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25 April 2024

Update

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RATINGS

EDP - Energias de Portugal, S.A.

Domicile	Lisbon, Portugal
Long Term Rating	Baa2
Type	LT Issuer Rating
Outlook	Stable

Please see the ratings section at the end of this report for more information. The ratings and outlook shown reflect information as of the publication date.

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EDP - Energias de Portugal, S.A.

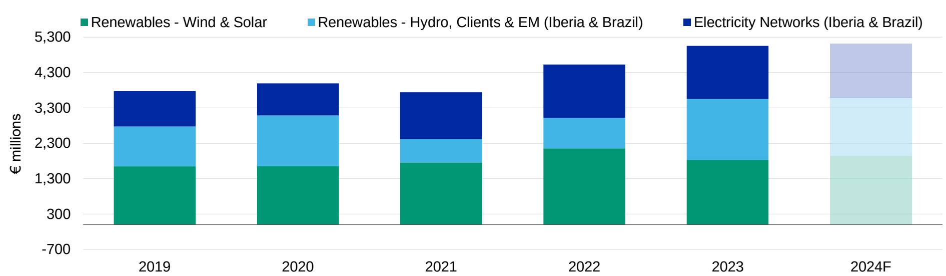
Update to credit analysis

Summary

EDP - Energias de Portugal, S.A.'s (EDP)[1] credit quality is supported by its commitment to maintain robust financial metrics; its diversified business and geographical mix, which helps moderate earnings volatility; the stable earnings coming from contracted generation and regulated networks, which account for about 70% of group EBITDA; and the low carbon intensity of its power generation fleet and the strategy to exit coal-fired power generation by 2025, which positions it well in the context of energy transition.

These positives help offset certain potential risks, including the earnings volatility stemming from variations in hydro output in Iberia and, to a lesser extent, wind resources globally; the residual exposure of EDP's merchant generation to volatile wholesale power prices; the execution risks associated with the group's significant capital spending over 2023-26, with €25 billion of gross investments planned over the period; the exposure to political and regulatory risks in Portugal (A3 stable), Spain (Baa1 positive) and Brazil (Ba2 stable); and the minority holdings in the group, which add to complexity.

Exhibit 1
Renewables will increasingly drive EDP's credit profile as the company executes its strategy
EBITDA by segment



Periods are financial year-end unless indicated.
The forecasts are our opinion and do not represent the views of the issuer.
Sources: Company filings and Moody's Ratings forecasts

Credit strengths

» Commitment to maintain robust financial metrics

» Diversified business and geographical mix, which help moderate earnings volatility

» Regulated and contracted activities accounting for about 70% of EBITDA

» Low carbon intensity of power generation fleet and strategy to exit coal-fired power generation by 2025

Credit challenges

» Earnings volatility stemming from variations in hydro output and wind resources

» Execution risks associated with a significant capital spending programme

» Political and regulatory risks in Portugal, Spain and Brazil

Rating outlook

The stable rating outlook reflects our expectation that, in the context of its capital investment plan and dividend policy, EDP will maintain financial metrics consistent with guidance for a Baa2 rating, including funds from operations (FFO)/net debt at least in the upper teens, and retained cash flow (RCF)/net debt at least in the low teens, in percentage terms.

Factors that could lead to an upgrade

The ratings could be upgraded if the company makes progress on its strategy and investments while reducing leverage. A sustainable and solid financial profile, including FFO/net debt above 22%, and RCF/net debt at least in the mid-teens (in percentage terms), would support an upgrade to Baa1.

Factors that could lead to a downgrade

The rating could be downgraded if (1) EDP's financial profile were to weaken because of a downturn in the company's operating/ regulatory environment and performance, or because cash flow generation was not to keep pace with debt-funded investment, such that FFO/net debt and RCF/net debt appeared likely to fall persistently below guidance for the current rating; or (2) credit negative changes occur in EDP's corporate structure, such as a significant increase in minority shareholdings, which could prompt a tightening of guidance, or if subordination were to increase and weaken the position of parent company senior unsecured creditors.

Key indicators

Exhibit 2

EDP - Energias de Portugal, S.A.

	2019	2020	2021	2022	2023	2024F	2025F
(CFO Pre-W/C) / Net Debt	14.7%	16.8%	16.8%	18.0%	17.7%	17%-20%	17%-20%
RCF / Net Debt	9.3%	11.1%	10.0%	11.6%	12.0%	12%-15%	12%-15%
(FFO + Interest Expense) / Interest Expense	4.2x	5.2x	4.9x	4.3x	3.9x	3.5x-4.5x	3.5x-4.5x

All figures and ratios are based on adjusted financial data and incorporate our Global Standard Adjustments for Non-Financial Corporations.
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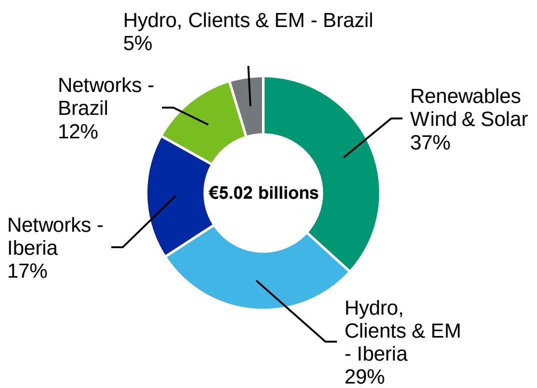
Sources: Moody's Financial Metrics™ and Moody's Ratings forecasts

