

241/10 - TRADING DISPUTE DA686 LESSONS LEARNED

MEETING NAME BSC Panel Meeting

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Purpose of paper For decision

Classification Public

Summary This paper provides a summary of the lessons learned activity undertaken following a Trading Dispute that impacted the Post-Final Settlement Run.

1. History of DA686

- 1.1 The Settlement error associated with Trading Dispute DA686 was caused by a manual error that affected the Post-Final Settlement Run for 41 Settlement Days. The manual error related to the Supplier Volume Allocation Agent (SVAA) end dating a Data Aggregator in error. This resulted in Half Hourly (HH) consumption being understated by 144,000 MWh, causing Non-Half Hourly (NHH) Suppliers to overpay their Trading Charges. ELEXON calculated the total materiality of the Trading Dispute to be £6,344,398.
- 1.2 At an ex-committee meeting on 24 July 2014, the Trading Disputes Committee (TDC) upheld DA686. The TDC determined that four Settlement Days did not meet the applicable Dispute Deadline, and as such, were not subject to correction. The four Settlement Days not subject to correction equated to a materiality of £860,370.
- 1.3 A Party referred Trading Dispute DA686 to the Panel for determination. On 22 January 2015, the Panel upheld the TDC's determination on DA686.

2. Lessons learned activities arising from DA686

- 2.1 Following the Panel's determination on DA686, ELEXON proceeded with a lessons learned activity. We identified a number of work streams for consideration. An overview of the work streams and ELEXON's findings against each are as follows:

Control points when performing Post-Final Settlement Runs

- 2.1.1 The error highlighted the high level of manual intervention required by the SVAA when performing Post-Final Settlement Runs. This presents a risk of human error to a key Settlement process. Whilst manual checks have been introduced to reduce this risk, a system change to automate elements of the process would provide significant improvements.
- 2.1.2 The BSC Auditor has independently audited the Post-Final Settlement Run process, including the additional controls that have been put in place since DA686. The BSC Auditor has concurred with ELEXON's findings and endorsed a move towards automation. There are central costs of approximately £50,000 to implement the required system changes.

Automated validation of volume outputs during the Settlement process

- 2.1.3 The manual error that caused the Settlement Error, as set out in Trading Dispute DA686, excluded one percent of the HH market from the last Reconciliation Settlement Run. The SVAA system raised no validation issues following the large decrease in both volume and Metering System counts. This highlights a lack of fundamental validation within the SVAA system.

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- 2.1.4 ELEXON has since extended its manual validation on volume movements to cover all Settlement Runs. It takes ELEXON one and a half hours per week to conduct these checks, equating to an annual cost of roughly £2,500.
- 2.1.5 System changes are required to convert these manual checks into automated validation. There are central costs of roughly £53,000 to implement the required system changes.

Consideration of the Dispute Deadline for Settlement Errors at the Post-Final Settlement Run

- 2.1.6 Due to limitations with the Dispute Deadline, a proportion of the disputed period could not be corrected. An extension to the deadline would permit full correction of a similar error in the future. A BSC Modification would be required to progress this change. There are no associated system changes required for this Modification.

Escalation of Settlement impacting queries

- 2.1.7 ELEXON raised Trading Dispute DA686 four Working Days following receipt of a query noting volume movements. The lack of immediate escalation highlights a knowledge gap within ELEXON on the Dispute Deadlines. To address this knowledge gap, ELEXON is providing internal training on the Trading Disputes process. This training uses DA686 as a case study to demonstrate the impact a delay can present.

Perceived ambiguities within the BSC regarding the Trading Disputes process

- 2.1.8 When a Party noted the volume movements, it was unclear of the applicable Dispute Deadline. This has highlighted a need for additional guidance and education on the Trading Disputes process.
- 2.1.9 ELEXON has since updated its guidance note for the Trading Disputes process, which is published on the BSC Website. This update provides detail surrounding all Dispute Deadline types and the process by which a Party can raise a Trading Dispute.
- 2.2 Appendix 1 of this paper provides full details on each work stream detailed in section 2.1.

