

Public

# Commissioning of Metering Equipment

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BSC Modification P283

6 October 2014  
Sarah Fuller/Mike Smith

**ELEXON**

# Health & Safety

## In case of an emergency

An alarm will sound to alert you. The alarm is tested for fifteen seconds every Wednesday at 9.20am

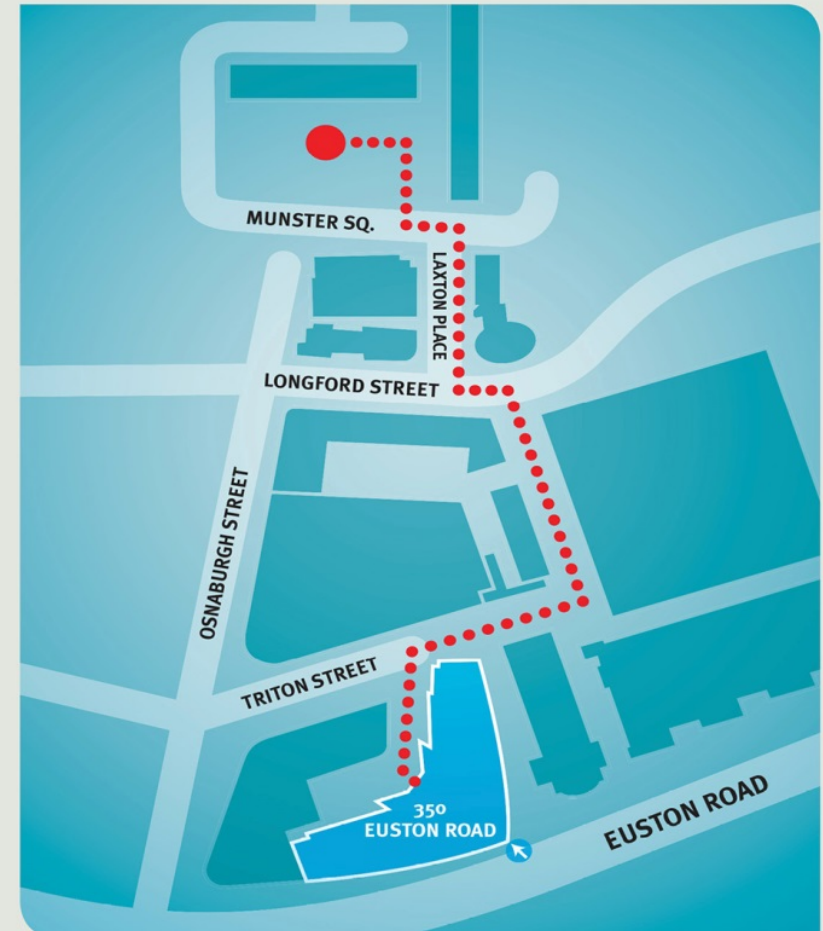
## Evacuating 350 Euston Road

- If you discover a fire, operate one of the fire alarms next to the four emergency exits.
- Please do not tackle a fire yourself.
- If you hear the alarm, please leave the building immediately.
- Evacuate by the nearest signposted fire exit and walk to the assembly point.
- Please remain with a member of ELEXON staff and await further instructions from a Fire Warden.
- For visitors unable to use stairs, a Fire Warden will guide you to a refuge point and let the fire brigade know where you are.

## When evacuating please remember

- Do not use the lifts.
- Do not re-enter the building until the all clear has been given by the Fire Warden or ground floor security.

**Our team on reception is here to help you, if you have any questions, please do ask them.**

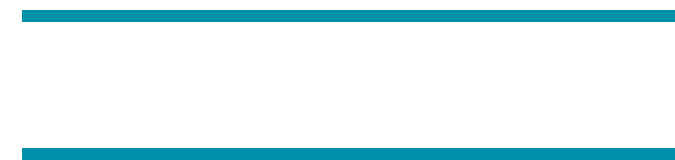


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# Welcome and Introductions

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- Present Today
- Suppliers, Meter Operators, LDSOs, Generators, the TAA and ELEXON
  - Sarah Fuller (ELEXON)
  - Mike Smith (ELEXON)
  - Paul Gregory (TAA)



## P283

# So What's all the Fuss?

- Sarah Fuller/Mike Smith/  
Paul Gregory



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## What is Commissioning?

