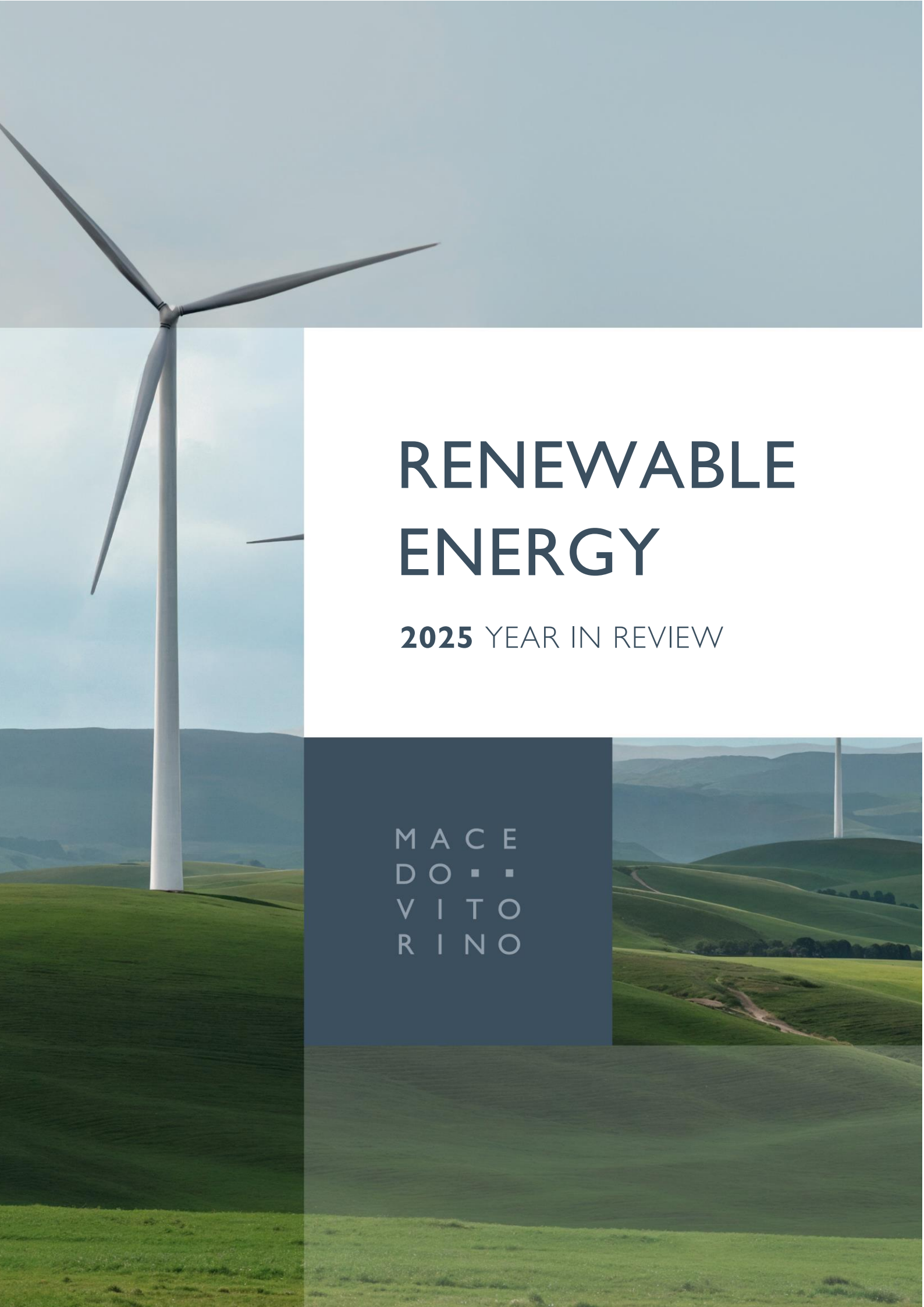

RENEWABLE ENERGY

2025 YEAR IN REVIEW

MACEDO VITORINO

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1. INTRODUCTION

In 2025, Portugal's renewable energy sector experienced robust growth, driven by solar expansion and supportive policies. Renewable sources met 68% of electricity demand, with total production reaching a record 37 TWh. Electricity consumption hit an all-time high of 53.1 TWh, up 3.2% from 2024. Installed solar capacity surged to around 6.8 GW by year-end, reflecting significant increases in both utility-scale and decentralized systems. Self-consumption installations, primarily solar PV, saw notable additions, contributing to energy decentralization. Market players have expanded through new investments and projects, with foreign firms like Neoen assuming greater roles alongside domestic leaders, despite the Portuguese energy sector remaining anchored by strong domestic and Iberian players.

