



Iberdrola



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Operational context

Conflicts in the Middle East and the ongoing war in Ukraine continue to threaten the global recovery. They also affect the volatility of commodity prices and transport costs. This volatility is exacerbated by increasingly frequent extreme weather events..

This situation highlights the need to **move towards electrification and decarbonisation** of the economy, which **will strengthen** self-sufficiency, **energy security, efficiency and competitiveness**, and allow progress towards greater price stability.

This is reflected in the changes that are taking place in energy policy around the world to promote electrification, as well as in consumer behaviour, which is moving in this direction every day. This social, economic and political consensus took shape in the **agreements reached at the recent climate summit in Dubai (COP28)**, where all countries pledged to **triple renewable energy by 2030**, mobilising **investments of US\$2.2 trillion per year**.

Consequently, even on the assumption that current policies remain unchanged, the **International Energy Agency expects** direct electrification to drive a **60% increase in demand from the industrial sector by 2040**, with additional consumption coming from green hydrogen and its derivatives. **Electricity demand in the transport sector** is also expected to **increase**

fourfold by 2030 and almost **20-fold by 2050**, with a shift towards green hydrogen derivatives from shipping and aviation. In **buildings, electricity will account for 60% of total energy consumption in Europe in 15 years' time**, with huge additional demand coming from data centres, which will double by 2026 and grow exponentially thereafter, driven by the energy needs of artificial intelligence and cloud-based applications.

The increased use of energy to replace fossil fuels and meet new demand could see the **share of electricity in total energy consumption rise** from approximately 20% in recent decades to **28% in 2030 and over 40% in 2040**. This process will involve a major expansion of electricity grids, the need to prepare in advance to maintain electricity supply, and a strong expansion of renewable capacity driven by the substitution of fossil technologies and additional demand. And, finally, **storage technologies will play an increasing role in preserving the balance between supply and demand 24 hours a day**.

To address this situation, those who produce, consume and manage energy **need** to join forces to **create a stable and predictable framework with clear rules to accelerate the necessary investments in clean energy, while recognising the key role that grids and storage technologies play in this electrification process**.





The challenge of climate change

Climate change is one of the most significant and urgent challenges confronting humanity.

Temperatures around the planet have continued to rise, with the average global temperature increasing by 1.45°C in 2023 compared to pre-industrial levels, making 2023 the hottest year on record. Tackling this serious threat requires the commitment, coordination and cooperation of society as a whole.

The adoption of the Paris Agreement at the Conference of the Parties (COP) on Climate Change 21 (COP21) in December 2015 was a key milestone in the global climate agenda.

Despite the efforts and progress made since then, the overall trend in GHG emissions is far from the annual rate of reduction that is required.

Between 2010 and 2019 global GHG emissions increased by 12%, with the concentration of CO₂ in the atmosphere now 50% higher than at pre-industrial levels. According to the latest report of the **Intergovernmental Panel on Climate Change (IPCC)**, for the world to limit the temperature increase to a maximum of 1.5°C by the end of this century, **it needs to achieve a 43% reduction in emissions by 2030 compared to 2019** (45% by 2030 compared to 2010 according to the IPCC SR1.5

special report published in 2018). This makes it more necessary than ever **to support an ambitious and accelerated decarbonisation approach** in the review of targets and to **increase efforts** by society as a whole.

The power sector and heat generation are currently responsible for around 40% of the emissions from the energy sector, which in turn is responsible for almost three quarters of GHG emissions. The **transition to a decarbonised energy model** involves improving energy efficiency and **replacing fossil fuels with renewable energy**. The electricity sector, through renewable energy generation and end-use electrification, is a **key lever for decarbonisation**.

In the decarbonisation scenarios, the **long-term growth opportunities for the electricity sector** as a result of the energy transition are clear. The Net Zero Emissions (NZE) 2050 scenario, developed by the International Energy Agency (IEA) as part of the World Energy Outlook (WEO) 2023, shows how **electricity from 90% renewables will provide more than half of final consumption by 2050**. Specifically, the power sector would reach net zero globally by 2045 and by 2035 in advanced economies, becoming the new backbone of the global energy system by 2050..





Regulatory environment



European Union

In the course of 2023, most of the proposals in the legislative package have been finalised in the “**Fit for 55**” package launched in July 2021, which aims to set targets and instruments for 2030 that are consistent with climate neutrality by 2050...

At the same time, other highly relevant initiatives were discussed in Brussels, such as the proposals outlined in the **Green Deal Industrial Plan for the Net-Zero Age**, the EU’s response to the US Inflation Reduction Act (which heavily subsidises industry for the energy transition in the United States) and the **adjustment of the electricity market design**, related both to the high investment needs for the transition and the need to seek a harmonised exit after the experience of the Ukraine crisis and its impact on energy prices.

In addition to the **update of the state aid framework**, this Industrial Plan includes regulatory measures such as the **Net-Zero Industry Act**, which aims to promote European technological independence in the energy transition, and the **Critical Raw Materials Act**, which aims to ensure the supply of raw materials necessary for the manufacture of these technologies (both bills are at an advanced stage).

The main objectives of the reform of the electricity market design are: a) to facilitate the **free forward contracting** of renewable energy and its integration into the market, supported by **contracts for differences**; b) to increase the **liquidity of forward markets**; c) to promote **flexibility through demand-side participation** and investment in storage; and d) to promote **investment in networks on a proactive basis**. In late 2023, a **provisional agreement on market design** was reached between the Council and the Parliament, which must be formally ratified and published in the Official Journal of the European Union (OJEU) in the early months of 2024.

The European standards published in the OJEU in 2023 include the following:

→ National plans and anti-crisis measures

- Guidance to Member States for the **update of the National Energy and Climate Plans (NECP)** for 2021-2030. In this regard, the **Spanish NECP** proposal was submitted to the Commission before 30 June and, **following an evaluation by the Commission, it was published on 18 December**.
- Amendment of the Recovery and Resilience Facility allowing for an **increase of €20,000 million in funding for the REPowerEU Plan**, agreed in 2023 to accelerate the achievement of the 2030 targets and the EU’s independence from Russian gas.
- Extension of the **voluntary reduction of gas demand in each Member State (15%), which was applied from 1 April 2022 to 31 March 2023**. The reduction may be mandatory in the event of an emergency

→ Carbon emissions

- **Reform of the carbon emissions trading system (ETS)**, aimed at **reducing emissions in the EU by 55% by 2030** (Climate Law), and with the goal of achieving climate neutrality by 2050..
- **Entails emission reductions of 62% vs. 2005** for the ETS sectors (electricity, industry, etc.).
- Member States must allocate **100% of auction proceeds to decarbonisation**.
- A **new CO₂ market (ETS2)** is created for fuel supplied for **road transport, buildings and heat**, which is independent from the current emissions market (ETS1).
- **Maritime** emissions are to be phased in and **aviation** emissions gradually toughened.
- Establishment of a Carbon Border Adjustment Mechanism to **shift the carbon price to EU imports** of products from a selection of industrial sectors. It envisages the **phasing out of free allocations of emission allowances** to these sectors



- New binding allocation between Member States of the overall commitment to reduce CO₂ emissions in those sectors not covered by emissions trading (transport, buildings, agriculture, some industry and waste management, which account for 60% of total emissions).

