



Equity Valuation

Iberdrola, S.A.

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Abstract

Title: Equity Valuation | Iberdrola, S.A.

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In the present days, the energy sector is a highly discussed subject for economic and social reasons simultaneously. Energy transition from fossil fuels to renewables energies, which the majority of nations and international organizations are establishing with measurable objectives, form the base of this. By setting a carbon neutrality target of 2050, both the European Union, the United States and so as other countries are implementing regulations that are common throughout the economy, with particular emphasis on the energy sector. With this said, this dissertation aims to analyze the factors that influence Iberdrola's value which includes its risks, opportunities and drivers.

The overall valuation of Iberdrola was therefore determined using two methods: DCF and a relative valuation based on a peer group. After taking into account both macroeconomic and microeconomic factors and assigning equal weight preponderance to both models, the dissertation has established a final target price of €12.66, as of October 31st, 2023. This price represents a potential upside of 21.97%. As a result, it is issued a BUY recommendation. The sensitivity analysis gives strength to these valuation in the sense that the upside scenario is greater than the downside one.

Furthermore, a comparison was done between this dissertation and Barclays' equity research, which also concludes its valuation with a buy recommendation.

Keywords: Equity Valuation, Renewable Energies, Iberdrola, Discount Cash Flow Valuation, Relative Valuation, WACC, Multiples, Sensitivity Analysis, Share Price

Abstrato

Título: Equity Valuation | Iberdrola, S.A.

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Nos dias de hoje, o sector da energia é um assunto muito discutido por razões económicas e sociais, simultaneamente. A transição energética dos combustíveis fósseis para as energias renováveis, que a maioria dos países e das organizações internacionais está a estabelecer com objetivos mensuráveis, é a base desta situação. Ao estabelecer uma meta de neutralidade de emissões de carbono para 2050, tanto a União Europeia, como os Estados Unidos e outros muitos países estão a implementar regulamentos que são comuns a toda a economia, com particular ênfase no sector da energia. Posto isto, esta dissertação tem como objetivo analisar os fatores que influenciam o valor da Iberdrola, incluindo os seus riscos, oportunidades e catalisadores.

Assim, a avaliação global da Iberdrola foi determinada através de dois métodos: DCF e uma avaliação relativa baseada num grupo de pares. Depois de ter em conta os fatores macroeconómicos e microeconómicos e de atribuir igual preponderância a ambos os modelos, a dissertação estabeleceu um preço alvo final de €12,66. Este preço representa um potencial de subida de 21,97%, em relação a 31 de outubro de 2023. Posto isto, é emitida uma recomendação de COMPRA. A análise de sensibilidade dá força a esta avaliação, no sentido em que o cenário de subida é superior ao de descida.

Para além disso, foi feita uma comparação entre esta dissertação e o equity research da Barclays, que também conclui a sua avaliação com uma recomendação de compra.

Palavras-Chave: Avaliação Patrimonial, Energia Renovável, Iberdrola, Avaliação dos Fluxos de Caixa Descontados, Avaliação Relativa, WACC, Múltiplos, Análise de Sensibilidade, Preço da Ação

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I express my sincere appreciation for the chance to engage in this dissertation, which has not only increased my expertise in my area of study but also given unvaluable insights regarding research methodologies, perseverance, and critical thinking.

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List of Abbreviations

APS	Announced Pledged Scenarios
CAGR	Compound Annual Growth Rate
CAPEX	Capital Expenditures
CAPM	Capital Asset Pricing Model
CF	Capacity Factor
COGS	Cost of Goods Sold
D&A	Depreciation and Amortization
DCF	Discounted Cash Flow
EBIT	Earning Before Interest and Taxes
EBITDA	Earning Before Interest, Taxes, Depreciation and Amortization
EMM	Exit Multiple Method
EV	Enterprise Value
FCFF	Free Cash Flows
G	Perpetual Growth Rate
GDP	Gross Domestic Product
Gt	Billion Tones
GW	Gigawatt
H2	Hydrogen
IEI	Iberdrola Energía Internacional
Kd	Cost of Debt
Ke	Cost of Equity
KWh	Kilowatt hour
MMBtu	Metric Million British Thermal Unit
MRP	Market Risk Premium
Mt	Million Tones
MV	Market Value
MW	Megawatt
NOPAT	Net Operating Profit After Tax

NWC	Net Working Capital
NZE	Net Zero Emissions
P/E	Price to Earnings
PGM	Perpetuity Growth Method
PPE	Property, Plant and Equipment
R&D	Research and Development
Rf	Risk Free Rate
ROA	Return on Assets
ROE	Return on Equity
ROIC	Return on Invested Capital
SG&A	Selling, General and Administrative
STEPS	Stated Policies Scenario
TV	Terminal Value
WACC	Weighted Average Cost of Capital
YoY	Year-on-Year
YTM	Yield to Maturity

1. Introduction

The globally energy transition is of the most significant importance for the global economy, as it acts as a driving force behind sustainable expansion and resilience. The adoption of renewable energy sources and the improvement of energy efficiency can assist countries in mitigating threats to the environment, decreasing their dependence on fossil fuels, and stimulating innovation. This transition stimulates investment in sustainable technologies and generates new employment prospects, thereby enhancing economic competitiveness and promoting inclusive development. The adoption of renewable energy sources enables nations to achieve energy security, facilitates economic diversification, and positions them to effectively confront the obstacles caused by climate change, all while cultivating a more sustainable and prosperous future for society as a whole.

Iberdrola, an established multinational corporation operating in the energy sector, is a pioneer in promoting sustainable energy solutions and cultivating innovation within a dynamic industry environment. This company, a group with a substantial historical background, has positioned itself as an innovator in the fields of renewable energy generation, transmission, and distribution. By capitalizing on its specialized knowledge, the company confronts urgent global energy issues. The primary objective of this equity research report is to provide investors with an in-depth evaluation of Iberdrola's financial performance, strategic projects, market positioning, and growth potential. By doing so, it aims to give investors a comprehensive understanding of the company's potential worth and its influence on the trajectory of the energy industry. By means of thorough examination and methodical analysis, this report seeks to clarify the fundamental factors that influence Iberdrola's investment proposition in the current dynamic market environment, including the associated risks, opportunities, and drivers.

2. Literature Review

This literature review aims to explore the complex domains of equities research, integrating several viewpoints in order to develop well-informed recommendations about whether to buy, sell, or hold a stock. These recommendations are based on extensive research and critical assessment. Accurate investment suggestions are a perpetual challenge in the area of equity markets, as they assist investors in navigating the complex possibilities and hazards that comprise stock valuation. Within this context, equity research assumes a crucial role, serving as the compass that directs stakeholders towards prudent investment decisions. It is also

important to keep in mind that a company will have different values for different buyers as referred by Fernández (2004).

In addition, the mindset is predicated on the understanding that one must possess the modesty to acknowledge uncertainty and refrain from overly relying on the foresight of policymakers.

“We do not try to predict the next huge thematic growth trend.” (Matthew, 2012).

Due to the ever-changing nature of equity markets, a comprehensive strategy is required for both assessing value and developing recommendations. Therefore, this review initiates by conducting an examination of the fundamental theories and procedures that form the basis of equity research. It traverses the theoretical frameworks that influence market perceptions, investor behavior, and the interpretation of available information, creating the platform for investing advice, from the efficient market hypothesis to behavioral finance ideas.

Fundamental analysis operates on the premise that the firm's true value may be discerned by an examination of its financial attributes, “including but not limited to its cash flows, risk profile, and growth possibilities” as it is mentioned by Damodaran (2012).

Fundamentally, equities research functions as a guiding light amidst the intricate nature of financial markets. Through the incorporation of theoretical frameworks, practical applications, qualitative evaluations, and temporal factors, this approach provides stakeholders, analysts, and investors with the knowledge required to navigate the volatile waters of equity investment. This not only facilitates the formulation of precise recommendations but also promotes a more profound understanding of the complex interrelationships that influence market fluctuations and investment results.

2.1. Discount Cash Flow Valuation

2.1.1. Introduction

The discounted cash flow (DCF) approach is a valuation method that determines the present value of a company by estimating its future cash flows and discounting them back to their current value using a specified discount rate. It revolves around forecasting cash flows over a defined period and incorporating a terminal value to “assess the intrinsic worth of an investment based on its ability to generate future cash.” (Schill, 2018).

2.1.2. Assumptions

As a forward-looking study, the DCF technique depends on a substantial number of forecasts on the future business situation of a company. The value of a firm can be substantially affected by alterations in its underlying assumptions; thus, it is vital to comprehend these assumptions as advised Steiger (2008).

As defined by Koller (2010), to obtain the value of operations, the enterprise value, each year's forecast of free cash flow has to be discounted for time and risk, this being the weighted average cost of capital.

$$\text{Enterprise Value} = \sum_{t=1}^{\infty} \frac{FCFF_t}{(1 + WACC)^t}$$

2.1.3. Discount Rate

Cost of debt

Koller (2010) refers a good method to give you a precise cost of debt which is to use the yield to maturity of the investment-grade firm's long-term. The yield to maturity for publicly listed corporations' debt has to be determined by directly utilizing the bond's price and the projected cash flows.

Cost of equity

The cost of equity can be quantified using a beta (in the single-factor model) or betas and should indicate the risk introduced by an investment to a diversified portfolio. (Damodaran, 2008). The most prevalent method for calculating the cost of equity and estimating projected returns is the capital asset pricing model (CAPM), which combines the time value of money and risk. Its formula is the following:

$$E(R_i) = R_f + \beta_i * (R_m - R_f)$$

Risk free

The risk-free rate serves as a foundational element in finance, particularly in asset pricing and valuation models like the Capital Asset Pricing Model (CAPM) and various forms of the discounted cash flow (DCF) model. Its significance resides in its function as a reference point,

providing a foundation for assessing the profitability of an investment subsequent to the mitigation of risk.

Based on what Damodaran (2008) wrote there are two conditions that a risk-free investment must carry. The first one is that it can't have a default risk. The second one is that the investment can't have a reinvestment risk. Damodaran (2008) advises for the use of a "10-year bond rate as the risk-free rate on all cash flows in a mature market."

Risk premium

The market risk premium (MRP) represents the additional cost that investors are willing to pay to invest in a globally diversified market portfolio, as opposed to a risk-free asset such as U.S. Treasury bonds. (Zenner, 2008).

The accuracy of the market risk premium is fundamentally significant as it serves as the foundation for several financial models and decisions, influencing the valuation of investments, management of portfolios, evaluation of risk, and comprehensive financial planning. Even slight errors in the estimation of this premium can yield substantial consequences for the results of investments and the process of making financial decisions.

Zenner (2008) believes that the U.S.-based MRP is a reasonable estimate for developed economies for the following reasons. First, due to the fact that risk premiums in open developed markets should have to pursue one another, and the risk premium based on the United States should be a decent approximation of this. Second, the U.S. have a big advantage which is having some data advantages, mostly very broad markets with long data histories.

Beta

Beta serves as an indicator of a firm's systematic risk or volatility relative to the market as a whole. It measures the degree of sensitivity of a stock's returns to fluctuations in the overall market. In essence, beta measures the tendency of a specific stock to fluctuate in relation to the whole market.

According to Rosenbaum & Pearl (2013), a good way to get the beta is to extract the betas of a group of peer companies that may or may not have the same capital structure. Because of this, in order to compare them, the beta must be unlevered; for this, the subsequent formula is utilized:

$$\beta_U = \frac{\beta_L}{\left(1 + \frac{D}{E} \times (1 - t)\right)}$$

Once the unlevered beta for each firm has been obtained, calculate the average unlevered beta for the peer group and recalculate it using the marginal tax rate and the company's target capital structure as per the following formula:

$$\beta_L = \beta_U \times \left(1 + \frac{D}{E} \times (1 - t)\right)$$

It's important to take into account that the "Average unlevered beta may be calculated on a market-cap weighted basis." (Rosenbaum & Pearl, 2013)

2.1.4. Terminal Value

Due to the difficulties in projecting the target's FCF indefinitely, a terminal value is used in order to assess the target's residual value following the explicit period. (Goedhart, M., Koller, T., Wessels, D., 2005).

In a DCF, the terminal value generally comprises a significant proportion of the value of the firm. Consequently, it is critical that the financial data of the analyzed company during the last year of the projection period reflects a normalized or steady state level of financial performance, rather than a cyclical peak or trough. As stated by Rosenbaum and Pearl (2013), "there are two methods to compute the terminal value: the exit multiple method (EMM) and the perpetuity growth method (PGM)". The EMM computes the target's remaining value beyond the projection period (or EBIT) by multiplying the target's terminal year EBITDA by itself. The PGM computes terminal value by assuming the terminal year FCF of the goal to grow perpetually at a given pace, using the formula below:

$$\text{Terminal Value} = \frac{FCF_s * (1 + g)}{(r - g)}$$

2.2. Free Cash Flows to the Firm Model

2.2.1. Method

Free cash flow to the firm (FCFF) consists of all incremental cash flows that the company may attribute to itself. FCF comprises all cash flows to the business's owners, including debt and equity holders as defined by Schill (2013).

FCFF's formula is the following:

$$FCFF = NOPAT + D\&A - Capex - Increase\ in\ NWC$$

The treatment of cash is an important factor when assessing a company's cash flows. As defined by Jiang and Koller (2011), "Excess cash" is defined as the amount of cash outstanding over and above operating cash, which is defined at 2 percent of revenue."

2.2.2. WACC

The WACC provides a way to assess the minimum return a company should generate from its existing assets to satisfy all its investors—both debt and equity holders. According to Schill (2013), this discount rate utilized in the valuation of cash flows ought to protect the investor against the cash flows' inherent risk. A suitable discount rate is determined by the opportunity cost associated with other investments that involve comparable risk. It is used in the following way:

$$WACC = W_d k_d(1 - t) + W_e k_e,$$

2.3. Relative Valuation

A careful analysis comparing the company's multiples to comparable companies can lead to a more accurate forecast and eliminate errors that the DCF may create. (Goedhart, M., Koller, T., Wessels, D., 2005). While executives of a firm attempt to comprehend the factors that influence the level of its multiples relative to its competitors, a multiple analysis may also provide valuable insights regarding the determinants of industry value creation. According to Goedhart, M., Koller, T., Wessels, D., (2005), there are four basic principles that must be followed in order to give a properly application of the multiples. They are the" use of peers with similar ROIC and growth rate, use of forward multiples, use of Enterprise-value multiples (EV/EBITA) and the adjustment of enterprise-value multiples for nonoperating items."

3. Industry Overview

This chapter presents a thorough examination of the energy sector in which Iberdrola operates, analyzing developments, obstacles, and prospects that are influencing the energy sector on an international scale. This chapter explores the industry-wide revolution and innovation sparked

by macroeconomic, geopolitical, and environmental factors, including the increase in the number of renewable energy sources and the necessity for sustainability.

3.1. Energy transition

A worldwide transition is now underway towards the utilization of renewable energy sources, including but not limited to solar, wind, and hydroelectric power. In an effort to prevent climate change and address environmental concerns, there is a growing emphasis among governments, corporations, and consumers on the use of clean energy sources. Policies and regulations are being implemented by governments throughout the globe in an effort to hasten the transition to renewable energy. This includes carbon pricing methods, incentives for the deployment of renewable energy, and higher emission limits. The aforementioned restrictions have a substantial influence on the investment and strategic decisions of energy corporations.

3.2. NZE Scenario

The NZE Scenario delineates a strategy to simultaneously attain universal access to modern energy by 2030 and restrict the increase in the world average temperature to 1.5°C. Under the above circumstances, the overall demand for oil and gas decreases to such an extent that it can be met without the establishment of additional oil and gas fields. Furthermore, the oil and gas sector as a whole is making an urgent, focused effort to reduce emissions from its operations. Between 2022 and 2030, the worldwide average emissions intensity of oil and gas supply decreases by more than 50 percent under the NZE Scenario. When coupled with the decreases in oil and gas consumption, this leads to an emissions reduction from oil and gas operations of 60 percent by the year 2030.

Recent advancements have been encouraging, and 2022 set a new benchmark for yearly capacity additions of renewable power, totaling over 340 GW. Significant policies that were unveiled in 2022, including REPowerEU in the European Union, the Inflation Reduction Act (IRA) in the United States, and China's 14th Five-Year Plan for Renewable Energy, will provide additional assistance in the years to come to expedite the deployment of renewable electricity.

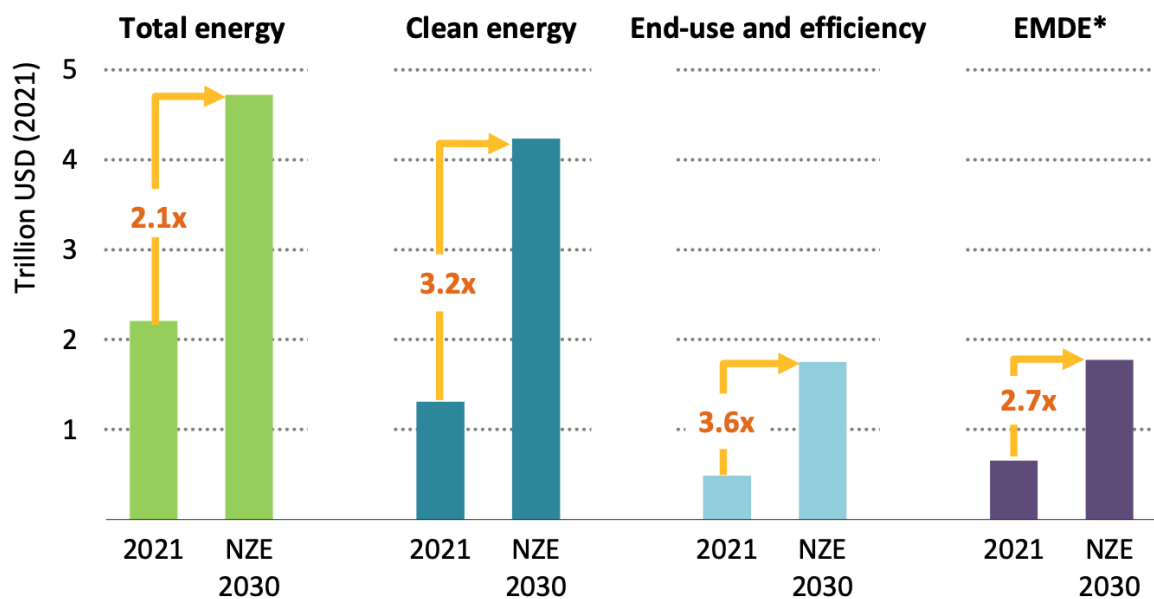


Figure 1. Energy Investment in the NZE Scenario.
 Source: Graphic extracted from World Energy Outlook, 2022 (International Energy Agency)
 Note: EMDE = emerging market and developing economies, excludes China

Solar photovoltaics are the only renewable energy technology that is currently progressing towards the Net Zero Emissions by 2050 target. Utilization of wind, hydro, geothermal, solar thermal, and ocean energy must increase far more rapidly to catch up. In order to align with the NZE Scenario, non-bioenergy renewables must augment their proportion of overall energy supply from an estimated 5 percent at present to over 17 percent by 2030. To do this, yearly renewable energy consumption must climb by around 13 percent on average between 2023 and 2030, which is double the average pace of growth over the previous five years.

3.3. CO2 emissions

In 2022, energy-related CO2 emissions on a global scale increased by 321 Mt, or 0.9 percent, to surpass 36.8 Gt. After a period of remarkable fluctuations in energy consumption and emissions spanning two years, which were somewhat influenced by the Covid-19 epidemic, the increase rate in the previous year was considerably lower than the over 6 percent recovery observed in 2021. In contrast to the 423 Mt rise in emissions from energy combustion, there was a 102 Mt drop in emissions from industrial activities.

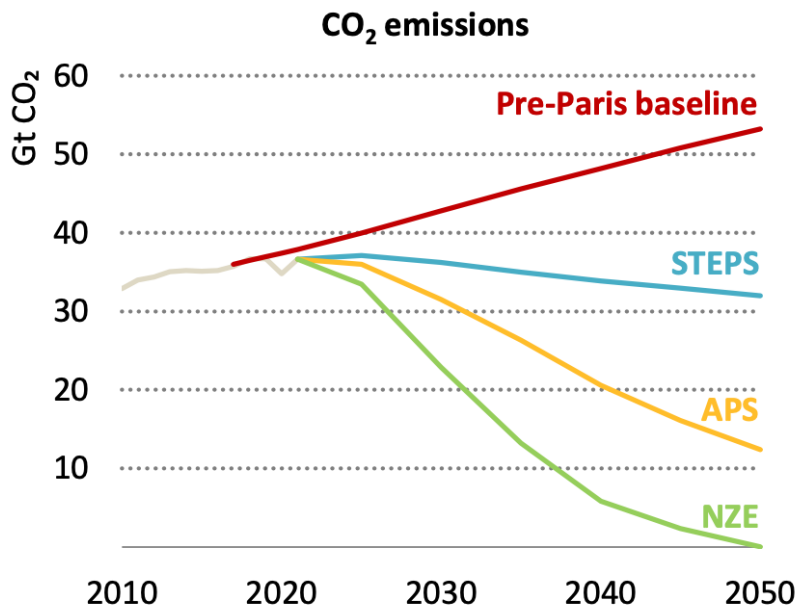


Figure 2. CO₂ Emissions Process (2010A-2050E).
 Source: Graphic extracted from World Energy Outlook, 2022 (International Energy Agency)

3.4. Decentralization and Grid Modernization:

A transition is occurring towards decentralized energy systems, which prioritize the utilization of localized generation and smaller-scale renewable energy sources. The objective of grid modernization is to enhance the intelligence, resilience, and capacity of electrical networks to support bidirectional energy flows, hence enabling the seamless integration of dispersed energy resources.

3.5. Russia's invasion of Ukraine

Russia has historically held the position as the leading worldwide supplier of fossil fuels. However, due to European sanctions on oil and coal imports from Russia and restrictions on natural gas supplies to Europe, a vital link in global energy commerce is being severed. While gas markets are particularly impacted, all fuel markets are impacted as Russia attempts to gain leverage by subjecting customers to increased energy costs and supply problems. Prices for spot purchases of natural gas and coal have reached levels never seen before, regularly exceeding the equivalent of \$250 for a barrel of oil. High gas and coal prices account for 90% of the upward pressure on electricity costs around the world.

