Grid Code **Modification Proposal Form** Email to gridcode@eirgrid.com	

Title of Modification Proposal: PPM section Solar clarification

MPID (EirGrid Use Only): 342

Date:	10th of September 2025
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Grid Code Version:	15
Grid Code Section(s) Impacted by Modification Proposal:	PPM1.7.1.2 Signals List #2 PPM1.7.1.3 Signals List #3

Modification Proposal Justification:

The proposed modification aims to improve clarity and consistency in the treatment of solar-powered **Controllable PPMs** within the **PPM** section of the **Grid Code.** Currently, references to solar **PPMs** are dispersed and sometimes embedded within broader provisions, which can lead to ambiguity and misinterpretation. By consolidating and clearly distinguishing solar-specific requirements, the revised structure enhances transparency, simplifies compliance for **Users** with solar powered **Controllable PPMs'** and aligns with the **Grid Code's** objective of providing technology-specific guidance, in this case wind, solar, ESPS, and other **PPMs.** This clarification is editorial in nature and does not alter the technical obligations or intent of the existing provisions.

A Table Outlining the Proposed Changes:

Definition	Red Line Version Text *Deleted text in ~~strike-through-red-font~~ and new text highlighted in blue font*	Green Line Version Text
	PPM1.7.1.2 ***Signals List #2*** **Wind-powered Controllable PPMs** *PPM1.7.1.2.1* Wind-powered **Controllable PPMs** comprising of **Wind Turbine Generators** with a **MEC** in excess of 10 MW shall make the following meteorological data signals available as specified in the relevant specifications and site-specific signal lists: (a) Wind speed (at hub height or as agreed with the TSO) - measurand signal; (b) Wind direction (at hub height or as agreed with the TSO) - measurand signal; (c) Air temperature- measurand signal; (d) Air pressure- measurand signal. *PPM1.7.1.2.2* The above meteorological data signals (ref. PPM1.7.1.2.1) shall be provided by a dedicated **Meteorological Mast** located at the wind-powered	*PPM1.7.1.2* ***Signals List #2*** **Wind-powered Controllable PPMs** *PPM1.7.1.2.1* Wind-powered **Controllable PPMs** comprising of **Wind Turbine Generators** with a **MEC** in excess of 10 MW shall make the following meteorological data signals available as specified in the relevant specifications and site-specific signal lists: (a) Wind speed (at hub height or as agreed with the TSO) - measurand signal; (b) Wind direction (at hub height or as agreed with the TSO) - measurand signal; (c) Air temperature- measurand signal; (d) Air pressure- measurand signal. *PPM1.7.1.2.2* The above meteorological data signals (ref. PPM1.7.1.2.1) shall be provided by a dedicated **Meteorological Mast** located at the wind-powered

		Controllable PPMs site or, where possible and preferable to do so, data from a means of the same or better accuracy. For wind-powered **Controllable PPMs** where the **WTG** are widely dispersed over a large geographical area and rather different weather patterns are expected for different sections of the wind-powered **Controllable PPM**, the meteorological data shall be provided from a number of individual **Meteorological Masts**, or where possible and preferable to do so, data from a source of the same or better reliability for groups of **WTG** (e.g. 1 set of meteorological data for each group of XX **WTG** within the wind-powered **Controllable PPM**). It is expected that **WTG** within an individual group shall demonstrate a high degree of correlation in **Active Power** output at any given time. The actual signals required shall be specified by the **TSO** at least 120 **Business Days** prior to the wind-powered **Controllable PPM's** scheduled **Operational Date.**	**Controllable PPMs** site or, where possible and preferable to do so, data from a means of the same or better accuracy. For wind-powered **Controllable PPMs** where the **WTG** are widely dispersed over a large geographical area and rather different weather patterns are expected for different sections of the wind-powered **Controllable PPM**, the meteorological data shall be provided from a number of individual **Meteorological Masts**, or where possible and preferable to do so, data from a source of the same or better reliability for groups of **WTG** (e.g. 1 set of meteorological data for each group of XX **WTG** within the wind-powered **Controllable PPM**). It is expected that **WTG** within an individual group shall demonstrate a high degree of correlation in **Active Power** output at any given time. The actual signals required shall be specified by the **TSO** at least 120 **Business Days** prior to the wind-powered **Controllable PPM's** scheduled **Operational Date.**

