

Public

Issue 89 – Ensuring Demand Control Event (DCE) procedures remain fit for purpose

Meeting 3

26 August 2020

Introduction and Objectives

Agenda item	Lead
1. Introduction and Objectives	Lawrence Jones (Chair)
2. Issue 89 recap	Craig Murray (Lead Analyst)
3. Improvements to existing process	Nicholas Rubin (SME)
4. Settlement Adjustment Processes – case for further change	Nicholas Rubin
5. Next steps	Craig Murray
6. AOB	Workgroup
7. Meeting close	Lawrence Jones

Objectives for this meeting:

- Agree improvements to the current Settlement Adjustment Processes (SAP)
- Discuss case for potential further improvements to the SAP



Issue 89 recap

Craig Murray

Issue 89: recap

Meeting 1:

- Determined main issues with Settlement Adjustment Processes:
 - Different types of DCE event and whether the SAP should be performed for all and, if not, which should be excluded and why
 - Solutions and improvements to the SAP (e.g. should LDSOs send data flows directly to DAs rather than to NGESO)
 - How to account for export/embedded generation in SAP calculations
- Finalised and circulated RFI

Issue 89: recap

Meeting 2:

- Considered the outcomes of the RFI
- Recommended amendments to the P397 solution
- P397 has been sent to Ofgem with a recommendation for approval

Issue 89: recap

Lessons learnt:

- Need for consistent CSDs and data flow definitions
- Potential need for scheduled end-to-end testing
- Consistency and clarity of communications
- Unclear how the number of impacted Export MSIDs affected disconnected volumes
- Any pragmatic relaxation of submission rules should be applied universally and communicated effectively
- Market has changed significantly since SAP introduction
 - Focus on introduction was on managing demand, but this did not consider significant embedded generation



Improvements to existing processes

Nicholas Rubin

Summary of lessons learnt

- Our initial discussions identified the following areas for improvement:
 - Consistency in process descriptions and definitions
 - Communications
 - Pragmatism versus consistency - Getting the balance right
 - E2E testing
 - Overall guidance/support

Consistency in process descriptions and definitions

- During DCE201, some documentation was found to be unclear or contradict other documentation – for example:
 - Definition of an “affected MSID” is unclear
 - An affected MSID is any MSID that is disconnected from the system as part of the DCE, irrespective of the length of time of disconnection
 - BSCP502 (NHH DC) states that if P0238 files are received from different MPIDs, for same DCE, the existing data should be overwritten
 - This is incorrect – the new data should be *appended* to the existing data
- In addition, some file formats also appeared to be unclear or include/exclude required information - for example:
 - SVA data catalogue does not match SVAA Technical Specifications (for example, profile class is included in data catalogue but not in technical specification)

We propose to review and correct all anomalies in relevant documents/data catalogues within the next 12 months, to ensure they consistently reflect the current process

Communications

- DCEs are currently published on BMRS before LDSOs must send details of disconnected MSIDs
- Our proposals:
 - Within 1WD of receiving a DCE Instruction from NETSO, Elexon will
 - Send details of DCEs to all Category A Authorised Persons
 - Publish details of the DCE, e.g. in an Elexon Circular
 - Where SAP must be followed for a DCE, Elexon will liaise with impacted LDSOs and Party Agents to establish points of contact for ensuring direct communications with those involved in the process.
 - These contact details will be discarded following the completion of SAP and refreshed for each future DCE
 - We will make these requirements clear in BSCPs

Pragmatism vs. Consistency

- Because of the issues encountered in following SAP for DCE0201, Elexon needed to work with LDSOs and Party Agents to find solutions as they arose.
- This meant Elexon, LDSOs and Party Agents deviated from the prescribed processes and implemented solutions or workarounds, sometimes at short notice.
- Feedback recognised that Elexon sought to be pragmatic but at times this was at the cost of consistency and fairness
 - Both in terms of following the rules and in how Elexon treated different Parties and Party Agents
- Our proposal:
 - We have listened to feedback and will endeavour to ensure that in future we communicate as consistently and publicly as possible to ensure that all Parties and Party Agents are treated as fairly as possible
 - Our 'communication' proposals should support this

E2E testing

- The Issue Group noted that P305 implementation failed to complete industry-wide end to end testing of the DCE processes, in particular the SAP.
- DCE0201 was not a good reflection of how SAP should be run so does not demonstrate that processes and systems are robust
- There is still value in completing end to end testing to ensure that all Parties, Party Agents and BSC Agents can perform the SAP as is required (and will be clarified, as per our 'Consistent processes' proposals)
- E2E testing is likely to be a challenge to setup and execute: costly and time consuming, during a period of considerable industry change
- Our proposal:
 - Include an Issue Group recommendation to Panel to perform E2E testing
 - We will raise with our internal Programme Review Board to consider how E2E testing may interact with other BSC and industry initiatives over the next 18 months.

