

EEM2016 Organizing Committee in collaboration with SMARTWATT are now launching a price forecast competition, providing a dynamic and realistic gaming context, to involve the scientific, academic and industry community in order to address a real price forecast problem.



The winner will receive 1000€ and the 3 highest ranked forecasts will have free access to the EEM2016 conference.



ARE YOU READY FOR A REAL CHALLENGE ?

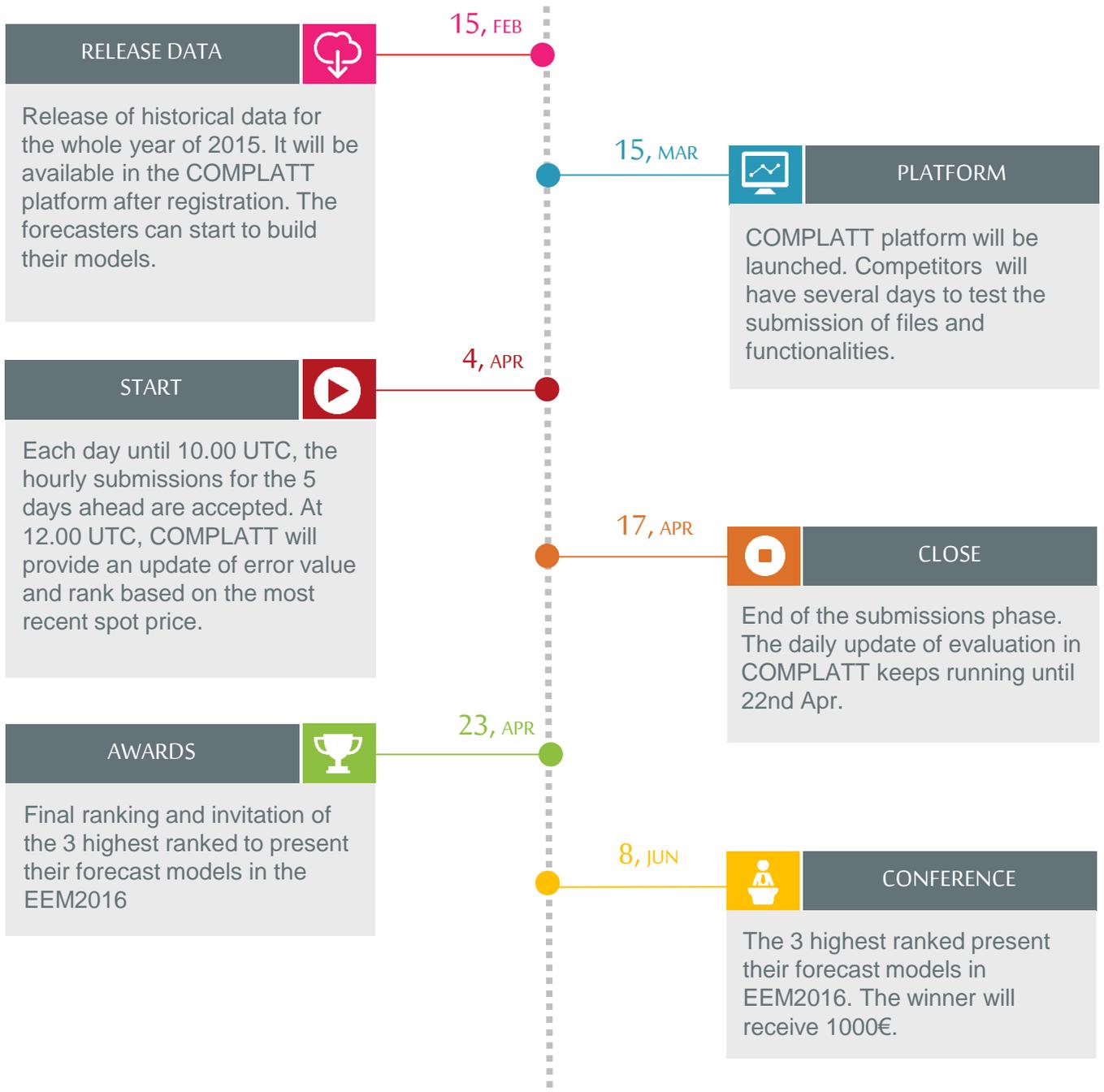
The challenge will be to forecast the hourly spot price of the Iberian Electricity Market, MIBEL, on a daily rolling basis, for the 24 hours of the 5 days ahead.

Over 14 days of competition, from 4th to 17th of April 2016, until 10.00 UTC, you must submit your forecast for the 5 days ahead.

Historical hourly data will be provided for 2015. A daily update of data will be available for the competition rolling period.

TIMELINE

COMPETITION



HISTORICAL DATA (2015)

PRICES

Hourly real electricity price for MIBEL, with date and price, for the Portuguese (PT) area.

CONSUMPTION

Hourly consumption for the Portuguese and Spanish power systems.

METEOROLOGY

Weather forecast (GFS), done at 6.00 UTC of day (D), for the 24 hours of day (D+1), for the following variables:

- wind speed,
- wind direction,
- temperature,
- irradiance,
- precipitation.

The meteorological variables will be provided for a mesh of points for the Iberian geographical coverage.

GENERATION

Hourly generation for the Portuguese and Spanish power system:

- thermal generation (nuclear, coal, natural gas),
- hydropower (run-of-river and other),
- import/export,
- small-hydro,
- cogeneration,
- wind power,
- photovoltaic,
- hydro-pumping.

DAILY ROLLING DATA

PRICES

Hourly electricity price for MIBEL, available daily, at 12.00 UTC of D-1, for day D.
Available at [OMEL](#).

