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EDP - Energias de Portugal S.A.

Primary Credit Analyst:
Renata Gottliebova, Dublin + 00353 (1) 5680608; renata.gottliebova@spglobal.com

Secondary Contacts:
Claire Mauduit-Le Clercq, Paris + 33 14 420 7201; claire.mauduit@spglobal.com
Pauline Pasquier, Paris + 33 14 420 6771; pauline.pasquier@spglobal.com

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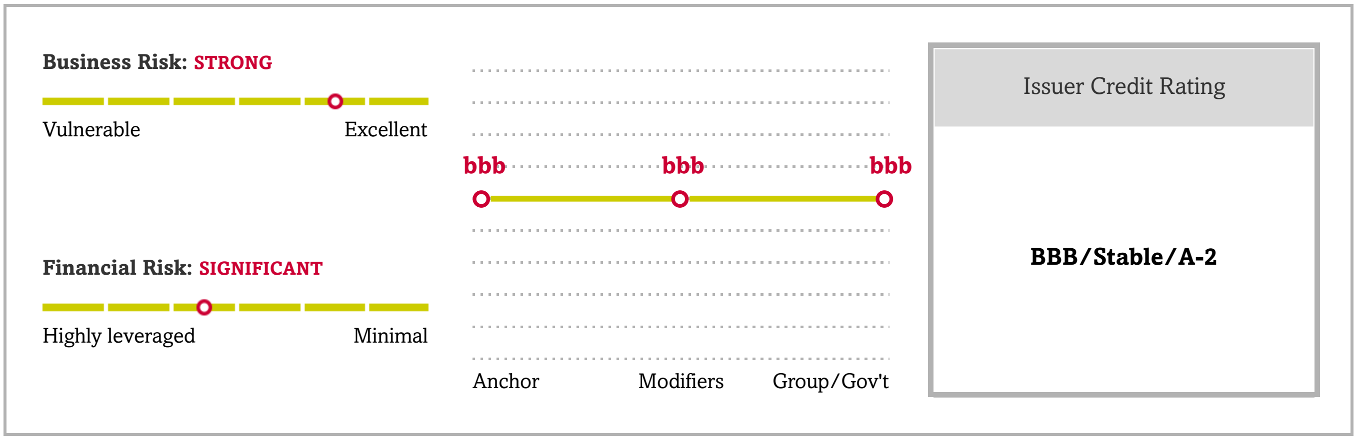


Credit Highlights

Overview

Key strengths	Key risks
High share of cash flows (83% of 2021 EBITDA) stemming from networks (36% of 2021 EBITDA) and long-term contracted activities (48%; wind and solar) following the reshaping of the Iberian portfolio).	Ambitious capital expenditure (capex) plan (€4.8 billion annual capex in 2021-2025 compared to €2.9 billion in 2020) with a focus on new renewables fueled by asset rotation, with some execution risk (mitigated by strong negotiation skills protecting the company from supply chain disruptions and rising costs of materials and shipping).
Dominant electric utility in Portugal, with fully regulated activities (networks) in Spain, Brazil, and Portugal (36% of 2021 EBITDA) in a still-supportive regulatory environment.	Exposure to regulation in Iberia (24% of 2021 EBITDA is regulated power distribution network activities), which we see as less credit supportive than other European frameworks such as France, the U.K., or Germany.
Significant geographic diversification, with 68% of EBITDA generated outside of Portugal, mainly in Spain, Brazil, the U.S., and Canada.	Remaining exposure to thermal generation (20% of installed capacity in 2021) and to merchant risk mainly through hydro and energy activities in Iberia and Brazil.
A low-carbon and modern generation fleet, with about 75% of capacity coming from renewable sources (mainly wind and solar).	Exposure to foreign exchange risk in Brazil and the U.S, mitigated by the company's net investment hedge policy and by financial ring-fencing in Brazil.
Adjusted debt to EBITDA expected to remain close to 4.0x (from 4.8x in 2020) thanks to disposals and a supportive financial policy.	Presence of some minorities in subsidiaries, notably at EDP Brazil and EDP Renovaveis (EDPR), although mitigated by EDPR being almost fully funded internally.
Increased liquidity position to address hedging needs in the context of the Russia-Ukraine conflict and the surge in commodity prices.	