3. Proposed next steps

- 3.1 ELEXON has implemented preventative measures to address each work stream. However, it is ELEXON's view that further changes to the BSC and its central systems would provide further assurance in preventing a reoccurrence. These changes are as follows:
- Automating elements of the Post-Final Settlement Run process;
 - Automating validation of volume outputs during Settlement Runs; and
 - Extending the Dispute Deadline for Settlement Errors at the Post-Final Settlement Run.
- 3.2 We can split the above three proposal into two areas. Proposals a) and b) relate to preventing and identifying such errors going forward. Proposal c) provides flexibility in the timeframes that corrections can be authorised. Whilst the two sets of proposals can be seen as mutually exclusive (i.e. identifying such errors immediately removes the need for an extended deadline), all could be progressed to strengthen controls.
- 3.3 ELEXON's analysis on proposal b) has identified the current manual validation process requires an annual resource equating to roughly £2,500. When offset against the cost of £53,000 to automate the validation, it would take in excess of 20 years to achieve a cost benefit. Due to this, ELEXON recommends that proposals a) and c) be progressed. This will reduce the risk of human error in a key Settlement process and provide flexibility in correcting such errors going forward.
- 3.4 As proposal a) requires a Change Proposal (CP) only, ELEXON can progress it following endorsement by the TDC. As proposal c) requires a BSC Modification, if the TDC endorsed such a change, ELEXON would present a draft Modification Proposal at a later TDC meeting.

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4. TDC's view on proposed changes

4.1 ELEXON presented this lessons learned paper to the TDC at its June 2015 meeting ([TDC201](#)). Attachment A¹ provides a summary of the TDC's view on the proposed changes.

5. Recommendations

5.1 We invite you to:

- a) **NOTE** the lessons learned from Trading Dispute DA686;
- b) **NOTE** the TDC's view on proposed changes; and
- c) **ENDORSE** progression of proposals a) and c) detailed in section 3 of this paper.

Appendices

Appendix 1 – Lessons learned work streams

Attachment

Attachment A – TDC's view on proposed changes

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¹ This attachment will be provided as a late paper.

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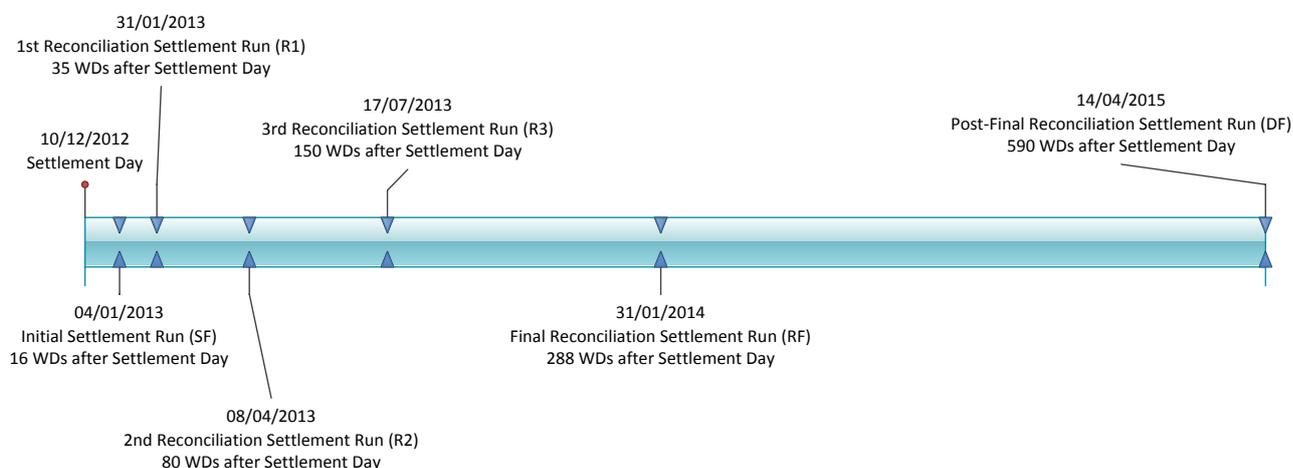
APPENDIX 1 – LESSONS LEARNED WORK STREAMS

This appendix provides the background and details of each work stream covered in the lessons learned activity.

