# **Met Mast Requirements**

### **Daniel Joyce**



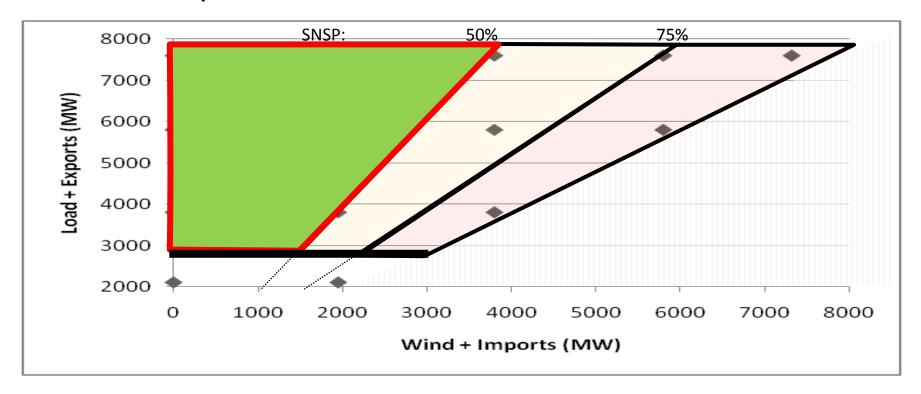
## **Contents**

- Primary Objective of Wind Forecasting
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- How is the Data Used?
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## **Primary Objective of Wind Forecasting**

- Facilitate more variable generation
- It is not just energy balance and variable output that drives dispatch





