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Decision

Decision on the 2019 Low Carbon Networks Fund and Network Innovation Competition Successful Delivery Reward applications

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Overview:

In May 2019 we received applications from network licensees for a Successful Delivery Reward for three Low Carbon Networks (LCN) Fund projects and two gas Network Innovation Competition projects. Having considered the applications, we have decided to award a total of £2.76m across the five projects. Four projects will receive 100% of their potential reward and one project will receive 50% of its potential reward.

This document sets out our assessment of each project's Successful Delivery Reward application and the consequential reward.

Contents

Executive summary

Innovation is important to ensure that network companies support the transition to a smarter, more flexible, sustainable low-carbon energy system and reduce costs to consumers by finding new ways of operating and developing their networks. Accordingly, our framework for regulating network companies contains mechanisms to stimulate innovation.

The Low Carbon Networks (LCN) Fund financed electricity distribution innovation projects between 2010-2015, during the fifth electricity distribution price control (DPCR5). Licensees were awarded funds, either via individual innovation allowances or via a competitive process, for projects that helped networks meet the challenges posed by the low carbon transition or delivered other environmental benefits. In the subsequent Revenue=Incentives+Innovation+Outputs (RIIO-1) price control framework, the LCN Fund was replaced by the Network Innovation Competition (NIC) and Network Innovation Allowance (NIA). The NIC and NIA are also available to gas transmission, gas distribution and electricity transmission licensees.

The Successful Delivery Reward (SDR) is a financial reward for which companies can apply on completion of certain LCN Fund or NIC projects for network companies that deliver projects efficiently. Network companies make a compulsory contribution of 10% of the total project funding approved at the start of the project. This is the maximum value of the SDR for each project. Companies can apply to receive this once their project is complete if they can demonstrate how they have met certain criteria.

There is an annual window for completed LCN Fund and NIC projects to apply for their SDR.[1] This year, 2019, three completed LCN Fund projects, two completed electricity NIC projects and one completed gas NIC project applied for the SDR. We used their applications, along with other evidence received in the course of the projects (see 1.11 for further information) to assess whether each project had been well managed and met its Successful Delivery Reward Criteria (SDRC).

Our decisions on the reward for each project are presented in Table 1 below.

Table 1: Allocation of the Successful Delivery Reward for each project

Innovation project	Funding mechanism	Licensee	Licensee compulsory contribution (£)	Total awarded SDR (£)
CLoCC	Gas NIC	NGGT	£543,380	£543,380
GRAID (In Line Robotic Inspection)	Gas NIC	NGGT	£630,500	£630,500
Smart Street (eta)	LCN Fund	ENWL	£955,013	£955,013
Respond (FLARE)	LCN Fund	ENWL	£502,432	£251,216
Energywise (VCEE)	LCN Fund	UKPN	£381,527	£381,527

[1] All Second Tier LCN Fund projects and NIC projects awarded funding in or before 2016 are eligible to apply to Ofgem for the SDR once the project has been completed. Projects funded after this date are not eligible for the SDR.

1. Introduction

Context

1.1. Network companies need to innovate to address the challenges they face and facilitate the transition to a low carbon economy. We recognised this when developing the fifth electricity distribution price control (DPCR5) and as a result, developed the Low Carbon Networks (LCN) Fund for the electricity distribution companies, which ran until the end of the price control, 31 March 2015. Part of the LCN Fund was an annual competition where companies competed for funding for innovation projects, known as the "Second Tier".

1.2. Subsequently in the RIIO-1 price control we have introduced two innovation mechanisms: the Network Innovation Allowance (NIA) and the Network Innovation Competition (NIC). The current price control period runs until 31 March 2021 for gas transmission, gas distribution, electricity transmission and the electricity system operator licensees and until 31 March 2023 for electricity distribution licensees.

1.3. The LCN Fund and NIC schemes fund the network companies to conduct research and run network-related trials of technologies that will facilitate the transition to a low carbon economy, where these offer cost savings and/or wider environmental benefits for customers. The funding provided to companies under the schemes is paid for by customers through their bills.