The current conflict in Ukraine could indirectly impact EDP's 2022 results even though the company does not have direct exposure to Russia. Being an electricity utility with limited gas retail operations in Iberia, EDP is not exposed to Russian gas, nor is it active in Russia or Ukraine. However, EDP could suffer from the high price environment related to the energy crisis as it generates and sells power on the market with volumes being hedged in advance at a predefined price. Any mismatch between production and supply would leave the group exposed to market risk because it hedged 100% of its expected hydropower production entering 2022. If it became short on power in the event of lower production than budgeted, EDP would need to buy electricity at the market price. This risk materialized during the first quarter due to very low hydro levels in Portugal--much lower than the historical average. While the group expected hydro generation of 4.1 Terawatt hours (TWh), its actual generation of 1.5TWh was the result of severe droughts. This left a 2.6TWh shortfall that the group had to buy back on the spot market at an average price of

€229/MWh (versus the pre-sold volume at €60/MWh). This resulted in a negative EBITDA effect of about €400 million, partly mitigated by EDPR's strong performance--on accelerated capex, strong wind resources, and high power prices--to result in an EBITDA decline of €134 million year-on-year.

During 2022 we expect EDP's combined-cycle gas turbine (CCGT) generation to perform well given that it has an adequate natural hedge in place from stable clean spark spreads amid rising gas and power prices. We also believe that its supply activities in Portugal will not likely be as constrained by any affordability measures, compared to its European neighbors. EDP's supply margins should remain relatively protected because retail tariffs are indexed to renewable feed-in tariffs. Moreover, the regulator increased tariffs by 3% on April 1, 2022; in Portugal the tariff surplus is building up and EDP should therefore be able to pass the rising cost of energy through to its end-customers.

We also expect EDP's debt to increase by about €2 billion in 2022 notably because of €200 million margin collateral requirements; about €700 million negative mark-to-market on gas financial contracts; and the acquisitions of Sunseap (€700 million) and CELG-T (€300 million).

We expect EDP's credit metrics to improve from 2023 onward, thanks to strong EBITDA growth mitigating negative average free operating cash flow (FOCF). EDP is now in a high-capex period. Its annual investments are expected to average about €4.8 billion over 2021-2025 (from €2.3 billion in 2019-2020) to significantly accelerate the development of its solar and wind renewable generation fleet.

Credit metrics for 2022 will be affected by the planned acquisition of Singapore-based solar developer Sunseap (not rated), through EDP's 74.98% owned subsidiary EDP Renováveis S.A. (EDPR), for about €700 million. As part of EDP's 2021-2025 strategy, total capex dedicated to the energy transition will be about €24 billion. This will be partly funded by a targeted €8 billion of asset rotations, other flexible sources of funding such as disposals, and about €2 billion of additional debt. We forecast FOCF to remain negative at €1.2 billion-€1.5 billion on average from 2022-2024 while discretionary cash flow (DCF) will range from negative €1.1 billion-negative €1.3 billion supported by EDP's asset rotation plan, with disposals of about €1.7 billion-€2.0 billion annually. We estimate shareholder distributions remaining around €0.8 billion-€0.9 billion per year and working capital outflow being contained to about €300 million. From 2022 onward, we expect EBITDA at a 5.5% compound annual growth rate (CAGR over 2022-2025), owing to solid growth in the renewable generation portfolio offsetting debt increases.

Even though we expect the 2022 financial performance to be weaker, we forecast that EDP's credit metrics will be restored from 2023 with funds from operations (FFO) to debt reaching close to 20%. This is due to higher power prices as hedges will roll over, allowing EDP to realize the positive impact on its earnings, as well as the continuous acceleration of its renewable capacity development (3.5GW capacity additions per year).

