



My Electric Avenue

MONTH 12 INDEPENDENT REVIEW REPORT

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Client Confidential EA Technology Ltd

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Approved (Ricardo)

A handwritten signature in blue ink, appearing to read 'P. Jordan', is written over a light blue horizontal line.

Paul Jordan
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LCNF Project Number: SSET205

Project Acronym: I²EV

Project Title: Innovation-squared: managing unconstrained EV connections

Alternative Project Title: My Electric Avenue¹

Funding Scheme: Second Tier
Ofgem Low Carbon Networks (LCN) Fund

Funding DNO: Scottish and Southern Electric Power Distribution (SSEPD)

Third Party Lead Supplier: EA Technology Ltd

Other Project Partners: Fleetdrive Electric
Nissan
Northern PowerGrid
Zero Carbon Futures

Subcontractors: University of Manchester
De Montfort University
Automotive Comms
Ricardo
ANDtr
Creative Concern

Project Start Date: 7 January 2013

Project End Date: 31 December 2015

Project Website: <http://myelectricavenue.info/>

Type of Review: Periodic 6-monthly independent review

Period covered by review: 1 July 2013 to 31 December 2013

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Version History

Date	Version	Author	Notes
03-Jan-2014	RD.14/2101.1 (DRAFT)	JAP & SB28	First issue (work-in-progress draft)
06-Jan-2014	RD.14/2101.2 (DRAFT)	JAP & SB28	For review meeting on 7 January 2014
13-Jan-2014	RD.14/2101.3 (DRAFT)	JAP & SB28	Complete Draft for final review
16-Jan-2014	RD.14/2101.4	JAP & SB28	First formal release
21-Jan-2014	RD.14/2101.5	JAP & SB28	Update to Page 19

¹ The "My Electric Avenue" project is the public identity for the Low Carbon Network (LCN) Fund Tier 2 project "I²EV". The formal title "I²EV" is used for contractual and Ofgem reporting purpose.

EXECUTIVE SUMMARY

This project was submitted to Ofgem's Tier 2 Low Carbon Network (LCN) Fund as 'I²EV' but was rebranded as 'My Electric Avenue' in early 2013 to improve public acceptance. The project is led by EA Technology (Third Party Lead Supplier), with project partners Scottish and Southern Energy Power Distribution Limited (SSEPD) (the host Distribution Network Operator), Northern Powergrid, Nissan, Fleetdrive Electric and Zero Carbon Futures. Further support is provided via subcontractors, which include the University of Manchester, De Montfort University, Ricardo UK Ltd, Automotive Comms, Creative Concern, and ANDtr.

This report is the second of the periodic 6-monthly independent reviews and includes recommendations on specific improvements and adaptations to working practices to be incorporated by the project team. It covers the key project activities and deliverables during the period **1 July 2013 to 31 December 2013**, principally involving:

- **Novel Commercial Arrangement** – Competition of Principal and all Subcontracts along with associated Task Orders for each of the project partners and subcontractors
- **Technical Trial** – Establishment of viable clusters for Technical Trial, as per SDRC milestones
- **Social Trial** – Engagement and sign-up of participants for the Social Trial
- **Project Management** – Ongoing effective project management and coordination of project partner activities, and initiation of a Change Request to Ofgem

The review is based upon key documents delivered to Ricardo prior to or for the purpose of the review, and has been augmented with formal and informal discussions during project meetings and conference calls.

Overall assessment of project so far

What is the reviewers' overall assessment of the project so far?	Good
Have the key objectives for the period been achieved?	Yes
Has the project made satisfactory progress towards meeting the overall project objectives?	Yes
Has each Task made satisfactory progress against the Plan of Works?	Mostly
Has the project management been performed as required?	Yes
Has the collaboration between project partners and sub-contractors been effective?	Yes
Is there evidence of underperforming project partners or sub-contracts, lack of commitment or change in interest?	Partially
Have the project partners adequately publicised the project to raise awareness of the project with the general public?	Yes
Have the project partners adequately disseminated results and learning from the project?	Yes

In the second reporting period, the project team has continued to demonstrate strong customer engagement, which has resulted in the successful delivery of SDRC 9.5.1.1 with four clusters established by 30 September 2013, and the successful delivery of SDRC 9.5.1.2 with five clusters established by 24 October 2013, two months ahead of schedule.

EA Technology, the Third Party Lead Supplier, have continued to work professionally and diligently in their role as project coordinator for a complex arrangement of project partners and suppliers/subcontractors. As of 20 November 2013, all subcontracts with project partners and suppliers have been signed.

However the Independent Reviewers have highlighted one significant area of concern, which is the high financial risk imposed on EA Technology by Ofgem via the restrictions outlined in the Project Direction. Given the early recruitment success of trial participants, EA Technology have wisely decided to accelerate the establishment of the initial clusters for the Technical Trial, beginning the roll-out of electric vehicles to Technical and Social Trial participants ahead of schedule. Whilst this demonstrates the commitment of the Third Party Lead Supplier to the continuing success of the project, it has placed EA Technology at increased financial risk, especially considering their company size and annual turnover, since Ofgem may demand a return of funds if the targets for cluster establishment are not achieved by 12 March 2014. There also appears to be some debate regarding interpretation of cluster establishment. Such an approach by Ofgem is likely to deter other SMEs from pursuing the role of Third Party Lead Supplier for future LCNF projects.

Highlighted Strengths

A key strength of 'My Electric Avenue' has been the project team's approach to participant recruitment for the Technical and Social Trials. The combination of strong project branding, website and strategic media attention with a 'bottom-up' grass-roots movement via cluster champions has led to a phenomenal response from customers and the sign-up of seven clusters ahead of schedule. The project is on-track to achieve the required number of Technical and Social Trial participants within the deadlines set by Ofgem. This successful approach to the recruitment of potential trial participants should be noted by Ofgem, and the project learning applied to other LCNF projects as appropriate.

The project team have made good progress on disseminating learning so far, with an excellent presentation at the Low Carbon Network Fund Conference in November 2013, and through making project reports available to download from the project website (<http://myelectricavenue.info/project-deliverables>).

Recommendations

With regard to Project Documentation:

- 1) **Apply appropriate version control to all project documents**, and ensure the document version reference is clearly visible on a printed page
- 2) **Consider creating a document reference system for the project** that would be used by all project partners. This document reference system could include the version control number
- 3) **All project documents should record the document author(s)** and project partner affiliation
- 4) **Consider creating project templates for all project reports**, both external and internal. These templates could include appropriated "fields" in the header

or footer for recording document information such as the document reference number, version number, page number and release date

- 5) **Ensure each project document contains suitable terms of reference** so someone reading the document can quickly understand the context and how this document links to the wider project objectives

With regard to the next periodic 6-monthly Independent Review:

- 1) **Reconsider the timing for the Independent Review.** Currently the Independent Review is run in parallel to the preparation of the project Six Monthly Progress review, leading to non-finalised documents being included in the Independent Review and the late availability of key documents, such as the Six Monthly Progress Report.
- 2) Prepare **a short summary of project activities by each Project Task** conducted during the reporting period for inclusion in the Independent Review. Ideally, these Task summaries should be prepared by the Task Leaders, and included within the Project Six-monthly Progress Report if timing permits.

