

Public

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

Meeting 1

22 April 2020
Lawrence Jones & Craig Murray

Introduction and Objectives

| Agenda item | Lead |
|---------------------------------------|--------------------------------|
| 1. Introduction and Objectives | Lawrence Jones (Chair) |
| 2. Next Steps | Craig Murray (Lead Analyst) |
| 3. Background | Craig Murray |
| 4. Process Costs and Benefits | Angus Fairbairn |
| 5. Request for Information | Workgroup |
| 6. Lessons Learned | Workgroup |
| 7. AOB | Lawrence Jones |

Objectives for this meeting:

- Understand difficulties encountered when performing the Settlement Adjustment Processes
- Agree the questions to be included in the Request for Information to be issued following the meeting



Next Steps

Craig Murray



Next Steps

- Issue Group to review RFI: **24 April – 30 April**
- ELEXON to issue RFI to industry for 15 WDs: **04 May – 26 May**
- ELEXON to analyse data received and prepare Issue Group materials: **27 May – 10 June**
- Second Issue Group meeting: **W/C 15 June 2020**
- Issue Group to review Issue Report: **24 – 29 June 2020**
- Present Issue Report to Panel: **9 July 2020**



Background

Craig Murray

Issue 89 - Background

- Demand Disconnection Event (DCE) occurred on 9 August 2019 (DCE00201)
 - Low Frequency Demand Disconnection (LFDD), 714MWh
- P305 'Electricity Balancing Significant Code Review Developments' introduced the Settlement Adjustment Processes (SAP) in 2015
 - SAP designed to ensure the accurate calculation of Parties' imbalance volumes following a DCE

DCE00201 is the first instance where the SAP have been used – **are they still fit for purpose?**

Issue 89 - Background

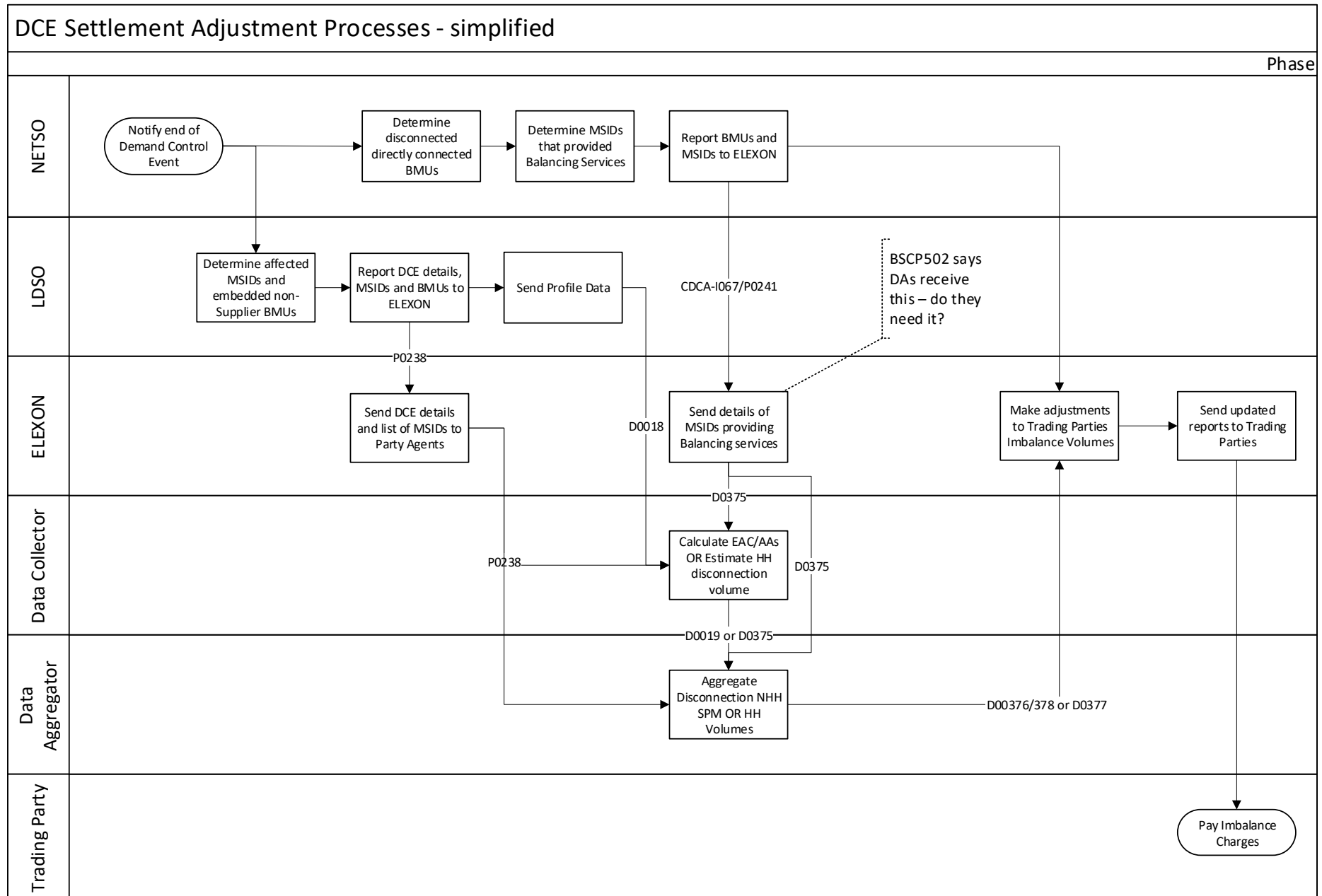
- BSC Panel concerned that the costs of performing the SAP may outweigh the benefits of readjusting volumes after certain types of DCEs (e.g. low materiality, demand disconnection etc.)
- Panel raised P397 with the support of ELEXON to introduce a threshold wherein the SAP would not be carried out where the costs outweigh the benefits
- Ofgem sent back the proposal with a request for further evidence of costs
 - Costs were indicative based on best available information at the time
 - Ofgem requested objective, clear evidence of costs in order to make a decision to reject or approve
- Issue 89 to deliver this information in addition to a holistic review of the SAP