1. Control points when performing Post-Final Settlement Runs

What is the Post-Final Settlement Run?

- 1.1 The Post-Final Settlement Run is a Reconciliation Settlement Run performed after all Timetabled Reconciliation Settlement Runs. The Post-Final Settlement Run is also referred to as DF, which stands for Dispute Final. This Settlement Run is solely used for the correction of upheld Trading Disputes. The DF run is performed 28 months after the associated Settlement Day. The below diagram details when each Settlement Run was performed for the Settlement Day 10 December 2012.



- 1.2 The purpose of Reconciliation Settlement Runs is to allow the opportunity for Settlement accuracy to increase as more data become available. This results in the recalculation and reallocation of Trading Charges.

What controls are in place when performing a DF run?

- 1.3 When the TDC upholds a Trading Dispute, ELEXON provides the SVAA with the identity of the Data Aggregators who are permitted to make corrections at DF. ELEXON will also confirm the Settlement Days and Grid Supply Point (GSP) Groups for which the Data Aggregators are authorised to submit data. ELEXON provides this information on the DF authorisation letter, following every TDC meeting. The SVAA then updates the DF matrix within its system with the details on the letter.
- 1.4 The SVAA system only accepts DF files from the Data Aggregators referenced within the DF matrix. The consumption for any Data Aggregators not referenced in the DF matrix is defaulted to the previous Settlement Run, as no changes are expected since they are not associated with any Trading Disputes. These controls ensure the DF run is used for its sole purpose - the correction of upheld Trading Disputes.

What circumstances gave rise to DA686?

- 1.5 The DF authorisation letter sent by ELEXON following the January 2014 TDC meeting contained an incorrect Trading Dispute end date. This resulted in the SVAA expecting DF files from a Data Aggregator for longer than the upheld disputed period.

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- 1.6 When the DF files were due, the SVAA contacted the Data Aggregator to request submission. Following discussions between the SVAA and Data Aggregator, it was identified that the Data Aggregator was no longer associated with any Trading Disputes being corrected through DF. The SVAA contacted ELEXON for confirmation. ELEXON confirmed this to be the case. ELEXON provided the SVAA with a revised DF authorisation letter reflecting this.
- 1.7 Rather than only removing the Data Aggregator from the DF matrix, the SVAA also removed the Data Aggregator from a standing data table that designated it as operating in the GSP Group. This caused the Data Aggregator's consumption settled in previous Settlement Runs to be excluded at DF.

How can the controls be strengthened?

- 1.8 Following identification of the manual error, ELEXON logged a problem report with the SVAA. The root cause of the Settlement Error was confirmed as the unauthorised and erroneous end dating of the Data Aggregator in the SVAA system. ELEXON raised a service level breach with the SVAA.
- 1.9 ELEXON has since reviewed the DF run process. This review highlighted high levels of manual intervention required. Following each TDC meeting, ELEXON will manually populate the DF authorisation letter. The SVAA will translate this letter for manual input into the SVAA system. Any errors during population of the letter, translation or manual input have the potential to impact Settlement accuracy.
- 1.10 ELEXON has performed a full review of the current DF authorisation letter. Additional information is now included to facilitate the management of the letter going forward.
- 1.11 The SVAA has reviewed its controls when performing DF runs. The SVAA has strengthened the checks it performs when inputting data into the SVAA system. The SVAA has also updated its LWIs to cover the scenario that gave rise to DA686. Whilst this reduces the likeliness of a reoccurrence, the manual process is still subject to the possibility of human error.
- 1.12 Due to the above, ELEXON has raised an impact assessment to assess the changes required to automate the process. Under the proposed process, the SVAA system will accept a file that will automatically populate the DF matrix. ELEXON will produce this file on a monthly basis following each TDC meeting. This will remove the process by which the DF authorisation letter is translated and manually entered into the SVAA system.
- 1.13 It would take 12 weeks to develop and test the system changes to automate the process. The associated cost of the change is approximately £50,000. As this change would require a BSC System change and amendments to the SVAA User Requirements Specification (URS), a CP is required. ELEXON would implement this CP as part of a BSC System release.
- 1.14 To obtain an independent view of the controls now in place, ELEXON referred the issue to the BSC Auditor for inclusion in its annual audit of BSC central systems. The BSC Auditors findings are as follows:
- The process for entering DF standing data is highly manual, and involves transposing information twice before it gets into the SVAA system. This raises the potential for human error.
 - There is no audit trail in the system for DF standing data, meaning the BSC Auditor could only check the information that is currently entered; it is unable to go back to a previous period and check that the standing data was correct at that time.
 - The BSC Auditor's checks on standing data for March 2015 indicated several instances of incorrect data in the system, however these related to future DF runs. These errors were corrected with no impact on Settlement.
 - There is a secondary review process in place, however given the inconsistencies in the point above the BSC Auditor is hesitant in calling it an effective control. The process is so manual and complex that it

