

Training

**Technical Assurance of Metering (TAM) Education Day**

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06 February 2018

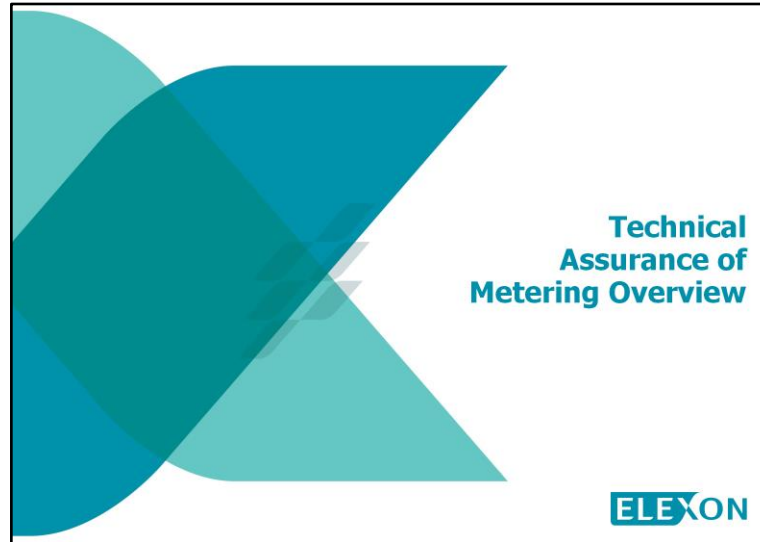
**ELEXON**

## Agenda

Agenda item	Time	Lead
Welcome & Introduction	10:00	Kat Higby
Technical Assurance of Metering Overview	10:15	Kat Higby
Introduction to P283	10:45	Chris Day
Break	11:15	
Change	11:30	TAA
Lunch	12:30	
TAAMT Overview <ul style="list-style-type: none"><li>Overview of TAA process</li><li>TAA audit process</li><li>TAAMT overview</li><li>TAAMT changes for 2018</li></ul>	13:30	TAA
Break	14:15	
The TAA Service – your questions answered	15:00	TAA



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## Performance Assurance

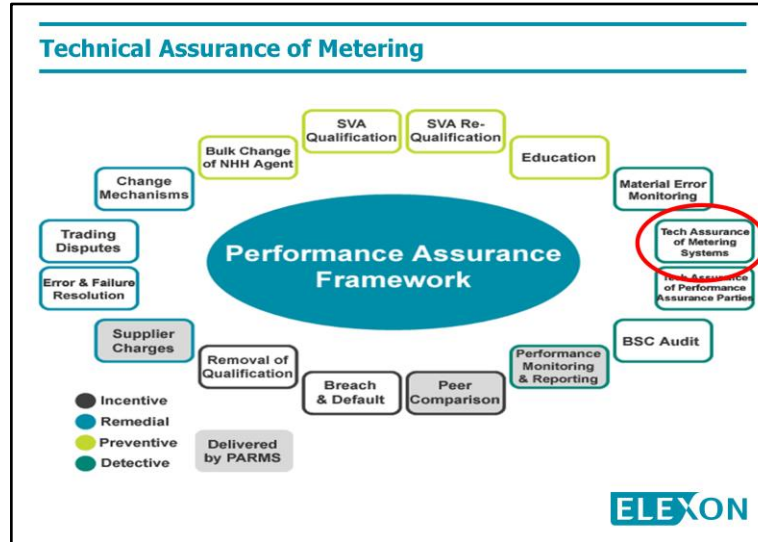
- The Performance Assurance Framework (PAF) is a set of assurance techniques:
  - Preventive (prevent Settlement Error)
  - Detective (detect Settlement Error)
  - Incentive (motivate Parties to prevent Settlement Error)
  - Remedial (correct Settlement Errors which have already occurred)
- These techniques are used flexibly to address Settlement Risks
- A Settlement Risk is anything that could pose a risk to accurate Settlement: it could be a failure in a process or an error in data
- The Performance Assurance Techniques must address risks to Settlement and the impact of actual failures or errors in Settlement



The Performance Assurance Framework (PAF) is a complementary set of preventive, detective, incentive and remedial assurance techniques. These techniques are used flexibly to address Settlement Risks.

A Settlement Risk is anything that could pose a risk to accurate Settlement: it could be a failure in a process or an error in data.

The Performance Assurance Techniques must address risks to Settlement and the impact of actual failures or errors in Settlement



You can see where the TAM technique fits into the PAF here  
[CLICK](#)

Which illustrates that the technique is used to detect errors in Settlement and trends of these errors.



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### What is the Technical Assurance of Metering Technique?

- A detective Performance Assurance Technique (PAT)
- An audit performed to monitor the compliance of Metering Systems with the requirements stated in the BSC and its subsidiary documents
- Provides a level of assurance that the metered values passed into Settlement represent actual consumption.
- Checks provided by the Technical Assurance Agent (TAA) and managed by ELEXON



First of all, what is the technique?

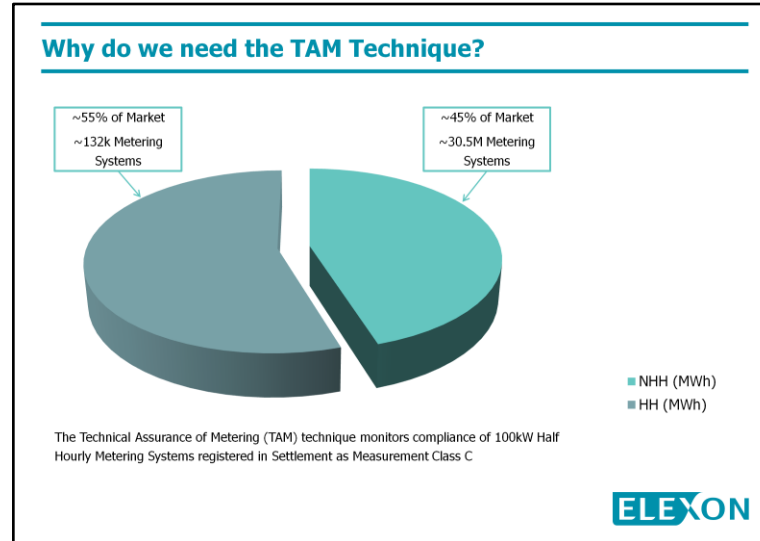
It is a detective technique which forms a part of the Performance Assurance Framework

It is essentially made up of an audit which monitors compliance of Metering Systems against the regulations set out in the BSC and its subsidiary documents including BSCPs and Codes of Practice

It provides a level of assurance that the metered values passed into Settlement represent actual consumption.

The audit itself is outsourced to the Technical Assurance Agent (currently C&C Group) and is managed by ELEXON.

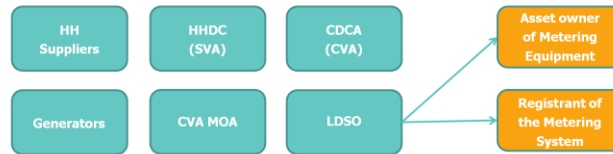




This slide illustrates why we need the technique and why it covers the area of the market that it does. You can see from the pie chart that the HH meters cover 55% of the market even though there are only 132k Metering Systems compared to 30.5M NHH metering systems which only make up 45% of the market. The Technical Assurance of Metering (TAM) technique monitors compliance of 100kW Half Hourly Metering Systems registered in Settlement as Measurement Class C as they are the ones with the most associated risk. In other words, if there is an error on a HH meter, it is likely to be much bigger than if there was an error on a NHH meter.

