Project Progress Report (PPR)

Capacity to Customers (C_2C) Project

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Produced by: Craig McNicol
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CONTENTS

VERSION HISTORY

Version	Date	Author	Status (draft, etc)	Comments
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d0.2	12 June 2012	C McNicol	2nd draft	Finances included
d0.3	12 June 2012	C McNicol	3rd draft	Comments addressed
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APPROVAL

Name	Role	Signature & date
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GLOSSARY OF TERMS

Abbreviation	Term
CEP	Customer Engagement Plan
CRMS	Control Room Management System
C_2C	Capacity to Customers
DPS	Data Protection Statement
I&C	Industrial & Commercial
MPAN	Meter Point Administration Number
SDRC	Successful Delivery Reward Criteria milestone

All other definitions shown starting with a Capital letter are as per LCN Fund Governance Document v5.

1. EXECUTIVE SUMMARY

The Capacity to Customer (C_2C) Project is funded via Ofgem's Low Carbon Networks Second Tier funding mechanism. The C2C Project was authorised to commence in January 2012 and is due to complete in December 2014.

As the UK fulfils its decarbonisation obligations under the Climate Change Act 2008 to cut greenhouse gas emissions by 80% by 2050, the demand on electricity networks is forecast to dramatically increase. This increase in network demand will be driven primarily through the decarbonisation of heat, transportation and electricity production rather than by a growing population or growing energy usage. The likely consequences of this increase are increased electricity costs to customers and significant environmental and social impacts.

The aim of the C_2C Project is to test new technology, network operational practices (ie closed HV rings) and commercial demand response contracts that will allow Electricity North West to increase the loadings on a selection of trial circuits representing approximately 10% of our HV network without resorting to conventional network reinforcement. In other words to 'release' inherent spare capacity in the HV system in order to accommodate the future forecast increases in demand whilst avoiding (or deferring) the cost and environmental impacts that are associated with traditional network reinforcement. The C_2C Project consists of customer and commercial, technology and learning and dissemination work-streams.

The C_2C Project will develop and trial new demand-response contracts that will allow Electricity North West to manage, with their agreement, the demand or export capacity of contracted customers on the trial circuits under fault or abnormal system conditions. When a new customer connects to the network they will be offered the option to sign up to a demand response contract in exchange for a reduced connection charge.

In the event that a fault occurs on the HV network feeding such a customer, the contract will allow Electricity North West to manage all or part of their demand if required to enable Electricity North West to restore customers' supplies in as short a time as possible. It is envisaged that many future customers will opt for part of their demand to be managed in this manner in exchange for reduced connection charges.

Prior to commencing the live trial, it will be necessary to apply for a derogation from Licence Condition 24 in relation to ER P2/6 compliance. This is because ER P2/6 requires that in the event of a worst case fault, the network should be capable of restoring customers' unconstrained demand within a defined timescale. The C_2C Project will increase the demand on the selected HV circuits and use demand response to manage this increase. P2/6 does not currently recognise this technique which enables the use of the HV circuits' latent capacity. This derogation application will be made during June 2012.

In addition to new demand response contracts the C_2C Project will implement new technology in the form of enhancements to our Network Management System to provide real time adaptive network management, which along with additional system automation, fitted to our trial HV circuits, will allow faulted circuits to be restored to normal running conditions as quickly as possible. Other technology elements of the Project will be to monitor power quality on the trial circuits in order to prove that the changes in operational practice (ie running HV circuits closed) has a positive impact on supply quality. As the

Project is funded via Ofgem's Low Carbon Network Fund, dissemination of learning will be key. This will be achieved by sharing our findings via our C_2C website, industry conferences, consultations and white papers.

Progress to date

This report is the first C_2C Project Progress Report and covers the period January 2012 to May 2012. The C_2C Project is on track and has successfully submitted to Ofgem evidence of the achievement of the first four Project deliverables in accordance with agreed timescales, these being two 'enablers', namely:

1.	Submit Customer Data Privacy Statement	March 2012
2.	Submit Customer Engagement Plan	March 2012

and two SDRC, namely:

3.	Updated and enriched customer data	April 2012
4.	Network management system software design	April 2012

Project expenditure as at the end of May was £2.8m under spent to the original budget. The variance is essentially due to the deferment of orders for high value plant and software, which is now scheduled to be received and installed in the later part of the year. This will not affect delivery of any SDRC's and year end expenditure is expected to be in line with the original budget.

There have been no knowledge dissemination activities to date as the project is at an early stage in its life cycle.

During the next reporting period the C_2C Project will focus on design and implementation of the required technology, customer engagement and market analysis and production of new processes and commercial templates for the demand response contracts.

Looking further ahead, the live trial period is scheduled to occur from April 2013 until September 2014, during which time the C_2C Project will seek to complete negotiations on twenty response contracts across existing and new customers, monitor the effect of changes to the network running configuration and disseminate learning on an going basis.

