

# WP198 – EMR Site Testing Volumes and Selection Process

EMRS Working Practice

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## Change Amendment Record

Version	Date	Description
1.0	9 Oct 2015	Go Live version.
2.0	24 Nov 2015	Corrections
3.0	6 Dec 2017	Transfer to template

## **1. Introduction**

As part of Electricity Market Reform (EMR) there will be a metering assurance process that will test a percentage of the sites awarded either a Contracts for Difference (CFD) or a Capacity Agreement in the Capacity Market (CM). Some of these tests will be conducted before the contract start and others during the contract period.

The Low Carbon Contracts Company Ltd (LCCC) has been designated by the Secretary of State as the CFD Counterparty Body and is responsible for acting as the Counterparty to CFDs and managing the scheme. The Electricity Settlements Company Ltd (ESC) has been designated as the CM Settlement Body and is responsible for managing the CM scheme. LCCC and ESC have outsourced the metering assurance process to a Management Services Provider (MSP).

### **1.1 Scope and Purpose**

This document has been written by EMR Settlement Ltd (EMRS) on behalf of the Low Carbon Contracts Company (LCCC) for Contracts for Difference (CFD) and the Electricity Settlements Company (ESC) for the Capacity Market (CM). It covers procedures for the Management Services Provider (MSP) and Metering Agent (MA) roles. The MSP role is being fulfilled by EMRS for the 2015/16 financial year. The MSP and MA roles will be subject to a LCCC and ESC procurement exercise for subsequent financial years. If you have any questions on the MSP and MA roles please contact LCCC or ESC.

This working practice describes the process that the MSP shall use for determining what sites should be tested as part of the EMR Metering Assurance process.

EMR Metering Assurance is split into two categories:

1. Capacity Market (CM)
2. Contracts for Difference (CFD)

The MSP is responsible for both of these.

In CM and CFD the number of tests conducted onsite will be determined from the risk category that the Capacity Provider or CFD Generator falls into.

The MSP will determine the volumes to be tested for each of the categories below:

- CM Metering Test;
- CM Delivery Year Audit;
- CFD Witness Private Network Commissioning Tests; and
- CFD Technical Assurance Audits.

## 1.2 Main Users and Responsibilities

Table 1: Main Users and Responsibilities

Role	Responsibilities
Electricity Settlements Company (ESC)	To arrange a Service Provider to manage the metering assurance process and agree testing percentages.
Low Carbon Contracts Company (LCCC)	To arrange a Service Provider to manage the metering assurance process and agree testing percentages.
Management Services Provider (MSP)	Service Provider who will perform the management of the Metering Assurance Process on behalf of the LCCC and ESC.
Metering Agent (MA)	Service Provider who will perform the onsite testing and analysis of technical specifications and test results on behalf of the Management Services Provider.

## 1.3 Associated Documents

This Working Practice should be read in conjunction with the following documents:

- Electricity Capacity Regulations 2014<sup>1</sup> and all subsequent amendments
- Capacity Market Rules 2014<sup>2</sup> and all subsequent amendments
- CFD Standard Terms and Conditions<sup>3</sup> and all subsequent amendments
- CFD Agreement and all subsequent amendments
- Private Network CFD Agreement and all subsequent amendments
- EMR Working Practice WP197 - Capacity Market Metering Test<sup>4</sup>
- EMR Working Practice WP196 - Capacity Market Metering Technical Assurance<sup>4</sup>
- EMR Working Practice WP2 - Contracts for Difference Private Network Meter Commissioning, Proving and Calibration Tests<sup>4</sup>
- EMR Working Practice WP134 - Contracts for Difference Metering Technical Assurance<sup>4</sup>
- EMR Guidance 21 - Operational Conditions Precedent<sup>5</sup>

<sup>1</sup> <http://www.legislation.gov.uk/ukxi/2014/2043/contents/made>

<sup>2</sup> <https://www.gov.uk/government/publications/capacity-market-rules>

<sup>3</sup> <https://www.gov.uk/government/publications/contracts-for-difference-standard-terms-and-conditions>

<sup>4</sup> <https://emrsettlement.co.uk/publications/working-practices/>

<sup>5</sup> <https://www.emrsettlement.co.uk/publications/guidance/>

## 2. Methodology

### 2.1 Capacity Market Metering Test

The number of Metering Tests to be conducted is determined following the completion of the Metering Assessment (submitted as part of Prequalification Information<sup>6</sup>). A Capacity Provider will answer some questions in the Metering Assessment regarding their metering arrangements and connection to the Total System. From the results the Delivery Body (National Grid) will decide whether a Metering Test is required.

Any Capacity Provider that requires a Metering Test will always have at least a Desk Based Metering Test. A percentage of those sites will also have an onsite Metering Test as part of the EMR Metering Assurance Framework. This is dependent on the risk category that the site falls into, these are:

- existing CVA/SVA registered sites;
- new build or refurbishing CVA/SVA registered sites;
- CMUs on Unlicensed Networks using a Bespoke metering solution;
- existing Balancing Services CMUs; and
- CMUs using self-submission for data provision under the transitional arrangements.

These risk categories have been put into three high level refined risk categories where there is commonality in the risks; this is detailed in Table 2 below:

Table 2: Refined Risk Categories.

Refined Risk Category	Metering Configuration Type
Central Meter Registration Service (CMRS) <b>(“CMRS Transmission / Distribution”)</b>	Existing Generator CMU – CVA Transmission connected
	Existing Generator CMU – CVA Distribution connected
	New Build CMU – CVA Transmission connected
	New Build CMU – CVA Distribution connected
	Refurbishing Generator CMU – CVA Transmission connected
	Refurbishing Generator CMU – CVA Distribution connected
Supplier Meter Registration Service (SMRS, Non-CMRS) <b>(“SMRS Distribution”)</b>	Existing Generator CMU – SVA Distribution connected
	New Build CMU – SVA Distribution connected
	Refurbishing Generator CMU – SVA Distribution connected

<sup>6</sup> all Applicants who were successful in the 2014 T-4 Capacity Market Auction, and who deferred a Metering Assessment must complete the Metering Assessment no later than the date falling three years prior to the commencement of the first Delivery Year, therefore by 5 p.m. on the 30th September 2015

	Proven DSR CMU
	Unproven DSR CMU
Unlicensed Network Connection / Bespoke Metering Solution	Proven DSR CMU
	Unproven DSR CMU
<b>(“Unlicensed Network / Bespoke”)</b>	Existing Balancing Services CMU
	Unlicensed Network / Bespoke Metering Solution CMU

The Capacity Market Register maintained and updated by the Delivery Body, will contain the information required to determine the site volumes for testing. It will state whether the CMU ID requires a Metering Test, the connection type, how the site is registered and the classification of the CMU. From this information each CMU can be allocated to a risk category and thus the volumes of CMUs requiring a Metering Test per risk category can be identified.

