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SECMP0062 'Northbound Application Traffic Management - Alert Storm Protection'

Modification Report Consultation responses

Question 1: Do you believe that SECMP0062 should be approved?

Question 1			
Respondent	**Category**	**Response**	**Rationale**
Electricity North West Limited	Electricity Network Party	Reject	We do support the intent of the change proposal but challenge the complexity and cost of the solution. The main reasons for rejection are as follows: • The modification does not identify or address root cause of alert storms which we believe are primarily caused by non-compliant meter devices rather than by individual device behaviour. As part of this SEC modification DCC should look to provide MI/Analytics based reporting which will pro-actively identify the manufacturer/model/firmware combinations of meters that result in alert storms such that appropriate action can be taken by suppliers/manufacturers to resolve/remediate the root causes • Each individual meter affected by the proposal could result in hundreds, if not thousands, of incidents being raised in the DCC Incident Management System. Each time throttling is initiated for an individual device it will generate an incident in the DCC Incident Management System, this would have a clear knock on-impact in terms of DCC and User resource to update and resolve/close the incidents and therefore a likely increase in both DCC and User resource costs. There doesn't seem to be an assessment by DCC of consequential cost and resource impacts required to manage the increased volumes of incidents or how DCC would propose to use problem management to collate and resolve the numerous incidents (as per standard ITIL process) and address the root cause

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			• DCC are proposing that the incidents would be assigned to the intended alert recipient, not to the party responsible for the meter/configuration. As a DNO we can do little or nothing to prevent further alerts or to resolve issues with non-compliant meter functionality, we have no commercial or contractual relationship with Suppliers or Manufacturers • DCC are proposing to build email functionality to send an email each time throttling is initiated for an individual device. Although DCC are proposing to allow Users to individually choose whether switch this functionality on or off this would clearly result in huge volumes of email traffic which would impact on DCC and User email infrastructure. DCC doesn't seem to have assessed the impact of consequential infrastructure costs required to manage increased volumes of emails • DCC are proposing to amend DUIS functionality so that subsequent alerts which are not throttled would include metadata to indicate that alerts were previously throttled and to provide a counter of the number of throttled alerts in real-time. It is unclear what the business use case for this requirement is and what action could be taken in real-time to remediate any affected devices. A DCC reporting/MI system could provide the same information without requiring each User to make any amendments to their DUIS interface • DCC has not provided any modelling to show what the solution outputs would result in e.g. 10k meters each generating 10 alerts, throttled as 1 in 10 could theoretically result in 10k incidents and 10k emails dependent upon the timing/interval between the alerts being received by DCC.
EDF Energy	Large Supplier	Approve	We agree that SECMP0062 better facilitates SEC Objective (a) as managing the volume of alerts being passed through the DCC systems and to DCC Users will support the efficient operation of smart meters. For the avoidance of doubt we believe that SECMP0062 is neutral against the other SEC Objectives, including (e) as this Modification Proposal does not relate to energy networks but to the DCC's communications network.

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Northern Powergrid	Electricity Network Party	Reject	We wholeheartedly support the intent of the modification proposal; however we remain concerned that this revised proposal may only filter out some, but not all, nuisance alerts. Our concern is based upon the likelihood that if the total number of alerts generated is only at an “amber” level these will continue to be passed on to Request Management and hence received by Users. In addition, the proposed change to DUIS, the SSI, and the potential use of emails to communicate “red” threshold anomaly events and incidents, appears to make this a very complex and expensive change. We also remain concerned that this change does nothing to address the device issues that are the root cause of this problem. The MRC states that the Proposer believes that this change better facilitates SEC Objectives (a) and (e). We do not believe that this change supports SEC Objective (e) ‘to facilitate such innovation in the design and operation of Energy Networks (as defined in the DCC Licence) as will best contribute to the delivery of a secure and sustainable Supply of Energy’ because this proposal is primarily attempting to address the symptoms of a problem rather than the root cause.
Western Power Distribution	Electricity Network Party	Reject	Western Power Distribution does not believe that this modification, as it stands, better facilitates the SEC Objectives. The Modification Report Consultation states that the Proposer believes that this modification better facilitates SEC Objective (a) and (e). We don’t agree that this modification would better facilitate SEC Objective (a) by ensuring an efficient operation of Smart Metering Systems as we don’t feel that it fully addresses the problem. We disagree that this modification better facilitates SEC Objective (e) as we do not feel that it facilitates Network Operators in innovating the design and operation of their networks to ensure a secure and sustainable supply of energy.

