



SAVE (Solent Achieving Value from Efficiency)

Project Progress Report

Project Number	SSET206
DNO	Southern Electric Power Distribution Ltd
Reporting Period	December 2014 – June 2015

1 Executive summary

Ofgem guidance: Executive Summary (This section should be no more than 4 pages) This section should be able to stand alone and provide a clear overview of the Project's progress and any significant issues over the last period. All stakeholders, including those not directly involved in the Project, should be able to have a clear picture of the progress. The DNO should describe the general progress of the Project and include any notable milestones or deliverables achieved in the period. The Executive Summary should also contain two subsections: one for the key risks and one for the learning outcomes.

The SAVE (Solent Achieving Value from Efficiency) project is a £10.3m project which is primarily funded by Ofgem's Low Carbon Networks (LCN) Fund and aims to establish to what extent energy efficiency measures can be considered as a cost effective, predictable and sustainable tool for managing demand on electrical networks as an alternative to traditional reinforcement.

Targeting domestic customers only, the Solent and surrounding areas have been selected as the target area for the study due to the need to obtain a full cross-section of customers from urban, suburban and rural areas which are representative of much of the UK. Organisations from across the UK are partnering with Southern Electric Power Distribution (SEPD) to manage and deliver the Project, including the University of Southampton (UoS), Wireless Maingate, Future Solent, Neighbourhood Economics (NEL) and DNV GL.

The Project will trial 4 methods: using campaigns linked to the electrical consumption of individual households; adding a financial incentive to these campaigns; deploying LED lighting; and using community energy coaches. Involving approximately 8,000 customers split across the various methods the Project is due to run until 2018, with a strong focus on sharing the findings with other network operators, customers, local authorities, Government, industry and academia throughout.

The last reporting period has seen good progress despite encountering difficulties in the recruitment and equipment installation phase of the project, all key deliverables for the period have been met within planned timescales. SDRC 2.1 Initial Customer Model and SDRC 7.1 Initial Network Model were successfully submitted in December, SDRC 5 Identify Control and Sample Groups and SDRC 6 Install 80% of clamp sensors have both been prepared pending review and will be submitted following this report.

All Selex 'Gridkey' substation monitors were installed in December across 22 substations in the four host areas identified by Neighbourhood Economics Ltd (NEL) for trial 4, the Community Energy Coach. These monitors will produce 12 months of control data prior to live trials commencing in January 2016 allowing accurate comparison of both pre-trial and post-trial consumption by those communities.

Bostock Marketing Group (BMG) completed construction of all the required media for recruitment and equipment installation in January, this process was fully supported by all project partners, most

notably the University of Southampton (UoS). Following final sign off this media and the agreed approach were trialled in a 'Pilot' recruitment which completed in February resulting in the recruitment of the projects first 28 participants.

Learning from the Pilot was used to further refine the approach and associated media, upon completion of this review full recruitment commenced in March. During early installation BMG staff began to identify connectivity issues with the equipment and some other installation interface issues. Wireless Maingate (WM), SSEPD and BMG have worked to address and mitigate these limitations,

Full recruitment has been slightly slower than planned in part due to a drop to recruitment staffing below those expected levels. These drops have been experienced by both internal teams and those recruited to the project specifically. In response BMG have held three external recruitment and training sessions and have assigned 14 direct staff to the installation process.

Change Request CR-01 was submitted in February and accepted by Ofgem in April. The focus of the change request was to allow an increase in the number of trials completed within the project timescales. This will be achieved by splitting the existing trial periods to allow extra periods of refinement and active trialling. This Change Request, it also outlined a change in equipment from optic sensors to clamp sensors. This has been a major milestone for the project within the last reporting period and has enabled developmental improvement in the trials design, learning generation and the physical installation process.

Following an intensive consultation and engagement process, Neighbourhood Economics Ltd (NEL) have now selected the organisations who will 'host' the Community Energy Coach for trial 4 of the Project. These are: Winchester Action against Climate Change (WINACC) and the Environment Centre (tEC). Both organisations are local to the control and trial areas and independently have great experience in raising environmental awareness and running carbon reduction, energy efficiency and environmental projects. Both a steering group and stakeholder group have been formed to support the coaching trial and to ensure the local drivers within each community are combined with the peak demand reduction requirement of the project.

DNV GL have completed their initial management plans and expected approach to trial 1-3 following planning meetings with partners and external suppliers including the University of Winchester, 8point3 and Behaviour Change. Individual hypotheses have been created for trials 1-3 and used in conjunction with survey data from participants to produce a suite of 'key messages'. These will undergo further development and testing within the next reporting period which will also see securing of the required media and LED provision for trials 1-3. NEL have worked closely with DNV GL to identify any symbiosis between the trials resulting in more efficient and sustainable material provision, this collaboration is expected to continue throughout the project.

To maintain a clear focus on the successful management of the various packages of work the Project has held 6 Project Partner Review Board (PPRB) meetings, enabling all partners to meet at least once

a month to discuss progress and plan activities. Representatives of EA Technology and BMG have attended all PPRB's within the reporting period to provide specific updates on recruitment progress and modelling activities in addition to lending expertise and advice on other activities.

1.1 Risks

Ofgem guidance: The risks section reports on any major risks and/or issues that the DNO encountered, including any risks which had not been previously identified in the Project Direction. The DNO should include a short summary of the risk and how it affects (or might affect) delivering the Project as described in the full submission. When relevant, the DNO should group these key risks under the following headings:

- a. recruitment risks – describe any risks to recruiting the numbers of customers to take part in the Project as described in the full submission and how these will impact on the Project and be mitigated;*
- b. procurement risks – describe any risks to procuring the equipment and/or services needed for the Project, as described in the full submission, and how these will impact on the Project and be mitigated;*
- c. installation risks – describe any risks to the installation of the equipment (including in customers' homes, and/or large scale installations on the network) and how these will impact on the Project and be mitigated; and*
- d. other risks.*

Project risk management is considered in detail in section 5 of this report; a high level summary is shown below:

Risk Description	Further details and impact	Controls
<p>Recruitment</p> <p>Inability of recruiting the necessary number of customers for the trials across the Solent area</p> <p>Lack of community 'buy in' to Community Coaching trial</p>	<p>May not reach the intended numbers deemed necessary. Would make it difficult to observe small changes in behaviour and have confidence that changes are result of interventions, not other factors</p> <p>Community could reject engagement of Community Coach, resulting in lack of learning and observable changes in consumption</p>	<p>Constant monitoring in place for this key milestone. Regular review meetings will be carried out during this process with BMG and weekly teleconferences to be held. Existing escalation process in place via Project Director to SEPD ISB</p> <p>Will have support of stakeholder orgs and appreciation of community's pressure points/aspirations</p>
<p>Procurement</p> <p>None</p>		
<p>Installation</p> <p>Monitoring equipment cannot be installed</p> <p>Failure of equipment and lack of data</p> <p>Equipment faulty and data not available</p>	<p>May be unable to install equipment, or the equipment may fail to operate correctly and not transmit data back to secure server, impacting on ability to observe and analyse behaviour and impact of interventions</p>	<p>Have already doubled the length of time to recruit customer recruitment and will train staff. Training will be provided to recruiters and if unable to install kit then will seek alternative participant to recruit. WM providing real time support to installation process and BMG now have good experience among team members. Equipment to be paired up at installation, if fails once deployed Maingate can observe and seek to rectify quickly</p>
<p>Other</p> <p>None</p>		

1.2 Learning Outcomes

Ofgem guidance: The learning section reports on the learning outcomes outlined in the Full Submission. This section should include, but is not limited to:

- a. a summary of the key learning outcomes delivered in the period;*
- b. a short overview of the DNO's overall approach to capturing the learning;*
- c. the main activities towards third parties which have been undertaken in order to disseminate the learning mentioned in a.; and*
- d. the DNO's internal dissemination activities.*

Please note that these two subsections should only give an overview of the key risks and the main learning. They should not replace the more detailed information contained in the "Learning outcomes" and "Risk management" sections of the progress report.

Learning outcomes are considered in detail in section 6 of this report, however during this initial period, the main focus has been on setting up the project to ensure successful trials in the future.

Key learning outcomes

An initial Customer model was created by the University of Southampton at the end of the last reporting period and submitted to meet the requirements of SDRC 2.1. The prototype model has been implemented using synthetic and example data to prove its effectiveness in relation to the expected data the Projects trials and control groups will provide. The model will capture, represent and allow analysis of the data received from participants monitoring systems and the substation monitors, supporting the individual trials throughout their iterations, the ongoing development of the model and the development of the final Network Investment tool (SDRC 7.3).

The initial Network Model was created by EA Technology at the end of the last reporting period and submitted to meet the requirements of SDRC 7.1. The model will allow construction of representative Distribution Networks and gauge the reactions of these networks to traditional reinforcements and energy efficient interventions.