Profile

EDP - Energias de Portugal, S.A. (EDP) is a vertically integrated utility company, with consolidated revenue of €16.2 billion and EBITDA of €5 billion in 2023. It is the largest electric utility in Portugal and also has a small share of Portugal's gas supply market. Through its operations in Spain, EDP is among the four largest electricity generation companies in the Iberian peninsula.[2]

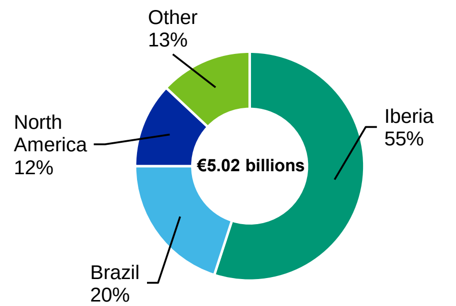
EDP's 71%-owned subsidiary EDP Renovaveis SA (EDPR) holds its wind and solar renewables activities worldwide. EDPR is one of the largest onshore wind power operators globally, with a particular focus on the United States (Aaa negative) and Iberia. EDP is also present in Brazil (Ba2 stable) via its fully owned subsidiary EDP - Energias do Brasil S.A. (EDP Brasil) as of December 2023.

Exhibit 3
Business mix is focused on renewables and regulated activities
EBITDA breakdown by business (2023)



Source: Company filings

Exhibit 4
Iberia accounts for around half of EDP's EBITDA
EBITDA breakdown by geography (2023)



Source: Company filings

EDP is listed on the Lisbon stock exchange, with a market capitalisation of around €15 billion. As of April 2023, its largest shareholder was China Three Gorges Corporation (CTG, A1 negative), with a 21% share. Other shareholders include BlackRock, Inc. (Aa3 stable, 6.3%), investment holding company Oppidum Capital (6.8%) and Canada Pension Plan Investment Board (Aaa stable, 5.4%).

Detailed credit considerations

Diversified business mix moderates earnings volatility

EDP's credit profile benefits from its scale (total assets as of December 2023: €57 billion) and leading position in Portugal, as well as its diversification by geography, asset type and fuel mix, which helps moderate aggregate earnings volatility.

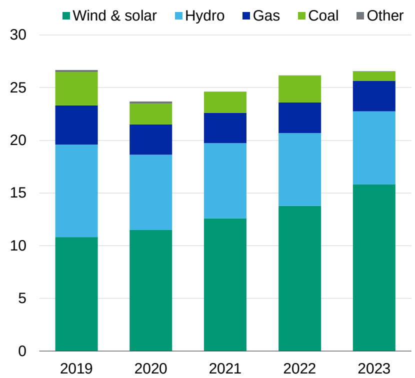
EDP's geographical diversification, however, exposes it to exchange rate risk, notably with respect to the US dollar and the Brazilian real against the euro. This risk is mitigated by the group's policy of hedging its foreign-currency exposure with local-currency debt and through derivatives. As of December 2023, 28% of EDP's debt was denominated in US dollars and 14% was in Brazilian real.

Renewables benefit from long-term contracts but are exposed to volume volatility, whereas merchant generation in Iberia is exposed to volatile power prices

The group's wind and solar power generation portfolio, held by EDPR, which had a total capacity of 15.8 gigawatts (GW) as of December 2023 and accounted for 37% of group EBITDA in 2023, benefits largely from the protection provided by feed-in tariffs, prices with caps and floors, or long-term power purchase agreements (PPAs).[3] The group's onshore wind farms are subject to output variability, which is dependent on wind conditions and asset availability. That volatility is somewhat mitigated by the geographical diversification of EDP's wind portfolio.

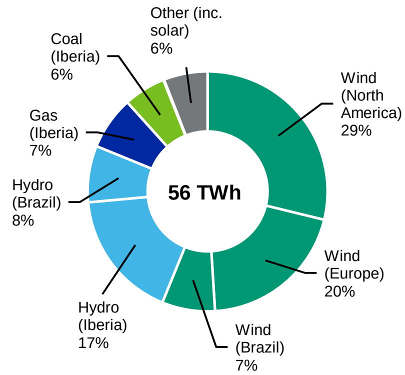
In Brazil, EDP's hydro and thermal generation assets, which accounted for less than 5% of group EBITDA in 2023, also operate under inflation-linked PPAs, with reduced hydro risk exposure since 2016, when the Generation Scaling Factor insurance agreement was put in place to transfer part of the hydrological risk.

Exhibit 5
Wind and solar capacity has been growing
Split of installed capacity (GW)



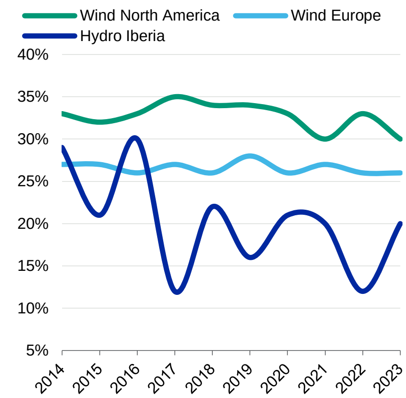
Source: Company filings

Exhibit 6
Around 87% of EDP's output is renewables
Output split by fuel and geography (2023)



Percentages may be rounded.
Source: Company filings

Exhibit 7
Renewables are exposed to resource volatility
Load factors



Source: Company filings

In Iberia, EDP's hydro, nuclear, gas- and coal-fired generation, and energy management business are exposed to volume risk and market prices. The group mitigates its commodity price exposure through forward sales (in Iberia, 75% of EDP's expected baseload production is hedged for 2024 at around €100/MWh, and 40% of 2025-26 production at around €70/MWh) and through its strong position in supply, where it had market shares in Portugal of around 67.5% and 39% in terms of customer numbers and volume, respectively, as of December 2023.