→ Renewables and hydrogen

- Update of the **European framework for renewable energy**, to increase the renewables target, including more ambitious targets in transport and the creation of new ones in industry and construction. The renewables target as a share of total primary energy raised from a binding **32% to a binding 42.5% by 2030. This percentage can reach up to 45%, taking into account an additional 2.5% indicative top up.**
- Procedure and methodologies necessary to **enable deployment of the production of renewable hydrogen and its by-products.**

→ Energy efficiency

- New **framework for energy efficiency**, which sets a binding EU target **final energy consumption savings by 2030 of 21.2% compared to 2021** (guidance of 24.3% of primary energy consumption) and **promotes electrification.**

→ Mobility

- Regulation on **CO₂ emissions from new passenger cars and light commercial vehicles** which establishes a gradual reduction of emissions from light vehicles, **until their total elimination by 2035** (end of the registration of fossil-fuelled internal combustion vehicles).
- Regulation on the **deployment of alternative fuels infrastructure**, which sets **national targets for charging facilities at roads, ports and airports**, covering electric charging, hydrogen and liquified national gas (LNG) facilities.
- **Limits on specific emissions from ships** (up to 80% between 2020 and 2050) and requires ships in port to be connected to an onshore power supply **Sustainable fuel blending obligations for aviation** (minimum of 70% sustainable fuel by 2050).

→ Sustainable finance

- **Setting** of a **standard** for the issuance and registration of **European green bonds** and providing the necessary standards for **sustainability reporting** as from 1 January 2024.





Spain

At the beginning of 2023, the crisis resulting from the invasion of Ukraine was still being felt, with a first quarter of high gas prices, causing some volatility in the electricity markets. However, throughout the rest of the year **energy prices gradually stabilised and began to fall**. Nevertheless, the Spanish Government chose to keep in place most of the interventions introduced in 2022 to mitigate the effects of the crisis:

- **Continuation of rebates on taxes** (5% VAT and 0.5% excise tax) and electricity system charges and suspension of the tax on electricity generation until December 2023.
- **Continuation of price limit on sales of electricity** of €67/MWh for infra-marginal production (RDL 6/2022 and RDL 18/2022), also until December 2023.
- **Continuation of the Iberian exception** (or “gas cap”) mechanism until 31 December 2023 under RDL 3/2023, which also updated the path for gas reference prices. Although it remains in effect, it has not been activated since February 2023.
- **Continuation of the expansion of scope and the discount** of the **subsidised electricity rate** (bono social) for vulnerable consumers until 31 December 2023 (RDL 18/2022).
- The **temporary tax on energy companies’ revenue** is retained, with the possibility of tax relief for strategic investments in transition measures (RDL 08/2023).

Cost reduction and social protection measures were also continued in other energy subsectors: tax reductions for natural gas consumers, limiting the increase in the last resort tariff for natural gas, special gas tariffs for homeowners’ associations, measures to reduce energy demand, etc...

Other major regulations approved:

- **Reform of small-scale consumer voluntary price** (*Precio Voluntario para el Pequeño Consumidor*) (**PVPC**) (RD 446/2023) to index prices to forward signals.
- **Energy Savings Certificates** (*Certificados de Ahorro Energético*) (CAEs) scheme (RD 36/2023), as a means of proving total or partial compliance with energy saving requirements.

In addition, favourable rulings were obtained for Iberdrola in the public interest and lambda parameter claims affecting the calculation of the basic remuneration of the distribution networks for 2016, as well as the favourable ruling for CURENERGÍA on the compensation corresponding to the financing of the Subsidised



United Kingdom

- The Electricity Generator Levy (EGL) came into effect on 1 January 2023, implementing a 45% levy on merchant electricity generation revenues from renewable (and nuclear) generation above an annual benchmark of £75/MWh (with inflation indexation based on CPI) until 31 March 2028. (Note: this levy rate does not apply to energy sold under a Contract for Difference (CfD) with the Low Carbon Contracts Company Ltd (LCCC) but does apply to energy sold in the market on commercial terms).
- In the 2023 Spring Budget, the Chancellor introduced **“full expensing” under the capital allowances regime** on a time-limited basis, running from 1 April 2023 to 31 March 2026. This support for investment was further extended in the 2023 Autumn Statement with the Chancellor announcing that “full expensing” would now be put on a **permanent basis**.
- In the 2023 Autumn Statement, the Chancellor announced that the UK Government will introduce legislation for a new exemption under the EGL, covering “new projects” for which the substantive decision to proceed is made on or after 22 November 2023.
- Among **other measures** in the Autumn Statement 2023 to support investment, the UK Government announced a £4.5 billion fund to **support manufacturing in key strategic sectors**, including £960 million for a ‘Green Industries Growth Accelerator’ to support investment in **clean energy sectors** (including **offshore wind, low-carbon hydrogen, carbon capture**, use and storage mechanisms, **electricity grids** and nuclear power) from April 2025.
- Following the results of Round 5 of the **Contract for Difference (CfD)** allocation in September 2023 (which did not include offshore wind bids), on 16 November 2023 the UK Government published the key **auction parameters for Round 6** of the CfD allocation. This included a price (administrative strike price - ASP) of £73/MWh (2012 prices) as the baseline for **offshore wind**, representing a 66% increase over the ASP in Allocation Round 5. The



move was designed to **accelerate the pace of large-scale** offshore wind deployment in the UK and help meet the Government’s goal of **50GW of offshore wind by 2030**.

- In February 2023, the Government announced the launch of the British Industry Supercharger to provide **electricity price support to Energy Intensive Industries (EIIs)**. As part of this initiative, the Government announced that it will introduce a 100% exemption from the cost of Taxes on Renewables (covering Contracts for Difference, the Renewables Obligation and the small-scale Regulated Tariff) and the Capacity Market Supplier Obligation Charge. The Government also plans to introduce a **network charging cost compensation of 60%**, and EIIs will be eligible from April 2024. This compensation scheme is expected to be financed by a Supplier Obligation Levy to be introduced in April 2025.
- On 20 September 2023, the UK Government announced that the grant under the Boiler Upgrade Scheme (BUS) would increase from £5,000 for an air source heat pump and £6,000 for a ground source heat pump to a general grant of £7,500 in England and Wales.
- In December 2023, the UK Government announced that it will introduce a UK Carbon Border Adjustment Mechanism (CBAM) by 2027, which **will place a carbon price on goods imported into the UK from the aluminium, cement, ceramics, fertiliser, glass, hydrogen and steel sectors**. The importer of the products within the scope will be responsible for CBAM reporting.
- In March 2023, the UK Government announced that it would maintain the level of its Energy Price Guarantee (EPG) support scheme, which caps household customers’ energy bills at £2,500, for a further three months from April to June 2023, with the level changing to £3,000 from July 2023 until the mechanism ended on 31 March 2024.
- In November 2023, following the report published in August 2023 by the Electricity Networks Commissioner, Nick Winser, the UK Government published its Transmission Acceleration Action Plan. The Action Plan seeks to **halve the end-to-end build time of electricity transmission network infrastructure, from 14 to 7 years**. A joint Government and Ofgem action plan to accelerate grid connections was also published.



United States and Canada

- In its second year, the Biden Administration continued its efforts to increase **federal investment in clean energy** and critical infrastructure through new legislative and regulatory actions, including guidance for the **implementation of the Inflation Reduction Act**. The environment and the economy continue to be the focus of his administration and his re-election campaign.
- Federal agencies continued to issue regulations and guidance throughout the year. The **Department of Energy announced more than US\$80,000 million in stimulus** through the Inflation Reduction Act and the Bipartisan Infrastructure Law, including funding in 2023 for batteries, weatherisation, **electricity transmission**, heat pumps and **electric vehicle charging stations**. There are no new energy-related regulatory developments in 2023. Some issues, such as siting and licensing, attracted a lot of national attention, but there has been no real progress.
- Both houses of Congress had narrow majorities. A divided Congress resulted in little being done in 2023 apart from “must pass”.



Mexico

The following legal and regulatory developments regarding the energy sector occurred in 2023:

- **Reform of the Electricity Industry Law (LIE)**: This reform, published in March 2021, seeks to prioritise the energy generated by the federal electricity commission (*Comisión Federal de Electricidad*) (CFE) over energy produced by private-sector generators.