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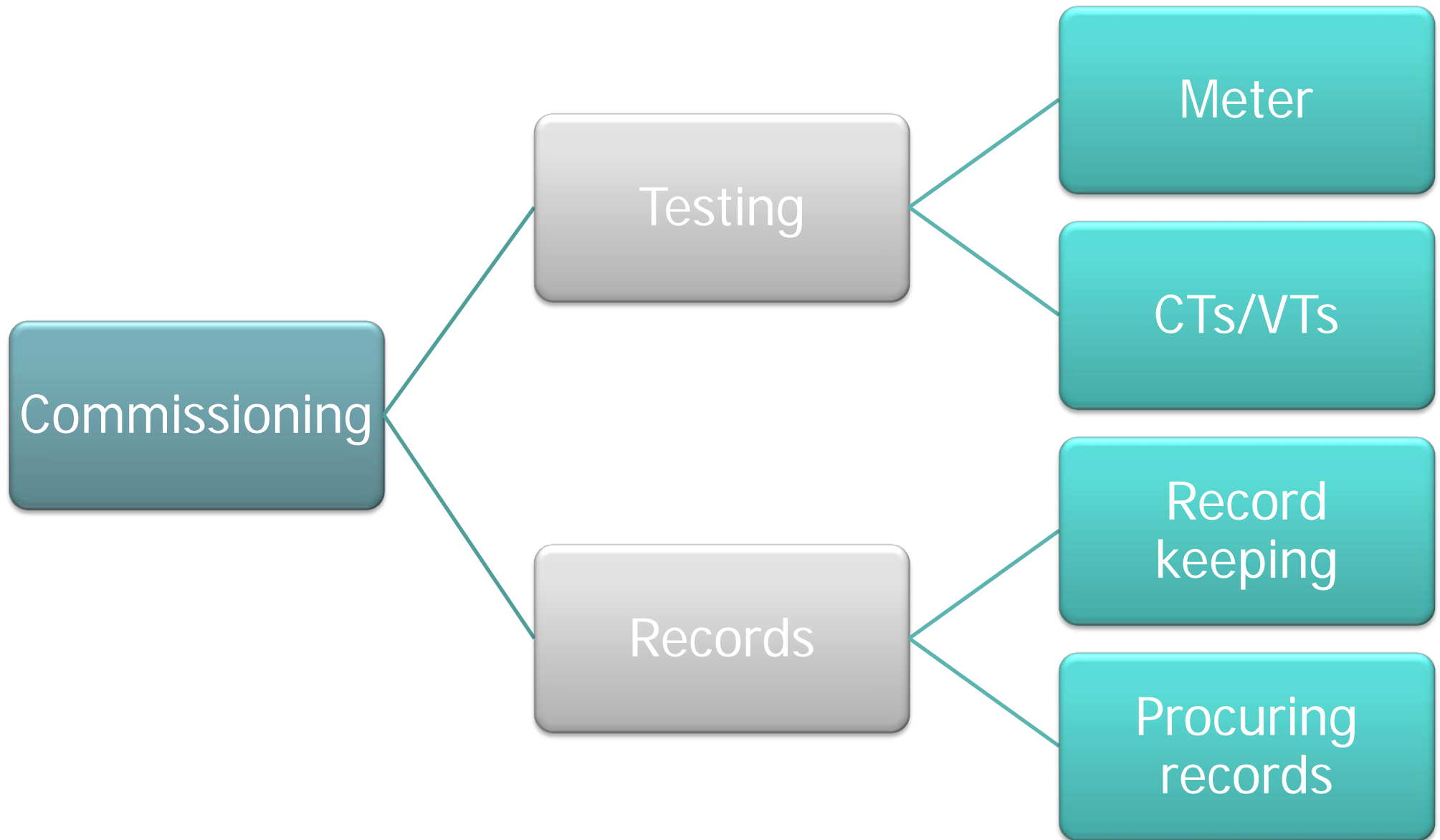
# Commissioning of Metering Systems