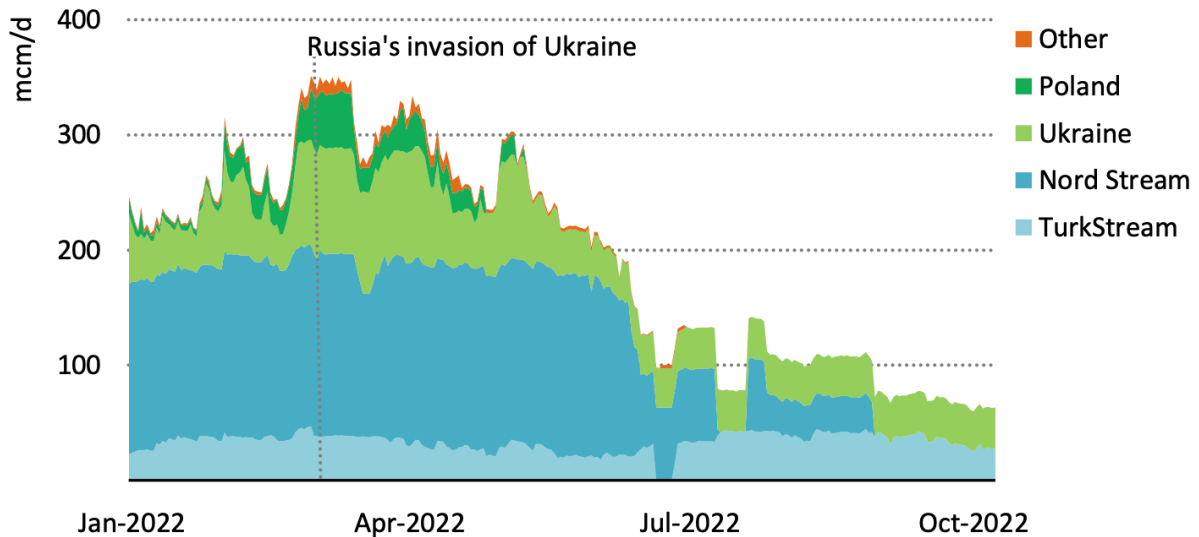


Figure 3. Natural Gas Pipeline Flows from Russia to the European Union and Turkey.
 Source: Graphic extracted from *World Energy Outlook, 2022* (International Energy Agency)
 Note: mcm/d = million cubic metres per day

4. Iberdrola

4.1. Company Overview

Iberdrola was formed in 1991 as a consequence of the union of Iberduero and Hidroeléctrica Española.

After more than 30 years of existence, the Iberdrola group is currently the world's top generator of wind energy, a leader in the energy sector, and among the biggest power providers in terms of market capitalization. In order to fight climate change and offer a competitive and sustainable business model that adds value to the communities where it works, Iberdrola has expedited the energy transition by twenty years. The company employs over 40,000 people, provides electricity to about 100 million people in several countries, and has assets exceeding €150,000 million.



Figure 4. Iberdrola presence in the world.
 Source: Graphic extracted from Annual Report February 2023 (Iberdrola)

Iberdrola's expansions since 1991 have been marked by a focus on renewable energy, international acquisitions, and strategic investments in various countries to solidify its position as a global leader in clean energy.

In 1991, the company entered the United Kingdom market when they acquired Scottish Power, a utility company with a significant involvement in energy generation and delivery.

Wind power plants were initiated in Spain in 2001. The first wind energy projects in the United States started in 2004, while in the Latin American region began two years later with special focus on Mexico and Brazil. Iberdrola targeted countries such as France, Portugal and Germany in 2010 to continue its investments in green energy. A significant component within the realm of renewable energies are coastal wind farms. The firm, which started projects in 2012 in the United Kingdom and Germany, is a market leader in offshore wind energy.

Constant investments are made worldwide in research and development to create revolutionary technology for energy storage systems, smart grids, and renewable energy.

Iberdrola is primarily listed on the Spanish stock exchanges. Internationally, Iberdrola has a presence through American Depositary Receipts (ADRs) which allow its shares to be traded in the United States. These ADRs are listed on the New York Stock Exchange (NYSE) under the ticker symbol "IBDRY".

The board of directors is composed of 14 directors. They are José Galán (Chairman), Armando Martínez (Chief Executive Officer), Juan Serna (First Vice-Chair and Lead Independent Director), Anthony Gardner (Second Vice-Chair) and 10 members who are Iñigo Ibarra, María

Raybaud, Manuel Munaiz, Xabier Ormaza, Sara Goiricelaya, Nicola Brewer, Regina Nunes, Ángel Paniagua, María Díaz and Isabel Tejerina.

The top 5 major shareholders are Qatar Investment Authority (8.69%), BlackRock Company (5.29%), Norges Bank Investment Management (3.65%), The Vanguard Group (2.80%), MFS Investment Management (0.91%).

Investment funds, pension funds, and other institutional shareholders represent around 71% of the capital.

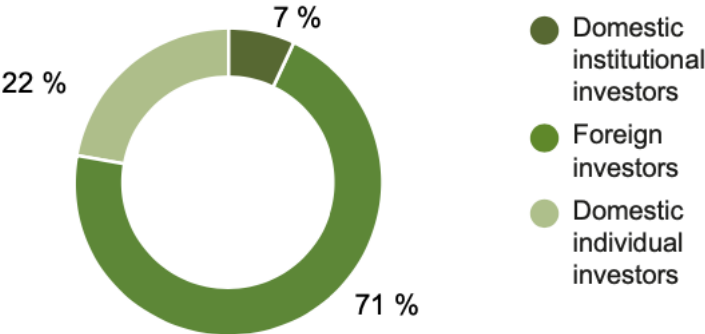


Figure 5. Ownership Structure.
Source: Graphic extracted from Annual Report February 2023 (Iberdrola)

4.2. Business Description

The company’s business can be separated in three main activities: clean energy; commitment to smart grids; solutions and services for customers.

Clean energy related domains include electricity generation from renewable sources (e.g., photovoltaic, hydroelectric, onshore and offshore wind), new technologies (e.g., green hydrogen), construction, operation, and maintenance of all generation facilities, as well as large-scale storage via reversible hydropower and other generation assets.

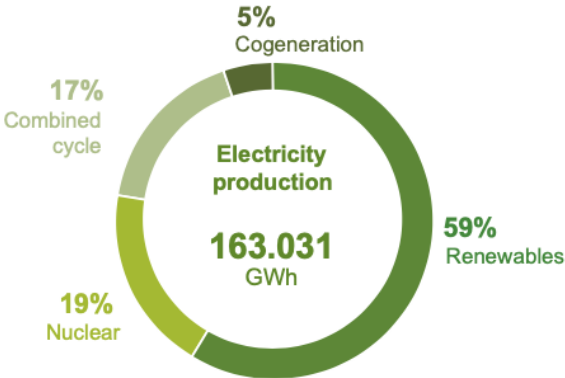


Figure 6. Electricity Production (2022A).
Source: Graphic extracted from Annual Report February 2023 (Iberdrola)

The area of smart grids encompasses everything associated with electricity transmission and distribution. The group has to be focus on the integration of dispersed generation and construction, operation, and maintenance of lines, substations, transformer stations, and other infrastructures required to transport power from production centers to end users.

Lastly, related to solutions and services for customers the main sub activities are the end-user supply of electricity and gas. Providing intelligent and innovative (Smart) energy products and services to clients in the following sectors: residential (energy storage, heat pump, self-consumption, electric mobility, solar, etc.); industrial (comprehensive management of energy installations and supplies, including Green H2, industrial heat, etc.).

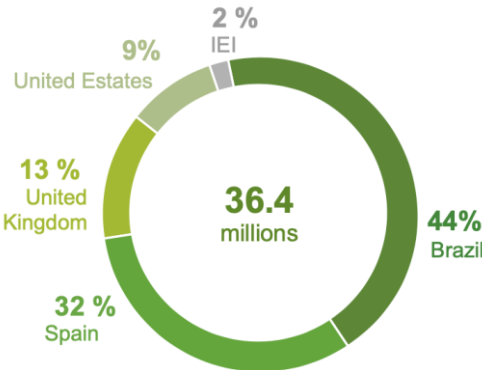


Figure 7. Consumers of Iberdrola (2022A).
Source: Graphic extracted from Annual Report February 2023 (Iberdrola)

4.3. Current Strategy

Iberdrola is adamant that the transition to an economy carbon neutral by 2050 is economically feasible, technologically feasible, and socially imperative. The energy transition towards a low-emissions economy presents a significant potential to foster self-sufficiency and prosperity, provide employment opportunities, and enhance environmental and human health. For the next three years (2023-2025), Iberdrola will invest 47,000 million euros in order to continue the process of energy transition and reach the goal of becoming carbon neutral by 2030 in its generation plants and own consumption, concentrating on expanding its electrical networks and installed renewable capacity, including onshore and offshore wind, solar, battery, and hydroelectric systems.

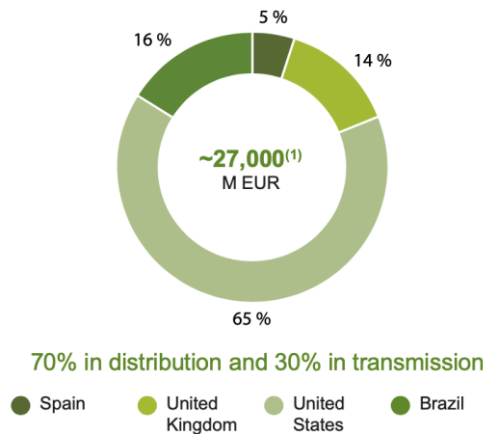


Figure 8. Investments in Network by Geography.

Source: Graphic extracted from Annual Report February 2023 (Iberdrola)

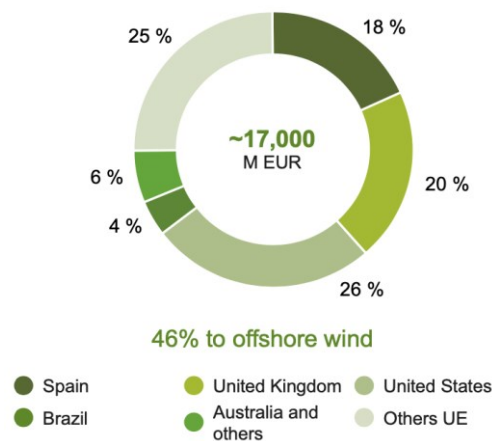


Figure 9. Investments in Renewables by Energy.

Source: Graphic extracted from Annual Report February 2023 (Iberdrola)

The organization claims to have allocated a budget ranging from 65,000 to 75,000 million euros from 2026 to 2030, with the overarching goal of attaining carbon neutrality by 2040.

4.4. Stock Performance

Iberdrola's market share increased substantially between January 1, 2018 and December 31, 2022. Each share rose from €6.56 to €10.35, representing an increase of 57.77%.

A performance comparison between Iberdrola and other companies operating in the same industry can be beneficial. In order to facilitate a comparison, the Euro Stoxx Utilizies was selected as the most suitable stock index.

The Euro Stoxx Utilities tracks the performance of utility companies in the Eurozone.

It is clearly evident that Iberdrola has outperformed this index over the past five years. Iberdrola exhibits a monthly change average of 1.34% from 2018 to 2022, whereas this stock index

demonstrates an average monthly change of 0.54%. Iberdrola managed the covid-19 pandemic in 2020 with a higher degree of proficiency than the majority of European utility companies. The following year was the only one in which the index surpassed Iberdrola with a value of 0.41% as opposed to -0.38% for Iberdrola. Iberdrola soon resumed positive trends in 2022, while the index exhibited a negative value.

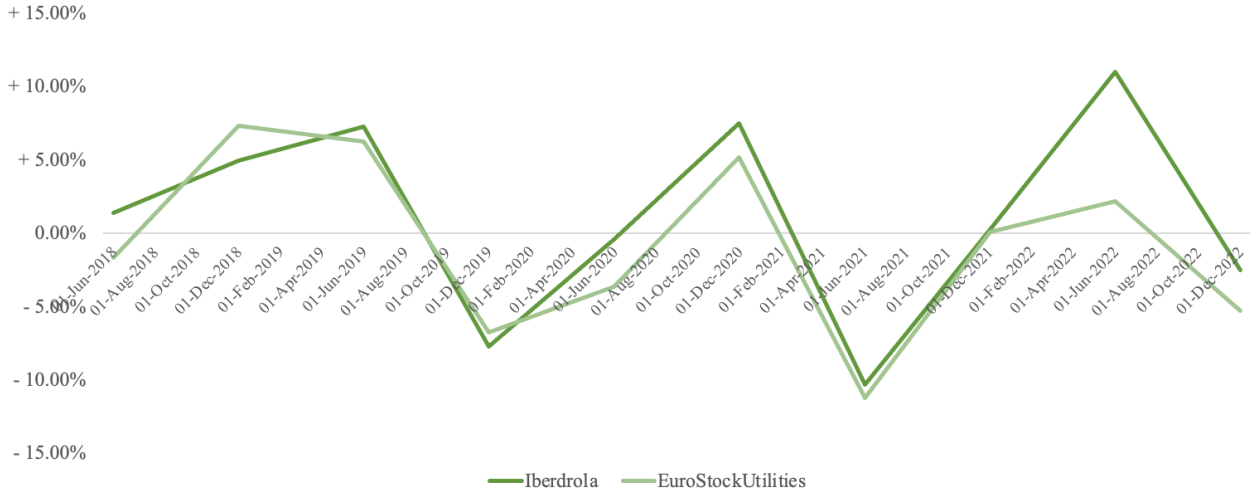


Figure 10. Cumulative Returns – Iberdrola Share Price vs EuroStock Utilities. Source: Refinitiv Eikon, Own Analysis

4.5. Historical Analysis

4.5.1. Profitability

From 2013 to 2016, Iberdrola witnessed a steady growth in its gross margin, which increased from 32.6% to 39%. During this period, both revenues and COGS decreased on average, but COGS declined at a more pronounced rate: revenues declined at a compound annual growth rate (CAGR) of -3%, whereas COGS declined at a CAGR of -6%. The reason for this is the Capacity Factor, which compares the actual energy output to the highest output that is feasible during a given time period. A lesser cost per unit produced results from a greater CF, which indicates that the power plant is producing more. It is also possible to observe a substantial increase in CAPEX in 2015 (€9768 million) relative to the other years, which may be attributable to technology investments that increased CF.

During the time frame ranging from 2017 to 2020, there were variations in gross margins. Despite a record high of 42.1% in 2020, the previous years witnessed fluctuations.

It was the pandemic that caused the 2020 the peak. During the initial year of the COVID-19 pandemic, energy costs decreased substantially; however, the companies refused to fully reflect

this reduction in the final prices charged to consumers. The price of Brent crude oil, for example, decreased by 75% from February to April 2020, as it is stated in European Central Bank.

Additionally, as reported by EDP, the group also achieved its highest gross margin in 2020, providing further evidence that this behavior is driven by macroeconomic factors.

Following a decline from 42.1% in 2020 to 37.9% in 2021, the gross margin decreased to 32.3% in 2022. After the price's decrease in 2020, it was followed by two years where the costs increased significantly. According to the European Central Bank, the primary factor contributing to the initial increase in energy prices was the rebound in energy demand after the lifting of lockdown protocols following the initial wave of the pandemic. Supply-side challenges had a substantial impact on the following price increase in 2021 as well. An early in 2022 Russian invasion of Ukraine escalated this development.

All other profitability ratios exhibit similar fluctuations, primarily due to the same factors that impact gross margin, given that revenues and cost of goods sold comprise the majority of the final results. Despite this, the highest point of operating margin, pre-tax margin, and EBITDA margin occurred in 2021, not 2020. It is evident from the financial statements of the company that the account that experienced this change was other operational expenses, which fell by -108% between 2020 and 2021.

It is safe to say that macroeconomic factors had the greatest impact on profitability ratios from 2013 to 2022; however, Iberdrola's manages this impact exceptionally well and above the industry average, as their average margins in every ratio are greater than the industry median.

Profitability											
Iberdrola Ratios	2013A	2014A	2015A	2016A	2017A	2018A	2019A	2020A	2021A	2022A	Average
Gross Margin	32.6%	34.9%	34.7%	39.0%	36.4%	37.9%	38.7%	42.1%	37.9%	32.3%	36.7%
EBITDA Margin	28.8%	23.1%	22.9%	28.4%	22.6%	25.9%	26.7%	28.8%	29.6%	23.5%	26.0%
Operating Margin	7.1%	13.1%	12.2%	16.3%	8.7%	15.6%	16.3%	18.2%	18.8%	14.8%	14.1%
Pretax Margin	3.7%	10.7%	9.5%	13.5%	6.5%	12.4%	13.2%	15.2%	16.1%	11.7%	11.3%
Effective Tax Rate	-129.1%	26.1%	17.6%	24.1%	-69.0%	22.1%	19.1%	21.4%	30.4%	18.5%	-1.9%
Net Margin	8.4%	7.9%	7.8%	10.2%	10.9%	9.7%	10.6%	12.0%	11.2%	9.5%	9.8%

Table 1. Iberdrola Profitability Ratios (2022A).

Source: Refinitiv Eikon, Own Analysis

4.5.2. Liquidity

An examination of the liquidity ratios, namely the quick and current ratios, reveals that Iberdrola never had these ratios exceed 1 between 2013 and 2022. In the case of the quick ratio, the ratio assess the organization's capacity to meet its immediate obligations using its most readily convertible assets; in the case of the current ratio, with its current assets.

An initial examination of the values that Iberdrola provides for these ratios suggests that the organization faces challenges in meeting its short term liabilities.

Industry must be considered, as these ratios differ based on the nature of the company's operations. Considering that the industry median quick ratio is 0.91, which is also less than 1, this type of business is affecting the entire industry in terms of liquidity. However, Iberdrola's average quick ratio (0.67) is significantly lower than the median for the industry.

Typically, the energy sector needs substantial financial investments; this has become even more evident in recent times due to the energy transition, which demands substantial capital expenditures for renewable energy projects. The long repayment periods associated with these investments may have an impact on the liquidity position of businesses operating in this industry.

As of 2015, Iberdrola experienced a reduction in its Quick Ratio from 0.70 to 0.58. From 2016 to 2018, the Quick Ratio exhibited a comparatively consistent range of values, fluctuating between 0.62 and 0.68. The Quick Ratio experienced a decline to 0.56 in 2019, signifying its lowest value during the period under study. This year, cash and short-term investments decreased by 17% annually, which can be attributed to the €10,829 million in capital expenditures that were made.

An upward trend in the Quick Ratio to 0.68 in 2020 and 0.80 in 2021 suggests that Iberdrola's liquidity position has begun to recover, the organization improved its capacity to meet immediate financial obligations by utilizing liquid assets.

Nevertheless, Iberdrola has demonstrated a consistent track record of competence in managing its liquidity and meeting its financial commitments. Iberdrola has established solid relationships with financial institutions and banks. The company has been able to obtain advantageous financing conditions due in large part to its renowned reputation and consistent commitment to responsible financial principles.

Liquidity

Iberdrola Ratios	2013A	2014A	2015A	2016A	2017A	2018A	2019A	2020A	2021A	2022A	Average
Quick Ratio	0.7	0.7	0.6	0.6	0.7	0.7	0.6	0.7	0.8	0.7	0.7
Current Ratio	0.9	0.8	0.7	0.8	0.8	0.8	0.7	0.8	0.9	0.8	0.8
Times Interest Earned	3.1	3.5	4.1	5.0	4.2	5.2	5.5	5.5	6.4	4.6	4.7
Cash Cycle (Days)	14.3	16.2	9.0	3.1	12.5	21.1	30.6	39.0	45.7	42.3	23.4

Table 2. Iberdrola Liquidity Ratios (2022A).
 Source: Refinitiv Eikon, Own Analysis

4.5.3. Capital Structure

A look at Iberdrola's capital structure reveals that the firm's Debt/Equity ratio exhibited a consistent upward trend from 2013 to 2022, signaling an increasing dependence on debt

financing in comparison to equity. The fact that the cost of debt for the group is less than the cost of equity may have an effect on these decisions. It is worth noting that the Debt/Equity ratio peaked in 2017, was subsequently stable from 2018 to 2021, and then increased once more in 2022.

When examining market values in 2023, Iberdrola exhibits a comparatively lower ratio when compared to the industry as a whole. Damodaran reports that the average debt-to-equity ratio in the power industry is 92.9%, whereas Iberdrola exhibits a ratio of 78.6%.

From 2013 to 2022, the Long-Term Debt to Total Capital ratio of Iberdrola showed a consistent pattern, demonstrating minimal variation within a defined range.

The stability of the ratio over time indicates that the company has exercised prudence in its management of long-term debt in relation to its total capital base.

The previous stability means that Iberdrola has sustained a consistent approach in funding its operations and expansion projects, with minimal modifications to its leverage profile when considering total assets.

Banks maintain a highly optimistic outlook on Iberdrola. The credit ratings of S&P, Moody's, and Fitch Ratings for Iberdrola are BBB+/Baa1. Organizations holding such evaluations are seen as stable entities that possess strong financial obligation repayment capabilities.

Iberdrola Ratios	2013A	2014A	2015A	2016A	2017A	2018A	2019A	2020A	2021A	2022A	Average
Assets/Equity	2.56	2.64	2.78	2.87	2.99	3.09	3.25	3.46	3.50	3.76	3.09
Debt/Equity	0.80	0.77	0.78	0.83	0.98	1.03	1.08	1.13	1.08	1.20	0.97
% LT Debt to Total Capital	38.5%	36.6%	35.1%	37.1%	37.3%	37.9%	36.4%	37.3%	34.0%	36.3%	36.7%
(Total Debt - Cash) / EBITDA	2.89	3.63	3.62	3.44	4.34	3.68	3.69	3.86	3.22	3.16	3.55

Table 3. Iberdrola Capital Structure Ratios (2022A).

Source: Refinitiv Eikon, Own Analysis

4.5.4. ROA/ROE

From 2013 to 2019, Iberdrola's pre tax ROA showed a consistent improvement, rising from 1.2% to 4.1% in 2019. This upward trend indicates that Iberdrola became more efficient in utilizing its assets to generate profits over this period. From 2020 to 2022, Iberdrola's ratio remained relatively stable, fluctuating between 4.1% and 4.8%. The stability in ROA during this period suggests that Iberdrola maintained its efficiency in generating profits from its assets despite potential external challenges or changes in market conditions. The analysis of Iberdrola's ROA ratios highlights the company's improving profitability and efficiency in generating returns from its assets over the years, with a recent period of stability indicating consistent operational performance.

Iberdrola's ROE showed a steady increase from 2013 to 2022, rising from 7.6% to 10.8%.

This consistent upward trend indicates that Iberdrola has been effectively utilizing shareholder equity to generate profits and create value over the analyzed period. The average ROE for the power sector, per Damodaran, is 8.52%. Over the past four years, Iberdrola has consistently outperformed the industry, which is a positive sign for the group as a whole. It is reasonable to conclude, based on the DuPont Analysis, which breaks down ROE into profitability, leverage, and efficiency, that the assets/equity ratio, which increased from 2.56 in 2013 to 3.76 in 2022, had the greatest influence on this upward trend over time. Iberdrola's asset turnover ratio (efficiency) is the only metric that falls below the industry average and has an adverse effect on the firm's ROE.

