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NEXT GENERATION NETWORKS

Communication and Engagement Report July 2018

Electric Nation

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Contents

1 Introduction 4
2 Customer Engagement 4
2.1 Overview of Customer Engagement 4
2.2 Overview of Data Protection Strategy 5
2.3 Qualification of customers 5
3 Marketing Phase 7
3.1 Website 7
3.2 Event Days 8
3.3 Overview of lead sources 8
3.4 Social Media 8
3.5 AdWords 8
3.6 Customer Newsletter 9
4 Installation Process 9
4.1 Self-Survey Process 9
4.2 Order Process 10
5 Customer Management 12
5.1 Complaints, dissatisfaction and positive feedback 12
5.2 Customer support line 13
5.3 Impact research 13
6 Fault logging and management processes 15
6.1 Fault recording process 15
7 Learning reference communications process 19

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Glossary

Abbreviation	Term
EV	Electric vehicle
EN	Electric Nation
WPD	Western Power Distribution
CRM	Customer Relationship Management
GDPR	General Data Protection Regulation
EOI	Expression of Interest
ICO	Information Commission's Office

1 Introduction

This report details all participant communication and engagement updates for the Electric Nation project from May to July 2018. DriveElectric handles all customer facing activity for the project. This includes: recruiting, qualifying, processing, and supporting the participants once the charger has been installed in relation to comms and hardware fault resolution.

2 Customer Engagement

2.1 Overview of Customer Engagement

During this quarter DriveElectric focused on completing installations. Last quarter the approval figured had been reached and agreed by project partners thus leaving the final job of converting these participants from survey approval to installed EN participants. During July 2018, DriveElectric and the installers completed the installation phase of the project by installing the 673rd charge point. This figure had reduced slightly from the initially agreed 675 as 2 prospective participants cancelled their order.

As shown below in figure 1, DriveElectric received over 3000 enquires requesting to be a part of the Electric Nation Project this was 4 times the number of applications it had capacity for; this alone demonstrates the success DriveElectric, and the project partners, with engaging the public in the largest domestic EV smart charging trial in the world. Each enquiry was then qualified individually by DriveElectric's recruitment team resulting in 1268 applications suitable to progress to the home survey/installation phase of the project, if the participant accepted the project requirements. 955 prospective participants accept the project requirements and returned their EOI.

This quarter, May 2018 had the highest volume of installations with 18 charge points. June and July had 6 and 3 respectively which unsurprisingly is low as the number of participants that were required to be installed reduced as Electric Nation moved closer to the final installation.

	Final figures for Electric Nation recruitment/installation phase
Total responses	3156
Total EOI Sent	1268
Total EOI Received	955
Total Surveys sent	946
Total Approved	673
Total Installed	673
WPD Participants	14

Figure 1 – Final recruitment and installation figures.

2.2 Overview of Data Protection Strategy

DriveElectric use Dropbox to store all participants survey information, including photos and documents. DriveElectric enquired to ensure that Dropbox is compliant with the new GDPR regulations; Dropbox has been approved as GDPR compliant.

2.3 Qualification of customers

Throughout the project's recruitment and qualification stage DriveElectric has continually improved the process, based on the participant's feedback and lessons learned. It has been key to the project's success that processes are able to remain flexible and adaptable to changing circumstances. This has been vital in increasing the overall experience for the participant to ensure it is as fluid and efficient as possible. No amendments were made to the qualification process throughout May – July 2018 as all participants had already been qualified.

Figure 2 below shows DriveElectric's final process for qualifying customers; these dropdown fields were populated during the 15-25-minute call with each prospective participant. From the start of the qualification stage during late 2016, the following lists a summary of some amendments made and the reasons for this:

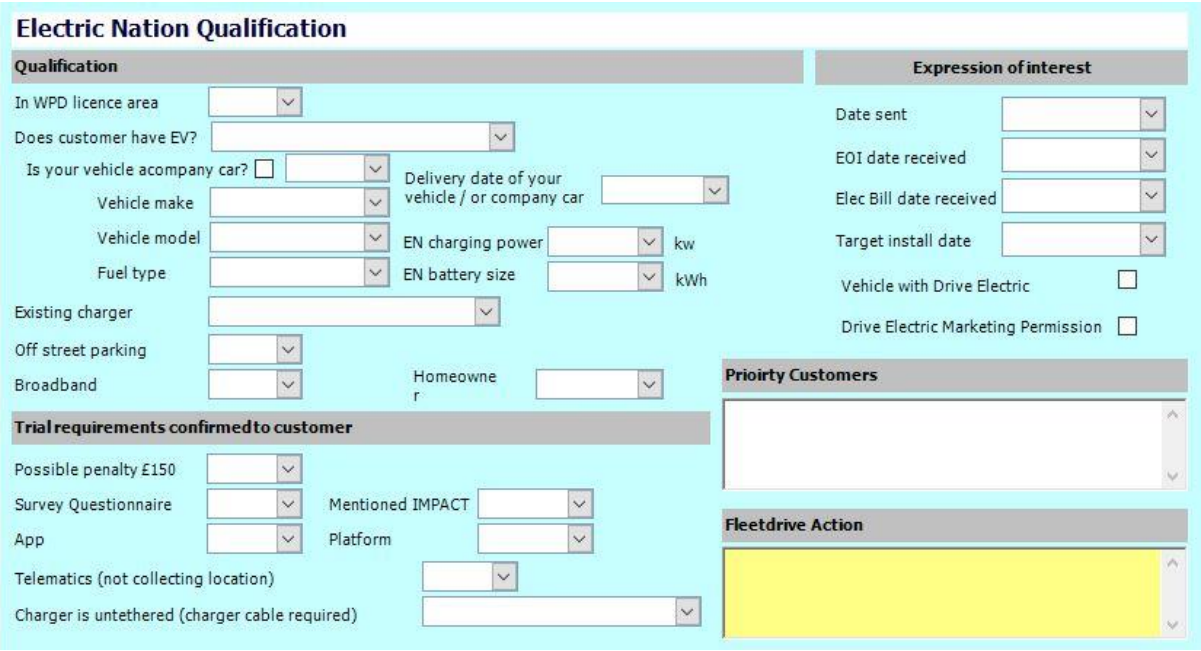

Figure 2 – DriveElectric's final version of the qualification process screen from CRM database.

Homeowner qualification – On the installation day, an installer was informed by the participant that they did not own the property. This resulted in a failed installation because the installer required permission from the landlord/owner that they have given authorisation for the charger point to be installed. This was not considered, initially, when creating the qualification process; however, when this learning was fed back from the installer, DriveElectric were able to add in a question to ask if the home was owned or

rented. If rented, DriveElectric then asked for permission from the landlord pre-installation, this removing the possibility for a failed installation due to homeownership issues.

Company Car OLEV Policy – An installer received a rejected OLEV claim for a company car participant after the installation. The grant allows that the charge point must be installed within 4 months of delivery of their vehicle. DriveElectric and the installers were unaware that the grant timescale was different for company car drivers therefore this was added into the qualification stage by informing all new participants the date by which the charge point must be installed. This ensured they were aware of the date, they would be successful claiming the OLEV grant, and the time frame in which they had to apply. Once this additional information was added into the process there were no more company car OLEV issues.

Tethered charger options – Many prospective participants requested a tethered charger on the qualification call instead of the untethered. Many customers preferred the tethered charger for convenience of plugging in and storing the cable itself, especially Tesla owners therefore DriveElectric added in the option to choose this variant if they owned a Tesla.

Switching home router off - The Electric Nation technical team informed DriveElectric that they suspected participants were turning their router off at night, this cutting the internet connection. This caused data collection issues and created faults with the EN team as initially they thought the installation or comms equipment was at fault, therefore DriveElectric added in a question to the qualification process asking participants if they switched off their router regularly; if the answer was yes, they were informed as to why the project would like them not to. They were not rejected from the project as this would not have provided real world data thus invalidation aspect of the project's learning.

Change of upfront penalty cost – Initially DriveElectric charged customer £150 as a deposit to join the project. This was to cover admin costs if the participant should decide to leave before the project's conclusion in December 2018. This was not received positively by prospective participants as they argued this did not make the project *free* as all marketing communications have stated, therefore DriveElectric added into the participant agreement, which all participants sign before installation, that there is a compulsory exit fee of £150.