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- BSC Section L /Code of Practice Four (CoP4) requirement

- To be performed on all new metering equipment which is to be used in Settlement

# Code Of Practice 4 Requirements



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# What is commissioning?

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Commissioning is a series of site tests and checks to confirm that the Metering Systems is accurately recording the flows of electricity at the Defined Metering Point.

**Without commissioning there can be no certainty;**

**and**

**If there is an underlying error it may not be seen for years.**



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# How to Commission? (Pre P283)

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**It is up to the MOA to carry out and record tests which PROVE compliance**

## **CoP4 Section 5.5.2**

That the current transformers are of the correct ratio and polarity and correctly located to record the required power flow;

1. Correct ratio: Injection Test either on the primary circuit or on a test bench.
2. Polarity: DC flick test, Buck and Boost test etc.
3. Location: are the CTs at the DMP as in appendix A of the relevant CoP. Visual confirmation

**WARNING**  
Labels can be wrong

# Sample commissioning report

Requirement	Method	Result	Pass /Fail
Confirm the CT ratio	Injected 10A in primary circuit	Output of 0.25A confirms ratio of 200/5A	Pass
Confirm the CT polarity	Inject 10A in primary circuit which includes a standard CT (200/5). Combine the secondary outputs (S1 to S1 and S2 to S2) to give 0.5A – Boost test	Output of 0.5A confirmed	Pass
	Reverse the standard CT output and combine to give 0A – Buck test	Output of 0A recorded	Pass
CT Correctly located	Visually inspection. The CTs are located in the CT chamber above the cut out.	This is the DMP	Pass