A key item for the next six-month reporting period (1 January to 30 June 2014) will be **the close tracking and clear communication of the status of the Esprit technology installation** as the clusters are established for the Technical Trial. Connected to this will be **early review of the data captured and logged**, to ensure that the data collected is suitable in terms of content and quality, and that the Esprit technology is performing in the field as expected.



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My Electric Avenue

MONTH 12 INDEPENDENT REVIEW REPORT

1 INTRODUCTION

The project 'Innovation-squared: managing unconstrained EV connections' (I²EV), also known as 'My Electric Avenue', is seeking to trial a new technology for managing the supply of electricity to electric vehicles connected to a local distribution network. The project is funded by Ofgem's Low Carbon Networks Fund (LCNF)² with Southern Electric Power Distribution, part of Scottish and Southern Energy Power Distribution (SSEPD), as the host Distribution Network Operator (DNO). Unusually for a LCNF project, the project is being coordinated by a Third Part Lead Supplier, EA Technology. The other project partners are Northern Powergrid (DNO partner), Nissan (EV supplier), Fleetdrive Electric (EV rental programme management) and Zero Carbon Futures (charging point network developer).

Further support to the project is provided via subcontractors, which include the University of Manchester (network modelling and analysis), De Montfort University (socio-economic data gathering and analysis), Ricardo UK Ltd (independent review at 6 month intervals), Automotive Comms (media relations), Creative Concern (website and publicity material), and ANDtr (technology support).

The purpose of the I²EV ('My Electric Avenue') project is twofold:

- **Innovation 1 (commercial): Novel commercial arrangement**

The project is delivered by a third party innovation technology provider (EA Technology), with the DNO (SSEPD) ensuring the requirements of the LCNF and other obligations are met.

- **Innovation 2 (technical): New Technology trials**

A trial of EA Technology's Esprit technology for monitoring and controlling the supply of electricity to EVs connected to distribution networks.

This three-year project started in January 2013 and is due to complete in December 2015. Further information on the project can be found in the Full Submission Pro-forma, Ofgem's letter on the Project Direction and the Management and Delivery document³. A summary of the Task Structure is provided in Appendix 1, and an overview of the project deliverables is provided in Appendix 2.

Ricardo's role in this project is to act as the Independent Reviewer, conducting periodic 6-monthly reviews of the project and the technology. The review includes recommendations on specific improvements and adaptations to working practices to

² Information on the Low Carbon Networks Fund is available on Ofgem's website: <http://www.ofgem.gov.uk/Networks/ElecDist/lcnf/Pages/lcnf.aspx> [Accessed 17 July 2013]

³ All of these documents are available to download from the My Electric Avenue website: <http://myelectricavenue.info/project-library> [Accessed 17 July 2013]

be incorporated by the project team. The review reports form part of the project's Successful Delivery Reward Criteria 9.4.1.

This report is the second periodic 6-monthly Independent Review Report covering the second six-month period of the project from July to December 2013 (inclusive). The review is based upon key documents delivered to Ricardo prior to or for the purpose of the review, and has been augmented with formal and informal discussions during project meetings and conference calls.

Ricardo has used RAG indicators (Red/Amber/Green) in this review report to provide a quick, visual key of the reviewers' subjective opinion on the project and technology. A brief explanation of these indicators is provided in Table 1. A further explanation of the RAG indicators is provided in Appendix 3.

Table 1: Explanation of RAG indicators

RAG Indicator	Explanation
Green	<ul style="list-style-type: none"> • The project is delivering to plan (time, quality, budget) • There are no major issues • All the objectives have been met • The deliverables are of high quality
Amber	<ul style="list-style-type: none"> • The project is at risk of not delivering to plan (time, quality, budget) • There are issues / risks that will impact the project if not fixed • All the objectives have been met • The deliverables are of adequate quality
Red	<ul style="list-style-type: none"> • The project is not delivering to plan (time, quality, budget) • There are issues / risks that are impacting the project right now • All the objectives have been met • The deliverables are of poor quality

2 SCOPE OF THIS INDEPENDENT REVIEW

The scope of this Independent Review concerns project activities conducted during M07 – M12. During this period the project focused upon:

- **Novel Commercial Arrangement**
Competition of Principal and all Subcontracts along with associated Task Orders for each of the project partners and subcontractors
- **Technical Trial**⁴
Establishment of viable clusters for Technical Trial, as per SDRC milestones
- **Social Trial**
Engagement and sign-up of participants for the Social Trial
- **Project Management**
Ongoing effective project management and coordination of project partner activities
Initiation of a Change Request to Ofgem
Obtaining permission from Ofgem to proceed with establishing the initial clusters

EA Technology submitted fifteen documents to be included "for review" in Month 12 Independent Review. These documents are listed in Table 2. Commentary on these documents was provided to EA Technology in a separate document.

These documents were received via an email from Richard Potter at EA Technology to Stuart Bower at Ricardo UK, sent on Monday 2 December 2013, along with twenty-seven documents included "for information". Further email correspondence was submitted "for information" in this review, attached to an email sent by Richard Potter to Stuart Bower on Wednesday 4 December 2013. An updated version of the Risk Register was sent to Ricardo by email on Friday 3 January 2014. On Tuesday 7 January 2014, copies of the November 2013 Project Partner Monthly Reports for Fleetdrive and Zero Carbon Futures were submitted for inclusion in the review. On Thursday 9 January 2014 the 2nd Project Six Monthly Progress Report was submitted for review.

A list of the documents submitted "for information" in the M12 Independent Review is provided in Table 3. Commentary on these documents was provided to EA Technology in a separate document.

During this Independent Review there were several opportunities for the reviewers to discuss questions with EA Technology. These opportunities included:

⁴ A review of the Esprit technology and its performance against competition has not been included in the Month 12 Independent Review. From July – December 2013 the project team has focused on engagement with potential trial participants and the establishment of clusters for the Technical Trial. Reviewing the Esprit technology will be included in subsequent 6-monthly reviews

- Audio meeting between Stuart Bower of Ricardo UK and Tim Butler of EA Technology, held on 4 December 2013
- Email of initial review comments sent by Stuart Bower on Friday 20 December 2013, and reply from EA Technology sent by Richard Potter of EA Technology on Friday 3 January 2014
- Review Meeting held on Tuesday 7 January 2014 at Ricardo-AEA offices in Marble Arch, London. The meeting attendees were Stuart Bower and Jane Patterson from Ricardo, and Richard Potter and Tim Butler (by audio) from EA Technology

A summary of the participation of the project partners and subcontractors during the second six-month period is provided in Table 4 below. A description of the Tasks is provided in Appendix 1.