## The Technical Assurance of Metering Service

- The TAA is a BSC Agent procured and managed by ELEXON. The TAA is currently C&C Group Plc
- The TAA will use their own auditing procedures taking into account any relevant guidance issued by ELEXON or the PAB
- The following HH Parties are subject to TAM checks:



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## The Technical Assurance Agent

### TAA Auditor's Objectives

Review and report on compliance with the Code and CSDs with respect to HH Metering Systems

TAA Inspectors do not act as a substitute for the Registrant's own responsibility to ensure compliance with the Code or CSDs

### Integrity, Objectivity and Independence

Exercise their professional judgement and act independently of the HH Party and ELEXON

ELEXON carries out ad hoc audits of the TAA inspectors

### Confidentiality

Holding information on the TAAMT

Disclosure of information

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### **TAA Auditor's Objectives**

The TAA auditors' objective is to review and report on compliance with the Code and Code Subsidiary Documents (CSDs) with respect to HH Metering Systems. TAA Inspectors do not act as a substitute for the Registrant's own responsibility for putting in place proper arrangements to ensure compliance with the Code or CSDs.

### **Integrity, Objectivity and Independence**

TAA Inspectors should exercise their professional judgement and act independently of the HH PAP and act independently of ELEXON, too.

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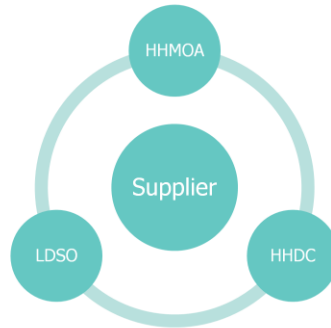
The TAA Inspectors should not carry out work for a HH PAP outside of their TAA Inspectors' functions, if it would impair their independence, or might give rise to a reasonable perception that their independence could be impaired.

The ELEXON Metering Experts will carry out ad hoc audits of the TAA inspectors to ensure that the audits are carried out in this way appropriately.

### **Confidentiality**

The TAA and ELEXON should take all reasonable steps to ensure that they comply with relevant statutory and Code requirements relating to the holding and disclosure of information received or obtained during the check.

## Responsibilities



- Responsibilities within the TAM Technique sit with the Supplier
- In order for the Supplier to carry out its responsibilities, it usually requires help from Agents

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You'll see from the following slides that the obligations within TAM all sit with the Supplier/registrant of a metering system, however the supplier needs help from the DC, the MOA and the LDSO to arrange access for the TAA to attend sites and also to clear identified non-compliances.

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## Obligations for TAM

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- [Section L](#) sets out the requirements for TAM
- [BSCP27](#) contains the process in detail
- The [Codes of Practice](#) contain installation requirements
- [Guidance - website](#)



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## Timescales

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### BSCP27 Section 3

#### **Notification**

- TAA – Registrant & agents: at least 20 wds

#### **Provision of Information**

- Registrant & agents – TAA: 10 wds prior to inspection
- (MOA can provide MTDs on inspection date)

#### **Rectifying non-compliance**

- Registrant & agents – TAA: evidence or plan within 10 wds



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## Required information

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**BSCP27 Section 1.13 & BSC Section L 7.2**

***Meter Technical Details***

- MOA
- DC
- Supplier (optional)

***- Commissioning Records***

***- Metering Equipment Certificates***

***- Via TAAMT***

*Technical Assurance Agent Management Tool*

MTDs must be those used by the DC to obtain metered volumes

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## Sample Types

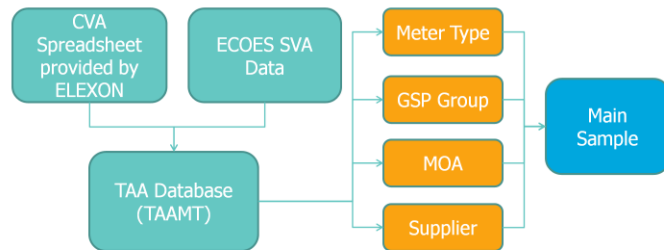
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- **Main Sample** – a random sample of SVA (1% of all MSIDs in the market) and CVA Metering Systems (17% of all MSIDs in the market)
- **Specific Sample** – Focuses on high risk SVA Metering Systems/areas. Accounts for no more than 20% of the total number of SVA TAA visits per year
- **Targeted Inspections** – where a non-compliance is suspected on SVA or CVA Metering Systems
- **Re-inspection Audits** – a percentage of re-inspections on sites where Category 1 non-compliance was found to assure that it has been rectified as reported



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### How is the Main Sample Selected?



- The sample shall not be biased towards any one Registrant, Meter Operator Agent, GSP Group or type of Metering Equipment
- When completing the main sample, consideration is given to geographical location



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### Outcomes of a Successful Site Visit

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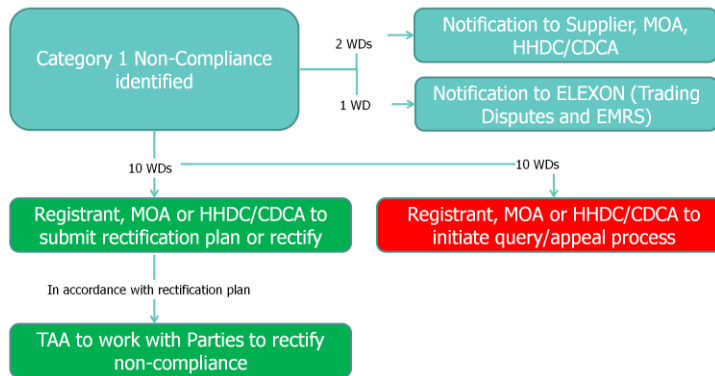
Providing the TAA can gain access to the site, there are 4 possible outcomes:

- **Compliant** – No non-compliances identified at site
- **Category 1 Non-Compliant** – Non-compliance identified which is currently affecting the quality of data for Settlement purposes
- **Category 2 Non-Compliant** – Not directly affecting Settlement but has the potential to
- **Observation** – Not affecting Settlement and does not have the potential to



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## Category 1 Non-Compliance



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## Category 1 Non-Compliances

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- 1.01 - Inaccuracy of Standing Data (Key MTD fields) held by Data Collector
  - Outstation serial number, Meter ID (serial number), Outstation number of channels, Measurement Quantity ID, Pulse multiplier, Channel configuration, Outstation multiplier/Outstation channel multiplier, Complex Site Supplementary Information Form (SVA only)
- 1.02 - Metering Equipment Incorrect or Unsatisfactory
  - Metering Equipment not functioning correctly, Metering Equipment not programmed correctly, Overall accuracy of Metering System not maintained, Summation CTs used, Correct Energy Measurement Check indicates error in metered volume
- 1.03 - Timing Error (Major)
  - Outstation clock outside agreed tolerance
- 1.04 - Measurement Transformer Ratios Physically Incorrect
  - Measurement transformer ratios different from those set up in Meter
- 1.05 - Compensation Calculations Incorrect
  - Meter compensation for Measurement Transformers Incorrectly applied or not applied
  - Meter compensation for Power Transformers incorrectly applied or not applied
- 1.06 - Miscellaneous
  - Other non-compliance not covered elsewhere



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## Category 2 Non-Compliances

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- 2.01 - Inaccuracy of Standing Data held by Meter Operator Agent
- 2.02 - Inaccuracy of Standing Data (non-Key MTD fields) held by Data Collector
- 2.03 - Non-provision of Standing Data
- ★ 2.06 - Metering Equipment Incorrect or Unsatisfactory
- 2.07 - Measurement Transformer and/or Meter Certificates
- 2.08 - Unsuitable Environment
- 2.09 - Inadequate Over-current Protection
- 2.10 - Separate Phase Failure Alarms not Installed or Inadequate/Failed – Local and Remote
- 2.11 - Inadequate Metering Equipment Integrity
- 2.12 - Metering Equipment Test Facilities
- 2.13 - Miscellaneous
- ★ 2.14 - Timing Error (Minor)
- ★ 2.15 - Commissioning Records
- ★ 2.16 - Measurement Transformer Certificates not provided or incorrect
- ★ 2.17 - Meter Certificates not provided or incorrect