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			We believe that the intent of this modification would be to better facilitate SEC Objective (f), to ensure the security of Data and Systems, however we do not believe that the solution proposed will do this.
E.ON	Large Supplier	Approve	The revised proposal addresses most of the concerns raised satisfactorily.
SSEN	Electricity Network Party	Reject	SSEN support the overall requirement to supress alert storms to protect the DCC and user systems. From the previous consultations, SSEN still challenge whether the proposed changes will adequately deliver the required solution. Our concerns still remain around the suppression logic, without seeing a worked scenario that covers for example, 8014 & 8015 alert traffic. Looking to the initial proposed configuration parameters for phase 1 in this consultation, these parameters will still allow 100% of alert storms through to our adapter based on SSEN's current 8014 & 8015 alert volumes. When phase 2 is implemented, we are also unable to understand the impact this will have, as the parameters per alert are a global value. As we are unsure on other parties' requirements we remain unsure on what this value will be set at to understand its impacts on SSEN. We also have concerns around the proposed incident and email notification functionality. As previously stated SSEN would require the ability to understand the number of alerts throttled and incidents raised, without this having a negative impact on the SSI usability, internal systems and processes. The proposed solution does not allow for an appropriate mechanism to notify parties and manage throttling incidents without additional processes created to handle this. Due to current incident volumes within SSI, we require the notification functionality to be set to on to manage our incidents. Although a daily email will now be sent rather than individually per each throttling period, as this is on a per device basis this is still an unsuitable solution.
Centrica	Large Supplier	Approve	Implementation of SECMP0062 will not resolve the issues that the DCC and DCC Users are experiencing with alert storms. However, it will provide some assistance to the DCC and users in controlling, and reducing, the large volumes of nuisance alerts being experienced.

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			We therefore agree that this modification does, to some limited extent, help to better achieve both General SEC Objectives (a) and (f).

Question 2: Please provide any further comments you may have

Question 2		
Respondent	**Category**	**Comments**
Electricity North West Limited	Electricity Network Party	This change proposal introduces additional overheads and potential capacity issues for incident management and email systems for which there is no impact assessment, which could result in additional costs. Additionally, it does not try and analyse and remedy root cause issues which are highly likely to be SMETS2 compliance issues affecting tens of thousands of devices. We feel at this stage that it may be prudent for DCC to target the bare minimum functionality to restrict the alerts as described by the modification. A simple (after the fact) reporting mechanism could then be made available to parties via the existing DCC SharePoint – DCC already use this mechanism to provide weekly inventory reports to parties. Consequently, all other functionality including email, SSI and DUIS changes would be placed on hold and the requirements reviewed by parties 'x' months after the initial implementation has been operating. Only at that time should further changes be assessed when parties and the DCC can then reflect upon the effectiveness of the initial change.
EDF Energy	Large Supplier	• We recognise that the volumes of alerts that are being sent in the first place need to be looked at and potentially addressed. Such a device based solution will, however, take some time to not only include within the Technical Specifications (specifically the GBCS) but to implement within devices. SECMP0062 represents a pragmatic and timely solution to the immediate problems DCC and Users are facing in relation to alert volumes. • While we support this Modification Proposal we do have a couple of comments: • It is not clear from the Modification Report consultation what will happen once part 2 is implemented and changes are made to the DUIS to enable notifications to be sent. DCC Users will have different upgrade paths and it may be some time after November 2020 that they upgrade to the new version of the DUI S introduced in the November 2020. Release. We would welcome confirmation that the e-mail/SSI based solution introduced in Part 1 still be available to Users that have not upgraded to the new version of DUIS after the November 2020 release has been implemented. We note that the proposed new legal text for Section H3.14 and Appendix AB (Service Request Processing Document) does not differentiate between versions of DUIS in regards to the obligations the DCC is required to meet.