Overall guidance and support

- The Group noted that whilst DCE processes are set out in the BSC and BSCPs, there is not a single set of guidance that an interested person could easily refer to.
- Seeing as DCEs can be infrequent the need for a single user-friendly set of guidance is particularly valuable.
- Our proposals:
 - Create a dedicated page on the Elexon website that provides information on DCE processes
 - Create a dedicated Guidance Note that describes how Demand Control Events are treated under the BSC – both in terms of System Price calculation and Settlement Adjustment Processes



Settlement Adjustment Processes – case for further change

Nicholas Rubin

DCE0201 has caused us to consider DCE rules

- Why has DCE0201 caused us to consider whether rules are fit for purpose?
 - Circumstances on the Transmission System triggered Auto-Low Frequency Demand Disconnection (ALFDD) – DCE0201.
 - ALFDD is always SO-Flagged. Therefore DCE0201 had a small impact on the System Price.
 - Concern that benefits of making adjustment outweighed by costs in such cases.
 - Concern that Demand Control may disconnect Distributed Generation
 - i) this appears counter-intuitive during a period when NETSO presumably needs Gen capacity/operation – should NETSO/LDSOs avoid disconnecting DG?
 - ii) is disconnected DG properly reflected in Settlement?
- **Objective** – to consider whether the circumstances for making adjustments to Parties' Imbalances following a Demand Control Event remain correct?
 - Also, to consider whether the current rules properly take account of disconnected activities on the Distribution Networks, in particular Distributed Generation.

DCE Settlement Adjustment Processes - background

- Why do we make adjustments to Parties' Imbalance Volumes following a DCE?
 - To ensure imbalances accurately reflect the actions taken by Parties' and that are within the Parties' control
 - a DCE is an instruction by the NETSO to take action to manage the System;
 - a DCE does not reflect an action voluntarily taken by a Party on a commercial basis, e.g. a BOA or Balancing Service
- When do we make Settlement adjustments?
 - Following any DCE that included Demand Disconnection instructions by NETSO
 - including Auto Low Frequency Demand Disconnection and SO-flagged instructions
 - Excluding Voltage Reduction
- How do we make Settlement adjustments?
 - Estimates of Demand Disconnection (both Imports and Exports) are determined by HH and NHH Party Agents
 - SVAA and SAA add these estimates to Parties' Imbalances as though the Demand Disconnection represented a Balancing Service.
 - Nb Whilst NHH AAs are corrected by removing affected Period Profile Coefficients, HH metered positions are not adjusted/corrected

Case for change - summary

- The case for change can be made in the following areas:
 - Materiality
 - System versus Energy Balancing
 - Diminishing value to adjusting NHH
 - Changes in System use and management
 - Growth of DG
 - Growth in LDSO active network management

Case for change – Materiality

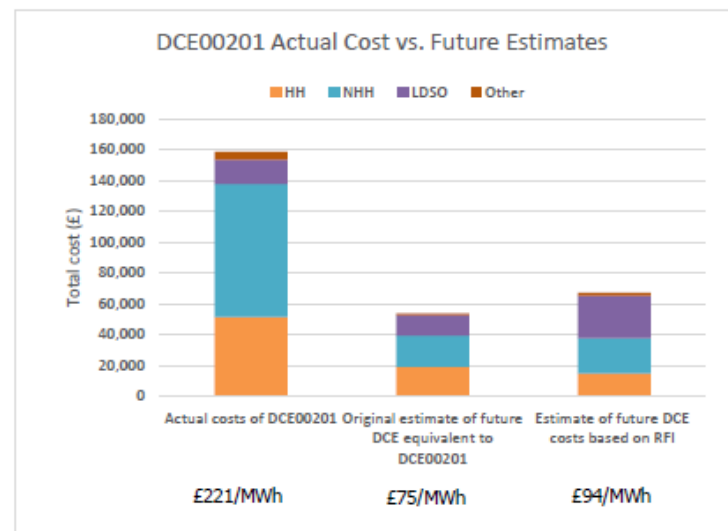
■ Not all Demand Control Events drive high System Prices