Public

**Commissioning of  
Metering Systems  
post P283**

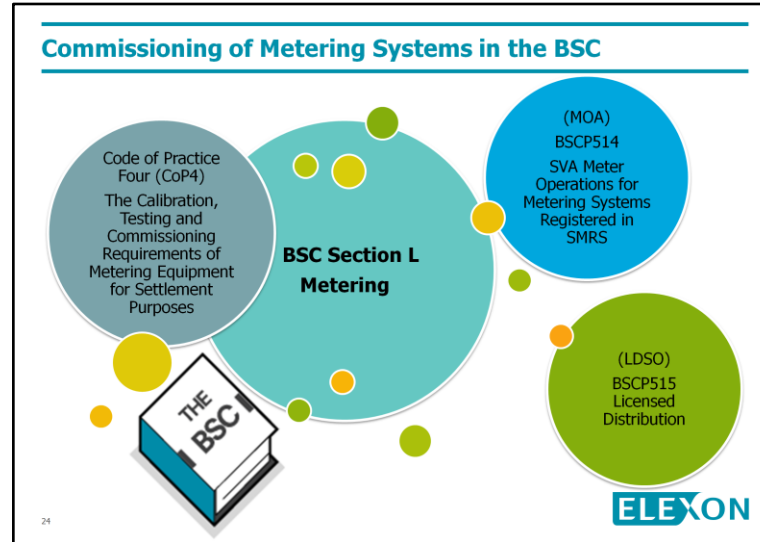
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Technical Assurance of Metering  
Education Day

6 February 2018  
Chris Day

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Commissioning is to be performed on all new metering equipment which is to be used in Settlement.

BSC Section L 'Metering' sets the obligations and

CoP4 sets out what has to be commissioned, requirements for calibration and commissioning of equipment

BSCPs state how and in what timescale this should be done

BSCP514 Meter Operator Agent

BSCP515 for Licenced Distribution Network Operators

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It does detail Supplier actions as well as MOA and LDSO.

## Commissioning of Metering Systems in the BSC

- The Registrant of each Metering System shall ensure that Metering Equipment is: "(a)" installed and commissioned (if not already installed and commissioned) ... (Section L 2.1.1)
- The Registrant of each Metering System shall ensure (a) in the case of Half Hourly Metering Systems, that the Metering Equipment shall be commissioned (including, where any issues are identified during the commissioning of that Metering Equipment, notifying and consulting with the Distribution System Operator and/or the Transmission Company, as applicable) in accordance with the relevant issue of Code of Practice Four ... (Section L 3.6.1)
- In the case of Half Hourly Metering Equipment it shall be the responsibility of the MOA to notify its Registrant, via an auditable, electronic method, that either:
  - All items of Metering Equipment have been fully and successfully Commissioned in accordance with this CoP4; or
  - There are defects or omissions in the completion of the processes set out in this CoP4 which have the potential to affect Settlement. Such notification shall include details of any defects or omissions identified and an assessment of the potential implications for the Registrant, customer and network operator. Where such notification is provided and the Registrant believes that there is a risk to Settlement it shall, in accordance with Section L3.6 of the BSC, consult with the relevant network operator and agree the appropriate steps to be taken to minimise the risks to Settlement. Such agreements shall be recorded and be made available on request to the BSC Panel. (CoP4 Scope)
- Commissioning of Metering Systems that include measurement transformers (BSCP514 Section 5.2.2.A), (BSCP515 Section 3.3.A)

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Insert: Document title

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## Commissioning of Metering Systems in the BSC

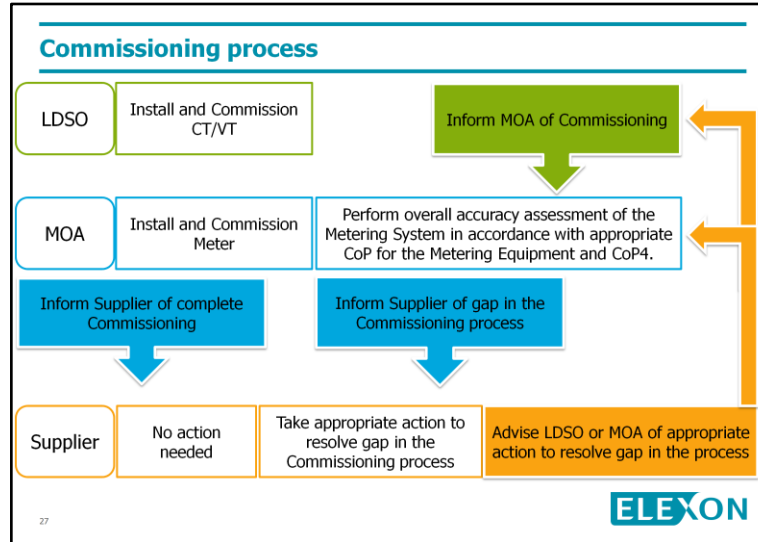
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- Where measurement transformers are owned by a BSC Party that Party shall be responsible for ensuring the requirements of 5.5 (Commissioning), are performed on its Metering Equipment up to and including the Testing Facilities. In addition that Party shall prepare, and make available to the appointed MOA, complete and accurate commissioning records in relation to these obligations. Where measurement transformers are not owned by a BSC Party the Registrant, via its appointed MOA, shall be responsible for the Commissioning of all Metering Equipment. (CoP4 5.5)
- CoP4 Section 5.5.2 details what elements of accuracy a Commissioning Test should confirm.
- Where individual items of Metering Equipment are to be replaced then only those items are required to be Commissioned. For clarification, Metering Systems in their entirety need not be re-Commissioned when items are replaced within that system. (CoP4 5.5.2)
- The MOA shall provide such evidence, as BSCCo may require, to confirm that, following its Commissioning, Metering Equipment shall meet the requirements of the Code and relevant Codes of Practice. This evidence must be Traceable and dated. (CoP4 Section 5.5.4)

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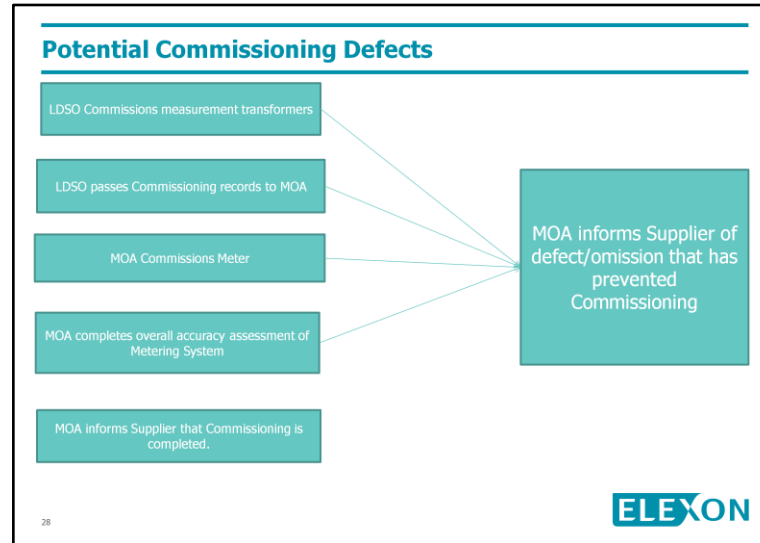
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Describe what happens during the process

This is the process that the work streams we will be talking about will look to improve



Talk through the process.

Highlight that the process can fall down at any point and a MOA may pass a defect/omission to Supplier for anyone.

## Potential Commissioning Defects

MOA informs Supplier of defect/omission that has prevented Commissioning

LDSO Commissions measurement transformers	LDSO passes Commissioning records to MOA	MOA Commissions Meter	MOA completes overall accuracy assessment of Metering System
Supplier: Support with access issues.	Supplier: Escalate non-receipt of Commissioning record to relevant LDSO. This should be a continuous process.	Supplier: Support with access issues. MOA: Provide action plan to Registrant for any technical issues. (Insufficient Load)	Supplier: Escalate non-receipt of measurement transformer calibration certificates to LDSO.
LDSO: Provide action plan to Registrant/MOA for any technical issues.	LDSO: Send Commissioning record.		MOA: Provide action plan to Registrant for any accuracy issues.
LDSO: Provide contact details for ICP where applicable.			
Supplier: Provide landlord details for BNO where applicable.			