DuPont/Earning Power											
Iberdrola Ratios	2013A	2014A	2015A	2016A	2017A	2018A	2019A	2020A	2021A	2022A	Average
Asset Turnover	0.34	0.33	0.32	0.27	0.29	0.31	0.31	0.27	0.30	0.36	0.31
<i>x Pretax Margin</i>	3.7%	10.7%	9.5%	13.5%	6.5%	12.4%	13.2%	15.2%	16.1%	11.7%	11.3%
Pretax ROA	1.2%	3.5%	3.0%	3.7%	1.9%	3.9%	4.1%	4.1%	4.8%	4.2%	3.4%
<i>x Leverage (Assets/Equity)</i>	2.56	2.64	2.78	2.87	2.99	3.09	3.25	3.46	3.50	3.76	3.09
Pretax ROE	3.3%	9.1%	8.2%	10.3%	5.5%	11.8%	12.9%	13.8%	16.6%	15.4%	10.7%
<i>x Tax Complement</i>	2.29	0.73	0.82	0.70	1.40	0.69	0.71	0.71	0.62	0.69	0.94
ROE	7.6%	6.6%	6.7%	7.5%	8.3%	8.3%	9.3%	9.9%	10.3%	10.8%	8.5%

Table 4. Iberdrola Dupont Analysis (2022A).

Source: Refinitiv Eikon, Own Analysis

5. Valuation Assumptions

This chapter will provide a comprehensive explanation of the accounts that will have a significant impact on the future of Iberdrola, each for a quite unique cause. The trajectory adopted will be determined by the policies and strategies of the organization, whereas the success or failure of the various strategies will be assessed using microeconomic and macroeconomic factors.

5.1. Revenues

To better understand the future revenues of Iberdrola there are three important factors that were taken into account:

The first one is the forecasted energy demand in the different countries where the company operates given by the International Energy Agency in its report (“World Energy Outlook 2022”). These forecasts are based on two different forecast methods: STEPS and APS. The Stated Policies Scenario (STEPS) represents the path forward that the policy settings of the present imply. The Announced Pledges Scenario (APS) states that governments achieve all of

their objective targets, including long-term net zero and energy access objectives, in a timely and complete manner. They were given equal weights when assessing the final demand.

Electricity demand 2022-2030 (Annual change)	STEPS	APS	Average
Spain	1.54%	2.74%	2.14%
United Kingdom	1.54%	2.74%	2.14%
United States	0.75%	1.38%	1.06%
Mexico	1.97%	3.13%	2.55%
Brazil	1.56%	1.83%	1.70%
Gas demand 2022-2030 (Annual change)	STEPS	APS	Average
Spain	-2.35%	-5.97%	-4.16%
United Kingdom	-2.35%	-5.97%	-4.16%
United States	-0.09%	-2.15%	-1.12%
Mexico	-0.14%	-1.46%	-0.80%
Brazil	-2.32%	-4.41%	-3.36%

Table 5. Energy price's forecast.

Source: World Energy Outlook, 2022 (International Energy Agency)

The second one pertains to the investments that Iberdrola is going to do until 2030 in order to increase own production and installed capacity. There's information on how the 2023-2025 investment will be distributed among the countries. That distribution will be used for the second investment (2026-2030) as there isn't the geographical information for this one.

Installed Capacity (MW)	2022A	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E
Spain Installed Capacity	29 013	29 013	29 533	30 062	30 062	30 954	31 741	32 449	33 093
YoY growth	-	0%	2%	2%	0%	3%	3%	2%	2%
United Kingdom Installed Capacity	3 008	3 008	3 068	3 129	3 129	3 232	3 323	3 406	3 481
YoY growth	-	0%	2%	2%	0%	3%	3%	2%	2%
United States Installed Capacity	9 542	9 542	9 789	10 042	10 042	10 472	10 858	11 207	11 528
YoY growth	-	0%	3%	3%	0%	4%	4%	3%	3%
Brazil Installed Capacity	5 100	5 100	5 120	5 141	5 141	5 175	5 204	5 230	5 253
YoY growth	-	0%	0%	0%	0%	1%	1%	0%	0%
IEI Installed Capacity	2 900	2 900	2 990	3 082	3 082	3 239	3 381	3 511	3 631
YoY growth	-	0%	3%	3%	0%	5%	4%	4%	3%
Mexico Installed Capacity	11 198	11 198	11 198	11 198	11 198	11 198	11 198	11 198	11 198
YoY growth	0%	0%	0%	0%	0%	0%	0%	0%	0%
Total Installed Capacity	60 761	60 761	66 811	72 861	72 861	84 861	96 861	108 861	120 861
YoY growth	-	0%	10%	9%	0%	16%	14%	12%	11%

Table 6. Projected Installed Capacity growth.

Source: Iberdrola Annual Reports, Own Analysis

The third one is the forecasted energy prices (electricity and gas) in the different countries where Iberdrola operates given by different sources which will be mentioned ahead.

As the revenues are composed by 3 major accounts, they are forecasted each one separately. The initial one relates to electricity, the second account is gas and the final account ("other") utilizes electricity data in the sense that the weight of electricity in the company's investment objectives will increase over time.

When analyzing 2022 revenues by region, the following five nations were considered: Spain, the United Kingdom, the United States, Brazil, and Mexico.

In summary, the forecasted revenues is given by the forecasted demand in the 3 accounts (Electricity, Gas, Other), the increase in installed capacity and the forecasted energy prices (Electricity and Gas).

Electricity Prices cents €/kWh	2022A	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E
Spain	15.0	15.1	15.2	15.3	15.4	15.5	15.6	15.7	15.8
YoY growth	-	1%	1%	1%	1%	1%	1%	1%	1%
United Kingdom	19.5	12.2	9.0	8.0	7.1	6.9	6.1	5.8	5.4
YoY growth	-	-37%	-26%	-11%	-12%	-3%	-11%	-6%	-6%
United States	11.1	11.2	11.1	10.9	10.8	10.9	11.0	11.2	11.4
YoY growth	-	1%	-1%	-2%	0%	0%	1%	2%	2%
Mexico	15.4	15.6	15.5	15.6	15.7	15.7	15.7	15.7	15.6
YoY growth	-	1%	-1%	1%	0%	0%	0%	0%	-1%
Brazil	15.4	15.6	15.5	15.6	15.7	15.7	15.7	15.7	15.6
YoY growth	-	1%	-1%	1%	0%	0%	0%	0%	-1%
Gas Prices €/MBtu	2022A	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E
Spain	8.5	8.3	8.2	8.1	7.9	7.8	7.7	7.6	7.4
YoY growth	-	-2%	-2%	-2%	-2%	-2%	-2%	-2%	-2%
United Kingdom	5.8	5.9	6.0	6.1	6.2	6.4	6.6	6.7	6.8
YoY growth	-	2%	2%	2%	2%	4%	2%	2%	2%
United States	5.9	5.0	3.9	3.4	3.1	2.9	2.9	3.0	3.2
YoY growth	-	-16%	-21%	-12%	-10%	-5%	0%	3%	5%
Mexico	2.6	2.4	2.5	2.6	2.6	2.6	2.6	2.6	2.7
YoY growth	-	-7%	6%	3%	1%	0%	0%	0%	1%
Brazil	2.6	2.4	2.5	2.6	2.6	2.6	2.6	2.6	2.7
YoY growth	-	-7%	6%	3%	1%	0%	0%	0%	1%

Table 7. Projected Energy Prices
Sources: Described Below For Each Country

Spain

The nation where Iberdrola is located appears as the most relevant, contributing 43% of the revenues in 2022, the highest proportion associated with a single country. A projection of 18% of investments made until 2025 will be in the native country, according to the report of the organization.

The forecasted energy demand applied to Spain is the existing data of European Union.

The forecasted electricity prices used for this country were extracted from the report “EU Reference Scenario 2020 Energy, transport and GHG emissions - Trends to 2050” (European Commission). The forecasted gas prices were collected in “World Energy Outlook 2022 (International Energy Agency)”.

United Kingdom

The United Kingdom, which contributes 18% of the total revenues, ranks as the second most influential country in terms of Iberdrola's revenue. The corporation aims to allocate 20% of its overall investment towards this nation.

The forecasted energy demand applied to UK is the existing data of European Union. The electricity and gas prices were retrieved from the report “Gas and electricity prices during the 'energy crisis' and beyond (House of Commons Library)”.

United States

With regard to the United States, this nation accounted for 15% of revenues in 2022. Iberdrola intends to allocate 26% of its total investment to the United States, making it the country where the company will invest more in the upcoming years. The energy prices data was retrieved from “Total Energy Supply, Disposition, and Price Summary forecast for United States (U.S. Energy Information Administration)”.

Brazil

In spite of the fact that Brazil accounts for 16% of total revenues in 2022, Iberdrola will only allocate 4% of its funds in 2023–25. Iberdrola has reached this conclusion in an effort to reduce its exposure to price volatility in final sales to customers (“The organization seeks to minimize its exposure to price volatility in final sales to customers”). As Brazil is presently a politically and economically unstable nation, the firm prefers investing in more stable countries.

The absence of necessary information for this nation forced the utilization of energy prices from Mexico. Mexico was determined to be a suitable proxy for Brazil based on an analysis of the available data obtained from the European Commission related to the energy costs of both nations. The data related to electricity prices spans the years 2010 to 2019, while for gas prices is from 2014 to 2018. When one nation experiences inflation, it inevitably happens in the other as well, the same happens with deflation. Furthermore, when examining the mean annual growth rates, both exhibit similarities. The average price of electricity in Brazil is -2%, whereas in Mexico it is -1%. In terms of gas prices, Brazil exhibits an average increase of 8%, whereas Mexico demonstrates a 5% increase.

Mexico

Mexico accounted for 8% of 2022’s revenues. In terms of investments allocated to Mexico, the group decided to not give any share to this country. The justification given above for Brazil being an unstable economy is also valid here.

The forecasted energy demand applied to Mexico is the existing data of Central and South America. The forecasted energy prices were extracted from “Enerdata Forecasts”.

Iberdrola Energía Internacional (IEI)

Countries including Australia, Qatar and Japan, which are represented here, will receive 31% of the group's future investments. In comparison to Mexico and Brazil, Iberdrola is placing bets on solid nations with stable energy prices and inflation under control. Demand and electricity prices in the United States were utilized as proxies for being the most stable economy. In these countries (rest of the world), the group doesn't own any Gas' businesses.

Revenues will decrease by 3% in 2023 and 1% in 2024, when observed on an annual basis, over the following two years. Electricity costs in the United Kingdom are significantly influencing this issue, with projected annual decreases of 26% and 37% over the next two years. After that, the revenues will start to increase reaching a steady value around 4% after 2026. The projected electricity price table indicates that inflation will return after 2025, as opposed to deflation, with the exception of the United Kingdom, where prices will decline until 2030. Also, the group's installed capacity will increase in 2024 which will impact the revenues to start an upward trend. In terms of year-over-year revenue changes through 2030, Spain and IEI presents the greatest average of 4%, whereas the United Kingdom displays the lowest average of -8%.

With respect to revenue projections for the year 2030, Spain is predicted to increase its share of total revenues by 7 percentage points, reaching 50%, while Brazil maintains the same proportion at 17%. The third most relevant country is the United States which maintain the same weight of 15%. The percentage declines significantly in the United Kingdom, from 18% in 2022 to 8% in 2030. This is easily explicable given a significant decrease in electricity costs. Despite Iberdrola's decision to not to allocate investments towards Mexico, they are going to keep the same 8% proportion mainly due to the 2.55% yearly rise in electricity demand until 2030, which stands as the highest increase in comparison to other nations. The rest of the world (IEI) increases its weight by 1 percentage point being now 2%.

Revenues have already increased in proportion to all investments made through 2030. Given the absence of information regarding capacity expansions beyond 2030 and the company's intention to make substantial investments until 2030, it is predicted that the organization's production capacity will remain constant throughout 2031 and 2032.

The revenues for the years 2031 and 2032 were therefore determined utilizing the long-term inflation forecast exchanged to euros (1.45%) based on the proportions of revenues per country in 2030.

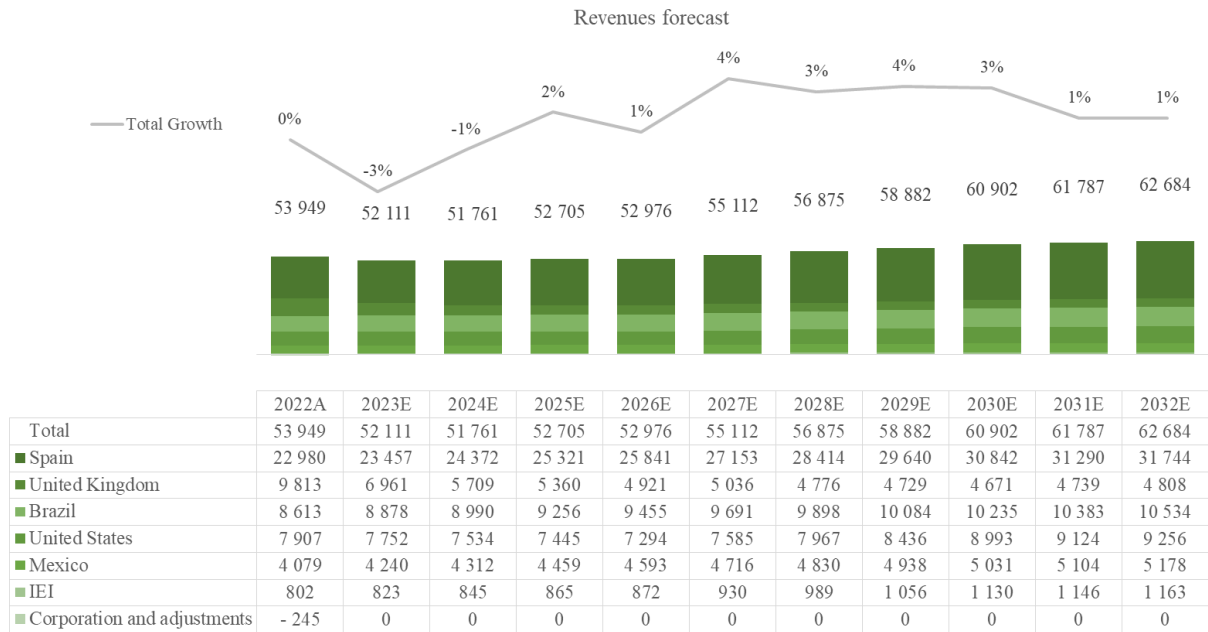


Figure 11. Revenues Forecast (2022A-2032E).

Source: Iberdrola Annual Reports, Own Analysis

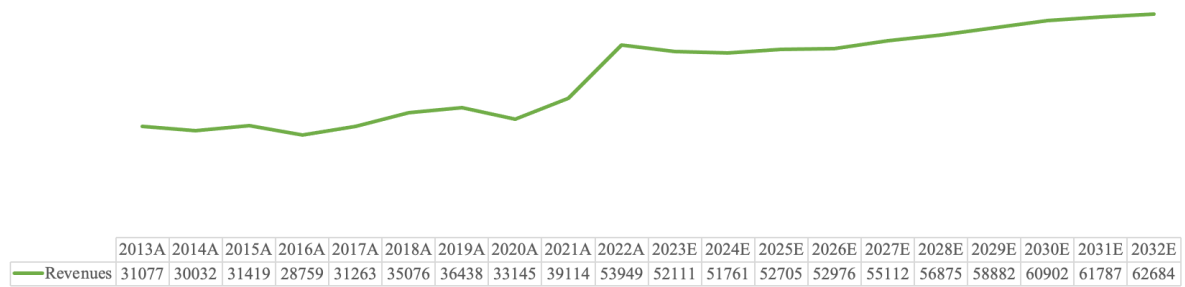


Figure 12. Iberdrola revenues historical evolution and forecast (2013A-2032E).

Source: Iberdrola annual reports, own analysis

5.2. CAPEX, PP&E and Related Assets

In order to forecast CAPEX it's required to have the information of two accounts—Property, Plant & Equipment and Research & Development Expenses

For the next three years (2023-2025), Iberdrola will invest 47,000 million euros in order to continue the process of energy transition and reach the goal of becoming carbon neutral by 2030 in its generation plants and own consumption. This first investment is directed to transmission and distribution networks and in renewable sources. Thanks to these investments, the company will increase its installed renewable capacity by 12,100 MW to 52,000 MW by 2025. €44,000 million of those €47,000 million will be allocated as PP&E over the course of three years, as specified in the annual report. That is, PPE will increase by €14,667 million annually over the next three years.

Following this, the group pretends to spend between 65,000 and 75,000 million euros during the 2026-2030 period, increasing renewable capacity to 100,000 MW meaning this investment will lead to a 48,000 MW gain on production capacity.

Since geographic information is unavailable for this investment, the distribution that was utilized for the 2023-25 investment was applied.

A total of €65,000 million will be allocated as PPE from this investment over the period of 2026 to 2030. That is, PPE will increase by €13,000 million annually over those five years.

The company does not make substantial investments after 2030; therefore, the change in PP&E is equivalent to the average variation of the preceding years (2013-2022), excluding 2017 because it's a misleading value and 2018 due to the lack of detailed PPE information in that year.

A decision to include research and development expenses in place of intangible assets was made in the sense that not all the amount of research and development activities is classified as intangible assets. Ibedrola's report explains the method of accounting this expenses: "Development costs are recognised as an intangible asset in the consolidated Statement of financial position if the Group can identify them separately and show the technical viability of the asset, its intention and capacity to use or sell it, and how it will generate probable future economic benefits."

The research and development expenditures for the years 2022 and 2021 amount to €363 million and €337 million, respectively. These amounts are 2.8% and 3.4% of the annual changes in gross PPE in the years 2021 and 2022, respectively. The average of these ratios (3.12%) was applied to reach the R&D value until 2032.

As D&A is always around 3% of PPE, this weight was maintained to get D&A after forecasting PPE

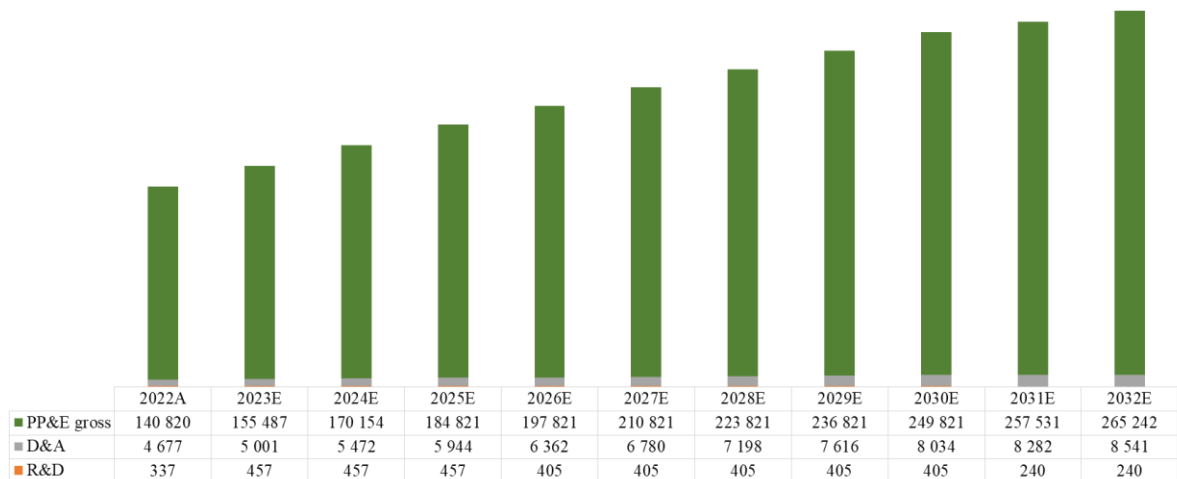


Figure 13. PPE Gross, D&A and R&D Forecast (2022A-2032E).
 Source: Iberdrola Annual Reports, Own Analysis

The final value of capex is the sum of the annual changes of gross PPE and R&D expenses incurred in that year.

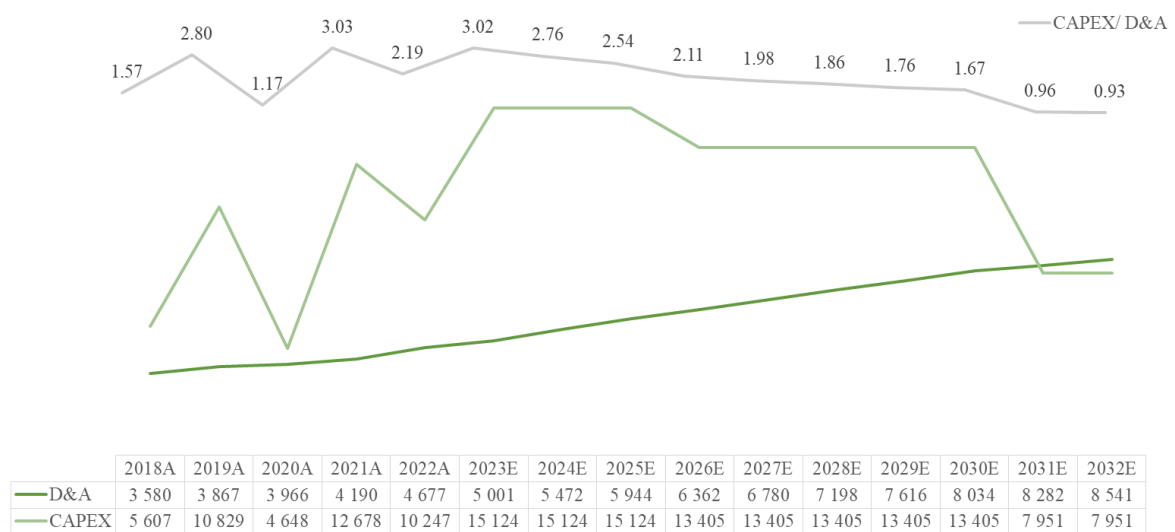


Figure 14. CAPEX Forecast and CAPEX to D&A Ratio Evolution (2018A-2032E).
 Source: Iberdrola Annual Reports, Own Analysis

5.3. Accounts Receivable, Inventory and Accounts Payable

In order to estimate receivables, it is used the historical average of receivables collection days, excluding the two years impacted by the COVID-19 pandemic during which clients and payers faced payment difficulties, which led to an increase in this number, as well as the period spanning from 2013 to 2015, which is obsolete and does not align with the current policies of the organization.



	2013A	2014A	2015A	2016A	2017A	2018A	2019A	2020A	2021A	2022A
Payable Days	91	94	99	116	99	89	85	98	84	60
Receivables Collection Days	66	66	67	76	74	71	72	84	87	75
Inventory Holding Days	40	45	40	43	38	39	43	53	42	27

Figure 15. Receivables Collection Days, Inventory Holding Days and Payable Days (2013A-2022A)
Source: Iberdrola Annual Reports, Own Analysis

In order to calculate the projected inventory, it is applied the historical average of inventory holding days plus five, excluding the odd number of the year 2022 in comparison to the remaining years. The onset of visible relief from Covid restrictions became apparent for the first time this year. As a result of the substantial increase in revenues and the relatively low number of inventory items recorded in comparison to prior years, the value of inventory holding days decreased.

Considering the fact that organizations that rely more on renewable energy typically experience longer inventory cycles in comparison to those that rely more on fossil fuels, five more days were added to the average. It was logical for Iberdrola since they are making a transition from fossil fuels to renewable energy sources.

For the forecasted Accounts Payable, I've used the historical average payable days without the year 2016 and 2022, which were substantially different when compared to the other years of observation. Due to the decreased number of payments due in 2022, the organization was able to achieve a shortened payment period due to a reduction in inventory. The substantial spike in sales has a corresponding effect on this figure, as the increase in available currency facilitates the repayment of operational debts.

