SMETS2 Installer guide

End to End commissioning process & Training notes

SMETS2 Installer guide

Welcome to your SMETS2 installer guide, here you should be able to find all of the answers to any questions you may have and this should also help you to resolve any issues along the way. Good Luck.

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Top Tips
- Do **NOT** remove the legacy gas meter until the SMETS2 gas meter has commissioned successfully at the meter point
- **ALWAYS** select **PPMID** on the ToughPad in order to commission an IHD
- Ensure "CAPS LOCK" is OFF when scanning GUID's & barcodes
- Do **NOT** put the "Property of EDF energy" stickers on the new gas meters
- Always **shutdown** your toughpad at the end of your day to ensure sufficient updates are made
- Always check your **emails** to receive the most recent communications.

SMETS 2 BOCT
The SMETS 2 Back office commissioning team should only be used when it is not possible to commission using the toughpad due to system or connectivity issues.
The SMETS2 Back office is separate from the SMETS1 team.

Useful contacts

TSS – 0208 298 8625
0208 298 8629

SMETS2 BOCT – 0800 096 5070

SMETS1 BOCT – 0333 009 7004

SMETS1 BOCT
If exchanging from a SMETS1 to a SMETS2 meter you will still need to follow the process for De- commissioning the SMETS1 meter by contacting SMETS1 BOCT – If you install a SMETS1 as a result of trouble shooting you will also need to commission the SMETS1 again via BOCT.

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QUICK TSG

- Always check your device has connectivity before beginning any commissioning or attempting any joining
- Always refer to TSG before contacting TSS or Back office
- Hot swapping means you can remove the comms hub from the meter without de-energising the supply
- Ensure the customer familiarisation box is ticked before commissioning your IHD when completing SMETS – SMETS Jobs
- If using back office commissioning ensure all details are still captured (scanned) on the Toughpad

Objection handling

Customer objections can be common when trying to install a smart meter. This is because of the stories they may have heard from the news or from other suppliers. It's important to try and manage the customer's objections before aborting any installs.

Your IHD will show your energy usage in pounds and pence (as well as kilowatt hours)

Customers won't need to take a manual meter reading

It's free to have a smart meter fitted

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Installing SMETS1 on a SMETS2 job

On rare occasions it may be necessary to install a SMETS1 meter on a SMETS2 job type. If it's a Dual Fuel job both electric and gas meters being installed should be SMETS1.

> Note the MPAN and contact SMETS1 Back office team 0333 009 7004

> Advise BOCT you are installing a SMETS1 meter on a SMETS2 Job – ask BOCT to send the i10 flows & provide MPAN

> Remove the SMETS2 Meter & Install SMETS1 meter

> Call BOCT and commission Electricity meter

> Complete job on toughpad – ensure you capture the IHD serial number, comms hub serial number & reads in the additional information
> Notes must contain the prefix #IHD

When completing a SMETS1 install on a SMETS2 job please ensure you delete any remaining SMETS2 data such as the GUID's.
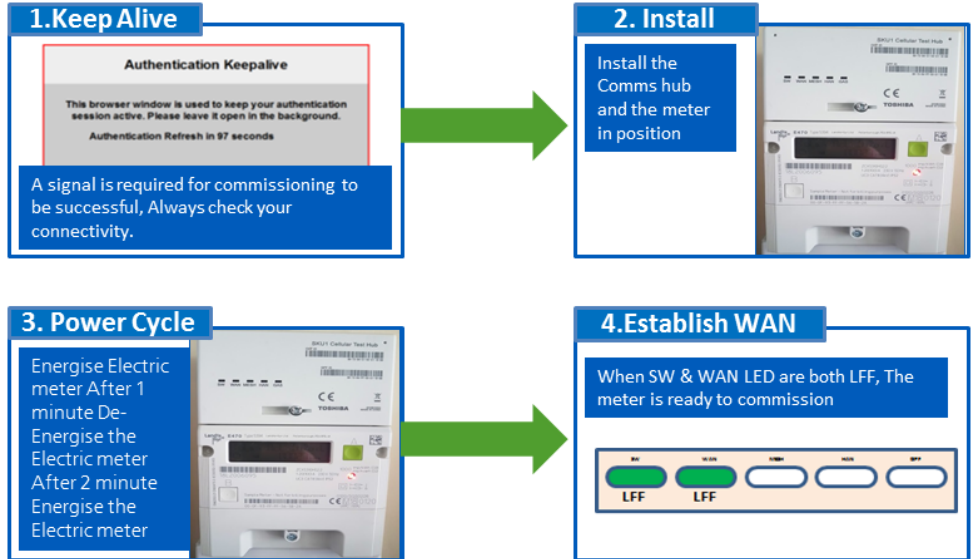
Use this space to add notes