BMG have worked alongside UoS to produce SDRC 5 Identify Control and Sample Groups which is currently under review prior to submission. The report will explain the framework within which the recruitment has taken place, a summary of the trial design options (pure RCT and factorial) and will set out the required sample sizes for each with reference to the factorial approach achievable with the current population of Project participants. A summary section will then lay out the project plans for continued recruitment to attempt to attain the larger sample that would enable a much simpler non-factorial approach to be implemented.

Wireless Maingate in partnership with BMG have completed SDRC 6, Install 80% of clamp sensors which is currently under review prior to submission. This report gives detail on the installation of household monitoring equipment in 2,200 properties and provides confirmation of the data which the Project is successfully obtaining from these installations. The report includes energy data obtained across the full population from the household monitoring systems utilised by the Project, clamp ammeters giving a full household consumption reading and smart plugs, which provide specific appliance usage data.

In addition, the following 'Learning Moments' have been captured (ad hoc and process related learning):

- Initial letter and survey material updates following feedback during recruitment.
- Identification of increased learning potential of trial periods through adjustment of project timeline allowing a third active trial within original project lifespan. Changes detailed and successfully submitted to Ofgem within change request CR-1.
- Separation of survey and installation of household monitoring to reduce time spent within participants households and maximise recruitment success.

Approach to learning capture

The approach to learning capture is focussed on capturing both structured learning in the forms of SDRC reports, and unstructured learning via lessons learned reviews and ad-hoc recording of insights. This aims to capture results drawn out from data analysis and reviews of activities, and also tacit knowledge that may not typically be captured in formal documents.

Crucial to learning capture is the dissemination of this knowledge, and building on previous experience and feedback the Project will seek to tailor the messages and methods of dissemination to the audiences' needs to maximise the effectiveness.

Summary of Third Party targeted dissemination

- Recruitment process and media shared with Project ERIC 14/01/15
- Recruitment process and media shared with Project DANCER 02/03/15
- Good practice exchange meeting with UKPN 01/04/2015
- SAVE recruitment survey items (& process) used as input to DECC funded LUKES II feasibility study (groundwork for a future large scale GB domestic energy survey) 26/04/15
- techUK presentation on SAVE project 29/05/15

Summary of internal targeted dissemination

The Project uses organised events such as Steering Boards and Team Briefs as a means of internally disseminating progress and information in a structured manner, with informal communications between colleagues and departments also acting as a means of raising awareness of the Project and progress towards delivering learning.

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2 Project manager's report

Ofgem guidance: The Project manager's report should be a more detailed version of the Executive Summary. This section should describe the progress made in the reporting period against the Project plan. Any key issues should be drawn out and described in detail, including how these issues were managed. The DNO should also include details of deliverables and/or events, referring where necessary to other sections of the PPR. This section should also provide an outlook into the next reporting period, including key planned activities. It should describe any key issues or concerns which the Project manager considers will be a major challenge in the next reporting period.

The project has made good progress in the last period, BMG Research's efforts to recruit 4,600 participants to the project have been concerted and widely supported by all project partners. The additional main aims of the last period have been reliant on recruitment success, production of SDRC 5 Identify control and trial sample groups, and SDRC 6 Install 80% of clamp*sensors are both now complete and submissions will follow this report.

Change request CR-1 was submitted for approval on the 26th February 2015, this detailed the proposal to move from two to three active trail periods for each method, and, a change in household monitoring equipment from optical to clamp voltage sensors. This change was accepted on the 6th May, enabling both Neighbourhood Economics and DNV GL updated their trial designs. Both designs are now being subjected to review and refinement until live trials commence in January 2016.

The University of Southampton (UoS) completed SDRC 2.1 Initial Customer Model and EA Technology completed SDRC 7.1 Initial Network Model, both were successfully submitted in December. Both models will be improved throughout the project and once finalised, integrated with the Network Price Model which will draw on modelling work developed by Engage consulting to form the final Network Investment tool (SDRC 7.3). An initial model integration meeting was held between the University of Southampton, EA Technology and SSEPD in March to agree system requirements, data integration points and a likely user interface system for the final tool. These meetings are scheduled to continue at regular intervals throughout the Project to ensure the final models full integration into the Network Investment tool is efficient and produces accurate results.

Interaction between SEPD and each of the project partners has continued successfully to ensure all project deliverables have been met in addition to supporting recruitment and trial design phases of the project. BMG and EA Technology have attended PPRB's and teleconferences throughout the reporting period providing updates and advice to Project partners. Strong communications have been formed between Wireless Maingate and BMG ensuring the quick identification and mitigation of potential issues with equipment installation for recruitment,

At the end of the last reporting period process of area selection for trial 4 the Community Energy Coach was nearing completion. Neighbourhood Economics carried out detailed statistical profiling of the long-list areas to assess both relative differentiation between potential trial areas and relative similarity between potential trial and respective control areas. SSEPD undertook network studies to

ensure substation dispersion through the final stage areas was conducive to accurate monitoring and worked closely with Neighbourhood Economics on the final stages of selection. This work resulted in Kings Worthy, Hampshire being decided as trial area 1 with New Alresford, Hampshire as its control for the rural, more affluent study, and, Shirley Warren, Southampton as trial area 2 with Townhill, Southampton as its control for the urban, more deprived area study.

Selex 'Gridkey' substation monitors were secured by the project in early December, these monitors offered a cost effective solution and the required level of granular data recording at 11kV substation level. SSEPD carried out inspections at the 22 sites identified by Network Planners within the four defined areas selected by Neighbourhood Economics. Only two substations in this selection were unsuitable due to their location and construction, alternatives sites were selected giving equal customer numbers to the community areas. All monitors were installed by 31st December across 22 substations (figure 1) totalling 4159 customers and will produce 12 months of control data prior to live trials commencing in January 2016.

(Figure 1, Area substation selection and customer numbers for trial 4)