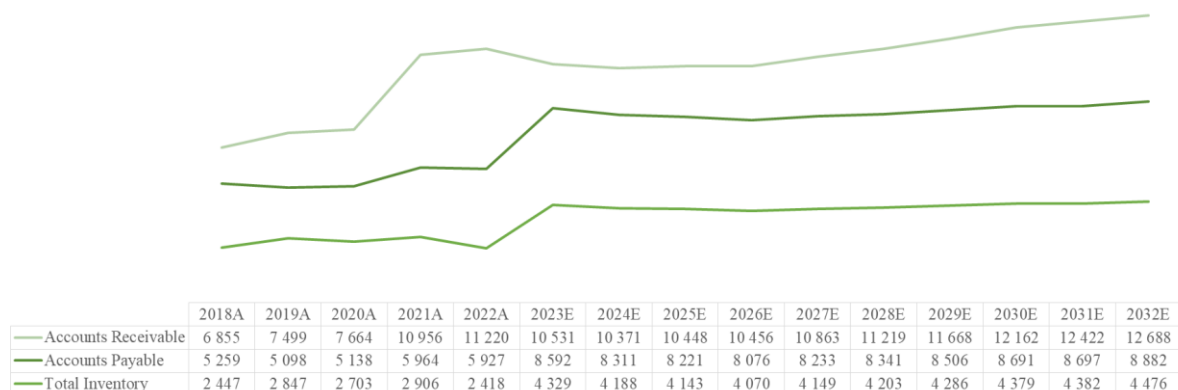


Figure 16. Accounts Receivable, Accounts Payable and Total Inventory Forecast (2018A-2032E).

Source: Iberdrola Annual Reports, Own Analysis

5.4. Other Current Assets, Other Current Liabilities and Accrued Expenses

Current assets have a propensity to increase at a quicker rate when the organization makes larger investments. Expanding business will lead to an increase in some assets such as pre paid expenses that the company will receive in the future. For example, pre payments for insurance or rent that will be accounted as other current assets. When analyzing the previous two years (2021 and 2022), it is evident that the group initiated an investment in 2021 (considerably greater in scale than in prior years) that coincided with a substantial growth in other current assets. From 2020 to 2021, this account grew by 393%, compared to a 15% annual growth rate in previous years (2013-2019).

Considering the factors listed above, the Other Current Assets/PP&E ratio, which stood at 2.3% in 2021 and 1.5% in 2022, will be adjusted to 3.5% in 2023 (the initial year of the 2023-25 investment) and 4.5% in 2026 (the initial year of the following investment). In all other projected years, this account will remain with the same absolute value.

A look at the historical data reveals that other current liabilities have an average portion of 13% of revenues, without the last two years.

The past two years unfolded differently due to covid, as is evident from the significant increase in receivables collection days during the most impacted years (2020 and 2021), resulting in major organizational challenges in cash collection. As a consequence, other current liabilities also experienced an upward trend.

The fact that the group is investing more and raising the percentage of its own consumption will decrease other current liabilities.

As a consequence, the average ratio of Other Current Liabilities to Revenues minus 3% will be applied in order to reflect the greater independence of the group, resulting in a ratio of 10%.

It was defined that accrued expenses are going to experience the same evolution as accounts payable.

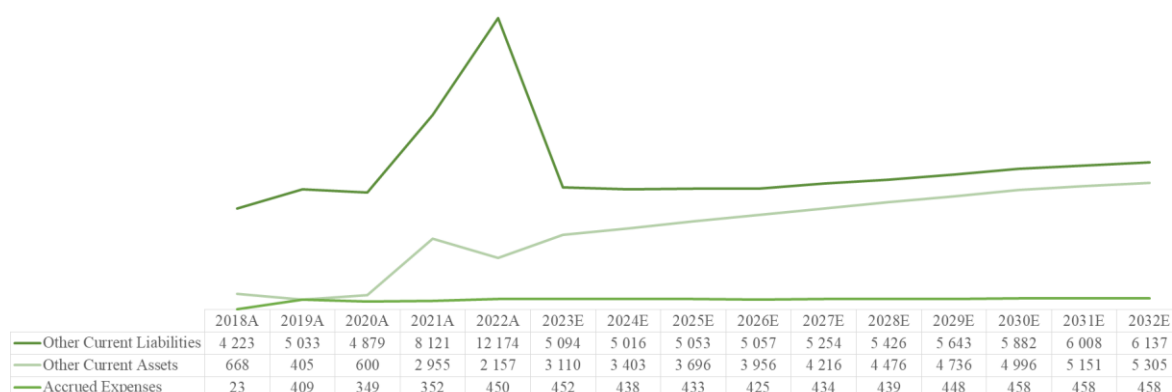


Figure 17. Other Current Liabilities, Other Current Assets, Accrued Expenses Forecast (2018A-2032E).

Source: Iberdrola Annual Reports, Own Analysis

5.5. Net Working Capital

In order to exclude financial items in Total Receivables, such as Interest receivables in non-banking financial service companies, it was deducted 1.25% of the total. This ratio applies the average weight of financial receivables from the previous two years to the total receivables. In 2021 and 2022, the financial receivables amounted to €190 million (1.73% of the total receivables) and €85 million (0.76% of the total receivables), respectively.

In order to exclude financial items in Other Current Assets such as Financial Derivatives for Non-Financial Companies it was deducted 33% of the total. This ratio applies the average weight of financial current assets from the previous two years to the other current assets. In 2021 and 2022, the financial current assets amounted to €1205 million (41% of the other current assets) and €539 million (25% of other current assets), respectively.

In order to exclude financial items in Accounts payable it was deducted 10.72% of the total. This ratio applies the average weight of financial payables from the previous two years to accounts payable. In 2021 and 2022, the financial payables amounted to €684 million (11% of the total payables) and €591 million (10% of total payables), respectively.

In order to exclude possible financial items in Accrued Expenses such as accrued interest expenses in companies other than commercial banks it was deducted 41% of the total.

This ratio applies the average weight of financial accrued from the previous two years to accrued expenses. In 2021 and 2022, the financial accrued amounted to €155 million (44% of the total payables) and €169 million (38% of total payables), respectively, as it is stated in the Annual Financial Information 2022 of Iberdrola.

In order to exclude possible financial items in Other Current Liabilities it was deducted 8% of the total. This ratio applies the average weight of financial current liabilities from the previous two years to the other current liabilities. In 2021 and 2022, the financial current liabilities amounted to €558 million (7% of the other current liabilities) and €1061 million (9% of other current liabilities), respectively.

All of the information above regarding the values of financial accounts were extracted from Iberdrola’s Annual Financial Report 2022.

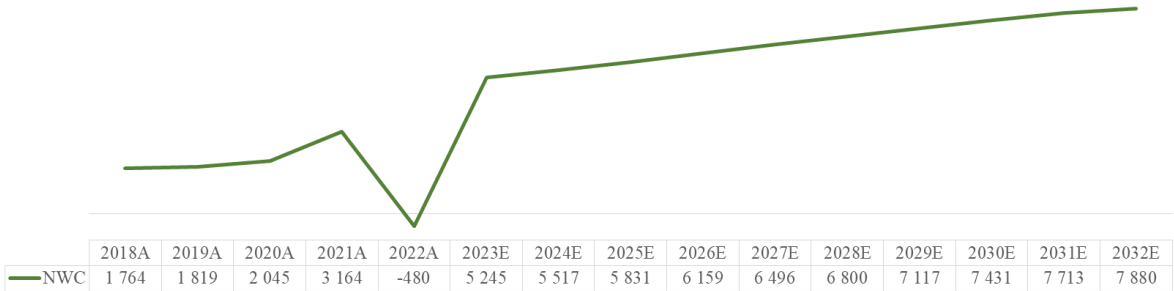


Figure 18. NWC Forecast (2018A-2032E).
 Source: Iberdrola Annual Report

5.6. Operating Income and Expenses

The gross margin for the previous year was the lowest since 2013, when begins the company’s data. The significant regulatory oversight and substantial taxation placed on fossil fuels to accomplish diverse environmental objectives explain this occurrence.

As installed capacity increases, the group will generate more of its own energy and utilize a greater proportion of renewable sources, resulting in reduced energy costs.

Particularly in the areas of solar and wind power, renewable energy technologies have witnessed substantial development over time. The implementation of these improvements has resulted in improved operational effectiveness and reduced producing costs.

After the installation of renewable energy infrastructure, the ongoing expenses are comparatively minimal in contrast to fossil fuel power plants. Subsequent fuel expenses are unneeded and overall maintenance costs are reduced.

As a result, it is anticipated that Iberdrola's gross margin will reach again its historical average of 36% once all investments have been completed. The highest gross margin to date occurred in 2020 and stood at 42%. In comparison to both Iberdrola and its peers, this year's covid value is misleading and is therefore not factored into the calculation of the historical average.

One year subsequent to the conclusion of each of the two investments—in 2026 and 2031—the gross profit experienced 2% increases reaching the historical average of 36% in 2031.

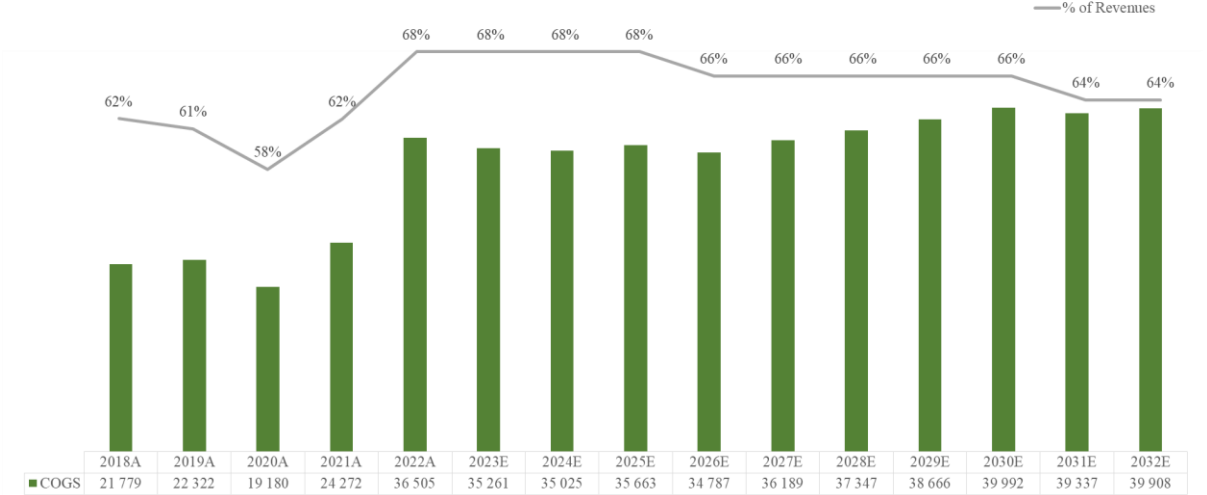


Figure 19. COGS Forecast and COGS to Revenues Ratio Evolution (2018A-2032E).
 Source: Iberdrola Annual Reports, Own Analysis

After the analysis of SG&A, the original intention was to maintain the current weight this account has on revenues through 2032. Due to the fact that revenues are incorporating extremely volatile inflation rates, impacted by environmental taxes and even the policies of the group, energy prices don't reflect the overall inflation and, in this particular case, employee wages, which comprise a significant portion of total SG&A expenses.

As a result of these considerations, SG&A projections were formulated by taking in the historical increase in the number of employees, the long-term inflation rate in the revenue-weighted countries where Iberdrola operates, and the need for highly skilled workers to enable the company to advance toward its objectives of carbon neutrality and production expansion. According to the report by Iberdrola, the organization has made a commitment to recruit 12,000 extra employees by the year 2025. The number of employees will increase by 10%, 9%, and 8%, respectively, in 2023, 2024, and 2025. In those years, labor and related expenses (equivalent to 89% of total SG&A) increase at the previously mentioned rates.

Utilizing the average growth in the number of employees over the past four years (5%), labor and related expenses was increased after 2025 by that percentage.

The long term inflation (in euros) according to the importance of each country to Iberdrola's revenues is 1.45% affecting the whole SG&A.

Figure 21. Other Operating Expenses and its weight of CAPEX (2018A-2032E).
 Source: Iberdrola Annual Reports, Own Analysis

5.7. Debt & Interest Expense

Cash generation, financial discipline, and asset rotation, according to Iberdrola's Annual Financial Report, will enable the company to achieve its goal of reaching a net debt-to-EBITDA ratio of 3.4x by the end of 2025. This ratio was 3.29 in 2022. Consequently, until 2025, two incremental changes were implemented in order to accomplish the targeted ratio of 3.4. As this is a target ratio, it was determined that this value will be maintained through 2032. Given the previously mentioned data and the EBITDA forecast, it is possible to determine the Net Debt value through 2032.

Net Debt and Debt have very similar annual changes in the past years. Due to this, the yearly changes given by the forecasted Net Debt are being used to determine Debt.

The fixed debt policy of Iberdrola protects the organization against periods of elevated interest rates. The firm holds 74% fixed-rate debt.

Based on this data, the interest expense-to-debt ratio of 3.78 % for 2022 will be applied to the following two years in order to account for the elevated interest rates. Despite having a significant proportion of its debt structured at fixed rates, Iberdrola remains susceptible to the effects of an increase in interest rates, even if it's a limited impact. The historical average interest expense-to-debt ratio of 3.12% will be applied starting in 2025.

The forecasted cash and short term investments was then given by the difference between Debt and Net Debt.

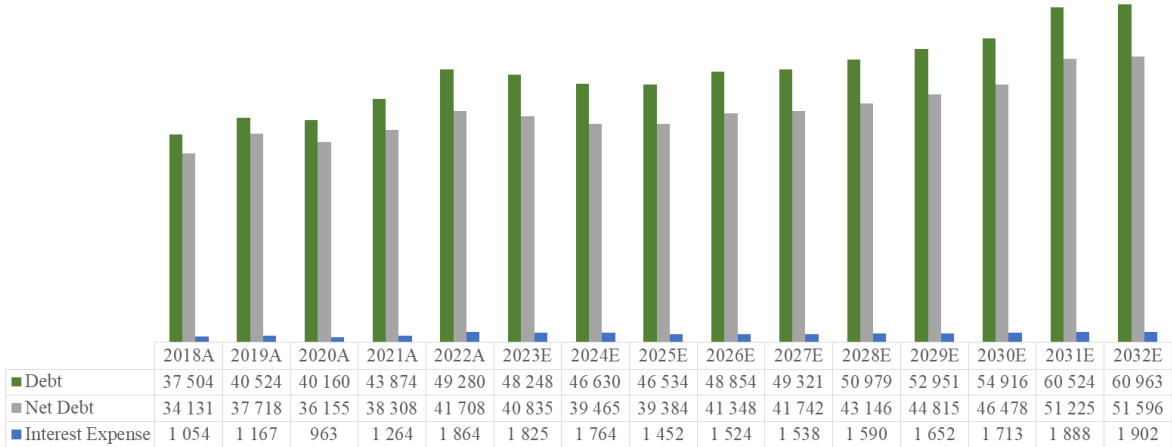


Figure 22. Debt, Net Debt and Interest Expense Forecast (2018A-2032E).
 Source: Iberdrola Annual Reports, Own Analysis

6. Valuation

6.1. Discount Cash Flow Method

6.1.1. Cost of Debt

Since Iberdrola possesses both traded and non-traded debt, the cost of debt must be calculated for both scenarios.

A mean of 4.53% of YTM was reached following to the retrieval of the organization's active bonds and all respective YTMs, with the exception of one active convertible bond. For the cost of traded debt, this mean is utilized as a proxy.

For the cost of non traded debt, the credit rating of the company which serves as an indicator of its creditworthiness was utilized in order to apply a default spread. S&P, Moody's, and Fitch Ratings have assigned Iberdrola a credit rating of BBB+/Baa1, which, according to Damodaran's conversion table (default spread per credit rating), corresponds to a default spread of 1.47%.

The risk-free used was the average of the weekly yields in 2023 of the 10-year German Treasury bond that satisfies the criteria specified by Damodaran (2008): 1) can't have a default risk; 2) can't have a reinvestment risk.

The cost of non-traded debt is determined to be 3.92% by adding the risk-free to the default spread.

Finding the cost of debt required the use of a weighted average. The cost of debt corresponded to 4.29%, as the value of Iberdrola's bonds accounted for 60% of the company's total debt and non-traded debt comprised 40%.

<i>Cost of traded debt</i>	4.53%
<i>Cost of non traded debt</i>	3.92%
<i>Risk Free</i>	2.45%
<i>Spread Damodaran</i>	1.47%
<i>Cost of Debt</i>	4.29%

Table 8. Iberdrola Cost of Debt Forecast.
Source: Refinitiv Eikon, Moody's, Fitch Ratings, Damodaran Default Spread per Rating

6.1.2. Cost of Equity

The cost of equity¹ was determined using the CAPM method. The necessary inputs consist of a risk free rate, a market risk premium and a beta parameter.

The selected risk-free was the same used to the cost of debt.

The market risk premium used was the one of US, extracted from Damodaran which is 4.60%. The risk premium based on the United States should be a reasonable approximation of this, according to Zenner (2008), due to the fact that risk premiums in open developed markets must compete with one another. The United States also possesses a significant data advantage, which consists primarily of extremely broad markets with extensive data histories.

Rosenbaum and Pearl (2009) suggest that an effective method for obtaining the beta is to extract the betas of a group of peer companies. The 5 Year Monthly levered beta² was extracted from Refinitiv for Iberdrola (0.52), EDP (1.03) and Redeia Corporacion SA (0.4). Unlevering these betas required retrieving from Refinitiv, for each company, the number of outstanding shares, the share price, the market value of debt, and the effective tax rate.

After calculating the unlevered betas for the three companies, the market capitalization-weighted unlevered beta for the peer group was determined.

A final step involved calculating the levered beta of Iberdrola using the beta value of the peer group and Iberdrola's required values reaching a beta of 0.56.

<u>Iberdrola</u>		<u>EDP</u>		<u>Redeia Corporacion SA</u>	
Beta Levered	0.52	Beta Levered	1.03	Beta Levered	0.4
Debt	58 611	Debt	26 974	Debt	6 490
Share Close Price	11.74	Share Close Price	4.56	Share Close Price	14.91
Nr. Shares Outstanding	6 291	Nr. Shares Outstanding	4 125	Nr. Shares Outstanding	540
Equity	73 825	Equity	18 789	Equity	8 051
Effective Tax Rate	23.0%	Effective Tax Rate	26.9%	Effective Tax Rate	22.5%
Beta Unlevered	0.32	Beta Unlevered	0.50	Beta Unlevered	0.25

Table 9. Iberdrola's Beta and Peers Information.

Source: Refinitiv Eikon, Own Analysis

¹ Information used for cost of equity is the one related to the year 2023 as cost of debt was also computed using the available information which was for the year 2023

² 5 Year Monthly Beta is the measure of a company's common stock price volatility relative to market price volatility for a 5 year duration using a least squares linear regression line.

Market-cap weighted basis	
<i>Iberdrola</i>	73.3%
<i>EDP</i>	18.7%
<i>Redeia</i>	8.0%
Unlevered Beta Peer Group	0.35
Levered Beta Peer Group	0.56
<i>Risk Free</i>	2.4%
<i>Market Risk Premium</i>	4.6%
<i>Cost of Equity</i>	5.0%

Table 10. Iberdrola Cost of Equity Forecast.

Source: Damodaran Country Default Spreads and Risk Premiums, Own Analysis

6.1.3. Capital Structure

In order to have the most accurate capital structure of Iberdrola it was required to determine the market value of equity and debt.

The determination of equity market value involves the multiplication of the outstanding number of shares by the share price.

At December 31, 2023, there were 6,291 million outstanding shares and each share was valued at €11.74 resulting in a market capitalization of €73,825 million.

Due to the debt structure of Iberdrola that comprises both traded debt and non traded debt, its market value of debt is the sum of the market value of both types of debt.

The information relating to the value of traded debt was obtained from Refinitiv expressed in euros concerning all active bonds of Iberdrola, including their current price (the price at which they are currently trading), book value, and outstanding principal amount.

To obtain the market value of the traded debt, the current price was divided by the book value and then the result multiplied by the quantity outstanding. Following these steps, the market value of debt resulted in €32,451 million.

For the market value of non traded debt, Damodaran suggests that this debt should be considered a single coupon bond, in which the coupon is determined at the interest expenses incurred on the entire debt and the maturity is set at the face-value weighted average maturity of the debt.

Following this, assign the value of the coupon bond to the current cost of debt for the company.

The value of non traded debt was again extracted from Refinitiv and it's in euros.

The weighted average maturity corresponded to 4.8 years. Three loans for which the maturity was unknown were excluded from the calculation of the average maturity.

Weighted Average Maturity of Non-Traded Debt	2024E	2026E	2027E	2028E	2032E	2033E	2034E	2037E	2040E	2041E	2043E
Non-traded debt	1 500	6 249	3 123	7 068	70	731	99	1 500	143	39	49
Weighted Average Maturity	4.80										

Table 11. Iberdrola Weighted Average Maturity of Non-Traded Debt Calculation.

Source: Refinitiv Eikon, Own Analysis

Incurred interest expenses for the year 2023 amounted to €2,053 million.

$$\text{MV of Non-Traded Debt} = \text{Interest Expense} \times \frac{1 - \frac{1}{(1 + k_D)^T}}{k_D} + \frac{\text{BV of Non-Traded Debt}}{(1 + k_D)^T}$$

The formula above provided by damodaran resulted in a market value of €25,573 million for non-traded debt.

Market Value of Debt	
Interest Expense	2 053
Cost of Debt	4.29%
Book Value of non-traded debt	21 311
Weighted Average Maturity	4.8
Market Value of non traded debt	26 159
Market Value of traded Debt	30 665
Market Value of Debt	58611

Table 12. Iberdrola Market Value of Debt Calculation.

Source: Refinitiv Eikon, Own Analysis

The sum of the market values of the two types of debt resulted in a debt market value of €58,024 million.

6.1.4. Tax Rate

To predict the tax rate that would be implemented until 2030, the mean of the five most recent effective tax rates was applied. An elaborate combination of elements regarding to tax legislation, corporate activities, financial disclosure, and tax avoidance tactics collectively affect the effective tax rate. Consequently, it is hypothesized that the tax rate over the preceding five years was influenced by a multitude of factors. Consequently, the mean value of 22.3% is being applied as a forecast for the future of the organization.

6.1.5. WACC

Determining the WACC required five inputs—Cost of Equity, Cost of Debt, Market Value of Equity, Market Value of Debt, and Effective Tax Rate—resulted in a value of 4.26%.

Cost of Debt	4.29%
Cost of Equity	5.02%
Market Value of Debt	58611
Market Value of Equity	73 825
Effective Tax Rate	23%
D/D+E	44%
E/D+E	56%
WACC	4.26%

Table 13. Iberdrola Weighted Average Cost of Capital (WACC) Estimation.
Source: Own Analysis

6.1.6. Terminal Value

The literature review indicates that the final year of the specified time frame should to demonstrate a consistent level of financial performance. This constant state occurs in the case of Iberdrola posterior to a phase of increased investments lasting from 2023 to 2030, which had an impact on the company's stability.