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Installation & power up

Before initiating the electricity commissioning, you will need to install & power up the system.

The power up sequence and power cycle process must be completed before beginning the commissioning.

Each device is installed and commissioned separately.

- Electricity & comms hub
- Gas (if DF)
- IHD

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Electricity commissioning journey

1. Scan Assets
Scan the meter & comms hub details – Ensure CAPSLOCK is off
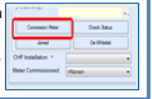
2. Keep Alive
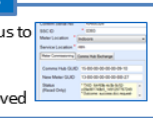A signal is required for commissioning

3. Press Commission
Press Commission on the Toughpad within 15 minutes of power up

4. Check status
Press check status to confirm the successful TXID message is received

5. Establish HAN
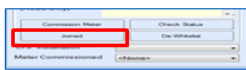The HAN LED should be MFF. The SW & WAN LED will remain LFF

6. Elec meter joined
A solid signal icon will be appear on the ELEC meter & confirm it has commissioned
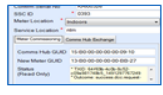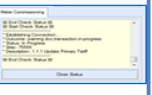
7. Press Joined
Press joined on the Toughpad

8. Check status
After 2 minutes press check status
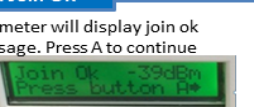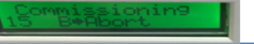
9. Proceed to next job
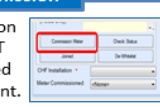Wait for messages, proceed to Gas if DF, or IHD if SF

Use this space to make notes

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Gas commissioning journey

DO NOT REMOVE EXISTING GAS METER

1. Scan assets

Scan the meter & comms hub details – Ensure CAPSLOCK is off

2. Existing Gas

Power up the new gas meter at the existing position by pressing A

3. Keep Alive

A signal is required for commissioning

4. Press Commission

Press Commission The meter MUST be commissioned at the meter point.

5. Join HAN

Navigate to the HAN join menu. Long press B Short Press B

6. Join OK

Gas meter will display join ok message. Press A to continue

7. Establish HAN

The HAN LED will be in MFF for up to 10 minutes.

8. Keep Alive

A signal is required for commissioning

9. Press join

Press join on the Toughpad, The meter will wake up every 4 mins for 1 h

10. Check Status

Press check status & wait for 1.1.1 message, then exchange the meter

11. Proceed to next job

Press B on meter after receiving the 8.7.2 message to access meter index screen to complete purge, relight & pressure test

The New GAS meter must be commissioned at the existing meter point to ensure it can and has got a sufficient HAN signal. If the HAN signal cannot be reached at the meter point we do not go ahead with the gas install.

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IHD Commissioning journey

1.Keep Alive
A signal is required for commissioning

2. Plug in & power up
Plug In & power up the IHD as close the Elec meter as possible

3. Join network
Navigate to the engineer Menu & prepare the IHD to join the HAN

4. Scan assets
Scan the GUIDS & ensure you select PPMID in the drop down.

5. Keep Alive
A signal is required for commissioning

6. Press commission
Press commission & wait for the TXID success message

7. IHD updates
The IHD will show a solid WIFI symbol the time & date and will beep three times.

8. HAN join
The HAN LED will be flashing at a medium frequency

9. Press joined
Check keep alive before pressing joined and look for txid success message

10. Check for consumption
Wait for 1 minute & check the IHD for consumption

11. Customer familiarisation
Using the new interactive app, guide the customer through the familiarisation

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Customer familiarisation

As part of OFGEM regulations, we are required to provide "tailored" Energy Efficiency advice at every install. The new app supports installers by providing tailored advice.