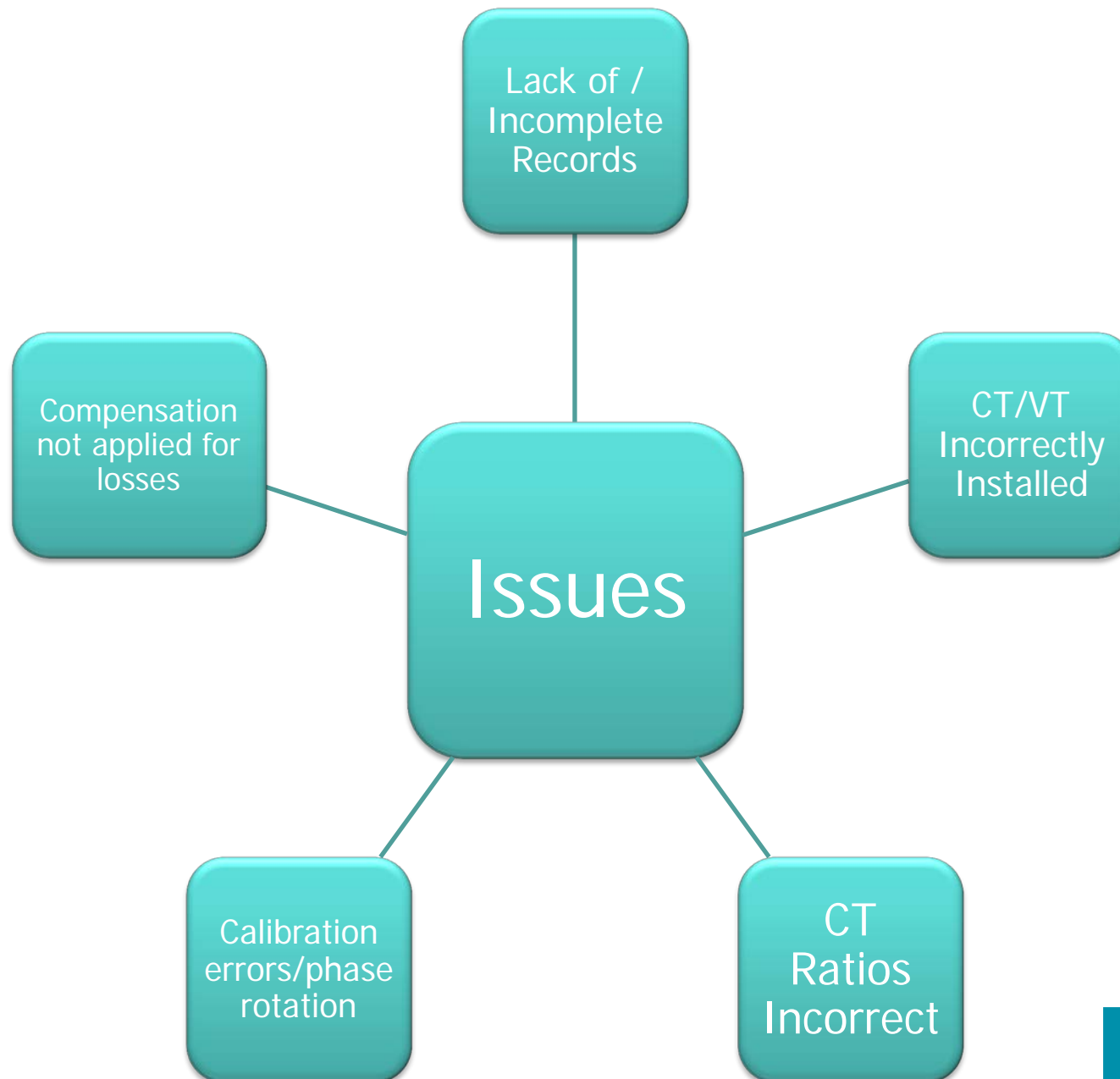


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## **Background to P283 – why the need for a Modification?**

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## Results of the 2013/14 TAA Annual Report

### Health of the Market

#### SVA

- 71% of HHMS audited had no evidence of or incomplete commissioning;
- There are commissioning issues for all HHMS where a Category 1 non-compliance was recorded.

#### CVA

- Commissioning non-compliances have reduced from 40 in 2012/13 to 32 in 2013/14 BUT sample size increases from 5% to 14.75% this year.