A group of senators filed an action challenging the constitutionality of the measure and the Federal Economic Competition Commission also raised a constitutional dispute. Both appeals were resolved in April 2022 by the Supreme Court of Justice of the Nation (SCJN), which concluded that there were insufficient grounds to declare the reform unconstitutional.

The affected parties filed legal appeals, most of which are still pending. In addition, in 2023 the SCJN accepted the review of the amparo petitions filed by a number of private citizens, which are still pending. The reform therefore remains suspended due to the injunctions with general effect granted to those individuals.



→ **Consultations under the T-MEC on Mexico's energy policy:** In July 2022, the United States and Canada announced consultations with the Mexican government under the T-MEC regarding possible violations of energy commitments, particularly in electricity, oil and natural gas. In 2023, it was reported that the Mexican Government and its counterparts had held talks and consultations had taken place. The outcome of the consultations is expected to be announced in 2024.

→ **Power Balancing Market (Mercado para el Balance de Potencia) (MBP) in production year 2022:** The MBP is conducted annually in February, ex post, in order for load serving entities to acquire the capacity required to comply with the requirements of the Energy Regulation Commission (*Comisión Reguladora de Energía*) (CRE). In production year 2022, a net power price in the national grid system (SIN) of US\$149,000/MW/year was recorded; it was highest in Baja California (BCA), at US\$80,000/MW/year. This contrasts with the SIN price for 2021, which was zero. The observed increase is primarily due to the recovery of demand following the COVID-19 pandemic. In addition, the BCA and Baja California Sur systems suffered power shortfalls, continuing the trend observed in previous years.

→ **SENER and CRE resumed deadlines suspended by COVID-19:** On 1 March 2023, the Mexican Ministry of Energy (SENER) and the CRE resumed the deadlines for formalities and procedures, which had been suspended due to COVID-19. SENER's deadlines had been suspended since March 2020, while in the case of the CRE it dated back to January 2021. The resumption of deadlines by SENER provides that proceedings will be resolved according to the order in which they were submitted. For its part, the CRE initially stated that the resolution of procedures would be gradual until 2024, but in July 2023 it announced that it would reinstate the deadlines as provided for by law.

→ **Modification to the methodology for calculating fuel-free energy:** In May 2023, the CRE introduced significant changes to the methodology for certifying efficient cogeneration and refinery-associated plants as efficient cogeneration.

The revised methodology allows fuel-free energy certification for a portion of the energy generated by combined cycle power plants using natural gas-based production. Compliant energy will be eligible for Clean Energy Certificates.



Brazil

- On 23 February 2023, ANEEL issued Regulatory Resolution No 1059, implementing Law 14 300/2022, considered as the **statutory framework for Micro and Mini-Distributed Generation**. The approved regulations cover procedures relating to charges for use of the distribution grid for such projects and the deadline for distributors to complete distribution system connection works.
- On 18 December, Law No 14,755 was published, establishing the National Policy on the Rights of Populations Affected by Dams (PDPAB), discriminating the rights of Populations Affected by Dams (PAB), establishing the Programme for the Rights of Populations Affected by Dams (PDPAB) and establishing corporate social responsibility rules. The aim of the law is to prevent violations of rights and excessive delays in the compensation of families and the environment.
- ANEEL Regulatory Resolution No 1,081 dated 12 December 2023 was published, aiming to **improve the regulatory framework governing retail sales**. The regulation makes the retail agent responsible for the intermediation between CCEE and the consumer, including the exchange of information and the monitoring of contracts.
- On 23 August 2023, Decree No 11,628 was published **on the resumption of the national programme for the universalisation of access to and use of electricity: "Light for All"**. The publication of the Decree makes it feasible to sign up for a new tranche for exceptional targets, including already universalised distributors such as Neoenergia Coelba.



Regulatory environment for the Networks Business



Spain

- ▀ The provisional remuneration of the distribution networks for 2023 has been approved, setting a value equal to the provisional remuneration for 2019. Once the final amount of the basic remuneration for 2016 has been recalculated due to the application of various rulings, the annual amounts for the period 2017-2023 will have to be revised.
- ▀ The 80% reduction in tolls for high-consumption customers will be maintained, financed by contributions from the general state budgets and surpluses from previous years.
- ▀ Due to the use of surpluses from previous years' settlements, the charges for 2023 were reduced by 6%.
- ▀ RD 314/2023, which regulates closed distribution networks that allow the supply of electricity to customers with related industrial activities in nearby locations, was published in April.
- ▀ In June, Order TED/567/2023 was published for the first call for access to the regulatory sandboxes to which i-DE submits its proposals.

A hearing on the proposed Circular commenced in 2023 to determine the methodology and conditions for access and connection to demand facility networks, as well as a draft resolution establishing the calculation methodology for the adjustment to be made to the annual remuneration of electricity transmission and distribution companies for the use of fibre optics, to which Iberdrola has made comments.

In addition, in December the process began for the specific modification of the electricity plan for 2021-2026 and the transmission network plan for 2026-2030, with Iberdrola participating in both.



United Kingdom

- ▀ The new five-year RIIO-ED2 Distribution regulatory period started in April 2023. Following intense negotiations with Ofgem, the UK regulator, a Cost of Equity of 5.23% and a Cost of Debt of 3.07% were established, approving a TOTEX of almost £4,000 million.

- ▀ The regulatory framework has created new opportunities, including a new incentive for Distribution System Operators (DSO). At the same time, however, it has set more ambitious targets for the rest of the regulatory incentives.
- ▀ In the transmission business, work continued on the RIIO-T2 commitments, which are expected to result in associated costs of £2,900 million between 2021 and 2026. Derived from the Holistic Network Design (HND) report – a key policy document of the UK government's Department for Energy Security and Net Zero (BESS, now called DESZN) –, additional investment in the transmission network will be needed, amounting to £5,000 million in projects in southern and central Scotland up to 2030.
- ▀ The investment in these projects represents a significant increase in grid capacity, which will facilitate the integration of the abundant renewable generation expected to come online in Scotland over the next few years.



United States

- ▀ On 25 August 2023, Connecticut's regulatory authority, PURA, issued its final decision on United Illuminating's (UI) rate pricing plan for the September-2023 / August-2024 period. The approved rate plan assumes a revenue increase of US\$23 million, an ROE of 9.1% (reduced to 8.63% for certain adjustments) and an equity ratio of 50%. On 18 September 2023, UI appealed this decision to the Connecticut Superior Court on the basis of factual and legal inconsistencies in the classification of deferred assets and the recognition of assets placed in service and operating expenses.
- ▀ On 3 November 2023, Connecticut Natural Gas (CNG) and Southern Connecticut Gas (SCG) submitted their application to PURA for new rates covering the period from November-2024 to October-2025. The companies requested revenue increases of approximately US\$19.8 million (CNG) and US\$40.6 million (SCG) and included in their request various measures to mitigate the impact on customers' bills (e.g. special discounts for low-income customers). Finally, the application included a request to keep revenues decoupled from demand and to lock in efficiency gains.



- On 12 October 2023, the New York State Public Service Commission (NYPSC) approved the joint proposal by New York State Electric and Gas (NYSEG) and Rochester Gas and Electricity (RGE) for new rates for the period from May 2023 to April 2026. The proposal includes a clause allowing the companies to recover the collection rights generated by the companies between May 2023 and October 2023 as a result of the delay in the approval of the new rates in the November 2023 to April 2026 period. The approved rate plan assumes an increase in revenue of US\$430 million, a return on equity of 9.20%, an equity ratio of 48% and a capital expenditure plan of US\$6,400 million: US\$1,100 million in 2022 and US\$5,300 million in 2023-2026. These figures include US\$634 million for Phase I of the CLCPA. In addition, the new pricing plan will allow investments to improve the resilience and reliability of the grid and its resistance to cyber-attacks, as well as to increase energy efficiency, heat pumps and electric vehicles.
- On 6 July 2023, the Maine Public Utilities Commission (MPUC) approved Central Maine Power's (CMP) proposed new rates for the period from July-2023 to June-2025 (in the past 15 years, no electric utility has been able to negotiate a multi-year plan). The approved rate plan assumes an ROE of 9.35%, an equity ratio of 50% and more ambitious targets for quality of supply and customer service.



