REPORT
RENEWABLE ELECTRICITY IN PORTUGAL

Monthly Edition

February 2018

APREN Associação de Energias Renováveis

RENEWABLE ELECTRICITY IN MAINLAND PORTUGAL

Until the end of February, the electricity generated by renewable power plants was equivalent to nearly half of the electricity produced in Mainland Portugal.

In the same period, the electricity consumed in Portugal increased by 5.4%, when compared to the same month of 2017.

The price of the daily spot electricity market in the first two months of the year was 53.2 €/MWh, an increase over the average of 2017, which was due to a high share of electricity produced from coal and natural gas power plants.

Electricity Production Profile

Until the end of February, renewable energy sources (RES) accounted for 49% (4,574 GWh) of the electricity mix of Mainland Portugal (9,321 GWh). This value was quite low for the period of the year and was due to low rainfall.

In fact, the hydroelectric production index in the first two months of the year was only 0.39.
By its turn, the accumulated wind index stayed on average, 1.00.

In the production mix of the period under analysis, the largest contribution came from wind farms that produced 26.9% (fig.1).

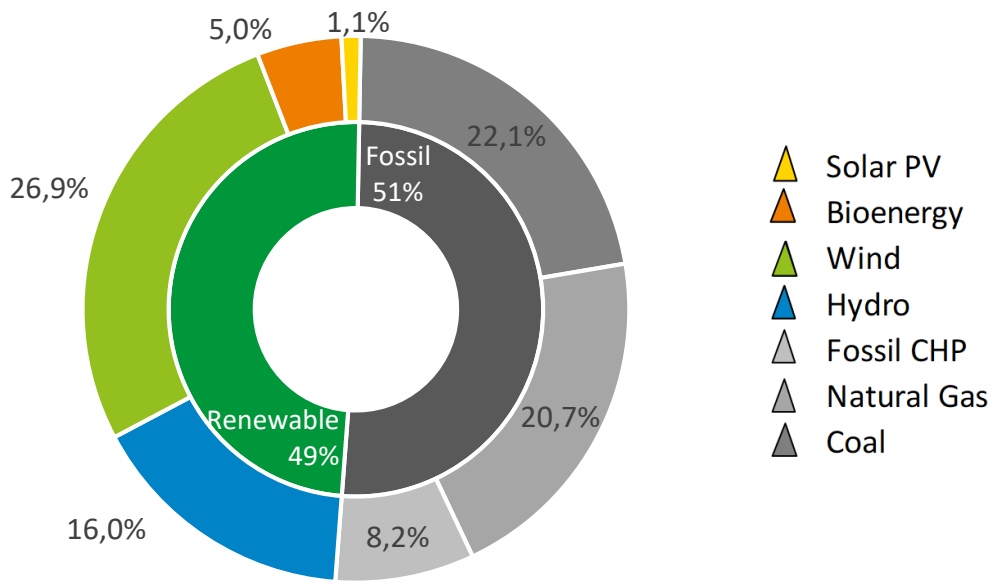

Figure 1: Electricity generation by energy sources in Mainland Portugal. (February 2018)

Source: REN; APREN's analysis

Electricity Market

Electricity generated from variable renewable sources induce a reduction on the price of the wholesale electricity market. In the initial months of 2018, in which renewables had only a 49% share of the total Portuguese electricity production, the daily market price rose to 53.2 €/MWh, in contrast to 2016, in which the Iberian wholesale market recorded an average of 39.4 €/MWh and renewable energy accounted for 57% of the Portuguese electricity production (fig. 2).

At the same time, in the first months of the year the Portuguese and Spanish markets only had price separation in 10% of the hours and the values in Portugal were slightly higher than those in Spain (52.2 € / MWh).

