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| **Stage 02: Working Group Meeting Summary** **Modification Report**What stage is this document in the process?**Refinement Process****Initial Assessment****Decision****01****02****03****04** |
| SECMP0046’ Allow DNOs to control Electric Vehicle chargers connected to Smart Meter infrastructure’  |
| Gemserv Offices

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22/10/2018Summary of SECMP0046 Working Group Meeting 3SECAS gave an overview of the last two meetings and re-iterated that this is a backstop measure to provide DNO’s the ability to prevent power outages.The group looked at the implications that were applicable to all the proposed solutions:**Scope*** The general view of the group was to focus on electric vehicle (EV) chargers, but to agree on a futureproof solution that could be transferable to other loads, import or export if necessary
* The group agreed this solution should apply to domestic customers only.
* The group discussed that putting the backstop in place would allow market mechanisms such as ancillary service provision to take place, instead of putting in place a regulated system for controlling load.
* The group were concerned about how this solution might affect individual customers, such as customers who don’t have EVs but are having their electricity supply to appliances reduced or turned off because a neighbour is charging their EV(s). The group agreed that the solution to this modification should be a last resort mechanism, and there should be transparent reporting around which customers and areas are affected, for how long and how frequently. SECAS took an action to come up with a strawman set of reports for discussion at the next meeting.
* Members discussed that using HCALCs without feedback would not allow the DNO to monitor if a load had been reduced (They would not know if the appliance was drawing a load). They would only be able to tell if their actions had been effective by monitoring the local feeder.
* Longer term solutions were discussed, including reinforcing the network which is time consuming and expensive.

**Anomaly detection*** Load Reduction is a critical command (i.e. it has security implications for the network). The expected levels of commands are set by Users and Users would need to be aware that this solution may increase the number of these commands and set it appropriately.

**Managing Grid and Network Conflicts*** The group agreed that local network changes caused by load reduction would most likely be small volumes and adjustments at a local level and therefore not cause any major conflict with the Grid. Members re-iterated that any solution should be used solely to preserve the local network integrity.
* The group agreed any governance and reporting needs to be public and transparent.

**Consumer messaging*** All agreed that any commands sent by DNOs in respect of this modification should be notified to Suppliers, so they were aware of any actions taken by the DNO. This is to enable them to manage the Supplier’s relationship with the customer. The group agreed that the DNO should lead consumer contact, but should liaise with suppliers as part of this, as is currently the case in outage events.
* There was some discussion around suppliers offering special time of use EV tariffs which could then be undermined or distorted by actions taken by the solution to this modification, potentially leaving suppliers economically disadvantaged. There were some suggestions that DNOs could offer tariffs to enable the DNO to take on some of the cost. The group agreed that there was scope for some commercial agreements.
* Compensation versus incentives were discussed, with the group generally agreeing that incentives such as time of use tariffs and for customers to have kit which allows DNOs to reduce load should be able to prevent the DNO’s needed to enforce a reduced load but where this is the case there should be some compensation.

**Other market arrangements*** The group considered what impact this change could have on the wider market arrangements. It concluded that there were pros and cons, but that most likely the actions taken as a result of this modification would have a small effect, similar to an outage (which would likely happen without this solution). The group felt that the solution needed to be further developed before the wider impacts could be properly assessed.

BEIS presented to the group on a project to trial the development of HCALCS (slides sent out with this summary).The group then looked at some of the impacts that are applicable to the individual solutions. The main points of the discussion are in the attached ‘Key Attributes’ document. Specific comments about the solutions were:**Option 1 – EV chargers as HAN connected smart chargers*** The group discussion centred around all the security requirements that would be needed for this option. They agreed that implementation of this solution would take 1-2 years and would be subject to National Cyber Security Centre (NCSC) requirements. This mechanism would not provide any feedback to DNOs on effectiveness.
* The group noted that the DCC Systems can be used to send commands but could also potentially be used to receive information back from the device. It was agreed to explore two sub-variants of this solution option, option 1a being that the HAN would act as a control device only and option 1b would be where it would act as both a control and a measurement device.

**Option 2 – HCALCS*** No specific comments were made by the group. See ‘Key Attributes Document’.

**Option 3 – EV chargers as CADs*** This would be an intelligent CAD (Customer Access Device) that could talk to the meter, questions were raised about security, but pros were considered to be putting the control in customers hands having a ‘reverse merit order’ so when a message is sent to reduce load the customer has appliances in order of priority of which to turn off/down first. This way appliances that the customer considers essential would be kept on supply whilst appliances that the customer is less concerned about would have their power reduced first.

The group agreed that it would be useful to see a comparison of cost, complexity, flexibility and estimated times for each of the options, which SECAS will produce and circulate to the group.OLEV informed the group that their consultation on secondary legislation from the Electric Vehicle Bill would now be issued in January for 12 weeks, with an expected implementation in October 2019.OLEV asked that SECAS return information to them in the next two weeks around the solutions and reporting arrangements that were discussed at the group.**Next steps**The next Working Group meeting will be held in late November/early December where SECAS will present a straw man for reporting and give an update of anything relevant at other EV forums. Discussions will cover the straw man reporting, consider EVs as batteries and use of EVs for V2G and further develop the proposed solutions. |