3 Marketing Phase

3.1 Website

A press release was uploaded onto the Electric Nation website on the 19th July 2018. This stated that Electric Nation had competed the last installation and that the project is moving into the final phase of learning. The release included photos and statements from one of the last participants to be installed. It also included preliminary findings from the trial, for example that vehicles are plugged in for 12 hours and charge only for a fraction of this, on average. The aim of this is to engage newly installed participants and keep existing participants, or interested persons, up-to-date on project progress.

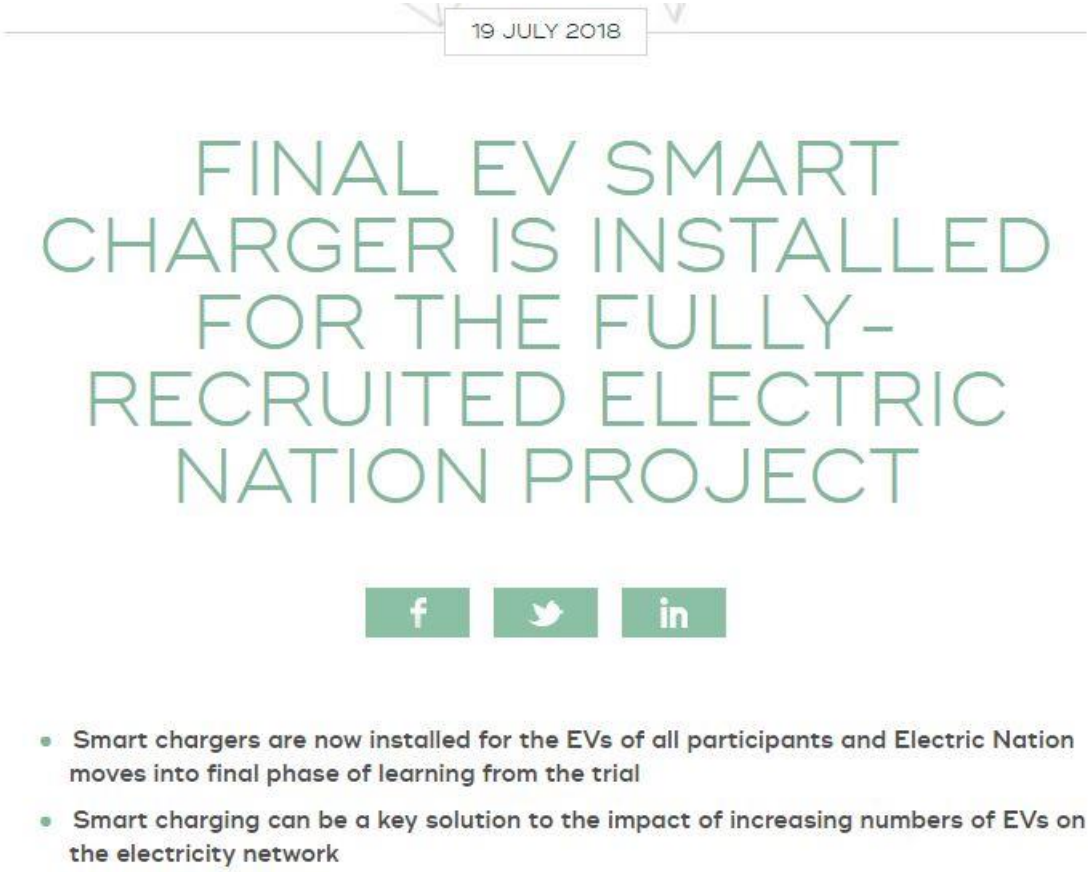

Figure 3 – Press release stating installation completed.

3.2 Event Days

As DriveElectric recruited the targeted 700 participants, no event days to boost customer engagement were required.

During the 9th and 10th of June 2018 DriveElectric attended Robert Llewellyn's Fully Charge Live Show promoting the Electric Nation Project. This was a popular event with over 6000 attendees. Also a handful of Electric Nation participants attended and made contact with the DriveElectric team on the stands.

3.3 Overview of lead sources

All marketing sources remain in-active due to DriveElectric reaching the project target of recruiting 673 participants. In total the EN project has produced 3157 leads. Unsurprisingly, the lead source of 'Google' search engine has produced the largest figure with 29% of leads (906), with 'EN web lead' and 'Friends recommendation' producing 10% (317) and 6% (199) respectively.