2025 saw the adoption of several legislative and regulatory measures in Portugal with impact on the renewables market. Among the most relevant was the abolition of the clawback mechanism. Introduced in 2013, the clawback consisted of a financial compensation charged to electricity producers, intended to offset perceived distortions in the Iberian electricity market resulting from differences between Portuguese and Spanish taxation, and which has been widely contested by market players. Its repeal, effective as from the 2025 financial year, puts an end to a long-standing charge on producers and represents an important step towards improved investment conditions in the Portuguese renewable market.

Alongside the end of this long-standing mechanism, national lawmakers and regulators adopted several measures of relevance to renewable energy projects, including the launch of new licensing and competitive procedures for biomass power plants, important clarifications on the environmental and licensing framework applicable to energy storage projects, the approval of a new legal and regulatory framework for electric mobility, as well as initiatives addressing grid capacity constraints, energy efficiency and the mitigation of energy poverty.

This report provides an overview of the Portuguese renewables market in 2025, highlighting the main transactions that took place in the year and those that are still unfolding, and reviews the legal and regulatory developments of 2025.

In the last chapter we give our outlook for 2026, analysing the main trends expected to define the market's evolution, with particular emphasis on system flexibility, storage deployment, demand growth and grid integration challenges.

2. MARKET OVERVIEW

2.1. PRODUCTION GROWTH

In 2025, renewable sources generated 37 TWh of electricity in mainland Portugal, supplying 68% of national electricity demand, the highest share ever recorded in the Portuguese power system. This surpassed the 2024 record of 36.7 TWh, despite grid-security constraints following the 28 April blackout and related curtailments.

For the first nine months of 2025, renewables covered around 70% of demand, with hydropower at ~28%, wind at ~24%, and solar at ~13%, complemented by bioenergy and other small-scale sources. In July 2025, renewables reached 71.4% of mainland generation, driven by strong wind and solar output.

Some other interesting facts occurred in 2025:

- While Portugal has historically been a "wind and water" country, 2025 was the year Solar PV (Photovoltaics) moved from a supporting role to a protagonist. For the first time, monthly solar generation surpassed wind. This is significant because wind power is often erratic, whereas solar provides a predictable "baseload" during daylight hours. Of course, this massive solar influx led to extremely low (and sometimes negative) energy prices during the day, which pressured the profitability of older power plants.
- A huge chunk of this growth came from UPACs (Self-Consumption Units). Portuguese households and industries installed record numbers of rooftop panels, reducing their dependence on the national grid and lowering prices during peak sun hours.

2.2. INCREASE IN PRODUCTION CAPACITY

By end-2025, total installed capacity from renewable sources in Portugal was around 21.1 GW, up from roughly 19 GW at end-2023, implying a cumulative increase of about 2.1 GW over two years. Solar PV capacity alone reached 6.17 GW by May 2025, with

499 MW added between December 2024 and May 2025, split between utility-scale (264 MW) and distributed (235 MW).

Solar generation grew strongly, with 10,759 GWh produced from January to September 2025, up from 8,544 GWh in the same period of 2024, representing a year-on-year increase of about 26%. Wind and hydro also expanded, with wind output rising around 10% year-on-year in the third quarter and hydro up 23%, reinforcing the diversification of the renewable mix.

Renewable Electricity Production by Market Participantes (2025)

Rank	***Producer***	***Main Source(s)***	***Estimated Production (TWh)***
1	EDP Renováveis	Hydro, Wind, Solar	16.0 (Hydro: 12.5; Wind: 3.0; Solar: 0.5)
2	Iberdrola	Hydro, Wind	3.7 (Hydro: 1.8; Wind: 1.9)
3	Finerge	Wind	2.0
4	Ventient Energy	Wind	1.5
5	Industrial Self-Consumption (Aggregated)	Solar	1.5
6	TrustEnergy (ENGIE/Marubeni JV)	Wind	1.5
7	Galp	Solar	1.5

8	Residential Self-Consumption (Aggregated)	Solar	1.5
9	Neoen	Solar	0.5
10	Acciona	Wind	0.3

2.3. MARKET CONTEXT: DEMAND, IMPORTS, AND PRICES

Total electricity consumption reached 53.1 TWh in 2025, an increase of 3.2% year-on-year (or 2.3% in weather- and calendar-adjusted terms). This increase was mainly driven by higher demand from data centres and industrial consumers, alongside continued economic activity. Portugal remained a net importer of electricity, with net imports of 9.3 TWh. Although this represented an 11% decrease compared to 2024, imports still accounted for around 17% of total electricity demand.