Nonetheless, EDP remains highly exposed to variations in hydro output, as illustrated by a shortfall in hydro production of 3.3 TWh in the first nine months of 2022, versus historical average, due to severe drought in both Portugal and Spain and the normalization of hydro resources in 2023. EDP expects to decrease its exposure to hydropower generation by 2026.

Regulated networks in Iberia provide cash flow stability and predictability

Earnings volatility is mitigated by the contribution from electricity distribution and transmission networks, whose tariffs are regulated in their concession areas in Portugal, Spain and Brazil. They accounted for 30% of group EBITDA in 2023 and had a combined regulated asset base (RAB) of about €7.6 billion as of December 2023.

Exhibit 8
Regulated electricity distribution networks provide cash flow stability

	Portugal - high/medium voltage	Portugal - low voltage	Spain	Brazil - Espirito Santo	Brazil - Sao Paulo	Brazil - Transmission
EBITDA (2023)	€531 million		€349 million	BRL 1,104 million	BRL 1,256 million	BRL 993 million
Regulator	ERSE	ERSE	CNMC	ANEEL	ANEEL	ANEEL
Distributed electricity (2023)	23.7 TWh	22.2 TWh	12.7 TWh	27.8 TWh		n/a
Concessions maturity	2044	2021-26*	Perpetuity	2025	2028	2051
RAB (2023)	€1.7 billion	€1.2 billion	€1.9 billion	BRL3.8 billion	BRL4.2 billion	BRL7.3 billion**

*Most concessions expired in 2021-22 and a few concessions end in 2026. **Corresponds to financial assets, not RAB.
Source: Company filings

The regulatory framework for electricity distribution networks in Portugal is relatively established and stable; there has been a reasonable degree of continuity of principles over the past few regulatory periods, which is credit supportive. Revenue is regulated by Entidade Reguladora dos Servicos Energeticos (ERSE). For the current four-year regulatory period, which started in January 2022, the allowed return is indexed on the evolution of the 10-year sovereign bond yield, with a floor of 4% (lowered by 75 basis points [bps] compared with the previous period) and a cap of 7.3%. For 2023, the allowed return was initially set at 5.05%, and eventually reached 5.57% because the sovereign bond yield rose during the year. For 2024, the allowed return was initially set at 5.57% and will also be adjusted to the 10-year sovereign bond yield during the year. In addition, the RAB and total expenditure will be adjusted for inflation after applying an efficiency factor of 0.75%.

No decision has been made yet on the renewal of EDP's low-voltage concessions, 92% of which expired in 2021-22. Nonetheless, Portuguese law establishes that in return for the assets returned to the granters of the concessions, compensation corresponding to the assets' book value, net of amortisations, financial contributions and nonrefundable subsidies will be paid.

In December 2023, ERSE announced that low-voltage end users' regulated electricity tariffs for 2024 would increase by 2.9% compared with 2023, as higher access tariffs more than offset the lower wholesale electricity price component. The increase in access tariff will help stabilize the Portuguese electricity system tariff deficit after a €1.5 billion increase to €2.8 billion in 2023.

In Spain, there is good visibility into revenue for the six-year regulatory period for electricity networks, which started in January 2020. The allowed return was set at 5.58% (pretax, nominal) by the National Commission of Markets and Competition (CNMC, the regulator), which represents a decrease of more than 90 bps from 6.5% for the previous period.

EDP Brasil's electricity distribution activities provide lower earnings predictability because of the exposure to economic risk in Brazil. Nonetheless, we expect tariff adjustments and regulatory support to help maintain stability. EDP Brasil's Espírito Santo distribution concession will expire in 2025; we expect this concession to be renewed with only minor adjustments, such as those related to quality-of-service requirements.

Exposure to macroeconomic, political and regulatory risks in Portugal and Spain

EDP generated 55% of its EBITDA in Iberia in 2023, and expects this share to decrease in the coming years. The company is therefore exposed to macroeconomic conditions and related financial, regulatory or political strain in Portugal and Spain.

In a context of high electricity and gas prices, several governmental interventions in these two countries have trimmed the profitability of EDP's operations in Iberia in 2022-23. Such interventions are examples of social risks related to affordability issues that are common to all utilities.

In particular, the Spanish government introduced, in September 2021, a new tax to limit the impact of rising wholesale gas prices on consumers' electricity and gas tariffs (see New tax on Spanish nuclear and hydro is credit negative, 16 September 2021). This tax was further extended until year-end 2023, but has not been extended further into 2024, in a context of weaker wholesale prices.

Separately, in June 2022, Spanish and Portuguese governments implemented a production cost adjustment arrangement to reduce the price of electricity on the wholesale market. This mechanism was prolonged until the end of 2023, but has not been extended further into 2024.

