes/No/NA)	Decision by Ofgem for funding (Yes/No)
10205330	BFIIT - Bradford Flexible Industrial Infrastructure Transition	Northern Powergrid Plc	226,827	28,590	198,237	Yes	Yes	Yes

3.2 Expert Assessors' recommendations on Projects

3.2.1 Project 10205330 – BFIIT – Bradford Flexible Industrial Infrastructure Transition

Submitted Project description
BFIIT will develop and test a practical consumer-centric, multi-vector energy planning methodology. BFIIT initially develops the plan, collates resources addressing planning, commercial and legal barriers that limit integrated local energy systems across disparate sectors, using real-world examples in Bradford/West Yorkshire. BFIIT will generate scalable evidence and practical systems, to reduce uncertainty, deliver clean growth, local and environmental benefits to consumers, contributing to flexible, fair access, collaborative net-zero attainment across community sectors (hospitals, industry, commercial services).

Eligibility Criteria	Expert Assessor Average Score
1. Projects must address the Innovation Challenge set by Ofgem.	4
2. Projects must have clearly identified potential to deliver a net benefit to gas or electricity consumers (whomever is paying for the innovation) and/or a whole system benefits.	3
3. Projects must involve network innovation.	3
4. Projects must support, at a minimum, be consistent with the development and growth of competitive markets.	4
5. Projects must be innovative, novel and/or risky.	3
6. Projects must include participation from a range of stakeholders.	4
7. Projects must provide value for money and be costed competitively.	3

8. Projects must be well thought through and have a robust methodology so that they are capable of progressing in a timely manner.	4
9. Projects must clearly demonstrate how they build upon existing or previous innovative work and articulate how they provide additional value or advancement.	3
10. Projects must consider the needs of the end customers and outline how these stakeholders have been, or will be, meaningfully engaged in the development and adoption of the innovation.	4
11. Projects must demonstrate a clear approach to open data, knowledge sharing, and dissemination of learnings.	4

Recommendation to the Office of Gas and Electricity Markets (Ofgem)

FUND

The majority of Expert Assessors agree that this Project has met the Eligibility Criteria and recommend this Application for funding.

The Project addresses the Innovation Challenge by proposing multi-vector, scalable mechanisms for coordinated planning of heat intensive industry. Whilst one Expert Assessor felt the information in the proposal could have been clearer, the Expert Assessors agreed that Eligibility Criterion 1 is met.

The Project has identified potential to deliver a net benefit to electricity or gas consumers through avoidance of network reinforcement costs. The Application also articulates the need to develop a coherent approach to creating certainty for industrial customers, to stimulate investment. However, one Expert Assessor identified that some benefits could have been better evidenced, including those from replicating the Project, as it seemed to be a labour-intensive approach and therefore may not generate savings. On balance, the Expert Assessors consider Eligibility Criterion 2 is met.

The Project is considered to involve network innovation through targeting network planning to find approaches for cross-vector solutions to industrial heat decarbonisation. However, the Expert Assessors highlighted that other Projects are already exploring these topics. One Expert Assessor did not consider the

Eligibility Criterion to be met as the Project consortium could deliver this within business-as-usual. On balance, the majority of Expert Assessors consider Eligibility Criterion 3 is met, and the Project will be required to provide further evidence of network involvement through a Project-specific condition.

The Project is considered to support the development of competitive markets by providing a royalty-free and open approach that could potentially be replicated in industrial clusters throughout Great Britain, which could then support markets in decarbonisation services. The Expert Assessors agree Eligibility Criterion 4 is met.

The Project is considered innovative, novel and/or risky through its coordination-based approach to multi-vector energy planning and heat decarbonisation pathways, which are complementary to heat zoning approaches being developed. However, one Expert Assessor did not consider this Eligibility Criterion to be met as they felt the Application did not sufficiently communicate the innovative, novel or risky elements of the proposal and this could be delivered within business-as-usual. On balance, the majority of Expert Assessors consider Eligibility Criterion 5 is met.

The Project is considered to include participation from a sufficient range of stakeholders and has strong letters of support. The roles within the consortium are well defined and the Project Partners have previously worked together, which gives confidence in their ability to deliver the Project. One Expert Assessor noted it would be helpful for the Project to consider the opportunities available to engage representatives of other high energy use public bodies, such as the NHS or education. The Expert Assessors agree Eligibility Criterion 6 is met.

The Project is considered to represent value for money and be costed competitively as costs are set out clearly and there is a reasonable contribution by Project Partners. However, the Expert Assessors identified a lack of visibility in subcontractor day rates, which would need to be improved if the Project were to apply for Alpha Phase. On balance, the Expert Assessors consider achieving the Project aims to represent value for money and therefore consider Eligibility Criterion 7 to be met.

The Project is considered to have a robust methodology capable of progressing in a timely manner with a well written Project plan, defined milestones, and a clear risk register. The Expert Assessors agree Eligibility Criterion 8 is met.

The Project is considered to have clearly demonstrated how it builds on previous or existing innovative work by clearly outlining previous work, including where Project Partners have been involved, and how the Project advances this. The Expert Assessors agree Eligibility Criterion 9 is met.

The Project is considered to meet the needs of the end customers and has outlined how these stakeholders have been, or will be, meaningfully engaged in the development and adoption of the innovation. Eligibility Criterion 10 has been met.

The Project is considered to have demonstrated a clear approach to open data, knowledge sharing, and dissemination of learnings by outlining clear methods and routes to open data and dissemination, with a credible path to relevant stakeholders. One Expert Assessor noted there could have been greater consideration of wider groups potentially working on the same issues, such as relevant professional bodies but, on balance, the Expert Assessors consider Eligibility Criterion 11 to be met.

Review from National Energy System Operator (NESO)

NESO declines the request to become a Project Partner as they do not currently have the resource capacity.

Decision from the Office of Gas and Electricity Markets (Ofgem)

FUND

Ofgem agrees with the Expert Assessors and approves this Project for funding.

Recommended Project-specific conditions

At the kick off meeting, the Project Team must provide a detailed breakdown of the planned Network involvement in the Discovery Phase, this should include

reference to any network integration elements and set out how the innovation team will engage with other areas of the business and where they may feed into future Phases.

Prior to the kick off meeting, the Project must provide details on the subcontractor rates.

4 Innovation Challenge: Enhanced system visibility and control

4.1 Overview of Projects

This sub-section covers the assessment of Discovery Phase Applications received into the 'Enhanced system visibility and control' Innovation Challenge in Cycle 6.

In order to protect intellectual property rights (IPR), unsuccessful Projects have been redacted from the final published version.

Project reference number	Project name	Funding licensee	Total Project costs (£)	Total Project contribution (£)	Total SIF Funding requested (£)	Recommended by Expert Assessors for funding (Yes/No)	Input from NESO (Yes/No/NA)	Decision by Ofgem for funding (Yes/No)
10205379	Quantum Inspired Power System (QUIPS)	Scottish Hydro Electric Power Distribution Plc	149,877	14,988	134,889	Yes	Yes	Yes

4.2 Expert Assessors' recommendations on Projects

4.2.1 Project 10205379 – Quantum Inspired Power System (QUIPS)

Submitted Project description
Quantum Inspired Power Systems (QUIPS) uses quantum-inspired computing to improve power system modelling and optimisation, enabling faster decisions and unlocking capacity within existing electricity networks. The Quantum Inspired Power Systems (QUIPS) Project explores the use of quantum-inspired (QI) computing to address the growing complexity of modern energy networks. As decentralisation, electrification and data volumes increase, traditional optimisation tools struggle to scale efficiently. QUIPS introduces advanced computational techniques to enable faster scenario analysis, improve planning and operational decisions, and unlock underutilised network capacity. Acting as an enabling layer across digitalisation and AI initiatives, the Project enhances existing innovation programmes while supporting cost-effective network operation, improved flexibility, and more efficient integration of low-carbon technologies.

