



PORTUGUESE RENEWABLE ELECTRICITY REPORT

FEBRUARY 2020



APREN Associação
de Energias
Renováveis

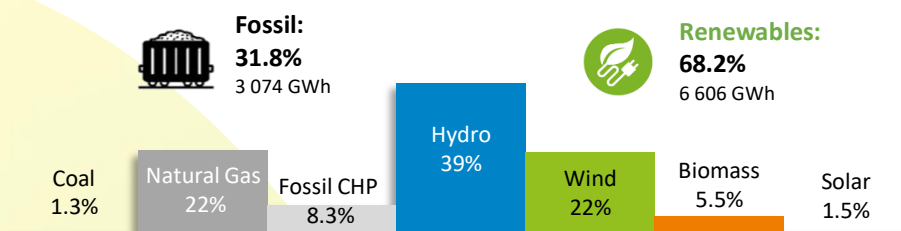
EXECUTIVE SUMMARY

68.2 %

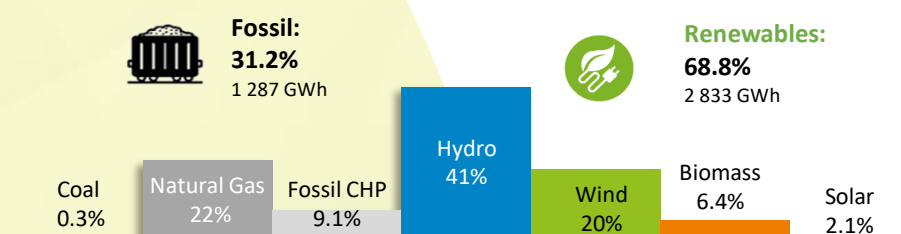
Renewable electricity generation

(January to February 2020)

CUMULATIVE ON FEBRUARY 2020 (JAN-FEB)



FEBRUARY 2020



GENERATION

9 680
GWh

CO₂ PRICE

24.3
€/tCO₂

CO₂ EMISSIONS

1.2
MtCO₂

PT MIBEL PRICE

38.5
€/MWh

IMPORTS

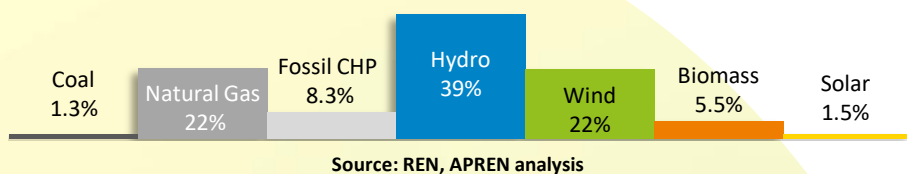
812 GWh

EXPORTS

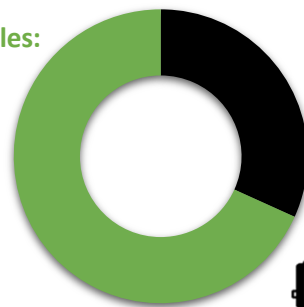
1 161 GWh

ELECTRICITY GENERATION: MAINLAND PORTUGAL

CUMULATIVE ON FEBRUARY 2020 (JAN-FEB)

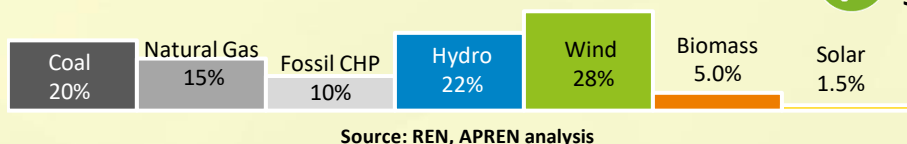


Renewables:
68.2%

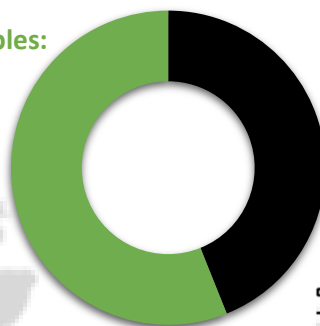


Fossil:
31.8%

CUMULATIVE ON FEBRUARY 2019 (JAN-FEB)