3.4 Social Media

In relation to recruitment, social media is not utilised by DriveElectric due to the completion of recruiting the 673 participants. However, DriveElectric does utilise social media as a method for communicating and engaging participants if mentioned on Facebook or Twitter. DriveElectric will continue to have a presence on social media for the duration of the project and responded to all participants if a query is raised as this provides a positive customer experience.

DriveElectric has set up a monitoring system for Twitter via the company wide internal instant messaging service. This means that DriveElectric receives a notification if any user mentions the Electric Nation tag. The EN team can then respond to the query in a timely manner; this also ensures that DriveElectric do not miss any interactions with any participants via Twitter.

3.5 AdWords

All the AdWords campaigns across the WPD distribution area remain inactive. This will not be activated again due to completion of the recruitment and installation phase.

3.6 Customer Newsletter

This quarter a project newsletter was sent to participants in the first week of May 2018. DriveElectric distributes newsletters too all EN participants who gave permission on the initial qualification call. This includes information regarding project updates and technical help such as ensuring the charger and communication kit is always switched on. This helps to engage the participant as the project develops.

4 Installation Process

As reported in the previous report, DriveElectric anticipated installation to be completed by mid-May 2018. Due to participants availability and installation issues, the final installation was not completed till late July 2018.

The final installation figure is 673, this figure is slightly lower the then 675 approval target that was agreed upon by the project partners; however, 2 prospective participants cancelled there application therefore did not progress to the installation phase.

There was no update to the installation process this quarter.

4.1 Self-Survey Process

The self-survey process remains unchanged this quarter. With all applications approved, the self-survey process has been completed so will not be updated further.

The following outlines the process of the self-survey:

1) DriveElectric assign an installer to the participant then emails the survey, along with full instructions and the Dropbox link to upload the survey into, to the participant.
2) Customer completes survey, uploads it and the requested photos into Dropbox (secure page to store customers data), and returns email confirming this has been completed.
3) Installer reviews information in the Dropbox, either approvals or places application in query.
4) Approved application– DriveElectric to send participant agreement.
5) In query application – participant informed of missing information/additional work required, with the participant to action this and confirm once completed.
6) Installer then completes an approval run when missing information returned/additional work completed. Step 5 repeated until survey approved or cancelled by the installer.
7) Participant returns signed agreement, purchase order then issued to the installer.
8) Installer schedules the installation day with the participant upon receiving the charge point from the manufacture.
9) Order complete.

The self-survey process remained challenging for the installer at times due to participants missing out certain sections of the self-survey. For example, customers did not upload their bonding photos this therefore requires additional conversations with the participant to retrieve the desired information which caused delays. DriveElectric supported the installers by sending out, via the CRM system, charger order updates which details the next/outstanding action for the participants.

4.2 Order Process

There have been no updates to the order process this quarter.

Order updates continue to be circulated to all participants 'in process' when an update of their order has been received, as shown below in figure 4. Updates are provided to inform the participant their application is in query or to confirm the installation date. Updates are sent via DriveElectric's CRM database. This has proven a useful tool to keep a participant's application moving to the approval stage by reminding them they need to return their missing information or contact their installer directly.

The update contains information of their contact details, EV's make/model, charger preference and installation date. It has proven useful in confirming this information is correct before their installation date. These updates have highlighted mis-scheduled installation dates, incorrect charger preferences and vehicle details, so has been vital in streamlining the customers overall experience. Furthermore, the email provides a 'next action/update' status so the participant is clear on what is required of them to progress their application if 'in query'. These updates can be sent at any stage of the order process thus proving a useful time saving tool for the installer and the EN support team.

DriveElectric continued to update participants on their application status if they enquired this quarter; however, it is was suggested to the participants to contact their installer directly for the most efficient response. As all participants are now installed, DriveElectric has stop sending charger updates; no further regular charger updates will be sent to participants ongoing.