2. PROJECT MANAGER'S REPORT

2.1 General Programme Management

The most significant general programme management activities undertaken during the reporting period are listed below;

- Mobilisation of the project delivery team
- Establishment of project governance and controls
- Internal stakeholder engagement

The full time project team was appointed during February 2012 and was fully mobilised by March 2012. The team's immediate focus was to establish project governance and controls and deliver key project activities pursuant to the Projects SDRC. More recently a series of internal stakeholder engagement and briefings have been completed in order to ensure key stakeholders are aware of their responsibilities and specific project contributions.

A key learning point from this period was that despite anticipation and planning by the project development team, the process of recruiting full time staff took several weeks longer than planned. In future project applications we will structure a specific mobilisation and team forming stage within the initial start-up phase.

During the next reporting period significant programme management activities will be;

- Continued stakeholder engagement and management
- Ongoing refinements to project governance and reporting tools and processes

2.2 Technology Workstream

The most significant Technology Workstream activities during the reporting period are listed below;

- Completion of contract negotiations with key project partners namely Parsons Brinckerhoff Ltd and IGE Energy Services (UK) Ltd
- Network management system software design
- Refinement of trial circuit selection criteria and development of a variation methodology
- Identification of trial HV circuits and selection of system automation points and hardware requirements

All of the above activities have been completed or are on track. All SDRC that are associated with the above activities are on track. As noted in section 1, project expenditure in this workstream is behind baseline. This is due to negotiation of favourable payment terms and placing orders slightly later than originally planned. This has led to a £2.8m variance on the project budget to date. This variance is expected to close during the next reporting period and the expenditure at year end is expected to be in line with the original budget.

A key Technology Workstream learning point from this period relates to the detailed functional specification of the project software requirements. During the bid phase the User Requirements Specification was agreed by the parties and this was used as the basis of the

pricing model. Whilst there is a case to be made that fixed price arrangements with suppliers to protect the interests of customers, the limited funds available for bid preparation preclude the agreement of a full Functional Design Specification. Such a document is of considerable assistance in ensuring a smooth transition to delivery particularly for projects containing significant ICT elements. This point needs to be considered as part of the current Innovation Working Group discussions.

During the next reporting period the Technology Workstream's significant activities will be;

- Continue software development to enhance the network management system
- Start the installation of remote control actuators and RTU equipment
- Start the installation of power quality monitoring equipment
- Start the P2/6 industry engagement process
- Agree detailed scope and commence work with the Universities of Manchester & Strathclyde

2.3 Customer and Commercial Workstream

The most significant Customer and Commercial Workstream activities during the reporting period are listed below;

- Identification and contract negotiations with market research supplier
- Specification and design of customer engagement
- Identification and contract negotiations with website developer
- Specification and design C_2C micro website
- Production and issue of Data Privacy Statement
- Production and issue of Customer Engagement Plan
- Commencement of new connections offer process design

All SDRC that are associated with the above activities are on track. However, we have recently encountered an issue with the approval of the Customer Engagement Plan that has required us to apply for a one month deferment of the Customer Engagement and Segmentation SDRC. This issue is described in detail in section 4.1.

During the next reporting period the Customer and Commercial Workstream's significant activities will be;

- C_2C website go live
- Complete customer engagement and market segmentation model
- Complete connections offer process review
- Draft new commercial templates for C_2C contracts

2.4 Learning and Dissemination Workstream

The most significant Learning and Dissemination Workstream activities during the period have been as listed below;

- Produce a draft schedule of industry conferences to attend or participate
- Scheduled quarterly project partner knowledge sharing sessions

- Commenced development of C_2C website, this will be used as a repository for sharing project learning to interested stakeholders

The project is still at an early stage in its life cycle and has not yet delivered any products that warrant specific dissemination to industry stakeholders.

During the next reporting period the project will have conducted its customer engagement and will have analysed the information received from it. This is likely to be the first item of general interest to industry stakeholders.

Risks and issues anticipated in the next period will be covered in section 4.

3. BUSINESS CASE UPDATE

We are not aware of any developments that have taken place since the issue of the C_2C Project Direction that affect the business case for the project.

4. PROGRESS AGAINST PLAN

4.1 Current reporting period

The C_2C Project has successfully delivered its first two SDRC on time during April 2012; these can be seen in table 4.1 below.

Table 4.1 SDRC delivered in reporting period

Milestone	RAG	Planned date	Forecast date	Commentary
9.2.1 Update demand response customer data	Green	Apr-12	Apr-12	Completed. Sent to Ofgem 27 April.
9.4.1 Software design completed	Green	Apr-12	Apr-12	Completed. Sent to Ofgem 30 April.

4.1.1 Most significant risks and issues experienced during reporting period

Internal stakeholder awareness of C2C Project (R014)

Risk: At the beginning of May a risk was identified that some internal stakeholders may not be fully aware of the detailed scope of their involvement in the project.