The categories for connection type are:

- Transmission;
- Distribution; or
- Unlicensed Network.

The categories for site registration are:

- Central Meter Registration Service (CMRS);
- Supplier Meter Registration Service (SMRS or Non-CMRS); or
- Unlicensed Network (Neither CMRS or SMRS).

The categories for CMU classification are:

- Existing Generator CMU;
- Refurbishing Generator CMU;
- New Build CMU;
- Proven DSR CMU; or
- Unproven DSR CMU.

Following each Capacity Auction the MSP will manage the Metering Assurance process through a spreadsheet which will contain all CMUs that have been awarded a Capacity Agreement. This spreadsheet will contain:

- Bidding Company Name;
- Applicant Company Name;
- CMU ID;

- CMU Name;
- CMU Classification;
- Capacity (MW);
- Connection Type;
- Registration;
- MSID or MPAN;
- Metering Test Required.

There will be a separate spreadsheet for each CM Delivery Year.

An example of the spreadsheet can be seen in Table 13 in Appendix 1.

For each CMU, irrelevant of whether it requires a Metering Test or not, all CMRS / SMRS sites will be checked by the MSP to see if they have had a Balancing and Settlement Code (BSCCo) Audit by requesting access to the Technical Assurance Application Portal. This process will be repeated annually on the anniversary of the publication of the Capacity Market Register.

The spreadsheet developed (example in Table 13, Appendix 1) will have the information from the BSCCo Technical Assurance Audit (TAA) added to it. The extra columns that are shown in Table 3 will be added to the right hand side. Each row is related to a CMU ID and associated MSID or MPAN.

*Table 3: BSCCo TAA extra column example*

BSCCo Audit	Date of Audit	Issues with Metering
Yes	24 October 2012	No Issues
Yes	15 May 2013	Category 2: No evidence of primary load on commissioning paperwork
No	N/A	N/A

If a TAA visit has reported a non-compliance has been identified which is deemed to be currently affecting the quality of data for Settlement purposes (NC or Category 1 non-compliance<sup>7</sup>) the CMU will automatically be selected for an onsite Metering Test, irrelevant of whether the non-compliance has been resolved.

For the Metering Test site determination process the spreadsheet shall be filtered for CMUs that require a Metering Test.

Another table should be created to subdivide the sites into CMU classification and each classification further subdivided into connection type, where this is:

- Transmission CMRS;

<sup>7</sup> See BSCP27 for more information on TAA non-compliances <https://www.elexon.co.uk/bsc-related-documents/related-documents/bscps/>



- Distribution CMRS;
- Distribution Non-CMRS; and
- Unlicensed Network Non-CMRS.

An example of the spreadsheet can be seen in Table 4, below:

Table 4: Example of Risk Category Subdivision.

Classification	Connection	Site Volumes
Existing Generating CMU	Transmission CMRS	
	Distribution CMRS	
	Distribution Non-CMRS	
	Unlicensed Network <sup>8</sup> Non-CMRS	
New Build CMU	Transmission CMRS	
	Distribution CMRS	
	Distribution Non-CMRS	
	Unlicensed Network <sup>3</sup> Non-CMRS	
Refurbishing Gen CMU	Transmission CMRS	
	Distribution CMRS	
	Distribution Non-CMRS	
	Unlicensed Network <sup>3</sup> Non-CMRS	
Proven DSR CMU	Distribution Non-CMRS	
	Unlicensed Network <sup>9</sup> Non-CMRS	
Unproven DSR CMU	Distribution Non-CMRS	
	Unlicensed Network <sup>4</sup> Non-CMRS	

There will be a separate spreadsheet for each CM Delivery Year.

From the totals per category the number of onsite Metering Tests to be conducted is calculated from the percentage value for each risk category. This will be reviewed and agreed with ESC following each CM Auction. The current percentages (1 January 2015) per the refined risk category are:

- CMRS Transmission / Distribution 25% of Total Volume;
- SMRS Distribution 50% of Total Volume; and
- Unlicensed Network / Bespoke 100% of Total Volume.

<sup>8</sup> This is the Bespoke Metering Configuration Solution.

<sup>9</sup> This can be either the Bespoke Metering Configuration Solution or Balancing Services Metering Configuration Solution.

Should a CMU be aggregating a number of sites each CMU Component would have a desk based Metering Test (assuming Metering Assessment returns a requirement for a Metering Test) and 25% of those will have an Onsite Metering Test. This percentage will be reviewed and agreed with ESC following each CM Auction. The current percentage was agreed 1 January 2015. So from the spreadsheet created the number of sites to have an onsite test per category and connection type can be determined. The example in Table 4, below, demonstrates how the volumes for onsite testing are calculated:

*Table 5: Onsite Metering Test Volumes.*

Classification	Connection	Site Volumes	% To Test	Onsite Test Volumes
Existing Generating CMU	Transmission CMRS	40	25	10
	Distribution CMRS	10	25	3
	Distribution Non-CMRS	20	50	10
	Unlicensed Network Non-CMRS	1	100	1
New Build CMU	Transmission CMRS	5	25	2
	Distribution CMRS	1	25	1
	Distribution Non-CMRS	10	50	5
	Unlicensed Network Non-CMRS	5	100	5
Refurbishing Gen CMU	Transmission CMRS	1	25	1
	Distribution CMRS	0	25	0
	Distribution Non-CMRS	2	50	1
	Unlicensed Network Non-CMRS	0	100	0
Proven DSR CMU	Distribution Non-CMRS	2	50	1
	Unlicensed Network Non-CMRS	3	100	3

Classification	Connection	Site Volumes	% To Test	Onsite Test Volumes
Unproven DSR CMU	Distribution Non-CMRS	2	50	1
	Unlicensed Network Non-CMRS	7	100	7

Any result for the number of onsite tests to be conducted that isn't an integer number shall be rounded up.