Renewables:
56.1%



Fossil:
43.9%

MAIN INDICATORS: CUMULATIVE ON FEBRUARY (JAN-FEB)

	2020	2019	
% renewable generation	68.2	56.1	↑ 12%
Generation [GWh]	9 680	8 361	↑ 16 %
Demand ¹ [GWh]	9 331	9 217	↑ 1.2 %
Wind index	0.81	0.91	
Hydro index	0.92	0.49	

¹ Demand referred to the powerplants' net power generation, considering the import-export balance.

Source: REN, APREN analysis

INTERNATIONAL TRADE

Between January and February 2020, the national electricity system recorded electricity imports of 812 GWh and exports of 1 161 GWh, resulting in an export balance of 349 GWh.

Source: REN, ENTSO-E, APREN analysis

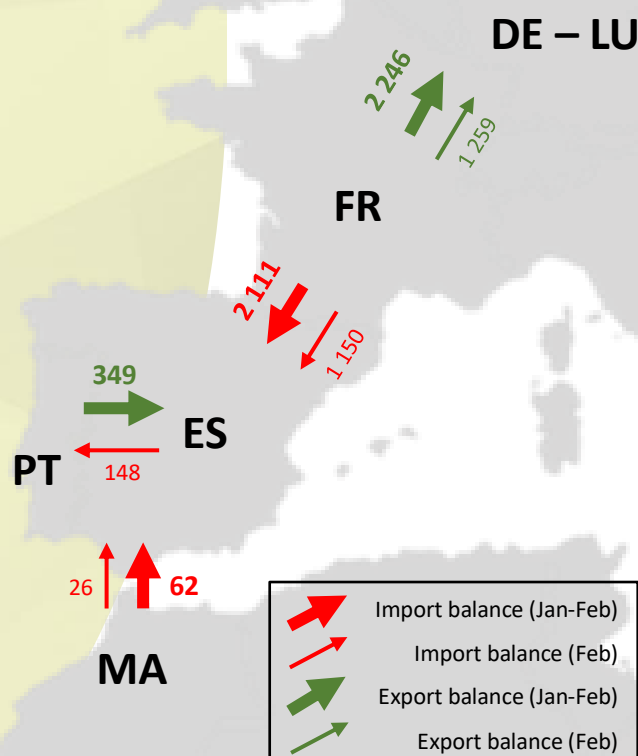


Figure 1. Import-export balance PT-ES, ES-MA, ES-FR and FR-(DE-LU). [GWh]. Source: ENTSO-E, IESOE

ELECTRICITY MARKET

Between January and February 2020 there was an average electricity market price within the Iberian Electricity Market (MIBEL) in Portugal of 38.5 €/MWh², a significant reduction of 35 % in comparison to the same period of 2019.

There were registered 123 non-consecutive hours where renewable electricity generation was enough to meet the demand in Mainland Portugal, which were characterized by an average MIBEL price of 35.2 €/MWh.

February recorded an average electricity market price 36.0 €/MWh.

²Arithmetic average of the hourly prices

Source: OMIE, APREN analysis

AND ON THE REST OF EUROPE?

