

## Renewables have enabled savings of up to €300 per year for consumers

- Study proves that in 2021, on average, renewables generated annual savings on electricity bills of up to 300 euros for a household consumer and up to €30,000 for a non-domestic consumer.
- The same study shows how Renewable Production in Special Regime (PRE):
  - Enabled a sale price of electricity, on average, €88/MWh inferior;
  - Between 2016 and 2021, enabled accumulated savings of €10.2 billion, of which around 4.1 billion correspond only to the year 2021;
  - Contributed with €2.6 billion to the electricity system in 2021 (the highest number in ten years).
- Despite the high renewable incorporation, the average annual price of electricity on the wholesale market rose by 230% compared to 2020, resulting from the growth trend in the price of CO<sub>2</sub> emission allowances and the rise in the price of natural gas, which reached values six times higher than those recorded in 2020.

Renewables are enabling **annual savings in electricity bills of up to EUR 300** for domestic consumers, and up to EUR 30,000 for non-domestic consumers.

This is one of the main findings of a study by Deloitte, made for a [APREN – Portuguese Renewable Energy Association](#), on the “**Impact of renewable electricity on consumer-supported price in 2021**”.

The analysis shows that by 2021, without Renewable Production under Special Regime (PRE), **electricity would have cost an additional EUR 88 per megawatt hour (MWh)** on the wholesale market.

In 2021, when the price of electricity rose sharply by 230% compared to 2020 in the Iberian wholesale electricity market (MIBEL), the production of electricity of renewable origin enabled **annual savings of more than EUR 4.1 billion in electricity purchases.**

Since 2016, PRE renewable is enabling accumulated savings, which were already in the order of 10.2 billion euros at the end of last year. This gain intensified precisely in 2021, with the **highest annual savings value in the last decade.**

The positive impact on the National Electricity System and electricity consumers, i.e., the difference between the savings obtained from Renewable Special Production and the overcost associated with it through FiT (feed-in-tarifs), reached **EUR 2.6 billion in 2021.** The accumulated overgain over the last 10 years is €5.9 billion.

This Deloitte study aimed to determine the impact that renewable energy-based electricity generation had on consumer-supported price in 2021.

In general terms, renewables have a marginal cost of zero or very close to it, which contributes to the insertion of electricity offerings at a lower cost on the market, thereby reducing the wholesale daily market price of electricity for a given hour.

Despite the incorporation of electricity produced from renewable sources, the price of electricity in the wholesale market recorded historic highs in 2021, as **the average annual price rose by 230% compared to 2020**.

There are two factors for this: on the one hand, and largely, **the trend of growth in the price of natural gas** – which reached **values six times higher than in 2020**; on the other hand, to a lesser extent, but significantly, **the prices of CO<sub>2</sub> emission allowances**.

MIBEL, the electric market in which Portugal and Spain are inserted, is based on a marginalist model, which means that the price of electricity is defined by the highest price supply needed to meet demand. The increase in the price of gas has been a factor with the great contribution to the significant increase in the prices of electricity produced from this source, leading other technologies to obtain the same remuneration.

The study predicts that renewable PRE will continue to be an economic benefit to the system, as the average annual electricity price forecast for 2022 exceeds the average guaranteed tariffs allocated to the PRE.

This study updates a more comprehensive Deloitte analysis of the ["Impact of electricity of renewable origin"](#), which occurred in 2020, also at the initiative of APREN.

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#### **About APREN**

[APREN](#), the Portuguese Renewable Energy Association is a non-profit association, established in October 1988, with the mission of coordinating and representing the common interests of its Members in the promotion of Renewable Energies in the electricity sector.

APREN develops work together with official bodies and other similar entities, at national and international level, assuming itself as an instrument for participation in energy and environmental policies through the use and valorization of natural resources for electricity production, namely in the fields of water, wind, solar, geothermal, biomass, biogas, and urban solid waste.