Eligibility Criteria	Expert Assessor Average Score
1. Projects must address the Innovation Challenge set by Ofgem.	4
2. Projects must have clearly identified potential to deliver a net benefit to gas or electricity consumers (whomever is paying for the innovation) and/or a whole system benefits.	4
3. Projects must involve network innovation.	4
4. Projects must support, at a minimum, be consistent with the development and growth of competitive markets.	3
5. Projects must be innovative, novel and/or risky.	4

6. Projects must include participation from a range of stakeholders.	4
7. Projects must provide value for money and be costed competitively.	4
8. Projects must be well thought through and have a robust methodology so that they are capable of progressing in a timely manner.	4
9. Projects must clearly demonstrate how they build upon existing or previous innovative work and articulate how they provide additional value or advancement.	4
10. Projects must consider the needs of the end customers and outline how these stakeholders have been, or will be, meaningfully engaged in the development and adoption of the innovation.	4
11. Projects must demonstrate a clear approach to open data, knowledge sharing, and dissemination of learnings.	4

Recommendation to the Office of Gas and Electricity Markets (Ofgem)

FUND

The Expert Assessors agree that this Project has met the Eligibility Criteria and recommend this Application for funding.

The Project addresses the Innovation Challenge as it explores the use of quantum-inspired computational techniques to enable faster scenario analysis, improve planning and operational decisions, and unlock underutilised network capacity, supporting low carbon technology integration. The Expert Assessors agree Eligibility Criterion 1 is met.

The Project has identified potential to deliver a net benefit to electricity consumers as it could improve the speed, scale and efficiency in power system modelling and optimisation with the resultant benefits of reduced reinforcement costs, deferred asset upgrades, and faster low-carbon technology connections. The Expert Assessors noted the Project had provided a clearly articulated and evidenced

benefits case with well explained assumptions and agree Eligibility Criterion 2 is met.

The Project is considered to involve network innovation relating to core planning and operational functions, addressing distribution network optimisation challenges that current computational methods cannot efficiently solve at scale, to achieve smarter management of the system. The Expert Assessors agree Eligibility Criterion 3 is met.

The Project is considered to support the development of competitive markets by positioning the solution as a vendor-neutral computational capability, with plans for engagement with the ENA Data and Digitalisation Working Group and dissemination to distribution network operators so others could replicate the approach. The Expert Assessors agree Eligibility Criterion 4 is met.

The Project is considered innovative, novel and/or risky by demonstrating novelty through the integration of two largely separate domains - quantum inspired computation and live distribution network operational analysis - which has not been attempted at this scale or technical depth in Great British distribution networks. The Expert Assessors noted this integration approach is also risky. The Expert Assessors agree Eligibility Criterion 5 is met.

The Project is considered to include participation from a sufficient range of stakeholders as the consortium includes relevant expertise from a distribution network operator, a university, and the National Physical Laboratory. Roles are well defined, end users identified, and user requirements captured through workshops. One Expert Assessor noted there could have been more evidence of how Project Partners will jointly exploit results but, on balance, the Expert Assessors agree Eligibility Criterion 6 to be met.

The Project is considered to represent value for money and be costed competitively as costs are proportionate to each Project Partner's role, day rates are good value, and there is a mix of senior and junior staff roles being utilised. The Expert Assessors agree Eligibility Criterion 7 is met.

The Project is considered to have a robust methodology capable of progressing in a timely manner as the Project plan is well structured, with clearly defined work

packages, deliverables, and dependencies. The Expert Assessors consider Eligibility Criterion 8 is met.

The Project is considered to have clearly demonstrated how it builds on previous or existing innovative work by clearly outlining how it complements existing work and explicitly addressing how it avoids duplication by targeting distribution-specific challenges where quantum inspired computation has not yet been applied. There is also good explanation of broader initiatives and wider policy context. The Expert Assessors agree Eligibility Criterion 9 is met.

The Project is considered to meet the needs of the end customers and has outlined how these stakeholders have been, or will be, meaningfully engaged in the development and adoption of the innovation. Eligibility Criterion 10 has been met.

The Project is considered to have demonstrated a clear approach to open data, knowledge sharing, and dissemination of learnings by outlining a dissemination approach of presentations to the Innovation Summit, ENA Data and Digitalisation Working Group, and academic conferences. However, the Expert Assessors noted that a plan for international outreach would have strengthened the dissemination approach. On balance, the Expert Assessors consider Eligibility Criterion 11 to be met.

Review from National Energy System Operator (NESO)

N/A

Decision from the Office of Gas and Electricity Markets (Ofgem)

FUND

Ofgem agrees with the Expert Assessors and approves this Project for funding.

Recommended Project-specific conditions

The Project should clarify how foreground intellectual property, software tools and any associated solver technologies would be managed to support competitive

markets and enable adoption across the wider energy sector. This should be discussed at the kick off meeting and evidence provided at the end of Phase meeting.

By the end of Discovery Phase, the Project should engage with the Project Quantum Optimisation for Future Gas Network Design and also the Quantum Security Advisory Council.

5 Innovation Challenge: Industrial and business connection acceleration

5.1 Overview of Projects

This sub-section covers the assessment of Discovery Phase Applications received into the 'Industrial and business connection acceleration' Innovation Challenge in Cycle 6.

In order to protect intellectual property rights (IPR), unsuccessful Projects have been redacted from the final published version.

Project reference number	Project name	Funding licensee	Total Project costs (£)	Total Project contribution (£)	Total SIF Funding requested (£)	Recommended by Expert Assessors for funding (Yes/No)	Input from NESO (Yes/No/NA)	Decision by Ofgem for funding (Yes/No)
10208005	Innovation Challenge 1 Innovation Charter	Southern Electric Power Distribution Plc	199,412	N/A	199,412	Yes	N/A	Yes
10207792	Data-Integrated Systems for Power Transmission and Community Heat (DISPATCH)	National Grid Electricity Distribution Plc	202,055	20,689	181,366	Yes	Yes	Yes

5.2 Expert Assessors' recommendations on Projects

5.2.1 Project 10208005 – Innovation Challenge 1 Innovation Charter

Submitted Project description
This Project will develop an Innovation Charter to address one of the biggest challenges facing energy networks: how to connect new industrial and commercial customers, within 6 months by 2033. Today, connecting large sites to the can take several years, holding back progress towards decarbonisation and economic growth. This Project will bring together experts from across the network, along with industry partners, to define how these timelines can be significantly reduced. The Innovation Charter will set out a clear picture of the problem, describe what a faster and more efficient connections process should look like, and identify the key changes and innovation needed to make it happen. The outcome will provide a shared, industry-wide direction to improve connections, helping unlock growth, support decarbonisation, and deliver better outcomes for customers

Eligibility Criteria	Expert Assessor Average Score
1. Projects must address the Innovation Challenge set by Ofgem.	4
2. Projects must have clearly identified potential to deliver a net benefit to gas or electricity consumers (whomever is paying for the innovation) and/or a whole system benefits.	4
3. Projects must involve network innovation.	4
4. Projects must support, at a minimum, be consistent with the development and growth of competitive markets.	4
5. Projects must be innovative, novel and/or risky.	4

6. Projects must include participation from a range of stakeholders.	4
7. Projects must provide value for money and be costed competitively.	3
8. Projects must be well thought through and have a robust methodology so that they are capable of progressing in a timely manner.	4
9. Projects must clearly demonstrate how they build upon existing or previous innovative work and articulate how they provide additional value or advancement.	4
10. Projects must consider the needs of the end customers and outline how these stakeholders have been, or will be, meaningfully engaged in the development and adoption of the innovation.	4
11. Projects must demonstrate a clear approach to open data, knowledge sharing, and dissemination of learnings.	4

Recommendation to the Office of Gas and Electricity Markets (Ofgem)

FUND

The Expert Assessors agree that this Project has met the Eligibility Criteria and recommend this Application for funding.

