# Video Transcript of Technical Assurance of Metering (TAM) training held on 30 June 2021

Good afternoon everybody, welcome back to Elexon’s Metering training day. My name is Michael Taylor and for the next session I will be introducing you to the Technical Assurance of Metering Assurance Technique.

The TAM training includes an Introduction to the Performance Assurance Framework and then I’ll move onto the TAM technique itself and give a breakdown on the types of audits it includes, obligations and some additional information.

So firstly, the Performance Assurance Framework. The BSC systems and processes involve billions of pounds, hundreds of GWh, hundreds of market participants and other stakeholders.

As such it is important that the data is accurate and gets to the right destination within the service level agreements.

The BSC contains a risk management framework to help ensure this is all done well enough to protect Trading Parties from unacceptable levels of risk.

This Performance Assurance Framework is commonly known as the PAF.

There is a BSC Panel sub-committee set up to oversee this framework – the Performance Assurance Board or PAB.

We here at Elexon produce a standard set of documents you would find in most risk management approaches, these are the Risk Evaluation Methodology or REM, Risk Evaluation Register (RER), Risk Operating Plan (ROP) and the Annual Performance Report (APAR).

Let’s look at these in a little more detail. Firstly the Risk Evaluation Methodology, this is how we evaluate and calculate risk impact and volatility. Next we have the Risk Evaluation Register or RER which is a list of evaluated risks across both SVA and CVA markets. The Risk Operating Plan or ROP is our annual plan on how we will aim to reduce risk across the market, Elexon will work in collaboration with the Performance Assurance Board to define our Risk Management strategy. And finally, Performance Assurance Reports which includes a quarterly report, the QPAR and the annual report, the APAR. All these document are available on our website.

So what is the PAF? The Performance Assurance Framework (PAF) is a set of Performance Assurance Techniques (PAT) assurance techniques that are used flexibly to address Risks to Settlement

A ‘Risk’ is anything that could impact the accuracy of Settlement; these could be a failures in a process, an error in data, or a specific market event

The significance of a risk is set out both in terms of “the probability of the failure or error…. and its impact on settlement”

Once we understand the impact and probability of a Risk, it allows Elexon and the Performance Assurance Board (PAB) to priorities the Risks and take appropriate action, by either reducing, eliminating, controlling, or ignoring Risks, if deemed insignificant.

Performance Assurance Techniques (PAT) are the mechanisms whereby we can address Risks to Settlement and are categorized based on their function. These are Preventative, Detective, Incentive and Remedial.

Here we have the Performance Assurance Framework, and as you can there are the various Preventative, Incentive, Remedial and Detective techniques. Highlighted here are the Technical Assurance of Metering technique which sits in detective techniques.

Moving on to cover the risks in a bit more detail. In April 2019, ELEXON introduced a new Risk Evaluation Register, which consolidated the 200 odd Settlement Risks from the previous register, which were no longer fit for purpose, into 36 Risks which cover both SVA and CVA markets.

The Technical Assurance Metering technique is applied against 4 SVA risks. These risks are associated with physical metering processes or metering system meta data. An example of this is risk 3 where the SVA Metering Equipment is installed, programmed or maintained incorrectly including where Commissioning is performed incorrectly or not at all. Similarly for CVA, the risk that the TAM is applied against relates to the technical metering process or metering system meta data. If you would like to learn more about settlement risk, please refer to the Risk Evaluation Register on our website.

So, what one of the key uses of the data obtained through the TAM is in our risk reporting, as we can see here this is an example of the risk 3 report and there are various different metrics the data from the technical assurance metering technique feeds into. Again these reports can be found on our website.

Moving on to cover the technical assurance of metering technique. The TAM audits are made up of Site Inspection Visits and desk audits that monitor the compliance of physical Metering Systems against the requirements outlined in the BSC and subsidiary documents, such as the Codes of Practice.

TAM provides assurance that the Metered values passed into Settlement are representative of actual consumption as well as a view on the success rate of processes and controls.

Furthermore the audits provide a view on the overall health of the half hourly market

Audit activities are carried out by the Technical Assurance Agent (TAA) and managed by Elexon.

The Technical Assurance Agent is a BSC Agent, undertaken by a service provider, the current incumbent is C&C group.

So what Audit Sample types are there in the TAM?

There currently 5 sample types from which Metering Systems are selected for the TAM audit. These are:

Main Sample which is a random sample of SVA and CVA Metering Systems. We typically cover approximately 1% of the measurement class c market on the SVA on an annual basis and 5% of MSIDs in the SVA market on an annual basis.