Action plan: To resolve this issue an internal stakeholder analysis was performed which identified key individuals or groups that needed to be more fully engaged in the project detailed plan. A process of increasing stakeholder awareness and formalising resource commitments was undertaken, involving one-to-one briefing sessions for directors, management teams and resource schedule controllers. Having completed this exercise during May the need to develop a wide scale 'internal launch' of the project was identified. This activity will be carried out during the next reporting period of project.

Insufficient number of suitable closed rings on HV circuits (I002)

Issue: During the circuit selection process it became apparent that a number of circuits that satisfied initial selection criteria would not actually be suitable for inclusion in the trial, either

because they had a spring closing mechanism circuit breaker at the feeding end (ie limited auto-reclose capability) or because the circuits did not actually form a closed ring on the same primary substation. This led to the need to widen the selection criteria to include circuits with expected lower connections application market activity or the need to install Retvac[1] circuit breakers.

Action plan: It was decided to lower the criteria for the volume of I&C connections applications and introduce a new category of circuit called 'low fault rate open rings'. The introduction of this third category of trial circuits will be used to establish whether the C_2C concept will require multi shot circuit breakers at feeding primary substations. The learning from this issue is to be included in the lessons learned report and circuit selection criteria and will provide valuable additional learning for application to networks with older configurations of switchgear.

Approval of Customer Engagement Plan (I005)

Issue: A recent issue has emerged regarding the approval of the C_2C Customer Engagement Plan (CEP), this was submitted at the end of March 2012 and it was understood that Ofgem required two months to review the plan as outline in the LNCF Governance Fund Document v5. During the initial project planning it was assumed that entire approval process would last two months and our customer engagement exercise was scheduled to commence immediately after the two month review period. In reality Ofgem provided their comments two months after submission of the document and these required material changes to be made to the CEP. This has delayed the start of the Customer Engagement.

Action plan: Electricity North West and Ofgem discussed the issue and agreed a 'no fault' delay to the Customer Engagement and Customer Segmentation Model SDRC. It was agreed to amend and approve the CEP within one month and for Electricity North West to formally request a one month delay to two SDRC that were dependent on the approval of the plan.

A key lesson from this is to allow one month between any Ofgem review period and the commencement of an activity that is dependent on positive outcome of that review. This principal will be reflected in the project plan.

4.2 Next reporting period

Activities for the next reporting period have been described in section 2, and are summarised here for completeness.

During the next reporting period the most significant programme management activities will be;

- Continued stakeholder engagement and management
- Ongoing refinements to project governance and reporting tools and processes

[1] A replacement circuit breaker with a suitable mechanism for the automation required by C_2C.

During the next reporting period the Technology Workstream most significant activities will be:

- Continue software development to enhance our network management system
- Start the installation of remote control actuators and RTU equipment
- Start the installation of power quality monitoring equipment
- Start the P2/6 industry engagement process
- Agree scope and commence work with the Universities of Manchester and Strathclyde

During the next reporting period the Customer and Commercial Workstream most significant activities will be;

- C_2C website go live
- Complete customer engagement and market segmentation model
- Complete connections offer process review
- Draft new commercial templates for C_2C contracts

During the next reporting period the Learning and Dissemination Workstream most significant activities will be;

- Feedback from customer survey and market segmentation model

The SDRC planned for the next reporting period can be seen in table 7.2 in Section 7.

4.2.1 Risks & issues envisaged during next reporting period

Customer survey - Only one month to conduct the survey (R004)

Risk: There is a risk that the Customer Survey will not be completed on time, leading to failure to meet Ofgem SDRC, because we will only have one month to complete it and the activity has recently been re-scheduled for July. This is likely to create problems with gaining access to the appropriate customer representatives due to July being the commencement of the summer holiday period.

Action plan: Our market research provider (Impact Research) has been engaged and the customer survey has been designed. There are approximately 1,200 I&C customers on the trial circuits who will be the target group for the survey. Contact details of each customer have been obtained prior to the survey period commencing. All of these customers will be contacted in writing and via phone regarding the trial and invited to participate in the survey. It is our intention to secure between 300-600 responses to a detailed online survey. Impact Research has resources at their disposal to follow up and assist customers to participate in the survey.

Lack of GE fault restoration capability for all HV scenarios (I004)

Issue: There is an issue that the adaptive network management system will not cater for one specific HV fault scenario, leading to the need to manually determine fault restoration sequences for this scenario, because the GE current system does not cater for reverse flow through feeding breakers.

Action plan: We have raised this with GE, who have explained the reasons why the functionality is not currently available and cannot be developed within the timeframe of the agreed software development contract (Up to February 2013). We have asked GE to produce an assessment of what would be required to develop their software such that the missing functionality is available and they have agreed to do this. We have also explained that the functionality could be developed 'during the trail' so as not to be constrained to any particular software development cycle. The issue has also been raised at senior management level as well as at project level. Due to the rare configuration covered by this scenario it is not anticipated that the learning objectives or deliverables of the project will be affected.

