

PUBLIC

Annual Performance Assurance Report

2018/19



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PAB220/09
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MESSAGE FROM THE PERFORMANCE ASSURANCE BOARD (PAB) CHAIR

Another challenging 12 months for BSC Parties and their agents. During 2018/19, we have seen 10 Modifications to the BSC and 16 Changes to Code Subsidiary Documents implemented. This is in addition to changes introduced by other industry Codes and the ongoing commercial pressures on BSC Parties and their agents.

The Performance Assurance Board continues to have a heavy workload with the members dealing with almost 200 papers during the year. During 2018/19, the committee members were asked to approve 11 Supplier plans designed to either achieve the industry threshold of 99% actual volume in the half hour market or 97% actual volume in the non-half hour market. We were delighted that two Supplier Agents accepted an invitation to provide the committee with a different perspective on the difficulties around obtaining Meter readings. These sessions were very informative and we will look to repeat this exercise over the next twelve months.

The Performance Assurance Framework review continues with changes made to the Risk Evaluation Methodology, Risk Evaluation Register and the Risk Operating Plan. We have seen the number of Settlement Risks reduce from 208 to 34 with effect from 01 April 2019 with importantly, a forecasted financial impact for each risk. The new format of the register, with additional fields provides useful information about each risk.

The BSC Auditor noted in its market summary that Supplier of Last Resort (SoLR) events trigger rapid unplanned growth for the onboarding Supplier, which further adds to pressure on resources. The BSC Auditor repeated its observation that lack of Training and Knowledge is one of the most prominent root causes for failures, which is especially prevalent in Meter Operator Agents. The BSC Auditor is issuing an unqualified audit opinion again for 2018/19. The Technical Assurance Agent noted an improvement in the volume of non-compliances identified.

Over the next 12 months, Smart Meter rollout continues to aim for completion by the end of 2020, there is also changes afoot in the Code Governance landscape with the Energy Code Review and the development of the Retail Energy Code.

I would like to thank both the industry and the PAB for the contributions they have made to this piece of work, and look forward to the refreshed approach to delivering the PAF that I'm sure the review will result in.

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OVERVIEW

The Performance Assurance Board (PAB) is required, by [Balancing and Settlement Code \(BSC\) Section Z 8.1](#), to prepare an Annual Performance Assurance Report (APAR), which includes:

- Results from risk evaluation and risk assurance procedures focussing on the outcome of deployment of Performance Assurance Techniques (PATs)
- The actual costs associated in delivering the Performance Assurance Framework (PAF) compared with the estimated costs set out in the Risk Operating Plan
- Recommendations for modifying the PATs

Risk Performance and Assurance Procedures

ELEXON strives to deliver a transparent, risk based PAF focusing on the key Settlement Risks affecting BSC Parties. In collaboration with our customers, and with support from the Operational Support Managers (OSMs), we use a range of techniques to monitor performance against BSC obligations, detect instances of non-compliance and, where appropriate, put in place corrective measures.

Settlement Risk performance data and a summary of each of the PATs are included in Appendices A and B.

During 2018/19, the following areas stood out as noteworthy:

The PAF Review successfully delivered the PAF Procedures workstream, inclusive of an improved [Risk Evaluation Methodology](#) (REM) and [Risk Evaluation Register](#) (RER). These documents were issued for Industry Consultation in conjunction with site visits that assisted parties in understanding the Performance Assurance Framework and the changes proposed. The Industry Consultation elicited positive responses supportive of the new REM and RER Documents and the PAB approved both of them for the 2019/20 Performance Assurance Operating Period (PAOP).

ELEXON used the improved PAF Documents to produce a [Risk Operating Plan](#) (ROP) for the upcoming PAOP.. The ROP outlined 8 Settlement Risks that ELEXON will focus resource on for the 2019/20 PAOP. The risks were selected based on the PAB Strategy, the overall impact of the risk, and if the risk covered an area where ELEXON needed to establish a better understanding, to assess the risk more accurately.

SR0072: The risk that Non Half Hourly Data Collectors (NHHDCs) process incorrect Meter readings

The average volume of NHH gross error was 29.5 GWh (post RF) which is well below the threshold of 165 GWh. Once again, Parties achieved the lowest average GWh's gross error during this PAOP since July 2014, a total of 15.0 GWh of gross error in July 2018.

The average volume of NHH gross error was 115.0 GWh (pre RF); whilst this is below the threshold, it is an increase on the average volume of 86.5 GWh seen in 2018/19. Parties processes relating to NHH Gross Error and Large EAC/AA should be reviewed where ELEXON identifies any party with an Amber or Red Business Unit Settlement Risk Rating (BUSRR) in relation to SR0072.

There are three Error Failure Resolution (EFR) Plans ongoing for SR0074.

SR0024 and SR0025: Missing Meter Technical Details (MTDs)

The Performance of missing MTDs is split between Non-Half Hourly (NHH) – SR0024 and Half Hourly (HH)- SR0025.

In Non-Half Hourly, SR0024, the average performance is 0.05% below the threshold, although the performance is deteriorating resulting in a trend that would lead to performance exceeding the threshold in the early part of 2019/20.

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In the Half Hourly, SR0025, the average performance is 0.25% above the threshold, although the performance is improving resulting in a trend that would lead to performance falling below the threshold in 2019/20.

There are no EFR Plans attributed to SR0024 & SR0025

SR0033 and SR0034: Missing Meter Technical Details

The Missing Meter Technical Details TAPAP audit findings report recommended the rescoring of SR0024 & SR0025, and SR0033 and SR0034. This recommendation resulted from the TAPAPs finding that missing or late MTDs were more frequently occurring in MOA to MOA transfers, rather than in MOA to DC transfers, as had previously been reported. ELEXON raised the Within Period Revision (WPR) to the RER in [PAB213B](#). The WPR outlined the decrease in gross probability from four to two for both SR0024 & SR0025, as well as an increase from three to four for SR0033 & SR0034. The WPR also outlined the increase in gross impact from two to three for both SR0033 & SR0034, whilst the impact of SR0024 & SR0025 remained unchanged. The resultant gross and net significance of SR0024 & SR0025 was reduced from twelve to six, whilst the gross and net significance of SR0033 & SR0034 was increased from six to twelve.

ELEXON took the decision not to implement reporting against SR0033 & SR0034 in light of the recommendations from the PAF Review. The PAF review had brought together and evaluated the risks associated with the transfer and processing of MTDs, into Risk 006 of the Risk Evaluation Register 2019/20 that the PAB approved for consultation in [PAB214](#). The Risk Operating Plan 2019/20 that followed the approval of the RER did not deem Risk 006 as a focus risk for the 2019/20 PAOP, however the PAB approved the transition plan of introducing reporting on Risks as part of the PAF Transition Period in [PAB220](#).

SMART Meter Technical Detail Report

The SMART MTD report provides market level performance on the sending of MTDs, volume of installations, and the NHH Settlement performance. At the start of the 2018/19 Performance Assurance Operating Period 4.47m SMETS1 Meters and just 361 SMETS2 Meters had been installed. ELEXON reported an increase in the proportion of SMETS1 MTDs being sent late, month on month from January to April 2018, with 3.15% being sent in April. ELEXON reported the improving trend, although poor performance of sending SMETS2 MTDs within BSC timescales, with 12.47% sent late, and 1.11% corrections sent in April 2018. ELEXON recommended a TAPAP investigating the reported poor performance to the PAB in August 2018, the scope of which was approved ex-committee at [PAB211](#).

ELEXON delivered Notification of Technical Assurance of Performance Assurance Parties (TAPAP) Audit to parties on 1 November 2018. ELEXON reported the performance of sending MTDs within BSC Timescales on SMETS1 Meters had fallen to 4.18%, with 5.98m Meters having been installed. The performance of sending MTDs within BSC timescales for SMETS2 Meters had improved to 1.14% in November 2018, and the proportion of corrections had improved to 0.06%, with 86K Meters installed.

ELEXON delivered the Party Audit findings reports between February and May 2019 and the Audit findings report to the PAB in [PAB217](#). ELEXON reported the performance at the close of the 2018/19 PAOP, the late sending of SMETS1 MTDs had risen further to 4.32%, with 6.48m Meters installed. Following ELEXON's reporting of the improved performance of timely and accurate SMETS2 MTDs, the SMART MTD Report of March 2019 reported 3.18% of MTDs sent late and 0.27% corrected, with 307K SMETS2 Meters installed.

SMSR0006: Meter Technical Details are inaccurate or missing as a result of MOA Processes

ELEXON highlighted its concern over eight NHHMOAs that had been sending late MTDs in [PAB208](#). ELEXON noted the impact to Settlement accuracy that late or missing MTDs pose, even where instances are resolved prior to the Final Reconciliation Settlement Run (RF).