Table 2: Documents supplied by EA Technology to Ricardo for the M12 Independent Review

Document Title	Deliverable Reference	(Lead) Author Organisation	Version	Issue Date	Public Domain?
Task 0 - Commercial					
Memorandum Task 0 - Independent Review Summary - 021213.doc	N/A	EA Technology	N/A	2 December 2013	No
Task 2 - Customer Engagement					
I2EV (My Electric Avenue) cluster evidence report no 1_Chiswick_issue 2_0.pdf	9.5.1	EA Technology	V2.0	Not provided	No
I2EV (My Electric Avenue) cluster evidence report no.2_South Gosforth_issue 2_0.pdf	9.5.1	EA Technology	V2.0	Not provided	No
I2EV (My Electric Avenue) cluster evidence report no.3_Wylam_issue 2_0.pdf	9.5.1	EA Technology	V2.0	Not provided	No
I2EV (My Electric Avenue) cluster evidence report no 4_Marlow_issue 2_0.pdf	9.5.1	EA Technology	V2.0	Not provided	No
I2EV (My Electric Avenue) cluster evidence report no 5_South Shields_issue 2_2.pdf	9.5.1	EA Technology	V2.2	Not provided	No
My Electric Avenue (I2EV) - SDRC 9 5 1 Technology trials_establishment of cluster groups_Sept 2013 v 1.0 issue 1.pdf	9.5.1	EA Technology	1.0	30 September 2013	No
My Electric Avenue (I2EV) - SDRC 9 5 1 Technology trials_establishment of 5 cluster groups_Dec 2013 v 1.0 issue 1.pdf	9.5.1	EA Technology	0.1	24 October 2013	No
Task 11 - Project Management					
Risk & Contingency Register v4.15 Nov 2013.xlsx	N/A	EA Technology	V4.15	15 November 2013	No
Risk Contingency Register v4 17 Jan 2014 PDV1_10.xlsx	N/A	EA Technology	V4.17	3 January 2014	No
I2EV MEA Combined Learning Log 2013 06 v 0_2 18-Oct-2013.xlsx	N/A	EA Technology	V0.2	18 October 2013	No

Document Title	Deliverable Reference	(Lead) Author Organisation	Version	Issue Date	Public Domain?
86000_11_Plan_of_Works_Internal_Issue_0.2.docx	N/A	EA Technology	0.1 (DRAFT)	28 November 2013	No
MEA (I2EV) Monthly Report - 2013-10 October.xlsx	N/A	EA Technology	N/A	28 November 2013	No
Contractor Monthly v1 4 Fleetdrive Electric Nov 13.pdf	N/A	Fleetdrive	N/A	Not Provided	No
ZCF Contractor Monthly Nov 2013.pdf	N/A	Zero Carbon Futures	N/A	28 November 2013	No
PD_Change_Request_86001_11 - Issue v1.0.pdf	N/A	EA Technology	V1.0	27 August 2013	No
i2ev decision letter.pdf	N/A	Ofgem	N/A	29 October 2013	No
I2EV Project Plan v1.12 - Nov-2013	N/A	EA Technology	V1.12	November 2013	No
I2EV Project Progress Report December 2013 Confidential Version Issue 1.2.pdf	N/A	EA Technology / SSEPD	V1.2	December 2013	No
I2EV Project Progress Report December 2013 Public Version Issue 1.2.pdf	N/A	EA Technology / SSEPD	V1.2	December 2013	Yes

Table 3: Additional documents provided for information and considered by Ricardo during the M12 Independent Review

Document Title	Deliverable Reference	Author Organisation	Version	Issue Date	Public Domain?
Task 0 - Commercial					
SDRC 9.2.2 - Commercial Learning (My Electric Avenue) Novel Commercial Arrangement - Draft 0.1.docx	9.2.2 (due October 2015)	EA Technology	DRAFT	29 August 2013	No
Task 1 – Initial background – evaluation of initial trial					
2013 08 08 DMU Initial findings from literature Review.docx	Task 1iii	DMU	DRAFT	8 August 2013	No
Task 2 - Customer Engagement					
MEA Declaration of Intent form.docx	N/A	EA Technology	Not Provided	Not Provided	Yes

Document Title	Deliverable Reference	Author Organisation	Version	Issue Date	Public Domain?
MEA Technical Trials Consent Form v 0.3.docx	N/A	EA Technology	V0.3	Not Provided	Yes
MEA Social Trials Consent Form v0.4.docx	N/A	EA Technology	V0.4	Not Provided	Yes
MEA Taxi Expenses Form v 0_2.docx	N/A	EA Technology	V0.2	Not Provided	Yes
MEA Cluster Establishment Process v 0_3.pdf	N/A	EA Technology	V0.3	Not Provided	Yes
MEA social trial information_update v 0_1.docx	N/A	EA Technology	V0.1	Not Provided	Yes
MEA Technical Trials Information Pack v 0_2.docx	N/A	EA Technology	V0.2	Not Provided	Yes
MEA Social Trials Welcome Pack v 0_1.docx	N/A	EA Technology	V0.1	Not Provided	Yes
MEA Technical Trial Welcome Pack v 0_1.docx	N/A	EA Technology	V0.1	Not Provided	Yes
MEA cluster progress report 25 11 13 v 0_2.xlsx	N/A	EA Technology	V0.2	11 November 2013	No
Task 4 - Cluster Establishment					
NPG PLC Site Tests Draft.pdf	N/A	EA Technology	DRAFT	11 October 2013	No
2 - 2388 - Test Record - PLC Site Checks (For EA) 08.10.13.pdf	N/A	ANDtr	Not Provided	8 October 2013	No
Esprit Installation Method Statement2.0 (SSE GMT).docx	N/A	EA Technology	V2.0 (DRAFT)	Not Provided	No
Esprit Installation Method Statement1.9 (SSE PMT) {from mg 1.8 edit 131113}.docx	N/A	EA Technology	V0.6 (DRAFT)	Not Provided	No
MEA technical trial installation schedule v 0_6.xlsx	N/A	EA Technology	Not Provided	28 November 2013	No
Task 6 - Socio-Economic Modelling					
2013 11 14 Overview of DMU research for MEA project.pdf	N/A	DMU	Not Provided	14 November 2013	No
2013 11 14 Final Rationale for pre-trial questionnaire.pdf	N/A	DMU	Not Provided	14 November 2013	No
2013 11 14 MEA Technical trial pre-trial questionnaire.pdf	N/A	DMU	Not Provided	14 November 2013	Yes