	Solar-powered Controllable PPMs ~~*PPM1.7.1.2.2.1*~~ *PPM1.7.1.2.3* Solar-powered **Controllable PPMs** with a **MEC** in excess of 10 MW shall make the following meteorological data signals available as specified in the relevant specifications and site-specific signal lists: (a) Global Horizontal Irradiance (GHI) - measurand signal; (b) Diffused Horizontal Irradiance (DHI) - measurand signal; (c) Direct Normal Irradiance (DNI) (required for solar tracking panels only) - measurand signal; (d) Air temperature - measurand signal; (e) Back panel temperature - measurand signal; (f) Wind speed - measurand signal; (g) Wind direction - measurand signal; (h) Precipitation – measurand signal; (i) Air pressure - measurand signal. ~~*PPM1.7.1.2.2.2*~~ PPM1.7.1.2.4 The above meteorological data signals (ref. ~~PPM1.7.1.2.2.1~~ PPM1.7.1.2.3) shall be provided by	**Solar-powered Controllable PPMs** *PPM1.7.1.2.3* Solar-powered **Controllable PPMs** with a **MEC** in excess of 10 MW shall make the following meteorological data signals available as specified in the relevant specifications and site-specific signal lists: (a) Global Horizontal Irradiance (GHI) - measurand signal; (b) Diffused Horizontal Irradiance (DHI) - measurand signal; (c) Direct Normal Irradiance (DNI) (required for solar tracking panels only) - measurand signal; (d) Air temperature - measurand signal; (e) Back panel temperature - measurand signal; (f) Wind speed - measurand signal; (g) Wind direction - measurand signal; (h) Precipitation – measurand signal; (i) Air pressure - measurand signal. PPM1.7.1.2.4 The above meteorological data signals (ref. PPM1.7.1.2.3) shall be provided by measurement

	measurement devices located at the solar-powered **Controllable PPMs** site. All meteorological data signals shall at a minimum meet accuracy levels defined by the **TSO**. For solar-powered **Controllable PPMs** where the solar arrays are widely dispersed over a large geographical area and rather different weather patterns are expected for different sections of the solar-powered **Controllable PPM**, the meteorological data shall be provided from a number of individual measurement devices. It is expected that solar arrays within an individual group shall demonstrate a high degree of correlation in **Active Power** output at any given time. The actual signals required shall be specified by the **TSO** at least 120 **Business Days** prior to the solar-powered **Controllable PPM's** scheduled **Operational Date**. **Other Controllable PPMs (excluding wind and solar)** ~~*PPM1.7.1.2.3*~~ *PPM1.7.1.2.5* **Controllable PPMs**, in excess of 5 MW, with the exception of wind-powered and solar-powered **Controllable PPMs**, shall make relevant meteorological	devices located at the solar-powered **Controllable PPMs** site. All meteorological data signals shall at a minimum meet accuracy levels defined by the **TSO**. For solar-powered **Controllable PPMs** where the solar arrays are widely dispersed over a large geographical area and rather different weather patterns are expected for different sections of the solar-powered **Controllable PPM**, the meteorological data shall be provided from a number of individual measurement devices. It is expected that solar arrays within an individual group shall demonstrate a high degree of correlation in **Active Power** output at any given time. The actual signals required shall be specified by the **TSO** at least 120 **Business Days** prior to the solar-powered **Controllable PPM's** scheduled **Operational Date**. **Other Controllable PPMs (excluding wind and solar)** *PPM1.7.1.2.5* **Controllable PPMs**, in excess of 5 MW, with the exception of wind-powered and solar-powered **Controllable PPMs**, shall make relevant meteorological data signals available, which may include but are not

	data signals available, which may include but are not limited to solar irradiance and tidal streams, as agreed with the **TSO** and specified in the relevant specifications and site-specific signal lists**.** The actual signals required shall be specified by the **TSO** at least 120 **Business Days** prior to the **Controllable PPM's** scheduled **Operational Date.**	limited to solar irradiance and tidal streams, as agreed with the **TSO** and specified in the relevant specifications and site-specific signal lists**.** The actual signals required shall be specified by the **TSO** at least 120 **Business Days** prior to the **Controllable PPM's** scheduled **Operational Date.**
	~~*PPM1.7.1.2.4*~~ *PPM1.7.1.2.6* The above meteorological data signals (ref. ~~PPM1.7.1.2.3~~ PPM1.7.1.2.5) shall be provided by a measurement device located at the **Controllable PPM** site, the exception of wind-powered and solar-powered **Controllable PPM** sites, as defined by the **TSO.** All meteorological data signals shall at a minimum meet accuracy levels defined by the **TSO**. For **Controllable PPMs**, with the exception of wind-powered and solar-powered **Controllable PPMs,** where the **Generation Units** are widely dispersed over a large geographical area and rather different weather patterns are expected for different sections of the **Controllable PPM**, the meteorological data shall be provided from a	*PPM1.7.1.2.6* The above meteorological data signals (ref. PPM1.7.1.2.5) shall be provided by a measurement device located at the **Controllable PPM** site, the exception of wind-powered and solar-powered **Controllable PPM** sites, as defined by the **TSO.** All meteorological data signals shall at a minimum meet accuracy levels defined by the **TSO**. For **Controllable PPMs**, with the exception of wind-powered and solar-powered **Controllable PPMs,** where the **Generation Units** are widely dispersed over a large geographical area and rather different weather patterns are expected for different sections of the **Controllable PPM**, the meteorological data shall be provided from a number of individual sources. It is expected that **Generation Units** within an individual