ELEXON conducted a Technical Assurance of Performance Assurance Parties (TAPAP) check with the aims of identifying root causes for non-compliance, quantify the material impact of late and missing MTDs, and to validate the exceptions highlighted in the SMART MTD report. The TAPAP was conducted at three NHH Meter Operator

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Agents (NHHMOA) and a managed service provider. ELEXON identified non-compliances at all NHHMOA audited, and found the managed service provider to be complicit in the non-compliances, although remain outside of the governance of the BSC.

Key non-compliances identified were:

- MTDs sent outside of BSCP514¹ Timescales;
- Meter exchanges undertaken without a valid appointment; and
- Meter exchanges undertaken without sending the relevant data flows.

The root causes identified across the NHHMOAs are as follows:

- Lack of operational knowledge, poor internal processes and inadequate resourcing;
- Lack of focus on data quality; and
- Lack of understanding of the impact errors have on Settlement.

ELEXON highlighted the significant amount of material failures and impacts to Settlement in the early stages of Off-the-shelf operations. Process improvements have been implemented throughout operations. ELEXON noted whilst the off the shelf business model reduces the barrier to entry for market participants; it allows business' with no prior expertise, or appropriately trained resource available to operate within the market.

ELEXON recommended that EFR is not turned on for those NHHMOA audited as the material risk to settlement was improving and did not warrant the resource required for the EFR Plans, although their performance continue to be monitored and fed into risk reviews. Guidance documents have been produced for Suppliers to advise on the process of backdating appointments, ELEXON will publish these following further information gathering from PAPs.

SR0081: HH energy settled on actuals

ELEXON has reported the halt in decline of HH Settlement performance reported in the 2017/18 APAR. ELEXON has reported a slight albeit essential improvement in the performance of SR0081 at (SF), an increase of 0.15% to 98.70% just 0.30% under the performance standard. ELEXON has reported the average performance at First Reconciliation Settlement Run (R1) across the PAOP at 99.13% and increase of 0.05% from 2017/18 and above the standard.

ELEXON note due to the completion of P272 initiative and the development of the Elective Half Hourly Settlement programme, there are an increasing number of Meters that are to be settled Half Hourly. Therefore, whilst the Market performance is improving there is still progress to be made to drive market performance above the performance standard.

ELEXON had seven EFR Plans open against Parties at the start of the PAOP for SR0081b, of those; three parties have improved their performance enough for PAB to turn EFR off. The four Parties whose EFR plans remain open have been escalated to the PAB.

¹ BSCP514: SVA Meter Operations for Metering Systems Registered in SMRS

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SR0074: Non Half Hourly (NHH) energy settled on actuals

ELEXON has reported an improvement in the market performance of SR0074 at RF, an increase of 0.08% to 96.68% just 0.32% below the performance standard. Whilst the Market performance is improving, there is still progress to be made to drive market performance above the performance standard.

ELEXON had 34 EFR Plans open against Parties at the start of the PAOP for SR0074, of those; eight Parties have improved their performance enough for the PAB to turn EFR off. There are 26 Parties that remain with EFR turned on, and of those' six parties have been escalated to the PAB.

SR3019: Quality of HH MTDs

SR3019 replaced SR0022 and SR0028 and combines the BUSRR criteria for both risks to assess the quality of MTDs. The BUSRR for SR3019 uses Performance Assurance Reporting and Monitoring System (PARMS) Serial data (HM13) which reports the number of MTDs that are re-submitted with a Key Field change, which could indicate errors. The BUSRR also considers non-compliances reported by the TAA that relate to MTDs. Both Suppliers and Half Hourly Meter Operator Agents (HHMOAs) are assessed through this BUSRR.

ELEXON has reported a growing improvement in the performance of SR3019 across 2018/19, surpassing the required level of accuracy in October 2018 with 1.78% of MTDs resubmitted. ELEXON has reported the average performance of SR3019 at 2.64% in 2018/19, just 0.64% above the required level, in comparison to 2017/18 in which ELEXON reported the average performance of SR3019 at 4.39%.

In conjunction with the improvement seen in MTD re-submission ELEXON has reported the continued improvement in the MTD related non-compliances identified by the Technical Assurance of Metering report. The Technical Assurance Agent reported 5.70% of non-compliances identified were MTD related, a reduction of 0.38% from the report in 2017/18.

COSTS OF DELIVERING THE PAF

The BSC requires ELEXON to compare the actual costs of delivering the PAF and implementing the PAFs with the estimated costs set out in the Risk Operating Plan (ROP) for the same period. The table below includes the actual and forecasted costs for 2017/18 for information.

	Operational	Contracted	Total
2018/19 ROP forecast	£1,047,436	£2,515,718	£3,563,154
2018/19 actual	£986,856	£2,310,893	£3,297,749
2019/20 ROP forecast	£586,957	£2,563,512	£3,150,469
2019/20 actual	£564,995	£2,426,090	£2,991,085

Operational costs

Operational costs cover the provision of ELEXON staff to deliver the PATs. The 2018/19 forecast was calculated by applying standard daily rates to the amount of staff time allocated to PAF activities.

The reduction in actual operational costs compared to forecast costs was a result of underspend on people costs, due to delays in filling vacated posts.

Contracted costs

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The contracted costs cover outsourced provision of the following:

- Annual Balancing and Settlement Code (BSC) Audit
- Delivery of the Technical Assurance of Metering (TAM) by the Technical Assurance Agent (TAA)
- The Qualification Service
- Support and maintenance for the risk database (ATLAS)
- Support and maintenance of the Performance Assurance Reporting and Monitoring System software

The £137,422 reduction between the ROP forecasted and actual contractual costs is due to:

- The BSC Operational Audit underspend of £60k is due to the improvements made in the Transformation project, which lead to increased efficiency with the Audit.
- The Qualification and Re-Qualification underspend of £173k is due to almost half the budgeted Qualifications being processed alongside an increase spend on Re-qualification.

These savings were offset in part by an increase against budget of PAB expenses (actual spend of £11.5k compared to budget of £9.6k, largely due to an increase in two day PAB meetings) and in ad hoc costs incurred through requests for reporting from the PAB.

FURTHER INFORMATION

If you have any questions or require further information on the Annual Performance Assurance Report, please contact:

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APPENDIX A: SETTLEMENT RISK PERFORMANCE

Gross error

SR0072: The risk that Non Half Hourly Data Collectors (NHHDCs) process incorrect Meter readings, resulting in erroneous data being entered into Settlement

Error volumes below the green line in Chart 1 are considered acceptable. During 2018/19 the volume of gross error across industry remained below the 165 GWh threshold. The average gross error volume post RF² rose to an average of 29.5 GWh in 2018/19, from the average gross error volume of 24.5 GWh in 2017/18.

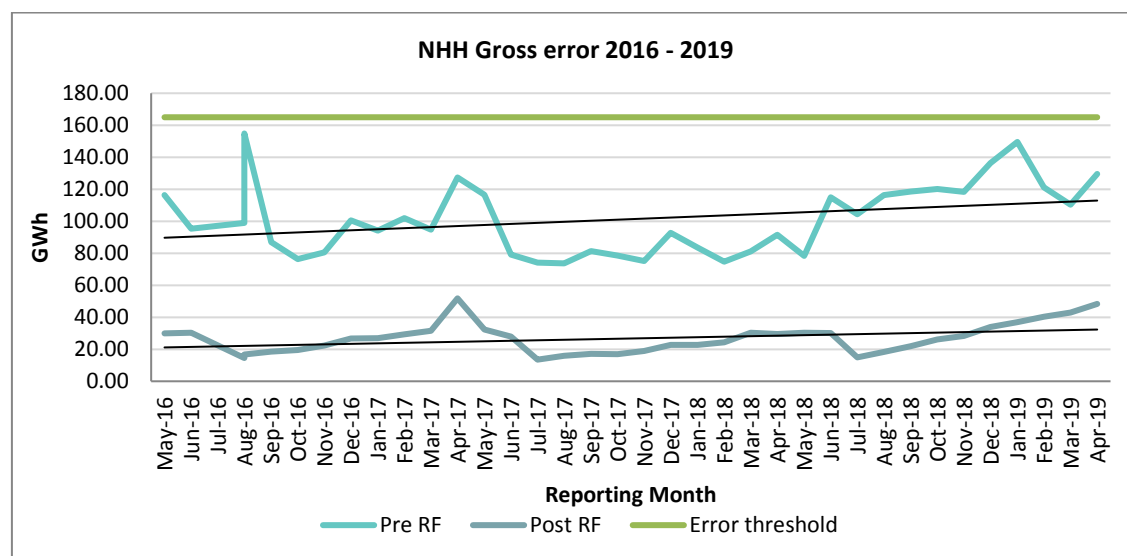


Chart 1: Gross error

² Final Settlement Run

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Energy settled on actual Meter reads

SR0081: The risk that Half Hourly Data Collectors (HHDCs) do not process valid HH readings resulting in estimated data being entered into Settlement

The downward trend in HH performance at SF has stalled. On average, in 2018/19 industry settled 98.70% (below the 99% standard) of HH energy on actual Meter reads at SF³. This compares with 98.55% in 2017/18. At R1⁴, on average 99.13% of HH energy was settled on actual Meter reads.