Brazil

- In August 2023, Decree No 11,628 was published on the resumption of the national programme for the universalisation of access to and use of electricity: "Light for All". The publication of the Decree aims to complete the process of universal electricity coverage in Brazil and includes distributors such as Neoenergia Coelba, already universalised.
- In 2023, three distributors of the Neoenergia Group (Neoenergia Coelba, Neoenergia Cosern and Neoenergia Elektro) carried out their Regular Tariff Review. The factors with the greatest impact on calculating the tariff review for customers were the purchase of energy and transmission and the withdrawal of previous financing.





Regulatory environment for the Electricity Production and Customers Business

Following the events of 2022, which were dominated by the war in Ukraine and its impact on the management of raw materials and energy, 2023 saw markets return to partial normality. This stabilisation has made it possible both to reduce regulatory intervention and to gradually step up the regulatory initiatives that drive the energy transition: setting targets for renewables, restructuring the market, streamlining and simplifying administrative procedures, and promoting energy and industrial independence in strategic sectors.



Spain

- The process for the **creation of a capacity mechanism is under way**. Under this umbrella, MITECO launched a public consultation on a draft decision setting the value of the lost load (VOLL) and the reliability standard (RS).
- The **regulatory basis was published for renewable production incentives** for cogeneration and waste treatment.
- Order TED 741/2023 was approved, updating the parameters of the specific remuneration regime for the 2023-2025 semi-period.
- Royal Decree Law 5/2023 adopts and extends certain measures in response to the economic consequences of the war in Ukraine. Among other measures, the 80% reduction in tolls for electricity intensive customers is extended until 31 December 2023, promoting sustainable mobility by simplifying the administration of charging points and approval of tax incentives for the purchase of electric vehicles and charging points.
- The **7th Radioactive Waste Management Plan** was approved. The plan estimates an increase of €2,000 million in future costs for plant decommissioning and waste treatment.
- RDL 8/2023 extends the milestones (dates) set for the construction of renewable plants with access and connection permits already granted.



United Kingdom

- In 2023, the government continued the support schemes introduced before the winter of 2022-23 to help households and businesses with exceptionally high energy bills:
 - The **Energy Bill Support Scheme** (EBSS), whereby suppliers offer a £400 credit to household electricity customers for a period of six months (October 2022 to March 2023), i.e. £67 per month.
 - An **Energy Price Guarantee** (EPG) for domestic customers. This EPG limited a household's energy bill to £2,500 between October 2022 and June 2023 and £3,000 between July 2023 and March 2024. The energy price cap has remained below £3,000 since July 2023, but the government is using the EPG scheme to equalise prepayment meter and direct debit tariffs, which will be in place from July 2023 to March 2024. This has been complemented by direct government assistance for low-income households.
 - The **Energy Bill Reduction Scheme** (EBRS) and the subsequent **Energy Bill Discount Scheme** (EBDS) for non-household customers. The EBRS provided a discount for non-domestic customers from October 2022 to March 2023, and the EBDS provided a lower level of support from April 2023 to March 2024, allowing suppliers to give non-domestic customers a discount on energy prices.
- In February 2023, a moratorium on the use of prepayment meters to collect debts without the customer's consent (involuntary prepayment) was introduced and remained in place throughout 2023. During this period, Ofgem introduced new, enhanced consumer protection rules, including tighter restrictions on who qualifies and, in particular, a 'do not install' category of customers who can no longer be subject to involuntary prepayment meter installations (or conversions from smart to prepayment meters).
- In line with its focus on suppliers' financial resilience, in 2023 Ofgem announced a new common minimum capital requirement for energy suppliers to ensure they have the financial cushion to absorb severe but foreseeable market disruption. The requirement will apply from 31 March 2025.



➤ In 2023, the Government introduced the **Great British Insulation Scheme** (GBIS), a new energy efficiency programme focused on providing relatively low-cost cavity wall and loft insulation to qualifying low-income households. The new scheme will run in parallel with the existing supplier scheme until March 2026.



United States

- The Administration has continued to support the burgeoning US offshore wind industry and has expressed strong support for the renewable energy industry. Despite promises from the administration and serious discussions in Congress, little progress has been made in streamlining the permitting process for new energy projects.
- The **States** also **upheld and broadened their commitments to renewable energy development**, not only through targets but also by stimulating the development of the entire regulatory and supply chain environment. Federal agencies continued to issue regulations and guidance throughout the year.
- At the state level, state governments continue to support **renewables** through legislation and the implementation of programmes made possible by **new federal funding**. Many of the states that are the biggest beneficiaries of these funds are under Republican control, pointing to an interesting election landscape in 2024.



Brazil

- Brazil has a **consolidated auction system for renewables**, but there were no auctions in 2023 and there are no Ordinances providing for auctions in 2024.
- No progress was made in 2023 on the regulations for the liberalisation of sales to low-voltage customers by 2026 for the industrial and commercial segment, and by 2028 for residential.
- In February 2023, ANEEL issued Regulatory Resolution No 1,059/2023, implementing Law 14 300/2022, regarded as the statutory framework for micro- and mini-distributed generation. The approved regulations cover, among other things, procedures relating to charges for use of the distribution grid for and the deadline for distributors to complete grid connection works. Several bills to establish the legal framework for hydrogen

were presented in the legislative sphere during 2023. Two bills have progressed further, one in the Chamber of Deputies (PL 2,308/2023) and the other in the Senate (PL 5,816/2023). Both bills were approved in their respective houses of origin and are still being processed in parallel, but it is not known which of the two will finally be enacted. The statutory framework for hydrogen is expected to be published in 2024.



Mexico

- In April 2023, **Iberdrola Mexico and Mexico Infrastructure Partners (MIP)** announced a **Memorandum of Understanding (MoU)** whereby Iberdrola undertook to divest a portfolio of 13 generation plants, including combined cycle plants and an onshore wind farm, for US\$6,000 million.
 - Iberdrola and MIP subsequently executed the binding sale and purchase agreement (SPA) in June 2023. The transaction includes generation assets (8,539 MW of installed capacity), of which 8,436 MW is in combined cycle plants and 103 MW of wind power from La Venta III. For its part, Iberdrola will retain 2,600 MW, all of its commercial activities with residential customers and its portfolio of renewable energy projects (wind and solar).
 - All the paperwork has been filed with the Federal Competition Commission (Cofece) for approval. The following related permits have been obtained as part of the sale agreement:
 - Topolobampo III. In November, the Energy Regulatory Commission (CRE) authorised a change in the startup date (COD) to 15 December. The plant has been in operation since 1 December of the same year.
 - Enertek reconnection. On 15 December 2023, the plant was reconnected to the national electricity grid.
 - In November, the CRE authorised the modification of the permits from the Public Electricity Service Law (LSPEE) to the Electricity Industry Law (LIE) for the additional capacities of Altamira III and IV, Altamira V, La Laguna and Tamazunchale I. In December, interconnection contracts were signed with CFE Transmisión.
 - Reconnection of Monterrey III and IV. On 17 November, the CRE authorised the modification of the LSPEE permit to LIE rules. They are due to be reconnected in 2024.