In addition, the Spanish government implemented a new tax on energy companies of 1.2% on revenue generated from non-regulated activities in the Spanish territory. The tax will affect companies that had revenue equal to or more than €1,000 million in 2019 and will be due in 2023 and 2024 for 2022 and 2023, respectively. We expect the impact of this tax burden on EDP's accounts to be limited.

Strategic focus on renewables and networks is positive for business mix, but execution risks remain

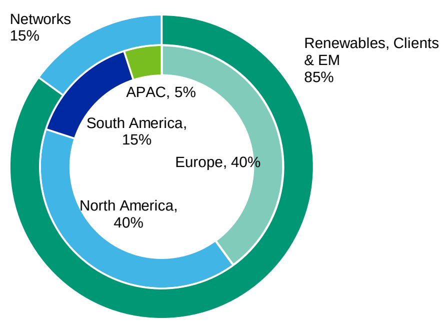
EDP's 2023-26 strategic plan, announced in March 2023, provides for a capital spending programme of €25 billion for the four years, equivalent to €6.25 billion per annum (which implies a 30% increase from €4.8 billion per annum under the previous plan); a renewable asset rotation programme of €1.7 billion per annum on average; and 18 GW of additional renewable capacity.

The investment plan focuses on growing a set of diversified renewables technologies, including wind onshore (40%), solar PV utility scale (40%), solar distributed generation (12%), wind offshore (5%), and storage and hydrogen (3%).

EDP targets to add 18 GW of renewable capacity by 2026, comprising mostly onshore wind and solar in the US and Europe; to grow its distribution network regulated asset base to around €6.6 billion, mostly driven by investments in Brazil; to increase the efficiency of its client solutions and energy management business, which encompasses supply and thermal generation in Iberia and Brazil; and to scale up energy services such as solar distributed generation and e-mobility.

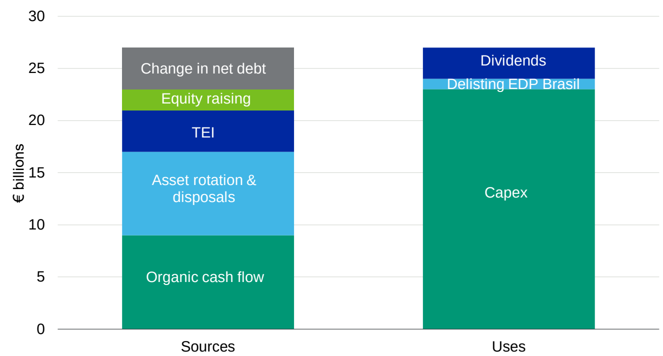
Overall, we expect the group's business risk profile to continue to develop favourably over the plan period given the focus on contracted and regulated activities.

Exhibit 9
Investment is focused on renewables
Split of capital spending by business and geography (2023-26)



Outer circle: business; inner circle: geography.
Source: Company filings

Exhibit 10
EDP will rely on asset rotation
Sources and uses of cash (2023-26)



Source: Company filings

EDP's strategy implies some risks because of the scale of investment, which can present operational difficulties. The plan includes the build-out of 18 GW of gross installed renewable capacity over 2023-26, equivalent to 4.5 GW per annum, although this is partly conditional on the asset rotation programme, which contemplates the disposal of around 7 GW. However, the company added only 2.7 GW of new renewable capacity in 2023, reflecting notably some delays in solar capacity additions because of supply chain issues in the US.

As part of its strategy, EDP has bought out the minorities in EDP Brasil for about €1.1 billion — a credit positive because this has simplified EDP's corporate structure. EDPR is also offering shareholders the option to receive script dividend. Consequently, dividends paid to minorities are likely to remain low, which will support EDP's RCF/net debt trajectory.

Execution risks are further moderated by:

» EDP's sizeable renewables pipeline, which has enabled it to secure 7.5 GW of the targeted renewable capacity additions over 2024-26 with long-term contracts, as of December 2023;

» the limited technological risks associated with the targeted development of renewables, which is focused mostly on wind (45%) and solar (52%),[4] while the geographical focus will remain on North America (40% of capacity additions), Europe (40%) and South America (15%), with the addition of Asia-Pacific (5%);

» the limited complexity associated with network investments;

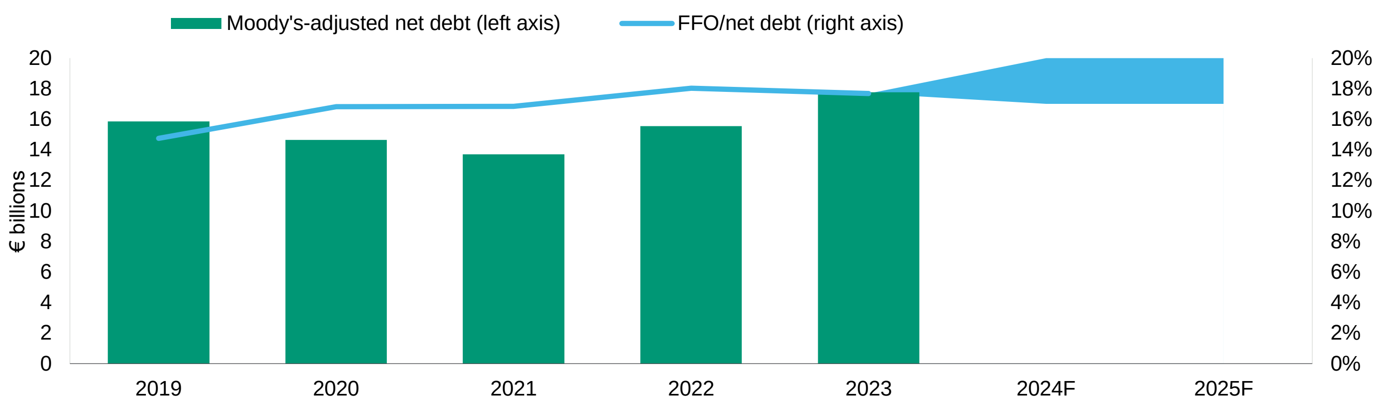
» the track record demonstrated by EDP in rotating renewable assets, with €2 billion of asset rotation proceeds in 2023.