Once the volumes have been determined the next stage is to determine the specific sites that should be selected from the CMUs that qualify for each category. The initial spreadsheet created for all CMUs awarded an Agreement will be filtered for CMUs requiring a Metering Test and then for each of the sixteen category connection types as detailed in Table 5 in turn.

For each category this will leave the CMUs that are in the applicable category and from this population the number of sites will be determined to satisfy the EMR Metering Assurance process. Any CMU that has had a Category 1 non-compliance will automatically be selected for an onsite Metering Test, irrelevant of whether the non-compliance has been resolved.

Ideally each bidding company will have at least one onsite Metering Test but this may not be possible if there are more bidding companies than Metering Tests required for a category. If this situation arises any sites that have had a TAA visit that meet the following criteria can be excluded from the onsite Metering Test selection process:

- No category 1 non-compliance reported;
- The TAA visit was within the last two years;
- All circuits involved in the CMU were tested and
- No material change since the TAA visit.

Should this still not resolve the issue, all single site bidding companies will be selected by a random number generator. No bidding company with multiple sites will be included in this process. Once the number of multiple site bidding companies has been subtracted from the total number of onsite Metering Tests required the number of single site bidding companies that need to be selected by the random selection process will be known. Any bidding company that has been excluded from the Metering Test by the random selection process will automatically be selected for a Delivery Year Audit.

Note that sites are the physical location of the CMU so if a generating station has multiple CMUs this would be considered as one site. This shall be accounted for in the site selection process. So if a

Capacity Provider has four CMUs and they are all part of a single generating station this would be considered as the bidding company having only one site in the selection process.

All qualifying bidding companies names will be assigned a number and the required number of companies will be selected using the random number generator.

Any aggregating CMU is considered to be one site but will have a proportion of components tested if selected for an onsite Metering Test. This proportion will have to be agreed with ESC on a case by case basis dependant on the volume of components making up the CMU.

For a situation where each bidding company has at least one onsite Metering Test the balance of onsite Metering Tests required is made up by selecting additional CMUs from bidding companies with multiple CMUs. Calculate the percentage of CMUs to be selected as follows:

- the number of CMUs left to be selected;
- divided by the total number of CMUs for bidding companies that have multiple CMUs.

Use this percentage for each bidding company that has multiple CMUs.

For example, if 10 CMUs were to have an onsite Metering Test and two had been selected from bidding companies with a single CMU, then the number of CMUs left to be selected would be eight. If there were eight bidding companies each with two CMUs the denominator would be 16 – the resulting percentage would be 50%.

If a bidding company has four sites then two of their CMUs will be selected to make up the balance of Metering Tests in that risk category.

Where sites are being selected from different geographical areas, these will be based on the MPAN area (see Figure 1: GB map split into geographical regions in Appendix 2). CMRS sites will be slotted into an MPAN area based on the address of the CMU. So if a bidding company has four CMUs and three of them are in one geographical area the two sites that would be selected would be one of the three in the same area and the other site not in that area. The one site to be selected from three will be determined by the random selection process. As the bidding company has had at least one onsite Metering Test the CMUs excluded by the random selection process will not automatically be selected for a Delivery Year audit.

Having an onsite Metering Test on multiple CMUs that are part of the same site (generating station) is to be avoided unless it is the only way to achieve the quota of onsite tests.

Consider the example in Table 5. In this instance the category is existing generators that are Distribution connected and non CMRS. There are 10 sites in the category and five of them are to have an onsite Metering Test as in this category the proportion of onsite Metering Tests is 50%. Of the 10 sites there are four bidding companies with bidding company X having four, A having two and Y & B having one each.

Table 6: Example of Sites per Category

Bidding Company	CMU ID	Selected for Onsite Metering Test
X	XCMU1	Yes
	XCMU2	No
	XCMU3	Yes
	XCMU4	No
Y	YCMU1	Yes
A	ACMU1	No
	ACMU2	Yes
B	BCMU1	Yes

As five CMUs require a test and there are four bidding companies the criteria of an onsite Metering Test for each bidding company can be met. So in this example bidding company Y and B will have an onsite Metering Test.

To allocate the three remaining tests between bidding company X and A the first stage is to calculate the percentage to be applied to the balance of the CMUs. So there are two bidding companies with six CMUs between them. So the percentage to be applied would be 33% (i.e.  $(2/6) \times 100$ ). This is rounded up to give bidding company X two tests and bidding company A one test. This satisfies the criteria of five tests overall.

If bidding company A has had a TAA visit that meets the criteria outlined previously on CMU ACMU1 then it will be ACMU2 that will be selected for the onsite Metering Test.

If none of bidding company X CMUs has had a TAA visit the geographical method will be used. Let us assume that CMUs XCMU2, XCMU3 and XCMU4 are in the same geographical area. This would result in XCMU1 being selected. The random selection process would be used to find the remaining site required, so if XCMU3 was randomly selected it would be the final site selected.

All qualifying CMU IDs will be allocated a number and the random selection process will be used to get the desired number of onsite Metering Tests.

Once the selection process has been completed for an onsite Metering Test for each category the spreadsheet created for all CMUs with a Capacity Agreement will have a columns added (between Metering Test and BSCCo Audit) stating whether the site has to have a Metering Test conducted onsite and the date the onsite Metering Test occurred. This is detailed in the example in Table 7:

Table 7: Onsite Metering Test extra column example.

Metering Test	Onsite Metering Test	Date of Onsite Test	BSCCo Audit
Yes	Yes	To be completed	Yes

Yes	No	N/A	Yes
No	N/A	N/A	Yes
Yes	Yes	To be completed	No

## 2.2 Capacity Market Metering Test Timescales

The MSP will inform the MA of the CMUs to have a Metering Test and the CMUs from that population that require an onsite Metering Test, as per the process in WP197 Capacity Market Metering Test<sup>10</sup> working practice.