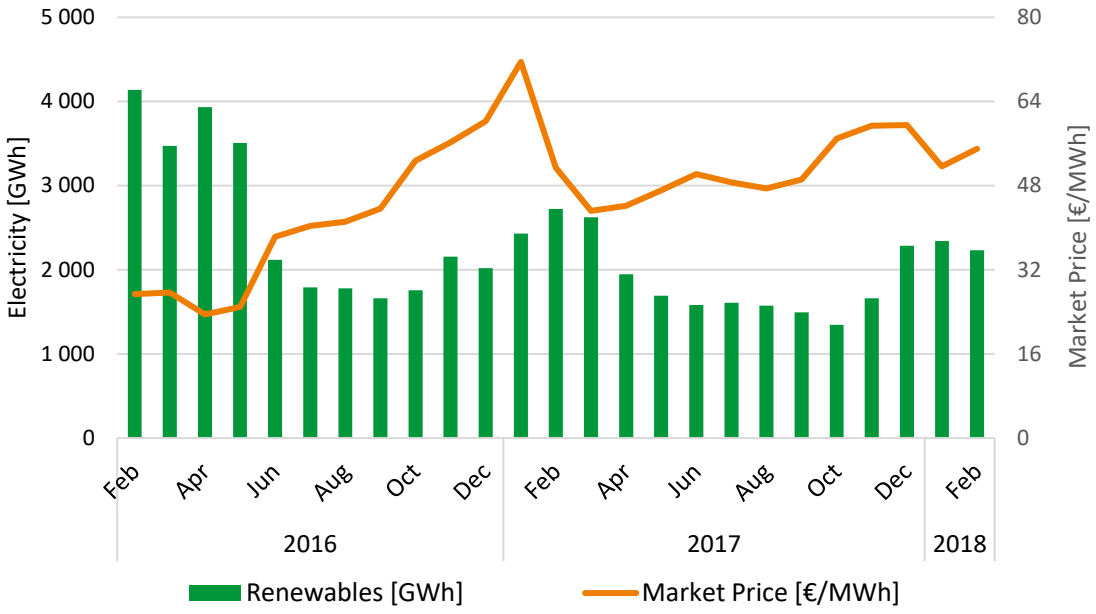

Figure 2: Evolution of the Renewable Electricity Production and of the Iberian Wholesale Electricity Price. (February 2016 to February 2018)

Source: OMIE, REN; APREN's analysis

Production profile in the last 2 years

In February 2018, there was a balance between fossil and renewable sources, to supply Mainland Portugal electricity needs (fig. 3).

In February, it is also worth highlighting an increase of 5.4% in national electricity consumption compared to the same month of 2017 (1.6% in case of correction of working days and temperature). Another relevant fact was an import balance of electricity of 40 GWh.