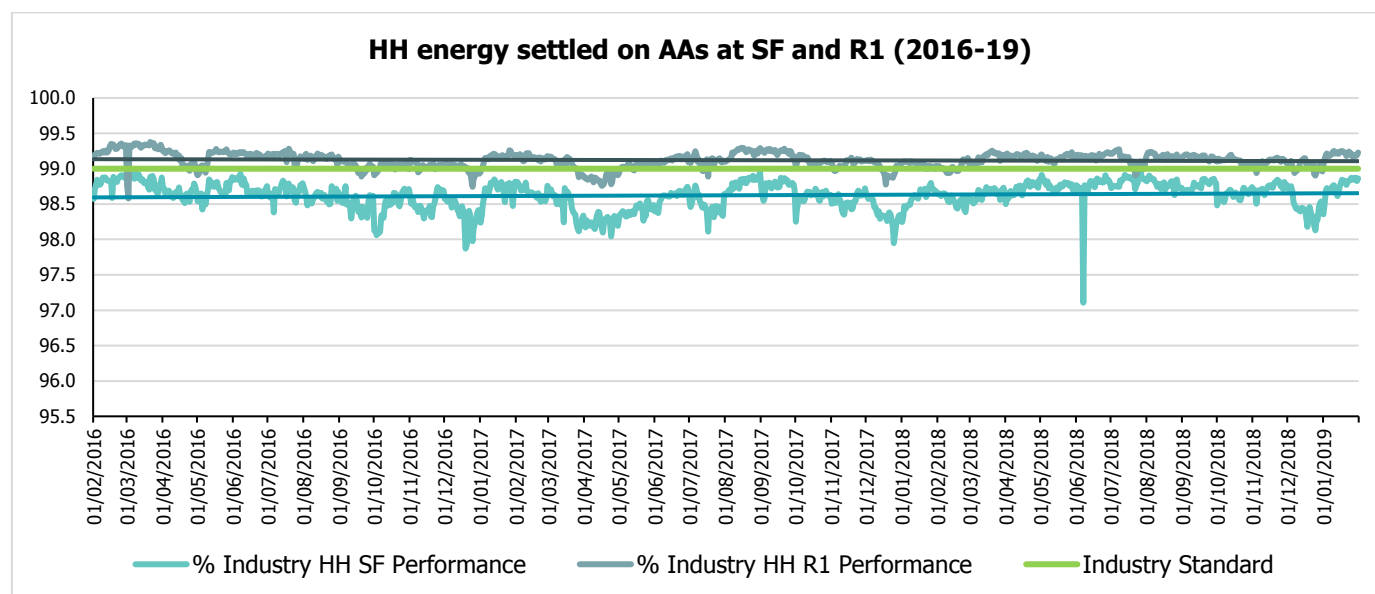


Chart 2: HH energy settled on actual reads

³ The Initial Reconciliation Run

⁴ The first Reconciliation Run

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SR0081b: The risk that Half Hourly Data Collectors (HHDCs) do not process valid HH readings resulting in estimated data being entered into Settlement

ELEXON has isolated the average performance of Measurement Class E, F, & G. On average the industry settled 93.03% of HH energy on actual Meter reads at SF⁵. At R1⁶ on average 94.66% of HH Energy on actual Meter reads. ELEXON notes there are differing performance standards for Measurement Class E, F, & G Metering, further information can be found [here](#).

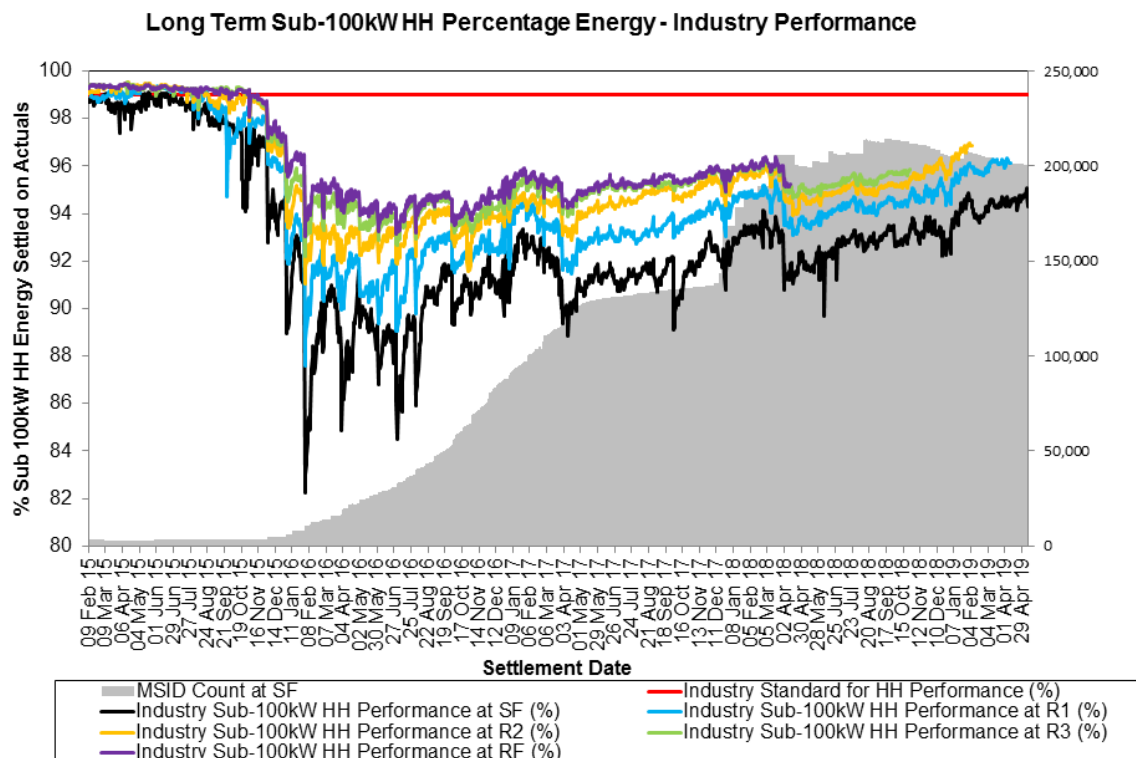


Chart 2a: HH energy settled on actual reads of Measurement Class E, F, & G

⁵ The Initial Reconciliation Run

⁶ The first Reconciliation Run

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SR0074: The risk that NHHDCs do not collect and / or enter valid Meter readings resulting in old/default data entering Settlement.

During 2018/19 the industry settled at (avg) 96.68% (below the 97% standard) of NHH Energy on Actual Meter reads at Final Reconciliation (RF) compared with 96.00% for the same period in 2017/18.

