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Dummy Meter ("Virtual" Meter) for STOR NBM Provider

Overview

This document provides an overview of how "Dummy Metering Data" is submitted for STOR NBM Providers. "Dummy units" are NBM units which can deliver STOR via a combination of demand and generation, or generation from a non-zero base load.

Outline

A NBM service provider can deliver the volume of Reserve energy (MWh) by one of the following methods:

1. As a Generator from a zero base load.
2. As a Demand reducer, reducing demand towards zero .

Note:

A standard is used to define a Generator and a Demand Reducer for the purpose of STOR. A unit is a Generator if the metering data goes up when the service is delivered, and a Demand Reducer if the metering data goes down.

Headroom Meter Requirement

Where an NBM service provider delivers STOR other than as a generator from zero base load or as a Demand reducer, reducing demand towards zero; it is necessary to provide two metering feeds: one to measure Delivery, and one to ensure sufficient headroom exists to supply the service.

Generator from a non-zero base load

- Unit registered for STOR as a Generator.
- Utilisation Metered MW
- Headroom Metered MW data is supplied = Capable MW less Generation MW

Demand and Generation Combination

Where there is a combination of demand and generation the following is required for STOR:

- Unit registered for STOR as a Demand Reducer.
- Utilisation Metered MW = Demand – Generation. (With this set up as STOR is delivered the metered MW reduces)
- Headroom Metered MW data is supplied = Capable MW less Generation MW.

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Example to demonstrate the impact of the metering set up

1. A unit is contracted to provide 20 MW of STOR, it does this by reducing demand from 10 MW to 0, and generating from 1 MW to 11 MW

2. Prior to the Utilisation instruction the Utilisation Meter Reading (base load MW*)

   = Demand - Generation =

   10 MW Demand – 1 MW Generation = 9 MW.

3. When at STOR service is provided the Utilisation Meter reading

   = Demand - Generation =

   0 MW Demand – 11 MW Generation = -11 MW

4. The unit will have been designated a Demand Reducer due to the combination of Demand and Generation.

5. Delivered MW for a Demand Reducer

   = base load MW* - Metered MW =

   9 MW - (-11MW) = 20MW

   (i.e., Full contracted MW has been delivered).

6. A Headroom Meter is used to verify that the unit has the capability to provide the STOR service (This is only reviewed outside of a STOR call off).

   Headroom metered MW = Capable MW less Generation MW = (10 MW demand reduction capability + 11 Generation Capability less 1 MW Actual Generation =20 MW (Thus the headroom exists to supply the STOR service).

*base load MW = average MW of the three minutes prior to the instruction plus the minute of instruction