During that time period, there is no clear financial trend, and the majority of years have negative FCFF, which reflects the company's expansion strategy.

The conclusion of planned investments results in a substantial reduction in capex in 2031 and 2032, indicating that the organization enters a period of steady stability, This is evidenced by the substantial growth observed between 2030 and 2031, followed by a stabilization from 2031 to 2032.

There are two methods to compute the terminal value, as stated by Rosenbaum and Pearl (2009), the exit multiple method (EMM) and the perpetuity growth method (PGM).

The PGM is the one followed. It was retrieved from the database of the International Monetary Fund the long-term real GDP and inflation projections of the countries in which Iberdrola has the greatest revenue presence.

There were two methods that could be followed in order to get the perpetual growth rate: using the real GDP or inflation.

The computation of the weighted average real GDP yielded a perpetual growth rate of 1.78%, based on the projected revenues in 2030 per country.

To convert each local currency inflation rate to euros, the corresponding exchange rates were obtained from Bloomberg and subsequently utilized to calculate the inflation rates in euros.

Based on the calculation of weighted average inflation, a perpetual growth rate of 1.45% was obtained, based on the projected revenues in 2030 per country.

	Long Term Inflation	Local Currency	Euros
Spain		1.70%	1.70%
United Kingdom		2.00%	2.30%
United States		2.10%	1.90%
Mexico		3.00%	0.16%
Brazil		3.00%	0.57%
Average		2.36%	1.33%
Weighted Average (Revenues 2030)		2.12%	1.45%

Table 14. Long Term Inflation Projection for Most Relevant Countries.

Source: International Monetary Fund, Own Analysis

A company can't grow more than the economies where it is present so there's an upper limit on the growth rate, which in this instance is weighted average real GDP, which stands at 1.77%. Consequently, this limit doesn't affect the intention of setting the weighted average inflation as the perpetual growth rate.

Finally, having achieved stability and the perpetual growth rate of 1.45%, the terminal value resulted in €136,643 million.

6.1.7. FCFF Calculation

FCFF was calculated using the subsequent formula. In this regard, the forecasts that were previously developed and elaborated upon in this dissertation were utilized in order to have values for NOPAT, D&A, Capex and NWC. Additionally utilized were the projected WACC, TV, and perpetual growth rate.

$$FCFF = NOPAT + D\&A - Capex - Increase\ in\ NWC$$

After applying the discount rate to the FCFFs and summing the Terminal Value, the Enterprise Value was determined to be €117,655 million.

FCFF (in millions of euros)	2018A	2019A	2020A	2021A	2022A	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E
EBIT	5477.0	5931.0	6040.0	7343.0	7984.0	7373.5	6308.3	5639.7	5799.0	5497.0	5491.8	5564.4	5635.6	6783.7	6634.6
EBIT*(1-t)	4266.6	4798.2	4747.4	5110.7	6507.0	5729.2	4901.5	4382.0	4505.8	4271.2	4267.1	4323.6	4378.9	5270.9	5155.1
Depreciation	3580.0	3867.0	3966.0	4190.0	4677.0	5000.6	5472.3	5944.0	6362.1	6780.2	7198.2	7616.3	8034.4	8282.4	8540.8
Change in NWC	380.0	55.0	225.8	1119.8	-3644.3	5725.1	272.3	314.1	327.9	336.5	304.5	316.2	314.3	282.3	167.0
CapExp	5607.0	10829.0	4648.0	12678.0	10247.0	15124.5	15124.5	15124.5	13405.5	13405.5	13405.5	13405.5	13405.5	7950.8	7950.8
Free Cash Flows to Firm	1859.6	-2218.9	3839.7	-4497.0	4581.3	-10119.8	-5022.9	-5112.5	-2865.5	-2690.6	-2244.6	-1781.8	-1306.5	5320.2	5578.0
Discount Factor						0.96	0.92	0.88	0.85	0.81	0.78	0.75	0.72	0.69	
Discounted FCFF						-10119.8	-4817.9	-4703.6	-2528.6	-2277.4	-1822.3	-1387.5	-975.9	3811.5	3833.1
Terminal Value	138643.6														
Enterprise Value	117655.3														

Table 15. Free Cash Flows to the Firm (2018A-2032E), Terminal Value and Enterprise Value Calculation.

Source: Iberdrola Annual Reports, Own Analysis

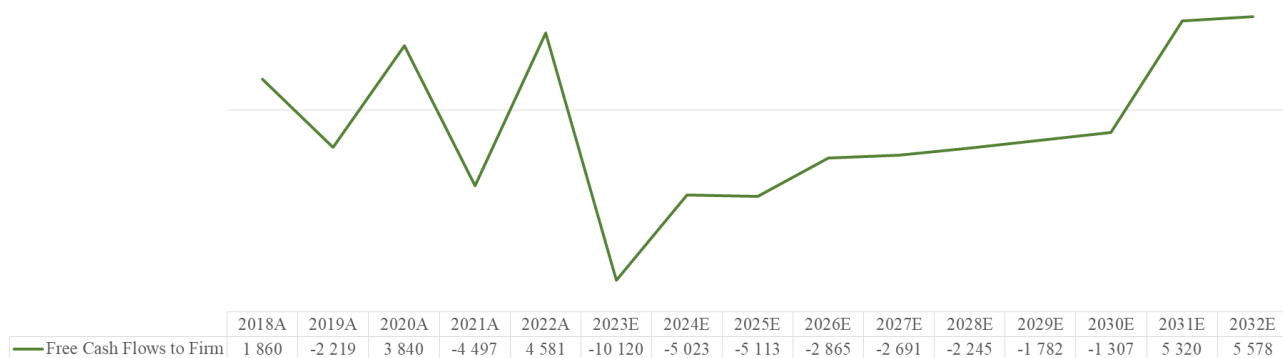


Figure 23. Free Cash Flows to the Firm Forecast (2018A-2032E)

Source: Iberdrola Annual Reports, Own Analysis

There are additional components to reach the equity value which are market value of debt, cash and short-term investments, market value of minority interests and pensions underfunded³.

The benefit obligation of Iberdrola is greater than the fair value of its plan assets when pension liabilities are considered. Due to the underfunding of the company's pension plan, it was consequently imperative to deduct this unfunded sum from its EV. The amount deducted was €1,456 million identified under "Pensions Underfunded" on Iberdrola's balance sheet.

The book value of the minority interests amounts to €17,181 million. The valuation of the market value was determined using the global price* to book value ratio of 1.31 for the industry Power⁴, retrieved from Damodaran, which yielded a market value of €22,428 million. This value was added to the EV.

The market value of debt of €58,024 million was deducted, while cash and short term investments that amounted to €4,968 million were to the EV.

After this, an Equity Value of €84,985 million was reached. Considering the 6,291 million shares outstanding, this valuation resulted in a share price of €13.51.

Share Price	
MV of Debt	58611.0
Cash and Short Term Investments	4968.0
Minority Interest	22428.8
Pensions Underfunded	1456.0
Equity Value	84985.1
Number of Shares Outstanding	6291.0
Share price	13.51

Table 16. Terminal Value, Enterprise Value, Share Price and Components.

Source: Iberdrola Annual Reports, Own Analysis

³ Values of MV of debt, MV of minority interests, pensions and cash are from 2023

⁴ according to Damodaran classification, Iberdrola belongs to the power industry

7. Relative Valuation

7.1. Peers Selection

In order to compile the peer group, the comparable companies presented by Refinitiv Eikon were evaluated and categorized according to comparable returns on invested capital and growth rates, as recommended in the literature review.

For the ROIC, the approach involved calculating the mean of the ROIC results covering the years 2019 to 2022.

For the growth rates, the analysis focused on the enterprise value/revenues values for the corresponding period (2019-2022) in order to calculate the annual growth rates and means of that ratio.

The decision was made to include in the peer group exclusively two companies, specifically EDP and Redeia Corporacion SA, based on these two components previously explained. They have comparable ROIC and growth rates, as well as comparable long-term investment plans that concentrate on renewable energy. Iberdrola's EV/Revenues exhibits an average growth rate of -4%, while Redeia Corporacion and EDP demonstrate -3% and -5%, respectively.

Iberdrola demonstrates an average ROIC of 6%, whereas EDP and Redeia Corporacion present average ROICs of 5% and 8%, respectively.

Company Name	Return On Invested Capital (2022)	Return On Invested Capital (2021)	Return On Invested Capital (2020)	Return On Invested Capital (2019)	Return On Invested Capital (mean)	EV/Revenue (2022)	EV/Revenue (2021)	EV/Revenue (2020)	Historic EV/Revenue (2019)	EV/Revenue Growth Rate (2022/2021)	EV/Revenue Growth Rate (2021/2020)	EV/Revenue Growth Rate (2020/2019)	EV/Revenue Growth Rate (mean)
Iberdrola SA	0.1%	5.7%	5.4%	6.1%	5.7%	2.34	3.02	3.62	2.86	-23%	-16%	27%	-4%
Endesa SA	16.8%	9.7%	-	10.4%	12.3%	0.85	1.41	1.73	1.51	-40%	-19%	14%	-15%
EDP Renovaveis SA	8.2%	7.4%	8.0%	9.0%	8.1%	11.55	14.96	14.75	7.81	-23%	1%	89%	22%
Enel SpA	10.0%	10.0%	10.0%	6.3%	8.7%	0.95	1.69	2.30	1.77	-44%	-26%	30%	-13%
EDP Energias de Portugal SA	3.7%	5.7%	6.4%	5.7%	5.38%	1.94	2.57	3.09	2.35	-24%	-17%	31%	-3%
Redeia Corporacion SA	4.5%	8.4%	9.7%	8.8%	7.8%	6.73	8.21	7.67	7.88	-18%	7%	-3%	-5%
Enagas SA	3.0%	-	6.8%	8.3%	6.0%	7.86	9.87	8.25	8.15	-20%	20%	1%	0%
Naturgy Energy Group SA	10.7%	11.2%	-	8.7%	10.2%	1.11	1.93	2.24	1.93	-43%	-14%	16%	-13%

Table 17. Comparable Firms' Multiples and Selection Criteria

Source: Refinitiv Eikon

The majority of EDP's primary operating countries are also those of Iberdrola, including the United States, Portugal, Spain, and Brazil. Redeia Corporacion, as like Iberdrola, is a Spanish-based corporation that primarily conducts its operations within the country. Consequently, it can be considered an accurate representation of the Spanish market.

7.2. Peers Valuation

To perform the multiples valuation, Refinitiv Eikon forward multiples for P/E, EV/EBITDA, and EV/Revenues for the following 12 months were extracted for Iberdrola and the two companies chosen as the peer group. Following this, the respective means were calculated and applied in order to determine the share price.

Company	Forward P/E (NTM)	Forward EV/EBITDA (NTM)	Forward EV/Revenues (NTM)
Iberdrola	13.90	8.91	2.68
EDP	12.16	7.72	1.99
Redeia Corporacion SA	16.58	9.97	7.06
Average	14.21	8.87	3.91
Median	13.90	8.91	2.68

Table 18. Iberdrola and Peer Group Multiples.

Source: Refinitiv Eikon, Own Analysis

The P/E and EV/EBITDA ratios estimated, respectively, a share price of €10.85 and €14.16. The EV/Revenues method yielded a share price of €25.56, which is unreasonable in the context of Iberdrola's valuation. The reason for this high share price's value is that Redeia Corporacion exhibits a multiple of 7.06, whereas Iberdrola and EDP present values of 2.68 and 1.99, respectively. As this number was misleading, this approach was disregarded. After taking into account the appropriate approaches, the valuation of Iberdrola's shares using this multiple valuation provided a range of €10.85 to €14.16.

EV/EBITDA Approach	2023E	P/E Approach	2023E
EV/EBITDA	8.87	P/E	14
EBITDA	13 732	Net Profit	4 803
EV	121 757	Nr of shares outstanding	6 291
MV of Debt	58 611		
Cash and short term invest	4 968		
MV of Minority Interest	22 429		
Pensions underfunded	1 456		
Equity Value	89 087		
Nr of shares outstanding	6 291		
Share Price	14.16	Share price	10.85

Table 19. Multiples Valuation.

Source: Refinitiv Eikon, Iberdrola Annual Reports, Own Analysis

8. Sensitivity Analysis

A sensitivity analysis was performed to ascertain the potential impact of changes in certain inputs in the value of Iberdrola and, consequently, on the investment decision. The cost of capital and perpetual growth rate were selected as key inputs for the valuation of the company. This analysis was conducted for the Enterprise Value, Equity Value and Share Price. It was decided to to increments of 0.1 percentage points in both inputs.

By examining the tables, one can discern the consequences of alterations in one variable in spite of any modification in the other. By adjusting the perpetual growth rate from 1.05% to 1.85% while keeping the cost of capital constant, the equity value would range from €67,202 million to €108,684 million, and the share price would consequently fluctuate between €10.68 and €17.28

By making a modification to the cost of capital rate from 3.86% to 4.66% while maintaining the perpetual growth rate unchanged, the equity value would range from €63,535 million to €113,778million, and the share price would correspondingly experience fluctuations spanning from €10.10 to €18.09.

Considering all of the possible fluctuations, the share price would reach its minimum value of €7.97 and its maximum value of €23.52. Meaning, the best-case scenario is significantly more favorable to the worst-case scenario, which positively corroborates the company's valuation.

		WACC								
Enterprise Value	€117 655	3.86%	3.96%	4.06%	4.16%	4.26%	4.36%	4.46%	4.56%	4.66%
	1.05%	122 010	115 888	110 183	104 857	99 872	95 199	90 810	86 679	82 786
	1.15%	127 442	120 907	114 833	109 173	103 889	98 943	94 307	89 952	85 854
	1.25%	133 291	126 297	119 813	113 787	108 172	102 929	98 023	93 423	89 102
	1.35%	139 607	132 102	125 163	118 730	112 750	107 180	101 978	97 110	92 546
Growth Rate	1.45%	146 449	138 369	130 922	124 038	117 655	111 723	106 196	101 035	96 205
	1.55%	153 884	145 158	137 142	129 753	122 923	116 590	110 705	105 221	100 100
	1.65%	161 993	152 536	143 879	135 925	128 595	121 818	115 535	109 695	104 254
	1.75%	170 873	160 583	151 200	142 611	134 720	127 446	120 722	114 489	108 695
	1.85%	180 639	169 395	159 186	149 876	141 354	133 524	126 308	119 636	113 451

		WACC								
Share price	€13.51	3.86%	3.96%	4.06%	4.16%	4.26%	4.36%	4.46%	4.56%	4.66%
	1.05%	14.20	13.23	12.32	11.47	10.68	9.94	9.24	8.59	7.97
	1.15%	15.06	14.03	13.06	12.16	11.32	10.53	9.80	9.11	8.45
	1.25%	15.99	14.88	13.85	12.89	12.00	11.17	10.39	9.66	8.97
	1.35%	17.00	15.81	14.70	13.68	12.73	11.84	11.02	10.24	9.52
Growth Rate	1.45%	18.09	16.80	15.62	14.52	13.51	12.57	11.69	10.87	10.10
	1.55%	19.27	17.88	16.61	15.43	14.35	13.34	12.40	11.53	10.72
	1.65%	20.56	19.05	17.68	16.41	15.25	14.17	13.17	12.24	11.38
	1.75%	21.97	20.33	18.84	17.48	16.22	15.07	14.00	13.01	12.08
	1.85%	23.52	21.73	20.11	18.63	17.28	16.03	14.88	13.82	12.84

		WACC								
Equity Value	€84 985	3.86%	3.96%	4.06%	4.16%	4.26%	4.36%	4.46%	4.56%	4.66%
	1.05%	89 340	83 217	77 513	72 187	67 202	62 529	58 139	54 009	50 116
	1.15%	94 772	88 237	82 162	76 503	71 218	66 273	61 637	57 282	53 184
	1.25%	100 621	93 627	87 143	81 117	75 502	70 259	65 352	60 752	56 431
	1.35%	106 937	99 431	92 492	86 059	80 080	74 509	69 307	64 440	59 876
Growth Rate	1.45%	113 778	105 699	98 252	91 367	84 985	79 053	73 526	68 365	63 535
	1.55%	121 214	112 488	104 472	97 083	90 253	83 920	78 034	72 551	67 430
	1.65%	129 323	119 866	111 209	103 255	95 925	89 147	82 865	77 025	71 584
	1.75%	138 203	127 913	118 530	109 941	102 049	94 776	88 052	81 818	76 024
	1.85%	147 969	136 725	126 516	117 206	108 684	100 854	93 638	86 966	80 781

Table 20. Sensitivity Analysis – Impact on Iberdrola’s Share Price.

Source: Own Analysis

9. Price Recommendation

9.1. Models Applied

The price recommendation evaluated in this dissertation was determined using the Discounted Cash Flow and Multiples Valuation models. When conducting a DCF analysis, the prospective cash flows produced by a given investment or project are considered. This is crucial due to the fact that the continuing cash flow of an investment is what determines its value. This is the case with Iberdrola, the company is making substantial investments in the expectation that this strategy will generate future profits, which was properly evaluated in the DCF model.

Multiples valuation captures investor sentiment and market dynamics that more theoretical valuation methods may fail to capture in whole. This analysis offers valuable perspectives on how investors currently perceive and assess comparable companies within the market context. Concluding, using both methods can give a more comprehensive view of the company.

9.2. Recommendation for Investors

The football field that follows provides an overview of the outcomes derived from the DCF and Multiples Valuation models, in addition to illustrating the fluctuation range of Iberdrola's share price over the past year.



Figure 24. Valuation Summary Football Field.
 Source: Own Analysis

Iberdrola closed on October 31, 2023, with a share price of €10.38, which, when compared to the 52-week range was a moderate value.

The ranges of both models presented in this dissertation are comparable, which provides additional support for the presented results. The sensitivity analysis determined the range of the DCF model considering both an upside scenario and a downside scenario. The upside scenario implies the successful implementation of all projected investments by Iberdrola and a subsequent rise in demand for renewable energy sources. This, in return, would lead to an expansion of the company's market share and subsequently impact its perpetual growth rate, which would increase to 1.65%. The downside scenario predicts an increase in the Spanish risk-free rate by 0.35 percentage points, which would affect the cost of capital and bring it to 4.46%. A negative period for the renewable activity would impact the company's growth and reduce the perpetual growth rate to 1.25%. The DCF method yields a range of share prices ranging from €10.39 to €15.25 due to these fluctuations.

Based on this chart, the average target price set by this dissertation for 31st december 2023 is €12.66 reflecting a potential upside of 21.97%, as of 31st october, 2023. As a result, it is issued a BUY recommendation.

10. Comparison with Barclays' Valuation Model

On August 31, 2023, Barclays conducted an equity research of Iberdrola that was after compared to the valuation presented in this dissertation.

The analysis will concentrate on the critical factors that influence the valuation of Iberdrola.

Starting with revenues, both valuations indicate a decline in the first year of projections; however, Barclays predicts that revenues will begin to rise after 2023, whereas in this dissertation, more consistent revenue growth is not observed until 2024. This dissertation displays a CAGR of -0.77%, whereas Barclays reports a CAGR of 1.45%.

Barclays demonstrates a CAGR of 9.78% in EBITDA, a metric that is naturally influenced by revenues. In contrast, this dissertation exhibits a CAGR of -2.72%. COGS, which peaked in 2022, may account for a portion of this disparity. In the case of Barclays, a reduction in costs is anticipated immediately, whereas in this discussion, these costs will diminish in parallel with the projected rate of investments.

Both valuations assign substantial values to CAPEX, which is consistent with the major investments that Iberdrola anticipates. This dissertation forecasts higher values compared to Barclays, values that in 2025 begin to approximate.

Considering Net Income, this dissertation shows a CAGR of -12.96% for the next three years, while Barclays projects an increase of 6.08% (CAGR). The different vision for future revenues is affecting this value as well as the way both valuations are accounting for depreciations. This dissertation holds that depreciations are consistent with PPE and will increase substantially over the explicit period as a result of predicted investments. Barclays will experience a prolonged but less significant impact on net income due to the extended depreciation period of Iberdrola's assets.

Equity Research Comparison	2022A	2023E		2024E		2025E		CAGR	
	Real Data	Dissertation	Barclays	Dissertation	Barclays	Dissertation	Barclays	Dissertation	Barclays
Revenues	53 949	52 111	47 065	51 761	51 938	52 705	56 323	-0.77%	1.45%
EBITDA	12 661	12 374	14 783	11 781	15 531	11 584	16 751	-2.92%	9.78%
CAPEX	10 247	15 124	11 568	15 124	11 390	15 124	13 508	-	-
Net Income	4 339	3 918	4697	3 138	4965	2 861	5179	-12.96%	6.08%

Table 21. Equity Research Comparison with Barclays' Equity Research (2022A-2025E)

Source: Barclays' Equity Research, Iberdrola Annual Reports, Own Analysis

Barclays assessed each of Iberdrola's business segments individually prior to applying a DCF methodology. This dissertation recognizes that its revenues are its primary driver and projects them based on country and revenue type (gas, electricity, and others) using a DCF.

Regarding WACC, the values presented in both valuations are comparable. Barclays achieved a blended WACC of 5.4%, whereas this dissertation provides a WACC of 4.26%.

Barclays forecasts that there will be no expansion over the long term, whereas the dissertation achieves a constant growth rate of 1.45%. The contrasting perspectives during the initial three years mitigate this disparity, whereas Barclays maintains a more positive outlook in contrast to the dissertation. The two valuations achieved comparable price targets. For the next twelve months, Barclays has set a price target of €13.3, whereas as of 31/12/2023, this dissertation attained a price target of €12.66.