The Project addresses the Innovation Challenge as it will develop the Innovation Charter by bringing together experts from the networks and industry partners to determine how major new strategic industrial sites can be energised and operational within six months by 2033. The Expert Assessors agreed that Eligibility Criterion 1 is met.

The Project has identified potential to deliver a net benefit to electricity consumers as the Application clearly sets out the Project's potential to deliver consumer and whole-system benefits, with good identification of financial, societal, environmental and consumer value. The benefits are clearly articulated and based on the work of the Energy Networks Innovation Taskforce. The Expert Assessors agree Eligibility Criterion 2 is met.

The Project is considered to involve network innovation by covering cross-vector solutions, digitalised processes, system-wide optioneering and anticipatory planning, and communicating the role of the Innovation Charter in solving the problems identified by the Energy Networks Innovation Taskforce. The Expert Assessors agree Eligibility Criterion 3 is met.

The Project is considered to support the development of competitive markets as all Project outputs and supporting materials would be openly available. The Project also seeks to improve transparency and demonstrate a system-wide approach to industrial and commercial connections. The Expert Assessors agree Eligibility Criterion 4 is met.

The Project is considered innovative, novel and/or risky as the Innovation Challenge identified by the Energy Networks Innovation Taskforce, and which the Innovation Charter will expand upon, is clear and innovative, and novel approaches are needed to improve the speed of connections. The Expert Assessors agree Eligibility Criterion 5 is met.

The Project is considered to include participation from a sufficient range of stakeholders as it involves electricity and gas networks, industrial and commercial customers, cross-vector partners and external organisations. Project Partner requirements and ways of working are clear. One Expert Assessor felt references to external sources of insight such as a technology advisory group or an ecosystem of technology providers would have strengthened the Application but, on balance, the Expert Assessors consider Eligibility Criterion 6 to be met as such organisations will be part of the Innovation Delivery Group for the Innovation Challenge.

The Project is considered to represent value for money and be costed competitively as roles and responsibilities are proportionate to the work required. One Expert Assessor highlighted the amount quoted for subcontractors was high without exact details being provided, which should be clarified through a Project-specific condition. On balance, the Expert Assessors consider Eligibility Criterion 7 to be met.

The Project is considered to have a robust methodology capable of progressing in a timely manner as a well-developed Project plan and risk register were provided with clear roles and defined delivery steps. The Expert Assessors agree Eligibility Criterion 8 is met.

The Project is considered to have clearly demonstrated how it builds on previous or existing innovative work as the Project will utilise relevant existing materials published by the Energy Networks Innovation Taskforce and draw extensively from learnings from previous projects, and the Application clearly outlines where the Charter development will add value. The Expert Assessors agree Eligibility Criterion 9 is met.

The Project is considered to meet the needs of the end customers and has outlined how these stakeholders have been, or will be, meaningfully engaged in the development and adoption of the innovation. Eligibility Criterion 10 has been met.

The Project is considered to have demonstrated a clear approach to open data, knowledge sharing, and dissemination of learnings as it will engage with other network companies, industry bodies, and stakeholders through targeted briefings, and has a clear delivery route to ensure that the outcomes are accessible to relevant stakeholders. The Expert Assessors agree that Eligibility Criterion 11 is met.

Review from National Energy System Operator (NESO)

N/A

Decision from the Office of Gas and Electricity Markets (Ofgem)

FUND

Ofgem agrees with the Expert Assessors and approves this Project for funding.

Recommended Project-specific conditions

At the Project kick-off meeting, the Project Lead shall provide an updated risk register and auditable plan demonstrating how costs, resources and activities are linked to deliverables, accountable owners and expected benefits, and that all labour and third-party costs represent proportionate and justified value for money. Based on this, an updated spend profile will be agreed with the monitoring officer and spend updates will be given monthly by the Project team.

5.2.2 Project 10207792 - Data-Integrated Systems for Power Transmission and Community Heat (DISPATCH)

Submitted Project description

DISPATCH will assess whether medium sized data centres can provide low grade heat to consumers where residents are vulnerable or on low incomes as well as provide flexible demand, and cross-vector energy solutions that could reduce reinforcement requirements, alleviate network constraints and accelerate industrial connections. The Project will generate the technical, commercial and regulatory evidence required to determine whether this approach can become a scalable model for connecting strategically important industrial demand while delivering wider benefits to consumers, communities and the energy system. If proven viable, the Project will identify demonstrator locations that can progress through to demonstration.

DISPATCH seeks to develop a scalable model for accelerating major industrial and business connections while delivering wider consumer, community and energy system benefits.

Eligibility Criteria	Expert Assessor Average Score
1. Projects must address the Innovation Challenge set by Ofgem.	4

2. Projects must have clearly identified potential to deliver a net benefit to gas or electricity consumers (whomever is paying for the innovation) and/or a whole system benefits.	4
3. Projects must involve network innovation.	4
4. Projects must support, at a minimum, be consistent with the development and growth of competitive markets.	4
5. Projects must be innovative, novel and/or risky.	4
6. Projects must include participation from a range of stakeholders.	4
7. Projects must provide value for money and be costed competitively.	4
8. Projects must be well thought through and have a robust methodology so that they are capable of progressing in a timely manner.	4
9. Projects must clearly demonstrate how they build upon existing or previous innovative work and articulate how they provide additional value or advancement.	4
10. Projects must consider the needs of the end customers and outline how these stakeholders have been, or will be, meaningfully engaged in the development and adoption of the innovation.	4
11. Projects must demonstrate a clear approach to open data, knowledge sharing, and dissemination of learnings.	4

Recommendation to the Office of Gas and Electricity Markets (Ofgem)

FUND

The Expert Assessors agree that this Project has met the Eligibility Criteria and recommend this Application for funding.

The Project addresses the Innovation Challenge by providing data to support a business case for integrating data centre development and waste heat recovery to

reduce the need for network reinforcement. The Expert Assessors agree that Eligibility Criterion 1 is met.

The Project has identified potential to deliver a net benefit to electricity consumers as the Application clearly articulates potential benefits such as reduced network costs, improved utilisation of existing infrastructure, and recovered waste heat, which could reduce reinforcement costs for consumers. The Expert Assessors agree this Eligibility Criterion 2 is met.

The Project is considered to involve network innovation through integration of waste heat recovery to data centre development and its potential to reduce the cost of network integration. The Expert Assessors agree Eligibility Criterion 3 is met.

The Project is considered to support the development of competitive markets as outputs will be made openly available and the Project does not prevent other distribution network operators from procuring similar services. The Expert Assessors agree Eligibility Criterion 4 is met.

The Project is considered innovative, novel and/or risky as investigation of a connection procedure that could be applied to high-demand industry users, such as data centres, is risky. The Project would involve technical, commercial and regulatory uncertainties. There is also novelty in terms of investigating whether the flexible operation of data centres and waste heat recovery can deliver grid connection benefits. One Expert Assessor noted it would be helpful for the Project to consider the siting constraints of data centres and how they may affect the applicability and scalability of the proposed approach but, on balance, the Expert Assessors consider Eligibility Criterion 5 to be met.

The Project is considered to include participation from a sufficient range of stakeholders as the Project Partners have relevant experience to support Project delivery and ways of working are well defined. However, one Expert Assessor noted it was unclear what role NGET would play in the Project as they have been assigned responsibility but are not a Project Partner. Overall, the Expert Assessors agree Eligibility Criterion 6 is met.

The Project is considered to represent value for money and be costed competitively as the Application provides good justification for the resources needed and the distribution of the funding aligns with the roles and responsibilities assigned to the Project Partners. The Expert Assessors agree Eligibility Criterion 7 is met.