1.4. Before licensees were awarded funding for Second Tier LCN Fund and NIC projects, licensees submitted proposals. These were reviewed by both Ofgem and an independent Expert Panel. The Expert Panel recommended which projects should be awarded funding with each network company being required to make a compulsory contribution of 10% of the funding requested.

1.5. All Second Tier LCN Fund projects and NIC projects awarded funding on or before 2016 are eligible to apply to Ofgem for the SDR once the project has been completed. The maximum reward is equal to the licensee's 10% compulsory contribution to the project budget, as set out in its Project Direction[2]. Before submitting a SDR application, the projects close down report must be peer reviewed.

1.6. There is an annual window for completed LCN Fund and NIC projects to apply for their SDR. In 2019, three completed LCN Fund projects and two completed gas NIC projects applied for the SDR. The total amount of funding applied for was £3 million.

[2] All capitalised terms not otherwise defined in this document, have the meaning given to them in the LCN Fund or NIC Gas or Electricity Governance Document.

Assessment process

1.7. The process for assessing the SDR applications is set out in the LCN Fund and NIC Governance Documents[3]. Licensees are required by the respective licence conditions to comply with these documents as though they formed part of the licence. Throughout this document we refer to the "Governance Document" as both the NIC and LCN Fund Governance Documents are consistent in their requirements for the SDR.

1.8. The Governance Document sets out the three elements we consider as part of assessment of SDR applications, these are summarised here:

- whether the project specific SDRC, contained in its project direction, had been met to a quality that we expected and whether the SDRC were delivered on time;
- the final project cost to understand if the SDRC were met cost-effectively; and
- the management of the project, in particular how risk and uncertainty were controlled and how significant changes to the project were managed.

1.9. We place greater weighting on the first element (50%) because it is directly related to evaluating how the SDRC were met.

1.10. The remaining weighting is split evenly between cost effectiveness (25%) and project management (25%).

1.11. We assess projects on a case by case basis. We use:

- evidence submitted in the applications;
- responses from the companies to our supplementary questions; and
- evidence gathered by us during the life of the project.

1.12. We adopt a standard assessment process to ensure the projects are treated consistently and fairly.

1.13. Some projects undergo changes in their scope, methodology and expected outputs, which can be expected due to the nature of innovation projects. In order to incorporate these changes into the project directions, the licensees have to submit change requests to us for approval.

1.14. When we assess whether to approve these change requests, we consider whether there has been a material change in circumstances and whether the changes are in customers' interest. We are not at that time evaluating the licensee's management of change, and approving the request does not influence our decision on the level of the award under the SDR.

1.15. We reduce the amount of the reward where we believe the licensee had not made full use of the available risk management tools. We also reduce the amount of the reward

[3] Low Carbon Networks Fund Governance Document v.7
Network Innovation Competition Governance Documents v.3

where we considered documents submitted to us as part of a change request were not to the required standard.

1.16. We expect lessons from running these projects to be applied to current and future innovation projects.

Structure of this document

1.17. The remainder of this document explains our assessment of each project's SDR application. Each chapter looks at a single project and provides our decision on each of the three elements, including where we have reduced the reward for a licensee.

2. Customer Low Cost Connections (CLoCC)

Project summary

National Grid Gas Transmission (NGGT) was awarded funding to implement its CLoCC project through the Gas NIC in 2015[4]. The project aimed to reduce the time and cost of connecting to the National Transmission System (NTS) by challenging aspects of the connection process, focusing on three areas: creating an online customer connections platform, developing standardised connections equipment, and optimised commercial processes.

Did the project meet its SDRC?

2.1 We consider the evidence submitted by NGGT in its SDR application for CLoCC demonstrates that the SDRC were delivered to an acceptable quality and on time. We therefore consider that the project has met its SDRC.

Were the SDRC cost-effectively delivered?

2.2 We consider that the project was cost-effectively delivered. The project was within budget across all categories, delivering the project £905k under the overall budget. These unspent funds will be returned to customers.

2.3 In the travel and expenses budget category, the underspend was 97%. We strongly encourage applicants to make realistic forecasts of their expenditure when submitting proposals.

How well was the project managed?