"Here's the Smart Energy App. It shows you how to make the most of your In-home display"

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Common error scenarios

As part of the SMETS2 roll out so far there have been some small issues experienced when commissioning the Gas meter
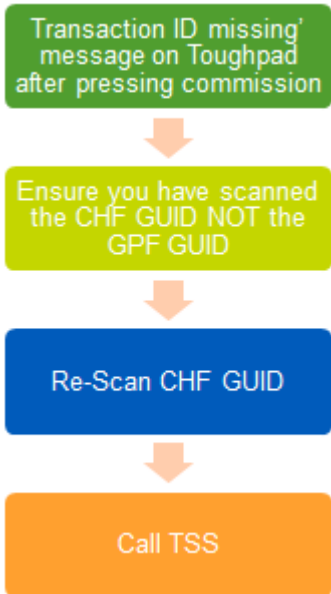
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'Transaction ID missing' message on Toughpad after pressing commission

Ensure you have selected PPMID NOT IHD in the Customer Familiarisation drop down box

Select PPMID whilst working on the Toughpad. Whilst talking to the customer you should be referring to IHD

Call TSS

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Customer Familiarisation Tab does not appear on the Gas job

Ensure you have clicked the 'Customer Familiarisation' tick box to enable the tab on the Toughpad

Call TSS

| Operation Summary | Existing Gas Meter Details | Customer Familiarisation | Close Job |

Asset Information

☑ Pre Installation Site Safety Test

GT Issue Category <None>

GTCode <None>

GT Issue Notes

Existing Gas Meter Serial E8S0D2389724

Existing Comms Hub No

Existing IHD Number

Regulator Batch No

Work Code Read,Inspect or Abort

☐ Medium Pressure ☐ Post Install Gas Safety required

☐ Update Asset Data ☑ Customer Familiarisation required

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Privacy PIN

From 1st July there is a change to the information that gets cleared from a SMETS2 meter on a removal. This change has been made to reduce the time spent on site for meter exchanges, down from approximately six hours. To avoid this some messages have been removed, but this means some of the customers data will remain on the meter.

To ensure that the customers data cannot be accessed you will be required to add a privacy PIN number onto the meter. Once you have started the removal process on the HHU add the Privacy PIN to the meters.

If there is already privacy PIN on the meter you will not be required to add one. You need to add a 4 digit Privacy PIN number that is random and not written down anywhere. Repeat this process for both electric and gas meter if applicable. Do not use easily identified Privacy PIN numbers like 0000 or 1234.

This process needs to be followed for any SMETS2 meter removal.

Adding a privacy PIN to a SMETS2 GAS meter

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Adding a privacy PIN to a SMETS2 Electricity meter

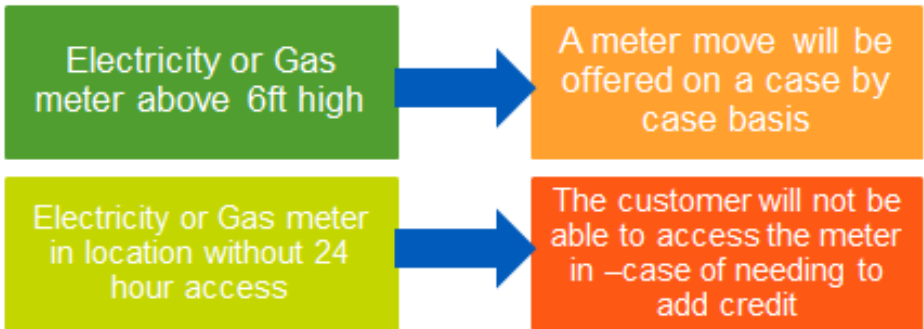| Select Manage Pin | B | Manage PIN? A:No B:Yes |
Enable Pin	B	Enable PIN? A:No B:Yes
Create PIN	B	Enter PIN ***
Confirm PIN	B	Confirm PIN ****
Save and Enable PIN	B	PIN Enabled