Shirley Warren, Southampton - 11kV L						Townhill Park, Southampton - 0.6911kV L					
Group 1			Group 2			Group 1			Group 2		
Substation	No of Customers	No. of meters	Falling LM	No. of meters % of falling	2 PM N/10/14	Substation	No of Customers	No. of meters	Falling LM	No. of meters % of falling	2 PM N/10/14
Canal Park (1)	278	273	88%	8.8%	278	Canal Park (2)	264	263	99%	8.3%	264
West End (1)	278	264	95%	8.8%	264	Canal Park (3)	264	263	99%	8.3%	264
1st Street (1)	278	264	95%	8.8%	264	Canal Park (4)	264	263	99%	8.3%	264
2nd Street (1)	278	264	95%	8.8%	264	Canal Park (5)	264	263	99%	8.3%	264
3rd Street (1)	278	264	95%	8.8%	264	Canal Park (6)	264	263	99%	8.3%	264
4th Street (1)	278	264	95%	8.8%	264	Canal Park (7)	264	263	99%	8.3%	264
5th Street (1)	278	264	95%	8.8%	264	Canal Park (8)	264	263	99%	8.3%	264
6th Street (1)	278	264	95%	8.8%	264	Canal Park (9)	264	263	99%	8.3%	264
7th Street (1)	278	264	95%	8.8%	264	Canal Park (10)	264	263	99%	8.3%	264
8th Street (1)	278	264	95%	8.8%	264	Canal Park (11)	264	263	99%	8.3%	264
9th Street (1)	278	264	95%	8.8%	264	Canal Park (12)	264	263	99%	8.3%	264
10th Street (1)	278	264	95%	8.8%	264	Canal Park (13)	264	263	99%	8.3%	264
11th Street (1)	278	264	95%	8.8%	264	Canal Park (14)	264	263	99%	8.3%	264
12th Street (1)	278	264	95%	8.8%	264	Canal Park (15)	264	263	99%	8.3%	264
13th Street (1)	278	264	95%	8.8%	264	Canal Park (16)	264	263	99%	8.3%	264
14th Street (1)	278	264	95%	8.8%	264	Canal Park (17)	264	263	99%	8.3%	264
15th Street (1)	278	264	95%	8.8%	264	Canal Park (18)	264	263	99%	8.3%	264
16th Street (1)	278	264	95%	8.8%	264	Canal Park (19)	264	263	99%	8.3%	264
17th Street (1)	278	264	95%	8.8%	264	Canal Park (20)	264	263	99%	8.3%	264
18th Street (1)	278	264	95%	8.8%	264	Canal Park (21)	264	263	99%	8.3%	264
19th Street (1)	278	264	95%	8.8%	264	Canal Park (22)	264	263	99%	8.3%	264
20th Street (1)	278	264	95%	8.8%	264	Canal Park (23)	264	263	99%	8.3%	264
21st Street (1)	278	264	95%	8.8%	264	Canal Park (24)	264	263	99%	8.3%	264
22nd Street (1)	278	264	95%	8.8%	264	Canal Park (25)	264	263	99%	8.3%	264
23rd Street (1)	278	264	95%	8.8%	264	Canal Park (26)	264	263	99%	8.3%	264
24th Street (1)	278	264	95%	8.8%	264	Canal Park (27)	264	263	99%	8.3%	264
25th Street (1)	278	264	95%	8.8%	264	Canal Park (28)	264	263	99%	8.3%	264
26th Street (1)	278	264	95%	8.8%	264	Canal Park (29)	264	263	99%	8.3%	264
27th Street (1)	278	264	95%	8.8%	264	Canal Park (30)	264	263	99%	8.3%	264
28th Street (1)	278	264	95%	8.8%	264	Canal Park (31)	264	263	99%	8.3%	264
29th Street (1)	278	264	95%	8.8%	264	Canal Park (32)	264	263	99%	8.3%	264
30th Street (1)	278	264	95%	8.8%	264	Canal Park (33)	264	263	99%	8.3%	264
31st Street (1)	278	264	95%	8.8%	264	Canal Park (34)	264	263	99%	8.3%	264
32nd Street (1)	278	264	95%	8.8%	264	Canal Park (35)	264	263	99%	8.3%	264
33rd Street (1)	278	264	95%	8.8%	264	Canal Park (36)	264	263	99%	8.3%	264
34th Street (1)	278	264	95%	8.8%	264	Canal Park (37)	264	263	99%	8.3%	264
35th Street (1)	278	264	95%	8.8%	264	Canal Park (38)	264	263	99%	8.3%	264
36th Street (1)	278	264	95%	8.8%	264	Canal Park (39)	264	263	99%	8.3%	264
37th Street (1)	278	264	95%	8.8%	264	Canal Park (40)	264	263	99%	8.3%	264
38th Street (1)	278	264	95%	8.8%	264	Canal Park (41)	264	263	99%	8.3%	264
39th Street (1)	278	264	95%	8.8%	264	Canal Park (42)	264	263	99%	8.3%	264
40th Street (1)	278	264	95%	8.8%	264	Canal Park (43)	264	263	99%	8.3%	264
41st Street (1)	278	264	95%	8.8%	264	Canal Park (44)	264	263	99%	8.3%	264
42nd Street (1)	278	264	95%	8.8%	264	Canal Park (45)	264	263	99%	8.3%	264
43rd Street (1)	278	264	95%	8.8%	264	Canal Park (46)	264	263	99%	8.3%	264
44th Street (1)	278	264	95%	8.8%	264	Canal Park (47)	264	263	99%	8.3%	264
45th Street (1)	278	264	95%	8.8%	264	Canal Park (48)	264	263	99%	8.3%	264
46th Street (1)	278	264	95%	8.8%	264	Canal Park (49)	264	263	99%	8.3%	264
47th Street (1)	278	264	95%	8.8%	264	Canal Park (50)	264	263	99%	8.3%	264
48th Street (1)	278	264	95%	8.8%	264	Canal Park (51)	264	263	99%	8.3%	264
49th Street (1)	278	264	95%	8.8%	264	Canal Park (52)	264	263	99%	8.3%	264
50th Street (1)	278	264	95%	8.8%	264	Canal Park (53)	264	263	99%	8.3%	264
51st Street (1)	278	264	95%	8.8%	264	Canal Park (54)	264	263	99%	8.3%	264
52nd Street (1)	278	264	95%	8.8%	264	Canal Park (55)	264	263	99%	8.3%	264
53rd Street (1)	278	264	95%	8.8%	264	Canal Park (56)	264	263	99%	8.3%	264
54th Street (1)	278	264	95%	8.8%	264	Canal Park (57)	264	263	99%	8.3%	264
55th Street (1)	278	264	95%	8.8%	264	Canal Park (58)	264	263	99%	8.3%	264
56th Street (1)	278	264	95%	8.8%	264	Canal Park (59)	264	263	99%	8.3%	264
57th Street (1)	278	264	95%	8.8%	264	Canal Park (60)	264	263	99%	8.3%	264
58th Street (1)	278	264	95%	8.8%	264	Canal Park (61)	264	263	99%	8.3%	264
59th Street (1)	278	264	95%	8.8%	264	Canal Park (62)	264	263	99%	8.3%	264
60th Street (1)	278	264	95%	8.8%	264	Canal Park (63)	264	263	99%	8.3%	264
61st Street (1)	278	264	95%	8.8%	264	Canal Park (64)	264	263	99%	8.3%	264
62nd Street (1)	278	264	95%	8.8%	264	Canal Park (65)	264	263	99%	8.3%	264
63rd Street (1)	278	264	95%	8.8%	264	Canal Park (66)	264	263	99%	8.3%	264
64th Street (1)	278	264	95%	8.8%	264	Canal Park (67)	264	263	99%	8.3%	264
65th Street (1)	278	264	95%	8.8%	264	Canal Park (68)	264	263	99%	8.3%	264
66th Street (1)	278	264	95%	8.8%	264	Canal Park (69)	264	263	99%	8.3%	264
67th Street (1)	278	264	95%	8.8%	264	Canal Park (70)	264	263	99%	8.3%	264
68th Street (1)	278	264	95%	8.8%	264	Canal Park (71)	264	263	99%	8.3%	264
69th Street (1)	278	264	95%	8.8%	264	Canal Park (72)	264	263	99%	8.3%	264
70th Street (1)	278	264	95%	8.8%	264	Canal Park (73)	264	263	99%	8.3%	264
71st Street (1)	278	264	95%	8.8%	264	Canal Park (74)	264	263	99%	8.3%	264
72nd Street (1)	278	264	95%	8.8%	264	Canal Park (75)	264	263	99%	8.3%	264
73rd Street (1)	278	264	95%	8.8%	264	Canal Park (76)	264	263	99%	8.3%	264
74th Street (1)	278	264	95%	8.8%	264	Canal Park (77)	264	263	99%	8.3%	264
75th Street (1)	278	264	95%	8.8%	264	Canal Park (78)	264	263	99%	8.3%	264
76th Street (1)	278	264	95%	8.8%	264	Canal Park (79)	264	263	99%	8.3%	264
77th Street (1)	278	264	95%	8.8%	264	Canal Park (80)	264	263	99%	8.3%	264
78th Street (1)	278	264	95%	8.8%	264	Canal Park (81)	264	263	99%	8.3%	264
79th Street (1)	278	264	95%	8.8%	264	Canal Park (82)	264	263	99%	8.3%	264
80th Street (1)	278	264	95%	8.8%	264	Canal Park (83)	264	263	99%	8.3%	264
81st Street (1)	278	264	95%	8.8%	264	Canal Park (84)	264	263	99%	8.3%	264
82nd Street (1)	278	264	95%	8.8%	264	Canal Park (85)	264	263	99%	8.3%	264
83rd Street (1)	278	264	95%	8.8%	264	Canal Park (86)	264	263	99%	8.3%	264
84th Street (1)	278	264	95%	8.8%	264	Canal Park (87)	264	263	99%	8.3%	264
85th Street (1)	278	264	95%	8.8%	264	Canal Park (88)	264	263	99%	8.3%	264
86th Street (1)	278	264	95%	8.8%	264	Canal Park (89)	264	263	99%	8.3%	264
87th Street (1)	278	264	95%	8.8%	264	Canal Park (90)	264	263	99%	8.3%	264
88th Street (1)	278	264	95%	8.8%	264	Canal Park (91)	264	263	99%	8.3%	264
89th Street (1)	278	264	95%	8.8%	264	Canal Park (92)	264	263	99%	8.3%	264
90th Street (1)	278	264	95%	8.8%	264	Canal Park (93)	264	263	99%	8.3%	264
91st Street (1)	278	264	95%	8.8%	264	Canal Park (94)	264	263	99%	8.3%	264
92nd Street (1)	278	264	95%	8.8%	264	Canal Park (95)	264	263	99%	8.3%	264
93rd Street (1)	278	264	95%	8.8%	264	Canal Park (96)	264	263	99%	8.3%	264
94th Street (1)	278	264	95%	8.8%	264	Canal Park (97)	264	263	99%	8.3%	264
95th Street (1)	278	264	95%	8.8%	264	Canal Park (98)	264	263	99%	8.3%	264
96th Street (1)	278	264	95%	8.8%	264	Canal Park (99)	264	263	99%	8.3%	264
97th Street (1)	278	264	95%	8.8%	264	Canal Park (100)	264	263			

To support progress in trial 4 NEL have produced the SLA for the host organisations which will be signed in place of a full commercial contract. The SLA is designed to encourage a more collaborative working arrangement while adhering to normal employment and regulatory legislation. NEL have also completed construction of a Project Manual, Briefing documents and the 'Theory of change' report outlining the 'top down, bottom up' approach to engagement designed to encourage sustainable and effective outcomes. This work constitutes the core foundation for trial 4 and is being further developed by the trial steering group which was formed in April 2015, consisting of NEL, SSEPD, WINACC, tEC and the Local Authorities. Additionally a stakeholder group for trial 4 has also been constructed to ensure the symbiosis of the Projects energy efficiency messages and local drivers, such as fuel poverty alleviation and carbon neutrality occurs effectively within the trial areas.

