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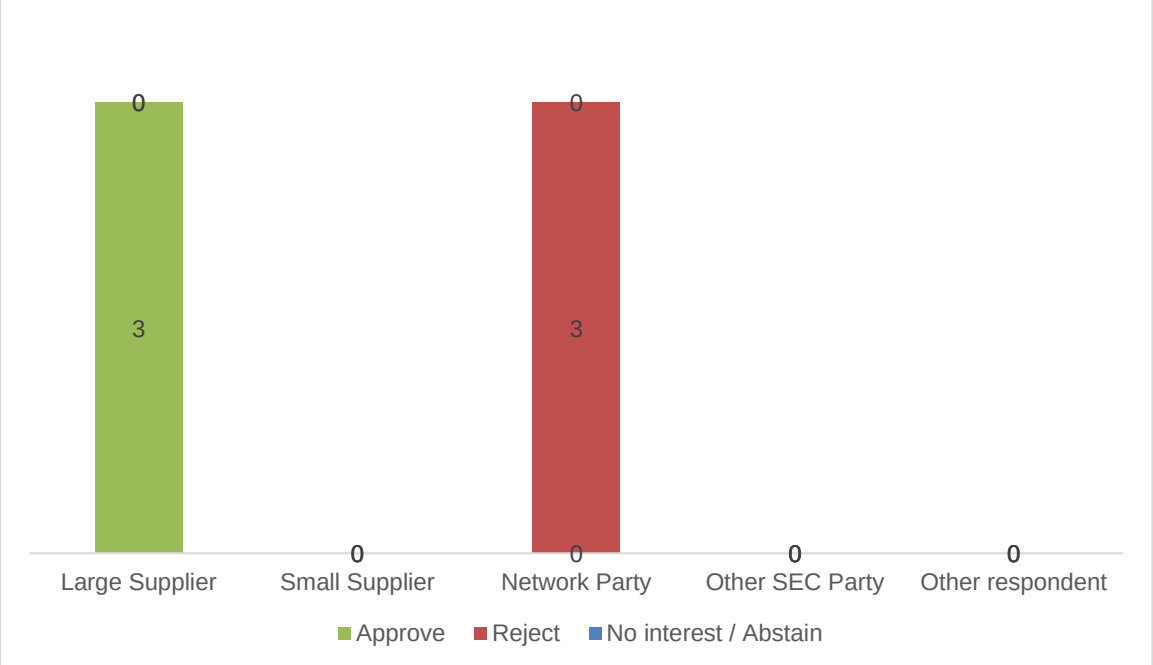
SECMP0062 'Northbound Application Traffic Management - Alert Storm Protection'

Third Modification Report Consultation responses

About this document

This document contains the full collated responses received to the third SECMP0062 Modification Report Consultation.

Summary of responses



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

Question 1			
Respondent	**Category**	**Response**	**Rationale**
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.
SSEN	Electricity Network Party	Reject	As stated in all consultation responses to SECMP0062, SSEN support the overall requirement to supress alert storms to protect the DCC and user systems. SSEN still challenge whether the proposed changes will adequately deliver the required solution. With the new parameters detailed in this consultation, SSEN believe this will now supress a larger number of alerts now being over the global period of 1440 minutes. However, when phase 2 is implemented, the individual alert configuration parameters that was detailed in previous consultations has now been removed which would have allowed a suitable configuration to potentially stop 100% of alerts. We also have the same remaining 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. Although switched off at the point of implementation. If switched on, 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 SSEN's current

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			incident volumes within SSI, we require the email notification functionality to be set to on to manage our incidents. If the incident and email notification is agreed and turned on by the panel or delegated Sub-Committee, as it is a global setting and the notification process is on a per device basis which is still an unsuitable solution.
Npower	Large Supplier	Approve	We are in support of this change
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. We therefore agree that this modification does, to some limited extent, help to better achieve both General SEC Objectives (a) and (f).
Western Power Distribution	Electricity Network Party	Reject	Western Power Distribution does not believe that this modification, as it stands, better facilitates the SEC Objectives. 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.
Electricity North West Limited	Electricity Network Party	Reject	Within our response to the second modification we highlighted that we do support the intent of the change proposal but challenged the complexity and cost of the solution. We raised the following high-level concerns and note any changes made in the updated Modification Report to mitigate these concerns. 1. The modification does not identify or address root cause of alert storms which we understand are primarily caused by non-compliant meter devices rather than by individual device behaviour The updated Modification Report notes this but believes as this would take 2-3 years to develop this solution should be implemented in the meantime, so should it be the case that the issue is with devices would parties be reimbursed for the cost of this solution? The