SNSP – Synchronous, Non-Synchronous Penetration

## Why do we need met mast data?



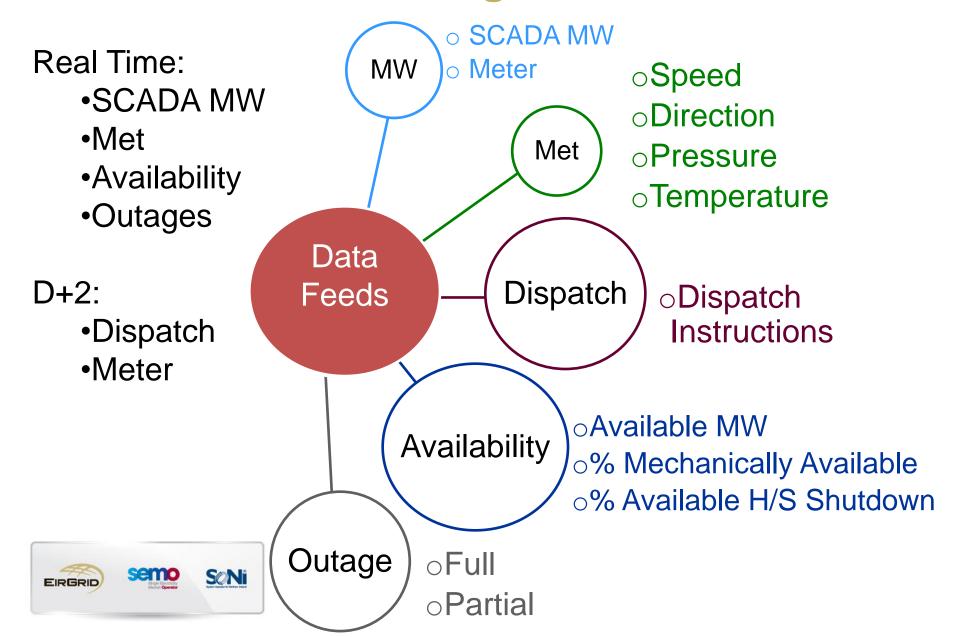
## **Wind Power Forecasting Data**

 EirGrid Procures Wind Power Forecasting Services

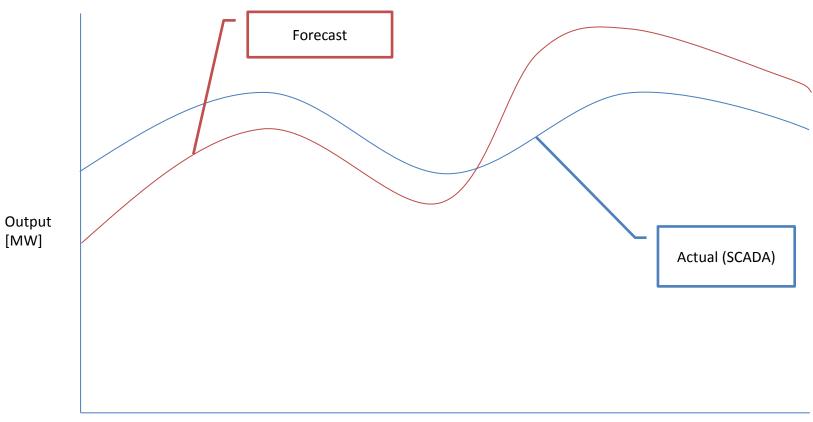
Two Wind Power Forecast Vendors



## **Wind Power Forecasting Data**



## **How is the Data Used?**



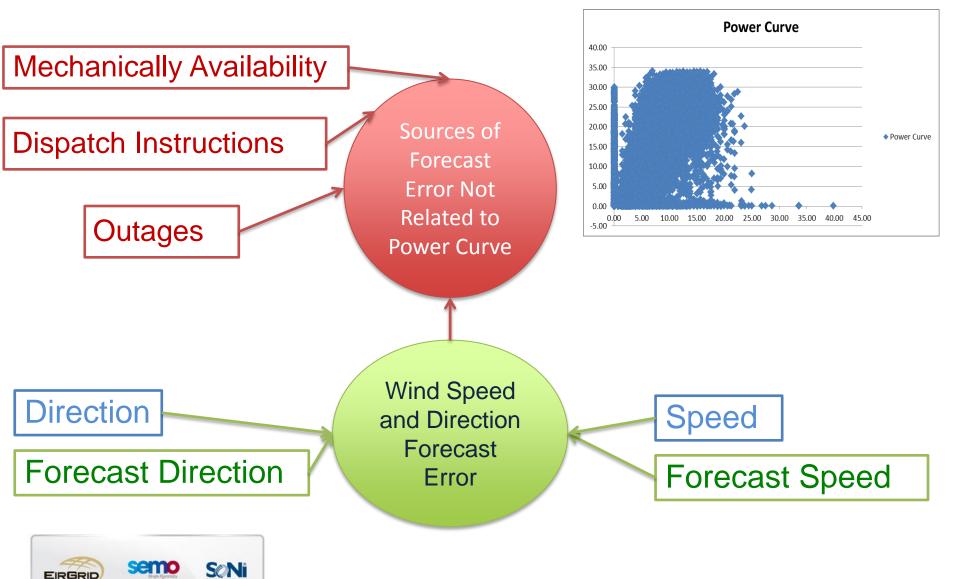
Time [S]



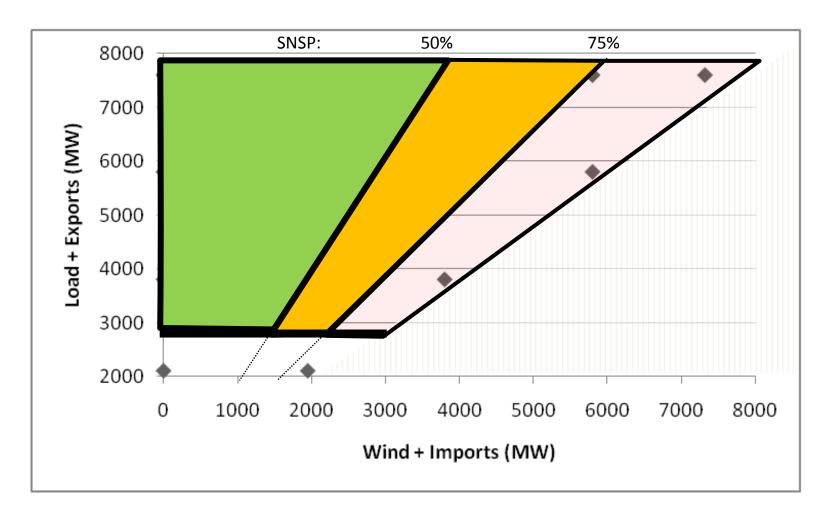
#### This error is mainly due **How is the Data Used?** to an error in the wind speed forecast The error is partially due to an error in the SCADA turbine model Forecast Output [MW] Time [s] Forecast Speed Actual [ms<sup>-1</sup>] Time [s]



#### **How is the Data Used?**



#### **Facilitate More Variable Generation**





# "data from a means of the same or better accuracy"

 "WFPS1.7.1.2.2 The meteorological data signals shall be provided by a dedicated Meteorological Mast located at the Controllable WFPS site or, where possible and preferable to do so, data from a means of the same or better accuracy."



## **Proposed Validation Process**

Demonstration to the TSO that the alternative source is of the same or better accuracy is an obligation under the Grid Code.

The TSO would require the WFPS to submit 15 min data from a temporary met mast or LIDAR on the site to validate the proposed alternative method.

#### **Proposed Validation Process:**

- Inform the TSO that an alternative method for wind speed and direction is proposed.
  Include the details of both the proposed alternative method and the validation method.
- 2. Submit and obtain agreement for test plan including proposed test profile.
- 3. Submit test request including profile in normal manner for internal APC test.
- 4. Testing will be carried out at various wind speeds and include when the WFPS is under dispatch.
- 5. Report to be submitted to TSO along with 15 min resolution data for both the proposed alternative method and the LIDAR/Temporary Met Mast for the profiled period where the WFPS was under dispatch.
- 6. It may be necessary for the TSO to get further clarifications from the WFPS and/or their agents following receipt of the report and supporting data.



## Thank You