Electric Nation Charger Update

Thank you for participating in the Electric Nation project.
This is **NOT** an automated message. It is suggested to reply to this email if you have a query of the 'Next Action/Update' in order to progress your application.
Please note details below of your order and check details are correct; if not please respond by way of reply to this email to amend:

Next Action /Update	

Participant Number	
Vehicle Description	
Installer Contact Details	
Control System	
Charger Type	
Is your vehicle a company car	
Mobile phone app	
Vehicle telematics	
Telematics fitted?	
Special Install Instructions	

Survey status: (sent, received, in query, site survey required, OWL device required)	
Agreement status: (sent, returned)	
Install status: (PO sent to installer, install date booked, Installation complete)	
Estimated Install Date	**Please note the date for installation is an estimate until date below is confirmed.**
Confirmed Install Date	

Figure 4 – charger process update template; populated by the CRM database.

5 Customer Management

5.1 Complaints, dissatisfaction and positive feedback

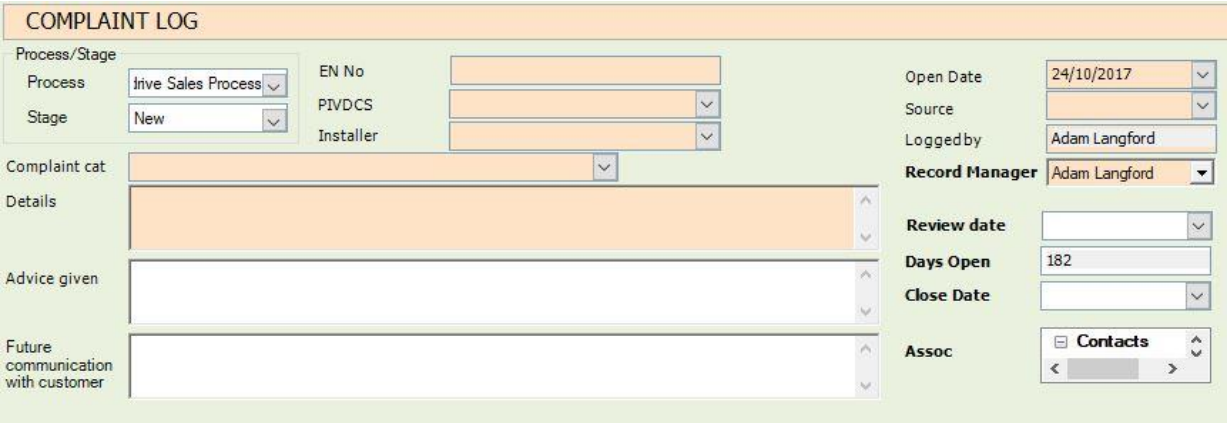

Figure 5 – DriveElectric's complaint logging process.

Complaints and instances of customer dissatisfaction continue to be recorded under the rigorous standards required for businesses regulated by the Financial Conduct Authority. DriveElectric continues to utilise the above process with the CRM database to record, monitor and manage the complaint through to resolution. All complaints are logged and managed by Vicky Reed, head of customer engagement. Positive feedback is also recorded within the complaint log (figure 5).

The past quarter, six instances of positive feedback were reported to DriveElectric: five of these praised the professional manner that Shahz, the installer at EV Charging Solutions carried out their installation; the other piece of positive feedback praised the DriveElectric team on how smooth and efficient the process was from the start of the qualification process through to having the charge point installed.

Four complaints were received this quarter: DRSFM did not approve the survey of two prospective participants causing them to complain, requesting DriveElectric to investigate if these could be overturned (neither were), one due to Greenflux not responding to a charger fault in a reasonable amount of time and the final one for DriveElectric's out of business hours messaging service PA4U, as the person who answered the participants call was 'rude', 'unhelpful' and did not forward the urgent message in a timely manner. All complaints have subsequently been resolved and closed.

DriveElectric will continue to record complaints, signs of dissatisfaction and positive feedback until the end of the project in December 2018.

Any complaints or dissatisfactions DriveElectric receive that are of a highly serious matter are reported to WPD and Mark Dale, Electric Nation's Project Manager.

5.2 Customer support line

The customer support line remains to be the contact for all EN participants to communicate with the EN support team; contact details for the support line are placed on the front of each charger upon installation. The support line offers 24/7 fault reporting with faults logged with the DriveElectric team during office hours and an external recording company for out of office hours. The out of office hours messages are instantly forwarded to the EN team, then if an urgent fault requires action DriveElectric can respond to the participant to help diagnose the fault and inform them of the next steps.