Document Title	Deliverable Reference	Author Organisation	Version	Issue Date	Public Domain?
2013 11 14 MEA Social trial pre-trial questionnaire.pdf	N/A	DMU	Not Provided	14 November 2013	Yes
Task 7 - Network Modelling					
Agenda My Electric Avenue Meeting with Manchester University 031213.docx	N/A	Not Provided	Not Provided	Not Provided	No
Task 10 - Dissemination					
My Electric Avenue Newsletter November 2013.msg	N/A	EA Technology	N/A	20 November 2013	Yes
MEA SDRC 9 4 1 dissemination.msg	N/A	EA Technology	N/A	1 November 2013	No
My Electric Avenue SDRC 9 4 1 dissemination.msg	N/A	EA Technology	N/A	1 November 2013	No
My Electric Avenue - SDRC 9 5 1 dissemination.msg	N/A	EA Technology	N/A	1 November 2013	No
My Electric Avenue Presentation - LCNF conference - v1.0.pdf	N/A	EA Technology	N/A	13 November 2013	Yes
Email Correspondence					
Fw I2EV (My Electric Avenue) - Change Request teleconference (1).msg	N/A	SSEPD	N/A	29 October 2013	No
Fw I2EV (My Electric Avenue) - Change Request teleconference.msg	N/A	SSEPD	N/A	4 November 2013	No
MEA (I2EV) Response to I2EV Change Request Questions v0.3.msg	N/A	EA Technology	N/A	5 November 2013	No
RE I2EV (My Electric Avenue) - Change Request teleconference.msg	N/A	SSEPD	N/A	11 October 2013	No
RE I2EV Change request.msg	N/A	EA Technology and SSEPD	N/A	22 November 2013	No
Re MEA (I2EV) Response to I2EV Change Request Questions v0.3.msg	N/A	SSEPD	N/A	8 November 2013	No

Note: No documents were provided regarding these tasks:

- Task 3 - Charge Point Integration
- Task 5 - Network Monitoring
- Task 8 - Consultation with EV Manufacturers
- Task 9 - Independent Review

Table 4: Participation of Project Partners and Subcontractors during this Reporting Period

Project Partners / Subcontractors		Tasks											Comments on key activities	
		0	1	2	3	4	5	6	7	8	9	10		11
1	SCOTTISH AND SOUTHERN ELECTRIC POWER DISTRIBUTION PLC	✓	-	✓	-	✓	-	-	-	-	✓	✓	✓	Providing access to their network mapping Reviewing network checks for potential cluster trials
2	EA TECHNOLOGY LIMITED	✓	-	✓	✓	✓	-	✓	-	-	✓	✓	✓	Programme management and consortium coordination Completion of Novel Commercial Arrangement with SSEPD, Project Partners and Subcontractors Continuing Customer Engagement activities to recruit participants for the Technical and Social Trials Overseeing process for checking viability of cluster trial participants Project marketing and dissemination
3a	NISSAN MOTOR LIMITED GB	✓	-	-	-	✓	-	-	-	-	-	✓	✓	Provision of attractive leasing terms for the New LEAF, which will be an incentive to participants in the technical and social trials
3b	NISSAN INTERNATIONAL SA	✓	-	-	-	✓	-	-	-	-	-	✓	✓	Discussions regarding enabling access to the Nissan LEAF Advanced Processing Interface (API) for data recording
4	NORTHERN POWERGRID HOLDINGS	✓	-	✓	-	✓	-	-	-	-	-	✓	✓	Involved in the project's Customer Engagement activities in the Northern Powergrid region Providing network diagrams Reviewing network checks for potential cluster trials
5	ZERO CARBON FUTURES	✓	-	✓	-	✓	-	-	-	-	-	✓	✓	Involved in the project's Customer Engagement activities and associated roadshows Responsible for customer engagement in NPG area Property survey checks of potential trial participants to confirm suitability for fitting charging points

Project Partners / Subcontractors		Tasks											Comments on key activities	
		0	1	2	3	4	5	6	7	8	9	10		11
6	FLEETDRIVE MANAGEMENT LTD	✓	-	✓	-	✓	-	-	-	-	-	✓	✓	Involved in the project's Customer Engagement activities and associated roadshows, providing two Nissan LEAFs for the Ride & Drive Responsible for customer engagement in SSE areas Credit checks of potential trial participants
7	PROMOTE DESIGN & MARKETING LIMITED / AUTOMOTIVE COMMS	✓	-	✓	-	-	-	-	-	-	-	✓	✓	Arrangement and coordination of press releases and media events
8	DE MONTFORT UNIVERSITY	✓	✓	-	-	-	-	✓	-	-	-	-	✓	Literature Review of previous EV trials (Task 1) Design of pre-trial questionnaires for technical and social trial participants Issuing pre-trial questionnaire to initial trial participants for both Technical and Social Trials
9	THE UNIVERSITY OF MANCHESTER	✓	-	-	-	-	-	-	✓	-	-	-	✓	Initial discussions with EA Technology on network modelling
10	RICARDO UK LIMITED	✓	-	-	-	-	-	-	-	-	✓	-	✓	Second periodic six-monthly Independent Review
11	ANDtr	✓	-	-	-	-	-	-	-	-	-	-	✓	Supplied Esprit hardware
12	CREATIVE CONCERN	✓	-	✓	-	-	-	-	-	-	-	✓	✓	Project marketing, including website, flyers and other promotional material

Notes:

- Tasks 5, 7, and 8, shaded pale blue, are scheduled to begin later in the project
- EA Technology verbally confirmed that Task 1 has begun. However the budgetary restrictions imposed on the project by the Project Direction has delayed the initiation of the participation of the University of Manchester compared to the original proposed project plan. UoM are responsible for reviewing the Esprit technology, which has been trialled by EA Technology in a separate research project outside of the I²EV project. It is the intention of UoM to recruit someone to support the I²EV project activities. However they are unable to commit to this recruitment until the budgetary restrictions are removed

Note concerning appointment of installation subcontractors

The Esprit system is supplied to the My Electric Avenue project by EA Technology Development, a separate division of EA Technology. EA Technology Development source components and hardware for the Esprit system from ANDtr. The development of the Esprit system is not part of the My Electric Avenue project.

Zero Carbon Futures is the project partner responsible for the installation and servicing of the charging points for all clusters in the Technical Trial. This includes installation of the Esprit system and associated Intelligent Control Box (ICB) connected to the charging point. ZCF have subcontracted this activity to SSEC, following a formal tender process.

SSEPD is responsible for installing the Esprit system connected to the substation for the clusters located in a SSE area. SSEPD have subcontracted this activity to SSE Contracting.

Northern Powergrid is responsible for installing the substation Esprit system in the clusters located in the NPG area. NPG have subcontracted this activity to IDEC.

3 OVERALL ASSESSMENT

What is the reviewers' overall assessment of the project so far?

Good

In the second reporting period, the project team has continued the strong customer engagement process witnessed in the previous reporting period, although the focus has moved on from registrations of interest to completing the checks required to establish viable clusters. The strong team work between the project partners and potential participants contributed to the successful delivery of SDRC 9.5.1.1 with four clusters established by 30 September 2013, and the successful delivery of SDRC 9.5.1.2 with five clusters established by 24 October 2013, two months ahead of schedule.

EA Technology, the Third Party Lead Supplier, have continued to work professionally and diligently in their role as project coordinator for a complex arrangement of project partners and suppliers/subcontractors. As of 20 November 2013, all subcontracts with project partners and suppliers have been signed.