Insufficient incentive for new connections customers (R016)

Risk: There is a risk that new connections customers will not be willing to participate in the C_2C trial, leading to failure to recruit ten new connections trial participants. In addition mitigating this risk may cause the project budget to be exceeded by offering additional incentives to new connections customers, because the level of costs associated with new connections (that would consequently be saved by a customer if signing a C_2C contract) is perceived as low. The potential saving may be of insufficient incentive to offer a demand response in the event of a fault.

Action plan: During the next reporting period we will analyse historic reinforcement costs and sole use costs for connections customers in order to validate the risk or otherwise and also to inform the development of our commercial templates. We will then make decision to offer further incentives or not.

Looking beyond the next reporting period we will continuously monitor customer feedback as we begin to offer new C_2C options in the run up to, and during, the trial period.

5. PROGRESS AGAINST BUDGET

The project budget as defined in the Project Direction is shown in appendix A.

During the final stages of bid development we agreed to inform Ofgem of any changes to the categorisation of expenditure as our understanding of delivery methods developed. Appendix B details the proposed re-categorisation. We propose to report project expenditure against this baseline moving forward. Note that no changes to forecast costs have been made.

Project expenditure compared to baseline forecast is summarised below at the re-based cost category level and in appendix C at project activity level. The report includes expenditure up to and including 31 May 2012.

£'000s Excluding Partner Funding Ofgem Cost Category	Actual Spend to date			Budgeted Spend to date	Variance on Spend to date	Project Spend March 2013		
	Actual	Committed	Total Spend			Forecast	Budget	Variance
Summary								
Labour	87	0	87	146	59	494	494	0
Equipment	63	964	1,027	2,585	1,558	3,067	3,067	0
Contractors	271	243	513	1,250	737	2,690	2,690	0
IT	12	0	12	331	318	689	689	0
Contingency	0	0	0	0	0	588	588	0
Other	8	0	8	93	85	180	180	0
Total Costs	**441**	**1,207**	**1,648**	**4,405**	**2,757**	**7,708**	**7,708**	**0**

The later mobilisation of the project has resulted in a deferment of expenditure to latter parts of the year. This has resulted in a £2.8m variance to the original project budget. The variance is primarily due to high value plant and software purchases being ordered and installed later than anticipated. This is not expected to jeopardise the delivery of the SDRC as the orders are associated with relatively long duration activities whose SDRC are not due until 2013. We have high confidence that the later orders can be accommodated in the plan and the year end forecast is expected to remain in line with the original of £7.7m budget (subject to utilisation of contingency held within this budget).

6. BANK ACCOUNT

The C_2C Project bank statement is shown in appendix D. The statement is dated 12 Jun 2012 and contains all receipts and payments associated with the project up to the end of May 2012.

7. SUCCESSFUL DELIVERY REWARD CRITERIA (SDRC)

During the reporting period, January 2012 to May 2012, the two planned SDRC were delivered on time.

Table 7.1 SDRC delivered in reporting period

Milestone	RAG	Planned date	Forecast date	Comments
9.2.1 Update demand response customer data	Green	Apr-12	Apr-12	Completed
9.4.1 Software design completed	Green	Apr-12	Apr-12	Completed

Software Design – Due April 2012, Delivered April 2012

This is a software design document that details the planned enhancements to the existing CRMS in order to implement Adaptive Network Management. The Electricity North West control system will be integrated with the PowerOn Fusion™ product developed by our project partner GE Energy. This will allow a real time approach to restoration of supplies to customers in the event of a fault on a C_2C circuit by utilising power flow algorithms within the GE product. We have now begun to develop the necessary interfaces between the two systems and are on track for 'go live' in March 2013.

Updated Customer Data – Due April 2012, Delivered April 2012

In order to identify customers that will need to be engaged during the trial, it was necessary to analyse the shortlisted trial circuits and, using our CRMS system, identify the MPAN numbers associated with them. It was then possible to categorise customers such that I&C customers could be identified along with address details. In some cases contact details are available and where this was not the case the data is to be obtained as part of the customer engagement exercise.

This SDRC is essentially an enabler to the Customer Survey SDRC that is due in June 2012.

The SDRC planned for the next reporting period can be seen in table 7.2 below.

Table 7.2 SDRC look ahead

Milestone	RAG	Planned date	Forecast date	Comments
9.1.1 List of HV circuits, selection & variation methodology	Green	Jun-12	Jun-12	Shortlist completed. Fine tuning during May - June
9.1.3 Submit derogation application to Ofgem	Green	Jun-12	Jun-12	No issues expected
9.2.2 Complete customer survey	Amber	Jun-12	Aug-12	Dependency on approval of CEP
9.3.1 Customer Engagement Plan accepted by Ofgem	Green	1 Jun-12	30 Jun-12	Approval forecast end June
9.3.2 C_2C website live	Green	Jun-12	Jun-12	No issues expected
9.3.3 Trial HV circuits published	Green	Jun-12	Jun-12	No issues expected
9.3.9 Start various customer engagement programmes	Green	Jun-12	Jul-12	Dependency on approval of CEP
9.6.2 Submit monthly progress report number 1 to Ofgem	Green	Jun-12	Jun-12	No issues expected
9.2.3 Complete & publish customer segmentation model on website	Green	Jul-12	Aug-12	Dependency on approval of CEP
9.3.4 C_2C connection offer process published	Green	Sep-12	Sep-12	No issues expected
9.3.5 First trade article published	Green	Sep-12	Sep-12	No issues expected
9.1.2 Publish information pamphlet on HV circuits selected for trial	Green	Oct-12	Oct-12	No issues expected
9.3.6 First project pamphlets distributed	Green	Oct-12	Oct-12	No issues expected
9.6.4 Present to 2012 LCN Fund Annual Conference	Green	Oct-12	Oct-12	No issues expected
9.5.2 P2/6 workshops completed	Green	Jul-13	Nov-12	Milestone has been accelerated in order complete in advance of P2/7 consultation