If during the desk based Metering Test the MA wants to clarify something by way of an onsite Metering Test they will inform the MSP and it will be added to the list of Metering Tests to be conducted onsite. This will be an addition to the volumes already determined by the MSP.

The Capacity Provider is responsible for requesting a Metering Test. The MSP will inform the MA when a Capacity Provider has made such a request. The requirements in the Capacity Market Rules for the completion and issue of a Metering Test Certificate to the Capacity Provider are no later than:

- Date falling 18 months prior to start of first Delivery Year for an existing Generator CMU or Proven DSR CMU awarded a Capacity Agreement in the T-4 auction;
- Date falling 1 month prior to start of relevant Delivery Year for an existing Generator CMU or Proven DSR CMU awarded a Capacity Agreement in the T-1 auction;
- Date falling 1 month prior to start of relevant Delivery Year for an Unproven DSR; and
- As soon as reasonably practicable after the CMU becomes operational and not later than the Long Stop Date<sup>11</sup> for a New Build or Refurbishing Generator CMU.

## 2.3 Capacity Market Delivery Year Audit

As part of the EMR Metering Assurance process there will be a number of audits conducted onsite during the Delivery Year. These are based on the same refined risk categories (Table 2, Section 3.1 Capacity Market Metering Test) used for the Capacity Market Metering Test.

The selection of the CMUs to have a Delivery Year audit is focussed on sites that:

- Had no Metering Test;
- Had no onsite Metering Test (either in this Auction Delivery Year or a previous one);
- Had an onsite Metering Test a significant period of time before start of Delivery Year (not applicable in a T-1 Auction);

<sup>10</sup> <https://emrsettlement.co.uk/publications/working-practices/>

<sup>11</sup> The Long Stop Date is different depending on whether the CMU is New Build or Refurbishing. In the case of a Refurbishing CMU it is the date falling at the start of the CMU’s first scheduled Delivery Year and for a New Build CMU it is the date falling 12 months after the start of the CMU’s first scheduled Delivery Year.

- Have had no Delivery Year Audit in previous Auction Delivery Year; and
- Unlicensed Network / Bespoke, irrelevant of previous testing.

All New Build CMUs that are scheduled to have a Metering Test onsite after the start of the Delivery Year and by the Long Stop Date (i.e. the date falling 12 months after the start of the first scheduled Delivery Year) are excluded from this process.

An onsite Metering Test conducted 18 months prior to the start of the Delivery Year is considered to be a significant period of time.

The MSP will create a spreadsheet for the Delivery Year Audits split per risk category, as illustrated in Table 13 in Appendix 3. This table will be populated with the total number of CMUs per category and for each category the numbers of desk based and onsite Metering Tests will be added. From these the number of sites that have had no audit can be determined and this can be populated in the spreadsheet.

For example, if a category had 50 sites in total and 20 of them had a desk based Metering Test with 4 of the 20 having an onsite Metering Test. That would result in 30 sites having had no form of Metering Test and 46 that have had no onsite Metering Test.

From the totals per category the number of Delivery Year Audits to be conducted is calculated from the percentage value for each risk category. There is a percentage value for sites that have had no previous audit and another value for sites that have had a desk based audit for CMRS and SMRS sites. This will be reviewed and agreed with the ESC following each CM Auction. The current percentages (1 January 2015) per the refined risk category are:

- CMRS Transmission / Distribution 25% of Total Volume with no Metering Test;
- CMRS Transmission / Distribution 5% of Total Volume with only desk based Metering Test;
- SMRS Distribution 25% of Total Volume with no Metering Test;
- SMRS Distribution 5% of Total Volume with only desk based Metering Test; and
- Unlicensed Network / Bespoke 50% of Total Volume.

Any CMU that had been excluded from the Metering Test by the random selection process will automatically be selected for a Delivery Year Audit. They will make up part of the 5% volume for sites that had only had a desk based Metering Test. If the number of these sites is greater than the 5% volume all the sites will be selected and an increased number of sites in this category will be tested.

So from the spreadsheet created the number of sites to have a Delivery Year Audit per category and connection type can be determined. The example in Table 15, Appendix 4, demonstrates how the volumes for onsite testing are calculated.

Any result for the number of onsite tests to be conducted that isn't an integer number shall be rounded up.

Consider as an example a Transmission connected CMRS site that is an Existing Generator using the volumes in Table 15. There are 87 CMUs that are in this category and of those 40 have had a desk based Metering Test. Using the percentage for this category of 5% we get two CMUs.

In this category 47 CMUs have had no Metering Test. Using the percentage for this category of 25% we get 12 CMUs as any result for the number of onsite tests to be conducted that isn't an integer number shall be rounded up. This gives a total of 14 Delivery Year Audits for this category.

Once the volumes have been determined the next stage is to determine the specific sites that should be selected from the CMUs that qualify for each category. The initial spreadsheet created for all CMUs awarded an Agreement will be filtered for CMUs that didn't require a Metering Test and then for each of the sixteen category connection types as detailed in Table 15 in turn. From this the sites to have a Delivery Year Audit that had no form of Metering Test will be determined.

For each category this will leave the CMUs that are in the applicable category and from this population the number of sites will be determined to satisfy the EMR Metering Assurance process. Any CMU that has had a Category 1 non-compliance will automatically be selected for a Delivery Year Audit, irrelevant of whether the non-compliance has been resolved. Ideally each bidding company will have at least one Delivery Year Audit but this may not be possible if there are more bidding companies than Delivery Year Audits required for a category. If this situation arises any sites that have had a TAA visit that meet the following criteria can be excluded from the Delivery Year Audit selection process:

- No category 1 non-compliance reported;
- The TAA visit was within the last two years;
- All circuits involved in the CMU were tested; and
- No material change since the TAA visit.

Should this still not resolve the issue the sites to have a Delivery Year Audit will be selected by the random selection process. All qualifying bidding company names will be allocated a number and the random selection process will be used to get the desired number of Delivery Year Audits.

For a situation where each bidding company has at least one Delivery Year Audit the balance is made up by selecting more CMUs from bidding companies with multiple CMUs. For each bidding company that has multiple sites use the method outlined in Section 3.1 to determine how many sites from their portfolio should be selected.