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would be hard for a reviewer to pick up all errors. The BSC Auditor endorsed the proposed move towards automating this process.

- 1.15 When the original DF authorisation process was implemented, a small number of Trading Disputes were envisioned being processed through DF at a time. At the point the Settlement Error for DA686 occurred, there were 80 Trading Disputes referenced on the DF authorisation letter. This volume had made the existing process no longer fit for purpose. ELEXON feels that the proposed automation would significantly reduce the risk to Settlement the current process presents.

2. Automated validation of volume outputs during the Settlement process

How did the Settlement Error impact Settlement?

- 2.1 The Settlement Error excluded one percent of the HH market for 41 DF Settlement Days. This equated to a drop in HH consumption by 144,000 MWh and Metering System counts by 1,250.
- 2.2 Through the effect of GSP Group Correction Factor² (GSPGCF), all NHH Suppliers were allocated the understated consumption based on their energy share in the GSP Group. This resulted in NHH Suppliers active in the GSP Group overpaying £6,344,398 in Trading Charges.

What has the Settlement Error highlighted?

- 2.3 The Settlement Error caused the impacted GSP Groups HH consumption and Metering System counts to decrease in excess of 10 percent per Settlement Day. However, the SVAA system raised no validation flags relating to the large movements. This highlights that the SVAA system lacks fundamental validation of volume outputs during the Settlement process.

How can the controls be strengthened?

- 2.4 Prior to DA686, ELEXON conducted operational checks on volume movement across Settlement Runs with a particular focus on the Interim Information (II) and Initial Settlement (SF) runs. Following identification of DA686, ELEXON immediately extended these checks to cover movements across all Settlement Runs. ELEXON performs these manual checks on a daily basis. ELEXON estimates its annual cost to perform such checks to be roughly £2,500.
- 2.5 In order to address the lack of functionality within the SVAA system, ELEXON has raised an impact assessment to assess the changes required to introduce automated validation of volume outputs during the Settlement process. Under the proposed process, the SVAA system will raise a validation flag where there is a movement in Metering System counts, uncorrected consumption or GSPGCF outside a defined threshold. A formal process would be implemented that required such validation flags to be escalated to ELEXON immediately for investigation. ELEXON would then determine the appropriate course of action. This proposed change would automate the current manual validation and formalise the escalation process.
- 2.6 It would take 16 weeks to develop and test the required system changes. The associated cost of the change is approximately £53,000. As this change would require a BSC System change and amendments to the SVAA URS, a CP is required. ELEXON would implement this CP as part of a BSC System release.