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Appendix

Balance Sheet (in millions of euros)	2013A	2014A	2015A	2016A	2017A	2018A	2019A	2020A	2021A	2022A	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E
Current Assets																				
Cash and Short-Term Investments	2 209	2 852	1 841	2 214	3 798	3 373	2 806	4 005	5 566	7 572	7 413	7 165	7 150	7 507	7 578	7 833	8 136	8 438	9 300	9 967
Total Receivables	5 239	5 519	6 048	5 862	6 721	6 855	7 499	7 664	10 956	11 220	10 531	10 371	10 448	10 456	10 863	11 219	11 668	12 162	12 422	12 688
Total Inventory	2 396	2 359	2 147	1 956	2 202	2 447	2 847	2 703	2 906	2 418	4 329	4 188	4 143	4 070	4 149	4 203	4 286	4 379	4 382	4 476
Other Current Assets	353	512	644	694	1 078	668	405	600	2 955	2 157	3 110	3 403	3 696	3 956	4 216	4 476	4 736	4 996	5 151	5 305
Total Current Assets	10 197	11 242	10 680	10 726	13 799	13 343	13 557	14 972	22 383	23 367	25 384	25 127	25 437	25 988	26 806	27 731	28 827	29 976	31 235	31 835
Non-Current Assets																				
Property/Plant/Equipment	51 204	55 107	61 789	63 834	64 082	66 109	73 071	73 753	82 241	88 696	97 934	10 712	11 640	12 458	13 276	14 097	14 916	15 735	16 220	16 703
Goodwill	7 801	8 354	9 353	8 711	7 932	7 838	8 153	7 613	8 312	8 189	8 189	8 189	8 189	8 189	8 189	8 189	8 189	8 189	8 189	8 189
Intangibles	8 192	8 508	11 407	11 223	13 216	13 162	12 215	10 609	11 597	11 929	13 171	14 414	15 656	16 758	17 859	18 960	20 061	21 163	21 816	22 469
Long-Term Investments	5 274	3 624	3 231	3 457	4 893	4 892	5 404	4 393	5 388	7 154	7 899	8 644	9 389	10 050	10 710	11 371	12 031	12 692	13 353	13 475
Note Receivable - Long Term	366	383	615	887	839	1 480	2 851	3 161	3 764	4 614	5 095	5 575	6 056	6 482	6 908	7 334	7 759	8 185	8 438	8 691
Other Long-Term Assets	6 753	6 523	7 590	7 867	5 927	6 213	7 117	8 017	8 067	10 718	11 834	12 951	14 067	15 056	16 046	17 035	18 025	19 014	19 601	20 188
Total Non-Current Assets	79 590	82 499	93 985	95 979	96 889	99 694	108 811	107 546	119 369	131 300	144 123	156 945	169 768	181 133	192 498	203 863	215 228	226 593	233 334	240 075
Total Assets	89 787	93 741	104 665	106 705	110 688	113 037	122 368	122 518	141 752	154 667	169 506	182 072	195 205	207 121	219 304	231 594	244 055	256 569	264 589	271 910
Current Liabilities																				
Accounts Payable	4 559	5 473	5 577	5 491	5 308	5 259	5 098	5 138	5 964	5 927	5 592	5 311	5 221	5 076	4 823	4 561	4 299	4 037	3 775	3 513
Accrued Expenses	8	1	311	428	450	23	409	349	352	450	452	438	433	425	434	439	448	458	458	458
Notes Payable/Short-Term Debt	86	101	99	93	33	37	2 238	2 820	3 666	3 930	5 097	5 511	5 451	5 355	5 459	5 531	5 640	5 762	5 766	5 890
Current Port. of LT Debt/Capital Leases	3 524	4 209	4 576	4 293	6 816	6 575	6 353	4 745	6 251	6 358	6 225	6 016	6 004	6 303	6 363	6 577	6 832	7 085	7 809	7 865
Other Current Liabilities	2 979	3 808	4 025	3 770	4 120	4 223	5 033	4 879	8 121	12 174	15 094	16 501	17 524	18 547	19 570	20 593	21 616	22 639	23 662	24 685
Total Current Liabilities	11 156	13 592	14 588	14 075	16 727	16 117	19 131	17 931	21 354	28 839	36 599	42 522	45 203	47 925	50 647	53 369	56 091	58 813	61 535	64 257
Non-Current Liabilities																				
Total Long-Term Debt	24 382	23 111	24 685	26 553	29 481	30 892	31 933	32 595	33 957	38 992	38 236	37 032	37 050	38 490	38 968	40 373	42 028	43 683	47 652	48 115
Deferred Income Tax	8 336	9 366	11 896	12 741	8 558	9 043	9 359	9 607	11 364	11 682	12 841	14 115	15 515	17 055	18 747	20 607	22 651	24 898	27 360	30 004
Minority Interest	153	200	3 246	3 446	5 671	7 394	9 516	11 806	15 647	16 995	16 995	16 995	16 995	16 995	16 995	16 995	16 995	16 995	16 995	16 995
Other Liabilities	10 624	11 969	12 538	12 650	13 191	13 010	14 751	15 167	15 951	17 040	18 815	20 590	22 364	23 937	25 511	27 084	28 657	30 230	31 163	32 096
Total Non-Current Liabilities	43 495	44 646	52 365	55 390	56 901	60 339	65 559	69 175	76 919	84 709	86 887	88 732	91 925	96 478	100 220	105 058	110 331	115 808	123 178	127 290
Total Liabilities	54 651	58 238	66 953	69 465	73 628	76 456	84 690	87 106	101 273	113 548	123 481	131 254	140 129	148 403	156 917	166 421	176 426	187 391	198 708	205 547
Shareholders Equity																				
Common Stock	4 680	4 791	4 753	4 772	4 738	4 798	4 772	4 762	4 775	4 772	4 772	4 772	4 772	4 772	4 772	4 772	4 772	4 772	4 772	4 772
Retained Earnings (Accumulated Deficit)	32 679	32 710	33 726	34 211	34 240	35 746	36 988	38 031	39 796	41 178	44 713	47 988	50 539	52 799	55 177	57 318	59 413	61 516	63 471	66 208
Treasury Stock - Common	-305	-816	-639	-1 033	-598	-1 010	-1 436	-1 985	-1 860	-1 756	-1 756	-1 756	-1 756	-1 756	-1 756	-1 756	-1 756	-1 756	-1 756	-1 756
Unrealized Gain/(Loss)	-297	-337	-222	-1 089	-42	-32	-544	-242	-547	-932	-932	-932	-932	-932	-932	-932	-932	-932	-932	-932
Other Equity	-1624	-853	92	-509	-1 276	-2 919	-2 101	-1 514	-2 779	-2 143	9762	17 977	25 495	30 544	36 079	40 820	45 157	49 283	47 118	47 097
Total Shareholder Equity	35 135	35 505	37 710	37 242	37 062	36 583	37 679	35 412	40 479	41 119	56 560	60 849	78 117	85 427	93 340	100 222	106 654	112 883	112 673	115 389
Total Equity & Total Liabilities	89 786	93 743	104 663	106 707	110 690	113 039	122 369	122 518	141 752	154 667	169 506	182 072	195 205	207 121	219 304	231 594	244 055	256 569	264 589	271 910

Table 22. Consolidated Balance Sheet Forecast (2013A-2032E).

Source: Iberdrola Annual Reports, Own Analysis

Retained Earnings Closing Balance	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E
Retained Earnings Forecast	41 178	44 713	47 988	50 539	52 799	55 177	57 318	59 413	61 516	63 471
Net Income (N-1)	4 339	3 918	3 138	2 861	2 928	2 682	2 638	2 647	2 654	3 411
Dividends	-803.6	-643.6	-586.8	-600.7	-550.2	-541.1	-542.9	-544.5	-699.6	-673.6
Retained Earnings Closing Balance	44 713	47 988	50 539	52 799	55 177	57 318	59 413	61 516	63 471	66 208

Table 23. Retained Earnings Forecast (2023E-2032E).

Source: Iberdrola Annual Reports, Own Analysis

Income Statement (in millions of euros)	2013A	2014A	2015A	2016A	2017A	2018A	2019A	2020A	2021A	2022A	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E
Revenues	31 077	30 032	31 419	28 759	31 263	35 076	36 438	33 145	39 114	53 949	52 111	51 761	52 705	52 976	55 112	56 875	58 882	60 902	61 787	62 684
COGS	20 937	19 555	20 523	17 930	19 874	21 779	22 322	19 180	24 272	36 505	35 261	35 025	35 663	34 787	36 189	37 347	38 666	39 992	39 937	39 908
Gross Profit	10 140	10 477	10 896	10 829	11 389	13 297	14 116	13 965	14 842	17 444	16 850	16 737	17 042	18 189	18 922	19 528	20 216	20 910	21 450	22 776
SG&A	2 220	2 319	2 430	2 367	2 776	2 932	3 138	3 191	3 371	3 835	4 289	4 770	5 272	5 863	6 480	6 673	6 871	7 075	7 286	7 502
Other operating expenses	2 959	1 338	1 550	1 096	2 722	1 308	1 179	768	-62	948	186	186	186	165	165	165	165	165	98	98
EBITDA	4 961	6 820	6 916	7 766	5 891	9 057	9 799	10 006	11 533	12 661	12 374	11 781	11 584	12 161	12 277	12 690	13 181	13 670	13 670	15 175
Depreciation/Amortization	2 741	2 880	3 086	3 080	3 179	3 580	3 867	3 966	4 190	4 677	5 001	5 472	5 944	6 362	6 780	7 198	7 616	8 034	8 282	8 541
Operating Income/EBIT	2 220	3 940	3 830	4 686	2 712	5 477	5 932	6 040	7 343	7 984	7 374	6 308	5 640	5 799	5 497	5 492	5 564	5 636	5 388	6 635
Net Interest Income	-1 089	-1 046	-1 001	-816	-977	-1 054	-1 167	-963	-1 264	-1 864										

Exchange Date	Iberdrola's Monthly Cumulative Returns	EuroStockUtilities's Monthly Cumulative Returns	Iberdrola	EuroStockUtilities
31-Dec-2022	+1.39%	-1.69%		
30-Nov-2022	+4.91%	+7.30%	Average 2022	
31-Oct-2022	+7.23%	+6.22%	+0.84%	-0.85%
30-Sep-2022	-7.73%	-6.78%	Average 2021	
31-Aug-2022	-0.43%	-3.68%	-0.38%	+0.41%
31-Jul-2022	+7.46%	+5.18%	Average 2020	
30-Jun-2022	-10.32%	-11.24%	+2.58%	+1.10%
31-May-2022	+0.23%	+0.06%	Average 2019	
30-Apr-2022	+10.99%	+2.17%	+2.65%	+1.72%
31-Mar-2022	-2.55%	-5.30%	Average 2018	
28-Feb-2022	+0.20%	-0.20%	+0.98%	+0.31%
31-Jan-2022	-1.31%	-2.24%	Average Entire Period	
31-Dec-2021	+5.11%	+5.13%	+1.34%	+0.54%
30-Nov-2021	-3.04%	-1.39%		
31-Oct-2021	+17.63%	+8.53%		
30-Sep-2021	-17.26%	-8.94%		
31-Aug-2021	+3.30%	+4.21%		
31-Jul-2021	+0.83%	+0.48%		
30-Jun-2021	-6.50%	-2.88%		
31-May-2021	-2.14%	-0.93%		
30-Apr-2021	+2.28%	+0.60%		
31-Mar-2021	+5.37%	+6.58%		
28-Feb-2021	-6.79%	-5.38%		
31-Jan-2021	-3.38%	-1.09%		
31-Dec-2020	+2.23%	+1.43%		
30-Nov-2020	+13.04%	+14.13%		
31-Oct-2020	-3.66%	-4.86%		
30-Sep-2020	-0.38%	-1.65%		
31-Aug-2020	-3.39%	-0.31%		
31-Jul-2020	+8.22%	+2.35%		
30-Jun-2020	+6.52%	+5.19%		
31-May-2020	+6.00%	+6.92%		
30-Apr-2020	+1.74%	+2.36%		
31-Mar-2020	-12.95%	-18.74%		
29-Feb-2020	+4.56%	-2.17%		
31-Jan-2020	+9.06%	+8.53%		
31-Dec-2019	+2.82%	+1.67%		
30-Nov-2019	-3.04%	-1.34%		
31-Oct-2019	-3.44%	-0.74%		
30-Sep-2019	+1.97%	+4.12%		
31-Aug-2019	+9.12%	+3.43%		
31-Jul-2019	-0.32%	+0.41%		
30-Jun-2019	+5.44%	+3.87%		
31-May-2019	+2.67%	-0.79%		
30-Apr-2019	+3.48%	-0.04%		
31-Mar-2019	+6.45%	+3.98%		
28-Feb-2019	+2.11%	-0.48%		
31-Jan-2019	+4.56%	+6.50%		
31-Dec-2018	+6.49%	+1.46%		
30-Nov-2018	+5.34%	+5.04%		
31-Oct-2018	-1.29%	-3.54%		
30-Sep-2018	-1.31%	-0.49%		
31-Aug-2018	-3.43%	-4.32%		
31-Jul-2018	+2.93%	+3.36%		
30-Jun-2018	+9.09%	+1.74%		
31-May-2018	-5.36%	-4.70%		
30-Apr-2018	+7.43%	+5.13%		
31-Mar-2018	-1.71%	+4.00%		
28-Feb-2018	-7.35%	-4.32%		

Table 25. Cumulative Returns – Iberdrola Share Price vs EuroStock Utilities.

Source: Refinitiv Eikon

Historical Growth	2013A	2014A	2015A	2016A	2017A	2018A	2019A	2020A	2021A	2022A	On Average	Last 5 Years
Dividends	184	187	187	187	187	143	330	562	570	890		
YoY Growth		2%	0%	0%	0%	-24%	131%	70%	1%	56%	26%	47%
EBIT	2 220	3 940	3 830	4 686	2 712	5 477	5 932	6 040	7 343	7 984		
YoY Growth		77%	-3%	22%	-42%	102%	8%	2%	22%	9%	22%	28%
Net Income	2 599	2 347	2 444	2 728	2 835	3 015	3 408	3 611	3 885	4 339		
YoY Growth		-10%	4%	12%	4%	6%	13%	6%	8%	12%	6%	9%
CAPEX	-	6783	9768	5125	3427	5607	10829	4648	12678	10247		
YoY Growth		44%	-48%	-33%	64%	93%	-57%	173%	-19%		27%	51%
Depreciation	2 741	2 880	3 086	3 080	3 179	3 580	3 867	3 966	4 190	4 677		
YoY Growth		5%	7%	0%	3%	13%	8%	3%	6%	12%	6%	8%
Dividend payout ratio	7%	8%	8%	7%	7%	5%	10%	16%	15%	21%		
YoY Growth		13%	-4%	-10%	-4%	-28%	104%	61%	-6%	40%	18%	34%

Table 26. Iberdrola Historical Ratios.

Source: Refinitiv Eikon, Own Analysis

	2013A	2014A	2015A	2016A	2017A	2018A	2019A	2020A	2021A	2022A	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E
Operating Cash	621.54	600.64	628.38	575.18	625.26	701.52	728.76	662.9	782.28	1078.98	1042	1035	1054	1060	1102	1138	1178	1218	1236	1254
Total Receivables	5174	5450	5973	5789	6437	6770	7406	7569	10746	11135	10365	10296	10484	10537	10962	11313	11712	12114	12290	12468
Total Inventory	2396	2359	2147	1956	2202	2447	2847	2703	2906	2418	4315	4286	4364	4257	4429	4570	4732	4894	4814	4884
Other Current Assets	237	344	432	466	724	448	272	403	1750	1618	2087	2284	2481	2655	2830	3004	3179	3353	3457	3560
Accounts Payable	4070	4886	4979	4902	4739	4495	4551	4587	5280	5336	7645	7594	7732	7542	7846	8097	8383	8671	8529	8653
Accrued Expenses	5	1	184	253	266	14	242	207	197	281	238	140	85	49	30	18	11	7	4	2
Other Current liabilities	2747	3511	3711	3476	3799	3894	4641	4499	7563	11113	4681	4650	4734	4759	4951	5109	5289	5471	5550	5631
NWC	1606	355	306	154	1384	1764	1819	2045	3164	-480	5245	5517	5831	6159	6496	6800	7117	7431	7713	7880

Table 27. Iberdrola NWC Historical Evolution and Forecast (2013A-2032E)

Source: Iberdrola, Annual Reports, Own Analysis

	2013A	2014A	2015A	2016A	2017A	2018A	2019A	2020A	2021A	2022A	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E
PPE	51204.0	55107.0	61789.0	63834.0	64082.0	66109.0	73071.0	73753.0	82241.0	88696.0	97934.1	107172.1	116410.2	124598.3	132786.4	140974.5	149162.6	157350.7	162207.1	167063.4
Depreciation and Amortization (D&A)	2741.0	2880.0	3086.0	3080.0	3179.0	3580.0	3867.0	3966.0	4190.0	4677.0	5006.6	5472.3	5944.0	6362.1	6780.2	7198.2	7616.3	8034.4	8282.4	8540.8
D&A (% of PPE)	5.35%	5.23%	4.99%	4.83%	4.98%	5.42%	5.30%	5.38%	5.09%	5.27%	5.11%	5.11%	5.11%	5.11%	5.11%	5.11%	5.11%	5.11%	5.11%	5.11%

Table 28. D&A Forecast as a Percentage of PPE (2013A-2032E)

Source: Iberdrola, Annual Reports, Own Analysis

	2013A	2014A	2015A	2016A	2017A	2018A	2019A	2020A	2021A	2022A	Average Ratio
Other Current Liabilities	2979.00	3808.00	4025.00	3770.00	4120.00	4223.00	5033.00	4879.00	8121.00	12174.00	
YoY Growth		28%	6%	-6%	9%	3%	19%	-3%	66%	50%	
Other Current Liabilities/Revenue	10%	13%	13%	13%	13%	12%	14%	15%	21%	23%	10%

Table 29. Other Current Liabilities as a Percentage of Revenues (2013A-2032E)

Source: Iberdrola, Annual Reports, Own Analysis

	2013A	2014A	2015A	2016A	2017A	2018A	2019A	2020A	2021A	2022A
Other Current Assets	353	512	644	694	1078	668	405	600	2955	2157
YoY Growth		45%	26%	8%	55%	-38%	-39%	48%	393%	-27%
Other Current Assets/PPE	0.4%	0.6%	0.6%	0.7%	1.1%	-	0.4%	0.5%	2.3%	1.5%

Table 30. Other Current Assets as a Percentage of PPE (2013A-2023E)

Source: Iberdrola, Annual Reports, Own Analysis

Long Term GDP	
Spain	1.60%
United Kingdom	1.50%
United States	2%
Mexico	2%
Brazil	2%
Average	1.86%
Weighted Average (Revenues 2030)	1.78%

Table 31. Long Term GDP Forecast in Relevant Countries

Source: International Monetary Fund, Own Analysis

Euro Exchange Rate	
	1 EUR
American Dollar	1.105
British Pounds	0.869
Mexican Pesos	18.519
Brazilian Pesos	5.263
	29-Dec-23

Table 32. Euro Exchange Rate for Most Relevant Currencies.

Source: Bloomberg, Own Analysis

Revenues weight	
Spain	43%
United Kingdom	18%
United States	15%
Mexico	8%
Brazil	16%
IEI	1%
Total	100%

Table 33. Revenues Weight per Country in 2022

Source: Iberdrola Annual Reports, Own Analysis

Revenues	Spain	United Kingdom	United States	Mexico	Brazil	IEI	Corporation at Total Revenue
Electricity	20175	6752	5785	4102	7126	718	-231 44427
% of total revenues	88%	69%	73%	101%	83%	90%	94%
Gas	2024	2038	1837	0	0	0	-2 5897
% of total revenues	9%	21%	23%	0%	0%	0%	1% 11%
Other	781	1023	285	-23	1487	84	-12 3625
% of total revenues	3%	10%	4%	-1%	17%	10%	5% 7%
Total	22980	9813	7907	4079	8613	802	-245 53949

Table 34. Revenues per Type and Country (2022A).

Source: Iberdrola Annual Reports, Own Analysis

Revenus weight 2030E	
Spain	51%
United Kingdom	8%
United States	15%
Mexico	8%
Brazil	17%
IEI	2%
Total	100%

Table 35. Revenues Weight per Country Forecast in 2030
Source: Own Analysis

Minority Interests	
Book Value	Market Value
17181	22429
Global Power P/B Ratio	1.31

Table 36. Market Value of Minority Interests using Global Power Industry P/B Ratio.
Source: Damodaran, Iberdrola Annual Reports, Own Analysis

Date	German 10 Year Bond Yield	Average Yield
06/01/2023	2.21%	2.45%
13/01/2023	2.14%	
20/01/2023	2.17%	
27/01/2023	2.25%	
03/02/2023	2.20%	
10/02/2023	2.37%	
17/02/2023	2.46%	
24/02/2023	2.53%	
03/03/2023	2.71%	
10/03/2023	2.50%	
17/03/2023	2.12%	
24/03/2023	2.13%	
31/03/2023	2.31%	
07/04/2023	2.18%	
14/04/2023	2.43%	
21/04/2023	2.49%	
28/04/2023	2.32%	
05/05/2023	2.29%	
12/05/2023	2.27%	
19/05/2023	2.42%	
26/05/2023	2.54%	
02/06/2023	2.31%	
09/06/2023	2.38%	
16/06/2023	2.46%	
23/06/2023	2.36%	
30/06/2023	2.39%	
07/07/2023	2.64%	
14/07/2023	2.48%	
21/07/2023	2.43%	
28/07/2023	2.46%	
04/08/2023	2.54%	
11/08/2023	2.62%	
18/08/2023	2.62%	
25/08/2023	2.56%	
01/09/2023	2.55%	
08/09/2023	2.60%	
15/09/2023	2.67%	
22/09/2023	2.74%	
29/09/2023	2.84%	
06/10/2023	2.89%	
13/10/2023	2.73%	
20/10/2023	2.88%	
27/10/2023	2.84%	
03/11/2023	2.64%	
10/11/2023	2.71%	
17/11/2023	2.59%	
24/11/2023	2.65%	
01/12/2023	2.36%	
08/12/2023	2.27%	
15/12/2023	2.01%	
22/12/2023	1.97%	
29/12/2023	2.03%	

Table 37. Yield on 10 Year German Bond used as a proxy for Risk Free Rate
Source: Refinitiv Eikon

