CfD Metering Policy - Generators on Private Wire Networks

1. This paper outlines DECC's metering policy for Generators trading on Private Wire Networks (PWNs).

Context:

2. PWNs are localised electricity networks which are privately owned and operated outside of the Licensed transmission and distribution networks (i.e. the Total System). Generators operating on these networks are generally unlicensed and therefore are not bound by the Balancing and Settlement Code (BSC) standards/requirements (i.e. they are not a party to the BSC), including those parts relating to metering.

Issue:

3. In most cases, electricity from Generators operating on PWNs is produced and traded independently of the Total System[1]. As such, existing BSC processes (see 'BSC-Trading Arrangements' metering policy paper) cannot be applied in this situation to accurately capture Metered Output for CfD settlement.

4. Therefore the development of CfD-specific metering arrangements needs to be designed to enforce a minimum level of technical compliance (as principally applied through the BSC) to protect the integrity, accuracy and consistency of Metered Output for CfD settlement. This needs to be applied together with a bespoke data collection, estimations, verification, audit and data disputes framework.

5. Generators operating under the following arrangements will be captured by this policy:

    a. Generators solely engaged in private onsite supply (i.e. self-generation or supply sold to internal customers); and
    b. Generators partially engaged in private onsite supply, with their remaining output sold offsite to the Total System (i.e. directly to a Licensed Supplier or to the market via a Licensed Distributed Network Operator).

DECC Policy:

6. The PWNs metering policy consists of two key components:

    a. A metered output model and process for data collection; and

[1] An exception exists where a Generator connected to a PWN, does not sell any of their output privately (i.e. all Metered Output is sold to a BSC Party and recorded via their settlement meter). In this scenario, Metered Output will be collected through existing BSC processes, and as such are outside the scope of the arrangements described in this policy paper.

The BSC metering arrangements required to support this situation are described in section 8.4.3 of BSC Procedure BSCP514.

b. A process for enforcing the compliance and technical assurance of metering systems, data integrity and the accuracy of Metered Output (from this point forward referred to as the Non-BSC Metering and Data Management Rules).

Metered Output Model and Process for Data Collection

7. The Loss-Adjusted Metered Output (LAMO) calculation outlined in the CfD contract is applicable to all CfD generators. This includes those:

   a. trading on the Total System;
   b. who are Embedded; and
   c. operating on PWNs

   However, recognising the unique circumstances of those operating on PWNs, a set of bespoke processes for collecting metered data and applying loss adjustments will be applied.

8. Generators operating on PWNs will have two options for the collection and provision of Metered Output for each Settlement Unit:

   a. undertake to provide Metered Output data themselves;
      OR
   b. appoint an independent third party data collector to undertake this function on their behalf[2].

   In either case, metered data must be provided in distinct and separate volumes for gross metered output and gross metered input (i.e. as per current requirements under the Renewables Obligation scheme).

9. The definition of "input electricity" outlined in the 'Licensed Generators Directly Connected to the Total System' metering policy paper shall be applicable to Generators on PWNs and must be used in the provision of gross metered input volumes.

10. In addition to rules on data form, the following conditions must also be met, for each Settlement Unit. Metered data volumes must be:

    a. collected and recorded from generation meters (i.e. at the generation site);
    b. of at least BSC settlement quality; and
    c. collected and provided in a manner consistent with the Non-BSC Metering and Data Management Rules[3], as applicable.

11. The frequency of Metered Output data should be provided in line with one of the following data collection options. These volumes should be provided directly to the CfD Counterparty, through the CfD settlement IT system. The two options are:

[2] Responsibility however, for the provision and compliance of Metered Output will remain with the Generator.
[3] To be developed in early 2014.

a. Daily collection; and
b. Weekly collection.

At the commencement of their CfD contract, the Generator must nominate a frequency option which will continue for the life of their CfD contract. However, if a Generator decides to change the frequency at any point during its contract term, it will need to seek the written authorisation of the CfD Counterparty [4].

12. The CfD Settlement Services Provider will operate and maintain the settlement IT system.

13. Once the Generator has provided (or contracted out the provision of) metered data volumes to the CfD Settlement Services Provider, it will 'net off' the two volumes and apply the appropriate loss adjustment calculations (i.e. the generic settlement Line Loss Factor (LLF) – see Annex A) to derive the LAMO for each Settlement Unit.

