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# SECMP0046 ‘Allow DNOs to control Electric Vehicle chargers connected to Smart Meter infrastructure’

## Business Requirements – version v0.1

### About this document

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This document is the Business Requirements for [SECMP0046 ‘Allow DNOs to control Electric Vehicle chargers connected to Smart Meter infrastructure’](#). It provides detailed information on the business requirements for the proposed solution agreed on by the Working Group. It also summarises the Working Group’s considerations and assumptions for each business requirements with respect to this Modification Proposal.

## Business requirements

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This section contains the functional business requirements. Based on these requirements a full solution will be developed.

Business Requirements	
Ref.	Requirement
1	Electricity Distributors (EDs) will have the ability to reduce the load using HCALCS.
2	DCC will provide transparent reporting on the use of the relevant SRVs.
3	Generate an Alert to the relevant Supplier

## Working Group considerations and assumptions

### Requirement 1: Electricity Distributors (EDs) will have the ability to reduce the load using HCALCS

Where there is an imminent risk of an overloading event the EDs for that low voltage network can alter the charging rate of EVs on that network. As HCALCS & ALCS are a binary switch, only two settings are available, 'deactivated' (switch is open) or 'activated' (switch is closed). This should correspond to 'low' and 'high' charging amperages rather than 'on' and 'off'. The interpretation and definition of 'low' and 'high' is expected to be implemented by the Smart Charger through the BEIS competition<sup>1</sup> being run by BEIS. This switching to a 'low' charge rate should be set for a defined period. The specific duration will be set using the existing functionality of the Service Requests with governance around the duration developed through the modification process.

Since these overloading events could occur 5-10 minutes after an becoming aware of the risk, response times need to be fast. The EDs should be able to send SRVs 7.6, 7.7, and 7.8.

- SRV7.6 would allow the EDs to open the switch, resulting in the reduced charge amperage.
- SRV7.7 would allow the EDs to read ALCS/HCALCS labels (to determine the load controlled by the ALCS/HCALCS) and a switch's status (to determine whether any load reduction may be possible).
- SRV7.8 would allow the EDs to reset a switch's status to that set by the calendar. This should only be used if an erroneous instruction is sent, or if the anticipated reduction is no longer required.

These SRVs have a target response time of 30 seconds, which will be sufficient in reducing the likelihood a failure event. Both SRV 7.6 and 7.8 are Critical Service Requests and the modification process will determine any impact on User Security Assessments. For this the SSC will be notified of any changes to User eligibility for Critical SRV, as the User CIO assessment will need to be updated. The most practical way that this could be implemented may be to create a new user type, allowing for future categories of User to request for similar access.

### Requirement 2: DCC will provide transparent reporting on the use of the relevant SRVs

The DCC would be required to provide reporting on how many times SRVs 7.6, 7.7, and 7.8 have been used in a set period. The initial recommendation is to report:

For SRV7.6:

- By month
- By BusinessOriginatorID (Electricity Distributor for this purpose)
- By BusinessTargetID (ESME)

<sup>1</sup> <https://www.delta-esourcing.com/delta/respondToList.html?sessionId=EB2ED9FA5378B2F984AC96972D431124?noticeId=347436628>

- (If possible) By ALCSHCALCS Index(If possible) Duration of the deactivation

For SRV7.7:

- No specific reporting required

For SRV7.8:

- By month
- By BusinessOriginatorID (Electricity Distributor for this purpose)
- By BusinessTargetID (ESME)
- (If possible) By ALCSHCALCS Index

### **Requirement 3: Generate an Alert to the relevant Supplier**

Where an ED sends the SRV7.6 Service Request to an ESME and the response is **DeactivateAuxiliaryLoadRsp MessageSuccess="true"**, generate an Alert to the relevant Supplier. This could be implemented as a DCC Alert or a Device Alert.