During the reporting period EA Technology have attempted to refine their monthly project review process to include input from all project partners. EA Technology have provided a copy of the monthly template for project partners, and example monthly reports completed by Fleetdrive and Zero Carbon Futures. It is expected that De Montfort University and the University of Manchester will begin using this monthly reporting template within the next reporting period. It will be interesting to observe the learning gained from this consortium reporting structure, and the level of usefulness of these tools in controlling completion of project activities against budget.

The project documents intended for use by the trial participants, such as the Information and Welcome packs, have been of high quality and content. However document reference and version numbers, or issue dates, have not been included on the printed page. The Independent Reviewers strongly recommend that such document control is included in future versions of the trial participants documents since this will help the MEA project team respond appropriately to questions raised by the trial participants during the trials.

Several of the project documents intended for internal use were also missing document control information from the printed page, such as document reference and version number, main author and issue date⁵. The Cluster Establishment reports would benefit from a companion document that explained the various tests and checks undertaken to validate the cluster; the input assumptions applied to the LV Network Modelling; and how to interpret the results presented. A few project documents were considered to have poor or insufficient content, although it was noted that these documents were submitted as draft versions⁶.

⁵ Project documents missing document control information included the Cluster Establishment Reports and "Key findings from initial review of literature for DMU study"

⁶ Project documents considered to have poor or insufficient content included "Key findings from initial review of literature for DMU study" and the Project Plan of Works

Document quality control is viewed as an area requiring improvement for all future project deliverables.

One significant area of concern is the high financial risk imposed on EA Technology by Ofgem via the restrictions outlined in the Project Direction. Given the early recruitment success of trial participants, EA Technology have wisely decided to accelerate the establishment of the initial clusters for the Technical Trial, and to begin the roll-out of electric vehicles to Technical and Social Trial participants, in order to ensure the continued participation of customers who have successfully met the trial criteria. Whilst this demonstrates the commitment of the Third Party Lead Supplier to the continuing success of the project, it has placed EA Technology at increased financial risk especially considering their company size and annual turnover, since Ofgem may demand a return of funds if the 7 out of 10 clusters are not achieved by 12 March 2014. There also appears to be some debate regarding interpretation of cluster establishment. Such an approach by Ofgem is likely to deter other SMEs from pursuing the role of Third Party Lead Supplier for future LCNF projects.

4 PROGRESS TOWARDS OBJECTIVES

The overall project objectives, as stated in the Management & Delivery document, are divided into two categories – commercial and technical.

The **commercial** objectives of the I²EV project are to:

- Demonstrate delivery of a LCN Fund project by a non-DNO on behalf of a DNO
- Develop a novel commercial arrangement
- Enable all procurement related to the project activity to be managed by a non-DNO
- Evaluate the extent to which third party delivery accelerates deployment of LCN Fund projects

The **technical** objectives of the I²EV project are to:

- Learn customer driving and charging habits and the implications for control via the Technology
- Develop and trial the equipment to ascertain its ease of installation
- Develop the integration of the Technology into the EV charging points including how existing intelligence and attributes in charging points can be harnessed to reduce the cost and improve the performance
- Evaluate the range of networks where it can operate successfully and identify any type of networks that are inappropriate
- Evaluate how often switch off routines are likely to be initiated from real life trials and extrapolation via modelling using the results
- Evaluate the most appropriate length of time to switch off charging and how to cycle switches with references for battery management and customer preference and habits
- From the results and extrapolation via modelling, estimate the typical and maximum thermal capacity gained

The objectives for this six-month reporting period were to:

- **Commercial**
 - Complete all Subcontracts and Task Orders with the project partners and subcontractors
- **Technical**
 - Continue Customer Engagement in the Technical and Social Trial through marketing the project
 - Complete the required checks to establish viable clusters for the Technical Trial
 - Deliver:
 - SDRC 9.5.1.1 – Sign up of 3 cluster groups by 30 September 2013
 - SDRC 9.5.1.2 – Sign up of 5 cluster groups by 31 December 2013
- **Project Management**
 - Continue the regular project meetings and reviews, as outlined in the Management and Delivery Document

Have the key objectives for the period been achieved?

Yes

Has the project made satisfactory progress towards meeting the overall project objectives?

Yes

All contractual arrangements with project partners and sub-contractors are now in place, as summarised in Table 5 below, reducing the commercial risk highlighted during the previous Independent Review.

The project team have successfully achieved the technical objectives for the second six month reporting period through delivery of the required Successful Delivery Reward Criteria (SDRC) ahead of schedule.

Table 5: Contract status as of 2 December 2013

Partner / subcontractor	Contract Status	Task Order Status
1 SOUTHERN ELECTRIC POWER DISTRIBUTION PLC	Novel Commercial Agreement agreed	-
2 EA TECHNOLOGY LIMITED	Novel Commercial Agreement agreed	-
3a NISSAN MOTOR LIMITED GB	Subcontract agreed 20 November 2013	Agreed
3b NISSAN INTERNATIONAL SA	Subcontract agreed 8 October 2013	Agreed
4 NORTHERN POWERGRID HOLDINGS	Subcontract agreed 13 August 2013	Agreed
5 ZERO CARBON FUTURES	Subcontract agreed 12 July 2013	Agreed
6 FLEETDRIVE MANAGEMENT LTD	Subcontract agreed 14 June 2013	Agreed
7 PROMOTE DESIGN & MARKETING LIMITED / AUTOMOTIVE COMMS	Subcontract agreed 2 July 2013	Agreed
8 DE MONTFORT UNIVERSITY	Subcontract agreed 22 August 2013	Agreed
9 THE UNIVERSITY OF MANCHESTER	Subcontract agreed 13 August 2013	Agreed
10 RICARDO UK LIMITED	Subcontract agreed 13 June 2013	Agreed and approved (24 June 2013)
11 ANDtr ⁷	n/a	Agreed
12 CREATIVE CONCERN	Subcontract agreed 26 July 2013	Agreed

⁷ EA Technology is outsourcing technical work to ANDtr. ANDtr were not named in the project direction, but will be following a similar subcontracting arrangement for consistency with the project partners and project subcontractors.

5 PROGRESS AGAINST WORK PLAN

Has each Task made satisfactory progress against the Plan of Works?

Task 0: Novel Commercial Arrangement

Yes

Principle Contract and all Subcontracts and Tasks Orders are now in place (see Table 5).

Task 1: Initial Background

Partially

DMU has begun the Literature Review
EA Technology confirmed verbally that the University of Manchester have begun background work on the technology evaluation, however this work will not be released until the budgetary restrictions have been removed.

Task 2: Customer Engagement

Yes

The project team have continued to make good progress towards engaging with the public for the technical and social trials (see Cluster Identification Progress Report).

Task 3: Integration of the Technology with charging points

Partially

Task 3 has been delayed from the original project plan. EA Technology confirmed verbally that task activities have begun, however no task outputs available for inclusion in this Independent Review.

Task 4: Establishment of Customer / Cluster Trials

Yes

EA Technology confirmed that over seven cluster trials had signed up by 31 December 2013. Sixteen Nissan LEAFs have been distributed to trial participants; 9 vehicles for the Technical Trial and 7 for the Social Trial.