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			report also notes that for the DCC to manage alerts at the Communications Hub is going to take 2-3 years to develop. 2. 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 The updated Modification Report advises that there will be fewer incidents as this would be driven by the consolidation of specific Device/Alert code combinations and new incidents could not be raised for such combinations until the number of alerts is below a threshold. Bearing in mind the 1.3 billion alerts in Dec-19 even with consolidation the volume of incidents generated are still likely to be substantial. 3. 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 The updated Modification Report states this functionality will be turned off for the initial 4 months due to the current volumes but doesn't state what would happen if incident management is switched on. Would the SEC Panel determine this? As alert recipient what would Network Parties be expected to do with potentially thousands of device alerts, bearing in mind no resources to deal with such volumes and that there isn't a relationship

Question 1			
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			between the Network Parties and the supplier/manufacturers; would the only option be to reassign them to the DCC which questions the intent of the solution. 1. 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 *The updated Modification Report states that the User can choose whether to be notified by an email in the case of an incident triggering the mechanism or to not be notified by email, instead using the SSI dashboard to see when the mechanism is active. We understand that if we switch off email notifications it switches off ALL incident notifications? We wouldn't necessarily want to switch off all notifications but as noted in 3. Above we would not want to receive these incidents in the first place.* 2. 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. *The updated Modification Report states any changes to DUIS will be implemented in Nov-20 but doesn't seem to provide any rationale or business benefit justification for changing the DUIS interface. What is the 'use case' for suck a change?* 3. 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 *The analysis provided in the updated Modification Report is suggesting that this solution could eliminate approximately 99.3% of individual Devices providing repeated Alerts through Alert Storms, meaning the solution would reduce repeated Alert traffic in the DCC Systems considerably but noted a smaller effect where the problem is not limited to a single Device. We are uncertain whether DCC's analysis of 8014/8015 alert traffic is correct and*

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			would welcome further clarification/evidence that it will mitigate device issues. We understand that we would still be receiving at least one incident (and potentially email as well) per device per day. As per the response to 3. Above we do not have the resource to deal with such volumes of incidents. The updated Modification Report seems dismissive of the suggestion of carrying out root cause analysis to stop the issue at source and suggests a separate modification be raised. We do not agree when compared against a complex and costly solution which could potentially only be a temporary fix as the ultimate solution is for the alerts to be managed by the Communications Hub.

Question 2: Please provide any further comments you may have

Question 2		
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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.
SSEN	Electricity Network Party	N/A
Npower	Large Supplier	
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); • 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;

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		• 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.
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. We acknowledge that the parameters have been adjusted and whilst these revised parameters might have helped when we were suffering with our 8014/8015 alert storms we question if these are appropriate. If a device is generating 25 a day, these parameters mean that a User will only receive one every five days and we are not sure that this will always be appropriate. We were hoping that his solution might have considered alert specific parameters as part of stage two. 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. Whilst we acknowledge that the DCC have attempted to provide some analysis within this MRC we still feel that it does not show the clear detailed analysis of exactly how this modification will work if implemented. 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 at stage one, the DCC will have a new dashboard in the SSI, however there are still no details around the revised SSI Baseline Requirements and the SSI change process that is required for changes to be implemented into the SSI. In conclusion, we don't feel that we can support this modification as it stands at this time.
Electricity North West Limited	Electricity Network Party	While we were pleased to see that a phased implementation approach is to be adopted (Part 1 to be implemented on 25 June 2020 / Part 2 to be implemented on 5 November 2020 provided the decision to approve is received on or before 7 February 2020) we believe the time between the release dates to be too

Question 2		
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		short. DCC should target the bare minimum functionality to restrict the alerts for implementation under Part 1 and then undertake inventory reporting to take stock of the impact before looking at implementing a Part 2.