Financial profile will remain solid despite rising debt

In 2023, EDP's performance was good, with EBITDA increasing by 11% to €5 billion. This reflected the normalization of hydro resources following a severe drought in 2022 and the recovery of supply margins as a result of declining energy procurement costs. These positive factors more than offset the negative impact of lower wind resources and delays in capacity additions in the US and Colombia. EDP's adjusted FFO/net debt remained relatively stable at 17.7% in 2023 (18% in 2022).

In its 2023-26 strategy, EDP targets to maintain its financial profile with adjusted net debt/EBITDA (company definition) of 3.3x in 2026, consistent with 3.3x in 2023. However, the currently weaker power price environment could exert pressure on earnings beyond 2024, particularly for activities exposed to merchant prices. In fact, EDP assumed in its strategic plan that Iberian power prices would be €126/MWh in 2024 and €82/MWh in 2026. These prices are well above current yearly baseload forward levels, which are around €55-€60/MWh. If power prices remain at their current levels in the near term, we expect the company to implement mitigating measures to maintain robust financial metrics. EDP is expected to provide new guidance to the market, incorporating an update on assumptions and market context.

Exhibit 11
We expect FFO/net debt to remain in the upper-teen percentages, despite rising debt



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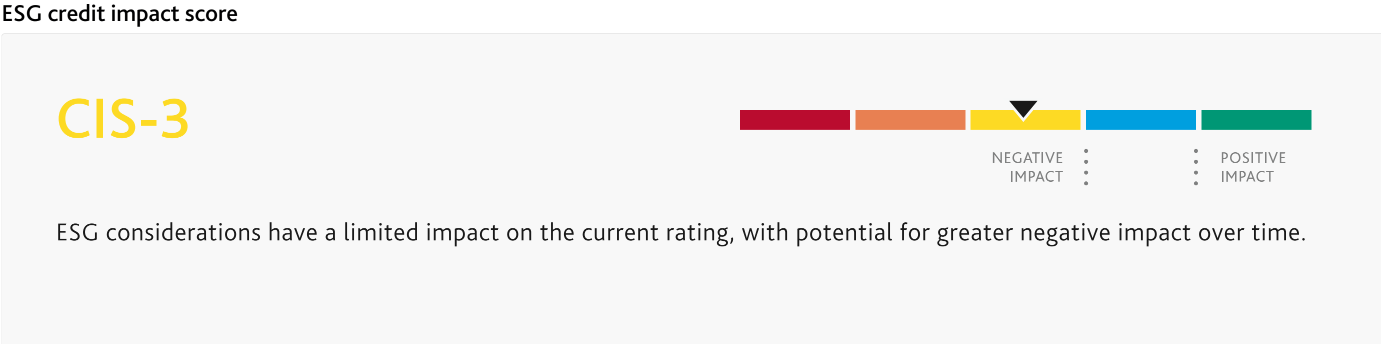
Sources: Moody's Financial Metrics™ and Moody's Ratings forecasts

EDP has moderate exposure to higher interest rates. This is because 21% of the group's gross debt was on floating rates as of December 2023, with the remaining 79% on fixed rates.

ESG considerations

EDP - Energias de Portugal, S.A.'s ESG credit impact score is CIS-3

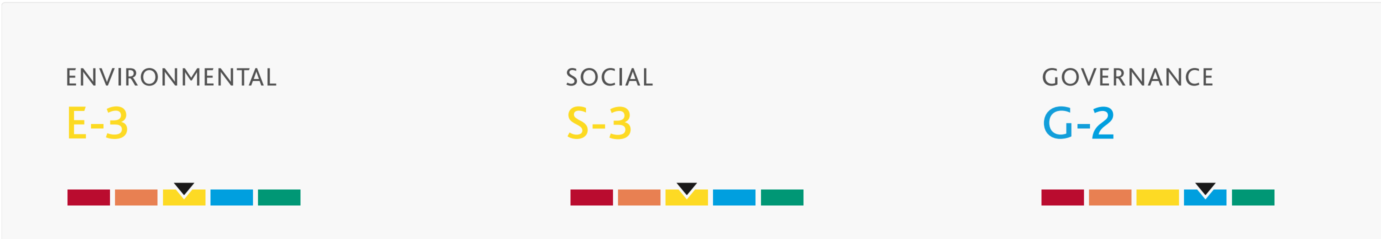
Exhibit 12
ESG credit impact score



Source: Moody's Ratings

EDP's **CIS-3** indicates that ESG considerations have a limited impact on the current rating with potential for greater negative impact over time. The score reflects moderate environmental, and social risks, as well as low governance risks.

