

HORIZON-CL5-2021-D5-01-03 System approach to achieve optimised Smart EV Charging and V2G flexibility in mass-deployment conditions (2ZERO)



<p>Proposed Approach</p> <p>CrowdCharge and Milton Keynes Council (MKC) have been working for many years to develop the building blocks towards a smart city vision. Horizon Europe offers the opportunity to scale up more rapidly, working in partnership to accelerate this shared vision.</p> <p>Our unique experience of successfully connecting and operating V2G assets from three different V2G manufacturers can significantly reduce the risk of project delays and over-spend. CrowdCharge are today working closely with MKC – deploying smart chargers and V2G chargers alongside solar, in a localised trial which lends itself to increased location scope, a mass trial of V2G using a combination of low and high-power chargers with a solid customer communication network already designed and able to be scaled up.</p>	<p>Administrative Information</p> <p>We are seeking a consortium and a coordinator – we plan to be partners in any project</p> <table border="1" data-bbox="1052 332 1972 535"> <thead> <tr> <th>Organisation/country</th> <th>Name</th> <th>Email/phone</th> </tr> </thead> <tbody> <tr> <td>CrowdCharge, UK (SME)</td> <td>Anthony Simpson</td> <td>Anthony@crowd-charge.com +44 1628 899 725</td> </tr> <tr> <td>Milton Keynes Council, UK (Local Government)</td> <td>Karen Boys</td> <td>karen.boys@milton-keynes.gov.uk</td> </tr> </tbody> </table>	Organisation/country	Name	Email/phone	CrowdCharge, UK (SME)	Anthony Simpson	Anthony@crowd-charge.com +44 1628 899 725	Milton Keynes Council, UK (Local Government)	Karen Boys	karen.boys@milton-keynes.gov.uk
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<p>Potential Contribution to Project</p> <ul style="list-style-type: none"> Residential & workplace optimal charging modelling, algorithms and IP Defining and implementing seamless optimal charging concept/strategies – CrowdCharge can offer residential & workplace optimal charging modelling and algorithms, providing seamless optimisation of EV charging – utilising multiple datasets including telematics, energy tariffs, electricity network requirements as well as driver/organisational vehicle energy requirements. Powerful end to end analytics platform for EV centric integrated systems including analysis of slow/medium power charging and simulation modelling of lower cost alternatives on mass scale, and analysis of fast charging impact on infrastructure Simulation modelling and recommendations of V2X optimisation including V2H & V2B Demonstrable real-world implementation at city wide level with physical smart controlled chargers in place in a variety of locations to analyse pros & cons of fast vs slow charging in variety of situations Testbed for linked rewards, loyalty and promotion schemes Improving the whole user experience – MKC are developing a mobility as a service app, which can be used within the project to communicate with businesses and residents. 	<p>Organisational Capabilities</p> <p>CrowdCharge is an open and scalable energy modelling and EV centric low carbon asset optimisation platform provider. Developed over the past six years, CrowdCharge has managed 350 smart chargers – and currently operates 100 V2G chargers (from three manufacturers) across residential, workplace and academic settings. We can provide a range of solutions including EV/low carbon device data modelling, simulation tools and smart control IP that can be licensed by others in partnership to implement the programme goals.</p> <p>Milton Keynes Council (MKC) – As one of the UK’s Go Ultra Low zones, MKC is recognised as a leading local government partner for embracing innovative eMobility and smart solutions. They are developing mobility as a service and have an active V2G project.</p> <p>Our experience and connections</p> <p>Our organisations have extensive breadth of experience including electrical engineering, energy industry, automotive engineering, solar and software engineering, machine learning and simulation capabilities, local government partnership - in addition, to a proven track record to project manage our activities to time and budget. We have extensive contacts which may be beneficial across the automotive sector (manufacturers/telematics), charge-point sector (residential, public, workplace), energy industry (suppliers, aggregators, DSO/TSO) and Academia – as well as many business and community organisations across Milton Keynes.</p>									



Project EV-elocity

eNovates & Nichicon units
Commercial V2G charger project



Electric Nation: Powered Up

~100 Wallbox Quasar V2G units
Domestic V2G charger project with solar

**Milton Keynes - Domestic
Load Balancing**