The Project is considered to have a robust methodology capable of progressing in a timely manner as a comprehensive plan and risk register have been provided. One Expert Assessor felt several of the key methodologies were not described in sufficient detail, making it difficult to assess their technical robustness and feasibility, but on balance the Expert Assessors consider Eligibility Criterion 8 to be met.

The Project is considered to have clearly demonstrated how it builds on previous or existing innovative work as it builds on previous initiatives which separately explored demand, flexibility and heat recovery and brings these components together. The added value of the Project is strongly articulated. The Expert Assessors agree Eligibility Criterion 9 is met.

The Project is considered to meet the needs of the end customers and has outlined how these stakeholders have been, or will be, meaningfully engaged in the development and adoption of the innovation. Eligibility Criterion 10 has been met.

The Project is considered to have demonstrated a clear approach to open data, knowledge sharing, and dissemination of learnings by publicly disseminating Project outputs and making these available to other networks and stakeholders. The Expert Assessors agree Eligibility Criterion 11 is met.

Review from National Energy System Operator (NESO)

N/A

Decision from the Office of Gas and Electricity Markets (Ofgem)

FUND

Ofgem agrees with the Expert Assessors and approves this Project for funding.

Recommended Project-specific conditions

By the end of Discovery Phase, the Project must define the connection acceleration mechanism, specifically;

- Specify the proposed connection arrangement.
- Define the baseline connection date and reinforcement requirement.
- Define how many months or years of acceleration would constitute success.

By the end of Discovery Phase, the Project must engage with results from related Projects such as SHIELD, Hot Chips, and FLARE.

6 Innovation Challenge: Faster build and maintenance

6.1 Overview of Projects

This sub-section covers the assessment of Discovery Phase Applications received into the 'Faster build and maintenance' Innovation Challenge in Cycle 6.

In order to protect intellectual property rights (IPR), unsuccessful Projects have been redacted from the final published version.

Project reference number	Project name	Funding licensee	Total Project costs (£)	Total Project contribution (£)	Total SIF Funding requested (£)	Recommended by Expert Assessors for funding (Yes/No)	Input from NESO (Yes/No/NA)	Decision by Ofgem for funding (Yes/No)
10207275	Innovation Challenge 2 Innovation Charter	Scottish Hydro Electric Transmission Plc	200,000	N/A	200,000	Yes	N/A	Yes

6.2 Expert Assessors' recommendations on Projects

6.2.1 Project 10207275 – Innovation Challenge 2 Innovation Charter

Submitted Project description
This Project will develop an Innovation Charter through structured analysis, stakeholder engagement and pathway development for Challenge 2 -- Faster Build and Maintenance, targeting 50% faster and 20% lower-cost network delivery by 2035. Led by SSEN Transmission and supported by an independent expert consultant, the Project will identify barriers to delivery, including planning, supply chain, and commercial constraints. Through stakeholder engagement and evidence-based analysis, it will define priority innovation areas such as digitalisation, automation, and modular construction. The Charter will provide a sector-aligned roadmap to accelerate infrastructure delivery, reduce costs for consumers, to support a clean, reliable energy system

Eligibility Criteria	Expert Assessor Average Score
1. Projects must address the Innovation Challenge set by Ofgem.	4
2. Projects must have clearly identified potential to deliver a net benefit to gas or electricity consumers (whomever is paying for the innovation) and/or a whole system benefits.	4
3. Projects must involve network innovation.	4
4. Projects must support, at a minimum, be consistent with the development and growth of competitive markets.	4
5. Projects must be innovative, novel and/or risky.	4
6. Projects must include participation from a range of stakeholders.	4
7. Projects must provide value for money and be costed competitively.	2

8. Projects must be well thought through and have a robust methodology so that they are capable of progressing in a timely manner.	3
9. Projects must clearly demonstrate how they build upon existing or previous innovative work and articulate how they provide additional value or advancement.	3
10. Projects must consider the needs of the end customers and outline how these stakeholders have been, or will be, meaningfully engaged in the development and adoption of the innovation.	4
11. Projects must demonstrate a clear approach to open data, knowledge sharing, and dissemination of learnings.	4

Recommendation to the Office of Gas and Electricity Markets (Ofgem)

FUND

The majority of Expert Assessors agree that this Project has met the Eligibility Criteria and recommend this Application for funding.

The Project addresses the Innovation Challenge as it will develop the Innovation Charter identifying the barriers and priority innovations required to deliver 50% faster and 20% cheaper network build and maintenance by 2035. The Expert Assessors therefore agreed that Eligibility Criterion 1 is met.

The Project has identified potential to deliver a net benefit to electricity consumers as the Application articulates a range of benefits such as accelerating infrastructure delivery, reducing costs to consumers, and delivering a clean and reliable energy system. The Expert Assessors agree Eligibility Criterion 2 is met.

The Project is considered to involve network innovation as it meets the guidelines set for an Innovation Charter Project. The Expert Assessors agree this Eligibility Criterion to be met.

The Project is considered to support the development of competitive markets as Project outputs will be publicly available. The Expert Assessors agree Eligibility Criterion 3 is met.

The Project is considered innovative, novel and/or risky as it meets the guidelines set for an Innovation Charter Project. The Expert Assessors agree Eligibility Criterion 4 is met.

The Project is considered to include participation from a sufficient range of stakeholders as it involves participation from network operators, business, supply chain partners and academia, and there is good awareness of the need to engage diverse stakeholders. However, one Expert Assessor did not consider this Eligibility Criterion to be met as they felt there was insufficient information on the Project team or stakeholders they would engage. The majority of Expert Assessors consider Eligibility Criterion 6 to be met as the Project will undertake horizon scanning with stakeholders as part of its work.

The Project is not considered to represent value for money and be costed competitively as the Expert Assessors noted there was a general lack of detail on finances within the Application and the majority of Expert Assessors did not consider Eligibility Criterion 7 to be met because of this. The Project will be required to provide additional detail on finances through a Project-specific condition.

The Project is considered to have a robust methodology capable of progressing in a timely manner as the Project plan and risk register are comprehensive and appropriately detailed. One Expert Assessor did not consider this Eligibility Criterion to be met as they felt the Project's methodology was not sufficiently well thought through. The majority of Expert Assessors consider Eligibility Criterion 8 to be met, and the Project will be required to provide additional information on the methodology through a Project-specific condition.

The Project is considered to have clearly demonstrated how it builds on previous or existing innovative work as it will build on the work of the Energy Networks Innovation taskforce as well as including reviews of prior work as part of the Project deliverables. One Expert Assessor did not consider the Eligibility Criterion to be met as they felt the Application did not articulate how it will draw on previous and current knowledge across the whole sector. On balance, the majority

of Expert Assessors consider Eligibility Criterion 9 to be met as the Project will reference past projects in its horizon scanning activities.

The Project is considered to meet the needs of the end customers and has outlined how these stakeholders have been, or will be, meaningfully engaged in the development and adoption of the innovation. Eligibility Criterion 10 has been met.

The Project is considered to have demonstrated a clear approach to open data, knowledge sharing, and dissemination of learnings as it has a clear approach to disseminate to appropriate stakeholders and Project outputs will be publicly available. One Expert Assessor did not consider this Eligibility Criterion to be met as there was no plan for the management of intellectual property as the subcontractor is not yet identified and so contractual arrangements for this are not known. The majority of Expert Assessors consider Eligibility Criterion 11 to be met, and the management of intellectual property will be monitored through a Project-specific condition.

Review from National Energy System Operator (NESO)

N/A

Decision from the Office of Gas and Electricity Markets (Ofgem)

FUND

Ofgem agrees with the Expert Assessors and approves this Project for funding.