Process costs and benefits

Angus Fairbairn

Summary of process



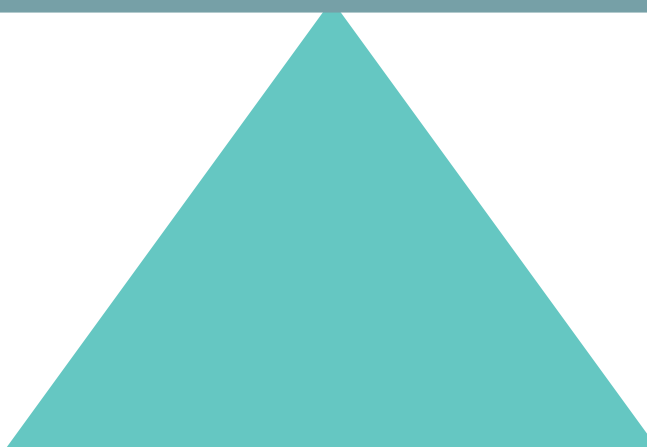
DCE Cost Benefit Analysis

Benefit

Value of Imbalance
Volume created from
the DCE

Cost

Costs incurred by BSC
Parties to adjust the
Imbalance Volumes



DCE00201 Top-Down Benefit Calculation

- To assess the top-down benefit, the data available shortly after the event is used to determine the benefit of running the DCE processes:

| Information | Timescale | Source |
|-----------------------------------|----------------|--------|
| Volume (MW) | Day of Event | NETSO |
| Duration (h) | Day of Event | NETSO |
| Recalculated System Price (£/MWh) | Day+1 of Event | ELEXON |

- Using NETSO information, ELEXON re-run the Imbalance Price calculation for each affected Settlement Period.

$$\text{Benefit per Settlement Period (£)} = \text{Demand Disconnection Volume (MWh)} * \text{New Imbalance Price (£/MWh)}$$