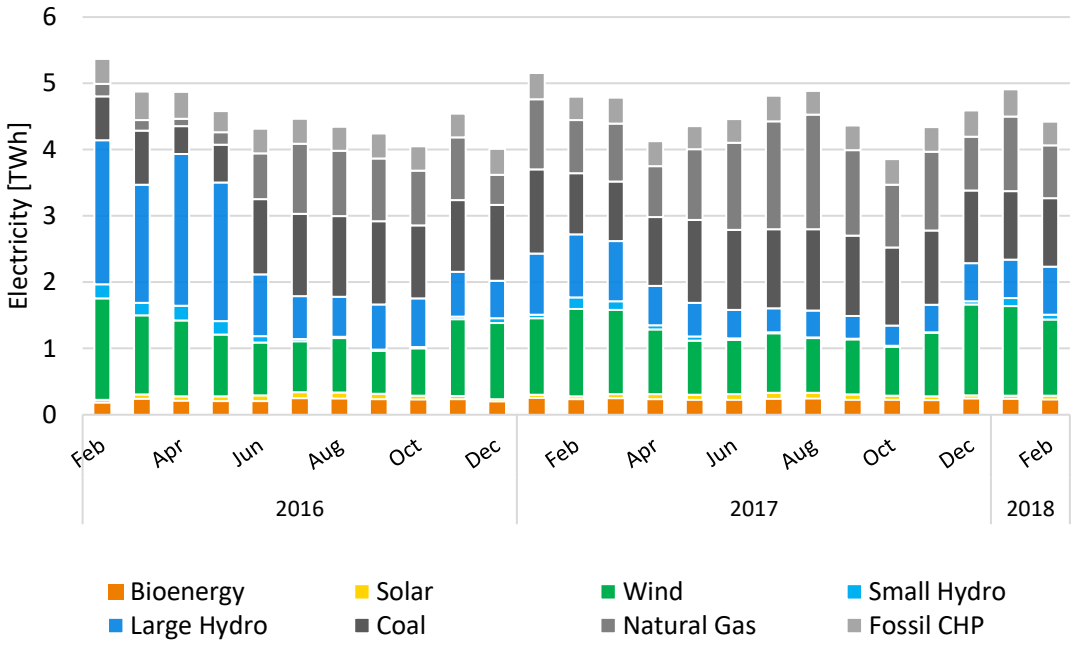

Figure 3: Distribution of the electricity generation by source in Mainland Portugal. (February 2016 to February 2018)

Source: REN; APREN's analysis

February's Load Diagram

The analysis of the load diagram (fig. 4) of February shows some peculiar situations.

The most important highlight goes to the day 26th, between 7 a.m. and 8:45 p.m., when Mainland Portugal's renewable power stations generated an average of 6,612 MW (107 % of the electricity consumption in Mainland Portugal).

In the same period, it is also worth mentioning a new milestone of the electricity sector when the electricity exports reached 4,042 MW.

The second spotlight concerns February 5th, when there was a peak of production of fossil power plants of 4,963 MW (80% of the electricity consumption), which contributed to a high level of exports (2,107 MW) at 5.45 pm.

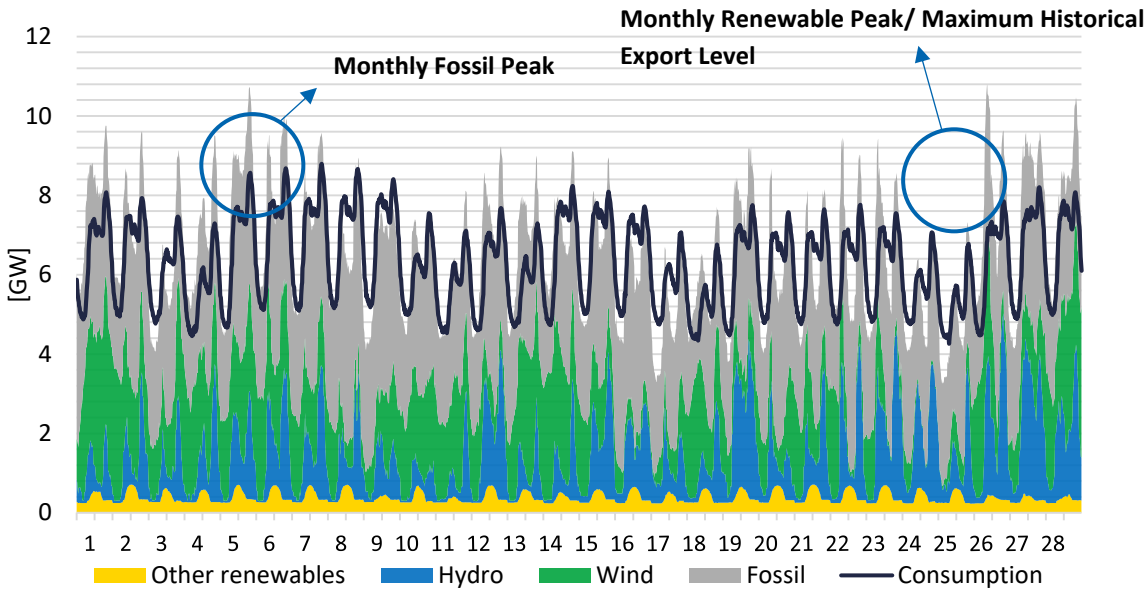

Figure 4: Load Diagram of Mainland Portugal. (February 2018)

Source: REN; APREN's analysis

Information available in:
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