# Background to P283 – why the need for a Modification

## BSC Audit

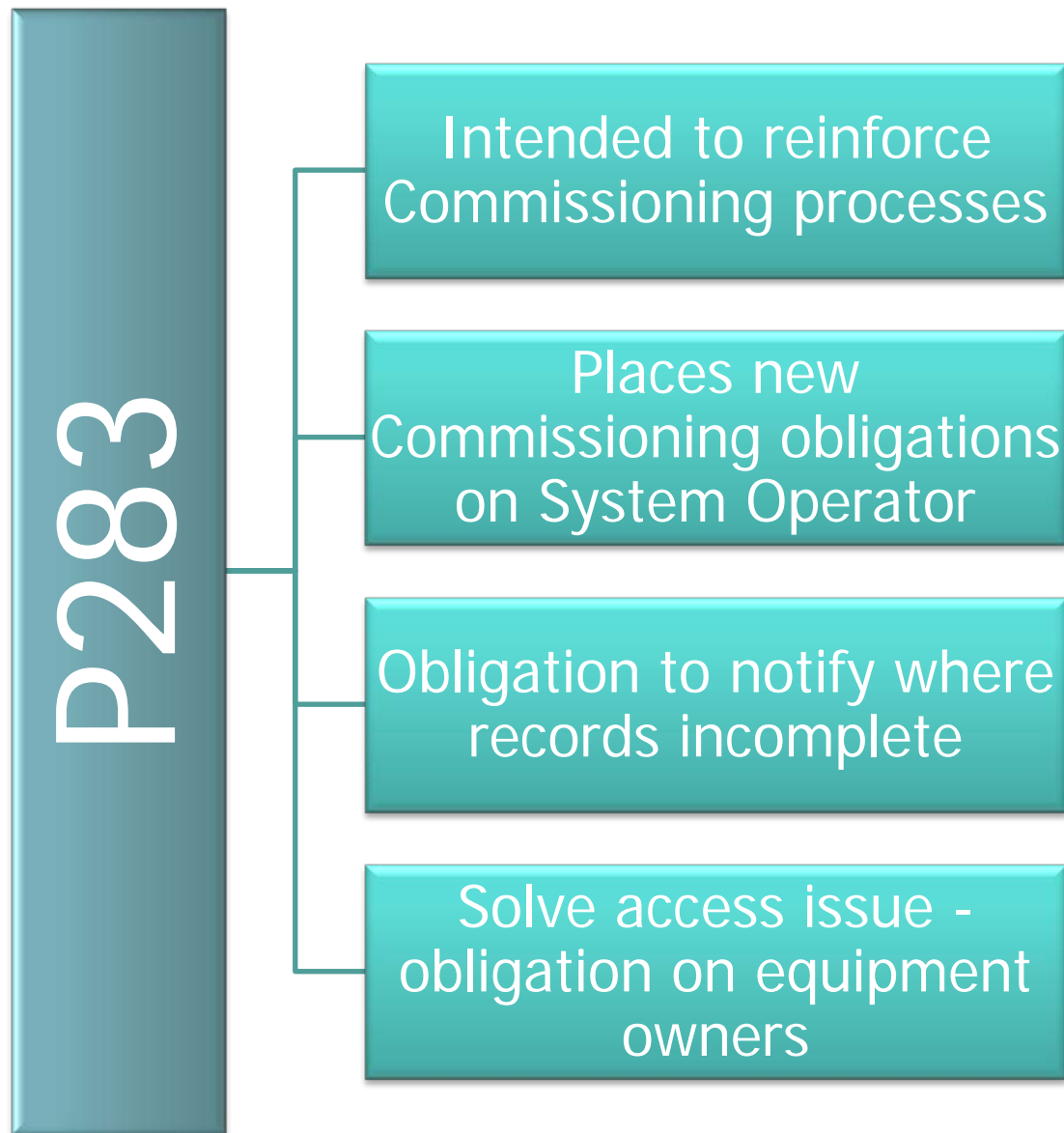
2012/2013

- Extrapolating errors due to installation and commissioning of Metering Systems would give an error of between 1.5 to 2.4TWh. Audit Qualification.