Wholesale prices were volatile, with notable spikes (e.g., a 77.6% month-on-month price rise in February 2025), but the high renewables share helped contain overall system costs, with renewables estimated to have saved around €5 billion in wholesale-market expenditures in the first seven months of the year.

3. MAIN EVENTS

3.1. THE NEW PNEC 2030 OBJECTIVES

Portugal continued in 2025 to implement the National Energy and Climate Plan 2030 (PNEC 2030), which was updated and reinforced in 2025 to reflect higher ambitions in renewables, electrification, and sector coupling. The plan now targets[1]:

- Renewable-based electricity from 20.8 GW of installed solar PV by 2030 (up from roughly 6.1–6.2 GW at mid-2025) and 10.4–12.4 GW of wind capacity, implying a substantial pipeline of onshore projects and early-stage offshore planning.
- Overall renewable share in final energy: The PNEC 2030 envisages renewables covering around 80% of electricity consumption and a significant increase in renewable share in heating/cooling and transport, supported by electrification and green hydrogen.

Several policy levers linked to PNEC 2030 have been implemented in 2025:

[1] The Portuguese Government launched, in the end of 2025, a public consultation to revise national renewable energy targets, partially transposing EU Directive 2023/2413 (Renewable Energy Directive – RED III). Key provisions included updated National Targets: Portugal aims to reach 49% of renewable energy in gross final energy consumption by 2030, with milestones of ≥40% by 2025 and ≥44% by 2028; and 5% innovative renewable technologies in installed capacity by 2030. Sector-Specific Goals: (i) Buildings: 75% renewable energy by 2030, incorporating up to 20% waste heat/cold; (ii) Industry: 16 percentage point increase in renewables by 2030, with specific targets for renewable hydrogen of 42% by 2030 and 60% by 2035. (iii) Heating/Cooling: Minimum 46% renewables by 2025 and 63% by 2029, with incentives for heat pumps, efficient district networks, and biogas/biomethane; (iv) Transport: 29% renewables by 2030, with sub-targets for road (28%), maritime (18%), and non-electrified rail (14%), including a minimum of advanced biofuels, hydrogen, and non-bio-renewable fuels; (v) stricter criteria for biofuels and bioliquids, capping food crop contributions at 3.1% and excluding fuels with a high risk of indirect land-use change, unless certified as low-risk. It also introduces ENSE-issued bonds (TdB for biofuels, TdC for low-carbon, TdE for renewable electricity), with credits and penalties for non-compliance.

- Auction-driven deployment: While no large-scale solar or wind auctions were launched in 2025, the PNEC 2030 framework continued to rely on competitive procedures as a core deployment tool. In this context, specific tender mechanisms were advanced or prepared, including new competitive procedures for biomass power plants, the announced competitive process for battery energy storage systems focused on system services, and the preparatory work for the first offshore wind tender.
- Permitting and grid-access reform: The government continued to pursue reforms aimed at streamlining environmental and grid-connection procedures, including digitalisation of licensing and clearer timelines, to absorb the surge in solar and wind projects without further congestion.
- Sector coupling: The PNEC-aligned strategy promotes green hydrogen and advanced biofuels, notably around industrial hubs such as Sines, where Galp and other players are developing large-scale projects.

3.2. THE APRIL 2025 BLACKOUT

The major blackout of 28 April 2025, which originated in Spain and propagated into Portugal, triggered a comprehensive grid-security and resilience package announced in late July 2025. This technical incident was a wake-up call for the Iberian electrical system and highlighted several structural vulnerabilities.

- System inertia: As the electricity system continues to shift away from conventional synchronous generation (coal and gas-fired plants) towards inverter-based renewable technologies such as solar PV and wind, overall system inertia has been progressively reduced. The April 2025 incident demonstrated that, under certain conditions, the grid has become more sensitive to sudden frequency disturbances;
- Reliance on thermal generation for system stability: In the aftermath of the blackout, the Portuguese transmission system operator (REN) was required to maintain gas-fired generation online more frequently than initially planned in order to ensure frequency control and operational security. As a result, despite record levels of installed renewable capacity, natural gas generation remained an important component of the electricity mix in 2025.