Task 5: Monitoring first trials

n/a

Task 5 is not scheduled to begin until 31 March 2014.
It is not clear from the documentation provided for this review if Task 5 should be accelerated in line with the early initiation of the cluster technical trials.

Task 6: Trial Participant Interviews

Yes

EA Technology confirmed verbally that the pre-trial questionnaires were issued to trial participants before they received their electric vehicles. Eighteen responses have been received by 31 December 2013 (two households participating in the trials have more than one driver who will be using the vehicle)

Task 7: Modelling

n/a

Task 7 is not scheduled to begin until 07 April 2014.

Task 8: Consultation with EV manufacturers: cycle times

n/a

Task 8 is not scheduled to begin until September 2015.

Task 9: Project and Regulatory recommendations and implementation

No
comment

This task concerns the periodic 6-monthly Independent Reviews, which is the subject of this report.

Task 10: Dissemination

Yes

Initial dissemination activities by the project team have been timely and of high quality, creating a strong brand for the project in the public domain, as evident from the supporting documentation included for information in this review.

Task 11: Project Management

Yes

EA Technology hold regular project progress meetings with SSEPD, project partners and subcontractors, as outlined in the Management and Delivery Documents.

Task Orders have been prepared for each project partner and subcontractor, to ensure each partner and subcontractor understands their roles and responsibilities within the project. However these Task Orders have not been included within this Independent Review. Although a draft Plan of Works has been created for this project, it does not yet clearly communicate the expected interactions between the project partners and subcontractors by project task, or the scope of work for each project task.

Have planned SDRCs been achieved for this reporting period?

Yes

Have the other planned project milestones and deliverables been achieved for this reporting period?

Yes

As discussed in Section 4 above, the SDRC for the second six months have been achieved.

According to EA Technology, no additional project milestones or deliverables were expected in this reporting period.

6 INDEPENDENT REVIEW OF THE SUCCESSFUL DELIVERY REWARD CRITERIA AND OTHER DELIVERABLES

A full list of the project's Successful Delivery Reward Criteria (SDRC) is provided in Appendix 2. Listed below are the SDRCs completed in this reporting period (July – December 2013), along with reviewer "traffic light" ranking.

SDRC 9.4.1.1a	Month 06 Independent Review Report	G
No comment		
SDRC 9.4.1.1b	Report in response to Month 06 Independent Review	G
No comment		
SDRC 9.5.1.1	Sign up of 3 cluster groups	G
Completed to schedule		
SDRC 9.5.1.2	Sign up of 5 cluster groups	G
Completed ahead of schedule		

7 IMPLEMENTATION OF THE PROJECT

Has the project management been performed as required?

Yes

The project continues to be well managed by EA Technology, with good participation from project partners and subcontractors.

Has the collaboration between project partners and sub-contractors been effective?

Yes

In general, EA Technology has maintained the good working relationships between project partners established during the first reporting period. It is important that team building activities continue during the next report period as the project workload shifts to other project partners not involved in the initial cluster establishment activities.

Is there evidence of underperforming project partners or sub-contracts, lack of commitment or change in interest?

Partially

A few comments in the learning log suggest there may have been initial issues in establishing good working relationships between some team members.

8 DISSEMINATION OF PROJECT LEARNING

Have the project partners adequately publicised the project to raise awareness of the project with the general public?

Yes

The project team has continued to make excellent progress in advertising the project via the project website, social media, newsletters and conference presentations.

Have the project partners adequately disseminated results and learning from the project?

Yes

SDRCs suitable for the public domain can be downloaded from the project website. Press releases were issued to confirm progress with establishing clusters for the technical trial.

A useful overview of the project progress and lessons learnt was presented at the Low Carbon Network Fund Conference in Brighton in November 2013.

9 HIGHLIGHTED STRENGTHS

A key strength of 'My Electric Avenue' has been the project team's approach to recruitment of participants for the Technical and Social Trials. The combination of strong project branding, website and strategic media attention with a 'bottom-up' grass-roots movement via cluster champions has led to a phenomenal response from customers and the sign-up of seven clusters ahead of schedule. The project is on-track to achieve the requirement number of Technical and Social Trial participants within the deadlines set by Ofgem.

This successful approach to the recruitment of potential trial participants should be noted by Ofgem, and the project learning applied to other LCNF projects as appropriate.

EA Technology has created a strong project team, with close working relationships between project partners. Teamwork is particularly strong with respect to project partners Fleetdrive and Zero Carbon Futures, which has been another factor contributing to the successful customer recruitment witnessed so far. The Reviewers expect to see evidence on continuing strong team work during the next reporting period as the roles of other project partners become more prominent.

The project team have made good progress on disseminating learning so far, with an excellent presentation at the Low Carbon Network Fund Conference in November 2013, and through making project reports available to download from the project website (<http://myelectricavenue.info/project-deliverables>).

EA Technology has continued to cement good project management practices during this report period, introducing a monthly reporting process for project partners and continuing the monthly project partner audio meetings. It will be interesting to observe the learning gained from coordinating such a diverse project consortium.

10 RECOMMENDATIONS FOR IMPROVEMENTS AND ADAPTIONS TO THE WORKING PRACTICES

The recommendations from the M12 Independent Review primarily cover project documentation control and quality, and expectations for future reviews.

Recommendations for Project Documentation:

- 1) **Apply appropriate version control to all project documents**, and ensure the document version reference is clearly visible on a printed page.
- 2) **Consider creating a document reference system for the project** that would be used by all project partners. This document reference system could include the version control number.
- 3) **All project documents should record the document author(s)** and project partner affiliation.
- 4) **Consider creating project templates for all project reports**, both external and internal. These templates could include appropriated "fields" in the header or footer for recording document information such as the document reference number, version number, page number and release date.
- 5) **Ensure each project document contains suitable terms of reference** so someone reading the document can quickly understand the context and how this document links to the wider project objectives.

Recommendations for the next periodic 6-monthly Independent Review:

- 1) **Reconsider the timing for the Independent Review.** Currently the Independent Review is run in parallel to the preparation of the project Six Monthly Progress review, leading to non-finalised documents being included in the Independent Review and the late availability of key documents, such as the Six Monthly Progress Report.
- 2) It would be helpful for the Reviewers if **each Task Leader provided a short summary of activities conducted in that Task during the reporting period**, with relevant supporting documentation. This summary could be provided by email.
- 3) **Documents included "for review" should relate to the project SDRCs and Task Deliverables.** Other documents may be provided "for information", but an explanation of their context should be provided.

A key item for the next six-month reporting period (1 January to 30 June 2014) will be **the close tracking and clear communication of the status of the Esprit technology installation** as the clusters are established for the Technical Trial. Connected to this will be **early review of the data captured and logged**, to ensure that the data collected is suitable in terms of content and quality, and that the Esprit technology is performing in the field as expected.