Key to table 7.2
Green text indicates an SDRC that is forecast to be brought forward.

Looking ahead, two SDRC are believed to be at risk of slippage. These are the Customer Survey and Customer Segmentation Model. The SDRC are due in June/July but were dependent on Ofgem approving our CEP by the end of May. This issue has been previously described in section 4.1. We expect this risk to be controlled during June, as Ofgem have indicated their understanding of this issue and, subject to formal approval, will allow these SDRC to be appropriately re-scheduled.

The SDRC associated with amendments to P2/6 and the associated industry consultation has been brought forward. The reason for accelerating this SDRC is to engage the industry early and ensure the consultation is completed prior to wider any consideration in the industry of more fundamental changes to P2/6.

8. LEARNING OUTCOMES

The C_2C Project is still at an early stage in its life cycle and has not yet delivered any products that warrant specific dissemination to industry stakeholders.

During the next reporting period the project will have conducted its customer engagement and will have analysed the information received from it. This is likely to be the first item of general interest to industry stakeholders.

In terms of learning from other LCN Fund Projects, we have attended a Northern PowerGrid learning event in May 2012, where our Customer and Commercial Workstream manager identified the need for an independent sign-off of our customer survey activity. In addition to this, we have also met with Northern PowerGrid who agreed to share their learning from the production of recent Project Progress Reports.

9. INTELLECTUAL PROPERTY RIGHTS (IPR)

No IPR has been generated or registered during the reporting period.

No IPR has been generated or registered during the reporting period. IPR is expected to be generated during the next period associated with the following SDRC;

- Customer Survey
- Customer Segmentation Model

10. RISK MANAGEMENT

Major risks that have arisen during the reporting period have already been described in section 4. The narrative below refers to risks that existed at time of submission and were detailed in appendix 2 of the submission.

Risk 1: Risk that internal Operations team will not be able to support installation of automated devices.

Controlled: The work requirements have been defined and communicated to the relevant delivery manager and will be tracked via our Network Investment Group governing body.

Risk 2: Risk that key personnel will not be available to deliver the project

Controlled: The project delivery team has been recruited and is part of the same department as the bid development team, which has supported the delivery team during the mobilisation stage of the project.

Risk 3: Risk of problems with the financial control of the project because of the new requirement for a separate bank account.

Controlled: The project bank account has been set up and monthly processes have been put in place to review receipt and payments on a monthly basis.

Risk 4: Failure to achieve low carbon saving

Open: The carbon impact of the project will be better understood once we begin to negotiate C_2C contracts and gain an understanding of customer willingness to engage. Continuously review from commencement of live trials.

Risk 5: Poor project management

Controlled: The project team has been recruited. The programme manager is a member of the Project Management Institute and holds their Professional Project Manager credentials (PMP). Weekly and monthly project governance meeting have been established and implemented. These include monthly updates to the sponsoring director.

Risk 6 –Network equipment cost overruns

Open: The project requires 516 remote control sites to be established at an estimated average cost of £6k per site. The estimate at completion cost for this task is £3.1m. This is within budget for this activity. However some additional unquantified costs are expected associated with primary substation alarm issues (eg one primary substation currently does not have the capability to activate automated restoration sequence (ARS) and therefore the ARS capability will need to be established by the C_2C Project).

Risk 7 – Payment to customer cost overruns

Open: The costs associated with the payments to customers will be better understood once we begin to negotiate C_2C contracts and gain an understanding of customer willingness to engage.

Risk 8 – Project partners walk away once project is won

Open: We have signed contracts with GE Energy and PB Power who are the lead project partners. We have yet to sign contracts with the universities and Enernoc or Flexitricity. This will be a key area of focus during the next reporting period.

11. OTHER

There is no other information at this time that would be of use to Ofgem in understanding the progress of the project and performance against SDRC.

12. ACCURACY ASSURANCE STATEMENT

This document has been reviewed by a number of key business stakeholders in order to ensure its accuracy. The general narrative has been reviewed by members of the project team and select members of the C_2C Programme Steering Group, including the lead member of the bid development team to ensure accuracy of statements associated with events prior to project mobilisation. The narrative has also been peer reviewed by the Electricity North West Future Networks Manager and the Electricity North West Network Strategy Director.