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Supplier – Support. Contact Details?, Education.

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**Future Changes**

Creation of Commissioning  
Dataflows

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### Why create Commissioning Data flows?

- Current process issues
  - An increased chance of error due to the manual nature of communication methods
  - Difficulty in tracking and auditing e-mails and similar communications
  - Loss of confidential information over the email exchange
  - Time consuming to recover records, scan and email
  - Delays to material defects or omissions from being dealt with



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P283 TAPAP completed 2016 showed that  
LDSOs email Commissioning records as PDF attachments to the  
MOAs  
MOAs will then email their Registrant (Supplier) to notify them of  
the Commissioning status  
Any follow up communication is all done by email

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During the check Commissioning evidence not available  
which presents a potential risk to Settlement as no assurance  
Commissioning completed and within CoP4 limits  
No evidence the communications obligations were fulfilled

Feedback from industry was that data flows required to make  
this process easier to complete

#### Current process issues

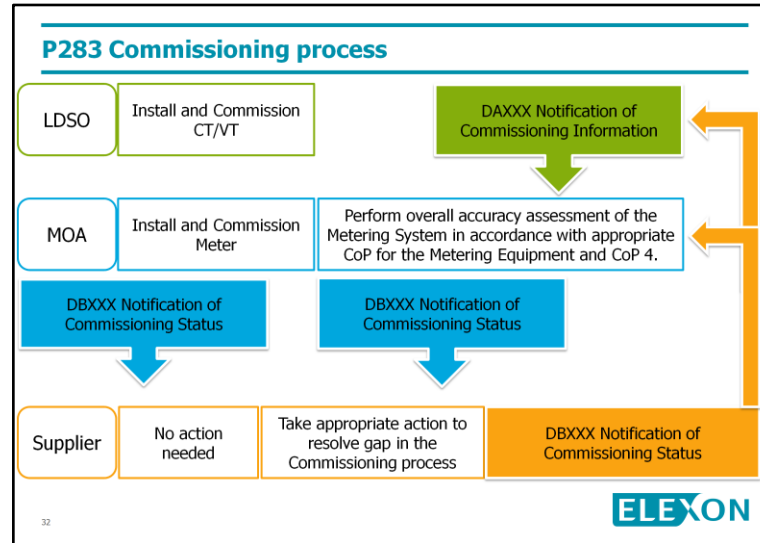
An increased chance of error due to the manual nature of  
communication methods

Difficulty in tracking and auditing e-mails and similar  
communications

Loss of confidential information over the email exchange

Time consuming to recover records, scan and email

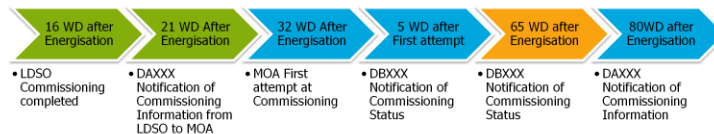
Delays to material defects or omissions from being dealt with



What are the dataflows and what do they do -

Describe how the dataflow will work in the process

## Amended timescales: New connections



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New timescales have been applied to the process;

LDSO Commissioning: 16 (16) WD after Energisation

LDSO Pass Commissioning information to MOA: 21(22) WD after Energisation

MOA First attempt at Commissioning: 32(16) WD after Energisation

MOA Advise Supplier of defect/omission: 5(5) WD after first attempt

MOA Advise Supplier of defect/omission: 5(5) WD after Commissioning complete

Supplier resolution of any defect or omission: 65 WD after Energisation

(no timescales – this is a new step to make existing obligations clearer)

Final deadline for MOA to complete Commissioning: 80 WD after Energisation

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(no timescales – this is a new step to make existing obligations clearer)

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### Code of Practice 4 Changes

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- Where measurement transformers are owned by a BSC Party that Party shall be responsible for ensuring the requirements of 5.5, are performed on its Metering Equipment up to and including the Testing Facilities. In addition that Party shall prepare, and make available upon request to the appointed MOA, complete and accurate commissioning records in relation to these obligations.
- Where measurement transformers are owned by a BSC Party that Party ~~The MOA~~ shall provide such evidence, as BSCCo may require, to confirm that, following its Commissioning, Metering Equipment (up to and including the Testing Facilities) shall meet the requirements of the Code and relevant Codes of Practice. Where measurement transformers are not owned by a BSC Party the Registrant, via its appointed MOA, shall be responsible for these requirements.

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**BSC CP1497**

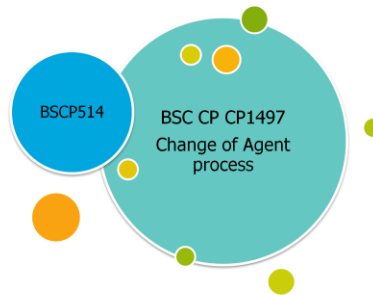
Introduction of data flows for Half Hourly Meter Operator Agents to pass on Commissioning information when there is a Change of Agent

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## Change of Agent Process

- BSCP514 2.2.2 Termination of Appointment of Meter Operator Agent

(...) c) Data and other information to be transferred shall include Meter Technical Details including that relating to the associated Communications Equipment as appropriate, **commissioning data**, mapping data and certification and/or calibration details. (...)



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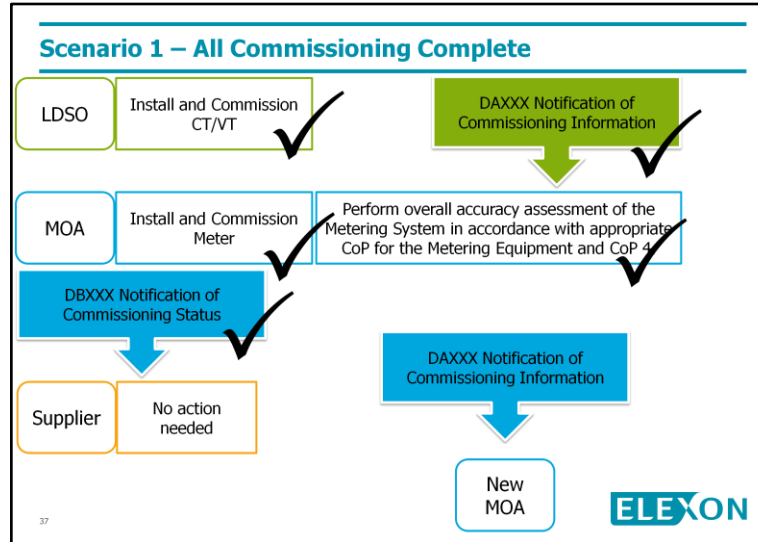
There is no formal process within the BSCPs for the passing of commissioning information when there is a change of agent.

It only states that it shall be transferred

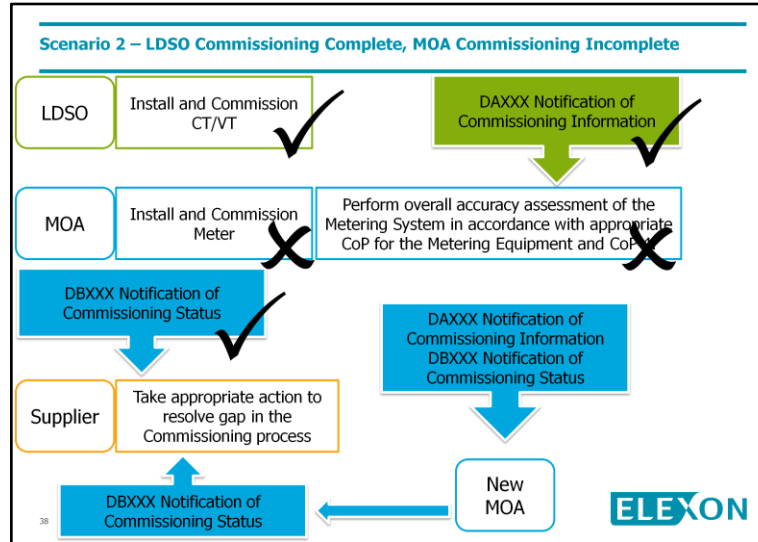
The two data flows will be introduced into the COA process to facilitate the passing of information