Top-Down Benefit for DCE00201

- Using this methodology for DCE00201, the benefit per Settlement Period is:

| Settlement Period | Original System Price | Recalculated System Price | Volume | Benefit |
|-------------------|-----------------------|---------------------------|---------|---------|
| 34 | £64.50/MWh | £64.50/MWh | 93 MWh | £6.0k |
| 35 | £64.75/MWh | £65.00/MWh | 466 MWh | £30.3k |
| 36 | £64.75/MWh | £65.00/MWh | 155 MWh | £10.1 |
| Total Benefit | | | | £46.4k |

* All values shown have been rounded to the nearest whole £ or MWh

Top-Down Cost for DCE201

- The top-down costs for DCE201 are based on the costs incurred by BSC Parties following the detail notification(s) from the NETSO
- These includes processing costs from multiple BSC Party Types:
 - LDSOs
 - Data Aggregators
 - Data Collectors
 - BSCCo.

Top-Down Cost for DCE00201 Breakdown

| Type | MSIDs | MSIDs per Day | Days | Cost per Day | Cost |
|------|-------|---------------|------|--------------|---------|
| HH | 4,000 | 250 | 16 | £1,000 | £16,000 |

| Type | Agents | Number of Days | Cost per Day | Cost |
|------|--------|----------------|--------------|---------|
| NHH | 20 | 2 | £500 | £20,000 |

| Type | Number of DNOs | Cost per Event per DNO | Cost |
|------|----------------|------------------------|---------|
| LDSO | 14 | £1,350 | £18,900 |

| Type | Cost per DCE |
|--------|--------------|
| BSCCo. | £1,200 |

- Based on current analysis, the SAP has an estimated cost of **£56.1k**
- £9.7k higher than estimated benefits (£46.4k)

August 2019 DCE Settlement Adjustment – R3

- The R3 Settlement Run finished on 11 March 2020
- There were 10 HH and 19 NHH Market Participant Identifiers (MPIDs) affected by the DCE on 9 August 2019.
- A total of ~4k HH MSIDs and ~1m NHH MSIDs were impacted by DCE.
- ELEXON received:
 - 46 data files from 7 HH MPIDs
 - 90 data files from 10 NHH MPIDs
- ELEXON loaded:
 - All HH data files received successfully loaded, meaning adjustments have applied to 81% of DCE impacted MSIDs
 - 83 out of 90 NHH data files received successfully loaded, meaning adjustments have been applied to 52% of DCE impacted MSIDs
- Most load failures were due to formatting issues with data files



Request for Information

Workgroup

ELEXON

Issue 89 – Request for Information

- RFI scheduled to be circulated for 15WD (4 May – 26 May)
- Seeks information on operational and wider costs of the 9 August DCE from NETSO, DAs, DCs, LDSOs and Suppliers
- Information being requested:
 - Party type (Data Aggregator, Supplier etc.);
 - Number of MSIDs impacted by DCE00201 (BSC equivalent of MPAN);
 - MSID type (Half Hourly/Non Half-Hourly);
 - Total costs to carry out the SAP;
 - Overall costs of carrying out the SAP;
 - Total costs that could be attributed to using the processes for the first time;
 - Detail on how the costs were spread (i.e. systems, processes, resources) and whether these are fixed or variable;
 - Indirect/related costs of carrying out the SAP (e.g. rebilling customers)

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- Total time taken to carry out the SAP (in Working Days (WD));
 - Further comment on difficulties you had during the process