Recruitment and hardware installation activities have required more time than originally planned but have kept to the required schedule to meet early monitoring and associated SDRC commitments. These activities will continue into the next period to maximise the learning opportunities across the project lifecycle. The following outline lists the efforts and progress made to date:

Bostock Marketing Group (BMG) completed construction of all the required survey, notification and communication material for recruitment and equipment installation in January, this process was fully supported by all project partners, most notably the University of Southampton (UoS). A key part of this process was the decision to brand the media with BMG and UoS primarily, including the other partner's brands and details in an FAQ. This was seen as a key step in overcoming the potential scepticism regarding an energy reduction trial implemented by an 'energy company'

Following final sign off of the media, BMG staff received training on equipment installation by Wireless Maingate at a session in BMG's HQ, Birmingham on the 29th January 2015. This session was designed to give senior staff and field manager's working knowledge of the installation process, registration systems and attain experience of the equipment's capabilities. Concerns were raised at the session on the 'pairing' process, namely linking the signals between clamps, smart plugs and the gateway to ensure all recorded information was linked correctly to the correct system and address markers. Also mentioned was the need for each gateway to be connected initially to allow download of a firmware update. The total time taken for updating and pairing at this point took nearly 45 minutes, agreed by all as an excessive time to wait once in a participant's property. Wireless Maingate stressed at this point that the updating of devices should be done prior to installation, removing this time factor from the survey/installation visit

The approach and the completed media were then trialled in a 'Pilot' recruitment in the Basingstoke area, which ran for two weeks and completed on 28th February 2015. The pilot mailed and visited 249 properties in total, 25% of visits resulted in successful conversation with householders and the conversion rate to participation was 20% giving the project its first 13 participants. During the pilot BMG reported an average installation time of 90-105 minutes, exceeding the target of 50 minutes for a combined survey and installation. This was caused in part by a number of process related factors such as: installation staff pairing and updating devices on site, poor mobile signal strength in the area

resulted in poor communications with the monitoring equipment, the usability of the registration system and the compatibility with CAPI devices were also contributory factors.

To improve efficiency it was decided to focus purely on the installation of the monitoring equipment during site visits with surveys performed at a later date using CAPI or CAWI techniques. . The first phase of the survey was integrated into BMG's CAPI devices to ensure consents we're recognised and captured correctly, steps were also added to the process to photograph the installation and customer's signature to offer greater reassurance that this essential step was followed correctly throughout the recruitment phase. The remaining body of the survey was then adapted to be completed via telephone and internet based approaches with participants being offered the preference at point of agreement and installation.

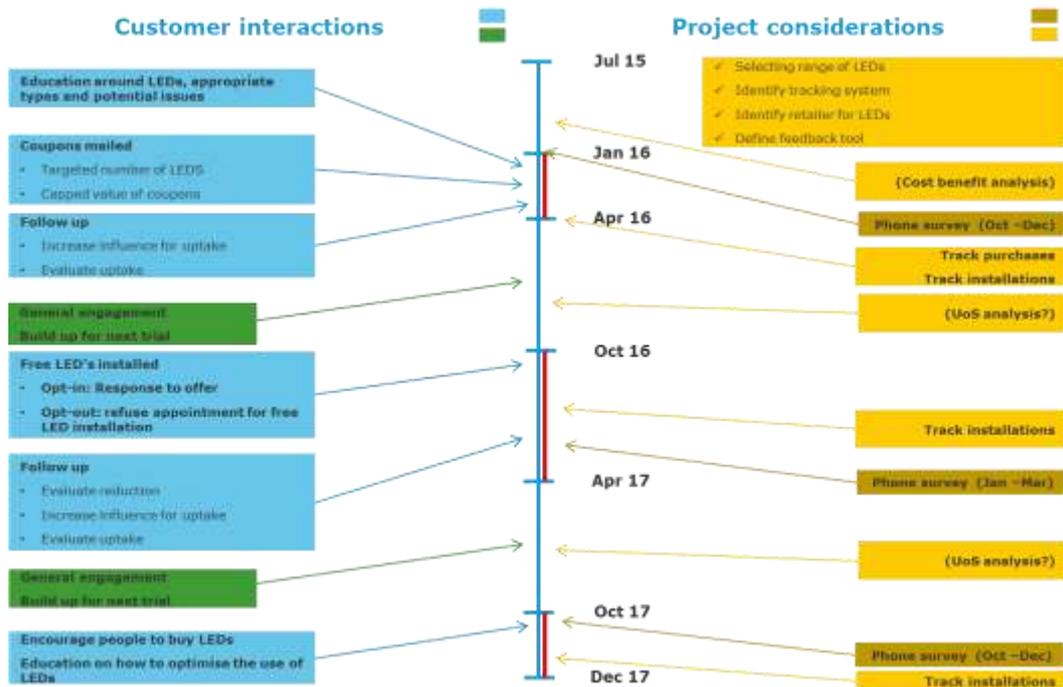
Full recruitment commenced on the 13th March with the split approach to surveying and installation of equipment. During this time problems with pairing and updating monitoring have continued. To address this, Wireless Maingate sent their Chief Technical Officer and Lead Developer to visit properties which had suffered difficult installations or where communications appeared sporadic. Whilst some improvements have been made, work to further improve the installation and pairing process is ongoing.. The recruitment phase also experienced some problems when staffing levels dropped below the expected number. To restore levels to the required amount BMG have held three external recruitment and training sessions and have assigned 14 direct staff to the installation process.

On the 26th of May the project reached 2000 participants, a major milestone as this equals 50% of target and 72.5% of the factorial approach outlined in the Full Submission. The project will exceed the volume required for the factorial approach before the end of June. At the end of the reporting period recruitment activities have moved to the northern half of the sample area and the Isle of Wight.

DNV GL have continued development of the trial design which has now reached version 4, further refinement will continue through the next reporting period with the final design gated for delivery in October. The current version has been defined following collaboration with Project partners, meetings with LED installers 8point3 and potential media providers the University of Winchester and using learning generated from SDRC 1.

Each trial has a strategy which will be aligned to dates within the live trial phases, producing measurable, comparable effects on energy consumption across the trial groups. Common across all trials is the need to offer personalised, household and normative comparison, area targets for reducing consumption and the delivery mechanisms required to encourage active participation. The potential for 'event calls' has also been detailed, when each participant in a group will receive messaging encouraging a load-shed for a defined period, similar to commercial DSR approaches which have proven successful in Projects such as SSEPD's New Thames Valley Vision.

(Figure 2: High-Level Plan for TG1 – LED Trial)



The LED trial will require an appointed supplier/installer of the equipment to ensure the trials success, the development of the trial design has allowed DNV GL to specify the approach to this trial and this learning has been used to develop requirements for expressions of interest which we expect to lead to the tendering process. The media requirements for trials 1-3 have gone through similar development and this will also result in either expressions of interest or a full tendering process. Both processes will have been fully completed within the next reporting period as we prepare for active trials in January 2015.

NEL have worked closely with DNV GL to identify any symbiosis between the trials resulting in more efficient and sustainable material provision and a symbiotic approach to the key messaging used. DNV GL appointed Behaviour Change to provide consumer research support to the development of these key messages which seek to translate peak demand and overall demand reduction messages into a more customer relevant, digestible text. A suite of key messages has now been defined which will be further tested using a non-project sample of domestic properties to measure acceptance and effect of these messages to define a core package of effective messages for use across trials 1-4. This will allow comparison of the demand reduction effects in both individual properties and the communities when these messages are used as the core delivery vehicles across the Project in live trials.

A collaborative approach has also been adopted for the development of the Websites required for the Project with all partners feeding in requirements for both customer facing and dissemination sites. Wireless Maingate's Mvio system will be used by NEL and DNV GL to display demand profiles to project participants throughout the live trials. At time of reporting this 'white label' solution is undergoing development to meet base project requirements while a defined list of priority changes is

agreed. Wireless Maingate are also constructing a gated report defining time required for likely changes to ensure that the priority list can be completed before live trials with less urgent changes delayed and undergoing development at a later stage.

SSEPD have also developed a Project webpage for dissemination of Project learning in addition to updating the ENA 'Smartgrid' website with completed reports and SDRC's. The SSEPD pages will eventually be multi-layered allowing capture of stakeholder's details through a log-in page allowing targeted dissemination activities as the Project progresses. This approach will also allow filtration of access to avoid participant frustration, most importantly those in 'control groups' who may suffer disappointment upon learning that other participants are receiving incentives or other energy efficient measures.

BMG have worked alongside UoS to produce SDRC 5 Identify Control and Sample Groups. SDRC 5 will explain the framework within which the recruitment has taken place. This will include a summary of the trial design options (pure RCT and factorial) and will set out the required sample sizes for each with reference to the project submission and project direction. The sample achieved by the project thus far allows the factorial approach to be implemented, this approach will involve the more complex trial arrangement of multiple combinations of interventions per household with consequently more complex analytic methods required to unpack the effects of each intervention. This complexity is required to ensure that statistical power is maintained and thus that the analysis results can be considered robust and generalizable.