The core measures within this package are:

- Launch of a 750 MVA BESS auction to provide fast-response reserves and other system services, including frequency and voltage support during contingency events.
- €137 million allocated to modernise operational and control capacity of the transmission and distribution networks, including advanced SCADA/EMS systems and improved monitoring tools.
- Reinforcement of cross-border interconnections with Spain and the wider European grid, to reduce vulnerability to single-point failures and improve coordinated restoration.
- Doubling the number of black-start-capable plants from two to four, by adding Baixo Sabor and Alqueva to the existing Tapada do Outeiro and Castelo de Bode hydro plants.
- A €25 million grant programme for backup infrastructure (including BESS and diesel-gensets) at hospitals, water utilities, and energy-sector facilities, to ensure continuity of essential services.

The post-blackout response package has accelerated investment in energy storage and grid modernisation, positioning hybrid wind and solar projects combined with battery energy storage systems (BESS) as a central component of the current investment pipeline. At the same time, the 75% renewable charging requirement, together with relatively limited support levels, has exposed a degree of tension between security-of-supply objectives and the economics of purely merchant storage projects. This tension has, in turn, intensified calls from market participants for greater regulatory clarity and further evolution of market-design arrangements.

3.3. THE 750MW BESS AUCTION

In July 2025, the Portuguese government announced its intention to launch a competitive tender for up to 750 MVA of battery energy storage capacity, as part of a broader €400 million package aimed at strengthening grid resilience and system security. The tender is primarily designed to procure system services and flexibility resources, including fast-response reserves, frequency control and other ancillary services, with the objective of reducing reliance on gas-fired generation for balancing and contingency support.

The announced target is 750 MVA of BESS capacity, with installations expected to be connected at both transmission and distribution levels, depending on system needs. Unlike previous storage-support discussions, the envisaged mechanism is not primarily intended to promote the hybridisation of storage with renewable generation assets, but rather to secure standalone or functionally dedicated flexibility resources capable of supporting system operation.

Although the tender was expected to be launched before January 2026, the corresponding implementation proposal and tender documentation had not been published as of year-end 2025. Market expectations nevertheless remain that the competitive procedure will be launched during the first half of 2026.

While the mechanism is expected to improve the bankability of storage projects focused on system services, its overall support levels are anticipated to be more limited than comparable schemes in other European jurisdictions - such as Spain's PERTE-storage programme. This has fuelled industry concerns regarding the revenue stack available to storage projects, particularly considering the 75% renewable-charging requirement, and has reinforced calls for greater clarity on long-term, market-based remuneration frameworks for flexibility resources.

3.4. THE END OF THE CLAWBACK TAX

Introduced in 2013, the clawback mechanism consisted of a financial charge imposed on electricity producers, originally intended to offset perceived distortions in the Iberian electricity market (MIBEL) arising from differences between Portuguese and Spanish taxation. Although conceived as a corrective tool in a crisis context, the mechanism proved complex, unpredictable and economically marginal, and was widely contested by market participants for generating regulatory uncertainty and discouraging investment.

Over time, the clawback increasingly revealed structural shortcomings. In particular, it introduced a bias in favour of electricity imports, penalising domestic generation and running counter to the objectives of energy autonomy, renewables deployment and electrification enshrined in the National Energy and Climate Plan 2030 (PNEC 2030). These effects became more pronounced as the Portuguese electricity system evolved towards higher renewable penetration and deeper Iberian market integration.

Against this background, Decree-Law No. 139-B/2025 formally repealed the clawback mechanism, with effect from the 2025 financial year. In accordance with the principle of legal certainty, the repeal does not affect settlements relating to 2024, which remain payable. The elimination of the clawback represents a meaningful step towards regulatory simplification and enhanced predictability in the Portuguese electricity sector.

From a market perspective, the repeal removes a long-standing cost component from the electricity production chain, with the potential to contribute, over time, to more stable and competitive electricity prices. More importantly, it improves the overall investment climate by reducing regulatory risk, thereby reinforcing Portugal's attractiveness for renewable energy and flexibility investments.

The measure was welcomed by industry stakeholders, including the Portuguese Renewable Energy Association (APREN), as a decisive signal in favour of regulatory stability and cost efficiency. Analysts and specialised consultancies have likewise underscored its positive implications for market competitiveness and long-term investment, viewing it as a shift away from complex corrective mechanisms towards a more transparent and market-oriented regulatory framework.

4. MAIN REGULATORY DEVELOPMENTS

4.1. OVERVIEW

The main legislative developments in the Portuguese energy sector in 2025 included new licensing procedures for electricity storage facilities with pre-allocated grid injection capacity; benefits for electro-intensive consumers; new biomass production and electric mobility frameworks and the new OMIP bilateral contracts' negotiation platform. You can find below more detailed information on these regulatory developments[2].