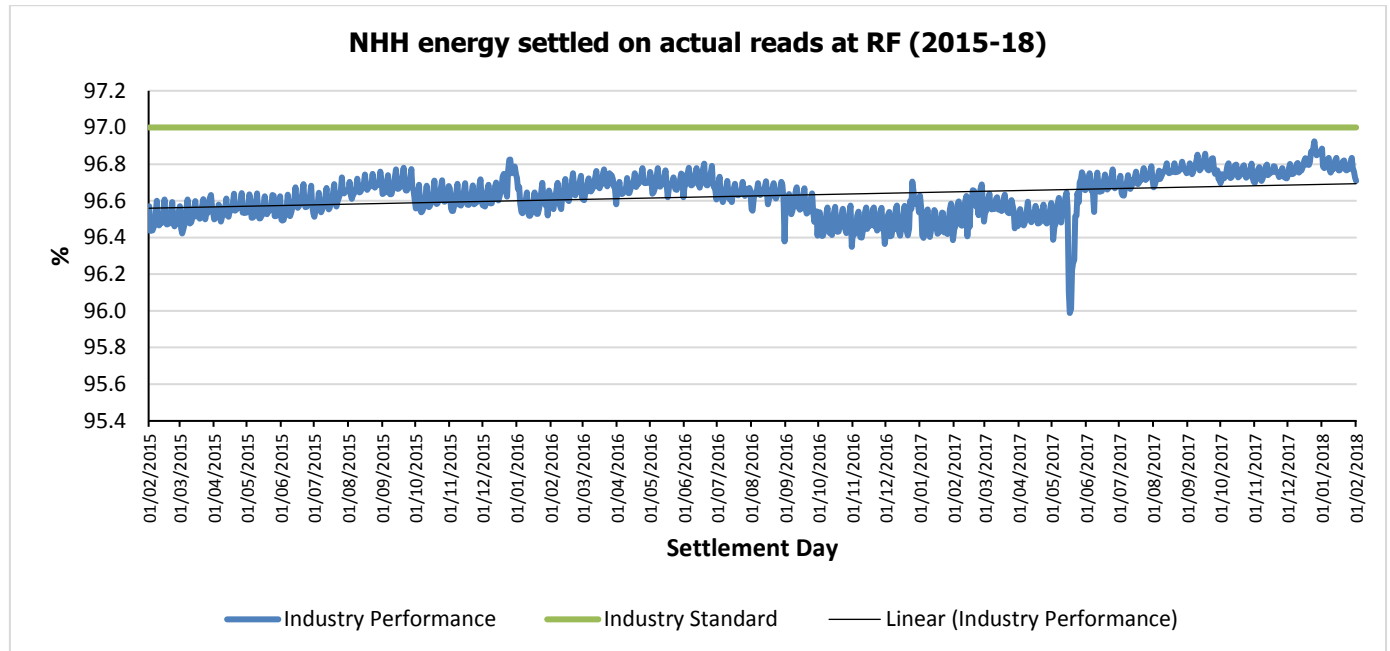


Chart 3: NHH energy settled on actual reads

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Quality of HH MTDs

SR003019: The risk that Half Hourly Meter Operator Agents (HHMOAs) do not provide correct Meter Technical Details (MTDs), including when HHMOAs make changes to MTDs, to the Half Hourly Data Collector, resulting in Meter readings not being collected or misinterpreted

The quality of HH MTDs is monitored by:

- looking at the number of times MTDs are re-submitted where there has been a change in a key/mandatory field of the D0268 (HH MTD). Actual performance is optimal when < 2% of MTDs are re-sent and <5% of TAA visits have non-compliances related to MTDs (see chart 4); and
- looking at the number of MTD related non-compliances identified by the TAA (see table 1, page 16).

Optimal performance for correct sending of MTDs is anything above the green line in chart 4. During the period 2018/19 industry performance only meet the required level of accuracy once, achieving 1.79% re-submissions in October 2018 (>98% of HH MTDs should be accurate, i.e. <2% should be re-submitted). On average, just over 2% of HH MTDs were re-submitted (2.64%) in 2018/19 compared with 4.39% in 2017/18.

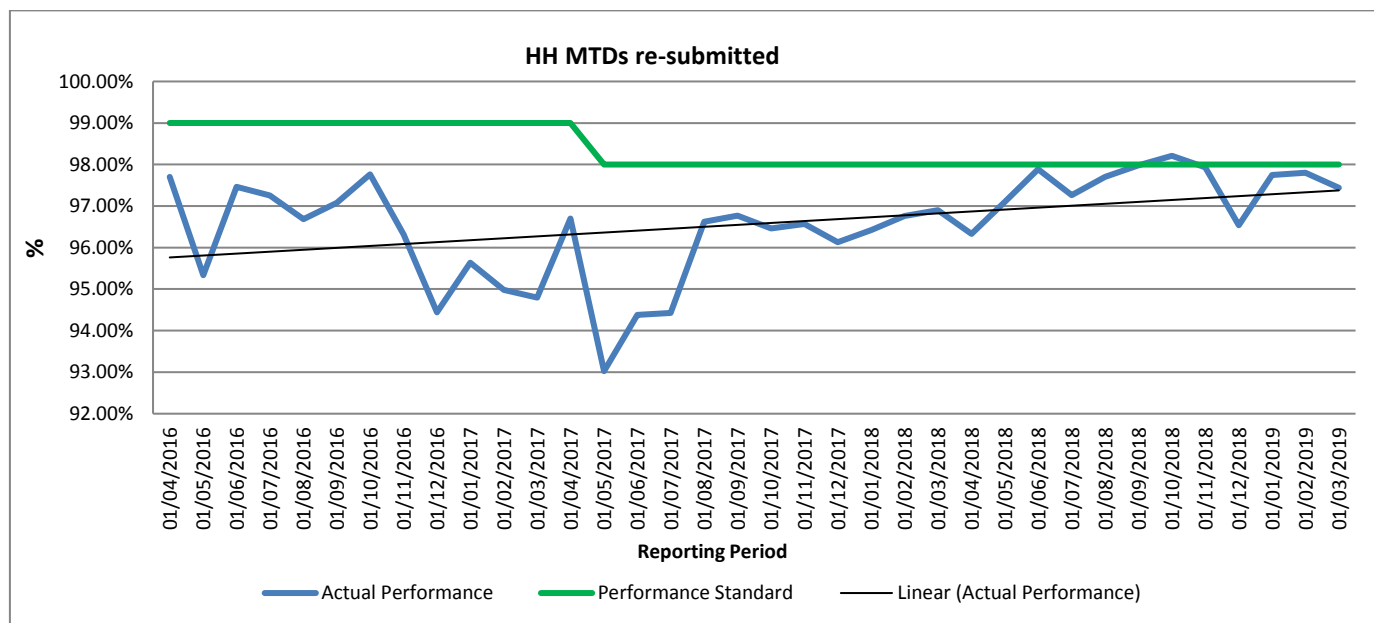


Chart 4: % HH MTDs re-submitted

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Optimal performance for MTD related non-compliances is less than 5% of TAA visits. During 2018/19, the TAA identified MTD related non-compliances at 5.70% of TAA audit visits, compared with 6.08% in 2017/18.

Non-compliances	2016/17 No. of non-compliances	2016/17 % per site visit	2017/18 No. of non-compliances	2017/18 % per site visit	2018/19 No. of non-compliances	2018/19 % per site visit
Cat 1.01 Incorrect Standing Data held by DC (MTDs)	5	0.37%	6	0.41%	1	0.10%
Cat 2.01 Incorrect Standing Data held by MOA (MTDs)	11	0.81%	19	1.28%	35	2.70%
Cat 2.02 Non-Key Field MTDs do not match DC	38	2.79%	36	2.43%	18	1.40%
Cat 2.03 MTDs not provided	34	2.49%	29	1.96%	20	1.50%
Total non-compliances as % of site visits	88.00%	6.45%	90.00%	6.08%	74.00%	5.70%
No. site visits	1364	N/A	1480	N/A	1302	N/A

Table 1: MTD related TAA non-compliances

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Missing MTDs

SR0024: The risk that NHHMOAs do not provide MTDs to the correct NHHDCs resulting in Meter readings not being collected

NHH Performance

The total number of missing NHH MTDs is acceptable if it is below 0.5%, represented by the light green threshold line in the graph below. Industry recorded between 0.33% - 0.63%, with an average of 0.48% missing MTDs in 2018/19. This compares with a 0.41% - 0.54%, with an average of 0.45% in 2017/18.