SDRC 5 will also provide an overview of the aims of the recruitment; a summary of the methodological approach and full details of the recruitment process as implemented. The recruitment questionnaire will be included as an annexe and will include a human readable form (with routing) of the CAPI script; copies of all contact letters, showcards, information letters or leaflets and any consent forms used. The report will specify the sampling approach used together with outcome codes and response rates including an analysis of response rates to date according to key dimensions. A summary section will then lay out the project plans for continued recruitment to attempt to attain the larger sample that would enable a much simpler non-factorial approach to be implemented.

Wireless Maingate in partnership with BMG have completed SDRC 6, Install 80% of clamp sensors which is currently under review prior to submission. This report gives detail on the successful installation of household monitoring equipment in 2,200 properties and confirms the data which the Project is successfully obtaining from these installations. Consumption is monitored across the sample through clamp ammeters which provide a whole-household data set and smart plugs in 50% of participant's properties, providing appliance level usage data from an array of appliances which were prioritised by DNV GL prior to recruitment.

To maintain a clear focus on the successful management of the various packages of work the Project has held six Project Partner Review Board (PPRB) meetings, enabling all partners to meet at least once a month to discuss progress and plan activities. Representatives of EA Technology and BMG

have attended all PPRB's within the reporting period to provide specific updates on recruitment progress and modelling activities in addition to lending expertise to partners work streams underway.

In order to ensure visibility across the Project and assist with planning and management, Project Partner Review Boards are continuing on a monthly basis, with at least one person from each Project Partner attending each meeting. The purpose of the Project Partner Review Board is to:

- Develop and implement a project plan that meets Project Direction, Full Bid Submission and SDRC requirements
- Record Project progress
- Review progress against the planned program (time and cost)
- Revise, where appropriate the Project plan to ensure progress continues to requirements
- Review risks and mitigations
- Capture and review project learning
- Ensure that the relevant information is provided for Innovation Steering Board meetings.

Project assurance established as part of the Project Management approach ensures that:

- Thorough liaison between Suppliers, Project Partners, SEPD and Ofgem is maintained throughout the Project
- The Project remains viable
- Risks are controlled
- The Project is delivered in accordance with the Full Bid Submission and subsequent Project Direction
- Project participant needs are being met or managed
- Internal and external communications are working
- Any legislative constraints are observed
- The relevant resources are in place

These items are regularly checked to ensure delivery is consistent with, and continue to meet the scope of works in, the Full Bid Submission and subsequent Project Direction and that the SDRC are met. This has ensured that good progress has been made against all current deliverables and planning started for future work packages.

Through the monthly Project Partner Review Board meetings and additional smaller-scale meetings multiple areas of consideration have been addressed, ranging from recruitment to equipment installation practicalities. Following a mixture of in-depth discussions and research, the following decisions on the approach to be taken have been agreed:

- Brand initial recruitment letter and media with UoS and BMG organisations details removing the potential of industry related negative media to cause sample spoil or reduced uptake of Project participation from households.

- The addition of DNV GL to the Community Energy Coach Stakeholder group to maximise symbiotic approach across trials 1-4 and identify potential local influences on the Projects sample populations which could effect general energy consumption.
- The University of Southampton confirmed appointment of two part-time assistants to support the data analytics and database management aspects of their Project Commitments to ensure accurate and timely responses to data requests.
- The project has constructed media guidelines to manage requests for information and engagement outside of normal Project expectations. This outlined the need to approach each request with caution to avoid the dissemination of data which could cause sample spoil or create negative reaction from the Projects 'control groups' who would not receive any incentives or energy efficiency technology/support.

The next reporting period will be filled with key activities:

- Delivery of SDRC 5 and SDRC 6 reports (technically in this reporting period however this report is due before the SDRC deadline)
- Recruitment and installation of household monitors complete across 4,600 households in the study area
- Final trial designs and strategy complete in preparation for full trial commencement in January
- Appointment of media and LED providers for trials 1-3
- Development of Wireless Maingate's Mvio system for household and area usage display for use within trials and data analysis.

With the Partner work packages, review sessions and good communications established between all parties there are no issues or concerns that we foresee occurring in the next reporting period.

3 Consistency with full submission

Ofgem guidance: The DNO should confirm that the Project is being undertaken in accordance with the full submission. Any areas where the Project is diverging or where the DNO anticipates that the Project might not be in line with the full submission should be clearly identified. The DNO should also include, where appropriate, references to key risks identified under "Risk Management".

The SAVE project is being conducted in accordance with the full submission. To ensure all commitments from this submission are completed in a timely and efficient manner, the Project has developed a comprehensive structure with clear linkages to the text of the full submission.

The project has requested and has received approval for one change requests to the project during this reporting period.

Change Request No.	Description
CR-1	Adjustment to trial periods allowing third active trial and substitution of optic sensors for clamp ammeters

4 Risk management

Ofgem guidance: The DNO should report on the risks highlighted in box 26 of the full submission pro forma, plus any other risks that have arisen in the reporting period. DNOs should describe how it is managing the risks it has highlighted and how it is learning from the management of these risks.

The Project risk register is a live document designed to identify actual and potential barriers to the satisfactory progress of the SAVE project. The register is used to target resources and to develop control measures and mitigations. The SAVE risk register is a single log of risks as identified by SEPD, University of Southampton, Maingate, DNV GL, Future Solent and Neighbourhood Economics. The register is reviewed at the monthly Project Partner Review Boards and is reported to the SEPD Project Steering Group.

Risks are assessed against their likelihood and impact, where the impact considers the effect on cost, schedule, reputation, learning, the environment and people. Risks are scored before (inherent) and after (residual) the application of controls. Risks which are closed are removed from the live register, with any learning captured through the Learning Moments and Project Trials described in section 7.

Increased focus is placed on risks with amber or red residual scores and also on all risks with a red inherent score (to ensure there is no over-reliance on the controls and mitigation measures). At present, there are nine risks that fall into this category:

Risk ref #	Confidential to Partner	Source	Phase	WBS Category	Status	Risk Description	Inherent Impact					Risk Control/Mitigation Actions	Residual Impact					Inherent			Residual			Risk Review Date			
							Cost	Schedule	Reputation	Learning	Environment		People	Likelihood	Score	Contingency List (£k's)	Contingency Lay (wks)	Score	Mapping Ref	Contingency List (£k's)	Contingency Lay (wks)						
																						Score	Contingency List (£k's)		Contingency Lay (wks)	Score	Mapping Ref
WP1-3		SEPD			Active	Lack of budget to complete project and over spend on budget	5	5	3	5	1	3	Following meetings and workshops with project partners costs were built from bottom up so budget available providing partners work to expectations. Value for money exercises are being carried out across all work packages	3	3	3	1	1	2	15	9.4	0.2	6	32	0.2	0.0	30/12/2014
WP1-4		SEPD			Active	Inability of recruiting the necessary number of customers for the trials across the Solent area	3	5	4	5	1	2	Constant monitoring in place for this key milestone. Regular review meetings will be carried out during this process with BMG and weekly teleconferences to be held. Existing escalation process in place via Project Director to SEPD ISB	2	3	3	3	1	3	20	23.4	2.3	9	33	0.7	0.1	10/03/2015
WP1-5		SEPD			Active	Lack of data available from the Trial zones and an overall lack of learning to SEPD.	1	1	2	5	1	3	Regular reviews of monitoring outputs with escalation through the PRB, and individual WPs will seek to escalate well before PRB.	1	1	2	2	1	2	15	0.2	0.0	4	22	0.0	0.0	10/03/2015
WP1-8		Maingate			Active	Lack of architect or design resource may hamper completion of the checks necessary to ensure the correct function of the wider 'system' beyond the Maingate m/vio system	1	5	4	4	1	4	Resourcing of architect and designer to ensure suitable validation of Low Level Design. Able to call upon emergency SSEPD resource if not done in time	1	3	2	2	1	3	20	2.3	2.3	9	33	0.2	0.1	30/12/2014
WP2-3		SEPD			Active	Failure of equipment and lack of data	4	4	4	5	1	3	Equipment to be paired up during recruitment process, if kit fails once deployed Maingate can observe and seek to rectify quickly	2	2	4	3	1	3	15	4.7	0.1	12	43	0.7	0.0	10/03/2015
WP5-1		SEPD			Active	Lack of broadband coverage in the study areas	1	1	3	5	1	3	SM cards provided by WM as potential solution	1	1	2	3	1	2	15	0.2	0.0	6	32	0.0	0.0	30/12/2014
WP5-2		SEPD			Active	Monitoring equipment cannot be installed	1	4	2	5	1	4	Training will be provided to recruiters and if unable to install kit then will seek alternative participant to recruit. WM providing real time support to installation process and BMG now have good experience among team members	1	3	2	3	1	3	20	2.3	0.9	9	33	0.2	0.1	25/05/2015
WP5-7		UoS			Active	Inability to synchronise meter readings and being given 15min or half hourly readings to interpret	2	3	1	4	1	4	Maingate confirmed readings synchronised	1	1	2	2	1	2	16			4	22			30/12/2014
WP8-1		SEPD			Active	Equipment faulty and data not available	3	5	3	4	1	3	Equipment regularly monitored and supported by help desk and support staff. Some units experiencing issues during installation resulting in delay to installation. BMG tasked where possible to work around this issue but potential for lower levels of Smart plug installation acknowledged.	2	4	2	3	1	3	15	2.3	0.2	12	43	0.7	0.1	25/05/2014

5 Successful delivery reward criteria (SDRC)

Ofgem guidance: The DNO should provide a brief narrative against each of the SDRCs set out in its Project Direction. The narrative should describe progress towards the SDRCs and any challenges the DNO may face in the next reporting period.