APPENDIX 1 PROJECT TASK STRUCTURE

The 'My Electric Avenue' project consists of 12 Tasks, as described in the table below, taken from Annex 2 of the Project Direction letter from Ofgem, dated 21 December 2012, and from the Project Plan (dated Tuesday 18 June 2013). Further information on the Tasks is provided in Section 2 of the LCNF Full Submission Pro-forma.

Task ID	Task Title	Task Description	Start	End
Task 0	Novel commercial arrangement		2 January 2013	31 December 2015
0.1	Establish the 3rd party delivery commercial framework (yr 1)	Draft and agree the contract for a non-DNO to manage a LCNF Tier 2 project		
0.2	Review the commercial framework and recommend changes (yr 3)	Review the initial contract towards the end of the project and make necessary changes following the lessons learnt		
Task 1	Initial background – evaluation of initial trial		2 January 2013	28 June 2013
1.1	Evaluation of initial on-site trial	Evaluation of the initial trial of the Esprit Technology (December 2012) to improve the Technology and the plans of trials to occur as part of the I ² EV Project		
1.2	Literature survey - additional load	Literature survey of the estimates regarding additional load to be introduced from EVs and the potential for load shifting		
1.3	Literature survey - customer behaviour	Literature survey of the existing knowledge of customer behaviour with respect the use of EVs and the acceptance of direct control appliances		
Task 2	Customer engagement		2 January 2013	11 December 2014
2.1	Customer engagement plan	Develop customer engagement plan for the I ² EV Project		

Task ID	Task Title	Task Description	Start	End
2.2	Social trials	Engagement with Nissan, Charge Your Car North Ltd and Fleetdrive to approach EV owners throughout the UK with the intention of monitoring and recording location, driving and charging habits in statistically significant numbers		
2.3	Technical trials	Establishment of statistically significant clusters, relative to the individual network, to trial the Technology on multiple network types and across multiple demographics		
Task 3	Integration of the Technology with charging points		17 June 2013	30 June 2015
3.1	Technology development of Esprit			
3.2	Ongoing development of Esprit during project	Development of the Esprit Technology, integrating learning from the Project (not to be funded under LCNF)		
3.3	Engage with charging point manufacturers	Liaise with charging point manufacturers to discuss the Technology and the impact on their equipment		
3.4	Integrate technology with charging points	Work on integration of the Technology (Logic and Communication Systems) into Charging Points		
Task 4	Establishment of customer / cluster trial		30 September 2013	18 December 2015
4.1	Managing subsidised rental programme for fleet users	Management of the vehicles and participants in the Fleet Trials		
4.2	Managing collection and delivery of cars	Delivering and managing the Fleet Trial Participants		
4.3	Finding trial (fleet) participants and providing funding / risk of funding	Identification, discussion and engagement with Fleet Trial Participants		

Task ID	Task Title	Task Description	Start	End
4.4	EV leasing costs (fleet)	EV leasing costs (fleet)		
4.5	Engage with local network cluster(s)	Identification, discussion and engagement with local network clusters		
4.6	Assess network(s)	Assessment of the local networks around potential cluster locations to validate the suitability of the site for participation in the trial		
4.7	Install technology and charging points	Install technology and charging points		
4.8	Removal of charging points at end of trial	Removal of charging points at end of trial		
Task 5 Monitoring first trial			31 March 2014	30 November 2015
5.1	Monitor and download data	Data to be collected on a monthly basis during each trial		
5.2	Report on data (6 monthly)	Report summarising high level analysis of gathered data		
5.3	Uninstall monitoring at end of trial	Removal of any charging points as required		
Task 6 Trial participant interviews			2 January 2013	30 October 2015
6.1	Develop interview pack	Develop interview pack for social and technical trial participants		
6.2	Pre-trial interviews	Undertake pre-trial interviews		
6.3	During trial interviews	Undertake during-trial interviews		
6.4	Post-trial interviews	Undertake post-trial interviews		

Task ID	Task Title	Task Description	Start	End
6.5	Socio-economic modelling	Modelling and analysis of the data gathered as part of the social trials		
6.6	Make recommendations and report	Recommendations as to the anticipated acceptance of the Technology		
Task 7	Modelling		7 April 2014	30 November 2015
7.1	Network modelling and analysis contract	Develop a test network based on the information gathered from the trials		
7.2	Model the test network	Undertake simulation and modelling of the test network		
7.3	Extrapolate to different network types and locations	Extrapolate to different network types and locations		
7.4	Compare the results with existing work identified in literature survey	Compare the results with existing work identified in literature survey		
7.5	Estimate savings through the use of the Solution	Estimate savings that could be achieved using the Technology on wider networks		
Task 8	Consultation with EV manufacturers		1 September 2015	18 December 2015
8.1	Agree the cycle times for the Technology with OEMs	Discussion with EV manufacturers to prevent premature ageing of EV batteries as a results of charging cycles		
Task 9	Project and regulatory recommendations with implementation		1 May 2013	31 December 2015
9.1	Independent evaluation (Project and Solution)	Monitoring and evaluation of the project by an independent party		
9.2	How might the solutions be used by DNO planners as part of BAU	Make recommendations as to the ideal uptake of the Technology/solution by DNOs		

Task ID	Task Title	Task Description	Start	End
9.3	Technical framework recommendations	Identify any elements of the Project Framework that if changed, would improve the Technical development of the Project		
9.4	Commercial framework recommendations	Identify any elements of the Project Framework that if changed, would improve the Commercial development of the Project		
Task 10 Dissemination			2 January 2013	31 December 2015
10.1	Develop dissemination / comms plan	Develop the plans for Project Learning Dissemination and Communication with Stakeholders		
10.2	Implement communications plan	Implement the Communication Plan		
10.3	Reporting of SDRC outputs	Reporting of SDRC outputs		
Task 11 Project Management			2 January 2013	31 December 2015
11.1	Programme management to deliver the project	Programme management to deliver the project		
11.2	Project governance and support	Project governance and support		
11.3	DNO project review and results	DNO project review and results		

APPENDIX 2 LIST OF SUCCESSFUL DELIVERY REWARD CRITERIA (SDRC) AND OTHER DELIVERABLES

Successful Delivery Reward Criteria (SDRC):

SDRC	Document Title	Planned Delivery Date	Actual Delivery Date	Current Version	Author Organisation	Status
9.1 9.1.1	Learning from third party delivery of a Tier 1 LNCf project – bid submission process	28 February 2013	28 February 2013	v1 28 February 2013	EA Technology	Complete
9.2 9.2.1	Supporting Guidance for the I2EV (My Electric Avenue) Novel Commercial Arrangement	30 April 2013	30 April 2013	v1 30 April 2013	EA Technology	Complete
9.2.1 – Annex 1	Management & Delivery Document	30 April 2013	30 April 2013	v1 30 April 2013	EA Technology	Complete
9.2.1 – Annex 2	Principal Contract Template	30 April 2013	30 April 2013	v1 30 April 2013	EA Technology	Complete
9.2.1 – Annex 3	Partner / Supplier Task Order Template	30 April 2013	30 April 2013	v1 30 April 2013	EA Technology	Complete
9.2.2	Review of Novel Commercial Arrangement	30 October 2015	-	-	EA Technology	Not Started
9.2.3	Updated Principal Contract Template	31 December 2015	-	-	EA Technology	Not Started
9.3 9.3.1	Project Processes Report, including templates, meeting records and evaluation of collaboration between SSEPD and Northern Powergrid with third party interface	30 October 2015	-	-	SSEPD	Not Started
9.3.2	Framework for updating policies and procedures at SSEPD, using suggestions identified during the project	30 October 2015	-	-	SSEPD	Not Started
9.3.3	Assessment of DNO Project Management Effort compared to previous innovation projects	30 October 2015	-	-	SSEPD	Not Started