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PAY AS YOU GO (PAYG)

At the end of each job there is a need to perform a quick Suitability check – this check will determine whether the customer's property (meter set up) is suitable for a Pay as you go meter in the future. This check will be logged on the close job page of the toughpad.

The meter needs to be accessible at all times in case of scenario's where there is a loss of a WAN or HAN signal which would stop the meter working correctly.

| Electricity or Gas meter above 6ft high | → | A meter move will be offered on a case by case basis |
| Electricity or Gas meter in location without 24 hour access | → | The customer will not be able to access the meter in –case of needing to add credit |

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SMETS2 Back office commissioning team

Installer should always follow SMETS2 installation process

If the installer notices a fault with the toughpad that will prevent commissioning, they can call BOCT

Each device will require a separate call. e.g. for a Dual fuel install there would be 3 phone calls

Once commissioned installer will need to contact job closure team in Bexleyheath to enable the job to be closed.
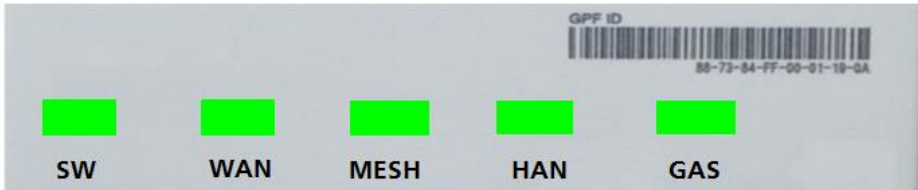
Installer will need to set the customers expectations, as the BOCT process can take additional time.

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SMETS2 L&G Meter LED Indications

GPF ID

88-73-84-FF-00-01-19-0A

| SW | WAN | MESH | HAN | GAS |

SW – Software

WAN – Wide Area Network - Cellular

MESH – Lit *instead* of WAN on RF Mesh Installation

HAN – Home Area Network

GAS – Gas Meter Connected (if lit)

The LEDs on the front of the Comms Hub have five modes, each mode will indicate something different:

SOLID *(Initial 'Power Up' state)*

HIGH FREQUENCY *(Fast Flash = **Error state**)2 flashes per second*

MEDIUM FREQUENCY *(**Transient state**) 1 flash per second*

LOW FREQUENCY *(Slow Flash = **Normal state**) 1 flash every 2 seconds*

OFF

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PPMID (Prepayment meter interface device)

A PPMID is essentially the same as your IHD – The main difference of this device is that it can communicate 2 ways which means we can change tariff configurations on the meter without performing a site visit.

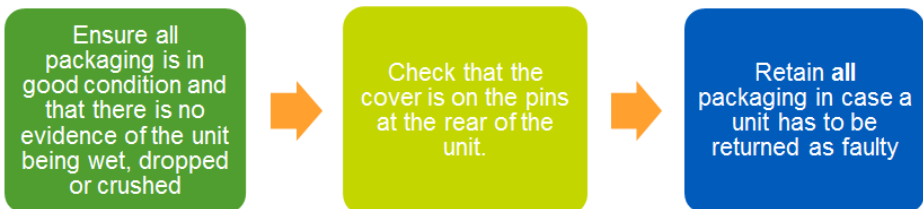For all SMETS2 jobs we will be installing a PPMID type device over an IHD. The IHD will still display tariff, cost & usage information in the same way we are used to and we will still refer to it as an IHD.