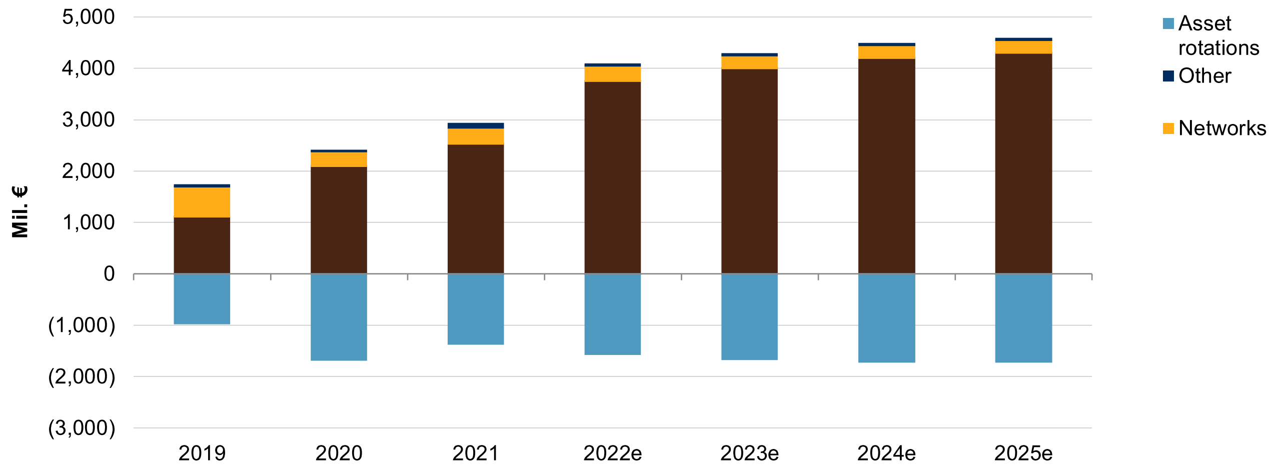
We also note EDP's commitment to the current 'BBB' rating. If EDP encounters any operational or financial underperformance in its current plan, we would expect it to take credit supportive measures such that FFO to debt remained above 19% and debt to EBITDA below 4.0x.

EDP is pursuing its strategic focus on renewables deployment, although it did not meet its 2021 targets because of supply chain delays. The group installed 2.6GW of wind and solar capacity, compared to its target of 3-4GW. We expect EDP to accelerate its renewables development (to be on target for 4GW per year in 2021-2025) although we see rising risks from cost inflation and supply chain delays that could prevent it from achieving its targets of doubling solar and wind capacity by 2025 (target of 20GW by 2025 of which 8GW in solar).

However, EDP has reinforced its renewable platform in Asia with the acquisition of the Asian Sunseap, a distributed solar developer. EDP acquired 0.7GW of operational and secured capacity and also a pipeline of 5GW through nine Asian countries.

Chart 1

EDP Evolution Of Expansion Capex And Asset Rotation



Note: Expansion capital expediture (capex) includes financial investments. e--Estimate. Source: S&P Global Ratings.

We expect the contribution from network activities to remain stable at 30% of EBITDA throughout the course of the 2021-2025 business plan, with the new regulatory outcome in Portugal for 2022-2025 assessed as mostly supportive. Following the integration of Spanish power distribution system operator (DSO) Viesgo Holdco in December 2020, EDP reinforced its regulated network operations in Portugal and Brazil. These will represent a relatively stable 30% of EBITDA over 2021-2025. Iberian networks are protected by mostly supportive regulatory frameworks. On Dec. 15, 2021, the Portuguese Electricity Regulator ERSE announced its final decision on electricity tariffs for 2022 and parameters for 2022-2025. The regulated gross profit for the activity of electricity distribution (operated by EDP subsidiary E-Redes) increased by about €15 million, to €1,029 million for 2022 excluding previous year adjustments. This was essentially due to the increase in the preliminary rate of return (RoR, which was set at 4.7%, before taxes, better than the proposed 4.3% in the draft decision published in October 2021. The rate for 2022-2025 will be set for year t, according to the daily average of the 10-year Portuguese government bond yield between October of year t-1 and September of year t. This mechanism foresees a floor and a cap of 4.0% and 7.3%, respectively. The preliminary RoR of 4.7% reflects an underlying average of 0.302% for the 10-year Portuguese government bond yield and each 1% change in Portuguese government bond yield implies a 0.3% change in the RoR.