METEOROLOGY

Weather forecast (GFS), done at 6.00 UTC, for the 24 hours of the 5 days ahead for:

- wind speed,
- wind direction,
- temperature,
- irradiance,
- precipitation.

GENERATION & CONSUMPTION

Last hourly generation, for the last days, for Portuguese and Spanish power system:

- PORTUGAL: [REN](#)
- SPAIN: [REE](#)

Contenders are free to use any other available information.

EVALUATION METRIC

The evaluation of the submitted forecasts will be based on a simple mean absolute error MAE expressed in (€/MWh). The MAE calculation will include the average of hourly error for all five days of time horizon, from (D+1) to (D+5), for all days of competition. For the final ranking only the best 10 days of the 14 days of competition will be considered. The error table will be updated every days at 12.00 UTC.

MAE (D+k)

Average mean absolute error, for forecast day (D+k), submitted on day (D).

$$MAE(D+k) = \frac{1}{24} \cdot \sum_{t=1}^{24} |\hat{P}_{D|(D+k),t} - P_{(D+k),t}|$$

MAE (D)

Average daily mean absolute error, submitted on day (D). Used for daily rank.

$$MAE(D) = \frac{1}{24 \cdot 5} \cdot \sum_{k=1}^5 \sum_{t=1}^{24} |\hat{P}_{D|(D+k),t} - P_{(D+k),t}|$$

Submitting day (D)

MAE competition average for horizon (k)

MAE competition average for best 10 forecast days

Date	(D+1)	(D+2)	(D+3)	(D+4)	(D+5)	(D+6)	MAE(D)
4/ April	5.09	7.95	4.82	7.33	10.03	7.39	7.10
5/ April	7.12	3.93	6.94	9.58	6.74	7.39	6.95
6/ April	3.27	6.81	8.86	6.51	6.40	12.10	7.32
7/ April	5.83	8.85	6.09	6.13	11.86	10.36	8.19
8/ April	8.29	5.46	5.23	11.61	9.89	7.56	8.01
9/ April	5.23	4.48	11.26	9.21	6.81	7.81	7.47
10/ April	3.49	10.54	8.56	6.79	7.71	11.77	8.14
11/ April	9.65	8.56	6.67	7.70	10.83	9.77	8.86
12/ April	7.86	6.54	6.96	10.29	8.96	10.42	8.50
13/ April	6.37	6.58	9.75	8.22	10.01	9.86	8.47
14/ April	6.32	9.33	8.17	9.35	9.27	9.75	8.70
15/ April	9.19	7.61	9.23	9.19	9.13	9.83	9.03
16/ April	7.16	8.92	8.40	8.66	9.50	9.01	8.61
17/ April	8.34	7.42	7.94	8.53	8.41	8.52	8.19
MAE (D+k)	6.66	7.36	7.78	8.51	8.97	9.40	8.11
MAE10 (D+k)	6.09	6.86	7.64	8.42	8.68	9.32	7.83

MAE and MAE10

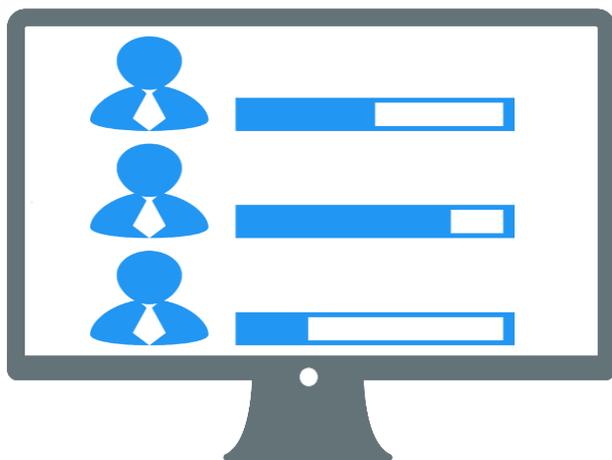
Global mean absolute error, for the entire period. The MAE10 only uses the forecasts of the best 10 days. The MAE is used for global rank, and MAE10 will be used for final competition ranking.

$$MAE = \frac{1}{24 \cdot 10 \cdot 5} \cdot \sum_{D=1}^{10} \sum_{k=1}^5 \sum_{t=1}^{24} |\hat{P}_{D|(D+k),t} - P_{(D+k),t}|$$



The **COMPLATT** is a forecasting competition platform, developed by SMARTWATT. In this competition the platform was adapted in order to accommodate specific data and evaluation required for electricity price forecast. The EEM2016 price forecast competition is supported by several partners, associated with the initiative.

LINKING FORECASTERS WITH COMMUNITY



BE A PARTNER!

Be a partner of the COMPLATT and add your logo and link to your business.

Thousands of professionals will follow this initiative.

FORECAST PLATFORM

TO BE LAUNCHED 15TH OF MARCH

REGISTRATION

This section presents the rules and information about the competition. It also allows participants to register, by creating an account, which allows access to restricted information.

DOWNLOAD

Allows the download of historical data files, used for forecast models training. It also provides rolling daily data files (meteorology), and links with updated information (prices, consumption, generation), used as input for the rolling forecast. Data can only be downloaded by registered users.

UPLOAD

This is the section where users can manually upload a csv file with their forecasts. The access to this section is done only via the personal account. After uploading the forecast, the user can visualize a chart with the uploaded forecast.

LEADERBOARD

This section, only available for registered users, provides a global leaderboard table for a selected submission day. This section also presents tables and charts for comparison of forecasts and errors.

PROFILE

This is a private access section where the user can visualize his personal information and also an error table for analytic purposes.

FORECASTERS

It presents the public information of all participants in the competition, ordered by their rank.