MP096 ‘DNO Power Outage Alerts’

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September 2021 Working Group – meeting summary

Attendees

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| **Attendee** | **Organisation** |
| Ali Beard | SECAS |
| Mike Fenn | SECAS |
| Bradley Baker | SECAS |
| Kev Duddy | SECAS |
| Joey Manners | SECAS |
| Del Kang | DCC |
| Remi Oluwabamise | DCC |
| Charlotte Semp | DCC |
| David Walsh | DCC |
| Tosin Adeoye | DCC |
| Arlene Brown | DCC |
| Pankaj Jain | DCC |
| Nathan Williams | DCC |
| Janine Hughes | DCC |
| Eleanor Taylor | BEIS |
| Sarah-Jane Russell | British Gas |
| Tristan Fowler | ENSEK |
| Peter Skirvin | ENWL |
| Daniel Davies | ESG Global |
| Alastair Cobb | Landis + Gyr |
| Ralph Baxter | Octopus Energy |
| Michael Walls | Ofgem |
| Emslie Law | OVO Energy |
| Mafs Rahman | Scottish Power |
| Elias Hanna | Smart ADSL |
| Matthew Alexander | SSEN |
| Robert Johnstone | Utilita |
| Gemma Slaney | WPD |
| Kelly Kinsman | WPD |

Overview

The Smart Energy Code Administrator and Secretariat (SECAS) provided an overview of the issue identified by [MP096 ‘DNO Power Outage Alerts’](https://smartenergycodecompany.co.uk/modifications/dno-power-outage-alerts/), further details of the request for information (RFI) consultation (including the Proposed Solution options) responses, a summary of the Operations Group (OPSG) and Technical Architecture and Business Architecture Sub-Committee (TABASC) discussion. The Data Communications Company (DCC) also provided detail on the cost-benefit analysis of proposed solution options 2 and 3, a description of the Alert measurement project being undertaken and a summary of the Network Evolution Programme.

Working Group objectives:

* **Note** the summary of the RFI responses
* **Agree** the Proposed Solution
* **Agree** the sub-options of the Proposed Solution
* **Note** the breakdown of the Proposed Solution costs
* **Note** the scope of the Network Evolution Programme
* **Agree** the next steps of the modification

Issue:

* Smart Energy Code (SEC) Section H ‘DCC Services’ H3.14(g) states that Alerts must be sent to the User, in this case the Distribution Network Operator (DNO), within 60 seconds which is measured from the Alert being communicated to or generated by the Communications Hub. This includes Power Outage Alerts (POAs) and Power Restoration Alerts (PRAs).
* The DCC are currently non-compliant with the SEC.
* Due to Communications Hub (CH) and Network design constraints, the DCC cannot meet the SEC obligation in its current form.
* Primary impact: DNOs are not able to deliver the expected benefits and cost efficiencies from smart meter POAs and PRAs.

RFI proposed solution options:

* **Option 1 –** Do nothing (two supportive respondents)
* **Option 2 –** Change the SEC to current DCC performance (four supportive respondents)
* **Option 3 –** Change the SEC following implementing system improvement (two supportive respondents)
  + Option 3A – Minimum change required to deliver a significant improvement

This assumes that a select number of the changes assessed that deliver the largest improvement in performance are implemented, and the rest of the changes are disregarded.

* + Option 3B – Maximum performance improvement

This option implements all system changes assessed which improve the speed and quality to deliver a POA or PRA.

Proposed Solution sub-options (amend the SEC to current DCC performance):

* + **Sub-option 1** – split Communication Service Provider (CSP) POA/PRA performance requirements.
  + **Sub-option 2** – volumetric-based performance requirements.
  + **Sub-option 3** – Lowest common denominator performance requirements.

OPSG key points:

* + Advised against sub-option 3 as it would allow the better performing CSP to reduce its performance.
  + Advised that a possible divergence in CSP Service Level Agreements (SLAs) is deemed high risk.
  + Due to members not being fully up to speed with the modification, OPSG did not provide a clear steer on any one Proposed Solution.