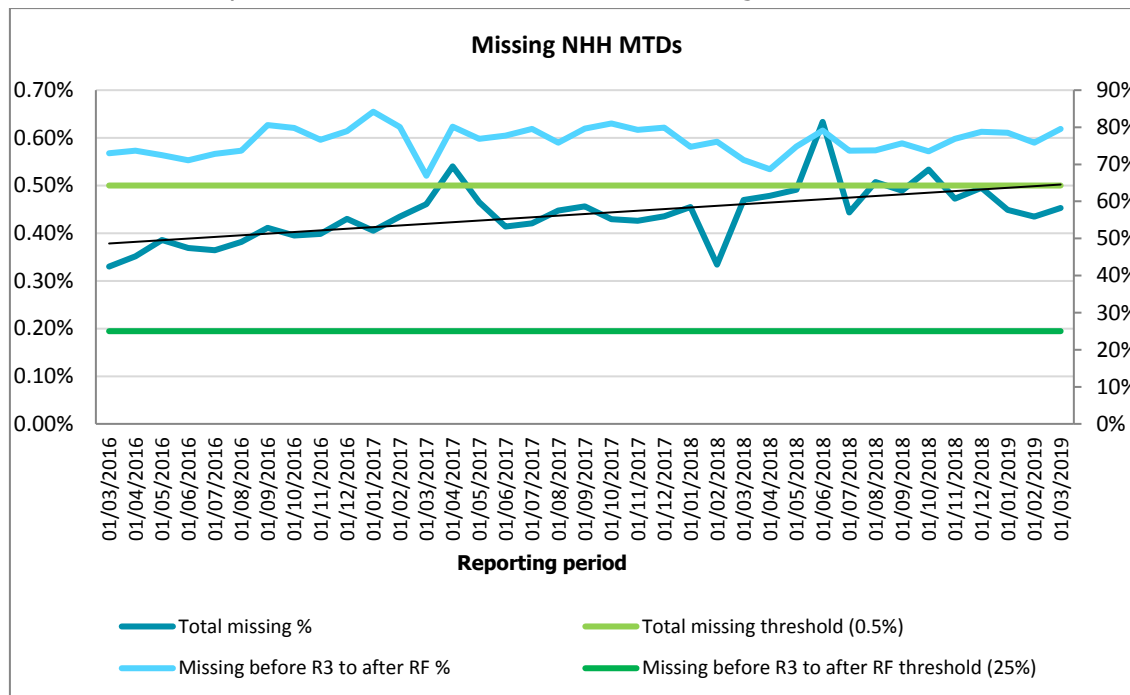


Chart 5: Missing NHH MTDs

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SR0025: The risk that HHMOAs do not provide MTDs to the correct HHDCs resulting in Meter readings not being collected.

The total number of missing HH MTDs should be below 0.5% represented by the light green threshold line in the graph below and the level of missing MTDs 'before R3 to after RF' should be 0%.

During 2018/19 the proportion of missing HH MTDs across industry was above the 0.5% threshold, ranging between 0.56% - 1.02% with an average of 0.75%. This compares with 0.85% - 1.13% in 2017/18 with an average of 0.95%. For 2018/19, 66.65% of missing MTDs, were still missing 'before R3 to after RF' compared with 67.03% in 2017/18.

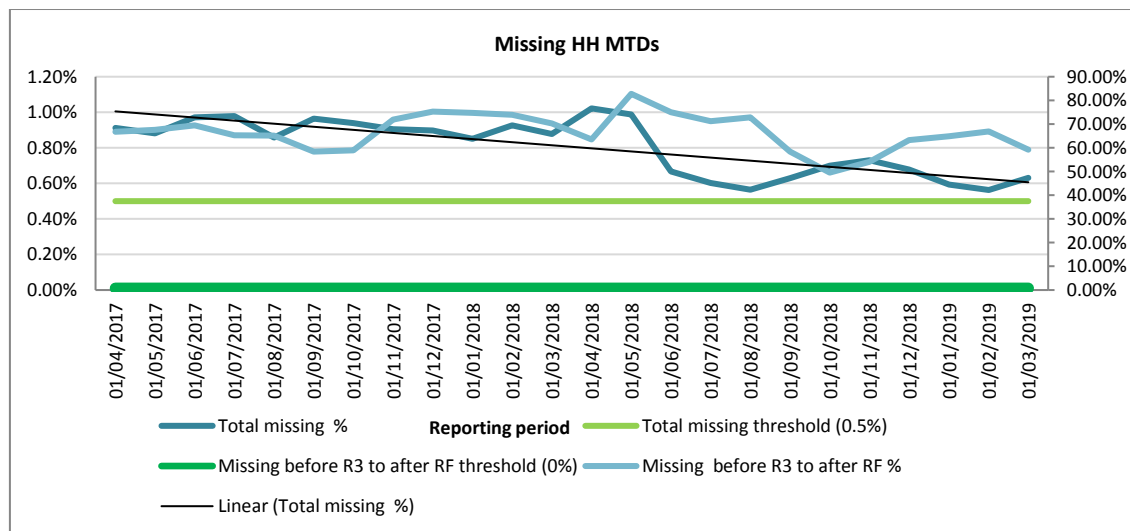
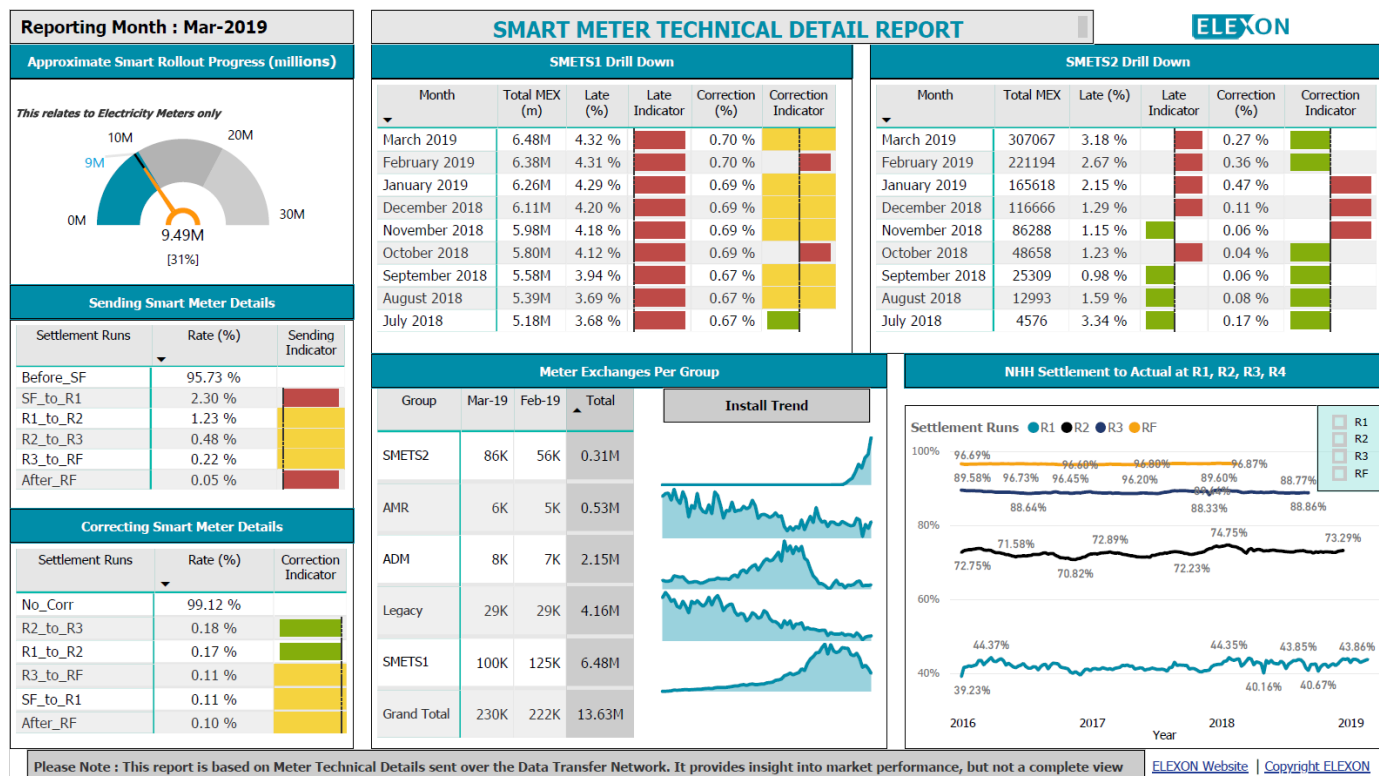


Chart 6: Missing HH MTDs

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SMART Meter Technical Detail Report