- Materiality of DCE0201 was low
 - Value = £46,350.45
 - ALFDD, so SO-flagged

	Settlement Period		
	34	35	36
System Price without Demand Control Volume (£/MWh)	64.5	64.75	64.75
System Price with Demand Control Volume (£/MWh)	64.5	65	65
Demand Disconnection Volume (MWh)	93.1	465.5	155.2
Value (£)	6004.95	30257.5	10088

■ However, RFI demonstrates that costs of Settlement Adjustment Processes may not be as significant as first thought

- Future DCE costs ~£68k



Case for change – System v Energy Balancing

- System Price is intended to reflect the costs of energy balancing an unconstrained system
 - SO flagging seeks to minimise the impact of System balancing
- SO-flagged Demand Control Events likely to have a smaller effect on System Prices than if priced at VOLL (£6000/MWh)
 - SO flagged volumes still represents action taken by NETSO so included in System Price calculation
 - DCE0201 was ALFDD so was automatically flagged because ALFDD used for System balancing
 - Impact on the System Price was very small (<£1/MWh) – because of SO flag and NIV tagging
- Even if DCE is SO-flagged, System Price may be very high (e.g. due to LoLP), and so SAP may be necessary to ensure accuracy and avoid perverse outcomes
- Ofgem's EBSCR decision stated 'Suppliers' Imbalance volumes should be corrected even if the Demand Control action is subject to flagging and tagging'

Case for change – Value of adjusting NHH

- P305 showed that benefit from adjusting AAs may be modest, especially when considering that profiling is not an accurate reflection of actual use
- Is there value in continuing to adjust AAs and estimate NHH disconnection volumes?
- Roll-out of advanced and smart meters mean that size of NHH volume share is shrinking
 - But MHHS won't be implemented until 2023/24
 - NHH metered volumes still accounts for 50-60% SVA daily metered volumes
- NHH SAP costs are largely fixed costs
 - EAC/AA software installed so once list of NHH MSIDs are loaded the software largely automates the process
 - RFI shows that the average cost per NHH Party Agent MPID is only £1082 per event

Case for change – Nature of System Operation has changed

- Nature of Disconnections has changed
 - Originally expectation was that there would be a shortage of Gen Capacity
 - But... EMR arrangements and growth of DG
 - NETSO focus changing from Energy Balancing to System management
 - NETSO has powers to disconnect DG (GC0143)
 - Growth in DG means LDSOs may be (inadvertently) disconnecting more and more DG, which might otherwise support the system
 - LDSOs beginning to actively manage their networks, including disconnections
- Do we take account of DG properly?
 - Should DG disconnection be reflected in System Price calculation?
 - Should LDSO-led disconnections be included in System Price calculation?

Options

- Limit when SAP is run, e.g.
 - Not when SO-flagged
 - Not when ALFDD
 - Not when materiality is low
 - when Costs > benefits?
 - When size of DCE (MWh) is low? How low?

}

Nb original EBSCR decision concluded that adjustment should be made irrespective of flagging

P397 may already implement this option
- Limit the extent or method of adjustment:
 - Only make adjustments for HH Metering Systems?
 - But NHH costs essentially 'sunk cost'
- What about DG and LDSO disconnections?
 - Raise Issue Group(s) to consider in more detail?
 - Raise under Grid Code
- Do nothing

Recommendations

- Limit when SAP is run?
 - **RECOMMENDATION - do nothing**
 - P397 presents a pragmatic solution - await Ofgem decision
 - If approved, Panel can consider alternative Cost/Benefit methods; If rejected – should we recommend an a new proposal?
 - Whilst excluding SO-flagged actions might be a simple option...
 - ...it is contrary to EBSCR and System Prices during flagged DCE may still be high, therefore requiring SAP
- Limit the extent or method of adjustment?
 - **RECOMMENDATION – do nothing**
 - NHH system costs are largely sunk
- What about DG and LDSO disconnections?
 - **RECOMMENDATION – dedicated Issue Group(s)** for NETSO-led DG disconnection and LDSO-led disconnections
 - **RECOMMENDATION – liaise with Grid Code Code Manager** to raise concerns that Demand Control may disconnect DG



Next Steps

Craig Murray



Next Steps

If no further meetings required:

- Issue Group to review Issue Report: **9 – 16 September**
- Present Issue Report to Panel: **8 October 2020**

If a further meeting is required:

- Issue Group meeting 4: **W/C 12 October**
- Issue Group to review Issue Report: **27 – 30 October**
- Present Issue Report to Panel: **12 November 2020**



AOB