All faults logged are assigned a priority-based time frame in which the fault is required to be resolved: high, medium and low priority faults. High priority faults are assigned to a charge point when it is failing to charge the participants vehicle – these faults are instantly passed over to the EN technical fault team to diagnose and action the fault resolution processes immediately. Medium priority is assigned when a charge point loses communications – although this does not affect the participants ability to charge on the Crowd Charge system, this is required to be fixed quickly to ensure the charger can enter demand management. However, on the Greenflux system, this reduces the charging rate to 16A so is assigned high priority to action immediately as it directly affects the participants ability to charge. Finally, low priority is assigned when there is an enquiry or low-level fault, such as web portal/app request.

This quarter, one participant ordered a taxi due to their charge point hardware failing – this was raised to the manufacture to arrange a site visit to fix the unit. The manufacture attended on the third working day after the fault was reported; the unit did not need to be replaced as was able to be fixed on this visit by replacing a faulty internal connection. The customer was reimbursed immediately upon DriveElectric receiving the participants receipts for their taxi journeys when they were unable to charge.

5.3 Impact research

Impact research manage the market research for the project including creating, distributing and analysing the findings from the surveys. Two baselines surveys have been sent to all participants to date; the first survey achieved a 92% completion rate which is high, the analysis from the second survey is not completed yet.

The Trial 2 survey, which includes questions about the app roll out, is in the process of being sent to all Greenflux participants. Crowd Charge participants will be sent this survey once their app roll out phase has been completed by late August.

During this quarter on the 21st June 2018, Impact Research suffered a data issue. A link to the recruitment survey that had already been completed earlier by participants was sent to 102 participants via email. This incorrect link was sent to each participant, but directed them to another participants name, address, car make/model. The error was discovered

within ten minutes and all the emails were then recalled – all emails apart from 19 were recalled successfully. The links to all the emails were then made inactive so that even if the emails were unsuccessfully recalled the surveys could not be accessed.

Seven participants out of the 19 emails that could not be recalled opened the link before it was made inactive – these seven accessed another participants name. Five of these participants accessed other participants address and two progressed further, accessing another participant's contact number and car make/model.

After consulting with an advisor from the ICO, Impact concluded that it did not need to be reported due to the following reasons:

- the small number of people effected;
- the nature of the information (name and address which are publicly available data at any library, no sensitive, financial or medical details) and;
- each person's data was only seen by one other person.

The seven participants who clicked on the link accessing other participants data, and those who Impact were unable to recall the email from, were all contacted, and the issue explained to them. Out of these, five participants accepted what had happened and were satisfied after speaking with Impact. One participant was slightly more annoyed and requested a 'subject of access request' to Impact to understand what data they held on them and the purpose for it – they were then satisfied with Impact after speaking to them and did not wish to take this matter any further. The final participant was not happy with the data issue; this participant stated they would be contacting the ICO to discuss this issue and that they did not want to be contacted further by any project partner; however, they did not want to leave the trial. This participant was invited to the Crowd Charge app a week before the incident; the participant then registered for the app 2 weeks after the incident occurred. Other than this there has been no further contact from the participant or contact by the project partners. DriveElectric has not received any correspondence regarding the incident from the participant or the ICO to date; if there is a development DriveElectric will inform the project partners and WPD.

There were other customers out of the 19 where emails were not recalled who had concerns about their personal data and whether this problem was wide spread however, Impact explained what the issue was and how it had been rectified. The main theme from customers was that they appreciated the honesty in owning up to the mistake and letting the participant know what had happened immediately.

EA Technology asked Impact to stop emailing participants surveys until they have taken corrective actions in their procedures, carried out a risk assessment of their procedures and explained these to the project partners. Impact concluded these activities on Thursday 28th June 2018 and distributed them to EA and DriveElectric. EA Technology were satisfied with this so allowed Impact to resume contacting participants again.

DriveElectric has made a note against all 102 participants records on the CRM database to ensure that if a member of the team speaks to a customer they are aware the customer has experienced this and what was said to them by Impact.

6 Fault logging and management processes

6.1 Fault recording process

All reported faults, and enquires, are logged within DriveElectric's CRM database. This allows each fault to be managed and assigned to the relevant team for fault resolution while also monitoring the progress of the fault (figure 6). When the fault is fixed, if possible, the learning is re-used and communicated to the installers or comms team to reduce the likelihood of the fault re-occurring. This learning is entered into DriveElectric's weekly long-term fixes fault report (figure 7), which is then distributed to the relevant party if the learning is applicable.