The financial information has been produced by the C_2C programme manager and the project's finance business partner who review all financial postings to the project each month, in order to ensure postings have been correctly allocated to the appropriate project

activity. The financial information has been peer reviewed by the Electricity North West Capital Business Partner and the Electricity North West CFO.

Issue of the document has been approved by the Network Strategy Director and the Chief Financial Officer (a Board Director).

APPENDIX A – PROJECT DIRECTION PROJECT BUDGET

£000's Excluding Partner Funding Ofgem Cost Category		
Labour		**2,512**
Monitoring Equipment Installation - Labour	22	
Business input into specs and testing & CIO System Design Approval	20	
Connections – Clerical	65	
Connections - Customer Relationship Management	241	
Dissemination - ENWL & Customer engagement via email & training	28	
Implementation of PowerOn Fusion	709	
Maintenance & Support for PowerOn Fusion	187	
Project Management - GE	351	
Project Management - ENWL	790	
Involvement in developing Future Network Planning/Operational Standard	15	
Circuit Selection	32	
Developing Future Network Planning/Operational Standard	53	
Equipment		**3,078**
Publicity Materials - Informational Pamphlets & postage & packaging	18	
Remote Control Installation - Plant	1,954	
Monitoring Equipment Installation - Plant	112	
Remote Control Installation - Materials	563	
Commissioning SCADA link to Remote Control Devices	31	
Delivery and configuration of GE IT hardware and software	399	
Contractors		**2,254**
Demand Side Response Customer Survey	391	
Project Management - ENWL	115	
Remote Control Installation - Labour	844	
Remote Control Installation at Customers' Premises	159	
Contractors Travel & Publicity - Informing Affected Customers	42	
Connections - Connections Design	303	
Carbon Analysis	40	
Data Analysis and Economic Modelling	185	
Power System and Technical Modelling	175	
IT		**740**
Data Capture and Cleanse	55	
Database Licenses	100	
Develop CRMS Reporting Capability	11	
Develop CRMS/PowerOn (SOAP) Interface	87	
Develop New Interface to PowerOn Fusion	87	
Develop Real-time Data Update Functionality	55	
Develop Visual Display Functionality for CRMS	73	
Initial Data Load Functionality	55	
System Integration & Testing	66	
Testing and Development Workstation	10	
Upload and Store Estimates (into historian)	85	
Upload CRMS Diagram and Managed Loads	55	
IPR Costs		**0**
Travel & Expenses		**0**
Payments to users		**300**
Demand Side Response	300	
Contingency		**947**
Development and Preparation	44	
Remote Control Installation	284	
Publicity, Training and Dissemination	125	
DSR and Interruptions	101	
Project Management	28	
Connections	102	
Monitoring Equipment	77	
Installation and configuration of IT and Implementation of PowerOn Fusion	109	
Circuit selection and data upload	24	
Analysis, Modelling and Development of Standards	41	
System Integration & Testing	13	
Decommissioning		
Other		**445**
Publicity and Dissemination	257	
Accommodation	160	
Unplanned interruptions during trial	27	
		10,275

Source: Ofgem Schedule to Project Direction 19-12-11

APPENDIX B – RE-BASED PROJECT BUDGET (BASED ON ENHANCED KNOWLEDGE OF DELIVERY ROUTE)

£000's Excluding Partner Funding Ofgem Cost Category			Commentary
Labour		**1,317**	
Monitoring Equipment Installation - Labour	22		
Business input into specs and testing & CIO System Design Approval	20		
Connections - Clerical	65		
Connections - Customer Relationship Management	241		
Dissemination - ENWL & Customer engagement via email & training	28		
Project Management - ENWL	790		
Connections - Connections Design	152		50% moved from Contractor, as utilising DNO Labour
Equipment		**3,078**	
Publicity Materials - Informational Pamphlets & postage & packaging	18		
Remote Control Installation - Plant	1,954		
Monitoring Equipment Installation - Plant	112		
Remote Control Installation - Materials	563		
Commissioning SCADA link to Remote Control Devices	31		
Delivery and configuration of GE IT hardware and software	399		
Contractors		**3,450**	
Involvement in developing Future Network Planning/Operational Standard	15		Contractors used in replacement of DNO Labour
Maintenance & Support for PowerOn Fusion	187		Contractors used in replacement of DNO Labour
Project Management - GE	351		Correct classification from Labour
Circuit Selection	32		Contractors used in replacement of DNO Labour
Developing Future Network Planning/Operational Standard	53		Contractors used in replacement of DNO Labour
Implementation of PowerOn Fusion	709		Contractors used in replacement of DNO Labour
Demand Side Response Customer Survey	391		
Project Management - ENWL	115		
Remote Control Installation - Labour	844		
Remote Control Installation at Customers' Premises	159		
Contractors Travel & Publicity - Informing Affected Customers	42		
Connections - Connections Design	152		50% moved to labour, as utilising DNO own Labour
Carbon Analysis	40		
Data Analysis and Economic Modelling	185		
Power System and Technical Modelling	175		
IT		**740**	
Data Capture and Cleanse	55		
Database Licenses	100		
Develop CRMS Reporting Capability	11		
Develop CRMS/PowerOn (SOAP) Interface	87		
Develop New Interface to PowerOn Fusion	87		
Develop Real-time Data Update Functionality	55		
Develop Visual Display Functionality for CRMS	73		
Initial Data Load Functionality	55		
System Integration & Testing	66		
Testing and Development Workstation	10		
Upload and Store Estimates (into historian)	85		
Upload CRMS Diagram and Managed Loads	55		
IPR Costs		**0**	
Travel & Expenses		**0**	
Payments to users		**300**	
Demand Side Response	300		
Contingency		**947**	
Development and Preparation	44		
Remote Control Installation	284		
Publicity, Training and Dissemination	125		
DSR and Interruptions	101		
Project Management	28		
Connections	102		
Monitoring Equipment	77		
Installation and configuration of IT and Implementation of PowerOn Fusion	109		
Circuit selection and data upload	24		
Analysis, Modelling and Development of Standards	41		
System Integration & Testing	13		
Decommissioning		**0**	
Other		**445**	
Publicity and Dissemination	257		
Accommodation	160		
Unplanned interruptions during trial	27		
TOTAL Project DNO & LCN Fund		**10,275**	