2.4 NGGT was required to provide reports at key milestones throughout the project. All of these reports were of an acceptable standard and were provided within pre-agreed deadlines.

2.5 NGGT provided risk analysis in its Project Progress Reports as required.

Our decision

2.6 We have decided to award the project the full SDR available: £543,380.

2.7 This reflects the fact that NGGT has delivered the CLoCC project to a satisfactory standard, on time and under budget.

[4] https://www.ofgem.gov.uk/publications-and-updates/network-innovation-competition-project-direction-clocc

Table 2: CLoCC reward

SDR criterion	Available (£)	Awarded (£)
SDRC delivery	271,690	271,690
Cost effectiveness	135,845	135,845
Project management	135,845	135,845
Total	**543,380**	**543,380**

3. GRAID (Gas Robotic Agile Inspection Device, formerly In Line Robotic Inspection)

Project summary

National Grid Gas Transmission (NGGT) was awarded funding to implement its GRAID project through the Gas NIC in 2014[5]. The project sought to develop a robot that can inspect underground gas pipework.

Did the project meet its SDRC?

2.1. The evidence provided by NGGT demonstrates that the SDRC were delivered to an acceptable quality and on time, or ahead of time. We therefore consider the project met its SDRC.

Were the SDRC cost-effectively delivered?

2.2. NGGT overspent against some budget lines, but managed to deliver the project around £41k below the overall budget set out in the revised Project Direction. Overspend and underspend of budget allocations was sufficiently justified.

2.3. Equipment was substantially over budget by 87%. This is due to the additional acceptance testing required for the offline trials, and was an unforeseen safety requirement which had not been included in the budget. There were also additional costs for inspections at the second live trial site of Bacton terminal. NGGT made a voluntary contribution of £243k towards the offline test facility to mitigate the impact of these unforeseen costs.

2.4. As the voluntary contribution exceeds the original overspend, the unspent funds will not in this case be returned to customers.

How well was the project managed?

2.5. NGGT submitted four change requests during the course of the project, all of which were subsequently approved by Ofgem.

2.6. The most significant change request approved an additional voluntary contribution of £243k by NGGT to cover the unforeseen costs related to safety tests of the offline test facility.[6]

[5] Original Project Direction: https://www.ofgem.gov.uk/publications-and-updates/network-innovation-competition-project-direction-inline-robotic-inspection

[6] https://www.ofgem.gov.uk/publications-and-updates/network-innovation-competition-amendments-national-grid-gas-transmission-s-graid-project

2.7. Difficulties at the trial stage were identified early, tracked and reported in meetings and identified in six-monthly reports. These were communicated to the project team and discussed at the regular monthly meetings.

2.8. We consider NGGT's approach to risk management in this project was proven by the timely identification of ongoing issues relating to SDRC delivery dates. The risks listed in the six-monthly reports, which reflect the Project Direction, appear to have been regularly updated and communicated.

Our decision

2.9. We have decided to award the project the full SDR available: £630,500.

2.10. This reflects that NGGT delivered GRAID to a satisfactory standard and on time, including some SDRC which were delivered ahead of time. We are also satisfied that the project was managed cost effectively.

Table 3: GRAID reward

SDR criterion	Available (£)	Awarded (£)
SDRC delivery	315,250	315,250
Cost effectiveness	157,625	157,625
Project management	157,625	157,625
Total	**630,500**	**630,500**

4. Respond (formerly FLARE)

Project summary

Electricity North West (ENWL) was awarded funding to implement the Respond project through the LCN Fund in 2014. The project sought to use fault level active management to help distribution network operators (DNOs) to quickly connect customers' low carbon demand and generation at a cost lower than that of traditional reinforcement.

Did the Project meet its SDRC?

4.1 The evidence submitted by ENWL in its SDR application for the project demonstrates that most of the SDRC were delivered. However, we consider that two SDRC were not met for the reasons set out below.

4.2 We consider that SDRC 9.3.7, which required that ENWL test the market by purchasing 'a Fault Current Limiting service from at least one Electricity North West demand customer and one Electricity North West generation customer', was not met. ENWL instead recruited two generation customers without raising a change request with Ofgem. This specific criterion was added to the Project Direction following the project's resubmission to the LCN Fund Panel.