	number of individual sources. It is expected that **Generation Units** within an individual group shall demonstrate a high degree of correlation in **Active Power** output at any given time. The actual signals required shall be specified by the **TSO** at least 120 **Business Days** prior to the **Controllable PPM's** scheduled **Operational Date.**	group shall demonstrate a high degree of correlation in **Active Power** output at any given time. The actual signals required shall be specified by the **TSO** at least 120 **Business Days** prior to the **Controllable PPM's** scheduled **Operational Date.**
	PPM1.7.1.3 Signals List #3 **Wind-powered Controllable PPMs** PPM1.7.1.3.1 Wind-powered **Controllable PPMs** with a **MEC** in excess of 10 MW shall make the following signals available as specified in the relevant specifications and site-specific signal lists: a) Wind-powered **Controllable PPM Availability** (0-100 % signal); b) Percentage of **WTG Shutdown** due to high wind-speed conditions (0-100 %);	***PPM1.7.1.3 Signals List #3*** **Wind-powered Controllable PPMs** PPM1.7.1.3.1 Wind-powered **Controllable PPMs** with a **MEC** in excess of 10 MW shall make the following signals available as specified in the relevant specifications and site-specific signal lists: d) Wind-powered **Controllable PPM Availability** (0-100 % signal); e) Percentage of **WTG Shutdown** due to high wind-speed conditions (0-100 %);

	c) Percentage of **WTG** not generating due low wind-speed **Shutdown** (0-100 %).	f) Percentage of **WTG** not generating due low wind-speed **Shutdown** (0-100 %).
	PPM1.7.1.3.2 For wind-powered **Controllable PPMs** with a **MEC** in excess of 10 MW, where the **WTG** are widely dispersed over a large geographical area and rather different weather patterns are expected for different sections of the wind-powered **Controllable PPM**, the above data set (ref. PPM1.7.1.3.1) shall be provided for a number of groups of **WTG** (e.g. 1 signal for each group of XX **WTG** within the wind-powered **Controllable PPM**). It is expected that **WTG** within an individual group shall demonstrate a high degree of correlation in **Active Power** output at any given time. The actual signals required shall be specified by the **TSO** at least 120 **Business Days** prior to the wind-powered **Controllable PPM's** scheduled **Operational Date.**	PPM1.7.1.3.2 For wind-powered **Controllable PPMs** with a **MEC** in excess of 10 MW, where the **WTG** are widely dispersed over a large geographical area and rather different weather patterns are expected for different sections of the wind-powered **Controllable PPM**, the above data set (ref. PPM1.7.1.3.1) shall be provided for a number of groups of **WTG** (e.g. 1 signal for each group of XX **WTG** within the wind-powered **Controllable PPM**). It is expected that **WTG** within an individual group shall demonstrate a high degree of correlation in **Active Power** output at any given time. The actual signals required shall be specified by the **TSO** at least 120 **Business Days** prior to the wind-

	Solar-powered Controllable PPMs ~~PPM1.7.1.3.2.1~~ PPM1.7.1.3.3 Solar-powered **Controllable PPMs** with a **MEC** in excess of 10 MW shall make the following signals available as specified in the relevant specifications and site-specific signal lists: (a) Solar-powered **Controllable PPM Availability** (0-100 % signal). ~~PPM1.7.1.3.2.2~~ PPM1.7.1.3.4 For solar-powered **Controllable PPMs** with a **MEC** in excess of 10 MW, where the solar arrays are widely dispersed over a large geographical area and rather different weather patterns are expected for different sections of the solar-powered **Controllable PPM**, the above data set (ref. PPM1.7.1.3.1) shall be provided for a number of groups of solar arrays (e.g. 1 signal for each group of XX solar arrays within the solar-powered **Controllable PPM**). It is expected that solar	powered **Controllable PPM's** scheduled **Operational Date.** **Solar-powered Controllable PPMs** PPM1.7.1.3.3 Solar-powered **Controllable PPMs** with a **MEC** in excess of 10 MW shall make the following signals available as specified in the relevant specifications and site-specific signal lists: (b) Solar-powered **Controllable PPM Availability** (0-100 % signal). PPM1.7.1.3.4 For solar-powered **Controllable PPMs** with a **MEC** in excess of 10 MW, where the solar arrays are widely dispersed over a large geographical area and rather different weather patterns are expected for different sections of the solar-powered **Controllable PPM**, the above data set (ref. PPM1.7.1.3.1) shall be provided for a number of groups of solar arrays (e.g. 1 signal for each group of XX solar arrays within the solar-powered **Controllable PPM**). It is expected that solar