- Migration of the Monterrey cogeneration plant (PCM) and the Dulces Nombres II power plant (DNO). The CRE authorised the modification of the LSPEE permit to LIE rules for both plants
 - Corporate spin-offs. In November, the CRE authorised the transfer of Cuyoaco, El Carmen, PCM and DNO permits from companies that will be transferred to MIP to newly created companies that will remain with Iberdrola...
- **Transmission tariff for the use of network infrastructure (Porteo estampilla):** In November 2023, the competent court upheld the injunction granted on appeal against the increase in transmission charges (known as the “porteo estampilla”) published in May. The increase, authorised in 2020 by the CRE, affected renewable power plants and efficient cogeneration in self-supply.
- **Resumption of operations at the Santiago Eólico wind farm:** In June 2023, the CRE approved the generation permit under LIE rules. Following this, the interconnection contract and the required environmental permits were obtained.
- A growing number of countries are looking to offshore wind to help meet their decarbonisation targets, with some setting up schemes for early development (Greece, Italy, Portugal, Australia, Japan) and others gearing up for large-scale deployment (France, Germany).
 - Inflation triggered by the war in Ukraine has led some countries to make upward adjustments to tariffs already awarded in previous auctions (Portugal) or to allow longer lead times than originally planned (Germany) and, in addition, to raise the ceilings on the prices allowed in future auctions (Germany, Italy).
 - In several countries (Greece, Hungary, Italy, Germany), steps are being taken towards the next phase of renewables integration with the launch of tenders to support large-scale battery storage investments.
 - Elsewhere, the first regulations on renewable hydrogen transport networks, as well as support schemes for their production, are being implemented (Germany, France, Portugal).



International

- Internationally, **renewables** continue to flourish, driving **decarbonisation** while at the same time achieving energy independence and stabilising prices for end-customers.
- With declining prices in the wholesale gas markets and, by consequence, also in electricity markets, most governments are now withdrawing revenue reduction mechanisms.
- The global deployment of renewables must go hand in hand with a simplification and acceleration of the project pipeline. In this regard, the European Commission approved an ambitious package of measures in the revision of the RED III Renewable Energy Directive, which was published on 30 October 2023. In parallel, and in order to meet the deadlines required in Europe, Member States have developed various initiatives to accelerate the deployment of renewable energy, including the designation of acceleration areas and other initiatives to facilitate the deployment of renewable energy projects. This includes initiatives in Germany (effective application of the public interest override), Portugal (Simplex) and, to some extent, Spain (sensitive areas). The measures adopted in 2023 will be implemented by Member States during 2024.



Business model

The current **operating context** continues to confirm Iberdrola's pioneering vision, which began more than 20 years ago: that **electricity** is the only way of achieving **self-sufficiency** and **energy security**, ensuring greater **efficiency and competitiveness**, and guaranteeing **price stability**, while at the same time making progress towards the **goals of decarbonising** the world's economies.

Responding to this growing demand for electricity will require not only a major **expansion of renewable capacity** to replace fossil sources and meet growing demand, but also **a massive expansion of electricity distribution networks** and **increased storage** to maintain a permanent balance between supply and demand. In addition, this process will need to be strengthened with new solutions like green hydrogen for processes that are difficult to decarbonise.

A unique mix of businesses and geographies

Iberdrola views **networks** as a **key factor in the energy transition**, given their important role in ensuring security and quality of supply, as well as integrating the **growing penetration of renewables** and self-consumption facilities. Today, the group operates one of the largest and most efficient distribution systems in the world, with **1.3 million kilometres of distribution and transmission lines**, more than 4,500 substations and over 1.6 million transformers, built and operated to provide reliable, high-quality service to more than 30 million electricity supply points.

Iberdrola is also a **world leader in renewable energy** today, with more than **42GW of capacity in place by year-end 2023**. As part of its renewables portfolio, **offshore wind** is one of the company's key **growth** vectors, with a robust **portfolio of projects** focused on the **United States, the United Kingdom, France and Germany**.

The company also has an installed capacity of **4 GW of pumped hydro**, the most technically and economically efficient method of **energy storage**, and will continue its commitment to this system, which is essential to provide flexibility and security to the market.

The selection of the **geographies** in which the group is present also takes into account the **stability of the regulatory environments** that apply to the sector and their long-term **credit ratings**.

Financial strength and sound dividend policy

Iberdrola's business model maintains the **soundness of its financial model**, which is based on cash recovery as a key investment criterion, fixed-rate financing, long-term debt maturities, active liquidity management and high diversification, maximising the use of **green finance** instruments.

All these factors drive a **dividend policy** that proposes a **strong minimum dividend that grows** in line with the increase in the company's results.



Integrated sustainability in the business and shared value

The key pillar of the **long-term value creation strategy** is the combination of **financial and social dividends**, which aims to **meet Stakeholder expectations** by integrating **ESG+F factors** into **corporate strategy and management**.

On the environmental level, the company will continue to pursue its **decarbonisation strategy**, with the goal of becoming **Carbon Neutral by 2030 in Scopes 1 and 2 and in all 3 scopes by 2040**.

In line with this objective, Iberdrola will continue to give preference to green finance instruments, given the very high level of **alignment of the investment plan with the EU Taxonomy**.

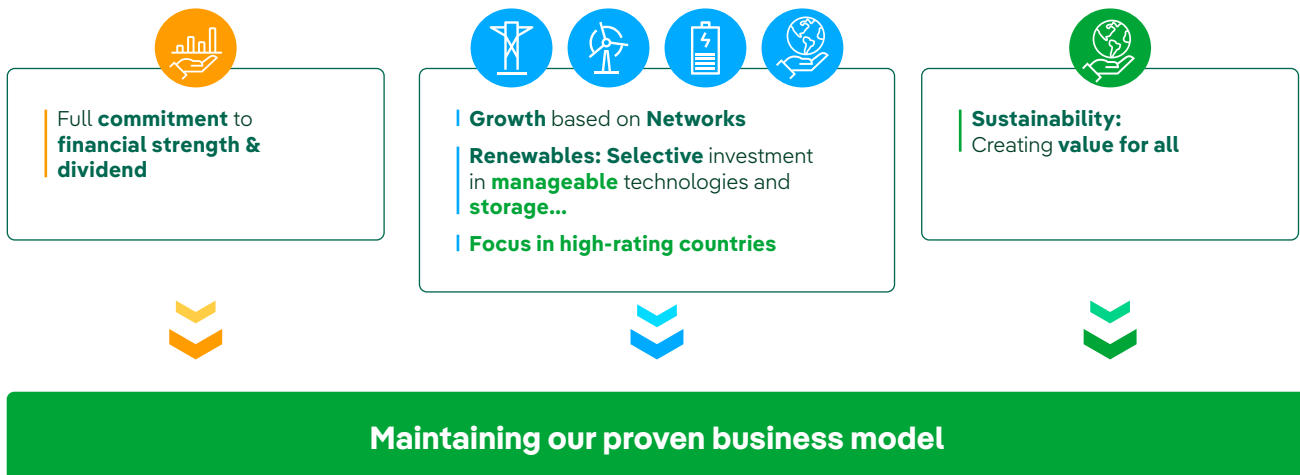
In the social dimension, Iberdrola expects through its investments to formalise **10,000 new hires by 2026**, complemented by the creation of additional supply chain jobs.

The company also expects to make further progress in the areas of **equality, diversity and inclusion**, and will continue to step up its support for **employee learning and development**.

All of this is made possible by a **governance system based on ethics** and **transparency**, which continues to incorporate best market practices.

Details on these objectives can be found in section [ESG+F targets](#).

A business model that enables acceleration of the creation of value for all



Electrification is unstoppable in all sectors:

- Driven by the decarbonisation of industrial processes, transport and buildings, as well as increased demand driven by data, cloud and AI infrastructure.
- A global focus to ensure electricity network infrastructure can be located where it is needed in advance to support decarbonisation and the growth of new sectors.
- Continued growth of renewables to replace fossil fuels and support new demand. No CAPEX is allocated to new unabated carbon-intensive assets
- Essential role of storage and dispatchable renewables: Supply and demand matching, price modulation and lower emissions by replacing fossil technologies for peak demand

Iberdrola will invest €41 billion to accelerate electrification , in this plan no capex is allocated to new unabated carbon-intensive assets.