SDRC	Document Title	Planned Delivery Date	Actual Delivery Date	Current Version	Author Organisation	Status
9.4 9.4.1.1a	Month 06 Independent Review Report	31 July 2013	-	-	Ricardo	Complete
9.4.1.1b	Report in response to Month 06 Independent Review	31 July 2013	-	-	EA Technology	Complete
9.4.1.2a	Month 12 Independent Review Report	31 January 2013	-	-	Ricardo	Due to complete in January 2014
9.4.1.2b	Report in response to Month 12 Independent Review	31 January 2013	-	-	EA Technology	Due to complete in January 2014
9.4.1.3a	Month 18 Independent Review Report	31 July 2014	-	-	Ricardo	Not Started
9.4.1.3b	Report in response to Month 18 Independent Review	31 July 2014	-	-	EA Technology	Not Started
9.4.1.4a	Month 24 Independent Review Report	31 January 2014	-	-	Ricardo	Not Started
9.4.1.4b	Report in response to Month 24 Independent Review	31 January 2014	-	-	EA Technology	Not Started
9.4.1.5a	Month 30 Independent Review Report	31 July 2015	-	-	Ricardo	Not Started
9.4.1.5b	Report in response to Month 30 Independent Review	31 July 2015	-	-	EA Technology	Not Started
9.4.1.6a	Month 36 Independent Review Report	31 December 2015	-	-	Ricardo	Not Started
9.4.1.6b	Report in response to Month 36 Independent Review	31 December 2015	-	-	EA Technology	Not Started
9.5 9.5.0.1	Customer Engagement Plan for Relevant Customers	28 February 2013	29 January 2013	v5.6 1 March 2013	EA Technology	Complete
9.5.0.2	Data Protection Strategy (DPS)	28 February 2013	29 January 2013	v4.2 1 March 2015	EA Technology	Complete

SDRC	Document Title	Planned Delivery Date	Actual Delivery Date	Current Version	Author Organisation	Status
9.5.1.1	Sign up of 3 cluster groups	30 September 2013	-	-	EA Technology	Complete
9.5.1.2	Sign up of 5 cluster groups	31 December 2013	-	-	EA Technology	Complete
9.5.1.3	Sign up of 100 customers in at least 7 cluster groups	31 March 2014	-	-	EA Technology	In Progress
9.5.1.4	Sign up of 10 cluster groups	31 August 2014	-	-	EA Technology	In Progress
9.5.2	Allocation of Cluster Funding	31 August 2014	-	-	EA Technology	In Progress
9.5.3	Social Trials: Sign up minimum of 100 EV drivers	31 August 2014	-	-	EA Technology	In Progress
9.6	9.6.1 Findings from socio-economic analysis on public reaction to the Esprit technology	30 October 2015	-	-	De Montfort University	Not Started
9.7	9.7.1 Technology Integration Assessment Report containing: a) Views of the OEM community on the impact of charge cycling on EVs b) Recommendations of suitable cycle times for EVs for demand-side response c) Evidence on whether the Esprit solution is feasible	30 June 2015	-	-	EA Technology	Not Started
9.8	9.8.1 Modelling to assess additional thermal and voltage headroom	30 November 2015	-	-	University of Manchester	Not Started
	9.8.2 Potential cost and carbon emission savings	30 November 2015	-	-	University of Manchester	Not Started

Other internal project deliverables:

Deliverable Reference	Document Title	Planned Delivery Date	Actual Delivery Date	Current Version	Author Organisation	Status
Task 1i	Assessment of the initial trial and recommendations on improvements to the design	12 March 2013			University of Manchester	Late
Task 1ii	Technical literature survey of load shifting potential of EVs and heat pumps	30 May 2014			University of Manchester	In progress
Task 1iii	Social-economic literature survey of customer behaviour with EVS and acceptance of direct control of appliances	28 June 2013	28 August 2013 (Draft)	Draft	DMU	Late
Task 3i	Report(s) confirming integration of the technology into charging points or other loads	30 June 2015			EA Technology	Not Started
Task 4i	Report(s) confirming charging points, Esprit technology and monitoring installed	28 March 2014			EA Technology	Not Started
Task 4ii	Report documenting likely number and length of switch-offs under different scenarios, including impact of higher capacity charging	28 March 2014			EA Technology	Not Started
Task 5i	Data collection report 1	2 June 2014			EA Technology	Not Started
	Data collection report 2	1 December 2014			EA Technology	Not Started
	Data collection report 3	1 June 2015			EA Technology	Not Started
	Data collection report 4	1 December 2015			EA Technology	Not Started
Task 6i	Report on results from pre-trial questionnaires (Technical and Social Trials)	28 March 2014			DMU	Not Started

Deliverable Reference	Document Title	Planned Delivery Date	Actual Delivery Date	Current Version	Author Organisation	Status
	Report on results from questionnaires issued 6 weeks after receiving the electric vehicle (Technical and Social Trials)	30 May 2014			DMU	Not Started
	Report on results from questionnaires issued 3 months after receiving the electric vehicle (Technical and Social Trials)	25 July 2014			DMU	Not Started
	Report on results from questionnaires issued 10 months after receiving the electric vehicle (Technical and Social Trials)	19 December 2014			DMU	Not Started
	Final Report on results from customer interviews and social economic analysis	29 May 2015			DMU	Not Started
Task 10i	Dissemination plan	30 April 2013	January 2013	0.4	EA Technology & Automotive Comms	Not Reviewed

Note:

- The Dissemination Plan was completed in January 2013, although a copy was not included in the previous M6 Independent Review. EA Technology did provide the Dissemination Plan but not within a sufficient timescale for inclusion in the M12 Independent Review.

APPENDIX 3 EXPLANATION OF RAG INDICATORS FOR EACH REVIEW QUESTION

Question	RAG Indicators		
What is the reviewers' overall assessment of the project so far?	Excellent / Good	Adequate	Poor
Have the objectives for the period been achieved?	Yes	Partially	No
Has the project made satisfactory progress towards meeting the overall project objectives?	Yes	Partially	No
Has each Task made satisfactory progress against the Project Plan of Works?	Yes	Partially	No
Have planned SRDCs been achieved for this reporting period?	Yes	Partially	No
Have planned milestones been achieved for this reporting period?	Yes	Partially	No
What is the reviewers' opinion of the delivered SDRCs?	Excellent / Good	Adequate	Poor