Source: Ofgem Schedule to Project Direct 19-12-11

APPENDIX C – DETAILED PROJECT EXPENDITURE

£'000s Excluding Partner Funding Ofgem Cost Category	Actual Spend to date Actual	Committed	Total Spend	Budget Spend to Date	Variance	Comments
Labour						
Monitoring Equipment Installation - Labour	0	0	0	22	21	Delayed Start, SDRC not at risk
Business input into specs and testing & CIO System Design Approval	0	0	0	20	20	Delayed Start, SDRC not at risk
Connections – Clerical	0	0	0	0	0	
Connections - Customer Relationship Management	12	0	12	0	(12)	Accelerated connections business processes redesign
Dissemination - ENWL & Customer engagement via email & training	0	0	0	0	0	
Project Management - ENWL (Labour)	75	0	75	105	30	Delayed Start, SDRC's not at risk
Connections - Connections Design (Labour)	0	0	0	0	0	
Equipment						
Publicity Materials - Informational Pamphlets & postage & packaging	0	0	0	0	0	
Remote Control Installation - Plant	0	964	964	1,954	990	Orders placed, but goods not yet received.
Monitoring Equipment Installation - Plant	0	0	0	112	112	Orders placed, but goods not yet received.
Remote Control Installation - Materials	0	0	0	188	188	Installation due to start in June 2012.
Commissioning SCADA link to Remote Control Devices	0	0	0	19	19	Installation due to start in June 2012.
Delivery and configuration of GE IT hardware and software	63	0	63	312	249	Delayed Start, SDRC not at risk
Contractors						
Involvement in developing Future Network Planning/Operational Standard	0	0	0	1	1	
Maintenance & Support for PowerOn Fusion	0	0	0	23	23	Maintenance not due until December 2012
Project Management - GE	129	0	129	130	2	
Circuit Selection	0	38	38	32	(7)	Delayed Start, SDRC not at risk
Developing Future Network Planning/Operational Standard (Contractors)	0	0	0	3	3	Delayed Start, SDRC not at risk
Implementation of PowerOn Fusion	123	0	123	554	431	Delayed Start, SDRC not at risk
Demand Side Response Customer Survey	10	192	201	195	(6)	
Project Management - ENWL (Contractors)	9	13	22	28	6	Delayed Start, SDRC not at risk
Remote Control Installation - Labour	0	0	0	281	281	Installation due to start in June 2012.
Remote Control Installation at Customers' Premises	0	0	0	0	0	
Contractors Travel & Publicity - Informing Affected Customers	0	0	0	3	3	Delayed Start, SDRC not at risk
Connections - Connections Design (Contractors)	0	0	0	0	0	
Carbon Analysis	0	0	0	0	0	
Data Analysis and Economic Modelling	0	0	0	0	0	
Power System and Technical Modelling	0	0	0	0	0	
IT						
Data Capture and Cleanse	0	0	0	55	55	Delayed Start, SDRC not at risk
Database Licenses	0	0	0	100	100	Payment for Licences due later than plan assumptions
Develop CRMS Reporting Capability	0	0	0	0	0	
Develop CRMS/PowerOn (SOAP) Interface	5	0	5	55	51	Delayed Start, SDRC not at risk
Develop New Interface to PowerOn Fusion	8	0	8	55	48	Delayed Start, SDRC not at risk
Develop Real-time Data Update Functionality	0	0	0	0	0	
Develop Visual Display Functionality for CRMS	0	0	0	0	0	
Initial Data Load Functionality	0	0	0	0	0	
System Integration & Testing (IT)	0	0	0	0	0	
Testing and Development Workstation	0	0	0	10	10	Delayed Start, SDRC not at risk
Upload and Store Estimates (into historian)	0	0	0	54	54	Delayed Start, SDRC not at risk
Upload CRMS Diagram and Managed Loads	0	0	0	0	0	
IPR Costs	0	0	0	0	0	
Travel & Expenses	0	0	0	0	0	
Payments to users						
Demand Side Response	0	0	0	0	0	
Contingency						
Development and Preparation	0	0	0	0	0	
Remote Control Installation	0	0	0	0	0	
Publicity, Training and Dissemination	0	0	0	0	0	
DSR and Interruptions	0	0	0	0	0	
Project Management	0	0	0	0	0	
Connections	0	0	0	0	0	
Monitoring Equipment	0	0	0	0	0	
Installation and configuration of IT and Implementation of PowerOn Fusion	0	0	0	0	0	
Circuit selection and data upload	0	0	0	0	0	
Analysis, Modelling and Development of Standards	0	0	0	0	0	
System Integration & Testing (Contingency)	0	0	0	0	0	
Decommissioning	0	0	0	0	0	
Other						
Publicity and Dissemination	8	0	8	72	64	Slow Start, website development SDRC not at risk
Accommodation	0	0	0	21	21	
Unplanned interruptions during trial	0	0	0	0	0	
Total Project to date	441	1,207	1,648	4,405	2,757	