Note that sites are the physical location of the CMU so if a generating station has multiple CMUs this would be considered as one site. This shall be accounted for in the site selection process. So if a



Capacity Provider has four CMUs and they are all part of a single generating station this would be considered as the bidding company having only one site in the selection process.

All qualifying bidding companies names will be allocated a number and the random selection process will be used to get the desired number of onsite Metering Tests.

Any aggregating CMU is considered to be one site but will have a proportion of components tested if selected for a Delivery Year Audit. This proportion will have to be agreed with ESC on a case by case basis dependant on the volume of components making up the CMU.

This process will be repeated for any category that has a percentage of the desk based Metering Test that requires a Delivery Year Audit. This process will take into account any CMU that had been excluded from the onsite Metering Test by the random selection process as they will be automatically selected for a Delivery Year Audit. If automatically selected sites have met the required volumes there will be no need for a site selection process.

Having a Delivery Year Audit on multiple CMUs that are part of the same site (generating station) is to be avoided unless it is the only way to achieve the quota of audits.

Once the selection process has been completed for the Delivery Year Audits for each category the spreadsheet created for all CMUs with a Capacity Agreement will have a columns added (between Date of Onsite Test and BSCCo Audit) stating whether the site has to have a Delivery Year Audit conducted and the date it occurred. This is detailed in the example in Table 8:

Table 8: Delivery Year Audit extra column example.

Onsite Metering Test	Date of Onsite Test	Delivery Year Audit	Date of Delivery Year Audit	BSCCo Audit
Yes	To be completed	No	N/A	Yes
No	N/A	Yes	To be completed	Yes
N/A	N/A	Yes	To be completed	Yes
Yes	To be completed	No	N/A	No

## 2.4 Capacity Market Delivery Year Audit Timescales

The MSP will inform the MA of the CMUs to have a Delivery Year Audit, as per the process in WP196 Capacity Market Metering Technical Assurance working practice<sup>12</sup>.

The MA will complete the audits during the Delivery Year, where the Delivery Year begins on the 1 October and ends 30 September.

<sup>12</sup> <https://emrsettlement.co.uk/publications/working-practices/>

## **2.5 Contracts for Difference Private Network Commissioning**

As part of the Private Network Agreement Metering Operational Framework (MOF) the LCCC has the right to witness the commissioning, proving and subsequent Meter calibration tests of the Facility Metering Equipment.

The commissioning tests can be split into tests on the Instrument Transformers and the Meters to prove correct operation. The proving test is a test on the communication system of the Meter to verify that accurate data can be taken from the Meter and submitted to EMRS. These tests are conducted prior to the Start Date.

The subsequent Meter calibrations tests are to prove the Meter is still operating within its allowed tolerances and can continue to remain in service. These tests are conducted after the Start Date.

All aspects of the commissioning and proving tests may not be performed on the same day (or may be cancelled during the visit due to technical problems) and multiple visits may be required to witness all aspects of the testing. If the MSP asks the MA to witness commissioning and proving tests (as per the process in WP2 Private Network Meter Commissioning, Proving and Calibration Tests<sup>13</sup> working practice), they will be required to make no more than two visits pre Start Date.

There is a requirement for a generator to provide a minimum of 10 Working Days notice of any commissioning and proving test. This may not allow enough time for the MA to arrange a site visit. In this instance only the review of commissioning and proving test paperwork can be completed by the MA.

With the issues involved in witnessing commissioning, generators operating on a Private network will be subject to a Metering Technical Assurance visit within 3 months of the Start Date, as per the process in WP134 Contracts for Difference Metering Technical Assurance<sup>4</sup> working practice.

The MSP will attempt to achieve at least one visit for an aspect of the commissioning and proving tests for each Private Network site by the MA.

## **2.6 Contracts for Difference Metering Technical Assurance**

As part of the EMR Metering Assurance process there will be a number of audits conducted onsite during the lifetime of a CFD Agreement. LCCC can request an audit at any time or rely on a sample audit process.

A percentage of sites will have an audit as part of the EMR Metering Assurance Framework. This is dependent on the risk category that the site falls into, these are:

- CVA/SVA registered sites; and
- Private Network registered sites.

The MSP will be notified by the LCCC of the sites allocated a CFD Agreement after every allocation round. Following this the MSP will create a spreadsheet with the details on the site, technology type, the Start Date, its connection and registration. The MSID / MPAN will be available on the Electrical Schematic Diagram when submitted as part of the Operational Further Conditions Precedent (see G21 - Operational Conditions Precedent). An example of the spreadsheet can be seen in Table 9 below:

*Table 9: Example of CFD Generator information.*

CFD ID	Site Name	Start Date	Technology Type	CVA / SVA / Private Network	MSID / MPAN

From the created spreadsheet the total volume for each category can be determined. From the totals per category the number of audits to be conducted is calculated from the percentage value for each risk category. This will be reviewed and agreed with the LCCC following each CFD Allocation round.

The current percentages per the refined risk category are:

- CMRS / SMRS 25% of Total Volume; and
- Private Network 100% of Total Volume.

So from the spreadsheet created the number of sites to have an audit per risk category can be determined. The example in Table 10 below, demonstrates how the volumes for onsite testing are calculated:

*Table 10: Audit Volumes.*

Risk Category	Site Volumes	% To Test	Audit Volumes
CMRS	4	25	1
SMRS	10	25	3
Private Network	5	100	5

Any result for the number of audits to be conducted that isn't an integer number shall be rounded up.

All Private Network generators will have an audit within three months of Start Date and then an audit every three to five years for lifetime of contract. This will be to a maximum of three subsequent audits with the last of these audits conducted in the final year of the CFD Agreement. As

the selection process for Private Network generators has been defined they are excluded from the site selection process.

For each CFD ID all CMRS / SMRS sites will be checked by the MSP to see if they have had a Balancing and Settlement Code Company (BSCCo) Audit by requesting access to the Technical Assurance Application Portal. This shall be done prior to each site selection process commences.

The spreadsheet developed (example in Table 9) will have the information from the BSCCo Technical Assurance Audit (TAA) added to it. The extra columns that are shown in Table 10 will be added to the right hand side. Each row is related to a CFD ID and associated MSID or MPAN.