Exhibit 13
ESG issuer profile scores



Source: Moody's Ratings

Environmental

EDP's **E-3** score reflects the company's exposure to physical climate risks, including the exposure of hydro power generation to resource volatility. These risks are balanced by EDP's neutral to low exposure to carbon transition risk, given its relatively low carbon intensity, with scope 1 and 2 emissions of 80 gCO2/KWh in 2023. We expect carbon intensity to decrease further as the company shuts down coal-fired plants in Iberia and continues its build-out of renewables. EDP targets to exit coal-fired generation by 2025 and have 100% renewable generation by 2030.

Social

EDP's **S-3** reflects the risk, common to all utilities, that public concern over environmental, social or affordability issues could lead to adverse regulatory or political intervention. These risks are balanced by neutral to low risks to health and safety, human capital, customer relationships and responsible production.

Governance

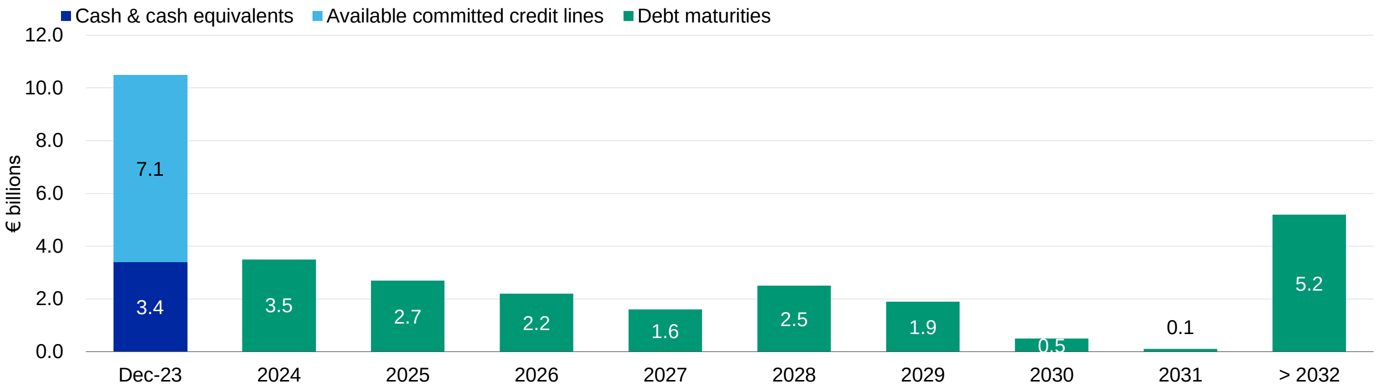
EDP's **G-2** reflects the fact that, although ownership concentration can be a credit risk, CTG's track record of support for EDP mitigates this risk. CTG has been a major shareholder with representation on the company's General and Supervisory Board since May 2012 when it acquired its initial stake and stabilised EDP during the euro area crisis. At the same time, EDP faces moderate risks relative to the existence of significant minority shareholders in large subsidiaries of the group, as well as the potential risks that could arise from the ongoing investigation regarding the early termination of certain power purchase agreements and certain payments in relation to the extension of hydro power concessions.

ESG Issuer Profile Scores and Credit Impact Scores for the rated entity/transaction are available on Moodys.com. In order to view the latest scores, please click here to go to the landing page for the entity/transaction on MDC and view the ESG Scores section.

Liquidity analysis

EDP has solid liquidity. As of December 2023, it had cash and cash equivalents of €3.4 billion; a total of €6.65 billion in undrawn revolving credit facilities (RCFs), including notably a €3.65 billion undrawn RCF maturing in August 2028 and a €3 billion undrawn RCF maturing in July 2028; and short-term credit facilities of €255 million. Combined with operating cash flow, these sources are available to cover expected average annual gross investments of around €6.0 billion-€6.5 billion; debt maturities; and annual dividend payments including minorities of around €0.8 billion.

Exhibit 14
EDP's liquidity sources will comfortably cover debt maturities in the medium term



Source: Company filings

In addition, EDP has demonstrated a good track record of accessing the debt capital markets, as illustrated by the issuance of a €750 million green bond in January 2024 and partial repurchase of $367 million over a $500 million bond due in 2027.

Structural considerations

EDP Finance B.V. (Baa2 stable) is the group's main issuer under the €16 billion euro medium-term note programme, which benefits from a keepwell agreement with EDP. EDP Servicios Financieros Espana, S.A.U. (Baa2 stable) is also an issuer under the same euro medium-term note programme and benefits as well from a keepwell agreement with EDP. EDP is the issuer of the group's €4.04 billion hybrid securities (as of December 2023).

As of December 2023, 17% of the group's gross debt, down from 19% as of December 2022, was raised at the subsidiary level and mainly at the level of EDP Brasil. Debt at the level of EDP Brasil is ring-fenced. In March 2023, the company performed a €1 billion capital increase at the level of EDPR, which reduced EDP's ownership in EDPR to 71.3% from 74.98%, reflecting the presence of some minorities at the EDPR level, which is balanced by EDPR being internally funded. In August 2023, as part of its strategic plan, EDP completed the delisting of EDP Brasil. This transaction reduced cash flow leakage to minorities.

