MP116 ‘Service Request Forecasting’

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December 2020 Working Group – meeting summary

Attendees

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| **Attendee** | **Organisation** |
| Ali Beard | SECAS |
| Joe Hehir | SECAS |
| Brad Baker | SECAS |
| Joey Manners | SECAS |
| David Walsh | DCC |
| Robin Seaby | DCC |
| Dean Florence | DCC |
| Remi Oluwabamise | DCC |
| Easton Brown | DCC |
| Graeme Leggett | DCC |
| Sasha Townsend | DCC |
| Chun Chen | DCC |
| Simon Trivella | British Gas |
| Lynne Hargrave | Calvin Capital |
| Alex Hurcombe | EDF Energy |
| Robert Williams | E.ON |
| Ferenc | GeoTogether |
| Elias Hanna |  |
| Alastair Cobb | Landis & Gyr |
| John Noad | Npower |
| Ralph Baxter | Octo Energy |
| Mahfuzar Rahman | Scottish Power |
| Eric Taylor | SLS |
| Matt Alexander | SSEN |
| Emslie Law | OVO Energy |
| Rachel Norberg | Utilita |
| Gemma Slaney | WPD |

Overview

The Smart energy Code Administrator and Secretariat (SECAS) provided an overview of the issue identified by [MP116 ‘Service Request Forecasting’](https://smartenergycodecompany.co.uk/modifications/service-request-forecasting/) and the Proposed Solution put forward by the Data Communications Company (DCC). The DCC also provided an update on their forecast modelling project.

Issue:

* Each quarter a DCC User must submit an 8-month Service Request forecast
* Each forecast takes approximately two days to complete per DCC User
* Experience has shown that the forecasts submitted are not overly accurate

Proposed Solution:

* The DCC are to produce short-term, medium-term, and long-term forecasts internally using captured data.
* The Short-Term Load Forecast will span between 24 and 168 hours
* The Medium-Term Load Forecast will span between one week and one year
* The Long-Term Load forecast will provide predictions over several years

DCC forecast modelling project themes:

* DCC User Service Requests are on average three times greater than actual service request volumes
* DCC forecasts for each Communication Service Provider (CSP) are accurate within +/- 10%
* Through machine learning approach daily forecast accuracy is +/-10% compared with DCC monthly forecasts averaging +/-60%
* The DCC would like DCC User input to help shape meter firmware and Device installation forecasts
* The DCC would also like DCC User input to help identify changes in behaviour regarding the use of rarely used or unused Service Requests

Working Group discussions

SECAS presented the issue to the Working Group who acknowledged the issue and added no further comments.

SECAS provided an overview of the solution whereby the obligation on DCC Users to submit quarterly Service Request forecasts would be removed, and the DCC would take responsibility of providing Short-Term, Medium-Term and Long-Term Load Forecasts (STLF, MTLF, LTLF). It has been agreed at the July Working Group that the forecasts would be presented to the SEC Panel at the scheduled monthly meetings.

SECAS handed over to the DCC to present their findings from the forecast modelling project that has been undertaken. The data presented showed a higher level of accuracy compared to DCC User-submitted Service Request forecasts. The DCC informed the Working Group that to increase the level of accuracy of the forecasts they are using a machine learning approach while exploring the use of advanced data recording computer programs.

The DCC stated that to maintain a high level of quality, it would be advantageous to receive input from DCC Users. This is to give the DCC better foresight of firmware updates and meter installations as this data is not readily available to the DCC.

Another element that would benefit from DCC User input would be understanding the use/forecasted use of rarely used and unused Service Requests. This is to anticipate any increase in the use of Service Requests that are not frequently used. These include:

Unused

* Hand-Held Terminals (HHTs) and local commands
* Sequencing
* Customer Identification Numbers
* Service Opt-Out/Opt-In
* Twin rate ESMES

Rarely used

* Disable/Enable supply
* Auxiliary Load Control
* Load Limiting
* Export
* Read Network Data (gas and electricity)
* Read active power import
* Voltage surveys

Concerns were raised regarding the claimed accuracy of the reports produced by the DCC. It was stated that there are discrepancies between how many Service Requests a DCC User sends compared to what is stated in the DCC reports. This can be as much as a 40,000 difference in Service Requests in each report. The DCC responded that the reports will undergo further refinement to bring the figures closer together. A Working Group member went further to state that the disparity in figures means that there is something fundamentally amiss with the DCC System which needs to be addressed.

The Working Group asked how DCC Users would provide input, and how this would differ from the forecasts they already produce. The DCC responded that this is to be discussed to understand what format and context DCC Users would be happy to provide. The Working Group replied that once agreed, there needs to be strict guidance on how this is executed. Members were concerned that providing input into the forecasts would not differ from the reports they already produce under SEC Section H ‘DCC Services’. DCC Users currently allocate resources to complete the quarterly forecasts and so it must be clear if resource needs to be reallocated. There must be a material benefit of removing the obligation on DCC Users providing their own forecasts.

A Working Group member was more supportive of the modification, stating that removing the obligation results in less work for the DCC User to carry out, but would be happy to help to bolster forecast accuracy where needed. Another Working Group member stated that by the DCC taking the forecasting in house, the DCC will be responsible for any inaccuracies found.

In terms of identifying the use of rarely used Service Requests, or ones that are not used at all, the Working Group commented that this is because businesses are not currently in a position to use them. However, the DCC User should inform the DCC when they are going to initiate the use of Service Requests that are currently thought of as ‘rarely used’ and ‘unused’. The Working Group want to know if this mechanism is to be an obligation or a ‘nice to have’ request.

Questions were raised regarding the legal text. A member asked that as the DCC have already created the model, would this SEC Modification consist of a legal text only. The DCC responded that there would be no additional costs and confirmed the modification only requires legal text amendments.

The subject of Anomaly Detection Thresholds (ADTs) was raised as the current DCC User forecasts are used to calculate a DCC User’s volume of ADTs. The DCC confirmed that ADTs are outside the scope of this modification.

A question was raised whether DCC Users would like to receive the forecast reports from the DCC. The need for this was questioned as it may not be necessary for the DCC to inform DCC Users how many Service Requests the relevant DCC User will send. This question will be included in the Refinement Consultation.

The current SEC Section H ‘DCC Services’ legal text states that DCC User forecasts have to be accurate within +/-10%. The DCC stated that they are confident they can meet this level of accuracy with the new mechanism. A Working Group member commented that upon reviewing the MP116 draft legal text, there is still a reference to DCC Users (under H3.24). This will be removed ahead of the Refinement Consultation. The legal text will also place the obligation on the DCC to produce the reports at a give time (SEC Panel meetings). Once the amendments have been made, the modification will be brought back to the Working Group for further discussion, ahead of the Refinement Consultation.

Next Steps

The following actions were recorded from the meeting:

* DCC are to further refine the forecast models and report back to the OPSG and Working Group
* SECAS and the Proposer will complete a second draft of the legal text