Pre installation checks

Before you begin the Smart meter installation, It is imperative that the packaging for the communications hub is inspected before use and that pre-installation checks are completed:

Ensure all packaging is in good condition and that there is no evidence of the unit being wet, dropped or crushed	Check that the cover is on the pins at the rear of the unit.	Retain **all** packaging in case a unit has to be returned as faulty

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In service test error

```
IST Message displayed    →    The terminal cover is    →    Press the A button. Tighten the
on electricity meter            not sufficiently              cover until there is no wiggle in
                                tightened and will cause      it (without overtightening). The
                                a tamper alert to be          same would apply to the
                                raised                        battery cover on a gas meter
```

```
I S T ?              A = N o

         B = y e s
```
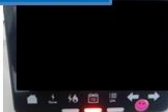
Use this space to make notes
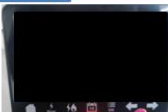
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SMETS 2 Maintenance jobs

SMETS2 maintenance jobs are classed as any job that requires an exchange or replacement of existing SMETS2 Equipment, these process cover the exchange of the PPMID, Elec meter & Gas meter – There will occasionally be the need to exchange the Comms hub however these are very rare at this stage – if this happens we still refer to TSS.
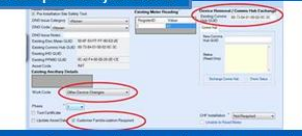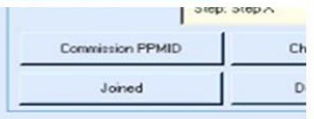
SMETS2 PPMID EXCHANGE

1. Power Cycle PPMID

Turn the PPMID off and on again to complete the power cycle

2. Call Back Office Commissioning Team

0800 096 5070

Call the SMETS2 BOCT to remove the PPMID.

3. UnJoin PPMID

Once details have been passed to BOCT they will unjoin the PPMID.

4. Advise Field Operative to continue with job

The Back Office Commissioning Team will then advise when the unjoin is completed and you can continue with the job.

5. Remove old PPMID

Return the PPMID to peli locker using orange returns bag.

6. Complete the job screens

Enter the correct details into the job screen and select Other Device Changes as the Work Code. If single fuel this will be done on the ELEC task, if dual fuel this will be on the GAS task. Tick the Customer Familiarisation Required box and scan the Comms Hub GUID.
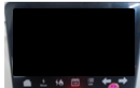
7. Commission New PPMID

Commission new PPMID and complete job following BAU process.

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SMETS2 Electricity meter exchange
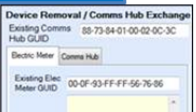
1. UnJoin and remove PPMID

Follow the SMETS2 to SMETS2 PPMID Exchange Process to remove & unjoin the PPMID. Return via orange bag once unjoined by Back Office Commissioning Team.

2. De-Commission meter

Status
(Read Only)

Remove Electric Meter | Check Status

Press Remove Electric Meter button to decommission the meter, Wait for these service requests to complete: 4.1.1, 4.1.2, 8.8.1, 8.8.2, 8.11, 8.3 and to see 'Data Model Update' success before proceeding.

3. Trigger Meter Removal

Device Removal / Comms Hub Exchange
Existing Comms Hub GUID   88-73-84-01-00-02-0C-3C
Electric Meter Comms Hub
Existing Elec Meter GUID   00-0F-93-FF-FF-56-76-86

On the Electric meter tab, make sure the Elec Meter and Comms Hub GUID fields are populated.

4. Scan Old Meter

Existing Meter Removal Details

Removal Barcode* 58756809

Removal Reason* No Longer Required ▼

EMTR Picture   20180212 1200023423349 □

After the meter has been de-commissioned on the Toughpad, scan the existing meter details in the removal section on the Toughpad.

5. Set a Privacy Pin

PIN Enabled
□

Before de-energising the existing meter, you need to set a privacy PIN to protect the customers data.

6. Remove Old Meter

Remove the SMETS2 meter & return using peli locker, you will need to keep the comms hub to re-install on the new meter.

7. Install New Meter

Install the new meter and ensure the existing comms hub is used, you will need to power cycle this meter.

