

## Smart Charged The Results of the Electric Nation Smart Charging trial

### Agenda

09:30 - 10:00	<b>Registration and Refreshments</b>
10:00-10:10	<b>Welcome and Introduction</b> Roger Hey, WPD DSO Systems & Projects Manager
10:10 - 10:30	<b>The challenge of EV charging to DNOs and introduction to the project</b> Ricky Duke, WPD Innovation & Low Carbon Network Engineer  Electricity distribution networks were not designed for mass uptake of home EV charging, causing high power demand for many hours. Coincidence of EV charging with winter peak electricity demand could result in the need for network investment as EV uptake reaches significant levels, possibly increasing customer bills and causing significant disruption as this new infrastructure is deployed.  The largest Network Innovation Allowance project to date, Electric Nation, has successfully shown that smart charging coupled with user interaction and time of use tariff based incentives can be a powerful tool that could avoid or a delay the need for network investment as EV uptake and home charging grows over the coming years
10:30 - 11:00	<b>Introduction to the Electric Nation Smart Charging Trial</b> Nick Storer, EA Technology Principal Consultant  Nick add detail to the trial timeline and address key questions such as: How was the smart charging project delivered? Who was responsible for the different aspects of project delivery? What data was gathered during the trial? What was the EV Driver experience during the trial?

#### COLLABORATION PARTNERS

Electric Nation is the customer-facing brand of CarConnect, a Western Power Distribution (WPD) and Network Innovation Allowance funded project. WPD's collaboration partners in the project are EA Technology, DriveElectric, Lucy Electric Gridkey and TRL.

11:00 - 11:15	<p><b>The CrowdCharge Smart Charging System</b> Mike Potter, CrowdCharge Chief Executive</p> <p>Mike will provide an explanation of the CrowdCharge smart charging system used in the trial</p>
11:15 - 11:30	<b>Refreshments</b>
11:30 - 11:45	<p><b>The GreenFlux Smart Charging System</b> Hans de Boer, GreenFlux Chief Executive</p> <p>Hans will provide an explanation of the GreenFlux smart charging system used in the trial</p>
11:45 - 12:15	<p><b>Charging behaviour findings</b> Nick Storer, EA Technology Principal Consultant</p> <p>Nick will address key questions such as:          What does the trial data tell us about EV driver charging behaviours?          When and for how long do EV owners charge their vehicles at home?          Is there sufficient flexibility in EV charging to allow smart charging to shift this demand away from peak electricity demand periods?</p>
12:15 - 12:45	<p><b>Trial 1 findings and observations</b> Esther Dudek, EA Technology Senior Consultant Nicole McNab, Impact Associate Director</p> <p>During this first part of the trial, EV drivers were subjected to smart charging to constrain peak demand period EV charging.</p> <ul style="list-style-type: none"> <li>- What happened? Did it work?</li> <li>- What was the impact on EV drivers?</li> <li>- Was this method of EV charge management acceptable to EV drivers?</li> </ul>
12:45 - 13:00	<b>Q &amp; A</b>
13:00 - 13:45	<b>Lunch &amp; Networking</b>
13:45 – 13:55	<p><b>Electric Nation &amp; V2G</b> Mike Potter, CrowdCharge Chief Executive</p> <p>Mike will describe Electric Nation's mini-trial of domestic V2G</p>
13:55 - 14:45	<p><b>Trial 2 &amp; 3 findings and observations</b> Esther Dudek, EA Technology Senior Consultant Nicole McNab, Impact Associate Director</p> <p>During the second part of the trial, demand management continued, but EV drivers were given the opportunity to use "apps" to allow them to interact with smart charging.</p> <p>In the third and final part of the trial a financial incentive, in the form of a time of use tariff, was introduced alongside the "apps" to investigate whether cost savings or rewards might make smart charging more acceptable to EV drivers.</p> <ul style="list-style-type: none"> <li>- What happened? Did it work?</li> <li>- Did the "apps" and reward make a difference to charging behaviour?</li> <li>- Did they make change the acceptability of EV charge management to EV drivers?</li> </ul>
14:45 - 15:15	<p><b>Conclusions from the trial and Q&amp;A</b> Nick Storer, EA Technology Principal Consultant</p>
15:15 - 15:30	<p><b>WPD's EV Strategy and what comes next</b> Paul Jewell, WPD DSO Development Manager</p>
15:30	<b>Close</b>