4.3 Additionally, SDRC 9.3.5 required that ENWL 'submit a DCUSA change proposal' to amend the application approach to Fault Level Cost Apportionment in the Common Connection Charging Methodology during the course of the project. The request was drafted and published, but not submitted due to the failure to recruit a demand customer to the trials. We consider this criterion was not met as a consequence of the non-fulfilment of criterion 9.3.7.

Were the SDRC cost-effectively delivered?

4.4 Overall ENWL delivered the project £364k below the budget set out in the Project Direction. No reallocation of budget between line items was made. The unspent budget will be returned to customers.

4.5 Though a proportion of this underspend can be accredited to the non-fulfilment of criterion 9.3.7, examination of the budget lines has led us to the conclusion that project costs were on the whole well managed.

How well was the project managed?

4.6 No formal change requests were submitted to Ofgem. However, we consider there should have been a change request submitted reflecting the project's difficulties recruiting a demand customer, which was an explicit requirement in the SDRCs.

4.7 While material change is not a defined term in the LCN Fund Governance, ENWL's actions across its other Tier 2 projects would lead us to expect this level of change

to the SDRC would have been considered material.[7] It is therefore our view that ENWL has not followed the required process in this project.

4.8 Risk was not well managed. This is evidenced by the fact that the difficulties faced by ENWL in purchasing Fault Current Limiting services from a demand customer were not appropriately escalated in the risk register of the Project Progress Reports. The first mention of difficulties in fulfilling criterion 9.3.7 is in the project's seventh Project Progress Report, in which ENWL reports both that the SDRC had been delivered, and that ENWL had completed another piece of work instead.

4.9 The project team communicated the non-fulfilment of the SDRC 9.3.7 to Ofgem by email shortly before the project was due to close, however, this was not to report a material change, or to submit a change request, but only to inform Ofgem of the alternative work that had been completed. In line with the LCN Fund Governance, it is the responsibility of the licensee to identify material changes to the Project and to report them to Ofgem.

4.10 It is therefore our view that the project did not adhere to Governance reporting requirements for all elements of the project, and was reactive rather than proactive in its risk management of SDRC 9.3.7.

Our decision

4.11 We have decided to award ENWL 50% of its possible reward: £251,216.

4.12 The project did not meet all of the SDR Criteria, and did not follow the required reporting procedures for LCN Fund Tier 2 projects. We have therefore marked the project down significantly in these two categories.

4.13 We do however recognise that th criteria which were completed were delivered to a satisfactory standard, to budget and on time.

Table 4: Respond reward

SDR criterion	Available (£)	Awarded (£)
SDRC delivery	251,216	125,608
Cost effectiveness	125,608	125,608
Project management	125,608	0
Total	**502,432**	**251,216**

[7] For reference see change request for the project Capacity to Customers dated 14 October 2013: https://www.ofgem.gov.uk/publications-and-updates/decision-approve-amendments-electricity-north-west-limited%E2%80%99s-low-carbon-networks-fund-project-%E2%80%93-capacity-customers

5. Smart Street (formerly "eta")

Project summary

Electricity North West (ENWL) was awarded funding to implement its Smart Street project through the LCN Fund in 2013. The project aimed to demonstrate the benefits of actively optimising the low voltage (LV) network to reduce customer consumption and losses.

Did the project meet its SDRC?

5.1 We consider the evidence submitted by ENWL in its SDR application for the project demonstrates that the SDRC were delivered to an acceptable quality and on time. Throughout the project, ENWL published evidence demonstrating delivery of its SDRC. We therefore consider the project met its SDRC.

Were the SDRC cost-effectively delivered?

5.2 Overall, ENWL managed to deliver the project £852k below the budget set out in the Project Direction. The remaining funds will be returned to customers.

5.3 While there was marginal overspend against some budget lines, sufficient justification was provided in the application. We view the variances to be the result of factors outside of project control.

How well was the project managed?

5.4 One change request was submitted to and approved by Ofgem. The request was submitted two years into the four-year project, and sought to delay the project completion date by four months due to factors outside of the project's control. We think that this demonstrates good project management.