Exhibit 15
EDP's debt structure as of December 2023

(in € millions)	Gross debt	Gross debt in %	Cash	Net debt	Net debt in %
EDP SA and EDP Finance BV	16,729	83%	1,360	15,369	91%
EDPR	1,206	6%	1,372	-166	-1%
EDP Brasil	2,326	11%	641	1,685	10%
EDP Espanha	0	0%	0	0	0%
Total	**20,261**	**100%**	**3,373**	**16,888**	**100%**

Source: Company filings

Methodology and scorecard

EDP is rated in accordance with our rating methodology for Unregulated Utilities and Unregulated Power Companies. EDP's Baa2 rating is in line with the scorecard-indicated outcome of Baa2.

Exhibit 16

Rating factors

EDP - Energias de Portugal, S.A.

Unregulated Utilities and Unregulated Power Companies Industry	Current FY Dec-23		Moody's 12-18 month forward view	
Factor 1 : Scale (10%)	**Measure**	**Score**	**Measure**	**Score**
a) Scale ($ billions)	Aa	Aa	Aa	Aa
Factor 2 : Business Profile (40%)				
a) Market Diversification	A	A	A	A
b) Hedging and Integration Impact on Cash Flow Predictability	A	A	A	A
c) Market Framework & Positioning	Baa	Baa	Baa	Baa
d) Capital Requirements and Operational Performance	B	B	B	B
e) Business Mix Impact on Cash Flow Predictability	Aa	Aa	Aa	Aa
Factor 3 : Financial Policy (10%)				
a) Financial Policy	Baa	Baa	Baa	Baa
Factor 4 : Leverage and Coverage (40%)				
a) (CFO Pre-W/C + Interest) / Interest (3 Year Avg)	4.3x	Baa	3.5x-4.5x	Ba
b) (CFO Pre-W/C) / Net Debt (3 Year Avg)	17.6%	Ba	17%-20%	Ba
c) RCF / Net Debt (3 Year Avg)	11.3%	Ba	12%-15%	Ba
Rating:				
a) Scorecard-Indicated Outcome		Baa2		Baa2
b) Actual Rating Assigned				Baa2

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Appendix

Exhibit 17

Peer comparison

EDP - Energias de Portugal, S.A.

	EDP - Energias de Portugal, S.A. Baa2 Stable			Iberdrola S.A. Baa1 Stable			Endesa S.A. Baa1 Negative			Naturgy Energy Group SA Baa2 Stable		
(in € millions)	FY Dec-21	FY Dec-22	FY Dec-23	FY Dec-21	FY Dec-22	FY Dec-23	FY Dec-21	FY Dec-22	LTM Sep-23	FY Dec-21	FY Dec-22	LTM Jun-23
Revenue	14,983	20,651	16,202	39,114	53,949	49,335	20,527	32,545	27,050	22,140	33,965	29,282
EBITDA	3,304	4,297	4,551	11,644	12,770	14,107	4,278	5,243	5,069	3,775	4,657	5,638
Total Assets	50,903	58,816	56,559	141,607	149,925	149,652	39,968	49,960	41,095	39,191	41,260	38,690
Total Debt	16,977	20,494	21,212	48,382	53,759	55,703	11,654	19,309	14,885	18,888	18,048	17,293
Net Debt	13,705	15,542	17,771	44,349	49,151	52,684	10,951	18,438	14,555	14,923	14,063	12,738
FFO / Net Debt	16.8%	18.0%	17.7%	21.7%	20.3%	19.5%	31.6%	25.1%	28.9%	16.9%	31.3%	35.1%
RCF / Net Debt	10.0%	11.6%	12.0%	15.8%	13.8%	10.7%	12.1%	16.7%	17.1%	5.6%	20.9%	24.5%
(FFO + Interest Expense) / Interest Expense	4.9x	4.3x	3.9x	7.6x	5.5x	4.6x	21.6x	15.9x	8.3x	5.6x	8.2x	7.7x
Debt / Book Capitalization	51.1%	55.6%	52.8%	43.4%	46.9%	46.9%	62.4%	73.2%	63.2%	65.8%	61.4%	57.3%

All figures and ratios are based on adjusted financial data and incorporate our Global Standard Adjustments for Non-Financial Corporations.
LTM = Last 12 months.
Source: Moody's Financial Metrics™

Exhibit 18

Moody's-adjusted net debt reconciliation

EDP - Energias de Portugal, S.A.

(in € millions)	2019	2020	2021	2022	2023
As reported debt	**17,409.2**	**17,342.4**	**17,867.4**	**21,410.3**	**21,945.4**
Pensions	630.8	629.6	486.9	346.2	261.2
Hybrid Securities	(866.7)	(869.0)	(1,858.5)	(1,858.7)	(2,021.6)
Non-Standard Adjustments	225.9	492.4	481.1	595.8	1,026.7
Moody's-adjusted debt	**17,399.2**	**17,595.5**	**16,976.8**	**20,493.6**	**21,211.6**
Cash & Cash Equivalents	(1,543.2)	(2,952.1)	(3,272.2)	(4,951.7)	(3,440.2)
Moody's-adjusted net debt	**15,856.0**	**14,643.4**	**13,704.7**	**15,541.9**	**17,771.4**

All figures and ratios are based on adjusted financial data and incorporate our Global Standard Adjustments for Non-Financial Corporations.
Periods are financial year-end unless indicated.
Source: Moody's Financial Metrics™

Exhibit 19

Moody's-adjusted EBITDA reconciliation

EDP - Energias de Portugal, S.A.