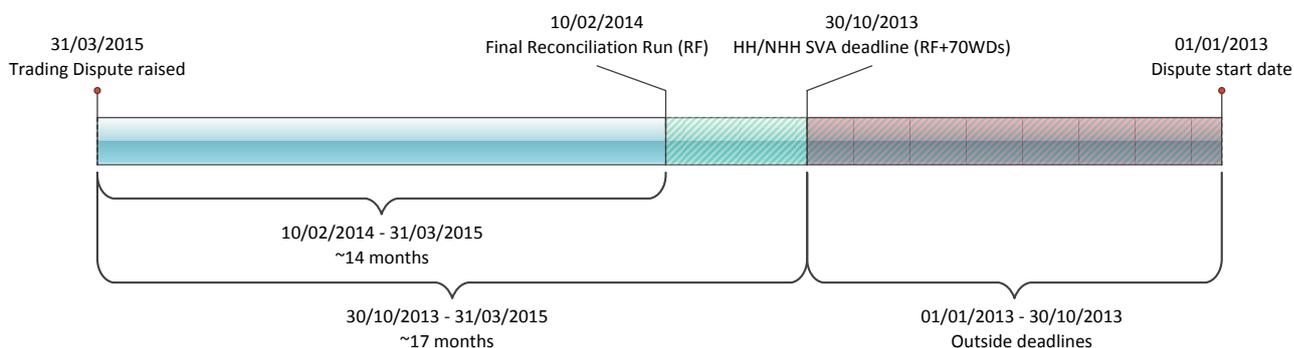
3. Consideration of the Dispute Deadline for Settlement Errors at the Post-Final Settlement Run

² GSPGCFs are used to ensure that the total energy allocated to Suppliers in each Settlement Period in each GSP Group matches the energy entering the GSP Groups from the transmission system, adjoining GSP Groups and through embedded generation.

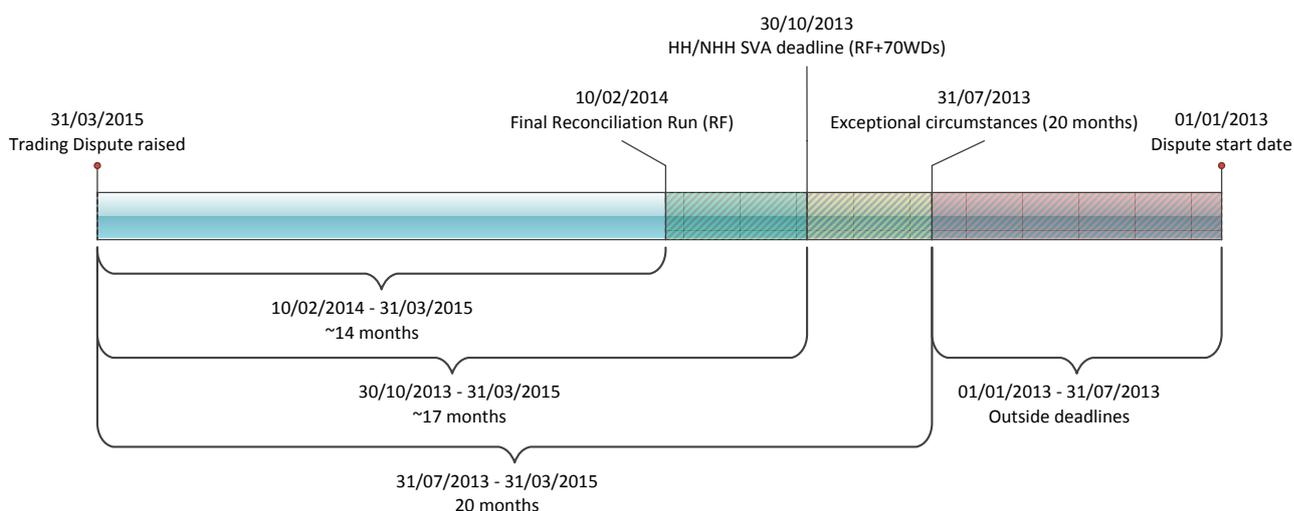
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What are Dispute Deadlines?