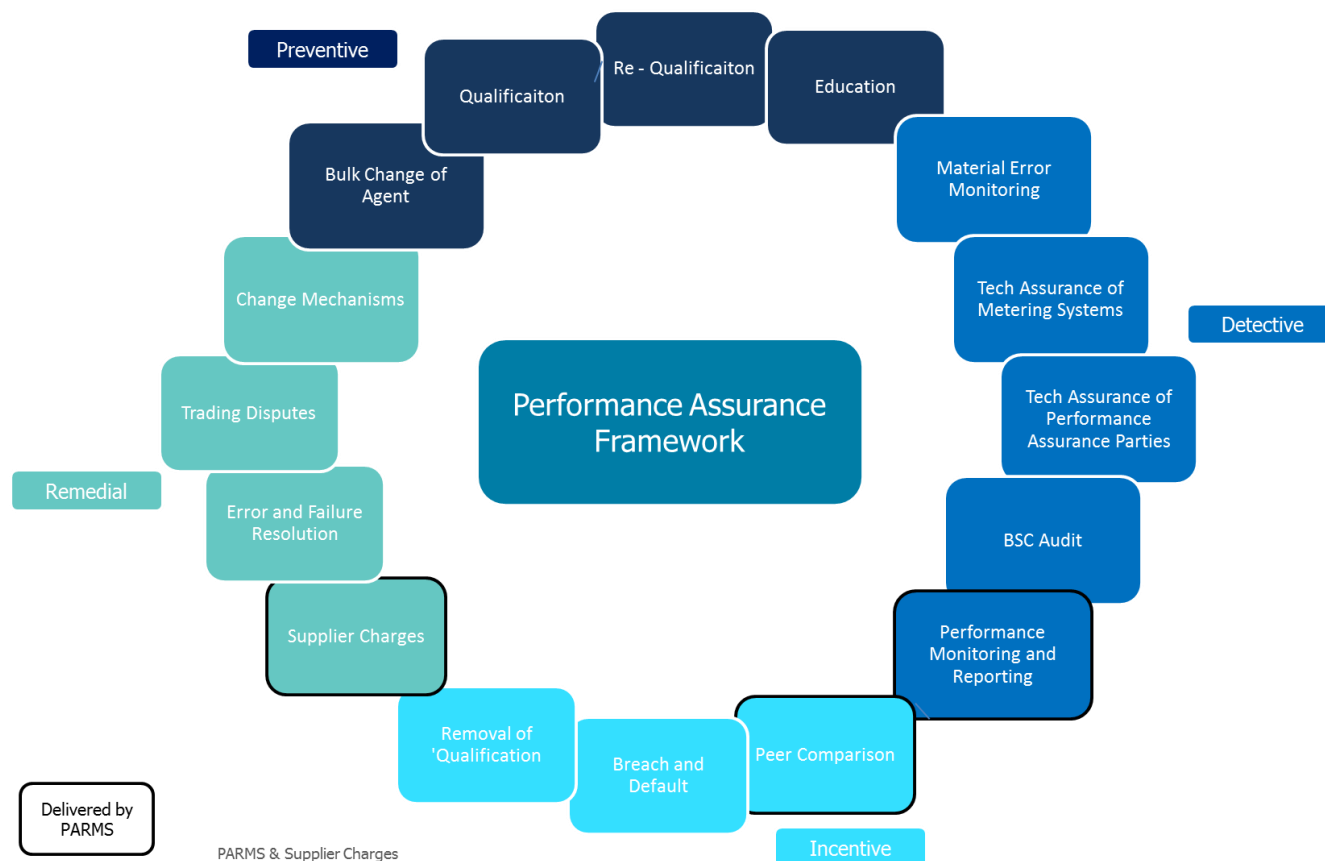
The SMART MTD Report outlines the number of installations having taken place throughout the SMART Meter rollout, inclusive of the number of AMR, ADM, Legacy, SMETS1, and SMETS2 Meter exchanges. The report provides a breakdown of MTDs sent late and corrected across the Settlement Runs, as well as a rolling nine months of total late and corrected MTDs for SMETS1 and SMETS2 Meters. The report displays the performance of NHH Settlement at each Settlement Run.



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APPENDIX B: SUPPLEMENTARY INFORMATION ON PERFORMANCE ASSURANCE TECHNIQUES

The PAF is made up of 16 assurance techniques:



Highlights are provided below of activities undertaken for techniques deployed during the 2017/18 Performance Assurance Operating Period (PAOP)⁷:

BSC Audit

The BSC Audit report is published on the [BSC Audit page](#) of the BSC Website.

The BSC Auditor has confirmed that the level of potential error indicated by the audit did not exceed the threshold of 1.2TWh. The BSC Auditor will be issuing an Unqualified Opinion to the June Panel.

The total number of Settlement impacting findings has increased this year from 171 (2017/18) to 208 (2018/19). Three roles are notably responsible for the increase Settlement impacting findings: LDSOs from five to 18; Suppliers from 46 to 59; and NHHDCs from 32 to 44.

⁷ The Bulk Change of Agent, Re-Qualification and Removal of Qualification and techniques were not deployed during the PAOP.

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The BSC Auditor noted that whilst the number of Material audit findings increased 15%, Medium and High rated findings have increased 42%. The BSC Auditor also noted 55% of Legacy issues from previous audit years have improved their ratings in the current PAOP.

Breach and Default

There were 31 Events of Default under BSC Section H between 1 April 2018 and 31 March 2019. The 31 events were by 25 different Parties. Of the 25 Parties, nine had a Supplier of Last Resort (SoLR) appointed. Around 800,000 customers were transferred under the SoLR process in 2018-19. Three BSC Parties with customers failed, but did not go through Ofgem's SoLR process. Five Parties were expelled from the BSC and one is currently in expulsion process. All of the Parties who have been/are in the expulsion process had no BM Units or Energy Contract Volume associated with them. Eight Parties resolved their Section H Defaults, with five of these being in relation to the late payment of BSCCo Charges.

Education

Education is a preventative Performance Assurance Technique (PAT) within the Performance Assurance Framework (PAF) used to address Settlement Risks. ELEXON publishes guidance on common (market) issues identified and the best ways to address them. This may include a view of root causes of these issues. It may also reference other areas of the BSC that may help in monitoring or controlling the issue in some way. In addition, ELEXON assigns an Operational Support Manager (OSM) to each BSC Party and Party Agent once Qualified. The OSM provides a first point of contact and is able to provide day to day support and guidance regarding the BSC arrangements.

ELEXON runs regular training courses for electricity market participants; these courses are free of charge to BSC Parties. During 2018/19, ELEXON provided the following performance assurance related training/educational days:

- Total training courses delivered: 43
- Total number of delegates: 346
- 44% of training courses were delivered to 'off the shelf' Suppliers.
- Total number of Introduction to ELEXON seminars delivered: 5
- Total number of Introduction to ELEXON seminar delegates: 351
- Total number of webinars delivered: 12
- ELEXON delivered 12 Industry events with 538 delegates in attendance on topics including the implementation of new Commissioning Flows and the TERRE project.
- ELEXON also delivered training to 79 International Delegates from Korea, China, Taiwan, and Thailand which covered Imbalance Settlement, Electricity Market Reform and Future Challenges and Opportunities within the Electricity Market between April 2018 and March 2019.
- ELEXON produced its Risk Visualisation Tool developed to assist Parties identifying where Settlement Risks occur in BSC Processes.
- ELEXON visited eight parties to support the implementation of the new PAF Documents

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Error and Failure Resolution (April – March)

SR0024⁸ and SR0025⁹

At the February 2017 PAB meeting, ELEXON highlighted issues with the current process for reporting on missing Meter Technical Details (MTDs) and assessing the need for EFR. The PAB agreed to stop EFR investigations for these risks until another approach could be found.

At the June 2017 PAB meeting ELEXON presented its findings and recommended a TAPAP check for the PAPs contributing to the most significant 'missing MTD' categories. The PAB agreed that EFR be used to address significant issues raised by the TAPAP checks.

SR0072¹⁰

In April 2017 a new BUSRR was implemented for SR0072 which specifically highlighted the number of instances each month where an instance was 500MWhs or higher. The introduction of the BUSRR appears to have helped Suppliers to address high volume instances more quickly which has supported those Parties within the EFR process to enable them to exit the technique and reduced the number of Suppliers requiring EFR to be applied.

SR0072	Number of plans	Number closed during period	Number ongoing after the period ended
EFR turned on before APAR period and open during the period	3	0	3
Total:	3	0	0

SR0074¹¹

The EFR plans that are in place to deal with Settlement Risk SR0074 focus on Suppliers setting out the root causes of MSIDs not settling 97% of its Non Half Hourly (NHH) Energy on Actual Advances (AA) by the Final Reconciliation Run (RF) and putting in place actions to address the root causes.

There have been increases in the number of Suppliers having EFR applied in addition to Suppliers already in EFR not making adequate progress to exit the EFR process.

⁸ The risk that NHHMOAs do not provide Meter Technical Details to the correct NHHDCs resulting in Meter readings not being collected.

⁹ The risk that HHMOAs do not provide Meter Technical Details to the correct HHDCs resulting in Meter readings not being collected.

¹⁰ The risk that NHHDCs process incorrect Meter readings, resulting in erroneous data being entered into Settlement.

¹¹ The risk that NHHDCs do not collect and / or enter valid Meter readings resulting in old/default data entering Settlement.

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As a result of insufficient progress, 6 of the ongoing 26 plans have been subject to escalation to the PAB. The PAB has also considered escalation to the Panel this year to address SR0074 performance.