4.2. BESS ACCESS TO THE NATIONAL GRID

Access to grid remains today a challenge for BESS project developers in Portugal, as there is not yet a clean regulatory path to obtain it. Still, in 2025 we saw Ministerial Order No. 1859/2025 allowing the use for BESS of previously allocated injection capacity in the public electricity grid. It applies to:

- Technology changes in unbuilt solar power plants with an injection capacity reservation title (Título de Reserva de Capacidade – "TRC"); and
- Standalone or co-located storage with previously allocated injection capacity reservation in the public grid for a renewable energy power plant.

[2] A comprehensive overview of the regulatory changes introduced in 2025 is available in our legal updates covering the first and second semesters.

Under this framework, the TRC holder may request the conversion of an existing solar TRC into a storage TRC by submitting an application to the Portuguese energy authority (DGEG). The request is assessed by the relevant grid operator and by the system operator (REN), which issue opinions on charging power and operational constraints within defined timeframes. Once approved, the modified TRC is issued by the grid operator following DGEG authorisation.

Pre-allocated injection capacity reserved under a TRC for renewable generation may also be used to apply for production licences for autonomous or co-located storage facilities connected at the same grid connection point (in the National Transmission Grid) or circuit (in the National Distribution Grid).

In such cases, the TRC holder must submit an application to DGEG—together with the explicit authorisation of the storage project holder—accompanied by the documentation listed in Annex I to Decree-Law No. 15/2022. The application must also include a description of the intended operating conditions of the storage facility, notably maximum charging and injection power through the public grid, as well as a written coordination agreement between the storage and generation project holders governing operational coordination and energy injection.

DGEG assesses compliance and requests opinions from the relevant grid operator and from the system operator regarding maximum charging capacity and any applicable operational restrictions. Where the opinions are favourable, DGEG is required to issue the production licence within 30 days.

The storage facility may not be simultaneously coordinated with more than one autonomous storage installation. However, it may benefit from injection capacity reserved under multiple renewable generation projects, subject to compliance with applicable grid and operational constraints.

4.3. ELECTRO-INTENSIVE CUSTOMERS

The European Commission has finally approved in 2025 Portugal's aid scheme for electro-intensive industries, completing the implementation of the Electro-Intensive Consumer Statute ("**ECS**")[3]. This scheme includes:

- Partial reduction (up to 85%) in costs of general economic interest ("CGEI") on grid-supplied electricity.
- Full CGEI exemption on self-consumed energy delivered through the public grid.
- Risk hedging mechanism (minimum 10%) for renewable-sourced electricity under long-term contracts.
- Waiver of proximity requirements between self-consumption units and facilities.

Beneficiaries must invest at least 50% of the aid in carbon intensity reduction projects and ensure that at least 30% of their electricity consumption comes from renewables (via contracts, self-consumption, or sustainability initiatives).

The benefits are applicable to sectors like ceramics, glass, metalworking, and textiles. To benefit from them, requirements include: (i) to have an annual electricity consumption exceeding 1 GWh; (ii) that at least 40% of the consumption occurs during off-peak periods; and (iii) that the electro-intensity is equal to or greater than1 kWh per euro of gross value added (three-year average).

4.3.1. THE NEW STANDARD AGREEMENTS

In June 2025, DGEG approved draft standard adhesion agreements for the ECE, applicable to all adhesion requests filed from 2025 onwards.

Applications must be submitted to DGEG by 15 June of each year, together with the required supporting documentation. DGEG is required to issue its decision within 30

[3] Established by Decree-Law 15/2022 and subsequently ruled by Ministerial Order 112/2022 and Ministerial Order 203-A/2025/1.

days of submission, and successful applicants receive a draft adhesion agreement for signature within five days.

Standard adhesion agreements are valid for four years and may be renewed for successive four-year periods upon submission of a renewal request. Conditional adhesion agreements—applicable to facilities with less than three years of operation—are valid for three years and require a subsequent application for conversion into a standard adhesion agreement.

In both cases, failure to submit a renewal or conversion request by 15 June of the final year of validity results in termination of the agreement.

4.3.2. GRID ACCESS TARIFS

In 2025 Portugal's Energy Services Regulator ("**ERSE**"), approved network access tariffs for facilities qualified as intensive electricity consumers ("ECE"). These new rules provide benefits for ECE facilities, including a 75% or 85% reduction in the General Economic Interest Costs of the network access tariffs, as well as a full exemption in the case of self-consumption, even if supplied via the public grid.