- 3.1 Dispute Deadlines define the period that can be corrected when a Trading Dispute is upheld. These deadlines seek to provide an end-point for the reconciliation of Trading Charges.
- 3.2 There are different Dispute Deadlines depending on the Trading Dispute type. All these deadlines reference the date at which a Trading Dispute is formally raised with ELEXON.
- 3.3 The most common Trading Dispute type is HH or NHH Supplier Volume Allocation (SVA), which both have a Dispute Deadline of the Final Reconciliation Settlement Run (RF) plus 70 Working Days. This deadline equates to roughly 17 months. Therefore, if a BSC Party raised a Trading Dispute today for a HH or NHH SVA dispute type, the TDC could permit correction of Settlement Days that occurred roughly 17 months from today. Please see below an example of this deadline:



- 3.4 If the TDC determines that exceptional circumstances apply, it may waive the requirement to raise the dispute by the Dispute Deadline. However, the TDC may not waive the Dispute Deadline to allow a Trading Dispute to be raised later than 20 months after the relevant Settlement Day in which the error occurred. Therefore, if a BSC Party raised a Trading Dispute today and the TDC determined exceptional circumstances to exist, it could permit correction of Settlement Days that occurred 20 months from today. Please see below an example of this deadline:



What Dispute Deadline was applicable for DA686?

- 3.5 Trading Dispute DA686 related to a Settlement Error in the DF run. Impacted Settlement Days for these Trading Dispute types are already 28 months past when the Settlement Error first occurs. This is already outside the 20 month exceptional circumstances deadline.

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- 3.6 BSC Section W1.2.6(b) provides a Dispute Deadline for Settlement Errors that occur during the DF run. Under this deadline, the Trading Dispute must be raised no later than one month following the DF Settlement Run in which the Settlement Error first occurred.
- 3.7 As ELEXON raised DA686 on 2 July 2014, DF Settlement Runs performed on or after 2 June 2014 are within the deadline. On the 2 June 2014, the Settlement Administration Agent (SAA) performed a DF Settlement Run for the Settlement Day of 5 February 2012. As the disputed period covered the DF Settlement Days between 1 February and 12 March 2012, the period between 1 and 4 February 2012 was determined outside the Dispute Deadline.

How could a reoccurrence be prevented?

- 3.8 Whilst the DF run's sole purpose is to correct Settlement Errors, there is the possibility of a Settlement Error occurring whilst correction is performed. BSC Section W1.2.6(b) provides a Dispute Deadline of one month for such Settlement Errors.
- 3.9 Settlement Errors at DF Settlement Runs impact Settlement Days roughly 28 months ago. Therefore, under the one month Dispute Deadline detailed in BSC Section W1.2.6(b), historical Settlement Days can be disputed at up to 29 months.
- 3.10 When the one month deadline was implemented, it was envisioned that Settlement Errors in DF runs would be immediately identified and raised as Trading Disputes. ELEXON maintains a register of determinations, which currently details the determinations on 478 Trading Disputes. ELEXON has identified five (1% of total) other Trading Disputes that relate to Settlement Errors in DF runs.³ The total materiality of these Trading Disputes equates to £1,367,000. These five disputes met the one month Dispute Deadline.
- 3.11 Extending the Dispute Deadline would increase the timescales under which reconciliation of Trading Charges occurs. However, it would provide flexibility for correcting such errors going forward. In the context of DA686, an extended deadline would have permitted the full correction of the Settlement Error.
- 3.12 ELEXON has discussed the appropriateness of the Dispute Deadline with Parties impacted by the Settlement Error. Three Parties confirmed that validation on DF volumes is performed on a monthly basis. It was noted that such errors might only be identifiable when performing validation over a number of Settlement Days. Due to these working practises, there is the potential for Parties to note such errors on the boundary of the one month deadline. An extension to the Dispute Deadline would align with the validation activities currently undertaken by Parties.
- 3.13 A BSC Modification is required to extend the Dispute Deadline for Settlement Errors that occur during DF runs. This Modification could extend the one month deadline, or provide the TDC discretion to grant exceptional circumstances for Settlement Errors at DF runs.

4. Escalation of Settlement impacting queries

How was Trading Dispute DA686 identified?

- 4.1 On 26 June 2014 at 16:40, a BSC Party sent an email query to its Operational Support Manager (OSM) at ELEXON. The query related to large movements in corrected volumes being noted between RF and DF runs in a single GSP Group commencing from February 2012.

³ ELEXON only holds information on Settlement Errors at DF runs where a Trading Dispute was raised.