Both DAxxx and DBxxx flows will be used in this process

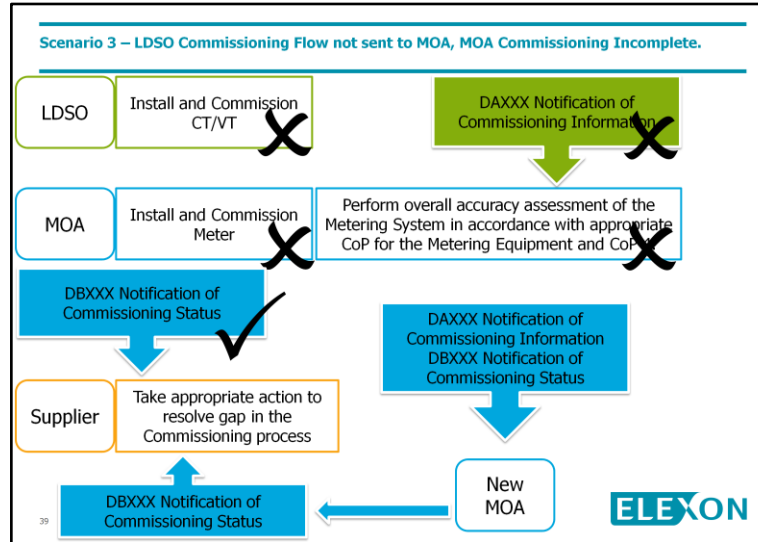




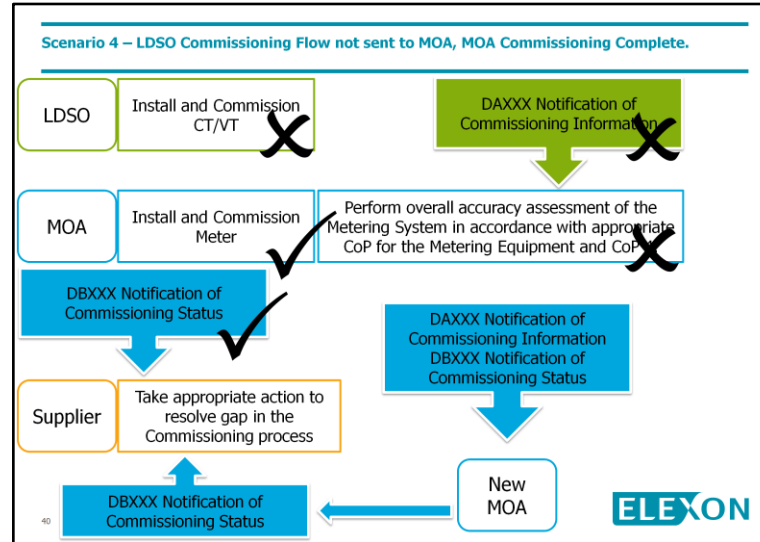
Scenario 1: All Commissioning completed and all information available for when there is a CoA.  
At same time as D0268



Scenario 2: Measurement transformer Commissioning information is available but the MOA was not able to complete the Commissioning process before the CoA took place. Information will be sent from the old MOA to the new MOA and from the new MOA to the Supplier.  
At same time as D0268



Scenario 3: Measurement transformer Commissioning information is not available because it had not been received by the old MOA before the CoA took place. The MOA work has also not been completed in this scenario. Information will be sent from the old MOA to the new MOA and from the new MOA to the Supplier.  
At same time as D0268



Scenario 4: Measurement transformer Commissioning information is not available because it had not been received by the old MOA before the CoA took place. The MOA Meter Commissioning has been done (but overall accuracy has not because the measurement transformer information has not been received. Information will be sent from the old MOA to the new MOA and from the new MOA to the Supplier.

At same time as D0268



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Technical Assurance Agent

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Changes to Scope of 2018 – 2019  
Audit Year



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Technical Assurance Agent

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CVA

Auditing Multi- Circuits



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Technical Assurance Agent

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CVA

The Auditing of Offshore Metering  
Installations





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## Technical Assurance Agent

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SVA

Changes to Raising Commissioning  
Non-Compliances in Relation to the  
Introduction of P283



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Technical Assurance Agent

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SVA/CVA

Recording of Zero Load on Site  
During the TAA Audit



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## Technical Assurance Agent

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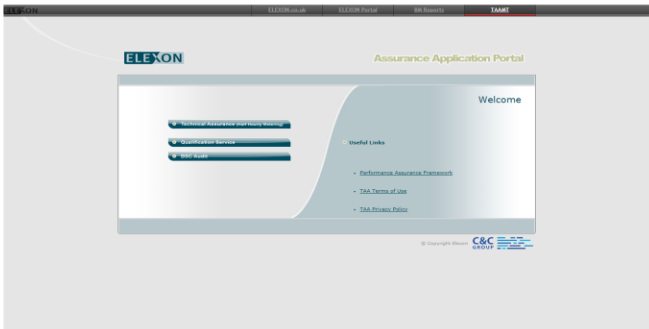
Important TAA Pages and Functionality

**[www.elexon-assurance.co.uk](http://www.elexon-assurance.co.uk)**



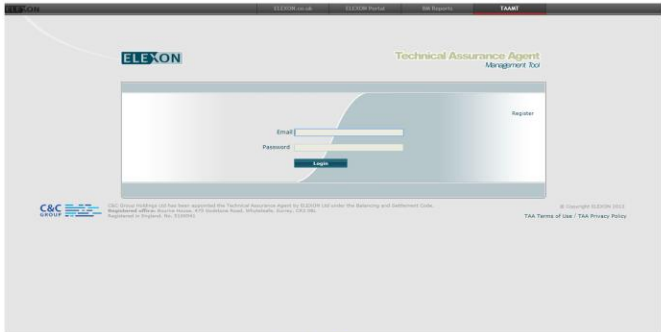


# Technical Assurance Agent



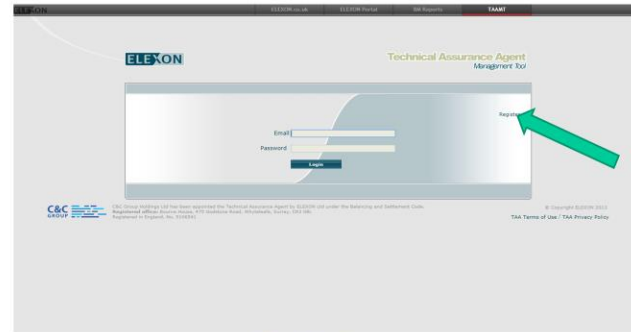
[www.elexon-assurance.co.uk](http://www.elexon-assurance.co.uk)

# Technical Assurance Agent



Login Page

# Technical Assurance Agent



Registration



# Technical Assurance Agent

The screenshot shows a web browser window with the ELEXON logo and the title 'Technical Assurance Agent Management Box'. The main content is a registration form with the following fields: First Name, Email Address, Password, Telephone Number, Last Name, Company, Country, and Mobile Number. A 'Register' button is located at the bottom of the form. Below the form, there is a 'C&C GROUP' logo and a small text block containing legal information: 'C&C Group (UK) Ltd has been appointed the Technical Assurance Agent for 2012/13 and under the following conditions: Registered office: Service House, 175 Sandstone Road, Whitstable, Kent, UK. Reg. No. 04462044. TAA Terms of Use / TAA Privacy Policy'. The ELEXON logo is also present in the bottom right corner of the browser window.

Registration



# Technical Assurance Agent

**ELEXON** Technical Assurance Agent Management System

Home - My Settings - Logout - My TAA - HomeScreen - Reports - Calendar - My Alerts - My Data Access - Help

**Introduction**  
ELEXON manages the Performance Assurance Framework (PAF) that consists of a comprehensive set of assessment, detection and corrective techniques designed to mitigate risks in the Balancing and Settlement Code (BSC) arrangements. The aim of the PAF is to provide robustness, stability, predictability and consistent assurance regarding the integrity of settlement, and to promote corrective actions to address any identified issues. Technical Assurance is a PAF technique performed by the Technical Assurance agent (TAA). The TAA is a BSC agent contracted and regulated by ELEXON, to deliver the associated BSC and Code Secondary Document requirements.