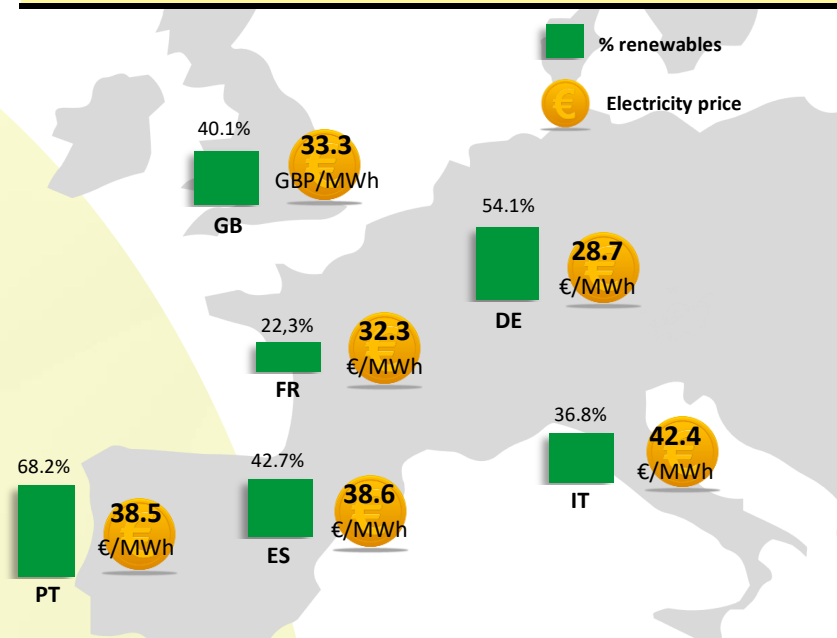


Figure 2. Renewable electricity generation share and average hourly electricity market price, between January and February 2020. Source: REN, Fraunhofer, REE, Terna, National Grid, ENTSO-E, APREN analysis