14. Lastly, where necessary and applicable, the CfD Settlement Services Provider will also undertake up to two further calculations. In this instance the Generator's LAMO would be multiplied by:

    a. Combined Heat and Power Qualifying Multiplier (CHPQM); and/or
    b. Renewable Qualifying Multiplier (RQM);

15. Refer to the CfD contract for further details on the applicability of the RQM and/or the CHPQM.

A Process for Enforcing the Non-BSC Metering and Data Collection Rules

16. To ensure that the data collection and settlement process developed for Generators operating on PWNs is rigorous and effective, DECC has developed a framework document setting out at a high level the key controls and mechanism on which the Non-BSC Metering and Data Collection Rules will drafted. The framework document has been published together with this policy.

17. In early 2014, DECC will draft the Non-BSC Metering and Data Management Rules in consultation with the CfD Counterparty Company Limited and the CfD Settlement Services Provider.

    The Non-BSC Metering and Data Management Rules will also identify and address the core components of the generic CfD contract which draw on existing BSC processes to function. It will be tested with the CfD Expert Group on Metering prior to being released to wider stakeholders.

[4] The mechanics of this, including any other conditions, will be outlined in the Non-BSC Metering and Data Management Rules.

Annex A – Generic Settlement Line Loss Factor Adjustments

18. Line Loss Factor (LLF) adjustment calculations are developed based on the specific Line Loss Factor Class (LLFC - i.e. there are 3 distinct classes: Low Voltage meaning 50v to 1kv; High Voltage meaning 1kv to 22Kv; and Extra High Voltage meaning 22Kv and above) equivalent to a generator's voltage network within its corresponding Grid Supply Point (GSP) Group. The LLFs used for each GSP Group will be those developed for the BSC system by each of the 14 Licensed Distribution System Operators, based on their LLF methodology statement as approved by the BSC Panel sub-committees each year.

19. The CfD Settlement Services Provider will apply the generic settlement LLF associated with the Generator's network voltage (as it fits within one of the LLFCs) within the applicable GSP Group (as if they were ordinarily connected to the distribution system) for each Settlement Unit.

    For example, using the table below, if a Generator on a PWN was operating within the remit of the London GSP Group, and their network was trading at 11Kv on a Monday in August at 9.52pm – then the LLF that would apply is 1.033. Similarly, a Generator operating within the jurisdiction of East Midlands trading at 24Kv on Christmas Day at 12noon would be loss adjusted at 1.006.

GSP Group	Days	Line Loss Factor Class (LLFC)		
		LV	HV	EHV
London	Working Days (Mar; Jun-Aug) August Bank Holiday All Non-Working Days except Public Holidays below	00:00-07:00am 1.057 07:00-20:00pm 1.072 20:00-24:00pm 1.070	00:00-07:00am 1.026 07:00-20:00pm 1.033 20:00-24:00pm 1.032	00:00-07:00am 1.018 07:00-20:00am 1.022 20:00-24:00pm 1.021
	Working Days (Apr-May, Sep-Oct) All Non-Working Days except Public Holidays below	00:00-07:00am 1.057 07:00-24:00am 1.070	00:00-07:00am 1.026 07:00-24:00am 1.032	00:00-07:00am 1.018 07:00-24:00am 1.021
	Public Holidays: Christmas Day, Boxing Day, August Bank Holiday	00:00-07:00am 1.057 07:00-16:00pm 1.082 16:00-20:00pm 1.088 20:00-24:00am 1.070	00:00-07:00am 1.026 07:00-16:00pm 1.037 16:00-20:00pm 1.039 20:00-24:00am 1.032	00:00-07:00am 1.018 07:00-16:00pm 1.024 16:00-20:00pm 1.026 20:00-24:00am 1.021

GSP Group	Days	Line Loss Factor Class (LLFC)		
		LV	HV	EHV
East Midlands	Working Days (Nov-Feb) Christmas Day, Boxing Day & New Year Day	00:00-00:30am 1.084 00:30-07:30am 1.071 07:30-16:00pm 1.104 16:00-19:00pm 1.118 19:00-20:00pm 1.104 20:00-24:00am 1.084	00:00-00:30am 1.036 00:30-07:30am 1.031 07:30-16:00pm 1.043 16:00-19:00pm 1.047 19:00-20:00pm 1.043 20:00-24:00am 1.036	00:00-00:30am 1.004 00:30-07:30am 1.003 07:30-20:00pm 1.006 20:00-24:00pm 1.004
	All Other Days	00:00-00:30am 1.084 00:30-07:30am 1.071 07:30-24:00pm 1.084	00:00-00:30am 1.036 00:30-07:30am 1.031 07:30-24:00pm 1.036	00:00-00:30am 1.004 00:30-07:30am 1.003 07:30-24:00pm 1.004