**Purpose**  
The purpose of the Technical Assurance technique is to provide assurance that High Hours Metering Systems installed for Settlement purposes correctly measure energy consumed or generated. The technique is detailed in Section L7 of the BSC and in Balancing and Settlement Code Procedure (BSCP) 27 - Technical Assurance of high-hours Metering Systems for Settlement Purposes.

**The Technical Assurance Process**  
The TAA inspects a sample of High-Hours Metering Systems registered in the BVA and CHA markets each year to determine if High-Hours Metering Systems are compliant with the requirements of the BSC and the Metering Codes of Practice, which are also Code Secondary Documents.

**TAA Management tool**  
The TAA Management Tool is a facility that has been established to help all participants administer the TAA process. Technical Assurance of Metering - TAA Agent Authorisation Documentation

The TAAIT contains details of all distribution networks on which the TAA Agents are authorised to undertake TAA audits. Details of all authorisations held by each agent can be found by selecting the Authorisations option within the TAA Help section of this website.

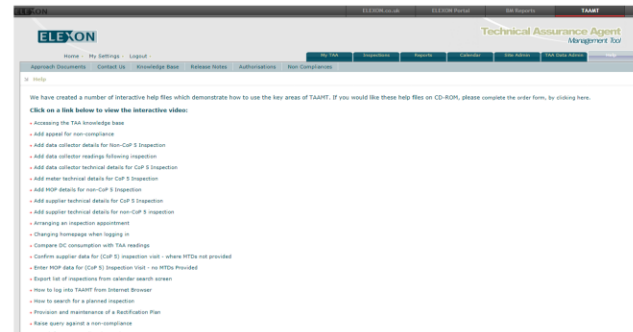
**C&C GROUP** © Copyright 2020/21, 2022  
C&C Group (UK) plc has been appointed the Technical Assurance Agent by ELEXON Ltd under the Balancing and Settlement Code.  
Registered office: 1000000000, 111 Finsbury Road, Finsbury, London, EC2A 3DU, UK.  
Registered in England No. 2132241.

**ELEXON** TAA Terms of Use - TAA Privacy Policy

Home Screen



# Technical Assurance Agent



Help Screen

# Technical Assurance Agent

The screenshot displays the 'My TAA' screen within the 'Technical Assurance Agent Management Tool'. The interface includes a navigation menu with options like 'Home', 'My Settings', and 'Logout'. The main content area is titled 'My TAA' and contains a list of key metrics:

- Provide 'Inspection' information for a planned inspection - 98
- Provide 'WOP' information for a planned inspection - 82
- Provide 'Data Collector' information for a planned inspection - 109
- Provide 'Data Collector' information for a completed inspection - 82
- Confirm Provided Data Collector KMRs - 15
- Number of DVK CAT 2 non-compliances which have not been rectified - 1
- Number of DVK CAT 2 non-compliances which have not been rectified - 1484
- Number of DVK CAT 2 non-compliances which have not been rectified - 16
- Number of DVK CAT 2 non-compliances which have not been rectified - 1993
- Number of rectification plans requiring more evidence - 2385
- Number of queries raised awaiting resolution - 1
- Number of rectification plans awaiting TAA confirmation - 114

At the bottom of the screen, there is a C&C logo and a copyright notice: '© Copyright 2019/2020 Elexon. TAA Terms of Use / TAA Privacy Policy'.

My TAA Screen



# Technical Assurance Agent

The screenshot displays the ELEXON Technical Assurance Agent web application. The main content area features a calendar for January 2018. The calendar grid shows days with colored squares indicating agent status: green for 'Accepted', red for 'Rejected', and grey for 'Unavailable'. A sidebar on the left lists various agents, and a detailed profile for a selected agent is shown on the right, including contact information and a 'View Inspection' button.

Calendar Screen



# Technical Assurance Agent

The screenshot shows the 'Technical Assurance Agent Management Tool' interface. At the top, there is a navigation bar with 'ELEXON' and 'ELEXON Portal' logos, and a 'TAA Agent' tab. Below this is a search navigation menu with options: 'Search Inspections', 'Search Policies', 'Search Quotes', 'Search Agents', 'Inspection Alerts', 'Recruitment Alerts', and 'C&C Group Search'. The 'C&C Group Search' option is selected. The main search area is titled 'Search' and contains several input fields and dropdown menus for filtering results. The fields include: 'MSID', 'Work Reference', 'Risk Code', 'Supplier', 'Inspection Period', 'Recruitment Plan Complete', 'Trading Method', 'Filter by Measure Transformer Status not accessed', 'Meter Operator', 'Date Collected', 'Walk Type', 'Distributor', 'OSP Group', 'Non Compliance', and 'Inspection Status'. Each field has a 'Please Select...' dropdown menu. At the bottom of the search area, there are 'Reset' and 'Search' buttons. The footer of the page contains the C&C GROUP logo on the left, a small copyright notice in the center, and the ELEXON logo on the right.

Search Appointments Screen

# Technical Assurance Agent

The screenshot displays the 'Technical Assurance Agent Management Tool' interface. At the top, there are navigation tabs for 'Home', 'My Settings', and 'Logout'. Below this is a search bar with a 'Filter' button and a 'To exit full screen' link. The main search area includes several filter categories: 'Search Appointment', 'Search Operator', 'Search Queue', 'Search Asset', 'Inspection Assets', 'Inspection Assets', and 'QC Group Search'. The search criteria are organized into two columns of filters:

- Left Column:** MSID, Visit Reference, Post Code, Supplier, Inspection Period, Rectification Plan Complete, Trailing Method, From (02/04/2017), Filter by: Measure Transformer Meters not accessed.
- Right Column:** Meter Operator, Data Collector, VSR Type, Distributor, GSP Group, Non Compliance, Inspection Status, To (10/04/2017).

Below the filters is a 'Search' button. The results section shows '10 Records >> Viewing page 1 of 1'. The table below contains the following data:

Visit Type	Visit Reference	MSID	MSID	Supplier	Post	QC	Distributor	Post Code	Task Date	Time
Non Sample	2017-0444	Compliant	1200002261270	JB						8:00
Non Sample	2017-0444	Non Compliant	1200002261270	JB				211 1E1	10-Aug-2017	8:00
Non Sample	2017-0444	Compliant	1200002266650	JB				211 2A7	10-Aug-2017	8:30
Non Sample	2017-0444	Non Compliant	1200002266650	JB				211 404	10-Aug-2017	8:30
Non Sample	2017-0447	Non Compliant	1210510020017	JB				212 70X	10-Aug-2017	10:30
Non Sample	2017-0447	Compliant	120010214431	C				212 142C	10-Aug-2017	11:00
Non Sample	2017-0481	Non Compliant	120052429147	C				21 00U	10-Aug-2017	10:30
Non Sample	2017-0482	Compliant	120004982170	C				21 151	10-Aug-2017	12:00
Non Sample	2017-0552	Compliant	1200060809170	C				21 483	10-Aug-2017	8:30
Non Sample	2017-0552	Compliant	1200060809170	C				21 484	10-Aug-2017	10:30

At the bottom of the screenshot, there are logos for 'C&C GROUP' and 'ELEXON'.

Search Appointments Results Screen

# Technical Assurance Agent

The screenshot displays the 'Search Failures' screen within the 'Technical Assurance Agent' application. The page header includes the ELEXON logo and navigation links such as 'Home', 'My Settings', and 'Logout'. The main content area features a search form with the following fields and options:

- Name:** Search field
- Role:** Search field
- Filters:**
  - Filter Reference: Please Select...
  - Post Code: Please Select...
  - Category: Please Select...
  - Status: Please Select...
  - Refilled: Please Select...
  - Trading Method: Please Select...
- Other filters:**
  - Help Operator: Please Select...
  - Supplier: Please Select...
  - Data Collector: Please Select...
  - Distributor: Please Select...
  - Dispatch Period: Please Select...
  - Visit Type: Please Select...
  - Site Group: Please Select...
  - Appointment Status: Please Select...
- From:** Search field

At the bottom of the search form, there are 'Reset' and 'Search' buttons. Below the search form, there is a small copyright notice: '© Copyright ELEXON 2016. TAA Terms of Use | TAA Privacy Policy'.