RENEWABLE GENERATION, DEMAND AND MIBEL PRICE

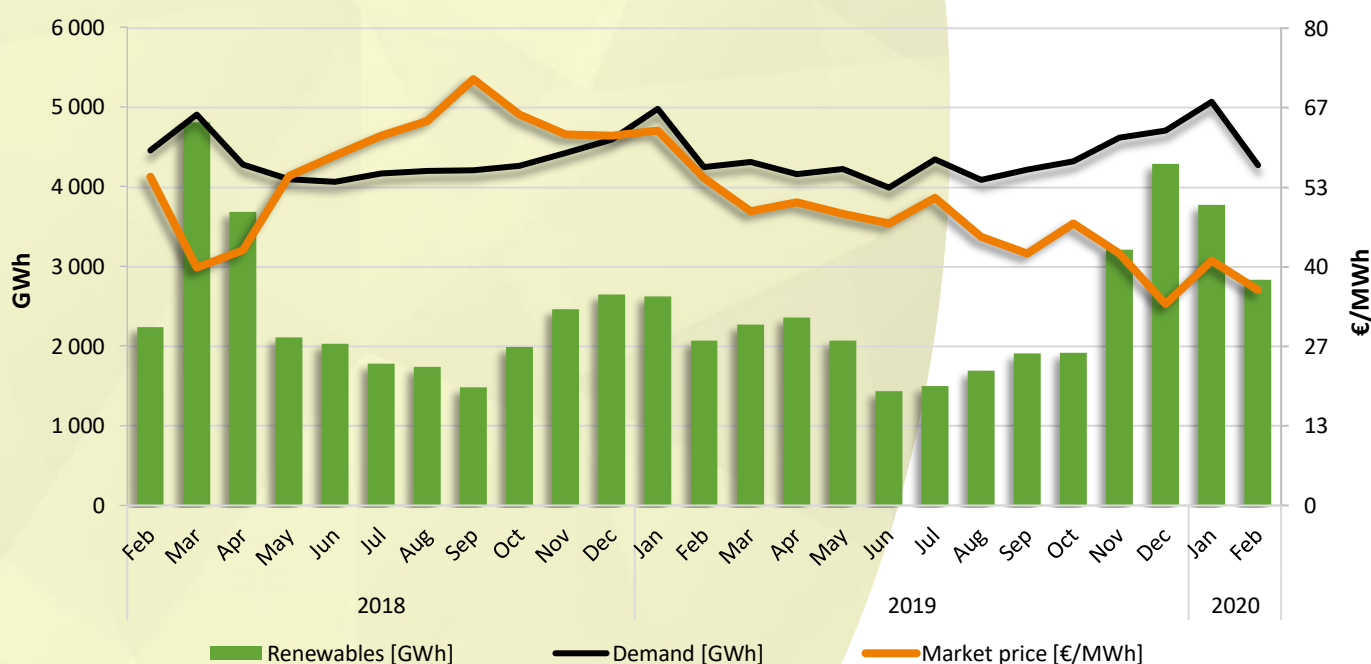


Figure 3. Market price, electricity demand and renewable electricity generation (Feb-2018 to Feb-2020).

Source: OMIE, REN, APREN analysis

POWER SECTOR EMISSIONS

The table aside identifies the savings achieved from January to February 2020 on fossil fuel imports, CO₂ emissions and CO₂ emission allowances, as result of the renewable electricity generation.

During this period, the European market for CO₂ allowances (EU-ETS) recorded an average hourly price of 24.3 €/tCO₂, a 9.7 % increase in comparison to the same period of 2019. February recorded an average CO₂ allowances price of 24.1 €/tCO₂.

Source: SendeCO2

RENEWABLES AVOIDED...

Fossil fuel imports



135 M€

Jan-Feb

CO₂ emissions



3.7 MtCO₂

Jan-Feb

CO₂ allowances



89 M€

Jan-Feb

Source: REN, SendeCO2, WorldBank, DGEG, ERSE, APREN analysis

SPECIFIC EMISSIONS AND CO₂ ALLOWANCES PRICE

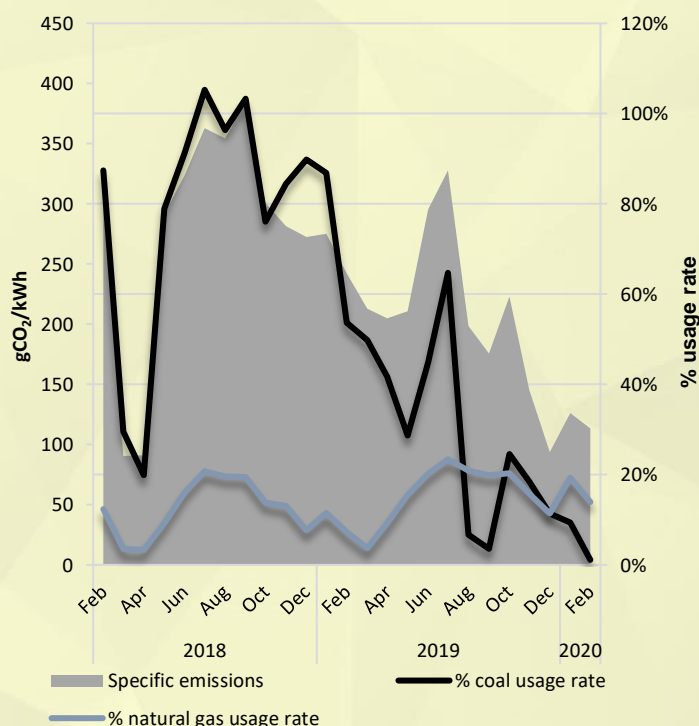


Figure 4. Specific emissions from the power sector in Mainland Portugal, % usage rate of coal and natural gas power plants (Feb-2018 to Feb-2020).
Source: REN, DGEG, ERSE, APREN analysis.