The SAVE project has identified eight Successful Delivery Reward Criteria (SDRC). The majority of these are split into a number of sub components and each component has defined criteria, evidence and a target date for completion. The following table lists the individual SDRC components in chronological order and details the Project's progress towards their achievement for those due to be completed in this reporting period (up to June 2015) and into the next reporting period (up to December 2015).

Completed (SDRC met)	Emerging issue, remains on target	SDRC completed late
On target	Unresolved issue, off target	Not completed and late

SDRC	Due	Description	Status
SDRC 3.1	28/02/2014	Create Customer Engagement Plan	Complete – submitted to Ofgem on 28/02/2014
SDRC 8.9	19/06/2014	6 monthly Project Progress Report	Complete - and due to be submitted every 6 months until end of the Project
SDRC 1	30/06/2014	Produce report on learning from UK and international energy efficiency projects and the impact on the design and implementation of the SAVE project	Complete – submitted to Ofgem 30/06/2014
SDRC 8.9	19/12/2014	6 monthly Project Progress Report	Complete - and due to be submitted every 6 months until end of the Project
SDRC 2.1	31/12/2014	Create initial customer model	Complete – submitted to Ofgem 30/12/2014
SDRC 7.1	31/12/2014	Create initial network model and parameters for tool	Complete – submitted to Ofgem 30/12/2014
SDRC 8.9	30/06/2015	6 monthly Project Progress Report	Complete - and due to be submitted every 6 months until end of the Project
SDRC 5	30/06/2015	Identify control and sample groups	On target - due to be submitted to Ofgem by SDRC date 30/06/15
SDRC 6	30/06/2015	Install 80% of clip-ammeter	On target - due to be submitted to Ofgem by SDRC date 30/06/15

Beyond the next reporting period, the following table lists the remaining SDRCs in chronological order:

SDRC	Due	Description
SDRC 4	30/06/2016	Create commercial energy efficiency measures
SDRC 2.2	30/12/2016	Revise customer model
SDRC 7.2	30/12/2016	Revise network model and network investment tool
SDRC 3.2	31/01/2017	Hold meetings to share progress, experiences and next steps with customers involved in trials on a six monthly basis
SDRC 2.3	31/05/2018	Finalise customer model
SDRC 7.3	31/05/2018	Finalise network investment tool
SDRC 8.1	29/06/2018	Produce project closure report
SDRC 8.2	29/06/2018	Produce network investment tool key outcomes report (including comparison of trial method impacts)
SDRC 8.3	29/06/2018	Produce LED trial report
SDRC 8.4	29/06/2018	Produce DNO price signals direct to customers trial report

SDRC 8.5	29/06/2018	Produce network pricing model report
SDRC 8.6	29/06/2018	Produce customer and network modelling report
SDRC 8.7	29/06/2018	Produce data-informed engagement trial report
SDRC 8.8	29/06/2018	Produce community coaching trial report

6 Learning outcomes

Ofgem guidance: The DNO should briefly describe the main learning outcomes from the reporting period. It should update Ofgem on how it has disseminated the learning it generated as part of the Project over the last six months

The learning objectives for the Project are:

- to gain insight into the drivers of energy efficient behaviour for specific types of customers
- to identify the most effective channels to engage with different types of customers
- to gauge the effectiveness of different measures in eliciting energy efficient behaviour with customers
- to determine the merits of DNOs interacting with customers on energy efficiency measures as opposed to suppliers or other parties

These will be answered as a result of carrying out the following project objectives:

- Create hypotheses of anticipated effect of energy efficiency measures (via commercial, technical and engagement methods)
- Monitor effect of energy efficiency measures on consumption across range of customers
- Analyse effect and attempt to improve in second iteration
- Evaluate cost efficiency of each measure
- Produce customer model revealing customer receptiveness to measures
- Produce network model revealing modelled network impact from measures
- Produce a network investment tool for DNOs
- Produce recommendations for regulatory and incentives model that DNOs may adopt via RIIO

6.1 Learning Outcomes

SDRC 2.1 called for the creation of the initial customer model, and University of Southampton's report "SAVE SDRC 2.1: SAVE Customer Model Framework Specification" was submitted to Ofgem in December 2014. The report outlined the applied research context for the Customer Model Framework and described its key requirements before outlining the modelling approach that can meet these requirements and describes its conceptual foundations and method of implementation. In the absence of SAVE baseline data, which is to be collected from early 2015 onwards, it was developed using example data to provide illustrations of the kinds of outputs that will be available in subsequent phases of development.

SDRC 7.1 called for the initial network model to be created, EA Technology have produced the report "SDRC 7.1: Initial Network Model" which was submitted to Ofgem in December 2014. The report introduced the Network Modelling Tool which simulates real-time operation and management of electricity distribution networks allowing network 'costs and benefits' to be evaluated with respect to both energy efficiency and traditional network reinforcement methods. Specifically the report defines the technical functional specifications by providing information on inputs, processes and outputs; and illustrates the application of the preliminary version of the Network Modelling Tool. As with the Customer Model, it will be updated with new data inputs as the project progresses.

6.2 Learning Moments

The following ‘Learning Moments’ have been recorded during this reporting period.

- Initial letter and survey material were updated in response to feedback from participants during pilot recruitment. Installation staff encountered questions on the objectives of the project in addition to requests for further detail on the information collected and reassurances around the security of the systems used. Greater detail was added to the FAQ's provided as part of the recruitment process, the terminology was adapted to encourage a higher uptake of participation and to offer reassurance on the projects objectives.
- Identification of increased learning potential within trial periods through adjustment of project timeline to allow a third active trial within the trial phase of the Project. Project partners agreed that the separation of trial periods offered no negative effect to the expected learning while the additional assessment and refinement period would allow further revision of the trial methods to be tested increasing the potential energy reduction effects of each method . The proposed changes were detailed and successfully submitted to Ofgem within change request CR-1.
- Separation of survey and installation of household monitoring to reduce time spent within participants households and maximise recruitment success. This decision was made following the difficulty in installing the household monitors and proved beneficial as participants favoured the shorter visit and the additional call or email option to complete the survey, the Project continued to capture the required responses from the newer survey methods and recruitment success improved thanks to the reduced resource impact.

6.3 Dissemination Activities

The table below shows the main dissemination activities which have been completed in this period:

Leading Partner	Date(s)	Description
SSEPD	January 2015	On the 14 th January SSEPD gave an overview of SAVE to Project ERIC’s management team. Project ERIC (Energy Resources for Integrated Communities) is an InnovateUK funded project led by Moxia Ltd which looks to test the commercial viability of large scale PV and storage installations across domestic communities. SSEPD is a partner within ERIC and hopes to identify learning around the impact these installations can have on the local distribution network and the potential positive effects domestically installed electricity storage can have for vulnerable customers in the event of an interruption. SSEPD supported the recruitment of properties to the trial in Oxford by sharing tested recruitment material, learning and experience with the wider Project team.
SSEPD	March 2015	On the 2 nd March SSEPD were invited to a dissemination event by Project DANCER (Digital Agent Networking for Customer Energy Reduction) which aims to produce an automatic household usage monitoring system which can reduce energy consumption with minimal participant input. This project was planning to commence a wider trial of the current system and SSEPD shared tested recruitment material, learning and experience with the Project team.