Search Failures Screen

# Technical Assurance Agent

The screenshot displays the ELEXON Technical Assurance Agent (TAA) interface. At the top, there is a navigation bar with the ELEXON logo and the title 'Technical Assurance Agent (Management Tool)'. Below this, there are several tabs: 'My TAA', 'Inspection Alerts', 'Rectification Alerts', and 'No Group Search'. The main area is divided into two sections: 'Search' and 'Search Failures Results Screen'.

The 'Search' section contains a grid of filters for various attributes:

- MIID
- Failure Reference
- Field Reference
- Plant Code
- Category
- Status
- Resilient
- Trading Method
- From
- Water Operator
- Supplier
- Data Collector
- Inspection Period
- Visit Type
- OSR Status
- Appointment Status
- To

Each filter has a dropdown menu labeled 'Please Select...'. Below the filters are 'Reset' and 'Search' buttons.

The 'Search Failures Results Screen' section shows a table with 8 records. The table has the following columns: 'View Inspection Details', 'View Inspection Formulas', 'MIID', 'Risk Compliance Category', 'Inspection Date', 'Question', 'Risk Compliance Status', 'Rectified', 'Escalated', and 'Total Risk Weight'.

View Inspection Details	View Inspection Formulas	MIID	Risk Compliance Category	Inspection Date	Question	Risk Compliance Status	Rectified	Escalated	Total Risk Weight
		2017-0176	1800011515	2380001202809	1.03-2017-0176	Is the Metering System clock within the allowable tolerance as detailed in section 4.2 of BS072?	Non-Compliance	No	152
		2017-1948	1800012841	11000000082020	1.03-2017-1948	Is the Metering System clock within the allowable tolerance as detailed in section 4.2 of BS072?	Outstanding	No	31
		2018-0136	1800009138	14260000000009	1.03-2018-0136	Is the Metering System clock within the allowable tolerance as detailed in section 4.2 of BS072?	Outstanding	No	16
		2018-0008	2000000008	2000001971261	1.03-2018-0008	Is the Metering System clock within the allowable tolerance as detailed in section 4.2 of BS072?	Non-Compliance	No	4

At the bottom of the results screen, there are 'Reset' and 'Search' buttons.

Search Failures Results Screen





# Technical Assurance Agent

**Collaps / Expand Inspection Details**

Provide D228 Distributor Information  
 ESI Information supplied by the Data Collector  
 ESI Information supplied by the Supplier

Inspection Confirmation	
Visit Reference Number	1200061809915
Inspection Date	September 2, 2013
TAA Agent	1200061809915
Visit Type	Mois Sample
Start Time	9:00
Appointment Status	Accepted

Data Collector At Inspection		MCP At Inspection	
Supplier At Inspection	Unknown	Distributor At Inspection	Unknown
MCP Contact Name	Unknown	MCP Contact Number	Unknown
MCP Contact Name	Unknown	Supplier Contact Number	Unknown
Distributor Contact Name	Unknown	Distributor Contact Number	Unknown

**Collaps / Expand Site Details**

Address: **NEW NIGHTINGALE PRACTICE** | GPS Latitude  
**11** | GPS Longitude  
**KENNINGHALL ROAD**  
**LONDON**  
**E9 6BY** | [View on Map](#)

**Collaps / Expand Metering Points**

HSID	1200061809915	Code of Practice	Unknown	
Metering Point Status	T	OSP Group	LC	
HSID	Name	Initial Contact	Email	Contact Number
MCP				
Data Collector				
Distributor				

Inspection Details Screen



Overview of the TAA  
Audit Process and  
Tablet Application

## Overview of the TAA Audit Process

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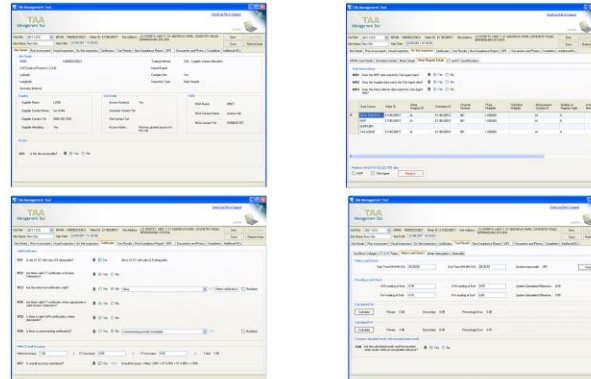
Technical Assurance Agent

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Overview of a TAA Visit  
Tablet Application



# Technical Assurance Agent



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Technical Assurance Agent

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Consumption Data  
Comparison Check



# Technical Assurance Agent

Home - My Settings - Logout

**ELEXON** Technical Assurance Agent Management System

My TAA >> DC Consumption >> Data Collector Post Inspection

Inspection Status: **Site Visited** | Visit Type: **Male Sample**  
 Visit Reference Number: **2010-0000** | Start Time: **14:00**  
 Inspection Date: **July 6, 2010** | Appointment Status: **Accepted**  
 TAA Agent: **Bill McFarlane** | ODP Group: **\_JF**  
 METER (MTRN): **0000**

Address: **Ferr Windfarm** | GPS Latitude:   
**Ferr 132/33 Kv Substation** | GPS Longitude:   
**Northwick** | [View on map](#)

Please enter the actual consumption data for the meters listed below:

Number of kWh for meter	METER ID	METER	Start Date	End Date	MWH
1330217	associated with MTRN	0000	Jan - 06-20-2010	Between - 11-20 - Jan - 23-20	

**C&C GROUP** | C&C Group Holdings Ltd has been appointed the Technical Assurance Agent by ELEXON Ltd under the Relicensing and Settlement Code. Registered office: Spring House, 475 Colindale Avenue, Colindale, London, NW9 2DB. Registered in England No. 2132041

**ELEXON** | © Copyright 2010/11 ELEXON  
TAA Terms of use - TAA Privacy Policy

CDC Entry Screen

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Technical Assurance Agent

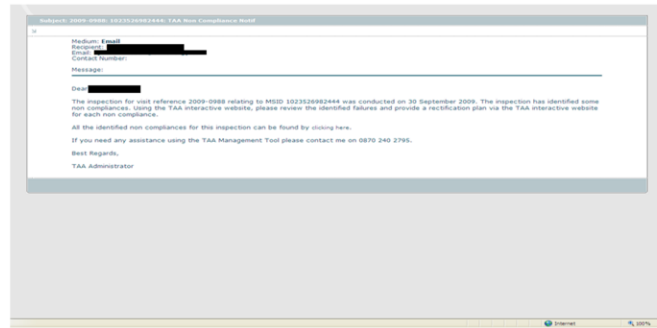
---

## Inspection Results





## Technical Assurance Agent



Notification Email

# Technical Assurance Agent

Inspections >> Search Inspections >> Inspection Details >> Non-Compliance

General Visit Info For 2010-0301

Inspector Follows

2 Records >> Viewing page 1 of 1

Ref #	Notes	Question	Comments	TAA Category	Rectified	Query	Appeal	Select
70002430	Non-compliance Outstanding	Is overall accuracy maintained?	Accuracy - Meter 0% + CT100% + VT0.00% =	2.06	No	Open		<input type="checkbox"/>
70002432	Non-compliance Outstanding	Are there valid CT certificates of accuracy?	Accuracy - Meter 0% + CT100% =	2.06	No	Open		<input type="checkbox"/>