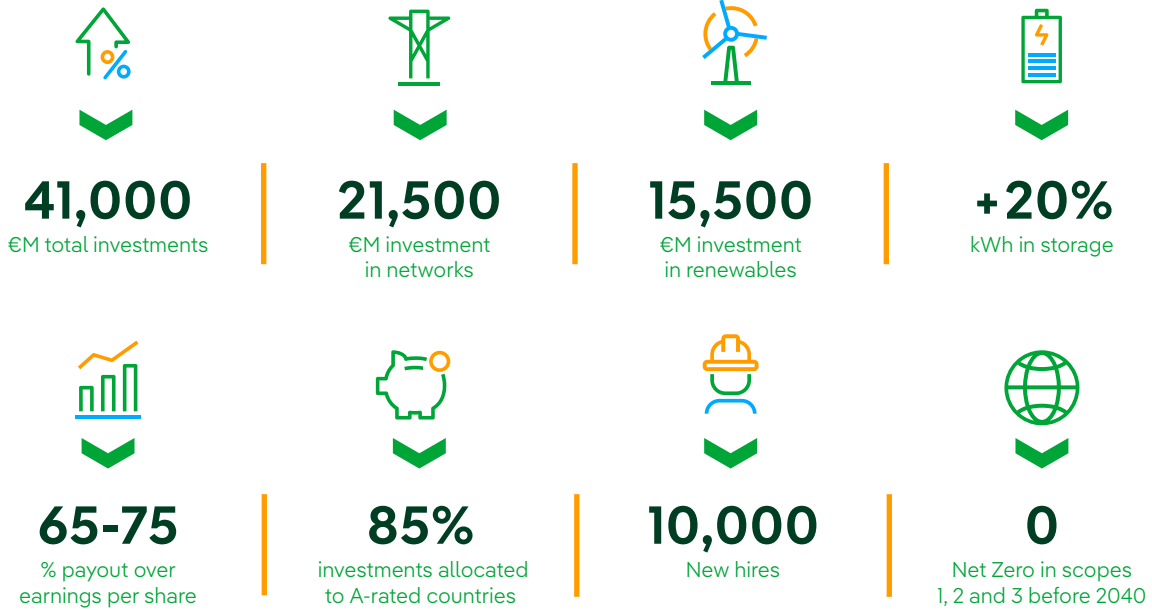


Outlook 2024-2026

The **2024-2026 strategic plan** reaffirms the pillars announced in November 2022: **expansion of networks, selective focus on renewables and focus on countries with high credit ratings**; reinforcing the commitment to **financial strength** and **shareholder remuneration**.

Under this plan, **gross investments of €41,000 million are planned for the period 2024-2026⁽²⁾** to accelerate the electrification of the economy in the face of new uses of energy demand.

Strategic Plan in figures:



Investment and growth

Of the €41,000 million gross investment, **€21,500 million** (60%⁽³⁾) will go to the **networks** business, **€12,000 million** (approximately 30%⁽³⁾) to the **renewables** business, and the rest will be allocated to the **storage and maintenance** of assets.

Investments 2024-2026E¹ (miles M Eur)



The United States will continue to be the top destination for investment,

with 35% of total net investment, followed by the United Kingdom with 24%, Spain, Brazil and Mexico with 30% of the total; and the remaining 11% will go to Australia and other European countries, mainly Germany and France.

In the **networks business**, the **investment will mainly** be made in the **expansion, reinforcement or modernisation** of networks. The United States will absorb 45% of the total investment, followed by the United Kingdom and Brazil, with approximately 25% each, and the rest allocated to Spain.

Investments in transmission will reach €6,500 million,

one third of total investments in the network business, a substantial increase driven by new projects in the United States (NECEC), the United Kingdom (Eastern Green Link) and Brazil.

(2) Including equity interest in Avangrid.

(3) Of net investments (excluding the contribution of minority partners that amounts €5,000 million).



The RAB will reach €54,000 million, an increase of 38%, distributed between the United States, with a third of the total, the United Kingdom with 26%, and Brazil and Spain with 20% each. 85% of the framework for this RAB is fully closed until 2025, with a large part also secured for 2026.

Gross investment in renewables will reach €15,500 million between 2024 and 2026, 54% of which will go to offshore wind projects already under construction: Vineyard Wind in the United States; Windanker and Baltic Eagle in Germany; and the last stage of Saint Briec in France. Of the remaining 45%, almost two thirds will be invested in onshore wind and the rest in photovoltaic solar.

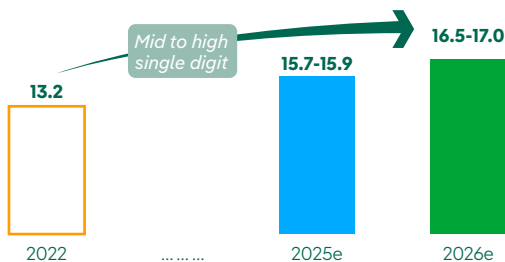
The plan also includes €1,500 million for pumped hydro storage projects, a technology the company decided to invest in more than 20 years ago and which plays a key role in the system's stability and reliability. The company currently has 20 million kWh under construction in three projects on the Iberian Peninsula and 150 million kWh of future projects in development. It also has several battery projects, mainly in countries such as Australia and the United Kingdom.

Investments in traditional generation and customers will reach €2,500 million, of which €500 million will go to asset maintenance and the remaining €2,000 million to customers; 60% to industrial customers, mainly through PPAs with an average duration of 11 years, 15% through regulated contracts with an average duration of 16 years, and 25% to retail customers.

Financial strength

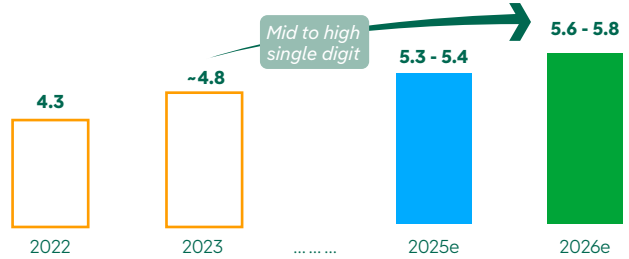
It is estimated that EBITDA will reach between €16,500 and €17,000 million by 2026, driven by a combination of planned investments and increased operational efficiency, with 70% not linked to energy prices. The geographic diversification of EBITDA will be high, with 20% coming from the United States, another 50% from the United Kingdom and the Iberian Peninsula, and the remaining 30% from Latin America and Australia.

Expected growth in EBITDA (€ thousand million)



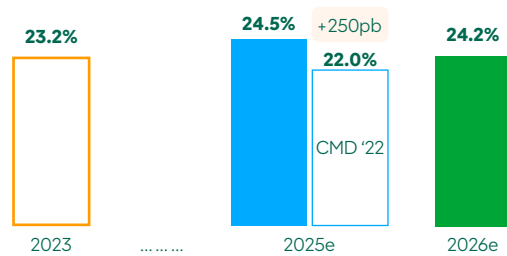
Net profit will stand at between €5,600 and €5,800 million by 2026...

Expected growth in net profit (€ thousand million)



...which will allow FFO over net debt to remain at around 24% in 2026.

FFO / Net Debt



Shareholder remuneration

This will allow shareholder remuneration to grow in step with earnings, with a payout ratio of 65% to 75% of earnings per share, resulting in an estimated dividend per share in the range of €0.61 to €0.66 by 2026.