4.4. BIOMASS POWER PLANTS

In October 2025, the Portuguese Ministry of Environment and Energy adopted Ministerial Order No. 358/2025/1, implementing Decree-Law No. 64/2017 and setting out the procedural framework for applying for production and operation licences for biomass power plants. The regime applies in particular to new forest biomass plants promoted by municipalities, intermunicipal entities or municipal associations

The Ministerial Order clarifies the documentation required at each licensing stage, namely:

- Production Licence: an opinion from the Portuguese Institute for Nature Conservation and Forests (ICNF) confirming biomass sustainability and availability, copies of biomass supply contracts, the Single Environmental Title (TUA) and the design of the carbon capture project.
- For the operation Licence: The documentation listed in Article 33(3) of Decree-Law No. 15/2022.

Requests for an ICNF opinion must include, in particular, a 10-year biomass supply forecast, installed capacity, estimates of available forest and agricultural biomass, and measures to ensure sustainability, local coordination and traceability of biomass sources.

As regards the carbon capture requirement, the Ministerial Order allows for a waiver upon submission of a duly justified request to the DGEG, supported by an independent technical assessment demonstrating technical or economic infeasibility. The decision is issued by the Ministry and is valid for up to three years.

4.5. ELECTRIC MOBILITY

A revised legal framework for electric mobility was introduced by Decree-Law No. 93/2025, aligning Portuguese law with EU Regulation 2023/1804 ("**AFIR**")[4]. The new regime represents a structural liberalisation of the electric mobility sector, replacing the previous centralised model with a market-based framework aimed at accelerating the deployment of charging infrastructure, enhancing competition and ensuring universal and non-discriminatory access to charging services.

Key changes compared to prior scheme include:

- Full liberalisation of charging infrastructure deployment and operation: The centralised network-management model is abolished, allowing charging point operators and mobility service providers to independently install, own and operate charging networks, while ensuring non-discriminatory access for all users.
- Elimination of the "electricity supplier for electric mobility" role: Operators may now procure electricity directly from the market, through bilateral contracts or self-consumption arrangements, and freely contract with other mobility service providers, aligning electric mobility with general electricity market principles.
- Mandatory ad hoc charging and smart charging functionalities: Public charging points must allow contract-free access via bank cards or QR codes. The framework also

[4] Some regulatory developments include: Regulation 7/2026; Ministerial Order No. 16/2026/1 and Ministerial Order No. 31/2026/1

promotes smart and bidirectional charging, including vehicle-to-grid solutions, enabling electric vehicles to actively support the electricity system.

- Interoperability and cross-border integration: The regime facilitates interconnection with international charging networks, enabling seamless cross-border charging and payment solutions.
- Introduction of tradable "avoided CO_2" certificates: Certificates linked to the use of renewable electricity in electric mobility are created to support decarbonisation objectives.
- Data governance and transparency: Operators are required to submit operational data to a neutral electric-mobility data aggregator, which forwards the information to the national access point managed by the Institute for Mobility and Transport (IMT).
- Streamlined licensing and digitalisation: Authorisation procedures are simplified, with reduced timelines, the introduction of prior notification and potential tacit approval mechanisms, and full digitalisation through the Single Digital Services Portal.

A transitional period applies until 31 December 2026, allowing market participants to progressively adapt from the former regulated model to the new liberalised framework.

4.6. OMIP PPA PLATFORM

Power Purchase Agreements ("**PPAs**") have become increasingly relevant as instruments for price stabilisation and for financing renewable energy projects. In Portugal, however, their use has historically been limited when compared to other European markets, mainly due to reduced transparency on prices and contractual conditions, lack of standardisation and legal uncertainty, particularly in contracts involving final consumers.

To address these shortcomings and promote the development of a PPA market, Decree-Law No. 99/2024 established the basis for bilateral energy registration and contracting. This framework was further developed by Ministerial Order No. 367/2024/1, which established a dedicated electronic platform managed by OMPI, S.A. (the "**OMIP**

Platform")[5] and by the Procedures Manual for the Activity of Registration and Bilateral Contracting of Electrical Energy, enacted by ERSE through Directive No. 11/2025.

Registration of PPAs on the OMIP Platform is mandatory for bilateral physical PPAs that cumulatively meet the following criteria:

- Involve physical delivery of electricity;
- Have a term exceeding one year, or a shorter duration combined with automatic renewal clauses;
- Have a minimum hourly nominal capacity of 1 MW and an annual volume of at least 1.5 GWh;
- Involve at least one counterparty domiciled in the Portuguese electricity system; and
- Are concluded between a producer (or its representative/aggregator) and a buyer (acting as supplier, aggregator or final consumer).