1 Records >> Viewing page 1 of 1

Rectification Plans

1 Records >> Viewing page 1 of 1

Group ID	Group Name	Group Status	Plan Submitted	View Failures	Create/Update Plan
1012102	Rectification Plan	Not			

1 Records >> Viewing page 1 of 1

Failures

2 Records >> Viewing page 1 of 1

Ref #	Status	Question	Comments	TAA Category
70002433	Rectified During Inspection	Has a password been deleted?	Yes	Note
70002431	Rectified During Inspection	Does the Supplier Meter Register Details data match the TAA?	Incorrect meter serial number and meter ID	Note

2 Records >> Viewing page 1 of 1

C&C GROUP  
C&C Group Holdings Ltd has been approved the Technical Assurance Agent by ELEXON Ltd under the Sponsoring and Settlement Code.  
 Registered office: Second Floor, 411 Brookline Road, Whiteville, Dublin 22, D22 2B6.  
 Registered in England No. 3142343

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Non-Compliance Screen



# Technical Assurance Agent

The screenshot shows a web browser window displaying the 'Inspection Results' page. The page has a navigation bar with 'Home', 'My Settings', and 'Logout'. Below the navigation bar, there are tabs for 'Inspection Results', 'Inspection Details', and 'Inspection Results'. The main content area is titled 'Inspection Results' and contains a table of questions and answers, a 'Feed Results' section, and an 'Optical Reading' section.

Site Assessment			
Was the site accessible?	Yes	Did the TAA Agent understand the site safety rules?	Yes
Was PPE established?	Yes	Was the area free of tripping, slipping and falling hazards?	Yes
Was the area free from all other identifiable hazards? (Eg. moving plant)	Yes	Where installed, were all CCTV cameras deactivated?	Yes
Were the site alarms de-activated?	Yes	Was the metering equipment located in a satisfactory environment? (Eg. Secure and dry)	Yes
Was there sufficient access to the meter point?	Yes	Was the Metering System free from electrical hazards?	Yes
Were all meter seals intact?	Yes	Were there valid CT certificates or valid generic statements?	Yes
Were the meter test certificates valid?	Yes	Were there valid VT certificates where appropriate or valid generic statements?	Yes
Were there CoP A test certificates where appropriate?	Yes	Were there commission certificates?	Yes

Visual Inspection			
Were the seals free of signs of tampering?	Yes	Were all labels appropriate to the CoP?	Yes
Was the metering system clock within the allowable tolerance?	Yes	Following the removal of the seals, was the Metering System free from signs of tampering?	Yes
Was the timing in accordance with the correct version of the CoP?	Yes	Were all the CT risks in the open position and were the CT's not shorted out?	Yes

Feed Results			
Meter ID	1562201	Was the phase rotation correct?	Yes
Was the phase future correct?	Yes	Was the integrity of all buses correct?	Yes
Were voltages within the allowed tolerance?	Yes	Did the measured CT ratio have the ratio as the standing data ratio? - Data Collector	Yes
Did the measured CT ratio have the ratio as the standing data ratio? - Transformer	Yes	Did the measured CT ratio have the ratio as the standing data ratio? - MCP	Yes
Did the measured VT ratio have the ratio as the standing data ratio? - Data Collector	Yes	Did the measured VT ratio have the ratio as the standing data ratio? - Transformer	Yes
Did the measured VT ratio have the ratio as the standing data ratio? - MCP	Yes	Are the calculated results and the recorded meter results within an acceptable tolerance?	Yes

Optical Reading			
Optical Reading	100.00	Data Collector Reading	100.00

Meter Cores  
Data Source: DATA COLLECTOR

Inspection Results Screen



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Technical Assurance Agent

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## Rectification Plans



# Technical Assurance Agent

Ref #	Status	Question	TAF Category
100000000	Completed/Exception Confirmation	Is there a commissioning certificate?	2.13

### Rectification Plan Wizard

Plan Details	2010-05-24
WIR Reference	Plan 00000000
Rectification Action	
Rectification Target Date	01-Jan-2000
Plan Co-ordinator	Motor Operator Agent
Evidence	Cap 2.15 Commissioning Test cancelled Index 4714
Completion Date	00-Jul-2010
TAA requested further evidence	No
TAA Notes	
TAA compliance completion	No

User Name	Someone Code
Email	someone.code@energy.com

[View/Edit Evidence](#)   [View/Edit Action Plan](#)

Rectification Communication Notes   [Show...](#)

Rectification Screen

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Technical Assurance Agent

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## Queries and Appeals



# Technical Assurance Agent

**Technical Assurance Agent Management Tool**

Home - My Settings - Logout

My TAA >> My TAA Query Screen

### Query Details

Visit Reference	2010-0584
Participant	Histor Operator Agent
Contact	John Heywood
Email	john.heywood@barama.com
Failure Reference	70502796
Query Summary	Histor Commissioning
Query Description	We have submitted the order commissioning paper work, please can you provide us some more information regarding this non-compliance.
Raised on	05 Jul 2010
Query Status	Failed
TAA Response	

Documents

Save Cancel

75 **C&C GROUP** **ELEXON**

Query Screen

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Technical Assurance Agent

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## TAA Performance Reports





# Technical Assurance Agent

Report Ref	Report Name	Company Group	Report Year	Report Date	Available Date	
0004	04	Non-Compliance By Supplier and Supplier Agent	01-04-2011	British Petroleum Ltd (BP)	29-Mar-2012	Download
0004	04	Non-Compliance By Supplier and Supplier Agent	01-04-2011	British Petroleum Ltd - OGP	29-Mar-2012	Download
0004	04	Non-Compliance By Supplier and Supplier Agent	01-04-2011	GLACON	29-Mar-2012	Download
0004	04	Non-Compliance By Supplier and Supplier Agent	01-04-2011	Wynneparip	29-Mar-2012	Download
0004	04	Non-Compliance By Supplier and Supplier Agent	01-04-2011	BP Energy (BPAS)	29-Mar-2012	Download
0004	04	Non-Compliance By Supplier and Supplier Agent	01-04-2011	British Energy Civil	29-Mar-2012	Download
0004	04	Non-Compliance By Supplier and Supplier Agent	01-04-2011	Central Petroleum (CPAS)	29-Mar-2012	Download
0004	04	Non-Compliance By Supplier and Supplier Agent	01-04-2011	CEPRICA	29-Mar-2012	Download
0004	04	Non-Compliance By Supplier and Supplier Agent	01-04-2011	Central Petroleum (CPAS)	29-Mar-2012	Download
0004	04	Non-Compliance By Supplier and Supplier Agent	01-04-2011	Central Petroleum (CPAS)	29-Mar-2012	Download
0004	04	Non-Compliance By Supplier and Supplier Agent	01-04-2011	Central Petroleum (CPAS)	29-Mar-2012	Download
0004	04	Non-Compliance By Supplier and Supplier Agent	01-04-2011	Central Petroleum (CPAS)	29-Mar-2012	Download
0004	04	Non-Compliance By Supplier and Supplier Agent	01-04-2011	Central Petroleum (CPAS)	29-Mar-2012	Download
0004	04	Non-Compliance By Supplier and Supplier Agent	01-04-2011	Central Petroleum (CPAS)	29-Mar-2012	Download
0004	04	Non-Compliance By Supplier and Supplier Agent	01-04-2011	Central Petroleum (CPAS)	29-Mar-2012	Download
0004	04	Non-Compliance By Supplier and Supplier Agent	01-04-2011	Central Petroleum (CPAS)	29-Mar-2012	Download
0004	04	Non-Compliance By Supplier and Supplier Agent	01-04-2011	Central Petroleum (CPAS)	29-Mar-2012	Download
0004	04	Non-Compliance By Supplier and Supplier Agent	01-04-2011	Central Petroleum (CPAS)	29-Mar-2012	Download
0004	04	Non-Compliance By Supplier and Supplier Agent	01-04-2011	Central Petroleum (CPAS)	29-Mar-2012	Download
0004	04	Non-Compliance By Supplier and Supplier Agent	01-04-2011	Central Petroleum (CPAS)	29-Mar-2012	Download

Reports Screen