*Table 11: BSCCo TAA extra column for CFD*

<b>BSCCo Audit</b>	<b>Date of Audit</b>	<b>Issues with Metering</b>
Yes	24 October 2012	No Issues
Yes	15 May 2013	Category 2: No evidence of primary load on commissioning paperwork
No	N/A	N/A

If a TAA visit has reported a category 1 non-compliance the CFD ID will automatically be selected for an audit unless it has been subject to a targeted audit.

Any sites that have had a TAA visit that meet the following criteria can be excluded from the audit selection process:

- No category 1 non-compliance reported;
- The TAA visit was within the last two years;
- All circuits making up the Facility Metering Equipment were tested; and
- No material change since the TAA visit.

All remaining CFD IDs will be allocated a number and the random selection process will be used to get the desired number of audits to satisfy the EMR Metering Assurance process.

Having a CFD Metering Technical Assurance audit on CFD operators with multiple sites or multiple CFDs that are part of the same site (generating station) is to be avoided unless it is the only way to achieve the quota of audits. This can be done by disregarding any subsequent CFD IDs that meet these criteria.

Once the selection process has been completed the spreadsheet created for all CFDs will have a column added (between MSID / MPAN and BSCCo Audit) stating whether the site has to have an audit and following its completion the date it occurred (further date of test columns will require to be added for Private Network sites). This is detailed in the example in Table 12:

*Table 1: Audit extra column example*

<b>MSID / MPAN</b>	<b>Audit Conducted</b>	<b>Date of Audit</b>	<b>BSCCo Audit</b>
1234	Yes	1 October 2015	No
14000123456789	No	N/A	Yes
9876	No	N/A	No
12000987654321	Yes	To be completed	No

Any targeted audit will be included in the spreadsheet under audit conducted.

Following every subsequent allocation round the process will be repeated and the spreadsheet updated. The first step is to check if any BSCCo Audits have occurred since the last check and update the spreadsheet.

Then the spreadsheet will be filtered for sites that haven't had an audit. Then exclude any sites that have had a BSCCo Audit and meet the criteria outlined previously.

All remaining CFD IDs will be allocated a number and the random selection process will be used to get the desired number of audits to satisfy the EMR Metering Assurance process.

This process will occur annually following an allocation round.

### 3. Interface and Timetable Information

#### 3.1 Capacity Market Onsite Meter Test Site Selection Process

This process describes the method to determine the volume of sites and which sites that require an onsite Metering Test per Capacity Market risk category.

Ref	Rule or Regulation	When	Action	From	To	Input Information Required	Method
3.1.1		After Auction Results Day and publication of Capacity Market Register; and within 20 WDs of publication	Create MSP Metering Test Spreadsheet for CMU required information	MSP		<ul style="list-style-type: none"> <li>Bidding Company Name;</li> <li>Applicant Company Name;</li> <li>CMU ID;</li> <li>CMU Name;</li> <li>CMU Classification;</li> <li>Capacity (MW);</li> <li>Connection Type;</li> <li>Registration;</li> <li>MSID or MPAN;</li> <li>Metering Test Required.</li> </ul>	Internal Process
3.1.2		Following 3.1.1 and within 20 WDs	<p>For each CMU check if BSCCo TAA Audit has been carried out:</p> <p>If MSP has access to Technical Assurance</p>	MSP		CMU ID and associated MSID / MPAN	Internal Process

Ref	Rule or Regulation	When	Action	From	To	Input Information Required	Method
			Application Portal perform themselves, continue to 3.1.3				
3.1.3		Following 3.1.2 and within 2 WDs	Update MSP Metering Test Spreadsheet with BSCCo TAA information	MSP		TAA visit findings for MSID / MPAN with associate CMU ID  MSP Metering Test Spreadsheet	Internal Process
3.1.4		Following 3.1.3 and within 2 WDs	Create Risk Category Subdivision Volumes spreadsheet and determine number of CMUs associated with each risk category.	MSP		MSP Metering Test Spreadsheet	Internal Process
3.1.5		Following 3.1.4 and within 2 WDs	Confirm Risk Category onsite test percentages with ESC	MSP	ESC	Risk Category Percentages  Risk Category Subdivision Volumes Spreadsheet	Email
3.1.6		Following 3.1.5 and within 5 WDs	Confirm Risk Category percentages or provide updated percentages	ESC	MSP	Risk Category Percentages	Email

Ref	Rule or Regulation	When	Action	From	To	Input Information Required	Method
3.1.7		Following 3.1.6 and within 5 WDs	Select sites using method described in Section 2.1 and update MSP Metering Test Spreadsheet	MSP		MSP Metering Test Spreadsheet Risk Category Subdivision Volumes Spreadsheet Risk Category Percentages	Internal Process
3.1.8		Following 3.1.7 and within 2 WDs	Notify MA of sites to be tested (Desk Based and Onsite)	MSP	MA	CMU ID and site contact details (name, address, phone number and email address)	Email
3.1.9		Following 3.1.8 and completion of a Metering Test; and within 2 WDs of audit	Notification of results	MA	MSP	Metering Test Results	Email
3.1.10		Following 3.1.9 and on same WD as receipt of Onsite Metering Test results report	Update MSP Metering Test Spreadsheet with onsite Test Date  <b>END PROCESS</b>	MSP		MSP Metering Test Spreadsheet Onsite Metering Test Results Report	Internal Process



### 3.2 Capacity Market Delivery Year Audit Site Selection Process

This process describes the method to determine the volume of sites and which sites that require a Delivery Year Audit per Capacity Market risk category.