Ofgem has revised the score for Eligibility Criterion 7 from 2 to 3 following addition of a Project-specific condition to address the uncertainties identified by the Expert Assessors. This Project-specific condition has been added to ensure ongoing good cost management throughout Project delivery.

Recommended Project-specific conditions

At the Project kick-off meeting, the Project Lead shall provide an updated risk register and auditable plan demonstrating how costs, resources and activities are

linked to deliverables, accountable owners and expected benefits, and that all labour and third-party costs represent proportionate and justified value for money. Based on this, an updated spend profile will be agreed with the monitoring officer and spend updates will be given monthly by the Project team.

7 Innovation Challenge: Instant use domestic energy devices

7.1 Overview of Projects

This sub-section covers the assessment of Discovery Phase Applications received into the 'Instant use domestic energy devices' Innovation Challenge in Cycle 6.

In order to protect intellectual property rights (IPR), unsuccessful Projects have been redacted from the final published version.

Project reference number	Project name	Funding licensee	Total Project costs (£)	Total Project contribution (£)	Total SIF Funding requested (£)	Recommended by Expert Assessors for funding (Yes/No)	Input from NESO (Yes/No/NA)	Decision by Ofgem for funding (Yes/No)
10207505	Innovation Challenge 3 Innovation Charter	UK Power Networks Plc	200,000	N/A	200,000	Yes	N/A	Yes
10205961	Roaming MPANs (Roaming Meter Point Administration Numbers)	Southern Electric Power Distribution Plc	184,548	18,456	166,092	Yes	Yes	Yes

7.2 Expert Assessors' recommendations on Projects

7.2.1 Project 10207505 – Innovation Challenge 3 Innovation Charter

Submitted Project description

This Innovation Delivery Group (IDG) is developing an Innovation Charter to guide delivery of Innovation Challenge 3: Instant Use Domestic Energy Devices. The Innovation Charter will set out a strategic framework for enabling instant, plug-and-play connections of domestic energy devices and appliances by 2032, removing the need for prior network approval before households install low-carbon technologies such as solar PV, EV chargers, heat pumps, stationary batteries and vehicle-to-grid systems.

The Project will conduct a comprehensive horizon scan of existing activity, evidence and innovation relevant to the Challenge, drawing on GB and international programmes, technology trends, regulatory developments and critical uncertainties. Building on this evidence base, the IDG will define a suite of credible pathways to delivering Challenge 3 outcomes, each representing a distinct technical, commercial, regulatory or operational route to impact. Each pathway will bring together related projects, partnerships and actions with time-bound objectives, and explore appropriate routes to scaled-up deployment.

The Innovation Charter will enable risks to be managed at the portfolio level across a balanced mix of high-risk, high-reward activity and more incremental or enabling innovation. It will offer transparency to the wider sector on priorities, evidence gaps and opportunities for engagement and collaboration.

Eligibility Criteria	Expert Assessor Average Score
1. Projects must address the Innovation Challenge set by Ofgem.	5
2. Projects must have clearly identified potential to deliver a net benefit to gas or electricity consumers (whomever is paying for the innovation) and/or a whole system benefits.	4

3. Projects must involve network innovation.	4
4. Projects must support, at a minimum, be consistent with the development and growth of competitive markets.	4
5. Projects must be innovative, novel and/or risky.	4
6. Projects must include participation from a range of stakeholders.	4
7. Projects must provide value for money and be costed competitively.	3
8. Projects must be well thought through and have a robust methodology so that they are capable of progressing in a timely manner.	4
9. Projects must clearly demonstrate how they build upon existing or previous innovative work and articulate how they provide additional value or advancement.	4
10. Projects must consider the needs of the end customers and outline how these stakeholders have been, or will be, meaningfully engaged in the development and adoption of the innovation.	4
11. Projects must demonstrate a clear approach to open data, knowledge sharing, and dissemination of learnings.	4

Recommendation to the Office of Gas and Electricity Markets (Ofgem)

FUND

The Expert Assessors agree that this Project has met the Eligibility Criteria and recommend this Application for funding.

The Project addresses the Innovation Challenge as it would develop the Innovation Charter which identifies the barriers and innovations required to enable instant, plug-and-play connections of domestic energy devices and appliances by 2032. The Expert Assessors agree Eligibility Criterion 1 is met.

The Project has identified potential to deliver a net benefit to electricity consumers as it would reduce delays to consumer connections and enable more consumer

choice for low carbon technology (LCT) installation and resulting lower bills. The flexibility offered by the energy devices would also contribute to avoided network reinforcement costs. One Expert Assessor noted that evidence the Project understood the challenges in agreeing and enforcing pathways in competitive consumer markets would have strengthened the Application but, overall, the Expert Assessors consider Eligibility Criterion 2 to be met.

The Project is considered to involve network innovation as it aims to create a whole system, forward looking methodology to deliver a coordinated roadmap to reduce the barriers for LCT installation. The Expert Assessors agree Eligibility Criterion 3 is met.

The Project is considered to support the development of competitive markets as Project outputs would be publicly available and the Project will engage with device manufacturers, energy suppliers and third-party innovators to support the development of the markets necessary to deliver the Innovation Challenge. One Expert Assessor highlighted that the Application could have provided more detail on how markets would be addressed within the pathways and pathway development process but, overall, the Expert Assessors consider Eligibility Criterion 4 to be met

The Project is considered innovative, novel and/or risky by involving a step change in connection of LCTs which would require change in many processes and approaches. The scale of the challenge is clear with a high level of ambition. The Expert Assessors agree Eligibility Criterion 5 is met.

The Project is considered to include participation from a sufficient range of stakeholders as the Project consortium have complementary skills and experience and recognises the need to involve the other energy networks as well as technology companies and hardware manufacturers. One Expert Assessor felt the Application could have provided more detail on stakeholder engagement but, overall, the Expert Assessors consider Eligibility Criterion 6 to be met.

The Project is considered to represent value for money and be costed competitively as the breakdown of costs is reasonable, the subcontractor costs are in line with market rates, and the Project Partner roles are well described and

justified. However, one Expert Assessor identified that the Project management work package was more expensive than the technical work packages and felt there was insufficient explanation of this. The costs allocated to ESC also appeared to be high for the effort allocated. On balance, the Expert Assessors consider Eligibility Criterion 7 to be met, and the Project will be required to provide further detail on costs through a Project-specific condition.

The Project is considered to have a robust methodology capable of progressing in a timely manner with a well-described and detailed Project plan which breaks down work packages and identifies key deliverables. The Expert Assessors agree Eligibility Criterion 8 is met.

The Project is considered to have clearly demonstrated how it builds on previous or existing innovative work as it will incorporate materials from the Energy Networks Innovation Taskforce and include horizon scanning activity to understand existing initiatives. The Expert Assessors agree Eligibility Criterion 9 is met.

The Project is considered to meet the needs of the end customers and has outlined how these stakeholders have been, or will be, meaningfully engaged in the development and adoption of the innovation. Eligibility Criterion 10 has been met.

The Project is considered to have demonstrated a clear approach to open data, knowledge sharing, and dissemination of learnings as all Project outputs will be publicly available. The Expert Assessors noted a more detailed approach to dissemination, especially to engaging the market, would have strengthened the Application but, on balance, the Expert Assessors consider Eligibility Criterion 11 to be met.

Review from National Energy System Operator (NESO)

N/A

Decision from the Office of Gas and Electricity Markets (Ofgem)

FUND

Ofgem agrees with the Expert Assessors and approves this Project for funding.

Recommended Project-specific conditions

At the Project kick-off meeting, the Project Lead shall provide an updated risk register and auditable plan demonstrating how costs, resources and activities are linked to deliverables, accountable owners and expected benefits, and that all labour and third-party costs represent proportionate and justified value for money. Based on this, an updated spend profile will be agreed with the monitoring officer and spend updates will be given monthly by the Project team.