2013/2014

- Mentioned in BSC Audit report but extrapolated error < 1.5 TWh

# What is P283?





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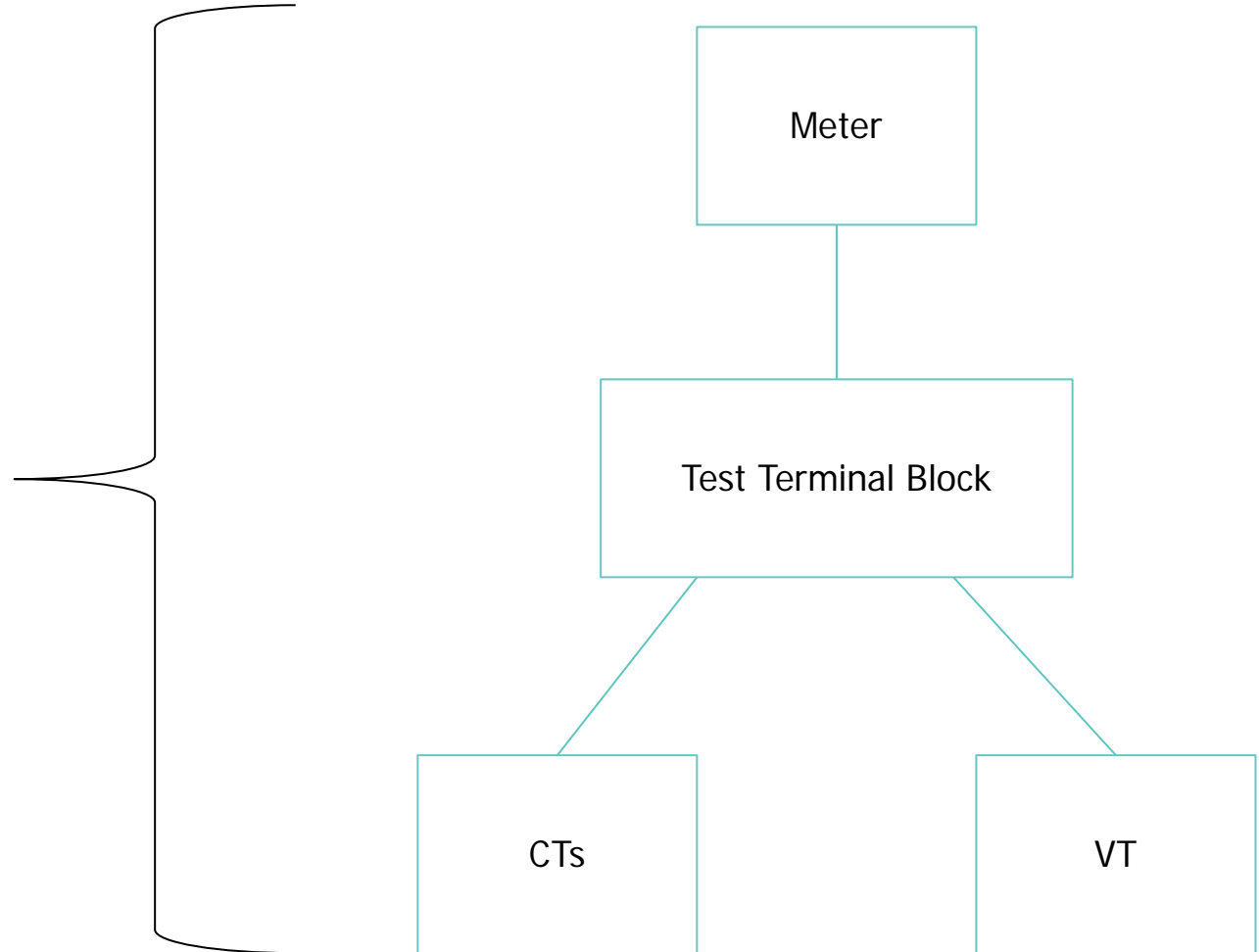
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**What do the new  
arrangements mean for you?**