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- 4.2 ELEXON's investigations highlighted that these volume movements did not relate to any upheld Trading Disputes being corrected through the DF run. ELEXON raised a Trading Dispute on 2 July 2014, four business days after the initial query was raised.

How was the Dispute Deadline impacted?

- 4.3 To correct the full disputed period under the applicable Dispute Deadline, ELEXON, a BSC Party or the Transmission Company must have raised a Trading Dispute no later than 27 June 2014. As the query noting volume movements was sent on 26 June 2014 at 16:40, there was a 24 hour window for ELEXON to formally raise the Trading Dispute to correct the entire period.
- 4.4 As ELEXON raised the Trading Dispute on 2 July 2014, four Settlement Days were outside the Dispute Deadline.

What caused the delay?

- 4.5 The query sent by the Party on 26 June 2014 noted large movements between RF and DF runs. On the same day, the query was forwarded onto the team within ELEXON responsible for market analysis, who responded to the OSM on 1 July 2014. This response was provided to the raising Party on the same day. Following a further query by the Party, the OSM escalated the query to the team within ELEXON responsible for the Trading Disputes process on 2 July 2014. ELEXON subsequently raised a Trading Dispute on 2 July 2014.
- 4.6 We have looked into the timeline of events prior to the initial response being provided. It was identified that the member of ELEXON assigned the original query was conducting a time critical piece of work. This caused the 24 hour window, in which the dispute needed to be raised, to be missed.

How could the process be improved?

- 4.7 The circumstances under which DA686 was raised highlights a knowledge gap within ELEXON on Dispute Deadlines. To address this, ELEXON is in the process of running internal training on the Trading Disputes process. This session is to be provided to all ELEXON's operational teams. Using DA686 as a case study, the training covers the different Dispute Deadlines and the impact on Settlement they can present.

5. Perceived ambiguities within the BSC regarding the Trading Disputes process

What ambiguities within the process have been raised?

- 5.1 When a Party noted large volume movements at the DF run, it was unsure of the applicable Dispute Deadline, and as such, the process by which it could raise a Trading Dispute. This resulted in the Party raising the query with ELEXON.

What are the provisions of the BSC?

- 5.2 The Dispute Deadlines for different dispute types can be found in BSCP11 paragraph 2.1. For ease of reference, these deadlines are as follows.

Trading Dispute Type	Dispute Deadline
General Dispute Deadline	20 th Working Day following the day on which the relevant Settlement Run was carried out.
Trading Dispute relating to SVA Half Hourly data and processes (SVA Half Hourly Dispute)	70 th Working Day following the carrying out of the Final Reconciliation Run (RF).
Trading Dispute relating to SVA Non Half Hourly data and processes (SVA Non Half Hourly Dispute)	70 th Working Day following the carrying out of the Final Reconciliation Run (RF).
Trading Dispute concerning data relating to profile	3 rd Working Day following the Settlement Day in

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Trading Dispute Type	Dispute Deadline
coefficient.	which the affected Settlement Period(s) occurred.
Trading Dispute relating to Market Domain Data.	2 nd Working Day following the Settlement Day in which the affected Settlement Period(s) occurred.

- 5.3 The Dispute Deadlines detailed in BSCP11 paragraph 2.1 are subject to Section W1.2.6. This section provides the Dispute Deadline for Settlement Errors in DF runs.
- 5.4 In regards to the process by which a Party can raise a Trading Dispute, the BSC does not draw a distinction for raising a Trading Dispute for different dispute types. Section W3.2.1 states that Trading Disputes are to be raised in accordance with BSCP11. BSCP11 paragraph 1.4 provides that a Trading Dispute will not be accepted or processed unless a BSCP11/01 form 'Trading Dispute Raising Form' is submitted.

What has been done to clarify the process?

- 5.5 ELEXON has updated its guidance note on the Trading Disputes process. This updated guidance note provides information on all Trading Dispute types and the process by which a Party can raise a Trading Dispute.
- 5.6 To alert Parties to the updated guidance, ELEXON distributed a [Newscast article](#) and published a [news item](#) on the BSC Website.