Issue	Maturity Date	Present Value (Last Price)	Face Value	MTV of Issued Debt
IBRD/ IBE 15-Mar-2024	15-Mar-2024	99,977	100	49991000
IBRD/ IBE 15-Mar-2024	15-Mar-2024	99,977	100	9977400
AGR 15-Mar-2024	15-Mar-2024	99,969	100	0
IBRD/ IBE 18-Mar-2024	18-Mar-2024	99,943	100	4996900
IBRD/ IBE 18-Mar-2024	18-Mar-2024	99,943	100	3499000
IBRD/ IBE 18-Mar-2024	18-Mar-2024	99,943	100	14991400
IBRD/ IBE 18-Mar-2024	18-Mar-2024	99,943	100	4497435
AGR 18-Mar-2024	18-Mar-2024	99,922	100	0
AGR 18-Mar-2024	18-Mar-2024	99,907	100	0
IBRD/ IBE 20-Mar-2024	20-Mar-2024	99,921	100	7995800
IBRD/ IBE 20-Mar-2024	20-Mar-2024	99,921	100	14991100
IBRD/ IBE 20-Mar-2024	20-Mar-2024	99,921	100	9992100
IBRD/ IBE 20-Mar-2024	20-Mar-2024	99,921	100	39948400
AGR 20-Mar-2024	20-Mar-2024	99,891	100	0
IBRD/ IBE 21-Mar-2024	21-Mar-2024	99,91	100	2977000
IBRD/ IBE 21-Mar-2024	21-Mar-2024	99,91	100	13985600
AGR 21-Mar-2024	21-Mar-2024	99,876	100	0
IBRD/ IBE 22-Mar-2024	22-Mar-2024	99,899	100	19779000
AGR 22-Mar-2024	22-Mar-2024	99,861	100	0
IBRD/ IBE 23-Mar-2024	23-Mar-2024	99,864	100	34952700
IBRD/ IBE 26-Mar-2024	26-Mar-2024	99,855	100	14978200
IBRD/ IBE 26-Mar-2024	26-Mar-2024	99,855	100	39942000
IBRD/ IBE 26-Mar-2024	26-Mar-2024	99,855	100	4992700
IBRD/ IBE 26-Mar-2024	26-Mar-2024	99,855	100	14978200
AGR 27-Mar-2024	27-Mar-2024	99,899	100	0
IBRD/ IBE 28-Mar-2024	28-Mar-2024	99,833	100	8453885
IBRD/ IBE 28-Mar-2024	28-Mar-2024	99,833	100	14981100
AGR 02-Apr-2024	02-Apr-2024	99,689	100	0
AGR 03-Apr-2024	03-Apr-2024	99,679	100	0
IBRD/ IBE 04-Apr-2024	04-Apr-2024	99,759	100	9973900
IBRD/ IBE 04-Apr-2024	04-Apr-2024	99,759	100	1494385
AGR 05-Apr-2024	05-Apr-2024	99,659	100	0
IBRD/ IBE 05-Apr-2024	05-Apr-2024	99,73	100	2497300
AGR 06-Apr-2024	06-Apr-2024	99,643	100	0
IBRD/ IBE 08-Apr-2024	08-Apr-2024	99,717	100	9971700
AGR 08-Apr-2024	08-Apr-2024	99,798	100	0
AGR 09-Apr-2024	09-Apr-2024	99,58	100	0
IBRD/ IBE 10-Apr-2024	10-Apr-2024	99,699	100	19930000
AGR 10-Apr-2024	10-Apr-2024	99,673	100	4981600
AGR 12-Apr-2024	12-Apr-2024	99,534	100	0
IBRD/ IBE 15-Apr-2024	15-Apr-2024	99,64	100	4962000
IBRD/ IBE 15-Apr-2024	15-Apr-2024	99,64	100	9974800
IBRD/ IBE 17-Apr-2024	17-Apr-2024	99,619	100	99619000
IBRD/ IBE 18-Apr-2024	18-Apr-2024	99,608	100	7964600
AGR 18-Apr-2024	18-Apr-2024	99,423	100	0
IBRD/ IBE 22-Apr-2024	22-Apr-2024	99,565	100	4179300
AGR 22-Apr-2024	22-Apr-2024	99,379	100	0
IBRD/ IBE 23-Apr-2024	23-Apr-2024	99,554	100	7963200
IBRD/ IBE 24-Apr-2024	24-Apr-2024	99,545	100	1994600
IBRD/ IBE 25-Apr-2024	25-Apr-2024	99,532	100	49310400
AGR 25-Apr-2024	25-Apr-2024	99,331	100	0
IBRD/ IBE 26-Apr-2024	26-Apr-2024	99,522	100	19944000
IBRD/ IBE 26-Apr-2024	26-Apr-2024	99,489	100	19947900
AGR 26-Apr-2024	26-Apr-2024	99,269	100	0
IBRD/ IBE 30-Apr-2024	30-Apr-2024	99,479	100	1995800
IBRD/ IBE 30-Apr-2024	30-Apr-2024	99,479	100	4982300
IBRD/ IBE 30-Apr-2024	30-Apr-2024	99,479	100	7959830
IBRD/ IBE 30-Apr-2024	30-Apr-2024	99,479	100	1995800
AGR 26-May-2024	26-May-2024	99,233	100	0
IBRD/ IBE 02-May-2024	02-May-2024	99,457	100	3974200
IBRD/ IBE 02-May-2024	02-May-2024	99,457	100	9943700
IBRD/ IBE 02-May-2024	02-May-2024	99,457	100	3974200
AGR 02-May-2024	02-May-2024	99,222	100	0
IBRD/ IBE 03-May-2024	03-May-2024	99,446	100	2484100
AGR 03-May-2024	03-May-2024	99,206	100	0
IBRD/ IBE 06-May-2024	06-May-2024	99,414	100	7954130
IBRD/ IBE 06-May-2024	06-May-2024	99,414	100	3964800
IBRD/ IBE 06-May-2024	06-May-2024	99,392	100	594200
IBRD/ IBE 09-May-2024	09-May-2024	99,382	100	1499700
IBRD/ IBE 10-May-2024	10-May-2024	99,371	100	2762380
IBRD/ IBE 13-May-2024	13-May-2024	99,339	100	14941150
IBRD/ IBE 13-May-2024	13-May-2024	99,339	100	4946500
IBRD/ IBE 15-May-2024	15-May-2024	99,317	100	8443430
AGR 16-May-2024	16-May-2024	99,003	100	0
IBRD/ IBE 20-May-2024	20-May-2024	99,263	100	7943000
IBRD/ IBE 21-May-2024	21-May-2024	99,253	100	4962000
IBRD/ IBE 21-May-2024	21-May-2024	99,244	100	992300
IBRD/ IBE 22-May-2024	22-May-2024	99,242	100	1115104
AGR 22-May-2024	22-May-2024	99,909	100	0
AGR 23-May-2024	23-May-2024	99,894	100	0
IBRD/ IBE 25-May-2024 FRN	25-May-2024	99,187	100	0
IBRD/ IBE 27-May-2024	27-May-2024	99,187	100	11740660
IBRD/ IBE 27-May-2024	27-May-2024	99,187	100	2975100
IBRD/ IBE 4.50 20-May-2024 MTN	20-May-2024	99,862	100	1972400
IBRD/ IBE 4.50 20-May-2024 MTN	20-May-2024	99,862	100	2294200
IBRD/ IBE 31-May-2024	31-May-2024	99,143	100	2761210
IBRD/ IBE 31-May-2024	31-May-2024	99,143	100	2024272
IBRD/ IBE 03-Jun-2024	03-Jun-2024	99,113	100	7943200
IBRD/ IBE 06-Jun-2024	06-Jun-2024	99,08	100	1991600
IBRD/ IBE 06-Jun-2024	06-Jun-2024	99,08	100	2475900
IBRD/ IBE 10-Jun-2024	10-Jun-2024	99,038	100	1992700
IBRD/ IBE 11-Jun-2024	11-Jun-2024	99,027	100	11802400
IBRD/ IBE 12-Jun-2024	12-Jun-2024	99,016	100	3762000
IBRD/ IBE 12-Jun-2024	12-Jun-2024	99,016	100	3544700
IBRD/ IBE 13-Jun-2024	13-Jun-2024	99,006	100	9942400
AGR 13-Jun-2024	13-Jun-2024	99,565	100	0
IBRD/ IBE 14-Jun-2024	14-Jun-2024	99,096	100	2273300
AGR 15-Jun-2024	15-Jun-2024	99,377	100	0
IBRD/ IBE 20-Jun-2024	20-Jun-2024	98,868	100	2946800
IBRD/ IBE 20-Jun-2024	20-Jun-2024	98,868	100	4944800
IBRD/ IBE 04-Jul-2024	04-Jul-2024	98,785	100	4346400
IBRD/ IBE 22-Jul-2024	22-Jul-2024	98,597	100	1131810
IBRD/ IBE 23-Jul-2024	23-Jul-2024	98,597	100	1131810
IBRD/ IBE 23-Jul-2024	23-Jul-2024	98,586	100	965600
IBRD/ IBE 24-Jul-2024	24-Jul-2024	98,576	100	1971320
IBRD/ IBE 25-Jul-2024	25-Jul-2024	98,524	100	9852400
IBRD/ IBE 09-Aug-2024	09-Aug-2024	98,411	100	1984200
IBRD/ IBE 11-Sep-2024	11-Sep-2024	98,077	100	9997700
IBRD/ IBE 07-Oct-2024	07-Oct-2024	97,824	100	2477700
IBRD/ IBE 1.875 08-Oct-2024 MTN	08-Oct-2024	98,875	100	4947700
IBRD/ IBE 1.875 13-Oct-2024	13-Oct-2024	98,875	100	4947700
IBRD/ IBE 31-Oct-2024	31-Oct-2024	97,594	100	9759400
IBRD/ IBE 06-Nov-2024	06-Nov-2024	97,566	100	1991200
AGR 1.50 01-Dec-2024 74	01-Dec-2024	98,136	100	9752817.4
IBRD/ IBE 08-Dec-2024	08-Dec-2024	99,907	100	9990700
IBRD/ IBE 29-Jan-2025	29-Jan-2025	98,764	100	4832000
IBRD/ IBE 1.00 07-Feb-2025 24 MTN	07-Feb-2025	97,233	100	97233000
AGRELL/ AGR 5.00 10-Mar-2025	10-Mar-2025	99,876	100	6566010.83
IBRD/ IBE 5.00 15-Mar-2025	15-Mar-2025	99,887	100	3397666.3
AGR 1.200 15-Apr-2025 72	15-Apr-2025	97,311	100	6669464.15
IBRD/ IBE 1.25 15-Jun-2025 MTN	15-Jun-2025	98,433	100	2992900
IBRD/ IBE 4.875 16-Jun-2025 23 MTN	16-Jun-2025	98,643	100	7246200
IBRD/ IBE 0.375 15-Sep-2025 MTN	15-Sep-2025	98,313	100	6471000
CPFPD 5.00 01-Nov-2025 MTN	01-Nov-2025	99,366	100	1364973.98
AGRELL/ AGR 5.75 01-Nov-2025	01-Nov-2025	100,445	100	2249914.1
IBRD/ IBE 5.00 08-Dec-2025	08-Dec-2025	98,722	100	4720818.86
IBRD/ IBE 1.125 21-Apr-2026 MTN	21-Apr-2026	95,609	100	9609000
IBRD/ IBE 5.00 17-Jul-2026	17-Jul-2026	101,692	100	41097915.2
IBRD/ IBE 1.250 24-Oct-2026 MTN	24-Oct-2026	98,1	100	7192000
AGROW/ AGR 1.250 01-Dec-2026 26	01-Dec-2026	98,12	100	4299741.4
AGROW/ AGR 1.250 01-Dec-2026 26	01-Dec-2026	98,192	100	4299741.4
IBRD/ IBE 3.00 18-May-2027 MTN	18-May-2027	101,968	100	8191954.88
AGREY/ AGR 1.00 01-Jun-2027 27	01-Jun-2027	98,48	100	2177796.4
AGREY/ AGR 3.00 01-Jun-2027 27	01-Jun-2027	98,48	100	1284992.9
AGREY/ AGR 1.00 01-Jun-2027 27	01-Jun-2027	98,876	100	3893726.9
IBRD/ IBE 1.25 15-Sep-2027 27 MTN	15-Sep-2027	98,961	100	7867700
IBRD/ IBE 4.875 20-Sep-2027	20-Sep-2027	99,861	100	4982506.9
IBRD/ IBE 8.00 07-Oct-2027 CVT	07-Oct-2027	98,806	100	4446700
IBRD/ IBE 3.00 05-May-2028 MTN	05-May-2028	101,367	100	6511472.41
AGROW/ AGR 1.500 15-Aug-2028 29	15-Aug-2028	101,415	100	1274355.9
AGROW/ AGR 1.500 15-Aug-2028 29	15-Aug-2028	102,19	100	52973745.3
AGRELL/ AGR 1.600 11-Sep-2028 MTN	11-Sep-2028	101,638	100	1332626.65
IBRD/ IBE 1.125 22-Nov-2028 24 MTN	22-Nov-2028	99,443	100	10182300
IBRD/ IBE 1.60 20-Feb-2029 MTN	20-Feb-2029	99,936	100	9993600
AGR 1.800 05-Jun-2029 29	05-Jun-2029	97,869	100	8457164.12
IBRD/ IBE 1.625 20-Nov-2029 MTN	20-Nov-2029	92,548	100	8802790
AGROW/ AGR 1.950 01-Oct-2030 30	01-Oct-2030	79,669	100	1452082.9
AGROW/ AGR 1.950 01-Oct-2030 30	01-Oct-2030	79,43	100	1451864.3
IBRD/ IBE 1.750 30-Oct-2030 MTN	30-Oct-2030	89,124	100	9893400
AGROW/ AGR 1.800 01-Dec-2030 30	01-Dec-2030	79,592	100	1454447.1
AGREY/ AGR 1.800 01-Dec-2030 30	01-Dec-2030	79,549	100	14514807.3
AGROW/ AGR 1.150 01-Oct-2031 31	01-Oct-2031	79,695	100	2149388.2
AGROW/ AGR 1.150 01-Oct-2031 31	01-Oct-2031	79,669	100	5103331.1
IBRD/ IBE 2.000 15-Nov-2031 31	15-Nov-2031	82,669	100	13470485.5
IBRD/ IBE 1.575 11-Mar-2032 33 MTN	11-Mar-2032	86,799	100	8679000
AGREY/ AGR 1.475 15-Jul-2032	15-Jul-2032	104,692	100	9944671.27
IBRD/ IBE 3.375 22-Nov-2032 33 MTN	22-Nov-2032	99,242	100	74835000
IBRD/ IBE 3.625 13-Jul-2033 33 MTN	13-Jul-2033	109,799	100	65791300
AGROW/ AGR 1.800 15-Aug-2033 33	15-Aug-2033	102,095	100	17671448.8
AGROW/ AGR 1.800 15-Aug-2033 33	15-Aug-2033	102,738	100	17545687.7
AGREY/ AGR 1.375 01-Sep-2033	01-Sep-2033	103,41	100	79991549.26
AGREY/ AGR 1.375 01-Sep-2033	01-Sep-2033	103,41	100	394941.743
IBRD/ IBE 6.750 15-Sep-2033	15-Sep-2033	107,219	100	18995536.2
AGREY/ AGR 1.000 01-Dec-2033	01-Dec-2033	117,088	100	1496781.3
AGREY/ AGR 1.000 15-Dec-2033	15-Dec-2033	114,913	100	14021296.5
CPFPD 5.00 11-Apr-2035 MTN	11-Apr-2035	97,752	100	2222494.83
CPFPD 5.375 10-Jun-2035 MTN	10-Jun-2035	95,323	100	1741295.13
CPFPD 5.40 18-Jul-2035 MTN	18-Jul-2035	98,473	100	21689323.96
AGRELL/ AGR 1.800 15-Sep-2035	15-Sep-2035	82,786	100	1462661.72
CPFPD 5.875 25-Oct-2035 MTN	25-Oct-2035	86,46	100	1190263.71
AGRELL/ AGR 1.800 24-Oct-2035 MTN	24-Oct-2035	84,432	100	2362781.4
AGRELL/ AGR 5.772 01-Dec-2035	01-Dec-2035	98,771	100	17481527.78
IBRD/ IBE 6.750 15-Jul-2036	15-Jul-2036	117,786	100	19356480.9
IBRD/ IBE 0.100 01-Feb-2037 MTN	01-Feb-2037	76,615	100	7661500
CPFPD 6.000 15-Sep-2037 MTN	15-Sep-2037	102,644	100	1755496.55</

Loans		
Issue Date	Purpose	Amount Issued
31-Mar-2016 Heartland Wind II LLC	Project Finance	161 337 475
Facility Type	Maturity Date	Facility Amount
Term Loan	31-Dec-2028	161 337 475
31-Mar-2016 Heartland Wind LLC	Project Finance	169 408 628
Facility Type	Maturity Date	Facility Amount
Term Loan	31-Mar-2028	99 732 542
Term Loan	31-Mar-2032	69 676 086
31-Mar-2017 BWF Finance Pty Ltd	Project Finance	98 580 303
Facility Type	Maturity Date	Facility Amount
Term Loan	01-Sep-2034	98 580 303
27-Mar-2019 Iberdrola Financiacion SA	General Purpose	1 500 000 000
Facility Type	Maturity Date	Facility Amount
Revolver/Line >= 1 Yr.	27-Mar-2024	1 500 000 000
02-Apr-2019 Enstor Mercury Holdings	Leveraged Buyout	232 961 813
Facility Type	Maturity Date	Facility Amount
Term Loan B	02-Apr-2026	232 961 813
30-May-2019 Chafariz 3 Energia Renovavel SA	Project Finance	17 151 040
Facility Type	Maturity Date	Facility Amount
Term Loan	30-May-2043	17 151 040
31-May-2019 Chafariz 6 Energia Renovavel SA	Project Finance	14 725 745
Facility Type	Maturity Date	Facility Amount
Term Loan	31-May-2043	14 725 745
14-Jun-2019 Chafariz 7 Energia Renovavel SA	Project Finance	17 151 026
Facility Type	Maturity Date	Facility Amount
Term Loan	14-Jun-2043	17 151 026
30-Jan-2020 Neoenergia Jalapao	Project Finance	142 953 464
Facility Type	Maturity Date	Facility Amount
Term Loan	30-May-2040	142 953 464
16-Sep-2020 Iberdrola SA	General Purpose	59 400 000
Facility Type	Maturity Date	Facility Amount
Other Loan	--	59 400 000
03-Dec-2020 Iberdrola Energias Renovables de la Rioja SA [Iberrioja]	Project Finance	23 312 703
Facility Type	Maturity Date	Facility Amount
Term Loan	03-Dec-2027	23 312 703
01-Jan-2021 Neoenergia Jalapao	Project Finance	39 455 433
Facility Type	Maturity Date	Facility Amount
Term Loan	01-Jan-2041	39 455 433
21-Apr-2021 Iberdrola Financiacion SA	Working capital	2 500 000 000
Facility Type	Maturity Date	Facility Amount
Revolver/Line >= 1 Yr.	21-Apr-2026	2 500 000 000
27-Jul-2021 Iberdrola SA	Capital expenditure	550 000 000
Facility Type	Maturity Date	Facility Amount
Other Loan	--	550 000 000
03-Aug-2021 Iberdrola SA	General Purpose	250 000 000
Facility Type	Maturity Date	Facility Amount
Other Loan	03-Aug-2026	250 000 000
27-Apr-2022 Iberdrola SA	Capital expenditure	1 000 000 000
Facility Type	Maturity Date	Facility Amount
Other Loan	27-Apr-2037	1 000 000 000
31-May-2022 Iberdrola Mexico	General Purpose	365 430 294
Facility Type	Maturity Date	Facility Amount
Term Loan	31-May-2028	365 430 294
28-Jun-2022 Iberdrola Financiacion SA	General Purpose	600 000 000
Facility Type	Maturity Date	Facility Amount
Term Loan B	27-Jun-2027	600 000 000
14-Jul-2022 Iberdrola Financiacion SA	Working capital	2 500 000 000
Facility Type	Maturity Date	Facility Amount
Revolver/Line >= 1 Yr.	14-Jul-2027	2 500 000 000
20-Oct-2022 Iberdrola SA	Capital expenditure	500 000 000
Facility Type	Maturity Date	Facility Amount
Term Loan	20-Oct-2037	500 000 000
30-Jan-2023 Iberdrola Generacion Mexico SA de CV	General Purpose	456 787 868
Facility Type	Maturity Date	Facility Amount
Term Loan	22-Dec-2028	456 787 868
17-Jul-2023 Avangrid Inc	General Purpose	3 266 033 254
Facility Type	Maturity Date	Facility Amount
Revolver/Line >= 1 Yr.	23-Nov-2026	3 266 033 254
19-Jul-2023 Avangrid Inc	General Purpose	1 416 042 390
Facility Type	Maturity Date	Facility Amount
Revolver/Line >= 1 Yr.	19-Jul-2028	685 181 802
Term Loan	19-Jul-2033	730 860 588
21-Dec-2023 Iberdrola Financiacion SA	General Purpose	5 300 000 000
Facility Type	Maturity Date	Facility Amount
Revolver/Line >= 1 Yr.	21-Dec-2028	5 300 000 000
08-Jan-2024 Iberdrola SA	Capital expenditure	130 000 000
Facility Type	Maturity Date	Facility Amount
Other Loan	--	130 000 000
Total		21 310 731 435

Table 39. Iberdrola's Non Traded Debt.