PPAs must be registered within five business days of execution through the submission of key information on the parties, the entity responsible for energy scheduling, the development status of the project and the main commercial terms.

While registration is mandatory, the use of the OMIP Platform for negotiation and execution of PPAs is voluntary. The platform may be used to publish and consult contractual terms, exchange information through a confidential messaging channel and negotiate PPAs, with access to model clauses and draft contracts that support contractual standardisation and promote more balanced and legally robust agreements, particularly for smaller or less experienced market participants.

The OMIP Platform represents a significant step towards increased transparency, standardisation and liquidity in the Portuguese PPA market. By combining mandatory registration with optional negotiation and contracting tools, it balances regulatory

[5] Further information can be found on our dedicated study on the OMIP Platform

oversight with contractual freedom, while reducing legal uncertainty and facilitating the matching of supply and demand in long-term renewable energy contracting.

5. 2026 OUTLOOK

After a record year for renewable output and a stress-test event for system security (the April 2025 blackout), 2026 is expected to be less about announcing new targets and more about integrating large volumes of variable renewables into a constrained grid. The key market theme is therefore flexibility, understood as the power system's capability to absorb excess energy output, manage congestion, and maintain frequency and voltage stability, placing energy storage and other flexibility resources at the centre of system operation and regulatory focus.

This integration challenge will be compounded by continued growth in electricity consumption, particularly driven by large-scale data centres and other electrification trends, as well as by the expected preparation and possible launch of the first offshore wind tender.

- **Storage and system flexibility will move to the centre of the electricity system**. The rapid expansion of solar generation in recent years, combined with increasing grid congestion and reduced system inertia, has made flexibility a structural requirement of the Portuguese power system. While storage deployment to date has focused predominantly on co-located solutions, leveraging injection capacity previously allocated to renewable generation projects, the integration challenges exposed in 2025 have highlighted the need to enable standalone storage at scale. In this context, Portugal's post-blackout resilience agenda has placed storage at the core of system operation, with the government announcing a competitive procedure for up to 750 MVA of battery energy storage, primarily aimed at the provision of system services—including fast-response reserves, frequency control and grid-stability support—and expected to be launched before January 2026. This mechanism reflects a policy focus on security of supply rather than on merchant storage or pure energy-arbitrage models. Looking ahead to 2026, the central issue for storage deployment will be the availability of effective and bankable grid-access pathways for standalone BESS, beyond co-located configurations. These pathways are expected to include (i) participation in capacity auctions dedicated to system services, (ii) the repurposing or shared use of previously allocated injection capacity (including the conversion of solar capacity reservation titles into storage or their use for autonomous storage at the same

connection point), and (iii) the possible allocation of dedicated grid capacity for standalone storage projects where justified by system needs. In parallel, contractual grid-access arrangements with predefined operational restrictions are likely to remain relevant in constrained areas. Overall, 2026 is expected to shift the focus from recognising the importance of storage to enabling its practical deployment, with storage playing a decisive role in curtailment mitigation, frequency and voltage control, and the integration of both new renewable generation and large-scale consumption installations.

- **Surging Demand - Data Centres**. The continued expansion of data centres, particularly hyperscale and AI-driven facilities, is expected to remain one of the most significant developments affecting the Portuguese electricity system in 2026. In this context, the Start Campus project in Sines represents a structural shift in the national demand profile, introducing a gigawatt-scale data-centre campus model. Publicly available information and grid-access requests indicate that projects in the Sines area alone may require electricity capacity of up to approximately 1.2 GW at full build-out, with phased deployment already corresponding to several hundred megawatts of new demand in the short to medium term. This magnitude is material when compared with Portugal's electricity system, where peak demand typically ranges between 9 GW and 10 GW and annual electricity consumption stood at around 53 TWh in 2025. As a result, large-scale data-centre developments are expected to have a direct impact on grid planning, reinforcement schedules and capacity-allocation decisions. In particular, they increasingly rely on the exceptional grid-access mechanisms applicable to High-Demand Zones, which were introduced to manage structurally congested areas where available grid capacity is insufficient to accommodate all consumption requests under the general access regime and have already been applied in locations such as Sines. At the contractual level, the scale, continuity and predictability of data-centre demand are expected to further stimulate the Portuguese PPA market, accelerating the use of long-term physical and financial PPAs, as well as hybrid supply structures and dedicated or co-located renewable generation combined with storage.