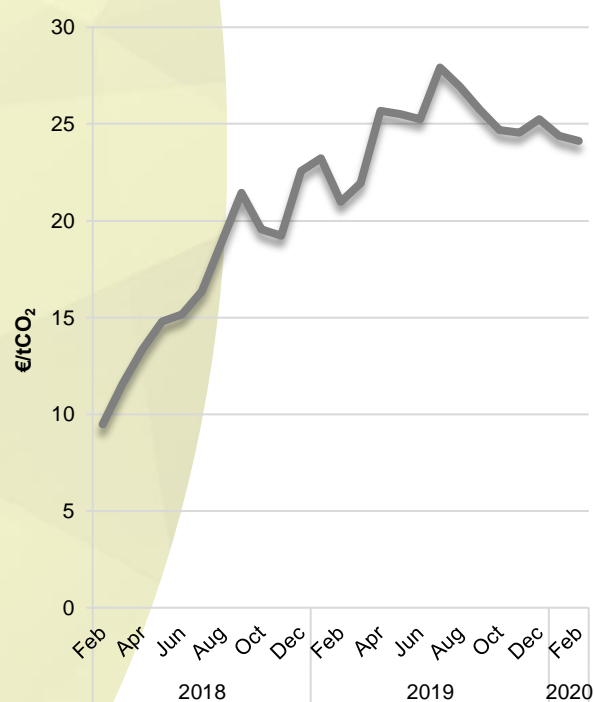


Figure 5. CO₂ allowances price (Feb-2018 to Feb-2020).
Source: SendeCO2.

MONTHLY ANALYSIS: FEBRUARY

On February, renewable electricity generation represented 68.8 % of the overall electricity generation in Mainland Portugal (4 120 GWh).

Concerning the international trade in February, we highlight import balance of 148 GWh recorded for the national electricity system.

The table aside shows the main productivity indicators for renewable generation in February 2020.