NEL/SSEPD	April 2015	On the 1 st April 2015 NEL/SSEPD arranged to meet with representatives from UKPN's 'Energywise' Project to establish a best working practise and knowledge exchange group. The Energywise project aims to enable and encourage customers to change their pattern of demand and participate in demand side response (DSR) and other energy saving activities that will help to mitigate the challenges of increasing and more uncertain demand on electricity networks. Recruitment activities, Customer and Community engagement were discussed in addition to project overviews, further meetings have been planned on a biannual basis.
SSEPD	March 2015	Internal dissemination event for SSEPD staff on the SAVE~ project, this session provided an overview of the full project with specific detail on the data collected, the final network investment tool and its potential uses, the customer and network models and the need for innovative approaches to manage network constraints. The session was attended by senior network planners, department heads, unit managers and technical staff.
SSEPD/UoS	April 2015	SAVE recruitment survey items (& process) used as input to DECC funded LUKES II feasibility study (groundwork for a future large scale GB domestic energy survey) Dr Ben Anderson (UoS) was invited to take part in a DECC funded feasibility study to develop a pilot survey instrument and sampling strategy for a potential new large scale national household energy consumption panel survey. The project, undertaken from February to May 2015 by Ipsos-MORI in collaboration with UCL's Centre for Energy Epidemiology and the University of Southampton's Sustainable Energy Research Group, reviewed a wide range of recent energy demand survey projects including several projects funded by the LCNF and EDRP programmes. Dr Anderson provided a review of the Irish Commission for Energy Regulation (CER) Smart Meter Trial survey and also introduced the SAVE recruitment survey as an additional design resource for the DECC panel. In addition to raising the profile of SAVE with the project team (and with DECC) Dr Anderson also provided a review of potential data linkage between the new DECC panel (should it be implemented) and other sources of data to provide additional dwelling and occupant information without the need to extend the survey itself.
SSEPD	May 2015	On 29 th May 2015 SEPDP was invited to present on its LCNF project portfolio to techUK members in London. techUK represents more than 850 companies involved in IT, Telecommunications and Electronics, which make up about half of all tech sector jobs in the UK. It aims to help its members grow by developing markets, relationships and networks whilst reducing business costs and risks. As a result they were extremely keen for us to present on our projects due to the depth and breadth of learning to date yielded by the portfolio across various areas of IT, communications and electronics, and help members appreciate the developments the electricity DNOs are making in helping the UK move towards a low carbon economy. We presented to the members the objectives, approach, methodology and proposed outputs of SAVE and generated interest in both the collection of data, use of technology, customer types and partner mix, helping techUK members both understand the project and also how their businesses could potentially assist DNOs in the future.
DNV GL	June 2015	DNV GL attended the ECEEE Summer Study in June 2015, in South France. This biennial, interdisciplinary, cross-sectorial conference is one of the most important energy efficiency events in Europe; 400 participants from industry, energy suppliers, governments, research, consulting, and the NGO sector presented a series of peer-reviewed paper presentations and research posters. Participants also had the opportunity to set up informal sessions on the spot to discuss any topic of their own choice. DNV GL used this opportunity to raise awareness about the project and to also receive input and feedback on the trial design that is now being formulated. Throughout the conference, and especially during the 'poster' session where DNV GL presented our results on evaluating behaviour change programmes ('State-of-the-art in behaviour change programme

	<p>evaluation'), informal discussions were held which related to customer engagement and behaviour change in general, including those oriented toward influencing behaviour during peak times.</p> <p>Several participants from the academic world as well as from the energy efficiency industry showed strong interest in our trial design and the details of the SAVE project. DNV GL had an elaborated conversation with Mathieu Durand-Daubin, a researcher at EDF R&D and at the Demand Centre – Collaborative Research & Management, whose research focuses on the study of energy consuming practices in order to model how the related energy consumption builds up and evolves. Our approach and objectives of the SAVE trial was also shared with Dr Joanne Wade from the UK ACE, whose particular area of interest is the evaluation of energy efficiency programmes and has already reviewed several behaviour change programmes in the UK and in Europe. One aspect of the project that certainly attracted attention and received approval was the size of the treatment groups and the duration of the trial; the majority of behaviour change programmes in Europe are of a very small scale, a factor that which limits the applicability of approaches and methods to a larger consumer –based environment. They all stated that they are looking forward to learning more about the results of the trial and the evidence we will collect in the following months.</p> <p>Their remarks and feedback provided confirmation/support with the regard to the approach the Project is taking. These discussions will help validate the need for planned, upfront consumer research to explore the messages/themes that were likely to be the most relevant/salient to the Projects targeted segments.</p>
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7 Business case update

Ofgem guidance: The DNO should note any developments or events which might affect the benefits to be gained from the Second Tier project. Where possible the DNO should quantify the changes these developments or events have made to the Project benefits compared to those outlined in the full submission proposal.

SSEPD's core purpose is to provide the energy people need in a reliable and sustainable way. To achieve this, our delivery priority is to deliver upgraded electricity transmission networks, operational efficiency and innovation in electricity and gas distribution networks as they respond to the decarbonisation and decentralisation of energy. The learning from the SAVE project will inform our strategy to deliver on this priority with the aim of supporting our core purpose.

Through these trials, SEPD hopes to quantify the most cost effective approach to having a measurable change in the operation of the distribution system and develop means of controlling the demand reduction in order to be able to rely on the demand reduction and defer or avoid network reinforcement.

Drawing on previous research and project learning the Project expects to see reductions of between 10-15% in overall electrical consumption for the methods being trialled, although this reduction and potential benefit to the networks is expected to vary depending on multiple variables.

Expected reductions achieved as a result of the interventions being trialled in the Project are shown below, with further scenarios detailed in the full submission proposal.

Average annual household consumption (kWhs per year)	4,226	4,226	4,226	4,226
Measure	LEDs	Data informed engagement	DNO rebates	Community Coaching
Average annual household lighting consumption (kWhs per year)	634			
Expected total reduction (%)	10.5	11	15	15
Expected annual reduction (kWhs per year)	444	465	634	634
Expected hourly reduction (kWhs)	0.05	0.05	0.07	0.07
Expected hourly reduction (Watts per hour)	5	5	7	7
Expected daily reduction (Watts per day)	122	127	174	174

Small Low Voltage Urban reinforcement	LEDs	Data informed engagement	DNO rebates	Community Coaching
Daily reduction on LV cable with 150 customers (kW)	18	19	26	26
Rating of circuit (kW)	200	200	200	200
Headroom made available (%)	9.12	9.55	13.03	13.03
Equivalent to connection a number of 3kW heat pumps or EVs now able to connect (without diversity)	6	6	9	9

SEPD has not noted any developments or events which might affect the wider business case outlined above and as detailed in the full submission proposal.

8 Progress against budget

Ofgem guidance: The DNO should report on expenditure against each line in the Project Budget, detailing where it is against where it expected to be at this stage in the Project. The DNO should explain any projected variance against each line total in excess of 5 per cent.

Project expenditure is within the budget defined in the Project Direction. The table below details expenditure against each line in the Project Budget and compares this with planned expenditure to date¹. Projected variances are also listed for changes >5%.

	Budget	Expenditure ITD	Comparison with expected expenditure	Projected Variance (at project conclusion)		
				(£K)	%	#
LABOUR	£2,445,883	£137,493.04	19%	0	0	
EQUIPMENT	£553,890	£835,737.67	151%	0	0	
CONTRACTORS	£4,735,730	£1,030,743.81	78%	0	0	
IT	£753,321	£3,360	1%	0	0	
TRAVEL & EXPENSES	£26,400	£0	-	0	0	
PAYMENTS TO USERS	£428,302	£78,224.99	66%	0	0	
DECOMMISSIONING	£257,938	-	-	0	0	
OTHER	£442,220	-	-	0	0	

Notes:

The variance in Equipment budget is due to the incorrect allocation of costs from Wireless Maingate for delivery of the IT aspect of the household monitoring solution and associated project services. Cost transfers have been arranged to correct this which will reduce the overspend in Equipment and move the costs against the correct lines, Contractors and IT. These transfers will complete within the next reporting period.

¹ Expenditure is compared with a dynamic assessment of project phasing which reflects the nature of specific contract payments and physical delivery milestones. A comparison of expenditure with phased budget will often indicate a payment lag due to the nature of invoicing processes.

9 Bank account

Ofgem guidance: The DNO should provide a bank statement or statements detailing the transactions of the Project Bank Account for the reporting period.

Where the DNO has received an exemption from Ofgem regarding the requirement to establish a Project Bank Account it must provide an audited schedule of all the memorandum account transactions including interest as stipulated in the Project Direction.

Transaction details for the SAVE Project Bank account during this reporting period are listed in the Appendix. This extract has been redacted to protect the financial details of transacting parties; the full, un-altered copy has been submitted in a confidential appendix to Ofgem.

A summary of the transactions to date are shown in the table below:

From	Dec 14 – May 15
Northern Powergrid (Northeast) Ltd (NP NE)	149,510.64
Northern Powergrid (Yorkshire) plc (NP Yorkshire)	214,536.56
Scottish Power Distribution Ltd (SPD)	188,458.84
Scottish Power Manweb plc (SPM)	140,754.64
Eastern Power Networks plc (UKPN EPN)	338,562.68
South Eastern Power Networks plc (UKPN SPN)	213,175.32
Western Power Distribution (WPD)	732,476.32
Southern Electric Power Distribution (SEPD)	1,052,272.72
Scottish Hydro Electric Power Distribution (SHEPD)	70,849.80
SAVE Project Spend	-1,205,600.48
SAVE Interest (quarterly)	7,487.73
Closing Balance May 15	7,400,544.55

10 Intellectual Property Rights (IPR)

Ofgem guidance: The DNO should report any IPR that has been generated or registered during the reporting period along with details of who owns the IPR and any royalties which have resulted. The DNO must also report any IPR that is forecast to be registered in the next reporting period.