SR0074	Number of plans	Number closed during period	Number ongoing after the period ended
EFR turned on before APAR period and open during the period	34	8	26
Total:	34	8	26

SR0081¹²

The EFR plans that are in place to address with Settlement Risk SR0081 focus on Suppliers identifying and addressing root causes of not settling 99% of Half Hourly(HH) Energy on Actual Advances (AA) by the Initial Settlement Run (SF). The month on month market performance has been below the 99% SF standard.

Due to insufficient progress, four of the seven ongoing plans have been subject to PAB Escalation in accordance with BSCP538 "Error and Failure Resolution".

As a result of insufficient progress, four of the ongoing four plans have been subject to escalation to the PAB.

SR0081	Number of plans	Number closed during period	Number ongoing after the period ended
EFR turned on before APAR period and open during the period	7	3	4
Total:	7	3	4

Commissioning non-compliances detected through TAPAP

EFR was used to address non-compliances with the Commissioning process which were highlighted during TAPAP checks performed in May 2016.

The majority of remaining non-compliances associated the transferring of records between the LDSO and MOA. ELEXON will be introducing two new data flows as part of the November 2018 BSC Release to allow:

¹² The risk that HHDCs do not process valid HH readings resulting in estimated data being entered into Settlement.

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The LDSO to inform the MOA of measurement transformer Commissioning, and for the MOA to complete internally when it has performed its own Commissioning

The MOA to inform the Supplier/Registrant of the Commissioning status and if required for the Supplier/Registrant to communicate with the LDSO/IDNO or MOA to resolve a gap in the Commissioning process

Commissioning	Number of plans	Number closed during period	Number ongoing after the period ended
EFR turned on before APAR period and open during the period	18	7	11
Total:	18	7	11

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EFR plans for issues detected by the BSC Auditor

During 2018/19 EFR was applied to address medium and higher issues identified by the BSC Auditor during the 2017/18 BSC Audit.

Of the 36 Audit issues that required EFR plans:

- 16 related to MOA processes including Commissioning, Fault resolution, Energisation changes, Complex sites, weaknesses in CoMC, insufficient training for manual processes and Meter reconfiguration change or removal
- Three related to LDSOs and their obligations to commission Meters and its process of sending D0139 flows
- Ten related to Non Half Hourly Data Collector (NHHDC) processes including Resolution of D0023 'Failed Instruction' flows, Management of Long Term Vacant Sites, Failure to respond to D0235 flows, Processing of Agreed Final Reads following the Disputed Reads process, visiting De-energised sites, withdrawal of reads, Overriding reads which failed validation and failure to apply Gross Volume Allocation in accordance with the BSC rules
- Seven related to Suppliers' processes for addressing issues sent in the D0095 'Non-Half Hourly Data Aggregation Exception Report', the D00235 'Half Hourly Data Aggregation Exception Report', Management of Long Term Vacant Sites and reviewing potentially erroneous EAC/AA reports

BSC Audit	Number of plans	Number closed during period
Total:	36	Issues that have been closed by the BSC Auditor will be confirmed at the June 2019 PAB meeting

Qualification

The SVA Qualification process and re-Qualification process are preventative techniques used by the PAB to manage Settlement Risks. The Qualification process provides assurance that new entrants have developed their systems and processes according to the standards defined in the BSC and its subsidiary documents. The re-Qualification process provides assurance that existing Party Agents remain compliant when making major changes to their systems and processes.

During 2018/19, the PAB considered and approved 82 role-specific Qualification applications. All of the Suppliers Qualified were brought through by consultancies as 'off the shelf' Suppliers (52 of the 54 applications). The PAB also approved 26 re-Qualifications and there were no Removals of Qualification.

Role	Qual 2018/2019	Re-Qual 2018/2019
Supplier Meter Registration Agent (SMRA)	1	0
Unmetered Supplies Operator (UMSO)	1	0
Half Hourly Data Collector (HHDC)	0	1

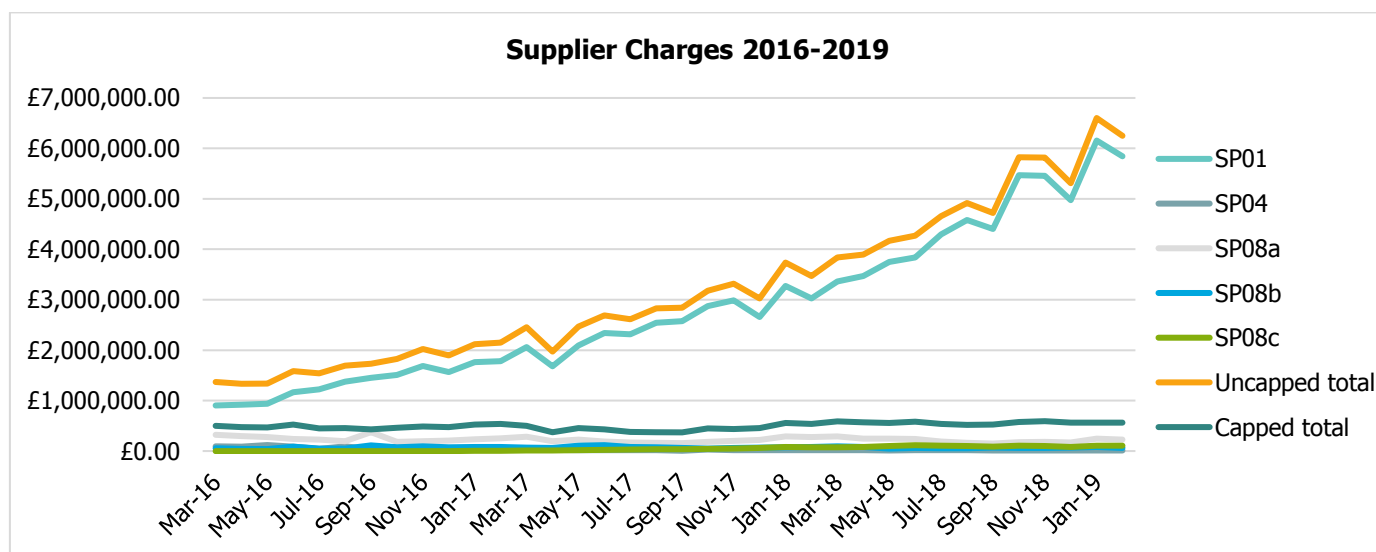
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Non Half Hourly Data Collector (NHHDC)	0	0
Half Hourly Data Aggregator (HHDA)	0	1
Non Half Hourly Data Aggregator (NHHDA)	0	0
Half Hourly Meter Operator Agent (HHMOA)	0	12
Non Half Hourly Meter Operator Agent (NHHMOA)	0	12
Central Volume Allocation Meter Operator Agent (CVAMOA)	0	0
Supplier (NHH/HH)	52	0
Meter Administrator (MA)	0	0
Total	54	26

Supplier Charges

Supplier Charges is a remedial technique that provides a mechanism for applying liquidated damages to Suppliers failing to meet applicable performance levels set out in the Balancing Settlement Code (BSC). The charges compensate Parties disadvantaged by those who are unable to meet the defined Standards. Supplier Charges are subject to a national monthly cap. We calculate the cap across the 14 Grid Supply Point (GSP) Groups by relative annual consumption compared to total annual consumption for the previous year. We use the Retail Price Index (RPI) to calculate the revised figures for both the national monthly cap and the individual Supplier cap.

The total Uncapped Supplier Charges for 2018/19 was £60,270,416.95 (capped to £6,738,502.68 compared to £24,596,977.29 (capped to £5,320,651.80) in 2017/18.