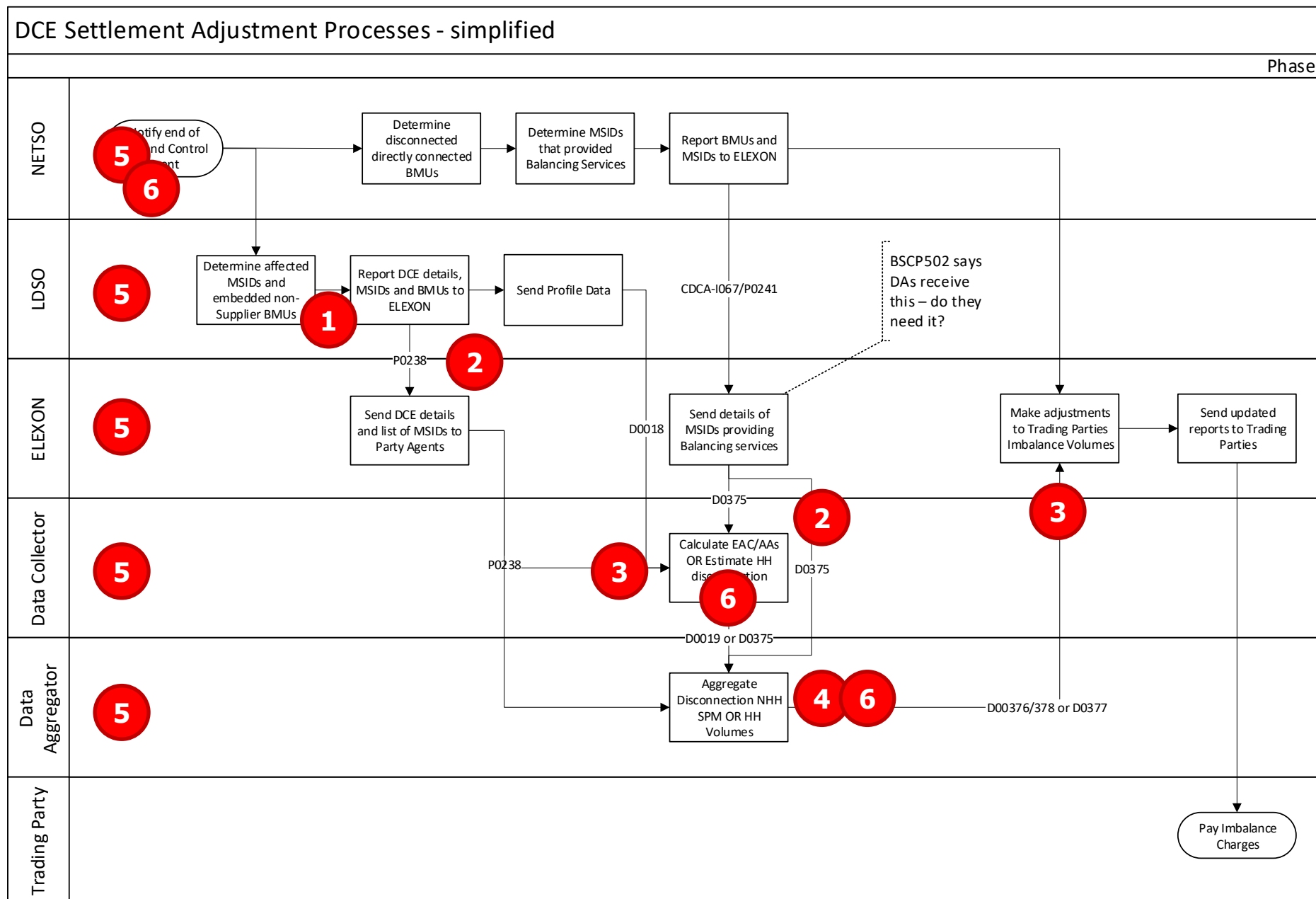
Any further information required?



Lessons Learned

Workgroup

Summary of process and pinchpoints



Operational issues

The August DCE identified several operational issues with the existing process:

Post-P305 teething problems

- 1 Consistent definition of a valid disconnected MSID
 - 2 Consistent descriptions of data flows and processes in CSDs (e.g. BSCPs and DTC)
 - 3 BSC Agent, Party and Party Agent systems
 - 4 DTN Gateway issue for some DAs
 - 5 Who to contact?
 - 6 Achieving deadlines
-
- Workgroup thoughts? Have we missed anything?