The Project team must work with the monitoring team on developing a stakeholder engagement and dissemination plan by week 3 of the Project.

7.2.2 Project 10205961 – Roaming MPANs (Roaming Meter Point Administration Numbers)

Submitted Project description

Electric vehicle adoption is rising rapidly in the UK, yet nearly 40% of households cannot charge at home. This leaves many reliant on older, polluting vehicles or costly public charging.

Workarounds which exist are often expensive and disruptive, especially in older streets. A cross-pavement, or a bridge connecting a private charge point to a car in the street, can work for some homes. However, these types of properties are at an increased likelihood of being connected on a looped electricity supply where one service cable supplies multiple properties. Costs and complexities of unlooping is a growing issue for all networks, as is the additional power load at peak times in built-up areas. Households and networks require new solutions enabling cost-effective, convenient, timely, and equitable EV charging.

Roaming MPANs (Meter Point Administration Numbers) proposes a new model: using your home energy tariff anywhere. By securely linking home accounts to local public chargers, drivers could pay the same rates, access smart tariffs, and charge as if at home.

This approach aims to make EV charging fairer, simpler, and cheaper, expanding access while helping network operators plan more efficiently, promote flexibility, and reduce overall system costs.

Eligibility Criteria	Expert Assessor Average Score
1. Projects must address the Innovation Challenge set by Ofgem.	4
2. Projects must have clearly identified potential to deliver a net benefit to gas or electricity consumers (whomever is paying for the innovation) and/or a whole system benefits.	4
3. Projects must involve network innovation.	4
4. Projects must support, at a minimum, be consistent with the development and growth of competitive markets.	4
5. Projects must be innovative, novel and/or risky.	5
6. Projects must include participation from a range of stakeholders.	4
7. Projects must provide value for money and be costed competitively.	4
8. Projects must be well thought through and have a robust methodology so that they are capable of progressing in a timely manner.	4
9. Projects must clearly demonstrate how they build upon existing or previous innovative work and articulate how they provide additional value or advancement.	4
10. Projects must consider the needs of the end customers and outline how these stakeholders have been, or will be,	4

meaningfully engaged in the development and adoption of the innovation.	
11. Projects must demonstrate a clear approach to open data, knowledge sharing, and dissemination of learnings.	4

Recommendation to the Office of Gas and Electricity Markets (Ofgem)

FUND

The Expert Assessors agree that this Project has met the Eligibility Criteria and recommend this Application for funding.

The Project addresses the Innovation Challenge by providing well founded evidence that the Project addresses the ambitions of, and is strongly aligned with, the Innovation Challenge to enable instant, plug-and-play connections of domestic energy devices and appliances by 2032. The Expert Assessors agree Eligibility Criterion 1 is met.

The Project has identified potential to deliver a net benefit to electricity consumers as the Application has a strong narrative of potential net benefits, particularly for electricity consumers, with potential for reduced charging costs, avoidance of higher public tariff/VAT exposure, and improved access to off-peak rates. Whole system benefits of avoiding unlooping and reduced network reinforcement are also well articulated. The Expert Assessors agree Eligibility Criterion 2 is met.

The Project is considered to involve network innovation through its focus on reducing distribution network reinforcement and its emphasis on looped supplies and the potential to avoid unlooping interventions. The Expert Assessors agree Eligibility Criterion 3 is met.

The Project is considered to support the development of competitive markets as it aims to open up new billing mechanisms within the electric vehicle (EV) charging market and reduce barriers faced by drivers without home charging. The Expert Assessors agree Eligibility Criterion 4 is met.

The Project is considered innovative, novel and/or risky by combining energy retail tariffs, smart metering identity and public EV charging into a roaming billing concept that does not currently exist in the UK. The regulatory and commercial

architecture needed to achieve portable domestic tariffs for public charging is both novel and risky. The Expert Assessors agree Eligibility Criterion 5 is met.

The Project is considered to include participation from a sufficient range of stakeholders as there is a diverse range of Project Partners with differing sizes and areas of expertise, demonstrating awareness of the cross-sector dependencies within the proposal. The Expert Assessors agree Eligibility Criterion 6 is met.

The Project is considered to represent value for money and be costed competitively as the Application provides a clear breakdown of costs across Project Partners and across work packages. The funding requested is value for money against the complexity of the Project aims. One Expert Assessor highlighted that day rates had not been provided and this made some of the finance information less justified. On balance, the Expert Assessors consider Eligibility Criterion 7 to be met, and the Project will be required to provide day rate information through a Project-specific condition.

The Project is considered to have a robust methodology capable of progressing in a timely manner as the Expert Assessors noted Project management documentation provided is of a very high standard and provides confidence in project delivery with a structured approach and clear Project controls. The Expert Assessors agree Eligibility Criterion 8 is met.

The Project is considered to have clearly demonstrated how it builds on previous or existing innovative work as the Application details how it relates to existing smart charging, flexibility, and network constraint management work and demonstrates the added value of the Project. The Expert Assessors agree Eligibility Criterion 9 is met.

The Project is considered to meet the needs of the end customers and has outlined how these stakeholders have been, or will be, meaningfully engaged in the development and adoption of the innovation. Eligibility Criterion 10 has been met.

The Project is considered to have demonstrated a clear approach to open data, knowledge sharing, and dissemination of learnings with a robust and detailed

dissemination plan that includes a range of outputs, providing a clear pathway to knowledge sharing. There is a good awareness of communicating to both technical and strategic audiences. The Expert Assessors agree Eligibility Criterion 11 is met.

Review from National Energy System Operator (NESO)

N/A

Decision from the Office of Gas and Electricity Markets (Ofgem)

FUND

Ofgem agrees with the Expert Assessors and approves this Project for funding.

Recommended Project-specific conditions

By the kick off meeting, the Project must provide detailed information on labour rates, resource allocations and distribution of costs across Project Partners.

By the kick off meeting, the Project must provide justification for the limited level of DNO contribution to the Project or demonstrate an increased contribution to support scale-up opportunities.

Before the End of Phase meeting, the Project must have shared its findings more widely with relevant regulatory and policy teams, notably with the Department for Transport on EV charging policy development.

8 Innovation Challenge: Eliminating energy outages

8.1 Overview of Projects

This sub-section covers the assessment of Discovery Phase Applications received into the 'Eliminating energy outages' Innovation Challenge in Cycle 6.

In order to protect intellectual property rights (IPR), unsuccessful Projects have been redacted from the final published version.

Project reference number	Project name	Funding licensee	Total Project costs (£)	Total Project contribution (£)	Total SIF Funding requested (£)	Recommended by Expert Assessors for funding (Yes/No)	Input from NESO (Yes/No/NA)	Decision by Ofgem for funding (Yes/No)
10205348	Innovation Challenge 4 Innovation Charter	National Energy System Operator	237,843	37,843	200,000	Yes	N/A	Yes
10206897	SOS RACER (Security of Supply - Revised Approach to Consider Embedded Resources)	National Grid Electricity Distribution Plc	202,458	34,646	167,822	Yes	Yes	Yes

8.2 Expert Assessors' recommendations on Projects

8.2.1 Project 10205348 – Innovation Challenge 4 Innovation Charter

Submitted Project description
This Discovery phase SIF project will develop the Innovation Charter for Energy Network Innovation Taskforce (ENIT) Challenge 4: Eliminating energy outages - Near-zero interruptions via autonomous reconfiguring and islanding of any section of the network by 2038.

