Electricity Transmission

Management of Electricity Metering Faults

Generation connections



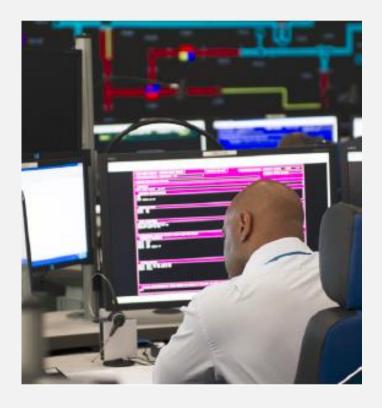
Metering is used by National Grid Electricity
Transmission and its directly connected
customers to help monitor the amount of
power flowing into or out of the High
Voltage Electricity Transmission system.
Metering can be separated into two basic
categories:

Settlement Meter readings; accurately record the flow of electricity to or from a site. Elexon uses metering system data to calculate energy imbalance charges. Such equipment is usually owned by the customer (e.g. Generators) and managed in conjunction with Elexon. National Grid Electricity Transmission do not have any responsibility for this equipment.

Operational Meter readings; are derived from secondary interfaces to the above settlement metering. Such Operational Metering equipment is owned and managed by National Grid Electricity Transmission. Operational metering can provide summator readings to the Electronic Despatch and Logging (EDL) systems used in Power Stations. Such feedback metering is not used for settlement imbalance charges.

How do I know if the fault is Settlement or Operational metering?

In the example overleaf, the source of the data is derived from the Generators Settlement Metering apparatus, which is connected to the local interface equipment. The Operational Meter Summator Front End (OMS FE) sends the information (sometimes over a considerable distance) to the Operational Meter Summator Processor End (OMS PE),

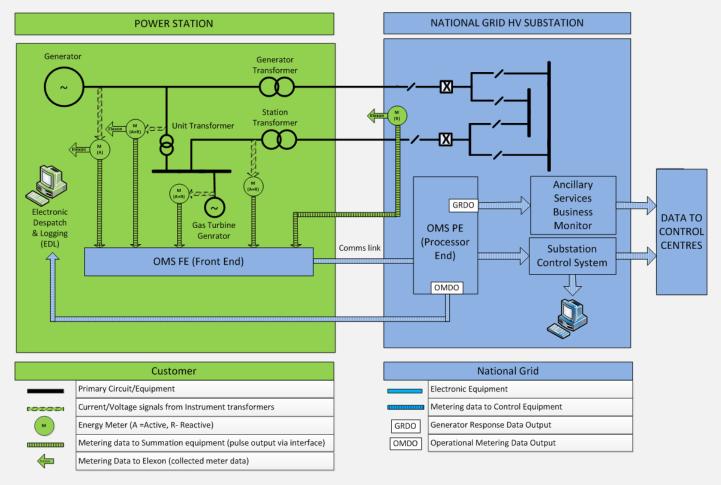


where it is processed and fed into the National Grid Electricity Transmission substation control system for use by National Grid Electricity Transmission Control Centres.

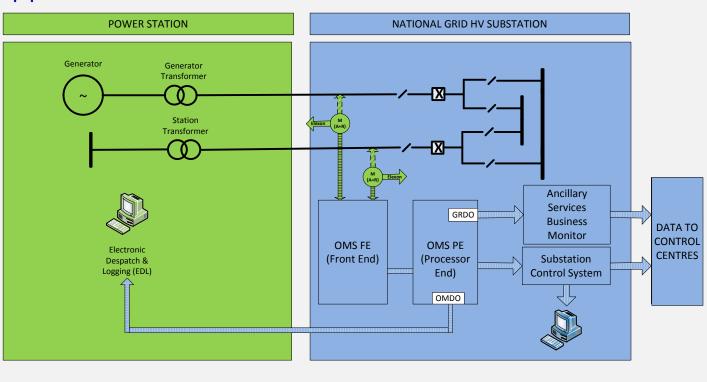
It can also be returned to the Generator for use in their Electronic Despatch and Logging systems via the Operational Metering Data Output communication link.



Below is an example of a typical 'LV Metered' OMS Installation. In this example the metering is situated in the Power Station before being processed within the National Grid Electricity transmission Substation.



Below is a example of a typical 'HV Metered' OMS Installation. In this example the metering is situated within the National Grid Electricity Transmission Substation along with the processing equipment.



Customer			
	Primary Circuit/Equipment		
<i>VZZZZ</i> 2	Current/Voltage signals from Instrument transformers		
M	Energy Meter (A =Active, R- Reactive)		
	Metering data to Summation equip. (pulse output via interface)		
Elexon	Metering Data to Elexon (collected meter data)		

National Grid			
	Electronic Equipment		
	Metering data to Control Equipment		
GRDO	Generator Response Data Output		
OMDO	Operational Metering Data Output		

Ownership Responsibilities

The ownership of the equipment is normally defined in the Site Responsibility Schedule associated with the location. The table below provides information on typical ownership responsibilities:

Equipment	Responsible Party/ Owner	Туре
Settlement Metering Systems	Customer	Settlement
OMS FE	NGET	Operational
OMS PE	NGET	Operational
OMDO connection	NGET	Operational
EDL	Customer	Operational

Settlement Metering faults

It is the responsibility of the customer to manage faults relating to settlement metering. The Central Data Collection Agent will notify the Meter Operator Agent and registrant if it becomes aware of a metering fault.

Is there anything I can check before I report a fault?

Should the EDL information appear suspect for any reason and need to be corrected, the following route to assist resolution should be undertaken:

- 1. Check if the EDL equipment is receiving a signal or not?
 - a) Loss of signal indicates a potential National Grid Electricity Transmission Operational metering fault.
 - b) If you believe a signal is being received by the EDL, then the EDL equipment needs to be checked.
- Check that the source data (e.g. Generator owned Settlement Metering) is functioning correctly and providing a signal output to the NG OMS equipment.
- 3. Where possible, check if the communication equipment to the EDL is functioning correctly (note that this can also be Generator owned equipment).

Operational Metering faults

It is the responsibility of National Grid Electricity Transmission to manage faults relating to Operational Metering.

I've identified a fault on National Grid Electricity Transmission metering equipment, what do I do?

If the above checks indicate that the metering fault is National Grid Electricity Transmission's responsibility, you can report suspected faults by contacting the National Grid Electricity Transmission Network Control centre using the following numbers:

Northern (England & Wales) Locations 0844 892 0372

TNCC.CENorth@nationalgrid.com

Southern (England & Wales) Locations 0844 892 0371

TNCC.CESouth@nationalgrid.com

For further information, please email

box.tncc.policy@nationalgrid.com