Specific sample, this is a sample that targets a specific area of perceived risk at the discretion of the Performance assurance board. Currently we can only use this sample on SVA metering systems but there is a change proposal in progress to widen this to the CVA market.

Targeted inspections are carried out where we expect there to be a non-compliance affecting settlement.

Re-inspection audits, on sites where a category 1 or a material non-compliance has been identified, to validate that the non-compliance has been rectified.

And finally desk top audits, a lower intensity audit which is completed remotely.

So how do we determine the scope of the various sample types? Firstly we can use this diagram to explain how we arrive at a SVA main sample.

Please note these are approximate values for the SVA market.

As we can see here the Non Half Hourly market, which is typically comprised of domestic and small and medium size commercial sites makes up about 45% of the market, in terms of energy volume, with approximately 32M Metering systems

Half Hourly makes up 55% of market in terms of energy volume but with approximately 380k metering systems.

The majority of volume of the Half Hourly market comes from sites that are in greater than 100kW sites which are classed as Measurement class C metering systems. Measuring class c makes up approximately 45% of the Half Hourly market. As this area of the market covers the highest volume per metering system in the SVA market we target this for audits which represent highest associated risk to settlement. Furthermore it is also the most cost beneficial way of utilising audits.

The CVA Main sample strategy is more straightforward as there are only 960 odd MSIDs in the market. However CVA sites are often large, containing multiple circuits so site audits are typically much more time intensive. As such we cover approximately 5% of the CVA market annually. Furthermore any MSIDs audited since 2018 are removed from the annual selection process to ensure we provide the widest coverage possible on the market. Once we have covered every single MSID in the market then we will look to recycle those and look at them again.

The main sample is selected from a catalogue of CVA Metering systems and ECOES SVA data by the Technical Assurance Agent. The sample is selected with no bias to any one Registrant, MOA, GSP Group or type of Metering Equipment.

However, consideration is given to geographical location for onsite inspection visits, in order to make the most of the auditors time.

The specific sample, determined by the Performance Assurance Board (PAB), targets specific areas of risk across an audit year. It is at the PABs discretion whether they wish to include a specific sample in an audit year.

Some examples are perceived areas of risk are covered by specific samples in the past include measuring class e metering systems which we investigate. Codes of practice 1 and 2 sites, and commissioning following the implementation of the second phase of P283 back in 2018.

As mentioned earlier, currently we are only able to apply a specific sample against SVA sites but as said earlier the ac is in place to remove the SVA only clause and allow specific samples on CVA sites.

Prior to a site inspection visit the following information must be submitted to the TAA via the Technical Assurance Agent Management Tool or TAAMT.

Information includes, Meter Technical Details, which must be the MTDs used by the data collector commissioning records meter equipment certificates.

All information is submitted by the TAAMT which is the online digital platform used for the administration of the audits. In addition to this, since COVID is has become increasingly critical for registrants or suppliers to confirm site access with the customer ahead of site audits. When we are actively doing site audit inspections again there will be more information coming out on this.

The timescales for a Site Inspection Visit are as follows:

Notification is issued to Parties 20 Working Days ahead of an Inspection Visit

Following acceptance, the relevant information must be submitted by the Parties 10 Working Days prior to the Inspection Visit.

If any non-compliances are observed during the Inspection Visit, the relevant Parties have 10 Working Days to submit a rectification plan.

There are 4 possible outcomes of a successful Site Inspection. This is compliant where no non-compliances is identified at the site.

Category 1 Non-Compliant – where non-compliance is identified currently affecting the quality of data for Settlement purposes.

Category 2, which is not directly affecting Settlement but has the potential to.

And Observation, which is not affecting Settlement and does not have the potential to.

This is typically best practice advice from the auditor.

Following the identification of a category 1 non-compliance:

The TAA has 1 Working Day to notify ELEXON’s Trading Disputes team and a trading dispute is automatically raised by Elexon following the identification of a category 1 of a non-compliance.

Following that a TAA has 2 Working Days to notify the Registrant and other relevant Parties of the non-compliance.

Following notification relevant Parties have 10 Working Days to submit a rectification plan, or initiate the Queries and Appeals process.

Finally, the rectification should be carried out in line with the rectification plan, with the TAA working with the relevant Parties to rectify the non-compliance.

There are six types of Category 1 non-compliances, these are:

Inaccuracy of Key Standing Data held by Data Collector

Metering Equipment Incorrect or Unsatisfactory

Timing Errors of Major timing error

Measurement Transformer Ratios Physically Incorrect

Compensation Calculations Incorrect

And Miscellaneous

Category 2, there are 17 different types, the most common of which are:

Metering Equipment Incorrect or Unsatisfactory

Timing Errors – a minor one in this case

Commissioning Records are missing or incorrect

Measurement Transformer or metering certificates are not provided or incorrect

The Desktop Audits was implemented in April 2020:

It was one of the key recommendations which came out of the review of the Performance Assurance Framework. The reasons for introducing desktop audits was to allow for greater number of audits to be undertaken in an audit year, thus increasing confidence in settlements, greater flexibility in applying audit sample types to Risks to Settlement.