Eligibility Criteria	Expert Assessor Average Score
1. Projects must address the Innovation Challenge set by Ofgem.	4
2. Projects must have clearly identified potential to deliver a net benefit to gas or electricity consumers (whomever is paying for the innovation) and/or a whole system benefits.	3
3. Projects must involve network innovation.	4
4. Projects must support, at a minimum, be consistent with the development and growth of competitive markets.	3
5. Projects must be innovative, novel and/or risky.	4
6. Projects must include participation from a range of stakeholders.	3
7. Projects must provide value for money and be costed competitively.	2
8. Projects must be well thought through and have a robust methodology so that they are capable of progressing in a timely manner.	2
9. Projects must clearly demonstrate how they build upon existing or previous innovative work and articulate how they provide additional value or advancement.	2

10. Projects must consider the needs of the end customers and outline how these stakeholders have been, or will be, meaningfully engaged in the development and adoption of the innovation.	4
11. Projects must demonstrate a clear approach to open data, knowledge sharing, and dissemination of learnings.	3

Recommendation to the Office of Gas and Electricity Markets (Ofgem)

FUND

The majority of Expert Assessors agree that this Project has met the Eligibility Criteria and recommend this Application for funding.

The Project addresses the Innovation Challenge as it would develop the Innovation Charter which identifies the barriers and innovations required for near-zero interruptions via autonomous reconfiguring and islanding of any section of the network by 2038. The Expert Assessors agree Eligibility Criterion 1 is met.

The Project has identified potential to deliver a net benefit to electricity consumers as network reconfiguration should result in fewer supply interruptions or blackouts. Autonomous operation and local islanding could also support new technologies and business models which could offer positive benefits to consumers. The Expert Assessors agree Eligibility Criterion 2 is met.

The Project is considered to involve network innovation as autonomous reconfiguring and islanding of any section of the network by 2038 would involve a system-wide transformation. The Expert Assessors agree Eligibility Criterion 3 is met.

The Project is considered to support the development of competitive markets as the Project aims to create an improved market for reconfiguring and islanding and there will be engagement with a range of stakeholders to support the development of the market. The Expert Assessors agree Eligibility Criterion 4 is met.

The Project is considered innovative, novel and/or risky as it will develop a pathway to operating the energy system in a completely different way to currently by enabling the network to reconfigure and operate islands of supply, maintaining

services even when other parts of the network are compromised. The Expert Assessors agree Eligibility Criterion 5 is met.

The Project is considered to include participation from a sufficient range of stakeholders as there are a range of Partners involved in the Project, with well-defined roles and responsibilities. There is also an awareness of the need to engage widely with external stakeholders. However, one Expert Assessor did not consider this Eligibility Criterion to have been met as they felt there was limited information on how Project Partners would work together. On balance, the majority of Expert Assessors consider Eligibility Criterion 6 to be met and the Project will be required to provide further detail through a Project-specific condition.

The majority of Expert Assessors did not consider the Project to have met Eligibility Criterion 7 and to represent value for money and be costed competitively as there was insufficient detail in the Project plan on how it would deliver Project outputs against the cost requested. The Project will be required to provide further details on costs through a Project-specific condition.

The Expert Assessors did not consider the Project to have met Eligibility Criterion 8 and have a robust methodology capable of progressing in a timely manner as the Project plan did not contain a sufficient level of detail and granularity. The Project will be required to provide an updated Project plan through a Project-specific condition.

The Project is considered to have clearly demonstrated how it builds on previous or existing innovative work as it will build on the outputs of the Energy Networks Innovation Taskforce. However, one Expert Assessor did not consider this Eligibility Criterion to have been met as they felt the Application provided insufficient detail. On balance, the majority of Expert Assessors consider Eligibility Criterion 9 to have been met as the Project will reference past projects in its horizon scanning activities.

The Project is considered to meet the needs of the end customers and has outlined how these stakeholders have been, or will be, meaningfully engaged in

the development and adoption of the innovation. Eligibility Criterion 10 has been met.

The Project is considered to have demonstrated a clear approach to open data, knowledge sharing, and dissemination of learnings as the Project outputs will be publicly available and there is a wide range of planned stakeholder engagement. The Expert Assessors agree Eligibility Criterion 11 is met.

Review from National Energy System Operator (NESO)

N/A

Decision from the Office of Gas and Electricity Markets (Ofgem)

FUND

Ofgem agrees with the Expert Assessors and approves this Project for funding.

Ofgem has revised the score under Eligibility Criteria 7, 8 and 9 from 2 to 3, following the addition of a Project-specific condition to address the uncertainties identified by Expert Assessors. This Project-specific condition has been added to ensure ongoing good cost management through Project delivery.

Recommended Project-specific conditions

At the project kick-off meeting, the Project Lead shall provide an updated risk register and auditable plan demonstrating how costs, resources and activities are linked to deliverables, accountable owners and expected benefits, and that all labour and third-party costs represent proportionate and justified value for money. Based on this, an updated spend profile will be agreed with the monitoring officer and spend updates will be given monthly by the project team.

8.2.2 Project 10206897 - SOS RACER (Security of Supply - Revised Approach to Consider Embedded Resources)

Submitted Project description
This Discovery project will develop evidence on the contribution of distributed demand-side flexibility to electricity security of supply. It will examine how flexible demand, distributed storage and behind-the-meter assets can be measured and modelled alongside conventional generation, using asset-agnostic resilience metrics. The project will test illustrative system configurations and identify how planning, regulatory and market frameworks may need to evolve so that demand-side resources can be properly recognised as part of a secure, resilient and affordable electricity system.

Eligibility Criteria	Expert Assessor Average Score
1. Projects must address the Innovation Challenge set by Ofgem.	4
2. Projects must have clearly identified potential to deliver a net benefit to gas or electricity consumers (whomever is paying for the innovation) and/or a whole system benefits.	3
3. Projects must involve network innovation.	4
4. Projects must support, at a minimum, be consistent with the development and growth of competitive markets.	3
5. Projects must be innovative, novel and/or risky.	3
6. Projects must include participation from a range of stakeholders.	4
7. Projects must provide value for money and be costed competitively.	4
8. Projects must be well thought through and have a robust methodology so that they are capable of progressing in a timely manner.	4

9. Projects must clearly demonstrate how they build upon existing or previous innovative work and articulate how they provide additional value or advancement.	4
10. Projects must consider the needs of the end customers and outline how these stakeholders have been, or will be, meaningfully engaged in the development and adoption of the innovation.	4
11. Projects must demonstrate a clear approach to open data, knowledge sharing, and dissemination of learnings.	4

Recommendation to the Office of Gas and Electricity Markets (Ofgem)

FUND

The majority of Expert Assessors agree that this Project has met the Eligibility Criteria and recommend this Application for funding.

The Project addresses the Innovation Challenge by assessing how distributed energy resources can contribute to energy system security and resilience. The Expert Assessors agree Eligibility Criterion 1 is met.

The Project has identified potential to deliver a net benefit to electricity consumers through more efficient procurement of capacity and from increasing network resilience to avoid blackouts. One Expert Assessor highlighted that quantitative evidence to support the consumer benefits case would have strengthened the Application but, overall, the Expert Assessors agree Eligibility Criterion 2 has been met.

The Project is considered to involve network innovation by application of advanced probability-based modelling techniques to flexible resources connected to the distribution network, and through the development of a common framework that energy security models can use. The results of these models have the potential to enhance network services, particularly by strengthening network resilience. The Expert Assessors agree Eligibility Criterion 3 is met.

The Project is considered to support the development of competitive markets as the characterisation framework it develops will be asset-agnostic and treat

different types of flexible resource equally, ensuring no provider or technology gains an advantage. The Expert Assessors agree Eligibility Criterion 4 is met.

The Project is considered innovative, novel and/or risky by using a novel modelling method with the risk that it may not achieve its intended outcome. Applying probability-based energy security modelling to flexible resources on distribution networks has not been done in Great Britain before. The asset-agnostic resource characterisation framework is also innovative. The Expert Assessors agree Eligibility Criterion 5 is met.

The Project is considered to include participation from a sufficient range of stakeholders as the Project Partners have suitable expertise and demonstrate strong track records within their respective areas. Letters of support from retail energy suppliers and flexibility providers demonstrate industry interest in the Project. The Expert Assessors agree Eligibility Criterion 6 is met.

