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# DP096 ‘DNO Power Outage Alerts’

## Problem statement – version 0.2

### About this document

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This document provides a summary of this Draft Proposal, including the issue or problem identified, the impacts this is having, and the context of this issue within the Smart Energy Code (SEC).

### Proposer

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This Draft Proposal has been raised by Del Kang from the Data Communications Company (DCC).

## What is the issue or problem identified?

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Power outages are a common occurrence. There are various causes ranging from third party damage and weather-related events to equipment failure. The Smart Metering Implementation Program aims to deliver the advantage of timely and automated notifications of Power Outage Alerts (POAs) and Power Restoration Alerts (PRAs) generated in the event of an outage. These alerts are sent to Distribution Network Operators( DNOs). Timely delivery enables improvements in:

- Timeliness of information to help DNOs reassure customers
- Visibility of faults
- Visibility of network topology & connectivity (when combined with other data)

For events affecting high voltage networks it is normal practice for automation schemes to attempt power restoration to some or all customers affected within three minutes. On the low voltage networks there is little, or no automation and power can only be restored by personnel attending site and carrying out a repair or by manual switching.

In the case of a power outage lasting more than three minutes, the DCC is obliged under the SEC to provide POAs to DNOs within a given timeframe. The SEC states that the timeframe POAs must be sent within is 60 seconds after the initial three minutes of the outage (to allow time for power to be potentially restored automatically).

Once power has been restored, a PRA is sent to the DNO via the Data Service Provider (DSP). This must also be sent within 60 seconds.

The DCC is currently unable to meet this SEC obligation. A SEC transitional variation was approved by BEIS to compensate for the difference between the SEC obligation and the DCC's current capability. This exception expired on 31 October 2018 and BEIS cannot offer an extension.

### DCC in communication with DNOs

There has, over the years, been extensive engagement between the DCC and DNOs to understand the DNO requirements and what the DCC systems are currently capable of in regards to POAs and PRAs. This has included investigating defects being experienced by DNOs from outages and resulting POAs and PRAs.

On 8 October 2019 the DNOs submitted a requirements document via the Energy Networks Association. The document outlines the requirements the DNOs deem necessary to improve the current situation. This document can be found in Appendix A.

The DNOs understand that the DCC Systems characteristics mean that their requirements may be difficult to achieve and that they will have to compromise in order to reach agreement on the final arrangements for POAs and PRAs. However, DNOs feel that it is important that any system constraints are transparent and well-justified, and that decisions to reject suggested improvements are supported with sound cost and benefit evidence.

### How does this issue relate to the SEC?

The SEC places requirements on the DCC to provide alerts. SEC Section H3.14 (g) currently states that in the case of a Power Outage, an alert must be sent to the DNO within 60 seconds, and if the power is restored, an alert must also be sent within 60 seconds. This obligation is not currently deliverable by the DCC due to numerous issues including hardware design. These issues were flagged during design forums held with the DNOs. The existing Communication Service Provider (CSP) solutions do not meet the SEC requirement as they align to the original CSP contracts, these contracts do not include the same definition or requirement as they were set up in the early days of the SEC.

It is worth noting that after several meetings between the DCC and the DNOs, the DNOs have gained an understanding of the DCC systems characteristics. As a result, they are willing to compromise in order to reach an agreement on the final arrangements for POAs and PRAs.

The DCC propose that the SEC is impractical in respect of the 60 seconds and that a solution needs to be agreed and the SEC changed appropriately. Furthermore, SECAS have received information regarding the DNOs requirements in relation to POAs and PRAs which differ from those stated in the SEC. Further information can be found in Appendix A.

## What is the impact this is having?

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It is understood that this issue has minimal impact on consumers. The SEC requirements do not reflect current industry practice. For the DCC to be able to adhere to the SEC requirements, contract renegotiations would be required at a high expense. The issue currently impacts DNOs operationally but should there be a requirement to further invest in DCC Systems to improve timeliness of alerts being sent, there will be a financial impact on Parties.

## What is the impact of doing nothing?

Currently, the SEC states that an alert must be sent “within 60 seconds measured from the Alert being communicated to (Device Alerts) or generated by (Non-Device Alerts) the Communications Hub Function”. The DNOs’ system would be unable to cope with receiving all alerts 60 seconds after the initial three minute outage as this would result in an alert storm scenario. Therefore, leaving the SEC unchanged and increasing the CSP performance to match the requirements would have an adverse impact on the Smart Metering business case.

## What are the views of the industry?

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### Views of the DCC

The DCC raised this proposal as it feels that this issue needs to be resolved through the SEC Modifications process.

### Views of SEC Parties

SECAS has received a document outlining the requirements in relation to POAs and PRAs from DNOs which can be found in Appendix A.

### Views of Panel Sub-Committees

The proposal was presented to the Operations Group where they expressed an interest and would like to be kept up to date with the progress. They commented that currently, DCC alerts are a high priority amongst Sub-Committees and they would like to have as much input as possible.

The proposal was subsequently taken to the Technical Architecture and Business Architecture Sub-Committee (TABASC) for initial comments. It showed an interest in the proposal and wish to be kept up to date with developments. A member of TABASC explained that they would like to gain a greater understanding of why the obligation cannot currently be met, with some historical evidence of performance. The DCC responded offline that a contributing factor is the design of the Communications Hubs, which includes characteristics that prevent the system from alert storms. This will be formally investigated with the CSPs under a preliminary assessment if the PA request is approved by the Panel.

### Views of the Change Sub-Committee

The proposal was presented to the Change Sub-Committee (CSC) where it was met with keen interest and discussion. A member of the CSC stated that they would like the Proposer to confirm whether the intended purpose of the proposal is to align the wording of the SEC with the current capabilities of the CSPs or to make improvements to the current systems resulting in the costs being paid by the Consumer. This will be investigated in detail if the proposal is approved to enter the Refinement Process.

### Attachments

- **Appendix A:** DNO Requirements – Power Outage and Restoration Alerts