(in € millions)	2019	2020	2021	2022	2023
As reported EBITDA	**3,726.7**	**3,774.1**	**3,758.8**	**4,581.6**	**5,036.8**
Pensions	9.0	36.8	6.8	2.2	0.6
Interest Expense - Discounting	(146.1)	(155.8)	(136.5)	(155.9)	(158.2)
Unusual Items	(207.3)	(625.0)	(325.0)	(131.3)	(327.8)
Non-Standard Adjustments	(179.9)	-	-	-	-
Moody's-adjusted EBITDA	**3,202.4**	**3,030.2**	**3,304.1**	**4,296.5**	**4,551.4**

All figures and ratios are based on adjusted financial data and incorporate our Global Standard Adjustments for Non-Financial Corporations.
Periods are financial year-end unless indicated.
Source: Moody's Financial Metrics™

Exhibit 20

Overview on selected historical Moody's-adjusted financial data

EDP - Energias de Portugal, S.A.

(in € millions)	2019	2020	2021	2022	2023
INCOME STATEMENT					
Revenue	14,333	12,448	14,983	20,651	16,202
EBITDA	3,202	3,030	3,304	4,297	4,551
EBIT	1,767	1,611	1,804	2,643	2,804
Interest Expense	737	591	589	859	1,091
Net income	630	458	550	859	926
BALANCE SHEET					
Net Property Plant and Equipment	20,457	21,350	22,015	25,537	27,167
Total Assets	42,179	43,201	50,903	58,816	56,559
Total Debt	17,399	17,595	16,977	20,494	21,212
Cash & Cash Equivalents	1,543	2,952	3,272	4,952	3,440
Net Debt	15,856	14,643	13,705	15,542	17,771
Total Liabilities	33,096	33,296	40,273	48,670	44,120
CASH FLOW					
Funds from Operations (FFO)	2,339	2,463	2,307	2,803	3,144
Cash Flow From Operations (CFO)	1,888	1,737	1,375	3,016	1,217
Dividends	868	832	931	1,000	1,010
Retained Cash Flow (RCF)	1,471	1,632	1,376	1,803	2,133
Capital Expenditures	(2,338)	(2,380)	(3,320)	(3,588)	(5,362)
Free Cash Flow (FCF)	(1,318)	(1,475)	(2,876)	(1,571)	(5,156)
INTEREST COVERAGE					
(FFO + Interest Expense) / Interest Expense	4.2x	5.2x	4.9x	4.3x	3.9x
LEVERAGE					
FFO / Net Debt	14.7%	16.8%	16.8%	18.0%	17.7%
RCF / Net Debt	9.3%	11.1%	10.0%	11.6%	12.0%
Debt / EBITDA	5.4x	5.8x	5.1x	4.8x	4.7x
Net Debt / EBITDA	5.0x	4.8x	4.3x	3.6x	3.9x

All figures and ratios are based on adjusted financial data and incorporate our Global Standard Adjustments for Non-Financial Corporations.
Periods are financial year-end unless indicated.
Source: Moody's Financial Metrics™

Ratings

Exhibit 21

Category	Moody's Rating
EDP - ENERGIAS DE PORTUGAL, S.A.	
Outlook	Stable
Issuer Rating	Baa2
Senior Unsecured -Dom Curr	Baa2
Jr Subordinate -Dom Curr	Ba1
Commercial Paper -Dom Curr	P-2
EDP SERVICIOS FINANCIEROS ESPANA, S.A.U.	
Outlook	Stable
Bkd Senior Unsecured -Dom Curr	Baa2
EDP FINANCE B.V.	
Outlook	Stable
Bkd Senior Unsecured	Baa2
Bkd Commercial Paper -Dom Curr	P-2

Source: Moody's Ratings

Moody's related publications

Industry outlook

» Unregulated Electric & Gas Utilities – Europe: 2024 Outlook - Stable amid manageable market challenges, 13 November 2023

Sector research

» Unregulated Utilities and Power Companies – Europe: Lower power prices may require tough choices, if sustained, 10 April 2024

» Electricity Markets – Europe: Supply-demand imbalance to ease, but prices to remain above historical levels, 5 December 2023

» EU electricity market reform proposal credit positive for European unregulated utilities, 16 March 2023

» Europe's electricity markets – Tight supply will keep power prices high and prompt further government intervention, 16 November 2022

» Cross-Sector – Europe – Liquidity challenges in Europe's energy markets prompt further government intervention, 12 September 2022

» European utilities have limited operations in Russia and Ukraine but are exposed to higher energy prices, 23 February 2022

» Europe's electricity markets: In Iberia, higher energy prices raise political risk, but economics continue to support decarbonisation, 30 November 2021

» New tax on Spanish nuclear and hydro is credit negative, 16 September 2021

Endnotes

1 The change of the name from EDP – Energias de Portugal, S.A. to EDP, S.A. was resolved at the General Meeting of April 10, 2024, and is pending registration.

2 Together with Iberdrola S.A. (Baa1 stable), Endesa S.A. (Baa1 negative) and Naturgy Energy Group SA (Baa2 stable).

3 For example, as of December 2023, 86% of the group's renewables capacity in North America benefited from long-term PPAs or hedges, with the remaining 14% only exposed to merchant price risk.

4 Offshore wind is developed by Ocean Winds, the dedicated joint venture between EDPR and ENGIE SA (Baa1 stable).

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