The Project is considered to represent value for money and be costed competitively as the roles and tasks assigned to Project Partners are well defined and the Project has provided strong justification for appointing Cornwall Insights directly. The financial contribution to the Project by Cornwall Insights, well above the minimum requirement, was also noted positively by the Expert Assessors. The Expert Assessors agree Eligibility Criterion 7 is met.

The Project is considered to have a robust methodology capable of progressing in a timely manner as a detailed Project plan has been provided with well-managed dependencies and robust Project governance. The Expert Assessors agree Eligibility Criterion 8 is met.

The Project is considered to have clearly demonstrated how it builds on previous or existing innovative work by providing a well-reasoned comparison to other projects and demonstrating how it addresses gaps and provides additional value, as well as how the innovation fits within both the wider sector regulatory landscape. The Expert Assessors agree Eligibility Criterion 9 is met.

The Project is considered to meet the needs of the end customers and has outlined how these stakeholders have been, or will be, meaningfully engaged in

the development and adoption of the innovation. Eligibility Criterion 10 has been met.

The Project is considered to have demonstrated a clear approach to open data, knowledge sharing, and dissemination of learnings with a targeted dissemination plan ensuring that outputs are communicated to decision making bodies and Innovation Delivery Groups as well as wider industry. The Expert Assessors noted a dedicated webinar for demand-side technology and service providers as an example of good practice and transparency and agree Eligibility Criterion 11 has been met.

Review from National Energy System Operator (NESO)

NESO declines the request to become a Project Partner as they do not currently have the resource capacity.

Decision from the Office of Gas and Electricity Markets (Ofgem)

FUND

Ofgem agrees with the Expert Assessors and approves this Project for funding.

Recommended Project-specific conditions

The Project is required to publish a full assumptions log alongside the methodology report.

At the kick off meeting, the Project must quantify the scale of the problem as a benchmark against which potential future work and benefits can be assessed.

9 Innovation Challenge: Decentralised system balancing

9.1 Overview of Projects

This sub-section covers the assessment of Discovery Phase Applications received into the 'Decentralised system balancing' Innovation Challenge in Cycle 6.

In order to protect intellectual property rights (IPR), unsuccessful Projects have been redacted from the final published version.

Project reference number	Project name	Funding licensee	Total Project costs (£)	Total Project contribution (£)	Total SIF Funding requested (£)	Recommended by Expert Assessors for funding (Yes/No)	Input from NESO (Yes/No/NA)	Decision by Ofgem for funding (Yes/No)
10205623	Innovation Challenge 5 Innovation Charter	National Grid Electricity Distribution Plc	199,861	N/A	199,861	Yes	N/A	Yes
	[REDACTED]					Yes	Yes	No

9.2 Expert Assessors' recommendations on Projects

9.2.1 Project 10205623 – Innovation Challenge 5 Innovation Charter

Submitted Project description
This Discovery phase SIF project relates to setting up the Innovation Delivery Group (IDG) for the Energy Network Innovation Taskforce (ENIT) Challenge 5: Decentralised system balancing - deliver products and services to prove the viability of autonomous local balancing and optimisation of networks at every level by 2034

Eligibility Criteria	Expert Assessor Average Score
1. Projects must address the Innovation Challenge set by Ofgem.	4
2. Projects must have clearly identified potential to deliver a net benefit to gas or electricity consumers (whomever is paying for the innovation) and/or a whole system benefits.	3
3. Projects must involve network innovation.	3
4. Projects must support, at a minimum, be consistent with the development and growth of competitive markets.	4
5. Projects must be innovative, novel and/or risky.	4
6. Projects must include participation from a range of stakeholders.	4
7. Projects must provide value for money and be costed competitively.	3
8. Projects must be well thought through and have a robust methodology so that they are capable of progressing in a timely manner.	3
9. Projects must clearly demonstrate how they build upon existing or previous innovative work and articulate how they provide additional value or advancement.	3

10. Projects must consider the needs of the end customers and outline how these stakeholders have been, or will be, meaningfully engaged in the development and adoption of the innovation.	4
11. Projects must demonstrate a clear approach to open data, knowledge sharing, and dissemination of learnings.	3

Recommendation to the Office of Gas and Electricity Markets (Ofgem)

FUND

The Expert Assessors agree that this Project has met the Eligibility Criteria and recommend this Application for funding.

The Project addresses the Innovation Challenge as it would develop the Innovation Charter which identifies the barriers and innovations required to deliver products and services to prove the viability of autonomous local balancing and optimisation of networks at every level by 2034. The Expert Assessors agree Eligibility Criterion 1 is met.

The Project has identified potential to deliver a net benefit to electricity consumers by lowering costs due to more efficient network balancing. The Expert Assessors agree Eligibility Criterion 2 is met.

The Project is considered to involve network innovation as it would involve a transformation of how the energy system is currently balanced. The Expert Assessors agree Eligibility Criterion 3 is met.

The Project is considered to support the development of competitive markets as Project outputs will be publicly available and stakeholders from across industry will be included in shaping the early work. The Expert Assessors agree Eligibility Criterion 4 is met.

The Project is considered innovative, novel and/or risky as addressing the Innovation Challenge would involve total system innovation and transformation from largely central balancing of the system to local control systems that work autonomously and coordinate with the central system. This large-scale

transformation is inherently risky. The Expert Assessors agree Eligibility Criterion 5 is met.

The Project is considered to include participation from a sufficient range of stakeholders as the Project Partners have complimentary skills and areas of expertise and several have worked together before. The Project also commits to involving stakeholders from across industry in developing the pathway. The Expert Assessors agree Eligibility Criterion 6 is met.

The Project is considered to represent value for money and be costed competitively as the allocation of costs across Project Partners is reasonable and the consultant effort and rates are appropriate for the work involved. However, one Expert Assessor noted that the rates from NGED and NESO were high and not fully justified against the effort proposed. NGED and NESO also both appeared to be charging for Project management. On balance, the Expert Assessors consider Eligibility Criterion 7 to be met, and the Project will be required to provide further justification for costs in a Project-specific condition.

The Project is considered to have a robust methodology capable of progressing in a timely manner as a Project plan and comprehensive Gantt chart were provided, with clearly identified dependencies across work packages. The Expert Assessors agree Eligibility Criterion 8 is met.

The Project is considered to have clearly demonstrated how it builds on previous or existing innovative work by referencing the work of the Energy Networks Innovation Taskforce. The Expert Assessors highlighted that more detail on how the Project intends to build on previous work would have strengthened the Application but, overall, the Expert Assessors consider Eligibility Criterion 9 to be met.

The Project is considered to meet the needs of the end customers and has outlined how these stakeholders have been, or will be, meaningfully engaged in the development and adoption of the innovation. Eligibility Criterion 10 has been met.

The Project is considered to have demonstrated a clear approach to open data, knowledge sharing, and dissemination of learnings by making Project outputs

publicly available via dissemination by webinars and online. The Expert Assessors agree Eligibility Criterion 11 is met.

Review from National Energy System Operator (NESO)

N/A

Decision from the Office of Gas and Electricity Markets (Ofgem)

FUND

Ofgem agrees with the Expert Assessors and approves this Project for funding.

Recommended Project-specific conditions

At the Project kick-off meeting, the Project Lead shall provide an updated risk register and auditable plan demonstrating how costs, resources and activities are linked to deliverables, accountable owners and expected benefits, and that all labour and third-party costs represent proportionate and justified value for money. Based on this, an updated spend profile will be agreed with the monitoring officer and spend updates will be given monthly by the Project team.

The Project team must work with the monitoring team on developing a stakeholder engagement and dissemination plan by week 3 of the Project.

9.2.2 [REDACTED]