Reduction in the percentage of audits unable to be completed due to no access to site

The ability to focus Inspection Visits where it is more likely that a Settlement Error has occurred based on documentation provided by parties for a Desktop Audit

Lower resource requirements for Meter Operator Agents (MOA)

And it also reduces auditor resource time in arranging site access.

Quickly whip through the Desktop Audit process

Starts off with the notification from the TAA, this will happen 15 Working Days prior to an audit.

The Registrant has 5 Working Days to confirm the audit.

If the audit is confirmed, we move onto the evidence request, however, if the supplier fails to confirm the visit they will receive a non-compliance.

Once the audit has been confirmed by the Registrant, the TAA will issue evidence requests to the MOA, LDSO, HHDC or, NETSO and the CDCA for CVA sites

Parties will have 10 Working Days to submit the requested evidence

If there is an omission of any evidence, the relevant party will receive a non-compliance.

Following the submission of evidence, the TAA will perform the desktop audit on the designated day.

Once the TAA completes the Desktop Audit, they will report the results of the audit within 2 Working Days

If non-compliant, the rectification process is triggered and an inspection visit may be arranged, depending on the type of non-compliance.

There are three types of non-compliance associated with Desktop Audits:

CategoryA: A non-compliance has been identified from a Desktop Audit, which is deemed to be currently affecting, or has a high likelihood of affecting, the quality of data for Settlement purposes.

Category B: A non-compliance has been identified from a Desktop Audit, which has been deemed to have a lower likelihood of affecting the quality of data for Settlement purposes, or for the non-provision of evidence

Observation: A non-compliance has been identified which is deemed neither to affect nor to have the potential to affect the quality of the data for Settlement purposes.

As you may notice there are no definitives in these categories of non-compliance as we can only indicate whether there is a non-compliance as we are looking at records and we are not physically at site to confirm it.

So, where may a desktop audit result in an inspection visit?

Where a non-compliance has been identified in a Desktop Audit it may trigger an Inspection Visit

An Inspection Visit will only be triggered if the Desktop Audit indicates that there is an error on site that is affecting the quality of data used for Settlement

The Technical Assurance Agent (TAA) are responsible for recommending Desktop Audits for Inspection Visits, however the decision to proceed is with Elexon and/or the Performance Assurance Board (PAB).

An example of when an inspection visit might be triggered would be where there is a CT ratio mismatch across all important documents is observed, yet we be treating each case individually, initially at least, to ensure that inspection visits are triggered where appropriate.

Obligations

The TAM technique applies to all parties within the Half Hourly market, including Registrants, Data collectors, generators, MOAS and LDSOs.

However, ultimate responsibilities sits with the registrant under the supplier hub principle. Yet the registrant requires help from its agent in order to fulfil its obligations.

It is worth noting here that the non-compliances are assigned to Metering systems, so if there has been a change of Supplier, the new Supplier, and associated agents, will be responsible for the rectification of any outstanding non-compliance.

Finally, the requirements for TAM can be found in Section L of the BSC Code; BSCP27 contains the process level details, Codes of Practice contain the installation requirements and you can also find additional information on guidance notes on the Elexon website and also in the TAA Local Working Instructions. The TAA local Working instructions contain all the information that the auditors use when they carry out their checks. It’s a very useful document for understanding the audit in more detail.

Additional information

The TAM Suspension

The Performance Assurance Board (PAB) suspended TAM activities at its March 2020 meeting, in light of the Covid-19 lockdown

Since then we have been operating on a purely optional basis, with optional desktop audits becoming available in June 2020. However we will be moving back to mandatory desktop audits and CVA inspection visits from Monday 5 July. Furthermore mandatory SVA Inspection Visits are currently set to recommence 16 August 2021, based on national lockdown measures being lifted on 19 July 2021.

Finally TAAMT 2 – as I mentioned earlier the digital platform Technical Assurance Agent Management Tool (TAAMT), used for the administration of the TAA audits, we have an upgraded version of this being launched on Monday 5 July. The new TAAMT will maintain the same functionality as the current model, but with a modern look and feel. It has a significant backend upgrade, the system is much faster and TAAMT2 will also include are a number of new features, such as new reporting functionality. Keep an eye out for more information.

Thank you very much for your time. Feel free to contact the communications team if you have any questions.