Source: Refinitiv Eikon

Category	Electricity Wholesale price (EUR-2018/MWh)					
	EU Average	Spain	United Kingdom	Brazil	Mexico	USA
2008-1	72.16	79.59		227.44		75.61
2008-2	72.17	79.4		227.45		75.62
2008-3	64.62	66.45		55.93		78.49
2008-4	72.1	63.02		29.93		88.04
2008-5	65.9	63.2		14.79		81.16
2008-6	79.19	65.71		34.38		98.73
2008-7	81.57	76.86		49.2		105.69
2008-8	75.23	78.93		46.46		77.42
2008-9	94.44	82.19		49.82		63.2
2008-10	92.19	79.15		41.91		53.32
2008-11	76.2	75.69		46.76		53.91
2008-12	66.83	65.09		44		55
2009-1	65.11	56.36		34.13		51.51
2009-2	54.85	45.99		18.29		41.21
2009-3	45.9	42.82		30.8		35.77
2009-4	41.54	41.5		14.72		30.87
2009-5	40.62	41.29		12.17		34.22
2009-6	40.85	41.12		14.25		31.71
2009-7	43.14	38.71		11.84		36.52
2009-8	45.42	38.89		6.9		36.97
2009-9	47.28	40.41		6.9		34.81
2009-10	54.53	40.15		6.9		42.05
2009-11	44.54	37.15		6.9		36.7
2009-12	47.3	35.28		6.9		51.72
2010-1	52.69	31.78		5.03	91.94	51.21
2010-2	53.72	30.28		5.59		46.65
2010-3	46.99	21.47		10.93		39.94
2010-4	46.47	29.99		8.88		37.77
2010-5	47.7	40.78		12.56		37.99
2010-6	49.08	43.88		26.73		40.02
2010-7	53.34	46.93		36.5		52.51
2010-8	49.21	46.96		47.9		47.9
2010-9	53.79	50.79		65.65		40.05
2010-10	57.87	46.62		72.2		35.27
2010-11	55.02	44.77		45.35		37.25
2010-12	65.29	50.68		27.65		45.42
2011-1	56.8	41.03		10.22	88.08	44.09
2011-2	58.53	49.27		17.21		38.67
2011-3	60.01	47.73		4.33		34
2011-4	56.94	49.18		4.39		37.28
2011-5	61.26	52.91		6.23		38.17
2011-6	56.42	54.1		11.44		41.6
2011-7	52.16	54.98		8.28		49.42
2011-8	54.89	57.92		6.75		40.32
2011-9	59.76	63.27		7.25		38.03
2011-10	59.03	62.15		13.36		34.95
2011-11	61.76	52.35		16.4		34.38
2011-12	53.47	54.17		14.73		33.71
2012-1	51.5	54.55		6.01	83.35	29.68
2012-2	69.8	57.13		10.55		27.13
2012-3	50.24	50.75		39.04		24.16
2012-4	49.69	44.03		62.36		24.48
2012-5	46.56	46.56		60.26		27.08
2012-6	48.85	57.15		39.54		31.42
2012-7	49.45	53.73		30.43		38.95
2012-8	54.09	52.71		39.72		38.14
2012-9	52.34	50.84		61.08		33.13
2012-10	51.16	48.75		95.93		35.6
2012-11	50.24	44.94		125.26		37.99
2012-12	47.67	44.58		85.52		34.51
2013-1	51.39	53.3		127.78	82.02	41.4
2013-2	51.21	47.54		66.26		45.5
2013-3	48.52	27.32		105.39		40.22
2013-4	44.32	19.17		60.95		40.64
2013-5	40.54	45.86		107		41.19
2013-6	36.79	43.13		64.17		39.22
2013-7	44.56	54		26.21		47.6
2013-8	45.76	50.75		49.41		38.19
2013-9	49.69	52.98		81.65		39.18
2013-10	48.45	54.35		79.16		35.62
2013-11	47.61	44.12		102.72		37.85
2013-12	50.32	67.16		90.29		54.6
2014-1	42.54	35.15		107.93	74.05	81.77
2014-2	38.05	17.89		202.27		81.37
2014-3	36.44	27.14	55.41	223.83		54.89
2014-4	37	27.65	52.28	217.97		41.06
2014-5	37.98	44.34	50.57	195.68		42
2014-6	39.31	53.27	47.73	103.92		42.96
2014-7	38.58	51	46.67	184.03		41.21
2014-8	37.08	52.78	49.56	204.12		39.66
2014-9	45.42	62.44	56.72	209.71		38.23
2014-10	46.47	58.79	58.08	220.24		37.15
2014-11	44.4	49.95	62.54	231.46		41.42
2014-12	44.27	50.76	58.52	172.96		34.2
2015-1	40.84	54.08	52.79	103.9	63.7	35.71
2015-2	44.49	45.01	59.7	103.9		45.76
2015-3	40.14	45.24	57.69	100.65		32.11
2015-4	38.68	47.32	62.89	86.44		26.52
2015-5	34.1	46.93	57.76	86.85		29.07
2015-6	37.53	57.09	59.2	99.69		31.37
2015-7	43.85	62.29	61.2	62.25		33.53
2015-8	39.74	58.16	58.75	38.8		33.89
2015-9	40.77	54	58.57	60.72		30.44
2015-10	43.9	52.24	50.99	57.69		28.74
2015-11	41.85	53.71	54.93	61.62		25.12
2015-12	38.11	55.42	49.61	46.59		23.93
2016-1	36.38	38.18	49.32	27.53	48.12	26.11
2016-2	27.42	28.71	44.02	15.93		21.45
2016-3	28.76	29.92	44.83	22.41		18.65
2016-4	27.49	25.08	43.17	25.67		22
2016-5	27.44	26.71	45.12	21.39		21.09
2016-6	33.67	39.98	48.32	29.92		26.58
2016-7	33.77	41.88	45.64	23.61		34.26
2016-8	32.49	42.41	42.52	28.88		34.27
2016-9	36.75	45.01	54.76	36.33		30.07
2016-10	46.59	54.03	56.49	49.53		28.58
2016-11	50.05	57.41	70.06	41.08		24.31
2016-12	48.43	61.86	58.65	30.23		35.51
2017-1	61.65	73.78	62.16	30.1	67.2	29.62
2017-2	46.39	53.31	58.38	30.11		24.14
2017-3	36.7	44.43	49.05	44.84		23.22
2017-4	36.11	44.25	49.02	68.09		24.25
2017-5	37.49	47.71	48.81	64.47		26.37
2017-6	37.36	50.86	43.76	27.69		30.8
2017-7	39.59	49.65	46.49	67.14		34.41
2017-8	39.4	48.48	47.2	120.98		41.26
2017-9	40.85	49.78	53.92	124.27		30.47
2017-10	43.25	57.5	51.93	127.64		34.14
2017-11	52.26	59.94	57.29	101.66		29.98
2017-12	46.16	58.68	62.88	56.06		37.3
2018-1	38	49.98	56.34	39.35	83.38	43.62
2018-2	46.52	54.88	57.92	34.74		27.13
2018-3	44.77	40.18	64.56	40.43		25.6
2018-4	37.92	42.67	58.12	22		26.62
2018-5	41.91	54.92	60.74	59.3		22.72
2018-6	48.51	58.46	61.5	106.16		26.55
2018-7	53.7	61.88	64.15	117.25		70.02
2018-8	59.43	64.33	67.62	117.25		58.68
2018-9	62.16	71.27	74.37	109.77		30.97
2018-10	61.2	65.08	72.87	63.09		34.64
2018-11	61.53	61.97	70.25	28.76		44.01
2018-12	56.39	61.41	69.82	16.28		42.45
2019-1	57.79	60.93	67.43	30.59	71.75	34.93
2019-2	47.86	53.09	56.41	61.77		52.13
2019-3	38.67	47.99	50.75	37.48		35.68
2019-4	42.12	49.55	49.68	25.99		30
2019-5	41.06	47.56	46.77	20.96		17.28
2019-6	36.34	46.38	43.84	17.69		21.46
2019-7	43.17	50.58	44.92	40.89		29.69
2019-8	40.82	44.19	40.9	40.51		29.05
2019-9	40.67	41.39	39.88	49.34		27.65
2019-10	42.45	46.37	41.41	61.7		26.36
2019-11	43.41	41.47	50.9	77.47		31.35
2019-12	36.54	33.22	45.34	31.2		29.74

Table 40. Historical Electricity Prices for Relevant Countries (2008A-2019A).

Source: European Commission - Dashboard for energy prices in the EU and main trading partners

Category	Natural gas Wholesale prices (EUR2018/MWh)					
	EU Average	Spain	United Kingdom	Brazil	Mexico	USA
2008-1	26.74	26.51	27			27.66
2008-2	25.57	21.58	25.27			28.93
2008-3	25.64	22.13	26.32			31.87
2008-4	27.85	21.98	28.77			24.48
2008-5	28.1	22.92	27.84			38.17
2008-6	29.3	22.77	29.72			42.98
2008-7	29.35	22.98	28.25			37.56
2008-8	29.63	24.7	26.2			27.98
2008-9	33.84	26.2	25.59			25.98
2008-10	31.72	27.28	28.86			22.83
2008-11	31.37	30.69	26.46		21.88	22.63
2008-12	30.02	32.99	24.21		23.34	19.71
2009-1	30.88	30.64	26.33		20.24	17.61
2009-2	25.86	24.84	20.14		16.13	15.19
2009-3	19.38	25.18	13.45		14.32	13.31
2009-4	17.18	23.48	12.79		15.13	11.77
2009-5	15.39	17.75	12.16		11.8	12.87
2009-6	14.93	17.51	11.93		14.32	12.77
2009-7	13.44	16.42	16.4		14.29	11.36
2009-8	12.76	15.99	9.75		13.21	10.55
2009-9	12.92	15.73	10.27		10.59	10.05
2009-10	14.76	15.97	11.47		11.6	13.48
2009-11	15.62	17.62	10.81		14.96	12.3
2009-12	16.58	17.45	12.47		17.11	17.98
2010-1	18.41	17.4	15.83		19.77	19.37
2010-2	18.98	19.62	15.91		17.84	17.68
2010-3	17.84	19.82	13.12		16.61	14.23
2010-4	18.7	20.81	14.8		13.89	13.39
2010-5	20.65	21.98	18.35		14.55	13.76
2010-6	22.67	21.94	21.09		14.95	15.65
2010-7	23.72	22.9	21.35		15.78	15.38
2010-8	23.36	22.63	19.82		16.61	14.35
2010-9	23.63	22.66	20.72		13.96	12.93
2010-10	23.11	23.17	20.3		13.79	11.4
2010-11	23.56	21.95	21.33		13.52	12.33
2010-12	27.07	22	26.41		14.79	14.12
2011-1	25.4	21.62	24.06		15.2	14.61
2011-2	25.27	22.91	23.94		13.91	13.91
2011-3	26.82	22.48	25.66		13.05	12.92
2011-4	25.94	21.78	24.68			13.8
2011-5	26.42	23.35	24.84		14.81	14.03
2011-6	26.38	25.01	24.51		14.97	14.78
2011-7	26.14	25.09	23.26		14.87	14.59
2011-8	26.53	27.57	23.61		14.87	13.21
2011-9	28.33	28.53	25.3		14.74	12.69
2011-10	28.19	28.27	24.36		13.83	11.62
2011-11	29.64	31.43	25.68		12.95	10.55
2011-12	29.01	31.72	24.14		12.14	10.32
2012-1	27.97	30.55	23.44		11.72	8.53
2012-2	31.74	30.37	27.87		10.7	8.02
2012-3	28.54	29.98	25.45		8.72	6.93
2012-4	29.02	29.95	26.51		8.56	6.23
2012-5	29.07	32.37	25.8		6.99	7.76
2012-6	28.43	31.1	25.45		8.59	7.86
2012-7	28.81	31.33	26.01		9.42	9.42
2012-8	28.63	33.37	25.7		10.12	9.07
2012-9	29.73	32.77	27.56		10.22	9.1
2012-10	30.15	32.22	28.52		9.48	10.6
2012-11	30.51	30.87	29.11		11.56	11.3
2012-12	30.61	30.61	29.19		12.14	10.47
2013-1	29.58	29.42	28.02		12.11	10.45
2013-2	29.33	30	27.83		10.67	10.45
2013-3	32.91	29.58	33.73		11.14	11.96
2013-4	31.51	30.58	30.08		12.1	13.32
2013-5	30.35	30.76	28.61		14.12	12.9
2013-6	29.52	29.83	28.04		54.93	12.23
2013-7	29.45	28.33	27.83		52.21	11.56
2013-8	28.74	28.21	27.2		51.49	10.95
2013-9	29.41	26.76	28.28		52.69	11.56
2013-10	29.1	27.84	27.63		52.21	11.75
2013-11	29.9	28.51	28.73		51.47	11.42
2013-12	31.02	28.47	29.22		53.31	13.31
2014-1	29.09	26.99	27.69			14.78
2014-2	26.68	26.84	24.88			18.48
2014-3	25.55	26.41	23.79			15.99
2014-4	23.82	27.87	21.2			14.35
2014-5	22.64	29.11	19.88		44.23	14.11
2014-6	20.84	27.93	18.14		39.55	14.14
2014-7	20.1	26.92	17.19			12.47
2014-8	20.75	27.85	18.2		34.56	12.04
2014-9	24.22	25.99	21.72		42.04	12.07
2014-10	25.06	27.6	22.11		41.43	11.64
2014-11	25.85	29.08	24.02		31.88	12.69
2014-12	25.99	29.31	23.51	28.34	28.95	10.72
2015-1	23.02	27.43	20.32	27.12	25.08	9.11
2015-2	25.33	26.07	23.18	20.72	21.49	8.75
2015-3	24.33	27.73	22.51	22.86	23.8	8.62
2015-4	23.97	27.66	22.66	21.64	22.03	7.95
2015-5	22.56	23.26	21.2	22.25	23.04	8.69
2015-6	22.61	24.88	21.18	22.86	23.1	8.47
2015-7	22.56	21.82	21.5	23.77	24.05	8.66
2015-8	21.32	21.57	20.18	24.69	24.14	8.44
2015-9	20.96	21.11	19.78	22.86	22.55	8.11
2015-10	19.81	22.63	18.82	20.72	20.21	7.13
2015-11	18.99	20.42	17.69	21.94	21.94	6.37
2015-12	17.9	21.25	16.26	21.94	21.73	5.88
2016-1	16.38	20.47	14.19	17.79	17.15	6.87
2016-2	14.7	18.66	12.76	15.07	15.04	6
2016-3	14.46	17.73	12.56	13.87	13.63	5.22
2016-4	13.49	17.7	12.37	12.96	12.93	5.79
2016-5	14.02	14.67	13.33	14.17		5.79
2016-6	15.1	14.92	14.78	15.37	15.71	7.81
2016-7	15.14	14.53	14.55	16.58		8.5
2016-8	13.66	15.04	12.23	17.48	17.36	8.5
2016-9	13.76	14.73	12.56	16.88	16.91	9.01
2016-10	16.62	15.1	16.43	18.69	18.66	8.98
2016-11	18.61	16.98	18.45	20.8		7.69
2016-12	18.76	16.67	17.98	24.12	23.94	10.82
2017-1	21.87	17.76	20.39	24.85		9.76
2017-2	20.18	18.5	19.84	20.41	20.68	8.43
2017-3	17.18	19.03	16.05	17.16	16.54	8.52
2017-4	17.29	18.36	16.33	15.38	15.12	9.17
2017-5	17.03	19.65	15.86	15.68	15.62	9.32
2017-6	16.47	18.76	15.32	15.38	15.32	8.82
2017-7	16.31	19.26	15.3	15.68	15.65	8.82
2017-8	16.68	18.75	16.19	16.27	16.6	8.58
2017-9	17.83	18.1	17.55	20.12	19.64	8.82
2017-10	18.09	17.69	17.33	25.44	24.82	8.52
2017-11	20.2	17.61	18.85	26.92	26.89	8.9
2017-12	22.36	17.74	21.17	27.81	29.4	8.34
2018-1	18.97	17.53	18.57	29.75		11.18
2018-2	21.43	18.53	21.59	28.59		7.71
2018-3	23.09	18.47	24.64		21.72	7.77
2018-4	20	18.19	19.71		20.33	8.09
2018-5	21.56	18.91	21.64		23.05	8.09
2018-6	22.12	19.98	21.97		27.06	8.58
2018-7	22.74	19.95	22.34			8.17
2018-8	23.96	21.5	23.87		27.72	8.55
2018-9	27.28	21.16	27.86		32	8.66
2018-10	25.72	21.26	25.61		29.26	9.47
2018-11	24.88	23.39	24.64		26.37	11.81
2018-12	24.48	23.24	23.79		24.55	11.87
2019-1	22.38	22.97	21.05			8.77
2019-2	19.5	22.23	17.66		17.06	7.58
2019-3	17.5	22.38	15.42			8.32
2019-4	17.03	22.32	14.85		12.24	7.47
2019-5	15.33	21.56	13.03			7.44
2019-6	12.8	21.82	10.38		11.28	6.77
2019-7	12.5	21.32	10.74			6.68
2019-8	11.74	20.85	9.85			6.26
2019-9	11.65	21.21	9.44		13.34	7.22
2019-10	12.21	21.14	9.99		14.83	6.57
2019-11	15.57	20.47	14.48		13.81	7.47
2019-12	14.68	20.5	13.88		12.97	6.38

Table 41. Historical Natural Gas Prices for Relevant Countries (2008A-2019A).

Source: European Commission - Dashboard for energy prices in the EU and main trading partners

Electricity Prices	2010A	2011A	2012A	2013A	2014A	2015A	2016A	2017A	2018A	2019	Average
Brazil	5.03	10.22	6.01	127.78	107.93	103.9	27.53	30.1	39.35	30.59	
YoY Growth		103%	-41%	2026%	-16%	-4%	-74%	9%	31%	-22%	-2%
Mexico	91.94	88.08	83.35	82.02	74.05	63.7	48.12	67.2	83.38	71.75	
YoY Growth		-4%	-5%	-2%	-10%	-14%	-24%	40%	24%	-14%	-1%

Table 42. Comparison Between Electricity Prices for Brazil and Mexico (2010A-2019A).

Source: European Commission - Dashboard for energy prices in the EU and main trading partners

Note: Prices in EUR2018/MWh

Gas Prices	2014/12A	2015/6A	2015/12A	2016/6A	2016/12A	2017/6A	2017/12A	Average
Brazil	28.34	22.86	21.94	15.37	24.12	15.38	27.81	
YoY Growth		-19%	-4%	-30%	57%	-36%	81%	8%
Mexico	28.95	23.1	21.73	15.71	23.94	19.64	29.4	
YoY Growth		-20%	-6%	-28%	52%	-18%	50%	5%

Comparison Between Gas Prices for Brazil and Mexico (2014/12A-2017/12A).

Source: European Commission - Dashboard for energy prices in the EU and main trading partners

Note: Prices in EUR2018/MWh

EDP Ratios	2013A	2014A	2015A	2016A	2017A	2018A	2019A	2020A	2021A	2022A
Profitability										
Gross Margin	30.9%	30.7%	33.1%	36.7%	31.7%	29.5%	30.3%	36.4%	26.9%	23.8%
EBITDA Margin	21.7%	21.5%	22.5%	25.6%	21.7%	18.8%	23.3%	23.2%	19.9%	18.2%
Operating Margin	13.0%	13.4%	15.6%	15.3%	14.7%	10.4%	12.8%	17.7%	12.2%	11.1%
Pretax Margin	9.0%	10.4%	10.6%	9.7%	10.0%	7.2%	9.1%	13.3%	10.3%	8.5%
Effective Tax Rate	15.1%	19.0%	17.5%	6.6%	0.7%	9.6%	18.9%	20.1%	18.4%	24.6%
Net Margin	7.3%	8.1%	8.4%	8.6%	9.6%	6.2%	6.8%	9.9%	7.7%	5.9%
DuPont/Earning Power										
Asset Turnover	0.37	0.37	0.35	0.32	0.35	0.34	0.31	0.27	0.29	0.35
x Pretax Margin	9.0%	10.4%	10.6%	9.7%	10.0%	7.2%	9.1%	13.3%	10.3%	8.5%
Pretax ROA	3.3%	3.9%	3.7%	3.1%	3.5%	2.5%	2.8%	3.6%	3.0%	3.0%
x Leverage (Assets/Equity)	4.98	4.94	4.91	4.69	4.41	4.64	4.78	4.52	5.47	6.62
Pretax ROE	16.9%	19.1%	18.3%	14.9%	16.1%	11.2%	13.4%	16.7%	15.0%	17.8%
x Tax Complement	0.71	0.64	0.58	0.71	0.73	0.50	0.43	0.52	0.46	0.42
ROE	12.1%	12.9%	11.2%	11.3%	12.5%	6.3%	6.5%	9.4%	7.5%	8.0%
x Earnings Retention	0.33	0.56	0.50	0.32	0.41	-0.19	-0.2	0.13	-0.06	-0.03
Reinvestment Rate	4.0%	7.2%	5.7%	3.6%	5.1%	-1.2%	-1.3%	1.2%	-0.5%	-0.3%
Liquidity										
Quick Ratio	0.85	0.90	0.70	0.81	1.09	0.75	0.91	1.02	1.14	0.81
Current Ratio	0.88	0.94	0.72	0.86	1.13	0.79	0.95	1.06	1.21	0.88
Times Interest Earned	2.8	2.2	2.0	2.7	2.2	2.2	2.7	2.4	2.4	2.3
Cash Cycle (Days)	58.3	73.3	69.8	71.9	70.9	78.6	73.7	74.3	74.0	30.9
Leverage										
Assets/Equity	4.98	4.94	4.91	4.69	4.41	4.64	4.78	4.52	5.47	6.62
Debt/Equity	2.30	2.31	2.20	1.95	1.82	1.84	1.96	1.83	1.93	2.45
% LT Debt to Total Capi	50.4%	51.6%	50.3%	49.8%	52.1%	47.2%	46.8%	49.8%	52.0%	49.6%
(Total Debt - Cash) / EB	5.07	4.96	5.06	4.66	4.67	5.19	4.60	5.29	4.92	4.20

Table 43. Financial Ratios – EDP (2013A-2022A).

Source: Refinitiv Eikon, Own Analysis

Redeia Ratios	2013A	2014A	2015A	2016A	2017A	2018A	2019A	2020A	2021A	2022A
Profitability										
Gross Margin	97.3%	97.7%	98.6%	99.5%	100.3%	101.2%	101.3%	101.5%	101.9%	101.3%
EBITDA Margin	74.8%	75.8%	76.3%	78.0%	79.5%	79.9%	79.8%	79.1%	76.0%	72.3%
Operating Margin	51.3%	54.2%	51.0%	51.9%	53.1%	54.9%	53.9%	46.8%	50.8%	47.7%
Pretax Margin	41.7%	46.2%	42.8%	44.0%	45.9%	48.0%	47.4%	40.6%	45.5%	43.2%
Effective Tax Rate	27.7%	15.8%	26.9%	24.9%	24.8%	24.8%	24.8%	24.2%	22.7%	21.7%
Net Margin	30.1%	38.9%	31.3%	33.0%	34.5%	36.2%	35.6%	30.8%	35.1%	33.8%
DuPont/Earning Power										
Asset Turnover	0.19	0.18	0.18	0.18	0.18	0.18	0.17	0.16	0.15	0.14
x Pretax Margin	41.7%	46.2%	42.8%	44.0%	45.9%	48.0%	47.4%	40.6%	45.5%	43.2%
Pretax ROA	7.9%	8.5%	7.8%	8.0%	8.3%	8.4%	7.9%	6.3%	6.6%	6.0%
x Leverage (Assets/Equity)	4.27	4.17	3.86	3.63	3.53	3.35	3.60	3.74	3.85	3.09
Pretax ROE	35.0%	36.0%	31.5%	30.1%	29.7%	29.0%	27.7%	23.2%	25.1%	20.7%
x Tax Complement	0.72	0.84	0.73	0.75	0.75	0.75	0.75	0.77	0.77	0.76
ROE	25.2%	30.3%	23.0%	22.6%	22.3%	21.8%	20.8%	17.9%	19.3%	15.8%
x Earnings Retention	0.35	0.44	0.29	0.27	0.26	0.25	0.26	0.09	0.21	0.19
Reinvestment Rate	8.8%	13.2%	6.6%	6.2%	5.8%	5.4%	5.4%	1.6%	4.0%	3.0%
Liquidity										
Quick Ratio	0.56	0.75	0.78	0.89	0.89	1.23	0.77	1.29	0.96	1.00
Current Ratio	0.59	0.78	0.80	0.92	0.91	1.25	0.79	1.31	0.97	1.02
Times Interest Earned	-	-	-	-	-	-	-	-	8.3	7.7
Leverage										
Assets/Equity	4.27	4.17	3.86	3.63	3.53	3.35	3.60	3.74	3.85	3.09
Debt/Equity	2.17	2.29	1.97	1.84	1.76	1.65	1.84	1.93	2.01	1.30
% LT Debt to Total Capi	64.8%	59.3%	58.3%	60.0%	54.2%	55.9%	52.4%	63.4%	53.8%	49.5%
(Total Debt - Cash) / EB	3.61	3.60	3.56	3.34	3.19	3.06	3.37	3.88	3.99	3.57

Table 44. Financial Ratios – Redeia Corporacion (2013A-2022A).

Source: Refinitiv Eikon, Own Analysis

For larger firms (market cap > \$5 billion)			
If interest coverage ratio is			
>	≤ to	Rating is	Spread is
-100000	0.199999	D2/D	20.00%
0.2	0.649999	C2/C	17.00%
0.65	0.799999	Ca2/CC	11.78%
0.8	1.249999	Caa/CCC	8.51%
1.25	1.499999	B3/B-	5.24%
1.5	1.749999	B2/B	3.61%
1.75	1.999999	B1/B+	3.14%
2	2.249999	Ba2/BB	2.21%
2.25	2.499999	Ba1/BB+	1.74%
2.5	2.999999	Baa2/BBB	1.47%
3	4.249999	A3/A-	1.21%
4.25	5.499999	A2/A	1.07%
5.5	6.499999	A1/A+	0.92%
6.5	8.499999	Aa2/AA	0.70%
8.50	100000	Aaa/AAA	0.59%

Table 45. Default Spread per Rating (Conversion Table)

Source: Damodaran

Industry Median	Effective Tax Rate										Average of last 5 years
	2013A	2014A	2015A	2016A	2017A	2018A	2019A	2020A	2021A	2022A	
24.9%		26.1%	17.6%	24.1%	-69.0%	22.1%	19.1%	21.4%	30.4%	18.5%	22.3%

Table 46. Iberdrola's Effective Tax Rate (2013A-2022A).

Source: Refinitiv Eikon, Own Analysis