

Speedwell Settlement Services

Benchmark Statement

This is the Benchmark Statement for the following family of Parametric Climate Indices:

National Wind Benchmarks Energy Output
Regional Wind Benchmarks Energy Output
Producer Wind Benchmarks Energy Output
(the 'Speedwell Wind Benchmarks')

This is a family of non-significant benchmarks pursuant to The Benchmarks (Amendment and Transitional Provision) (EU Exit) Regulations 2019 as it does not meet either the critical benchmark thresholds or the EUR 50 billion significant benchmark threshold detailed in the Regulations.

Version Control

Release1	8 October 2018	Initial Listing
Release2	15 September 2020	Addition of further National Wind Benchmarks, addition of ERA5 source

Regulatory Background

Speedwell Settlement Services Ltd ('Speedwell Settlement Services') has been granted a Part 4A permission under Part 4A of the Financial Services and Markets Act 2000 to carry on the regulated activity of administering a benchmark.

Speedwell Settlement Services was authorised by the United Kingdom Financial Conduct Authority with an effective date of 7 August 2018 and was granted a Part 4A permission under Part 4A of the Financial Services and Markets Act 2000 ("FSMA") to carry on the regulated activity of administering a benchmark. That Part 4A permission constitutes SSS's 'Registration' for the purposes of the UK Benchmarks Register.

Introduction

SSS is the Benchmark Administrator for the Speedwell Wind Benchmarks Energy Output family of indices.

Wind Benchmarks are parametric indices that permit risk transfer relating to energy output from wind generation assets either nationally ("National Wind Benchmarks") or for specific regions ("Regional Wind Benchmarks") or for specific windfarm assets ("Producer Wind Benchmarks"). Each Benchmark represents daily or sub-daily theoretical energy production, denominated in MWh based on the "frozen" installed wind generation capacity as of a specific date and separately defined for each index in the family. A number of existing Wind Benchmarks are available in this family ("Standard Wind Benchmarks") but the methodology can be applied to any national, regional or producer basket of wind generation assets to permit risk transfer.

General Disclosure

This Benchmark Statement was first published on 8 October 2018 and has been updated as shown in the Version Control section.

Regional Relevance

The methodology behind this family of Wind Benchmarks is applied to the Standard Wind Benchmarks listed below. The methodology behind this family of Wind Benchmarks can also be applied to produce Wind Benchmarks allowing risk transfer for other countries/regions or producer-specific generation assets.

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Speedwell Settlement Services Limited is registered in England number 10135203.
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Speedwell Settlement Services Limited is authorised by the FCA to administer regulated benchmarks

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Standard Wind Benchmarks:

Australia Regional: NEM, NSW, QLD, SA, TAS, VIC, WEM

Belgium National

Denmark National

France National

Germany National

Ireland National

Italy National

Netherlands National

Norway National

Spain National

Sweden National

Turkey National

UK National

United States Regional: ERCOT

Source Data

The Benchmarks in this family use ERA5 or MERRA-2 gridded windspeed data as source data. In the event of failure of this data source or where this data is not yet available, the Source Data for a particular day is provided by a proprietary WRF model initialised using ECMWF or GFS wind data.

Calculation Method

The calculation of the Speedwell Wind Benchmarks uses the following method:

- Metadata defining the relevant physical characteristics and location of wind turbines relevant for a specific Wind Benchmark is collated.
- ERA5 or native MERRA-2 3-hourly wind speed data at a number of relevant atmospheric levels are downscaled to provide a high-resolution geospatial grid for each location.
- The downscaled wind speed is transformed to a power output for respective turbines using the concept of the power curve.
- The total energy output is then derived for each hour or 3-hour periods depending on the grid source.
- An optimisation process may be run by a statistician or by using a machine learning technique that maps the theoretical energy output to the observed official data.
- Given that ERA5 and MERRA-2 gridded data are only available in arrears, a proprietary industry-standard forecast model ("WRF Model") is run to estimate the final value. The WRF Model is itself initialised with wind data using outputs from the GFS or ECMWF forecast models.
- The daily values constituting the delivered Benchmark will either be grid-derived or WRF Model-derived depending on the settlement time period agreed. Where grid-derived values are available for a particular day, those values will be senior to the WRF Model-derived values.

Units: MWh.

Granularity: Daily

Sub daily Composition: the daily value of each member of this family of Benchmarks are derived from the addition of sub daily energy generation periods. These sub periods may correspond to the full 24 hours, or to peak hours or other tailored sub daily periods as defined for each individual Benchmark.

ISIN: there is currently no ISINs attributed to this family of Benchmarks.

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Resilience: For the removal of doubt, this family of Benchmarks does not rely on market data for the derivation of its values. Therefore, the provision of this family of Benchmarks does not depend on a liquid traded market in any traded index based on it.

Methodology Change:

SSS shall publish on its website any material changes to methodology. There is no procedure for public consultation. National and Regional Wind Benchmarks are subject to periodic review to reflect changes in the underlying renewables asset base. For the removal of doubt, no change shall be made to methodology nor will there be any in-period adjustment to calibration while there are open transactions based on a specific Speedwell Wind Benchmark.

Updates

Wind Benchmarks are subject to an update on an annual cycle to reflect the latest installation or decommissioning of wind turbines. Where a previous version of such a Wind Benchmark is still subject to an open risk-transfer contract, previous versions of the Wind Benchmarks will be maintained in parallel.

Publication Timings

11 00 GMT at the latest

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