

FAQ

NEM Data Challenge 2nd pahse

- Q: What is the goal of the challenge's phase 2?
A: The goal is to estimate a 7-days forecast of power energy production (WTURpower) from a given journey (a 24 hours day) on. To that effect, one might make use of the SCADA data collected by the turbine and the weather forecast.
It has to be noted that SCADA data are high frequency data (being collected every 10 minutes) but, in order to forecast the energy production, there is only SCADA data available up to the journey (there is no SCADA data during the 7-days of power energy production to be estimated). On contrary, weather forecast data has a lower frequency (hourly) but they correspond to the period of time for which the power production must be estimated (7-days from the journey on).
- Q: Which variable contains the information related to a turbine's energy production?
A: By predicting the energy a turbine is producing we mean predicting the value of the WTURpower variable.
- Q: How are historical and evaluation data intended to be used?
A: Historical data could be used in any means useful to learn a forecasting model capable of forecasting 7-days of energy production from a journey SCADA data and 7-days of weather forecasted data.
Evaluation data correspond to the data available by the intended energy production forecast model. These are the solely data the energy production forecasting model could use as inputs. We will use such data to evaluate the pèrformance of the proposed energy production forecasting model.
- Q: Do the CSV files contain missing data?
A: Yes, those data gaps often appear for several reasons. Candidates should consider the best way to overcome this potential issue.
- Q: What is the meaning of the subsystems acronyms used in the names of variables?
A: Here candidates could find a table with the most common acronyms used to define the subsystems according to the ISO IEC 61400-25:

Acronym	Definition
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WPPD	Wind power plant general information
WTUR	Wind turbine general information
WROT	Wind turbine rotor information
WTRM	Wind turbine transmission information
WGEN	Wind turbine generator information
WCNV	Wind turbine converter information
WTRF	Wind turbine transformer information
WNAC	Wind turbine nacelle information
WYAW	Wind turbine yawing information
WTOW	Wind turbine tower information
WMET	Wind power plant meteorological information
WALM	Wind power plant alarm information
WAVL	Wind turbine availability information
WAPC	Wind power plant active power control
WRPC	Wind power plant reactive power control