	arrays within an individual group shall demonstrate a high degree of correlation in **Active Power** output at any given time. The actual signals required shall be specified by the **TSO** at least 120 **Business Days** prior to the solar-powered **Controllable PPM's** scheduled **Operational Date**.	arrays within an individual group shall demonstrate a high degree of correlation in **Active Power** output at any given time. The actual signals required shall be specified by the **TSO** at least 120 **Business Days** prior to the solar-powered **Controllable PPM's** scheduled **Operational Date**.
	Energy Storage Power Stations (ESPSs) PPM1.7.1.3.5 The **Controllable PPM** consisting of **ESPSs** shall make the following signals available as specified in the relevant specifications and site-specific signal lists: a). **ESPS** available export capacity (+MWh) b). **ESPS** available import capacity (-MWh)	**Energy Storage Power Stations (ESPSs)** PPM1.7.1.3.5 The **Controllable PPM** consisting of **ESPSs** shall make the following signals available as specified in the relevant specifications and site-specific signal lists: a). **ESPS** available export capacity (+MWh) b). **ESPS** available import capacity (-MWh)
	Other Controllable PPMs (excluding wind, solar, and ESPs) ~~PPM1.7.1.3.3~~ PPM1.7.1.3.6 **Controllable PPMs**, with a **MEC** in excess of 5 MW, with the exception of wind-powered and solar-powered **Controllable PPMs,** shall make the following signals	**Other Controllable PPMs (excluding wind, solar, and ESPs)** PPM1.7.1.3.6 **Controllable PPMs**, with a **MEC** in excess of 5 MW, with the exception of wind-powered and solar-powered **Controllable PPMs,** shall make the following signals available as specified in the relevant specifications and site-specific signal lists:

	available as specified in the relevant specifications and site-specific signal lists: a) **Controllable PPM Availability** (0-100 % signal); b) Percentage of **Generation Unit** shutdown due to high resource conditions (0-100 %); c) Percentage of **Generation Unit** not generating due to low resource conditions (0-100 %). ~~PPM1.7.1.3.4~~ PPM1.7.1.3.7 For **Controllable PPMs**, with an **MEC** in excess of 5 MW, with the exception of wind-powered and solar-powered **Controllable PPMs,** where the **Generation Units** are widely dispersed over a large geographical area and rather different weather patterns are expected for different sections of the **Controllable PPM**, the above data set (ref. PPM 1.7.1.3.3) shall be provided for a number of groups of **Generation Units** (e.g. 1 signal for each group of XX **Generation Units** within the **Controllable PPM**). It is expected that **Generation Units** within an individual group shall demonstrate a high	d) **Controllable PPM Availability** (0-100 % signal); e) Percentage of **Generation Unit** shutdown due to high resource conditions (0-100 %); f) Percentage of **Generation Unit** not generating due to low resource conditions (0-100 %). PPM1.7.1.3.7 For **Controllable PPMs**, with an **MEC** in excess of 5 MW, with the exception of wind-powered and solar-powered **Controllable PPMs,** where the **Generation Units** are widely dispersed over a large geographical area and rather different weather patterns are expected for different sections of the **Controllable PPM**, the above data set (ref. PPM 1.7.1.3.3) shall be provided for a number of groups of **Generation Units** (e.g. 1 signal for each group of XX **Generation Units** within the **Controllable PPM**). It is expected that **Generation Units** within an individual group shall demonstrate a high degree of correlation in **Active Power** output at any given time. The actual signals required shall be specified by the **TSO** at least 120

	degree of correlation in **Active Power** output at any given time. The actual signals required shall be specified by the **TSO** at least 120 **Business Days** prior to the **Controllable PPM's** scheduled **Operational Date.** ~~PPM1.7.3.5 The The **Controllable PPM** consisting of **ESPSs** shall make the following signals available as specified in the relevant specifications and site-specific signal lists:~~ ~~a). **ESPS** available export capacity (+MWh)~~ ~~b). **ESPS** available import capacity (MWh)~~	**Business Days** prior to the **Controllable PPM's** scheduled **Operational Date.**