Ref	Rule or Regulation	When	Action	From	To	Input Information Required	Method
3.2.1		3 Months prior to start of Delivery Year and within 20 WDs	Create Risk Category Subdivision Volumes spreadsheet and determine number of CMUs associated with each risk category.	MSP		MSP Metering Test Spreadsheet	Internal Process
3.2.2		Following 3.2.1 and within 2 WDs	Confirm Risk Category Delivery Year Audit percentages with ESC	MSP	ESC	Risk Category Percentages for Delivery Year Audits Risk Category Subdivision Volumes for Delivery Year Audits Spreadsheet	Email
3.2.3		Following 3.2.2 and within 5 WDs	Confirm Risk Category percentages or provide updated percentages	ESC	MSP	Risk Category Percentages for Delivery Year Audits	Email

Ref	Rule or Regulation	When	Action	From	To	Input Information Required	Method
3.2.4		Following 3.2.3 and within 5 WDs	Select sites using method described in Section 2.3 and update MSP Metering Test Spreadsheet Rule or Regulation.	MSP		MSP Metering Test Spreadsheet Risk Category Subdivision Volumes for Delivery Year Audits Spreadsheet Risk Category Percentages for Delivery Year Audits	Internal Process
3.2.5		Following 3.2.4 and within 2 WDs	Notify MA of sites to be tested	MSP	MA	CMU ID and site contact details (name, address, phone number and email address)	Email
3.2.6		Following 3.2.5 and completion of a Delivery Year Audit; and within 2 WDs of audit	Notification of results	MA	MSP	Delivery Year Audit Results	Email
3.2.7		Following 3.2.6 and on same WD as receipt of Delivery Year Audit results report	Update MSP Metering Test Spreadsheet with Delivery Year Audit Test Date <b>END PROCESS</b>	MSP		MSP Metering Test Spreadsheet Delivery Year Audit Results Report	Internal Process

### 3.3 Contracts for Difference Audit Site Selection Process

This process describes the method to determine the volume of sites and which sites that require a Metering Technical Assurance visit as per the Contracts for Difference risk category. This is for CMRS / SMRS sites only.

Ref	Condition	When	Action	From	To	Input Information Required	Method
3.3.1		Following an allocation round	Update MSP CFD Sites Spreadsheet for CFD required information for new CFD Generators	MSP		<ul style="list-style-type: none"> <li>• CFD ID;</li> <li>• Site Name;</li> <li>• Connection Type; and</li> <li>• Start Date;</li> </ul>	Internal Process
3.3.2		Following 3.3.1 and at any time pre Start Date; and within 1 WD of receipt of Electrical Schematic Diagram	As Electrical Schematic Diagrams are submitted add the MSID or MPAN for the associated CFD ID to the MSP CFD Sites Spreadsheet	MSP		CFD ID; MSID or MPAN.	Internal Process
3.3.3		1 Year after 3.3.1 and within 20 WDs	For each CFD that has commenced generation (i.e. post Start Date) check if BSCCo TAA Audit has been carried out:  If MSP has access to Technical Assurance Application Portal	MSP		CFD ID and associated MSID / MPAN	Internal Process

Ref	Condition	When	Action	From	To	Input Information Required	Method
			perform themselves, continue to 3.3.4				
3.3.4		Following 3.3.3 and within 2 WDs	Update MSP CFD Sites Spreadsheet with BSCCo TAA information	MSP		TAA visit findings for MSID / MPAN with associate CMU ID MSP CFD Sites Spreadsheet	Internal Process
3.3.5		Following 3.3.4 and within 2 WDs	Create Risk Category Subdivision CFD Volumes spreadsheet and determine number of CFDs associated with each risk category that has had no CFD Metering Technical Assurance Audit.	MSP		MSP CFD Sites Spreadsheet	Internal Process
3.3.6		Following 3.3.5 and within 2 WDs	Confirm Risk Category audit percentages with LCCC	MSP	LCCC	Risk Category Percentages Risk Category Subdivision CFD Volumes Spreadsheet	Email
3.3.7		Following 3.3.6 and within 5 WDs	Confirm Risk Category percentages or provide updated percentages	LCCC	MSP	Risk Category Percentages	Email
3.3.8		Following 3.3.7 and within 5	Select sites using method described	MSP		MSP CFD Sites Spreadsheet	Internal Process

Ref	Condition	When	Action	From	To	Input Information Required	Method
		WDs	in section 2.6 and update MSP CFD Sites Spreadsheet			Risk Category Subdivision CFD Volumes Spreadsheet Risk Category Percentages	
3.3.9		Following 3.3.8 and within 2 WDs	Notify MA of sites to be tested	MSP	MA	CFD ID and Generator details (name, address, phone number and email address)	Email
3.3.10		Following 3.3.9 and completion of an audit; and within 2 WDs of audit	Notification of results	MA	MSP	CFD Technical Assurance Results Report	Email
3.3.11		Following 3.3.10 and on same WD as receipt of audit results report	Update MSP CFD Sites Spreadsheet with audit Test Date  <b>END PROCESS</b>	MSP		MSP CFD Sites Spreadsheet CFD Technical Assurance Results Report	Internal Process

### 3.4 Contracts for Difference Private Network Audit Site Selection Process

This process describes the method to determine the volume of site visits for Metering Technical Assurance visits as per the Contracts for Difference risk category. This is for Private Network sites only.

Ref	Condition	When	Action	From	To	Input Information Required	Method
3.4.1		Following an allocation round	Find Private Network connected sites in MSP CFD Sites Spreadsheet	MSP		MSP CFD Sites Spreadsheet	Internal Process
3.4.2		Following 3.4.1 and same WD	Select sites found in 3.4.1; First audit to be performed within 3 Months of the Start Date. Subsequent audits to be performed between every 3 to 5 years up to a maximum of 3 audits, with the final audit in the last year of the contract. Update MSP CFD Sites Spreadsheet if selected for audit.	MSP		MSP CFD Sites Spreadsheet	Internal Process

Ref	Condition	When	Action	From	To	Input Information Required	Method
3.4.3		Following 3.4.2 and within 2 WDs	Notify MA of sites to be tested	MSP	MA	CFD ID and Generator details (name, address, phone number and email address)	Email
3.4.4		Following 3.4.3 and completion of an audit; and within 2 WDs of audit	Notification of results	MA	MSP	CFD Technical Assurance Results Report	Email
3.4.5		Following 3.4.4 and on same WD as receipt of Technical Assurance results report	Update MSP CFD Sites Spreadsheet with audit Test Date  <b>END PROCESS</b>	MSP		MSP CFD Sites Spreadsheet CFD Technical Assurance Results Report	Internal Process

## 4. Contact Information

For all queries please contact:

Contact Organisation	Contact
Settlement Services Provider (EMR Settlement Ltd)	Telephone: 020 7380 4333 Email: <a href="mailto:contact@emrsettlement.co.uk">contact@emrsettlement.co.uk</a>
Electricity Settlements Company (ESC)	Telephone: 020 7211 8881 Email: <a href="mailto:info@electricitysettlementscompany.uk">info@electricitysettlementscompany.uk</a>
Low Carbon Contracts Company (LCCC)	Telephone: 020 7211 8881 Email: <a href="mailto:info@lowcarboncontracts.uk">info@lowcarboncontracts.uk</a>

## 5. Acronyms and Definitions

A list of acronyms and definitions can be found in the 'Acronyms and Definition' document on the EMRS website<sup>14</sup>.