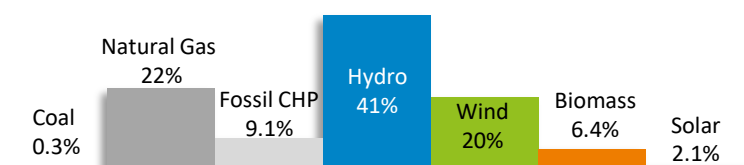
Source: REN, APREN analysis

MAIN INDICATORS

GENERATION

Total generation: 4 120 GWh

Renewables share: 68.8 %



OTHER INDICATORS

Demand: 4 268 GWh

Wind index: 0.63

Hydro index: 0.92

Source: REN, APREN analysis

LOAD DIAGRAM FOR FEBRUARY 2020

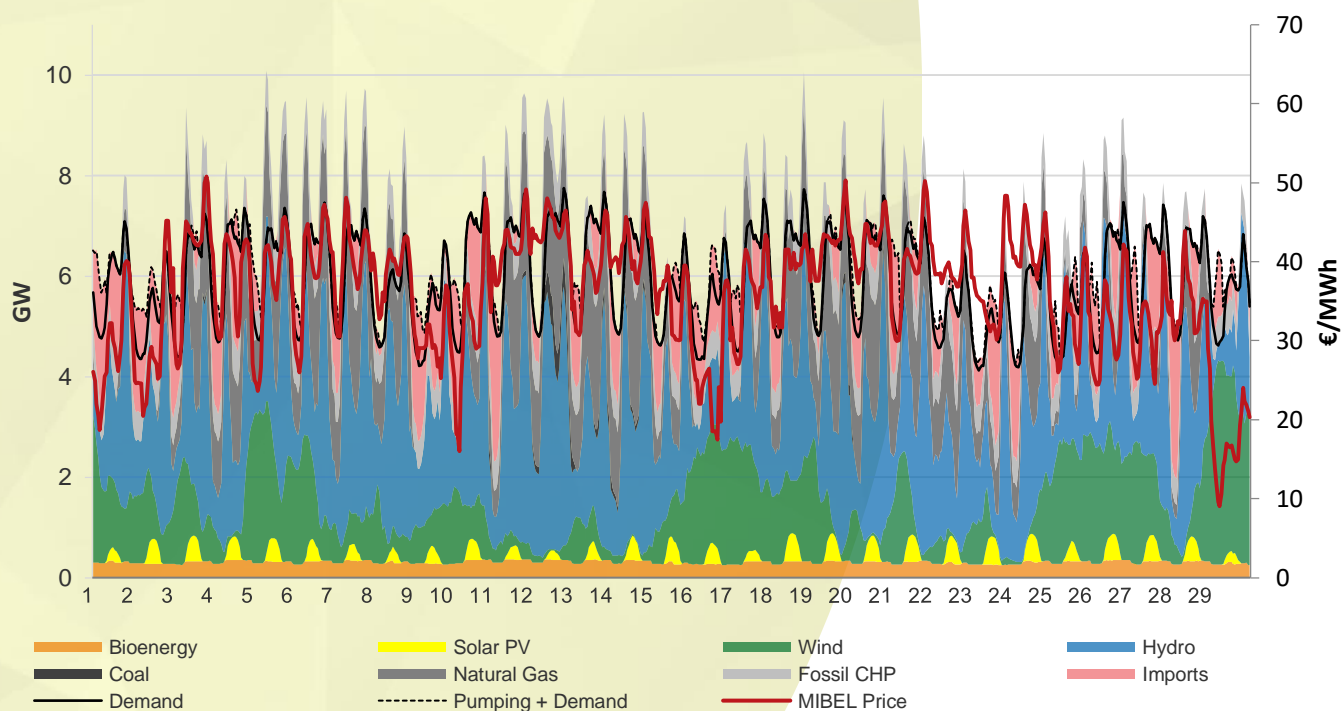


Figure 6. Load Diagram for Mainland Portugal (Feb-2020). Source: REN, APREN analysis.

FINAL REMARKS

National Regulation



Due to the high number of requests for allocation of injection capacity reserve through an agreement with the Public Service Electricity Network (RESP), as provided for in Decree-Law (DL) nº. 76/2019, it was published the Terms of Reference for the analysis of these requests, in order to select the projects with higher viability and feasibility conditions.

The System for issuing Guarantees of Origin (GOs) is now operational, which will be operationalized by the Guarantees of Origin Issuing Body (EEGO), REN. In this context, the values to be charged by the EEGO for its services were also published, through the Ordinance nº. 53/2020, from February 28th. This is a very important step for the sector, since the GOs were inoperable since 2015 after the publication of DL n.º 68-A/2015.











European Policy



On March 4th, the European Commission (EC) published the proposal for the Regulation for the European Climate Law which sets the roadmap for carbon neutrality in 2050 and establishes the new target for the greenhouse gas emissions reduction by 55% until 2030, compared to 1990 values.

Alongside this proposal, the EC also launched a public consultation for the European Climate Pact, which will aim to involve all citizens, communities and organizations in the climate race. The public consultation will be running until May 27th.

POLICY AND REGULATION

 	<p>Final wording of the Green Deal resolution approved in the EP</p> <p>On January 15th the final wording of the Green Deal resolution was agreed in the EP.</p>
 	<p>Proposal for the Regulation on the European Climate Law</p> <p>On March 4th the EC published the proposal for the Regulation for the European Climate Law which sets the roadmap for carbon neutrality in 2050.</p>
 	<p>Dispatch from the State Secretary of Energy exempts the “clawback” to producers with PPAs</p> <p>Published on January 2nd, the Dispatch clarifies the clawback (market equilibrium mechanism) scope, whereby producers who have signed PPAs, which do not benefit from the MIBEL daily market price variation, are exempted from paying this fee.</p>
 	<p>ICR and TQR approved</p> <p>Under Decree-Law No. 162/2019, from February 3rd, the Inspection and Certification Regulation (IRC) and the Technical and Quality Regulation (TQR) were approved by Dispatch from the Directorate General for Energy and Geology.</p>
 	<p>Guarantees of Origin operational</p> <p>The System for issuing Guarantees of Origin (GOs) is now operational.</p>

Information available in:

APREN | Technical and Communication Department

Av. Sidónio Pais, nº 18 R/C Esq. 1050-215 Lisbon, Portugal

Tel. (+351) 213 151 621 | www.apren.pt