TABASC key points:

* + Advised that an overarching requirement for next generation CHs to meet the SEC as currently written should be included in the legal text.
  + During the meeting the DCC commented that next generation CH bidders have expressed no concern in meeting the current SEC requirement.
  + The TABASC was in favour of the ‘do nothing’ option, though did not suggest any financial penalties for non-compliance.

Proposed Solution cost-benefit analysis:

* + **Option 1** – Do nothing / Request further derogation – no associated costs
  + **Option 2A** – Change SEC to current performance using DCC measurement framework with no Service Provider contract change - legal text change costed at approximately £600.
  + **Option 2B** – Change SEC to current performance but using performance measurement captured by Service Providers and contracts changed - £981,000.
  + **Option 3A** – Minimum change required to deliver a significant improvement – £6.5M with annual costs of £700,000.
  + **Option 3B** – Maximum performance achievement possible - £10.9M with annual costs of £700,000.

Measurement framework:

* + Use current DCC TOC capability to measure performance of AD1s, 8F35 and 8F36s.
  + Provide performance reports on a monthly basis for POA/PRA.
  + Include a minimum of 6 months data, including data from the winter months (Dec, Jan & Feb).
  + DCC will review monthly performance measures with the DNOs.
  + Final legal wording will based upon performance reports (up until the end of Feb 2022) as well as feedback from DNOs and Service Providers and use of legacy data to validate data integrity and future profile.
  + SEC change to be included in June 2022 SEC Release.

DCC TOC measurement methodology:

* + Clock time stamp data is used to calculate the end-to-end Journey of Alerts.
  + It includes confirmation from the DNO systems that the Alert has been received.

Scope of Network Evolution Programme:

* + Current Scope of Network Evolution Communications Hubs and Network (CH & N) Programme.
  + The CH & N programme includes the SEC and DNO requirements related to POA & PRA.
  + However, outcome specification for the CH & N programme is subject to procurement and value for money assessment.
  + It will only address the issues for newly installed 4G CHs in Central and South regions.
  + This will not address the issue for the Legacy (2G/3G & RF) CHs including new install base in North region.

Working Group discussions

SECAS informed the Working Group of the objectives of the meeting and provided a summary of the tasks completed since MP096 was last discussed at the June 2021 SEC Working Group.

SECAS summarised the issue and the Working Group provided no further comments.

Proposed Solution

SECAS provided an in-depth review of the RFI responses, setting out the pros and cons for each Proposed Solution, as stated by the respondents. SECAS also updated the Working Group with the feedback received from the OPSG and TABASC. A Working Group member enquired about the current tender of next generation Communications Hubs. The DCC confirmed that the ask of next generation Communications Hubs bidders is to meet the SEC as currently written.

Taking this information into consideration, the Working Group agreed that amending the SEC to current DCC performance (to be finalised in February 2022) is the most suitable solution.

The DCC informed the Working Group that they had broken this Proposed Solution into two separate options:

* + **Option 2A** – Change SEC to current performance using DCC measurement framework with no Service Provider contract change - legal text change costed at approximately £600.
  + **Option 2B** – Change SEC to current performance but using performance measurement captured by Service Providers and contracts changed - £981,000.

A Networks Party stated that in order to deliver Option 2B, the DCC would have to consider the impact of polyphase Electricity Smart Metering Equipment (ESME). This is due to different types of Power Outage Alerts being generated when individual phases lose power (this does not result in an AD1, 8F35 or 8F36 being generated). They did however state their dissatisfaction with the high costs associated with Option 2B as Parties would ultimately have to pay for the DCC non-compliance.

A Large Supplier stated that since the DCC’s Technical Study, CSP North has carried out system improvements at their own expense, and enquired if the DCC had seen any improvements in terms of time and volume of Alerts. The DCC stated that it is currently difficult to trace back to specific system improvements, though in the future if MP096 is approved, the DCC will be able to trace system improvements through the measurement framework.

A comment was received regarding the increase in Communications Hubs installed in the North region and the impact this may have on the network. The DCC responded stating that in terms of POA and PRA performance, CSP N performs at a very high level, and that the DCC will use extensive Technical Operations Centre (TOC) and CSP modelling to futureproof the solution.