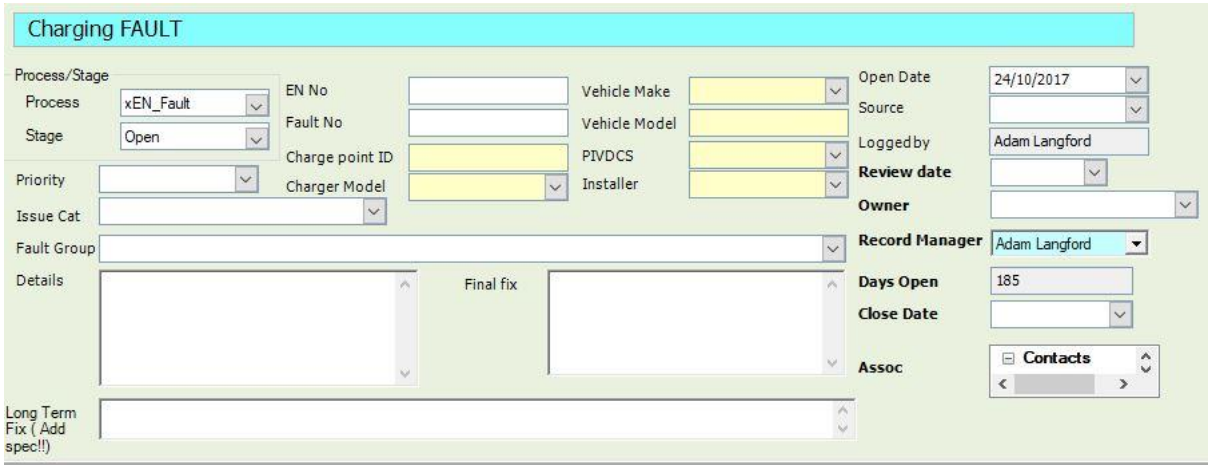

Figure 6 – DriveElectric's fault logging/management process.

LONG TERM FIXES			
General	**Action**	**Actionee**	**Complete**
HAP Board OS update to prevent board from freezing and keep units currently online online	Second batch sent across to TTF. Results inconclusive, further analysis required	TTF	Results inconclusive
Crowd Charge / APT	**Action**	**Actionee**	**Complete**
Greenflux / ICU	**Action**	**Actionee**	**Complete**
75 chargers have a median delay of comms, meaning that it appears online with a heartbeat but we can't control the charger	EA Tech, compile a list of participants affected who have a PHEV and then request they disconnect ethernet and be on Sim only	EA Tech	In progress
66 participants are due visits, 17 have appointments scheduled for next week	Schedule visits	Siemens	In progress
4 units have missing sim cards	Schedule visits	Siemens	In progress
A lot of chargers can't send messages in or out via he ethernet Get a sim comms to send out a Heartbeat	Under investigation with EA Tech	EA Tech	In progress

Figure 7 – DriveElectric's weekly learning log long term fixes (13/07/18 - 19/07/18.)

Fault categories	Total	Percentage (%)
Charger Lead	1	0.1
Greenflux	2	0.1
Other	3	0.2
APT Charger	4	0.3
ICU Charger	4	0.3
Vehicle	5	0.4
Communication system	8	0.6
Admin	35	2.5
Enquiries	38	2.7
App	45	3.2
Electrical	74	5.2
Behavioural	102	7.2
Configuration	140	9.8
Hardware	173	12.2
Comms	789	55.4
Grand Total	**1423**	**100.0**

Figure 8 – DriveElectric's total faults recorded and category assignments.

Since the creation of fault reporting and monitoring within DriveElectric's CRM database, 1423 faults and enquires have been logged. Figure 8 shows the allocation of all faults recorded assigned to each category. Communication faults remain to be the largest category to date with 55% of the total received. Hardware and configuration faults are the second and third largest, producing 12% and 9% respectively. This quarter the comms fault total is 4% higher than the previous quarter; this can be attributed to both Crowd Charge and Greenflux focusing on comms resolution since installation have now been completed.