PAY-OUT BETWEEN 65% AND 75% OF EPS

(earning estimates lead to a DPS in the range of approx. 0.61 - 0.66 in 2026)

2024-26: DPS floor at Eur 0.55 / share (equivalent to 2023 DPS)

Maintaining the flexibility for shareholders with the "Iberdrola Retribución Flexible" program, including share buy-back

...for an estimated amount of Eur 11 Bn in 2024-2026 vs. Eur ~9.5 Bn 2021-2023

Flexibility for shareholders will also be maintained through the Iberdrola Retribución Flexible optional dividend programme, which includes share buybacks. In total, dividend payments are expected to reach €11,000 million between 2024 and 2026, compared to €9,500 million paid in the previous three years.



Networks Business

Key business information

Iberdrola is a pioneer in the development of innovative projects to improve the reliability, safety, resilience and digitalisation of its grids, in order to achieve one of the main objectives of its business: to offer its customers excellent quality of service. For this purpose, the company is working to maximise the system’s operating efficiency through operational excellence and the digitalisation of its assets. The company, as a leading player in the energy transition, advances towards a more decarbonised model due to the massive deployment of its smart grids which, thanks to the information they provide, facilitate more proactive, remote and secure management, favouring more efficient integration of (centralised and distributed) electric power generation and the deployment of electric vehicles and heat pumps, among other things.

Key figures

Item	Unit	Spain		United Kingdom		United States		Brazil		Total	
		2022	2023	2022	2023	2022	2023	2022	2023	2022	2023
Gross margin	€M	1,909	1,933	1,415	1,658	3,939	3,749	2,646	2,637	9,909	9,976
EBITDA	€M	1,608	1,553	1,093	1,232	1,889	1,400	1,936	1,826	6,526	6,011
Distributed energy	GWh	89,622	87,866	31,020	30,321	38,757	37,174	76,107	78,343	235,506	233,704
Supply points (Electricity)	Millions	11.4	11.4	3.6	3.6	2.3	2.3	16.0	16.4	33.3	33.7
Gas supply	GWh	--	--	--	--	64,892	59,900	--	--	64,892	59,900
Supply points (Gas)	Millions	--	--	--	--	1.0	1.0	--	--	1.0	1.0
Gross investments	€M	801	656	678	1,014	1,692	1,980	1,506	1,980	4,677	5,178





Main activities during the year

Planning and development

→ **Spain:** In 2023, facilities totalling €600 million were brought into service, continuing the digitalisation of the networks and the capacity expansion programmes to support the connection of new customers and renewable generation, which are required to meet the objectives of the National Energy and Climate Plan (PNIEC). Projects have also been launched to optimise tools and processes to further develop the concept of flexible connections, recently introduced in access and connection regulations, with a view to increasing the connection capacity of our networks. With regard to access and connection studies, requests for more than 10,900 MW of capacity were received during the year, mainly from Datacentres and storage batteries, which were analysed in order to prepare connection proposals. Many of these connections required the planning of new access points to the transmission network, which were submitted to the Ministry to be included in the modification of certain aspects of the Transmission Network Plan.

→ **United Kingdom:** The RIIO-ED2 and RIIO-T2 regulatory periods are ongoing, investing over £4,000 million in distribution and over £2,000 million in transmission. The programme of transmission projects is aligned with the objectives published in the “National Grid Holistic Network Design (HND)”, to achieve the decarbonisation targets by 2030. This encompasses major grid investments to integrate offshore and onshore wind, which will require additional HVDC connections, including the Eastern Link project. This project, proposed by ScottishPower Transmission and National Grid Electricity Transmission, will connect Scotland and England via a 2 GW undersea cable.

The agreed business plan for the RIIO-ED2 regulatory period includes an extensive work programme focused on the low-voltage grid, which will free up grid capacity and enable around 5 million electric vehicles and 2 million heat pumps to be connected to the network. The business is transitioning to the role of Distribution System Operator (DSO), which, through more active and dynamic network operation, will enable it to prioritise network reinforcement and operation in an efficient manner and to provide customers with access to the network.

→ **United States:** Development has continued on the transmission and distribution network to achieve electrification and decarbonisation targets, improve resilience and customer service quality, and support the integration of renewables. The roll-out of smart meters is under way in New York, in line with Avangrid’s plans to reach 100% smart metering by 2025.

→ **Brazil:** The construction of 812 kilometres of new transmission lines was completed in the Lagoa dos Patos, Vale do Itajaí and Morro do Chapéu projects in 2023. With these additions, Neoenergia has a total of 18 projects in its portfolio, covering almost 9,000 kilometres of transmission lines and 17 substations. Of these, 10 are already fully operational, with approximately 3,300 kilometres of lines and 9 substations, while 5,700 kilometres of lines and eight substations are under construction.

Customer service

→ **Spain:** i-DE further improved the quality of supply in 2023 and is an industry leader, thanks to investments in electricity infrastructure and the digitalisation plan for its electricity networks. These plans are aimed at promoting the energy transition, the electrification of the economy, and the revitalisation of the territories in which it is present.

The customer experience is also a strategic priority for i-DE, with world-class leadership and drive. In 2023, in recognition of its efforts to put the customer first, i-DE was awarded the Best Customer Experience Strategy Award by the Customer Experience Development (*Desarrollo de las Experiencia del Cliente*) (DEC) association, making it the first energy distributor in Spain to be recognised for its customer-centric approach.

→ **United Kingdom:** SP Energy Networks’ customer satisfaction continues to remain high, ranking above the best UK companies in all service sectors, maintaining this position consistently over the last two years. In order to further improve customer service, SP Energy Networks has launched a new CRM programme that will allow it to serve customers in a more personalised and proactive way, while providing teams with access to a single view of their customers, and greater automation to drive efficiency and quality. This programme has been launched in several key processes in 2023 and will be continued in 2024.



▸ **Brazil:** Neoenergia won the “Era del Diálogo” award, which recognises the twenty companies that most value harmony in their relationships with consumers. It also won gold at the Latam Awards (Latin American Alliance of Organisations for Customer Interaction) in the category Best Operating Strategy for the Citizen Sector with the project *End-to-End Management: Personalisation and Customer Welcome*, and a silver award at the ClienteSA and SMART Awards with the project *Humanising Digital Transformation*. In addition, the Brazilian National Electric Energy Agency (Aneel) awarded the Ombudsman Award to Neoenergia Elektro, which was among the most outstanding in Brazil last year.

Neoenergia Cosern was also recognised as the best energy company in Rio Grande do Norte at the third annual “Regional Leaders of Brazil” awards.

Neoenergia also received recognition for its management and customer-centric approach, maintaining quality (ISO 9,001 management system) and customer satisfaction (ISO 10,002 management system) certifications for its five distributors.

▸ **United States:** AVANGRID Networks has further accelerated the digitalisation of its customer base, increasing the number of customers using the mobile application to more than 1 million. The number of customers registered to use digital self-service options increased by 8.2% in 2023, representing 68.2% of AVANGRID’s customer base. In addition, more than 79% of customers (1.82 million) are now signed up to receive outage alerts.

Operational excellence

▸ **Spain:** In Spain, i-DE continued to improve its incident handling processes and achieved the best quality of service in its history, exceeding the industry average in the country. This milestone was achieved thanks to continuous development of the grid automation plan, the use of artificial intelligence to prioritise investments in grid renewal, and the use of information from smart meters to faults in the grid and reduce outage times. Grid resilience was put to the test during heavy rains and flooding in September last year, which affected the centre and east of the Iberian Peninsula and resulted in high- and medium-voltage grid disruptions. Of the 257,000 customers affected, 70% had their supply restored in less than 30 minutes.

▸ **United Kingdom:** SP Energy Networks, in conjunction with the global network

team, has been working with i-DE on its operational excellence approach to secondary communications and electronic devices. SP Energy Networks has replicated this approach and used as the basis for further development but also to combine new industrial technologies like the IoT Hub, edge computing and machine learning.