APPPENDIX D – PROJECT BANK ACCOUNT

The copy bank statement details all transactions relevant to the project up to 12 June 2012. This includes all receipts and payments associated with the project up to the May 2012 month end reporting period.

ELECTRICITY NWL NO.11 LCNF (GBP)

Date	Type	Narrative	Value Date	Payments	Receipts	Balance
28FEB12		Opening Ledger Balance				0.00 Cr
24APR12	F/FLOW	SCOTTISH HYDRO-ELE F/FLOW			19,166.67	19,166.67 Cr
25APR12	F/FLOW	WESTPOWSWEST F/FLOW			117,500.00	136,666.67 Cr
27APR12	CR	ELECTRICITY NWL NO.4 PYMT TRANSFER 00268			1,319,416.63	1,456,083.30 Cr
27APR12	BGC	LONDON POWER NETWO BGC LOW CARB NETWORKS			59,166.63	1,515,249.93 Cr
27APR12	BGC	SOUTH EASTERN POWE BGC LOW CARB NETWORKS			58,333.37	1,573,583.30 Cr
27APR12	BGC	EASTERN POWER NETW BGC LOW CARB NETWORKS			45,833.37	1,619,416.67 Cr
27APR12	BGC	NORTHERN ELECTRIC BGC LCNF			59,166.63	1,678,583.30 Cr
27APR12	BGC	NORTHERN ELECTRIC BGC LCNF			40,833.37	1,719,416.67 Cr
27APR12	BGC	R B S-SP DISTRIBUT BGC LOW CARBON NETWORK			27,500.00	1,746,916.67 Cr
27APR12	BGC	R B S-SP MANWEB BGC LOW CARBON NETWORK			39,166.63	1,786,083.30 Cr
08MAY12	DR	ELECTRICITY NWL NO.4 PYMT TRANSFER 00277		372,174.17		1,413,909.13 Cr
24MAY12	F/FLOW	SCOTTISH HYDRO-ELE F/FLOW			19,166.67	1,433,075.80 Cr
25MAY12	F/FLOW	WESTPOWSWEST F/FLOW			117,500.00	1,550,575.80 Cr
28MAY12	CR	ELECTRICITY NWL NO.4 PYMT TRANSFER 00285			292,416.67	1,842,992.47 Cr
28MAY12	BGC	LONDON POWER NETWO BGC LOW CARB NETWORKS			59,166.67	1,902,159.14 Cr
28MAY12	BGC	SOUTH EASTERN POWE BGC LOW CARB NETWORKS			58,333.33	1,960,492.47 Cr
28MAY12	BGC	EASTERN POWER NETW BGC LOW CARB NETWORKS			45,833.33	2,006,325.80 Cr
28MAY12	BGC	NORTHERN ELECTRIC BGC LCNF			59,166.67	2,065,492.47 Cr
28MAY12	BGC	NORTHERN ELECTRIC BGC LCNF			40,833.33	2,106,325.80 Cr
30MAY12	F/FLOW	SP MANWEB PLC F/FLOW			39,166.67	2,145,492.47 Cr
30MAY12	F/FLOW	SP DISTRIBUTION LT F/FLOW			27,500.00	2,172,992.47 Cr
11JUN12	DR	ELECTRICITY NWL NO.4 PYMT TRANSFER 00287		68,669.60		2,104,322.87 Cr
11JUN12		Value of Credits (20)			2,545,166.64	
11JUN12		Value of Debits (2)		440,843.77		
11JUN12		Closing Ledger Balance				2,104,322.87 Cr
11JUN12		Closing Cleared Balance				2,104,322.87 Cr

*** End of Report ***