- **Strengthening of the PPA market**. PPAs are expected to assume a more prominent role in 2026 as tools for price stabilisation and for the financing of renewable generation and flexibility projects. Although historically underdeveloped in Portugal, the PPA market is now being reshaped by a combination of regulatory reform and structural growth in electricity demand. Since late 2025, the OMIP

Platform has been in operation, providing a structured framework that facilitates PPA development and reduces transaction frictions. Looking ahead to 2026, PPA activity is expected to accelerate primarily in response to rising demand from large electricity consumers—most notably data centres—together with increased price volatility and persistent grid constraints. In this context, market participants are likely to make wider use of long-term physical and financial PPAs, as well as hybrid supply structures combining renewable generation with storage. The OMIP Platform is expected to support this expansion by improving transparency and contractual standardisation, thereby contributing to the gradual consolidation of a more liquid and bankable PPA market in Portugal.

- **Electrification of Transport will continue to expand, increasing pressure on distribution networks**. 2025 marked a tipping point for electric vehicles (EVs) in Portugal, as the deployment of charging infrastructure began to catch up with sales volumes, leading to a more widespread and intensive use of the electricity distribution grid. This trend is expected to continue in 2026, further increasing electricity demand at local and regional levels. Following the approval in 2025 of a revised legal and regulatory framework for electric mobility, which liberalised the installation and operation of charging infrastructure and replaced the previous centralised model with a market-based approach, 2026 is expected to focus on implementation and market adjustment. The steady increase in EV penetration, combined with the expansion of public and private charging networks, will require closer coordination between charging deployment and grid reinforcement, as well as the practical application of new rules of access, interoperability, data management and smart and bidirectional charging. While electric mobility does not generate demand volumes comparable to large data centres, it represents a structurally growing and geographically dispersed load that increasingly interacts with self-consumption, storage and local flexibility mechanisms.

- **Offshore Wind will remain strategically relevant, though operation uncertainty remains**. Offshore spatial allocation plan and the model for the first competitive procedure were approved in 2025, defining a centralised and sequential tender structure combining the allocation of maritime use rights (TUPEM) with subsequent grid-connection capacity and remuneration mechanisms. The framework covers the main offshore areas identified along the Atlantic coast—namely Viana do Castelo, Leixões, Figueira da Foz and Sines—and targets around 2

GW of installed capacity to be operational by 2030, within a longer-term ambition of up to 10 GW. Under the tender model approved in April 2025, the competent authorities were expected to prepare the detailed implementation proposal within 60 days and to complete the tender documentation within 180 days, i.e. by October 2025. These deadlines were not met, and uncertainty therefore remains regarding the timing of the first offshore wind tender, the sequencing of maritime zones and the allocation of grid-connection and onshore reinforcement costs.

- **Renewable hydrogen will progress selectively, with limited short-term impact on the electricity system**. Hydrogen and other renewable or low-carbon gases are expected to continue evolving in 2026, mainly in the context of industrial decarbonisation, sector coupling and targeted support mechanisms. Development efforts are likely to focus on securing offtake, implementing auction-based or contractual support schemes and addressing practical issues related to licensing, grid injection and environmental permitting. While hydrogen may provide an additional outlet for surplus renewable generation, particularly in industrial hubs, its contribution to addressing near-term electricity system constraints is expected to remain secondary when compared to storage solutions and demand-side flexibility.

IMPORTANT NOTICE

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ABOUT PORTUGAL

TERRITORY, POPULATION AND LANGUAGE

Portugal is situated on the southwest coast of Europe, bordering only with Spain. With a territory of 92,152 Km^2, Portugal has the largest maritime zone in Europe. Its continental platform borders the American platform.

Portuguese is the sixth most spoken language in the world, spoken by 270 million people in Portugal, Brazil, Angola, Cape Verde, Mozambique, Guinea Bissau, São Tomé and Príncipe and Timor.

POLITICAL SYSTEM

Portugal is a parliamentary republic. The legislative power lies with a national parliament (*Assembleia da República*), with 230 seats. The members of parliament are elected by universal vote for four-year terms. The Government depends on the parliament's support. The Government is led by a Prime Minister.

The President of the Republic has limited powers but has the power to influence the Parliament's and the Government's decisions and dissolve the Parliament in extraordinary circumstances.

INTERNATIONAL RELATIONS

Portugal has been a member of the EU since 1986, a founding member of the Euro and the Portuguese-speaking Countries Community (*Comunidade dos Países de Língua Portuguesa*, CPLP), which groups all Portuguese-speaking countries. Portugal is a member of the United Nations, NATO and the OECD.

CURRENCY AND BANKING SYSTEM

Portugal is one of the founding members of the «Euro», the currency of 20 European countries. The Euro is the second most traded currency in the world after the US Dollar.

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