In commissioning project partners to commence project activities, the SAVE project has applied the default IPR treatment to all work orders (as defined in the Low Carbon Networks Fund Governance Document). This will ensure IPR which is material to the dissemination of learning in respect of this project is controlled appropriately.

No Relevant Foreground IPR has been generated or registered during the December 2014 – June 2015 reporting period. No Relevant Foreground IPR is forecast to be registered in the next reporting period.

The SAVE project intends to gather details of IPR through the structure of individual project trials. Specifically, in concluding project activities the following details will be gathered: 1) components required for trial replication and, 2) knowledge products required for trial replication.

11 Other

Ofgem guidance: Any other information the DNO wishes to include in the report which it considers will be of use to Ofgem and others in understanding the progress of the Project and performance against the SDRC.

No further details.

12 Accuracy assurance statement

Ofgem guidance: DNO should outline the steps it has taken to ensure that information contained in the report is accurate. In addition to these steps, we would like a Director who sits on the board of the DNO to sign off the PPR. This sign off must state that he/she confirms that processes in place and steps taken to prepare the PPR are sufficiently robust and that the information provided is accurate and complete.

This Project Progress Report has been prepared by the Project Manager and reviewed by the Project Delivery Manager before sign-off by the Director of Distribution, who sits on the Board of SEPD.

This report has been corroborated with the monthly minutes of the Project Steering Group² and the Project Partners Review Board to ensure the accuracy of details concerning project progress and learning achieved to date and into the future. Financial details are drawn from the SSE group-wide financial management systems and the Project bank account.

Prepared by: Alexander Howison Project Manager 8th June 2015

Reviewed by: Nigel Bessant Project Delivery Manager 10th June 2015

Final sign off: Stuart Hogarth Director of Distribution



² The Project Steering Board meets as part of an overall SSEPD Innovation Steering Board

Appendix - Redacted copy of bank account transactions

Bankline



Statement for account XX-XX-XX XXXXXXXX from 01/12/2014 to 31/05/2015

Short name:	SOUTHERN ELECTRIC PO	Currency:	GBP
Alias:	SOUTHERN ELECTRIC PO	Account type:	SPECIAL INT BEARING
BIC:	XXXXXXXX	Bank name:	NATIONAL WESTMINSTER BANK
IBAN:	XXXXXXXXXXXXXXXXXXXX	Bank branch:	READING MKT PLACE

Date	Narrative	Type	Debit	Credit	Ledger balance
	CLOSING BALANCE				7,400,544.55Cr
21/05/2015	SOUTHERN ELECTRI SAVE COSTS	EBP	205,119.44		7,400,544.55Cr
31/03/2015	31MAR-GRS XXXXXXXX	INT		4,271.55	7,605,663.99Cr
27/03/2015	NORTHERN ELECTRIC LCNF	BAC		53,634.14	7,601,392.44Cr
27/03/2015	NORTHERN ELECTRIC LCNF	BAC		37,377.66	7,547,758.30Cr
27/03/2015	SOUTHERN ELECTRI SAVE SEPD LCNF	EBP		178,439.84	7,510,380.64Cr
27/03/2015	SOUTHERN ELECTRI SAVE SEPD DNO	EBP		84,628.34	7,331,940.80Cr
27/03/2015	SCOTTISH HYDRO-E SAVE SHEPD DNO	EBP		17,712.45	7,247,312.46Cr
27/03/2015	R B S-SP MANWEB	BAC		35,188.66	7,229,600.01Cr
27/03/2015	R B S-SP DISTRIBUT	BAC		47,114.71	7,194,411.35Cr
26/03/2015	SOUTHERN ELECTRI SAVE COSTS	EBP	235,787.87		7,147,296.64Cr
26/03/2015	/RFB/WPD GROUP XXXXXXXXXXXXXXXXXX WESTERN POWER DI STRIBUTION (SW)P CHAPS TFR	CHP		183,119.00	7,383,084.51Cr
10/03/2015	UK PN OPERATIONS XXXX XXXXXXXXXXXX X	BAC		53,293.83	7,199,965.43Cr
10/03/2015	UK PN OPERATIONS XXXX XXXXXXXXXXXX X	BAC		84,640.67	7,146,671.60Cr
04/03/2015	SOUTHERN ELECTRI SAVE COSTS	EBP	764,693.17		7,062,030.93Cr
02/03/2015	R B S-SP MANWEB	BAC		35,188.66	7,826,724.10Cr
02/03/2015	R B S-SP DISTRIBUT	BAC		47,114.71	7,791,535.44Cr
27/02/2015	NORTHERN ELECTRIC LCNF	BAC		53,634.14	7,744,420.73Cr
27/02/2015	NORTHERN ELECTRIC LCNF	BAC		37,377.66	7,690,786.59Cr
26/02/2015	SOUTHERN ELECTRI SAVE SEPD	EBP		84,628.34	7,653,408.93Cr
26/02/2015	SCOTTISH HYDRO-E SAVE SHEPD	EBP		17,712.45	7,568,780.59Cr
26/02/2015	SOUTHERN ELECTRI SAVE SEPD	EBP		178,439.84	7,551,068.14Cr
26/02/2015	/RFB/WPD GROUP XXXXXXXXXXXXXXXXXX WESTERN POWER DI STRIBUTION (SW)P CHAPS TFR	CHP		183,119.00	7,372,628.30Cr
17/02/2015	UK PN OPERATIONS XXXX XXXXXXXXXXXX X	BAC		53,293.83	7,189,569.22Cr
17/02/2015	UK PN OPERATIONS XXXX XXXXXXXXXXXX X	BAC		84,640.67	7,136,215.39Cr
	BALANCE BROUGHT FORWARD				7,051,574.72Cr

NB: Transactions with today's date may still be subject to confirmation and may subsequently be reversed from your account.
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Statement for account XX-XX-XX XXXXXXXX from 01/12/2014 to 31/05/2015

Date	Narrative	Type	Debit	Credit	Ledger balance
	BALANCE CARRIED FORWARD				7,051,574.72Cr
28/01/2015	NORTHERN ELECTRIC LCNF	BAC		53,634.14	7,051,574.72Cr
28/01/2015	NORTHERN ELECTRIC LCNF	BAC		37,377.66	6,997,940.58Cr
28/01/2015	SOUTHERN ELECTRI SAVE SEPD	EBP		178,439.84	6,960,562.92Cr
28/01/2015	SOUTHERN ELECTRI SAVE SEPD	EBP		84,628.34	6,782,123.08Cr
28/01/2015	SCOTTISH HYDRO-E SAVE SHEPD	EBP		17,712.45	6,697,494.74Cr
28/01/2015	R B S-SP MANWEB	BAC		35,188.66	6,679,782.29Cr
28/01/2015	R B S-SP DISTRIBUT	BAC		47,114.71	6,644,593.63Cr
27/01/2015	UK FN OPERATIONS XXXX XXXXXXXXX X	BAC		53,293.83	6,597,478.92Cr
27/01/2015	UK FN OPERATIONS XXXX XXXXXXXXX X	BAC		84,640.67	6,544,185.09Cr
26/01/2015	/RFB/WPD GROUP XXXXXXXXXXXXXXXX WESTERN POWER DI STRIBUTION (SW)P CHAPS TFR	CHP		183,119.08	6,459,544.42Cr
31/12/2014	31DEC-GRS XXXXXXXXX	INT		3,216.18	6,276,425.34Cr
29/12/2014	SOUTHERN ELECTRI SAVE SEPD LCNF	EBP		178,439.84	6,273,209.16Cr
29/12/2014	SCOTTISH HYDRO-E SAVE SHEPD DNO	EBP		17,712.45	6,094,769.32Cr
29/12/2014	SOUTHERN ELECTRI SAVE SEPD DNO	EBP		84,628.34	6,077,056.87Cr
29/12/2014	/RFB/WPD GROUP XXXXXXXXXXXXXXXX WESTERN POWER DI STRIBUTION (SW)P CHAPS TFR	CHP		183,119.08	5,992,428.53Cr
24/12/2014	NORTHERN ELECTRIC LCNF	BAC		53,634.14	5,009,309.45Cr
24/12/2014	NORTHERN ELECTRIC LCNF	BAC		37,377.66	5,755,675.31Cr
19/12/2014	R B S-SP MANWEB	BAC		35,188.66	5,718,297.65Cr
19/12/2014	R B S-SP DISTRIBUT	BAC		47,114.71	5,683,108.99Cr
16/12/2014	UK FN OPERATIONS XXXX XXXXXXXXX X	BAC		53,293.83	5,635,994.28Cr
16/12/2014	UK FN OPERATIONS XXXX XXXXXXXXX X	BAC		84,640.67	5,582,700.45Cr
	OPENING BALANCE				5,498,059.78Cr
Totals			1,205,600.48	3,108,085.25	

NB: Transactions with today's date may still be subject to confirmation and may subsequently be reversed from your account.
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