▸ **Brazil:** In Brazil, two Neoenergia companies won the ABRADÉE Award 2023. The ABRADÉE Award is the most important recognition in the sector, awarded by the Brazilian Association of Electricity Distributors – ABRADÉE. Neoenergia Cosern was recognised as the best distributor in Brazil, in the northeast region and for best operational management. Neoenergia Elektro won the awards for quality management, performance trend and best distributor in the southeast region.

▸ **United States:** the Distribution Transformer Refurbishment Programme has been implemented, as has the Cybersecurity Operations Center. Following a detailed audit, AVANGRID Networks also retained its ISO 45001:2018 certification from AENOR, a mark of excellence in AVANGRID’s health and safety programmes.

Digitalisation of the network and Flexibility

▸ **Spain:** In terms of flexibility and digitalisation in Spain, i-DE has led a proposal for regulatory innovation to make the electricity system more agile, with a consortium that includes most of the domestic electricity distribution companies. Since 2023, the company has also been coordinating the EU-funded BeFlexible project, which includes up to 12 pilot programmes with other companies in the industry. The project aims to identify flexibility resources and assess grid and customer capacities and match customer demand to peak and off-peak periods in order to meet the operational needs of the grid.

▸ **United Kingdom:** In order to improve visibility and enable active operation of the network, monitoring capabilities continue to be developed, through the installation of new metering points and the development of a new solution capable of capturing exponential volumes of data. An open data portal has also been launched, allowing customers and stakeholders to search, download and use data via an API to support their own decarbonisation goals.

▸ **United States:** digitalisation is a key enabler to overcome some of the obstacles AVANGRID is currently facing. The number of remote



automated devices deployed across the network will continue to grow (400+) and will be coordinated with the digitalisation of substation systems. This coordination will not only allow for remote operation but also for the first large-scale deployment of self-healing technology. By integrating data from smart meters (more than 1 million meters will be deployed in New York by the end of 2024) with automation and advanced distribution monitoring, local control logic can be used to support troubleshooting, minimise substation interventions and increase the flexibility of distribution networks to meet local targets.

▀ **Brazil:** in 2023, the first six automation islands with centralised self-healing technology were implemented in the AGR (Automatic Grid Recover) module at Neoenergia Pernambuco and Neoenergia Cosern, benefiting more than 465 customers. In addition, the focus on the robustness of the telecommunications network has led to the installation of 14 new towers (bringing the total to 345), 290 km of optical fibre (for a total of approximately 1,800 km of optical fibre) and more than 2,400 new telecommunications devices, resulting in more than 17,500 automated devices throughout Neoenergia.





Electricity Production and Customers Business

Key information

The purpose of the Electricity Production and Customers Business is to offer competitive, efficient, sustainable and high-quality supply, for which purpose it works to continuously improve the efficiency of its operations. In this context, care for people and environmental protection are integrated into operating procedures, which prioritise occupational health and safety and environmental management.

Key figures

Item	Unit	Spain		United Kingdom		United States		Brazil		Mexico		IEI ⁽⁴⁾		Total	
		2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023
Gross Margin	€M	5,340	7,010	1,636	3,104	1,120	1,119	465	443	1,158	1,131	602	645	10,323	13,456
EBITDA	€M	3,459	4,277	836	2,087	722	686	402	348	854	786	427	420	6,699	8,601
Electricity contracts	Millions	10	10	3	3									14	13
Gas contracts	Millions	1	1	2	2									3	3
Smart Solutions contracts	Millions	9	10	3	3				1					13	14
Total Contracts	Millions	21	22	7	7				1			1	1	30	30
Gross Investments	€M	1,982	1,523	735	1,156	949	1,009	342	129	254	161	1,602	1,993	5,862	5,971

Main activities during the year

New installed capacity

2,873 MW of renewal capacity was installed during the year, broken down as follows:

- **Onshore wind:** 104 MW in Spain, 160 MW in the United States, 96 MW in Brazil, 13 MW in Greece and 79 MW in Poland.
- **Photovoltaic solar:** 1,339 MW in Spain, 109 MW in the United States, 9 MW in the United Kingdom, 6 MW in Brazil, 120 MW in Australia, 7 MW in Italy and 98 MW in Portugal.
- **Offshore wind:** 496 MW from the St. Brieuc project in France, where the installation of wind turbines has been completed; and 78 MW corresponding to the first seven wind turbines of the Vineyard Wind project, which will reach 806 MW in the United States.
- **Hydroelectric:** 160 MW from the Alto Tâmega power plant in Portugal.

(4) Electricity and gas customers of this segment depend on Iberdrola Clientes Internacional S.A., a subsidiary of the country subholding company Iberdrola España, S.A.



During the year, 45 MW of mini-hydro plants in Spain were divested and there was also a rotation of hydro assets in Brazil, where 100% of Dardanelos, with an installed capacity of 261 MW, was consolidated and, in turn, the stake in the Teles Pires (51%) and Baguari (51%) plants was divested. A package of operational wind farms in Spain totalling 296 MW, in which it had a 20% stake, will also be fully consolidated. Including these transactions, total installed capacity in 2023 would reach 3,250 MW.

The group currently has more than 6,000 MW of projects under construction and projects with approved investment:

- **Onshore wind: more than 730 MW in Spain, the United Kingdom, the United States and Australia.**
- **Photovoltaic solar: more than 2,700 MWdc in Spain, the United States, the United Kingdom, Italy and Germany.**
- **Offshore wind:** Growth continues with the construction of the 806 MW Vineyard Wind project in the United States, the 476 MW Baltic Eagle project in Germany and the 1,397 MW East Anglia 3 project in the United Kingdom. An investment decision on the 315 MW Windanker project in Germany is also imminent.

In offshore wind, work also continues on the development of the **804 MW New England 1 and 1,232 MW New England 2** projects in the United States, representing some 2,000 MW of capacity.

Green hydrogen

- Commissioning of Europe's largest green hydrogen plant for industrial use in Puertollano (20 MW capacity), in addition to Spain's first public and commercial hydrogen plant in Barcelona (2.5 MW capacity), which became operational in 2022.
- First company in Spain to obtain the AENOR Renewable Hydrogen Certificate for the Puertollano and Barcelona plants, and the first company in Spain to obtain the Enagás Renewable Hydrogen Producer Certificate for the Barcelona plant, in accordance with the regulations of the Ministry of Ecological Transition and Demographic Challenge.
- Progress is also being made on developing 60 projects in 8 countries, including green ammonia and green methanol, in regions like Spain, the United Kingdom, Australia, Brazil and the United States, to meet the electrification and decarbonisation needs of sectors such as industry and heavy transport.

- Public funding has now been secured for the following projects:
 - **Green methanol:** the Green Meiga project (24,000 t/year of H₂) has been selected by the EU in the Innovation Fund call.
 - **Green hydrogen in Spain:** the project in Castellón with BP (25 MW capacity) has received confirmation of support for H₂ under the strategic economic recovery and transformation project (PERTE).
 - **Green hydrogen in the United Kingdom:** two green hydrogen projects have been awarded in the first call for DESNZ grants, Whitelee and Cromarty (with Storegga), making them the first green hydrogen plants to be built by the Iberdrola Group in the UK.
- Several agreements have been signed during 2023, aiming to promote the export of green hydrogen from Spain to Central Europe. These include the one signed with Trammo, the world's largest ammonia trader, and the agreement signed with ACE Terminal and Hynetwork Services to deploy the green hydrogen maritime corridor between Spain and the Netherlands. In Brazil, work continues on cooperation agreements with the governments of the states of Pernambuco and Rio Grande do Sul and with the company Prumo Logística.

Customers

- Continuous development of products and services including plans adapted to consumption habits and solutions tailored to the needs of our customers (Smart services, Smart mobility, Smart solar, Smart home, Smart climate and Smart Cities). There were more than 14 million smart solutions in use during 2023.
- In 2023, a Joint Venture was created with BP to deploy 12,000 fast and ultra-fast charging points in Spain and Portugal by 2030.