5.5 We consider that ENWL has managed the project well, with evidence that the risk register was maintained and updated as the project progressed.

Our decision

5.6 We have decided to award the project the full SDR available: £955,013.

5.7 This reflects our view that ENWL has delivered the project on time, within budget and to a good standard.

Table 5: Smart Street reward

SDR criterion	Available (£)	Awarded (£)
SDRC delivery	477,507	477,507
Cost effectiveness	238,753	238,753
Project management	238,753	238,753
Total	**955,013**	**955,013**

6. Energywise (formerly Vulnerable Customers and Energy Efficiency, or VCEE)

Project summary

UK Power Networks (UKPN) was awarded funding to implement the Energywise project in 2013. The project sought to engage fuel poor and vulnerable customers so they can benefit from energy efficiency and demand side response. The project also sought to quantify the network services that these customers could provide.

Did the project meet its SDRC?

6.1. We consider the evidence submitted by UKPN in its SDR application for the Energywise project demonstrates that the SDRC were delivered to an acceptable quality and on time. Throughout the project, UKPN published evidence demonstrating delivery of its SDRC. We therefore consider the project met its SDRC.

Were the SDRC cost-effectively delivered?

6.2. Overall, UKPN managed to deliver the project below the budget set out in the Project Direction. The remaining funds (£371,000) will be returned to consumers. We consider UKPN's approach to be cost-effective.

How well was the project managed?

6.3. We consider that project risk and uncertainty were managed well. UKPN updated the risk and issues log between six-monthly reports and flagged risks to us promptly as they became issues.

6.4. We consider that UKPN has managed the project well overall. UKPN made three changes to the project; one change to extend SDRC 9.2 by two months, one to extend SDRC 9.5 by three months and SDRC 9.6 by 9 months, as well as one non-material change to the wording of SDRC 9.5. UKPN informed Ofgem of these changes in a timely manner and, where relevant, provided us with sufficient information for us to make a timely decision. We consider UKPN took all practicable measure to rectify these issues without making changes to the project.

Our decision

6.5. We have decided to award the project the full SDR available: £381,527.

6.6. This reflects the fact that UKPN has delivered Energywise to a good standard, on time and under budget.

Table 6: Energywise reward

SDR criterion	Available (£)	Awarded (£)
SDRC delivery	190,763	190,763
Cost effectiveness	95,382	95,382
Project management	95,382	95,382
Total	**381,527**	**381,527**

7. Next steps

7.1. We will implement our decisions on this reward by directing the DNOs to recover the SDRs through the 2019 LCN Fund funding direction[8] in accordance with the LCN Fund Governance Document. Separately we will require National Grid Gas plc (NGG) and National Grid Electricity System Operator ltd (NGESO) to recover the total SDR amount for the GDN, OFTO and TO respectively and transfer the appropriate amounts as part of the NIC funding direction. [9] The funding directions will also take into account any funding to be returned to customers, including project underspends and revenue from royalties generated by LCN Fund and NIC projects.

7.2. We will issue the funding directions in time for the DNOs, NGG, and NGET to prepare their indicative use of system tariffs at the end of December 2019. This will allow DNOs to recover any awarded SDR in the 2020/21 regulatory year.

7.3. This document constitutes notice of our reasons for our decision in accordance with section 49A of the Electricity Act 1989 and section 38A of the Gas Act 1986.

7.4. If you have any queries, please contact networks.innovation@ofgem.gov.uk.

[8] The LCN Fund Funding Direction set out how much each Distribution Services Provider (DSP) can recover from customers through Use of System Charges and the net amounts to be transferred between DSPs to cover the costs of eligible funding under the LCN Discretionary Fund. The Funding Directions will take account of any funding to be returned to customers, including revenue from royalties generated by LCN Fund projects.

[9] The NIC Funding Direction sets out how much the system operators can recover from customers through Use of System Charges and the net amounts to be transferred to licensees to cover the costs of NIC projects and any Successful Delivery Reward. The Funding Directions will take account of any funding to be returned to customers, including revenue from royalties generated by NIC projects.