

**Grid Code
Modification
Recommendation Form**



**Title of Recommended Proposal:
Meteorological Mast Requirements**

MPID: 273

Date:	15/10/2018
Recommended at GCRP Meeting No.:	Ireland GCRP Meeting - 02 May 2018
Grid Code Version:	6
Grid Code Section(s) Impacted by Recommended Proposal:	WFPS1.7.1.2.1(a) WFPS1.7.1.2.1(b)

The Reason for the Recommended Modification:

Accurate meteorological data is critical for the scheduling and dispatch of plant, it is necessary for Wind Forecasting and Real Time Operations.

In 2016, quarter three, EirGrid procured the company Weprog to carry out a study on Meteorological Masts.

The scope of the study included:

- Benefit of meteorological signals for wind forecasting and active power forecasting;
- Review of industry best practise for the provision of meteorological signals;
- Accuracy of a subset of WFPS meteorological signals currently provided;
- Applicable standards for meteorological signals.

The main recommendations from the study included:

- Meteorological data is required to maintain system security and high quality wind forecasting for now and into the future;
- Improvement is required in the quality of the meteorological data;
- There are no alternatives to meteorological masts recommended at this time.

Following on from the recommendations of the study and further discussions with industry, including IWEA and members of the GCRP, it was agreed that EirGrid provide an industry agreed document on the provision of meteorological signals. This guideline document is published on the EirGrid website (http://www.eirgridgroup.com/site-files/library/EirGrid/Met_Mast_Requirements.pdf).

In relation to the Grid Code it was agreed with the Ireland GCRP members to modify clauses WFPS1.7.1.2.1(a) and WFPS1.7.1.2.1(b) to include the text 'or as agreed with the TSO' when referring to hub height for wind speed and wind direction.

History of Progression through GCRPs, Working Group and/or Consultation:

The topic of Meteorological Mast Signal Requirements was first introduced as a discussion item to the Ireland GCRP members at a meeting held 31 January 2017. Further updates and discussions took place at meetings held on 25 April 2017, 14 September 2017 and 31 January 2018.

Following the GCRP discussions and much external engagement the TSO brought a modification proposal to the panel at the Ireland GCRP meeting dated 02 May 2018. At this meeting it was agreed by the panel members that the Ireland Grid Code will not reference the Meteorological Signals Provision guideline document. This guideline document will be the TSOs position in relation to the text ‘means of same or better accuracy’ when referring to the source of meteorological data in clause WFPS1.7.1.2.

A further modification was agreed by the panel members to include the wording ‘or as agreed with the TSO’ when referring to the wind speed and wind direction in clause WFPS1.7.1.2.1(a) and WFPS1.7.1.2.1(b).

Summary Note of any Objections to the Recommended Change from GCRP Members or Consultation Responses:

No objections were raised by the panel members to the final modification proposal, full support and agreement was reached with the panel members.

Outcome of any GCRP Meeting Actions Relating to the Recommended Modification:

There is no reference to the Meteorological Signals Provision guideline document in the Ireland Grid Code. This document sits outside of the Ireland Grid Code. The TSO fully engaged with the panel members to agree the final wording of this modification recommendation, as outlined below.

Red-line Version of Impacted Grid Code Section(s) - show recommended changes to text:

Deleted text in ~~strike-through red font~~ and new text highlighted in *blue font*

WFPS 1.7.1.2 Signals List #2

WFPS 1.7.1.2.1 **Controllable WFPSs** with a **MEC** in excess of 10 MW shall make the following meteorological data signals available at the designated **TSO Telecommunication Interface Cabinet** for that **Controllable WFPS**:

- | | | |
|----|--------------------------------------------------------------------------------------|-------------------------------|
| a) | Wind speed (at hub height <i>or as agreed with the TSO</i>) - measurand signal; | [Units,Range]
[m/s, 0-70]; |
| b) | Wind direction (at hub height <i>or as agreed with the TSO</i>) - measurand signal; | [deg, 0-360]; |

- c) Air temperature- measurand signal; [deg C, -40-70]
- d) Air pressure- measurand signal. [mBar, 735-1060]

Green-line Version of Impacted Grid Code Section(s) - show recommended final text:

WFPS 1.7.1.2 Signals List #2

WFPS 1.7.1.2.1 **Controllable WFPSs** with a **MEC** in excess of 10 MW shall make the following meteorological data signals available at the designated **TSO Telecommunication Interface Cabinet** for that **Controllable WFPS**:

- a) Wind speed (at hub height or as agreed with the TSO) - measurand signal; [Units,Range]
[m/s, 0-70];
- b) Wind direction (at hub height or as agreed with the TSO) - measurand signal; [deg, 0-360];
- c) Air temperature- measurand signal; [deg C, -40-70]
- d) Air pressure- measurand signal. [mBar, 735-1060]