The DCC informed the Working Group that it is their intent to progress Option 2A. A Network Party agreed with this approach, however another voiced concern regarding capturing true performance. This relates to the added CSP measurement capability under Option 2B. The DCC stated that they would continue to work with the CSPs to better understand their performance and then meet with Networks Parties on a monthly basis to ensure that what is written into the SEC is accurate. If after the measurement project is completed the level of accuracy is deemed inadequate, the DCC advised that Option 2B can be revisited. SECAS sought the views of other Sec Party Categories. A Large Supplier commented that they would like some time to process all available information before providing an opinion.

A Working Group member stated that it would be beneficial to fully understand how the smart network operates to try to identify areas for improvement. The DCC advised that this had been investigated extensively during their technical study. The DCC also commented that any potential system improvements would be implemented through separate SEC Modifications, and not through MP096.

Proposed Solution sub-options

SECAS and the DCC provided an overview of the sub-options which have been developed since the last Working Group meeting. The Working Group have requested that the Alert measurement project is completed before deciding on which sub-option to take forward. SECAS agreed to seek feedback on each sub-option through the Refinement Consultation. The Working Group did however advise that it would be preferable to not baseline the performance to the lowest common denominator.

Clock drift

A Networks Party queried the wider issue of clock drift which impacts the accuracy of Alerts and subsequent reporting. This can result in Alerts being timestamped with inaccurate times compared to when they are received by the Network Party. The DCC confirmed that they are currently working with both CSPs to address the issue. To mitigate clock drift-associated inaccuracies, the DCC intend on using an interim solution, with the expectation that the clock drift issue will be resolved within six months. The Network Party requested transparency from the DCC’s reporting on this issue as this will have a direct impact on Network Party reporting methodology. The DCC agreed and informed the Working Group that the issue is only found in the Central and South regions.

DCC TOC measurement methodology

The DCC informed the Working Group that they analyse and measure the end-to-end journey of Alerts to work out the median and upper and lower quartiles in order to provide accurate reporting. They emphasised the importance of capturing the data in the winter months as previous data has shown that outages are more frequent and weaker signals are experienced. The DCC advised that this is especially the case in the North region.

A Working Group member queried the importance of the timely delivery of the Alerts. The Network Parties responded that they must meet their SLAs which in some cases are time-dependent and so any delay or apparent delay in receiving an Alert has an impact on achieving these SLAs. This refers back to the primary impact of the issue whereby Network Parties are not able to deliver the expected benefits and cost efficiencies from smart meter POAs and PRAs.

Benefits to the consumer

SECAS asked the Working Group if it felt that MP096 offered any benefits to the consumer. A Network Party stated that they did not believe there are any direct benefits, however better understanding the service that is provided to the consumer results in an indirect benefit. SECAS requested the views of other SEC Party Categories, however they stated that at this time they did not believe that they could see any benefits to the consumer.

Network Evolution Programme

The DCC provided an overview of the current scope of the Network Evolution Programme. A Network Party queried the differing information held within the current scope compared to a consultation issued on 6 April 2021. The DCC confirmed that they have included all the requirements necessary to be compliant with the SEC specifically around POA/PRAs. The DCC reiterated that the starting point for next generation Communications Hubs bidders is to be SEC compliant. Therefore, the DCC agree with the TABASC’s view of retaining an obligation within the legal text for next generation Communications Hubs to meet the 60 second requirement. The DCC also advised that research has shown that it takes approximately ten seconds for the Alert to reach a Network Party from the DSP.

Conclusion

SECAS stated that the intention is to carry out six months of POA and PRA analysis which will be due for completion in February 2022. SECAS indicated its intention to draft the legal text and issue the Refinement Consultation during this time. The SECAS Technical Operations team advised against drafting the legal text until the data had been finalised and a sub-option has been agreed by the Working Group as they did not believe this could be done without the specific details. A Network Party stated that it would be beneficial to hold out until the dataset has been completed. The Proposer agreed with this approach.

Next Steps

The following actions were recorded from the meeting:

* DCC to complete the POA/PRA measurement project (due to be completed in February 2022).
* DCC to update Network Parties with progress on a monthly basis.
* SECAS will present the dataset from the measurement project to the Working Group.
* SECAS to work with the DCC to identify any benefits of drafting the basic MP096 legal text.
* SECAS to issue the Refinement Consultation following the completion of the measurement project.