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		• The proposed new Section 17.8 refers to the recipient(s) identified in the Response or Alert being informed when the rate of Alerts falls below the Threshold, however it does not state that there will be a notification to those recipient(s) when the rate of Alerts goes above the Threshold in the first place and initiates Alert consolidation. We assume that this is an oversight, a reference to the recipient(s) being notified (which we assume would be either via the DUIS or via email/SSI as) should be included in the text.
Northern Powergrid	Electricity Network Party	We have no further comments.
Western Power Distribution	Electricity Network Party	Whilst we agree that it is sensible to have some protection for the DSP in the event of extreme circumstances, we question if this is the best solution. We have concerns that this solution is potentially not addressing the root cause. This has also been confirmed by evidence that we have seen in the north where the CSP is currently unable to cope with the alert volumes and therefore we again ask why this modification isn't addressing the root cause of the problem, i.e. 'Alert Storm Protection' in general rather than 'DSP Protection'. We stand by our response to the previous Modification Report Consultation, that the parameters that are provided (which remain the same as previously consulted upon) are not fit for purpose. If this solution had been implemented when we were receiving our highest volume of nuisance alerts (in excess of 2 million 8014 and 8015 a day), it would not have supressed any alerts being sent through to us. On numerous occasions we have requested that the DCC provide detailed evidence that clearly shows the exact impact that they would see as a result of this modification. To date we have yet to see this, and therefore we have no evidence as to how this modification will benefit them. As a result we can only base our views on our own evidence and experiences. We also seek clarification as to how the solution will protect the DSP if their capacity is breached and Devices are continuing to send Exempted Alert Codes? The Modification Report Consultation states that DCC are required to update the Self-Service Interface (SSI) Baseline Requirements Document to align with the requirements of this Modification. Whilst we understand that this document is not part of the SEC, without this information we cannot fully understand and comment on the solution in its entirety.

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		In the legal text, Appendix AB 'Service Request Processing Document' 17.9 states 'any changes to this document shall be prepared and consulted upon by the DCC and approved by the Panel'. Whilst we agree that the DCC shouldn't be able to just amend the parameters without appropriate controls, we question how the DCC would be able to react quickly in the event of an issue arising and these parameters being unsuitable. We are concerned with how this modification has progressed with the DCC having already released code into the production environment that is just waiting to be turned on. It feels like Parties are being forced to approve a modification that the DCC have decided to design build and implement before approval. We feel that the modification process and/or DCC's change process needs to be reviewed in light of this. We seek clarification on how the costs have been calculated. The costs quoted in the Modification Report Consultation state estimated implementation costs of £1,088,392, however the code has already been released into production. Surely this should mean that the costs are final? Are SEC Parties paying for the work already undertaken as well as further costs? What happens if this modification is rejected, are Parties expected to pay for all the work already undertaken in developing and implementing the code? In conclusion, we don't feel that we can support this modification as it stands at this time.
E.ON	Large Supplier	
SSEN	Electricity Network Party	N/A
Centrica	Large Supplier	As previously stated, SECMP0062 is not the solution to alert storms but merely a mitigation tool that can be used to supress the impact. For this modification proposal to be approved we would expect that there is commitment from the DCC and DCC Users to ensuring that the following are achieved: • DCC to commit to resolving nuisance alerts caused Communication Hubs by developing and issuing suitable firmware fixes or the ability for such alerts to be supressed if not fixable via firmware (e.g. hardware design issues that are causing alerts to be generated such as misuse of ports);

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		• Users to ensure that device manufacturers apply similar fixes to devices that are generated alert storms. As with Communication Hubs, where this is due to hardware design, and not resolvable retrospectively, DCC should have the ability to supress such alerts; • Users, and specifically those that are members of the Smart Metering Device Assurance Scheme (SMDA), to investigate whether alert storms can be detected through device combination testing to avoid such issues only be realised once in the live production environment; • Actual devices to be used in PIT and SIT testing, instead of emulators, to ensure that alert storms can be identified prior to devices / firmware being released into the production environment.