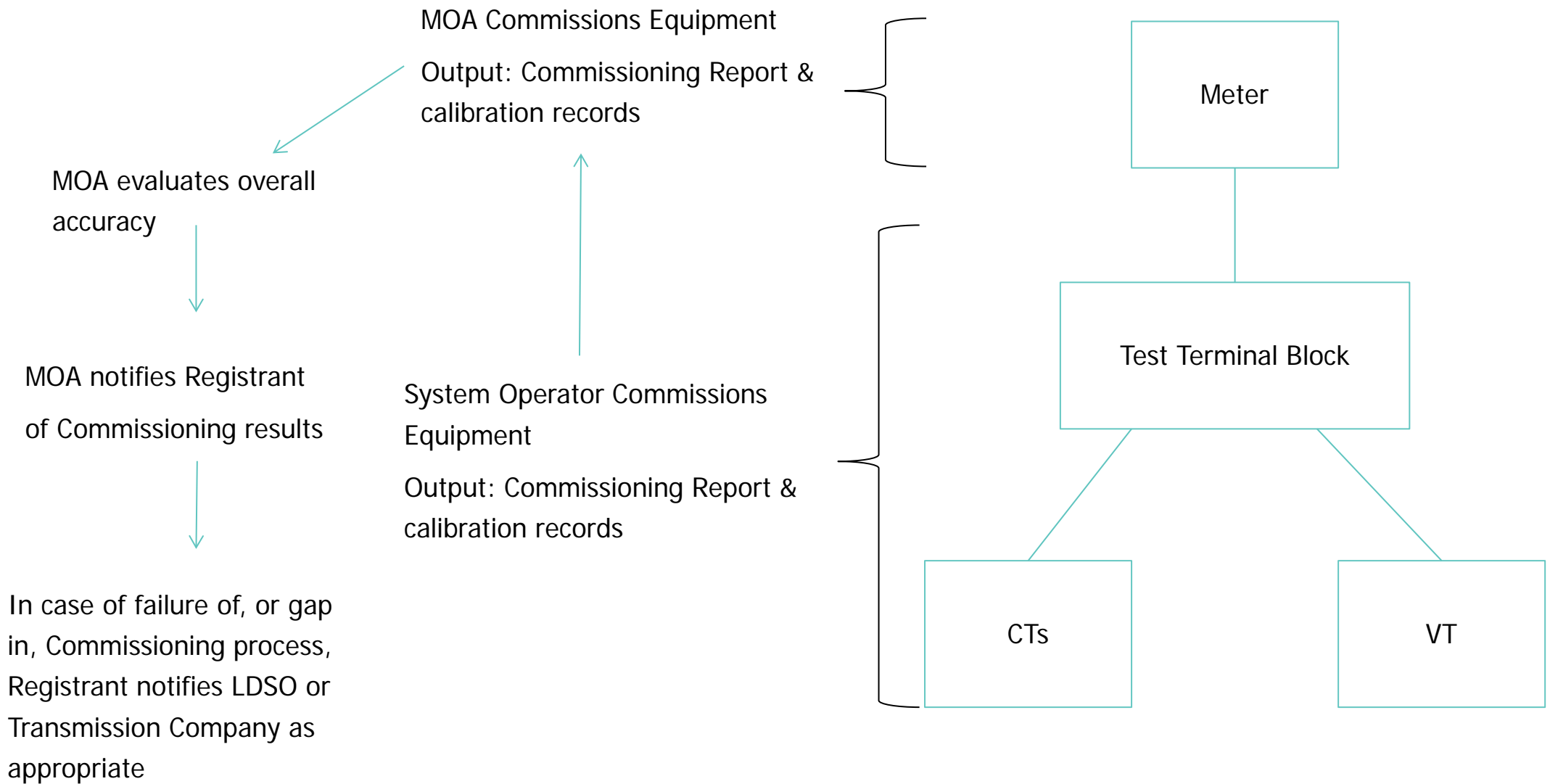


# Pre P283

MOA Commissions  
Evaluates overall accuracy  
Output: Commissioning Report & calibration records



# Post P283: The new arrangements



# What do the new arrangements mean for you?

**Supplier**



**Generator**



# What do the new arrangements mean for you?

MOA

Receive Commissioning & calibration records from LDSO/TSO

Assess for completeness and accuracy clarifying anything incorrect or unclear

Records complete - commission Metering equipment in accordance with CoP4

Inform Registrant and retain copy of records for life of Metering Equipment

Records incomplete

Escalate gap in process to Registrant

System Operator

Ensure calibration records for CTs & VTs are available

Record the CT & VT serial numbers, class accuracy, burden, makes & models.

Provide copy of Commissioning & Calibration records to relevant MOA & Supplier and retain copy for life of Metering Equipment



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## Communications under P283

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- We have provided sample forms in guidance for people to use
- Initial communications are likely to be via E-mail
- We will be providing a list of specific e-mail and telephone contacts for Suppliers, MOAs, LDSOs and the Transmission System Operator on our Portal
- We anticipate these requirements will evolve and improve over time
- TAMEG is looking at potential further developments.
- DTN? Electronic Forms? What do YOU think?



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# Questions and Open Forum

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