SP01 is related to the non-delivery of routine performance logs or 'Serials'

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SP04 is related to the installation of HH Metering

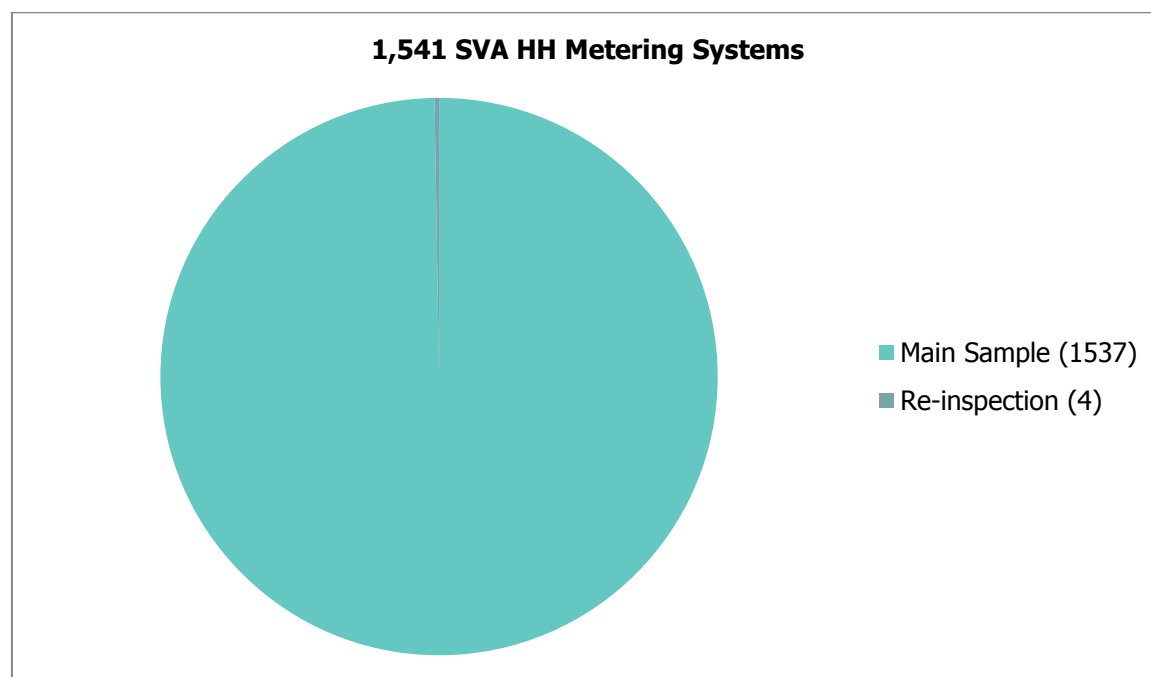
SP08a is related to percentage of energy on Annual Advances and Actual Readings R3 to RF

SP08b is related to percentage of Half Hourly Energy settled on actual Meter readings at SF and R1

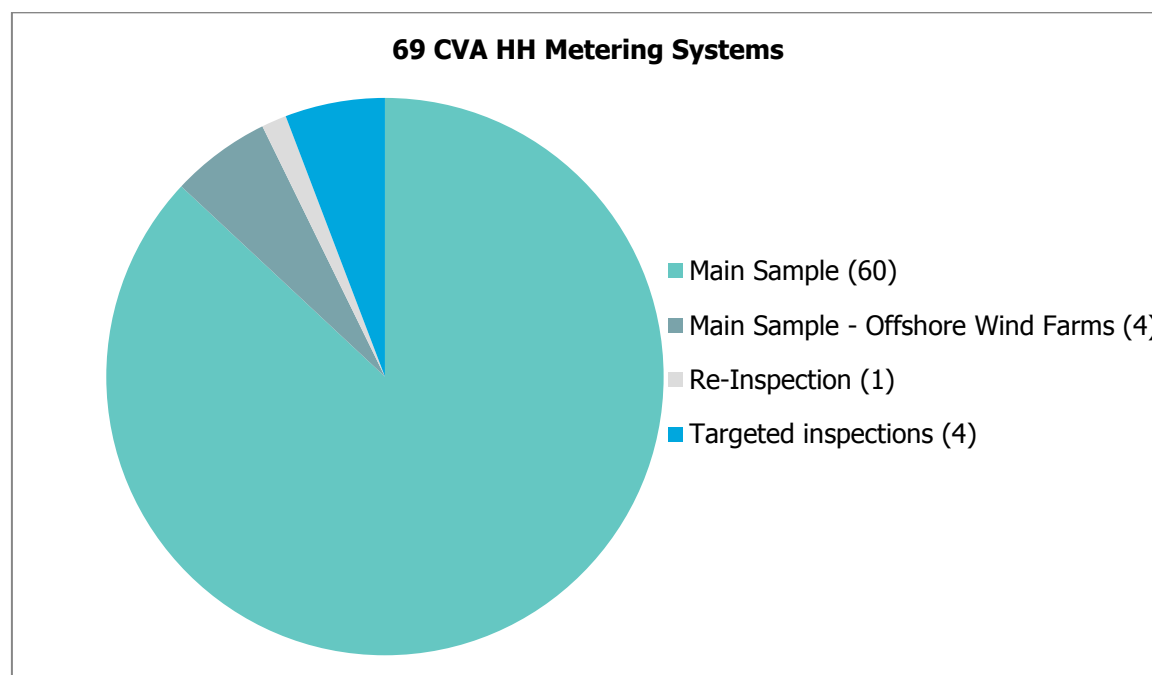
SP08c is related to failure to settle specified percentages of energy on Annual Advances and Actual Readings

Technical Assurance of Metering Systems

During the 2018/19 PAOP, the TAA completed the following inspection visits:



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There has been a 31.58% reduction in the total number of Category 1 non-compliances raised in 2018/19, alongside a 60% reduction in major time drift non-compliances. The TAA reported a 25% increase in Metering Equipment related faults within the Latest PAOP, together with a reported 75% increase in errors introduced to Settlement due to incorrect Current transformer (CT) ratio selection.

The TAA reported an increase in the total number of Category 1 non-compliances for CVA Metering Systems from 3 to 5 identified in the latest PAOP. The TAA reported a reduction in the number of non-compliances related to the lack of Commissioning records available.

The TAA reported the key issues impacting the Market:

- Measurement Transformer (MT) Mismatches
- Commissioning
- Measurement transformer Calibration Certificates

Technical Assurance of Performance Assurance Parties (TAPAP)

During the 2018/19 PAOP, ELEXON conducted a TAPAP check into missing SMART MTDs to assess the impact on Settlement. The check covered four Performance Assurance Parties (PAPs) and one Managed Service Provider, three samples were received from those audited with a total of 50 MSIDs inspected. Non-compliances were identified across all audited.

ELEXON invested in formal audit training for key team members performing TAPAP checks and improvements were made to internal processes to ensure adherence to best practice and to improve the quality of service provided to PAPs subject to TAPAP checks.

Trading Disputes

The overall number of Trading Disputes raised during 2018/19 was 88 compared to 73 in 2017/18. Of the 88 Trading Disputes raised, 77 related to Supplier Volume Allocation (SVA) sites and 11 related to Central Volume Allocation (CVA) sites. The Trading Disputes Committee (TDC) upheld 53 Trading Disputes. 27 Trading Disputes

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were not upheld on the grounds that it did not meet one of the Trading Disputes Criteria (Dispute Deadline, Settlement Error, and Materiality). At the end of the 2018/19 PAOP there were 31 Trading Disputes remaining open, under investigation.

The table below shows the root causes and the level of materiality of the Trading Disputes upheld in 2018/19:

No. of disputes	Root causes	Materiality
4	Aggregation Rule not updated with new generation plant unit resulting in export data not accounted for in Settlement.	£717,274
8	Current Transformer (CT) ratio mismatch between physical CT and CT ratio programmed in the Meter resulting in Meter over or under-recording.	£199,843
2	Other CT ratio – CT was wired incorrectly which caused Active Import (AI) and Active Export (AE) data to be transposed to the wrong channels.	£17,982
3	Data Aggregation issue – files not submitted or files submitted with erroneous data by Data Aggregators (DAs) for a Settlement Run resulting in incorrect volumes in Settlement Runs.	£98,228
4	Data estimation issue – Data Collectors (DCs) submitted estimated data, which did not align with the site's true consumption.	£43,577
1	Disconnection issue – Metering System registered as disconnected in error resulting in missing energy volumes in Settlement.	£5,179
2	Energisation status issue – incorrect Energisation status recorded for Metering System resulting in missing energy volumes in Settlement.	£17,744
1	Faulty Meter – fault with a Meter resulting in consumption being over or under recorded.	£20,523
5	Incorrect MTDs.	£230,608
10	Erroneously Large EAC/AA uncorrected before Final Reconciliation (RF) run.	£155,196
4	National Grid Data issue - Incorrect Bid-Offer Acceptance (BOA) related data was submitted to Settlement.	£199,513

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4	Unregistered Metering System resulting in missing energy volumes in Settlement. Note that at the time of writing (7 May 2019), the materiality for one of these Trading Disputes (reference: DA931) has not been confirmed. This Trading Dispute concerns two unregistered Grid Supply Points (GSPs) and progress was still being made to register these GSPs in Settlement.	£340,234
2	Voltage Transformer (VT) mismatch between physical VT and VT ratio programmed in the Meter resulting in Meter over or under-recording.	£104,040
2	Other VT ratio – a ruptured fuse and a faulty VT resulted in incorrect Metered volumes entering Settlement.	£1,337,370
1	Unauthorised data amendment – following an upgrade to a Data Collection system, a Supplier' consumption data was amended at the Post Final Settlement Run without an approved Trading Dispute.	£2,696,967
Total 53		£6,184,278