- **Description** - LDSOs and Party Agents raised concerns that the BSC and CSDs were unclear or inconsistent about what a valid disconnected MSID is.
 - *'Section S 9.1.2 ...for each SVA Metering System impacted by a Demand Disconnection Event a Demand Disconnection Impacted DSO shall, ...identify each MSID ... but not including ...:*
 - (a) are de-energised;*
 - (b) have been de-registered; or*
 - (c) have voluntarily reduced consumption at the request of the Demand Disconnection Impacted DSO.'*
- **Examples** - Some sites were disconnected for more or less than the 46 minutes that the DCE lasted. However the P305 process requires an estimate for the specific period of the DCE
 - **Q.** How material is this issue?
 - **Q.** Are there other issues/inconsistencies?
- **Fix** - Require Party Agents to estimate disconnection volumes for duration of actual disconnection, rather than only duration of the DCE.
 - Would require a more complex overall solution

Operational issues – consistent CSDs and flow definitions 2

- Description – LDSOs and Party Agents raised concerns over the consistency and clarity of the CSDs (including the DTC).
- Examples
 - DTC describes interfaces that are not described in BSCPs, e.g. the D0375 may be sent to Suppliers but the BSCPs do not describe such a requirement.
 - Data flows cater for 48 SPs to be reported but a DCE may only affect certain SPs within a Day – should unaffected SPs be left null or contain nils?
- **Future Fix** – ELEXON to review CSDs to clarify requirements and ensure consistency
 - **Q.** Would the group like to review red-lined changes as part of the Issue or leave to the CP process?

- **Description** – BSC Agent, Party and Party Agents reported issues with systems.
- **Examples**
 - Failure to produce or load data flows – e.g. NHHDC data loaders
 - Different systems produced data flows in different formats
 - Rules for sending and loading updated P0238 resulted in MSID lists being overwritten rather than updated
 - Appears to be because HH data sent separately to NHH.
- **Fixed** - ELEXON has already provided advice, workarounds and patches to systems to overcome identified system issues. E.g. patch provided to NHHDA for D0377 production, patch for loading P0238
- **Future Fix** - Clarifying CSDs should ensure clear requirements and data formats, e.g. Change rules for sending and loading P0238 files – i.e. update rather than overwrite
- **Q.** Are there outstanding system issues requiring enduring fixes?

- **Description** – the August 2019 DCE required prescribed deadlines to be relaxed, nevertheless some Parties and Party Agents failed to meet revised deadlines.
 - See next slide for summary of key timescales

- **Examples**
 - NETSO did not achieve the DCE+15min
 - Some Party Agents failed to provide data in time for R3 – per revised timetable

- **No Fix?** – we believe that the August 2019 DCE was exceptional and that lessons learnt should ensure that future DCEs can be run within timescales.
 - **Q. Is this reasonable? Are prescribed timescales too ambitious?**

Summary of key activity timescales

| Process | Responsible participant | Timescale | Note |
|---|-------------------------|--|-------------------------------|
| Report DCE Instruction to ELEXON | NETSO | <15mins of instruction | Unless abnormal circumstances |
| Report MSIDs to ELEXON | LDSO | <5wd of DCE end | |
| Report MSIDs to Party Agents | ELEXON | <1wd of receiving P0238 | Unspecified in BSCP15 |
| Send estimate of HH disconnection | HHDC | <19wd of P0238 following DCE | |
| Aggregate HH disconnection | HHDA | According to Settlement Calendar | |
| Send Daily Profile Coefficient Data | ELEXON | <1wd of sending P0238 | |
| Calculate EAC/AA for disconnected MSIDs | NHHDC | Following P0238, otherwise unspecified | |
| Aggregate NHH disconnection | NHHDA | According to Settlement Calendar | |
| Send MSIDs providing Balancing Services | NETSO | <25wd of DCE end | |
| Send MSIDs providing Balancing Services | ELEXON | <1wd of P0241 from NETSO | |
| Update HH disconnection estimate | HHDC | for next Settlement Run, otherwise unspecified | |
| Update EAC/AA following D0375 | NHHDC | Following D0375, otherwise unspecified | |

- **Description** – DAs reported issues sending files over the DTN – i.e. Gateway failed to recognise files

- **Future fix**
 - Interim – DAs sent data to ELEXON by email
 - Enduring – Party Agents to investigate local and DTS Gateway configurations

- **Description** – All participants experienced some level of uncertainty over who to contact in order to raise queries or follow up processes.

- **Future fix** – ELEXON could maintain a list of preferred contacts for all LDSOs, NETSO, Party Agents and at ELEXON
 - **Q.** published on Portal?
 - **Q.** who should be on the list? Authorised Persons (e.g. Cat A)?



AOB

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