8. Commission new details

New Meter Details
Meter Serial No   * I09G12345
Confirm Serial No   * I09G12345
SSC ID   * 393
Meter Location   * Indoors   ▼
Service Location   *NTM
Meter Commissioning Comms Hub Exchange

scan the new meter and existing comms hub data , commission the meter following BAU process.

9. Commission New PPMID

Join IHD/PPMID
Join PPMID
New PPMID GUID   AB-CD-AB-CD-AB-CD-30-04
Status   *Outcome: success doc completed ▲
(Read Only)   Status: Success
                  Step: StepX   ▼
Commission PPMID   Check Status

On the existing meter tab you will need to tick the 'Customer Familiarisation Required' box. Scan and commission the new PPMID. Complete the job following the BAU process.
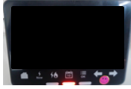

Use this space to make notes
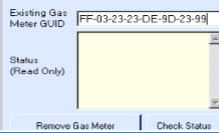

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SMETS2 Gas exchange process
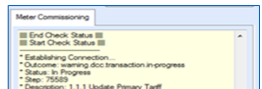
1. UnJoin and remove PPMID

Follow the SMETS2 to SMETS2 PPMID Exchange Process to remove & unjoin the PPMID. Return via orange bag once unjoined by Back Office Commissioning Team.

2. Trigger removal sequence

Existing Gas Meter GUID: FF-03-23-23-DE-9D-23-99

Status (Read Only)

Remove Gas Meter   Check Status

On the Gas Meter tab, make sure the Gas Meter and Comms Hub GUID fields are populated

3. Wait for successful service requests

Meter Commissioning

▒ End Check Status ▒
▒ Start Check Status ▒

* Establishing Connection...
* Outcome: warning dcc.transaction.in-progress
* Status: In Progress
* Step: 75589
* Description: 1.1.1 Update Primary Tariff

Wait for the Sequence to complete. Look for any of these service requests: 4.1.1, 4.1.2, 8.8.1, 8.8.2, 8.11, 8.3 and to see 'Data Model Update' success before proceeding.

4. Scan Old Meter

Existing Gas Meter Removal Details

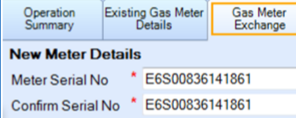Removal Barcode* E6S00836141861
Removal Reason*
FMTR Picture

Scan the removal barcode after the meter has been removed in the system, NOT via Back Office Commissioning Team.

5. Set Privacy PIN

PIN Accepted

You need to set a privacy PIN to protect the customers data.

6. Scan New Meter

Operation Summary | Existing Gas Meter Details | Gas Meter Exchange

New Meter Details

Meter Serial No * E6S00836141861
Confirm Serial No * E6S00836141861

Scan the new meter and comms hub data using their Toughpad as per BAU
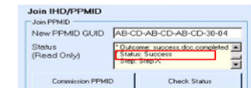
7. Install New Meter

After the new GAS meter has passed the 8.1.1 process, install the new gas meter, complete an appliance check, gas purge and u-gauge pressure test.

8. Remove Old Meter

Remove the old meter and return using the orange returns process.

9. Commission New PPMID

Join IHD/PPMID
New PPMID GUID   AB-CD-AB-CD-AB-CD-30-04
Status (Read Only)   * Outcome: success.doc.completed
                      * Status: Success
                      * Step: StepX
Commission PPMID   Check Status

On the existing meter tab you will need to tick the 'Customer Familiarisation Required' box. Scan and commission the new PPMID. Complete the job following the BAU process.

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Acronyms

DCC	Data communication company
DSP	Data service providers
CSP	Communication service providers
ESME	Electricity Smart metering equipment
GSME	Gas Smart metering equipment
CHF/CF	Comms hub function / comms hub
IHD	In home Display
PPMID	Prepayment meter interface device
GUID	Global unique ID
BOCT	Back office commissioning team
TSG	Trouble shooting guide