REPORTED MONTHLY PERIOD:																June									
DATES OF REVIEW:																05/05/18 TO 06/06/18									
	Faults															Tickets									
	Crowd Charge							Greenflux							Total	Crowd Charge				Greenflux				Total	Grand Total
	App	Comms	Communication system	Configuration	Electrical	Hardware	Sub-Total	App	Comms	Communication system	Configuration	Electrical	Hardware	Sub-Total		Admin	Behavioural	Enquiries	Sub-Total	Admin	Behavioural	Enquiries	Sub-Total		
New faults in month	2	60		3	1	4	**70**	5	3		3		5	**16**	**86**	1			**1**	1	2		**3**	**4**	**90**
Closed faults in month		53		1	3	8	**65**	3	7		2	3	3	**18**	**83**	2	1		**3**	2	4	3	**9**	**12**	**95**
In month change	**2**	**7**	**0**	**2**	**-2**	**-4**	**5**	**2**	**-4**	**0**	**1**	**-3**	**2**	**-2**	**3**	**-1**	**-1**	**0**	**-2**	**-1**	**-2**	**-3**	**-6**	**-8**	**-5**
New faults opened last month	5	53	1	2	3	6	**70**	5	38		1	5	3	**52**	**122**		3	1	**4**	2	1		**3**	**7**	**129**
Faults closed last month		53	1	3	2	9	**68**	4	7	2	1	2	4	**20**	**88**		3	7	**10**	2	7	2	**11**	**21**	**109**
Last month change	**5**	**0**	**0**	**-1**	**1**	**-3**	**2**	**1**	**31**	**-2**	**0**	**3**	**-1**	**32**	**34**	**0**	**0**	**-6**	**-6**	**0**	**-6**	**-2**	**-8**	**-14**	**20**
Faults reported to date	17	568	4	38	31	80	**738**	16	153	4	400	38	88	**699**	**1437**	22	58	23	**103**	9	53	15	**77**	**180**	**1617**
Faults closed to date		491	4	35	30	74	**634**	13	105	3	343	34	80	**578**	**1212**	21	57	7	**85**	8	51	12	**71**	**156**	**1368**
Faults presently open	17	77	0	3	1	6	104	3	48	1	57	4	8	121	225	1	1	16	18	1	2	3	6	24	249
Avg time to fully resolve faults to date																									
<1 day		45	1	2	3	7	58	4	12	1	115		10	**142**	**200**	6	15		**21**	3	11	4	**18**	**39**	**239**
1 to 3 days		110		4	3	7	124	4	12		22	2	12	**52**	**176**	5	8		**13**	2	8	2	**12**	**25**	**201**
4 to 7 days		42	2	5	2	14	65	2	3		8	4	11	**28**	**93**	2	13		**15**		4		**4**	**19**	**112**
8 to 14 days		47	1	3	2	13	66	1	6		5	3	9	**24**	**90**	1	4		**5**		5		**5**	**10**	**100**
>14 days		247		21	20	33	321	2	72	2	193	25	38	**332**	**653**	7	17	7	**31**	3	23	6	**32**	**63**	**716**

Figure 9 – DriveElectric's monthly fault report, with 14-day exception report included.

Communication faults are mainly recognised by the DriveElectric fault team, the fault is then created and assigned to the relevant resolution team to monitor through to resolution. However, hardware and configuration faults are mainly recognised by the participant and logged upon receiving the call or email. Greenflux communication faults are managed remotely, then DriveElectric contact the customer to attempt to rectify the fault. Crowd Charger communication faults are managed by the Tech Factory to analyse, diagnose and resolve with DriveElectric requesting permission for the Tech Factory to contact them directly to resolve the fault.

Faults which are not resolved within a 14-day period are created on an exception report each month for EA Technology, WPD and TRL to track the progress of and discuss at monthly project meetings if required (figure 9).

7 Learning reference communications process

Throughout the project DriveElectric continue to assess, analyse and update processes with the aim to enhance the customers overall experience on the project. Furthermore, DriveElectric review processes based on feedback from participants as this can be the most valuable. All learning points and process updates are detailed within the Communication and Engagement reports and the TRL learning log.

It is important that all project partners, and especially DriveElectric being the customer facing partner, record not only processes that would be done differently, but also those that have worked effectively and contributed to the success of the project as these could be re-used in future WPD innovation projects.