

Speedwell Settlement Services

Speedwell Settlement Services Limited Family Benchmark Statement for: National and Regional and Producer Wind Benchmarks / Energy Output Fraction (the ‘Speedwell Wind Benchmarks’ or ‘Benchmarks’)

This is a family of non-significant benchmarks pursuant to point 27 of Article 3(1) of Regulation (EU) 2016/1011 as it does not meet the critical benchmark thresholds detailed in Article 20 , nor does it meet the EUR 50 billion significant benchmark threshold detailed in Article 24.

Narrative: Speedwell Settlement Services offers a range of proprietary national, regional and producer-specific wind production Benchmarks. These Benchmarks have been specifically designed to support weather risk management in the renewables and energy markets. Each Benchmark represents daily or sub-daily theoretical energy production divided by rated output, based on the “frozen” installed wind generation capacity as of a specific date.

1. General Disclosure

This Benchmark Statement was published on 11 October 2018 and has not been updated since.

- There is no ISIN. This Statement refers to a family of National and Regional and Producer Wind Benchmarks all of which are derived with the same standard methodology.
- The Benchmarks are determined on the basis of MERRA2 gridded wind data supplied by NASA.
- The Benchmarks are a synthetic proxy for actual wind energy utilisation based on MERRA2- derived wind speed data and wind turbine metadata.
- Units: None.
- Granularity: Daily or 3-Hourly

2. Regional Relevance

This family of benchmarks can be applied to produce Benchmarks allowing risk transfer for other countries/regions or producer-specific wind farms.

The Benchmark family is currently relevant to the following areas:
Germany; UK, Spain, Italy, Turkey, Australia (regions), USA (regions)

3. Source Data

The Benchmarks in this family use MERRA2 as source data. In the event of failure of this data source or where this data is not yet available, the Benchmark value for a particular period is provided by a proprietary WRF model initialised using ECMWF or GFS wind data.

4. Calculation

The calculation of the Speedwell Wind Benchmarks is not subject to any subjective analysis, but is the product of a replicable and consistent calculation method.

- Meta data defining the location, height and wind turbine type is collated for the relevant wind turbines for a specific Benchmark
- Native MERRA2 3-hourly data at a number of relevant atmospheric levels is downscaled to provide a high-resolution geospatial grid for each location.
- The different atmospheric levels of downscaled wind speed data is modelled to derive wind speed data at wind turbine height.
- The wind speed so obtained is transformed to a power output using the respective power curve for the wind turbine.

Speedwell Settlement Services

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Speedwell Settlement Services Ltd is registered as a benchmark administrator under the EU benchmark regulation (Regulation (EU) 2016/1011)

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- The total energy output is derived for each 3-hourly periods. This may be collated into daily values or remain as 3-hourly values.
- Each value is divided by the value corresponding to the maximum theoretical energy output.
- Given that MERRA2 gridded data are only available in arrears, a proprietary model (“WRF Model”) is run to estimate the final MERRA2 value providing a value one day in arrears. The WRF Model is itself initialised with wind data using the GFS or ECMWF models.
- The daily or 3-hourly values constituting the delivered Benchmark will either be MERRA2-derived or WRF Model-derived depending on the settlement time period agreed. Where MERRA2-derived values are available for a particular day or sub-daily period, those values will be senior to the WRF Model-derived values.

5. 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.

6. Updates

National and Regional 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.