<sup>14</sup> <https://www.emrsettlement.co.uk/publications/working-practices/>



## 6. Appendices

### 6.1 Appendix 1 – Required Information Spreadsheet Example

Table 13: Example of required information

Bidding Company Name	Applicant Company Name	CMU ID	CMU Name	Classification	Capacity (MW)	Connection Type	Registration	MSI D/M PAN	Metering Test
ABCD	ABCD	ABCD1	Southfield 1	New Build Gen	10.781	Distribution	Non-CMRS	1200 0123 4567 8	Yes
ABCD	ABCD	ABCD2	Northfield 1	Existing Gen	565.341	Transmission	CMRS	2000	No
ABCD	ABCD	ABCD3	Northfield 2	Refurbishing Gen	727.433	Transmission	CMRS	2001	Yes
HIJK	HIJK	HIJK1	HIJK Circuit	Proven DSR	4.826	Unlicensed Network	Non-CMRS	-	Yes
XYZ	XYZ	XYZ01	XYZ1	Existing Gen	53.109	Distribution	CMRS	2002	Yes
EFGH	EFGH	EFGH1	Eastfield 1	New Build Gen	4.567	Distribution	Non-CMRS	1400 0123 4567 8	Yes
EFGH	EFGH	EFGH2	Eastfield 2	New Build Gen	6.789	Distribution	Non-CMRS	1400 0123 4569 9	Yes
EFGH	EFGH	EFGH3	Westfield 1	Existing Gen	35.432	Distribution	CMRS	2003	No
MNOP	MNOP	MNOP1	MNOP Circuit	Unproven DSR	6.324	Unlicensed Network	Non-CMRS	-	Yes

## 6.2 Appendix 2 – Geographical Regions

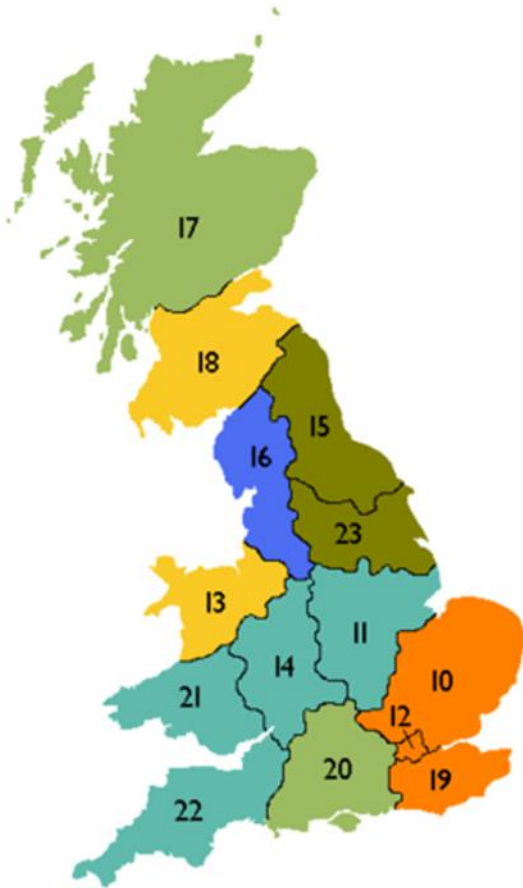


Figure 1: GB map split into geographical regions.

### 6.3 Appendix 3 – Delivery Year Audit Spreadsheet

Table 14: Delivery Year Audit Risk Category Subdivision.

Classification	Connection	Total Number of CMUs	Metering Test Performed		No Metering Test Performed	
			Desk	Onsite	Desk	Onsite
Existing Generating CMU	Transmission CMRS					
	Distribution CMRS					
	Distribution Non-CMRS					
	Unlicensed Network Non-CMRS					
New Build CMU	Transmission CMRS					
	Distribution CMRS					
	Distribution Non-CMRS					
	Unlicensed Network Non-CMRS					
Refurbishing Gen CMU	Transmission CMRS					
	Distribution CMRS					
	Distribution Non-CMRS					
	Unlicensed Network Non-CMRS					
Proven DSR CMU	Distribution Non-CMRS					
	Unlicensed Network Non-CMRS					
Unproven DSR CMU	Distribution Non-CMRS					
	Unlicensed Network Non-CMRS					

## 6.4 Appendix 4 – Delivery Year Audit Test Volumes Example

Table 15: Delivery Year Audit Test Volumes Example.

Classification	Connection	Total Number of CMUs	Metering Test Performed		No Metering Test Performed		Delivery Year Audit Volume
			Desk	Onsite	Desk	Onsite	
Existing Generating CMU	Transmission CMRS	87	40	10	47	77	14
	Distribution CMRS	20	8	2	12	18	4
	Distribution Non-CMRS	67	48	25	19	42	8
	Unlicensed Network Non-CMRS	0	0	0	0	0	0
New Build CMU	Transmission CMRS	2	1	1	1	1	1
	Distribution CMRS	4	2	1	2	3	1
	Distribution Non-CMRS	71	51	26	20	45	5
	Unlicensed Network Non-CMRS	0	0	0	0	0	0
Refurbishing Gen CMU	Transmission CMRS	28	11	3	17	25	6
	Distribution CMRS	4	2	1	2	3	2
	Distribution Non-CMRS	8	5	3	3	5	2
	Unlicensed Network Non-CMRS	0	0	0	0	0	0
Proven DSR CMU	Distribution Non-CMRS	0	0	0	0	0	0
	Unlicensed Network Non-CMRS	2	2	2	0	0	1
Unproven DSR CMU	Distribution Non-CMRS	0	0	0	0	0	0
	Unlicensed Network Non-CMRS	12	12	12	0	0	7