EDP has some minority shareholders in its subsidiaries. A credit consideration for EDP is its relatively complex group structure, with significant and diverse minority shareholders in most of its foreign holdings (notably EDP Brazil, 55.97% owned, and EDPR, 74.98% owned). This is mitigated by the fact that EDPR is almost fully funded internally. Financial leverage at EDPR is lower than consolidated leverage, meaning the consolidated debt mainly lies at the EDP level. We note that, with the Viesgo transaction, minorities for EDP have increased because the latter owns 75.1% of the power distribution networks in Spain. EDP's share of minority shareholders represented €4,655 million of noncontrolling interests at year-end 2021 (33% of the group's consolidated equity position as of year-end 2021).

Outlook: Stable

The stable outlook reflects our expectation that EDP's S&P Global Ratings-adjusted FFO to debt will remain above 19% and adjusted debt to EBITDA will be close to 4.0x, down from around 4.8x in 2021. We believe the company's financial risk profile will temporarily decline in 2022 with adjusted FFO to debt below 19%, but will rebound to above 20% from 2023. Our rating on EDP factors in that its financial policy supports remaining at the current rating level.

Downside scenario

We could lower the ratings if, over 2022-2023, EDP's FFO to debt drops well below 19% or the company is unable to reduce leverage, with adjusted debt to EBITDA remaining above 4.0x. One or more of the following scenarios could lead us to take a negative rating action:

- EDP experiences any operational setback, such as lower-than-expected profitability from installed assets or material delays in construction that are not compensated by supportive credit remedy measures;
- Underperformance of the leverage-reduction target in the company's 2022-2025 plan;
- Increased presence of minorities, which would result in higher-than-expected cash flow leakage;
- A material heightening of country risk in Portugal and (secondarily) Brazil, including adverse regulatory or fiscal effects); and
- Inability to achieve the €8 billion asset rotation target over 2021-2025 without any measures to reduce capex.

Upside scenario

We view an upgrade as unlikely, given the company's current financial policy and ambitious investment plan. That said, rating upside would require EDP to achieve FFO to debt above 25% under its current business risk profile.

Our Base-Case Scenario

Assumptions

In our base-case scenario for EDP over 2022-2024, we assume:

- Viesgo Holdco is consolidated from 2021 as full year.
- A gradual recovery in economic growth and therefore electricity consumption in the Iberian Peninsula. This could minimize affordability issues, enable a cut in electricity system costs, and see a moderate increase in system revenues. Moreover, it would reduce the tariff deficit in Portugal, which was €1.4 billion as of March 31, 2022.
- Relaxation of the Iberian power market, with 2023-2024 forecasted electricity prices at around €90-€100/MWh. EDP hedges 45% of its 2023-2025 expected baseload generation at €60/MWh. 100% of expected 2022 thermal production is hedged at prices close to average €60/MWh, providing optimized spreads. We expect EDP will benefit from increasing energy prices, especially from 2023 onward, as hedges roll over.
- Reported EBITDA at about €3.9 billion-€4.1 billion in 2022 and €4.4 billion-€4.6 billion in 2023, including Sunseap and asset rotation operations. EBITDA growth will be supported by capacity additions at subsidiary EDPR, resilient operating performance at EDP Brazil, and in the power networks. Client Solutions and Energy Management activities are expected to partially recover from the 2020-2021 low performance on the back of a higher client services penetration rate.
- We do not include any foreign exchange hit.
- A maximum working capital outflow of about €600 million in 2022 and €300 million in 2023.
- Cash taxes averaging €300 million over 2022-2024.
- Expansion capex including financial investments of about €4.2 billion per year over 2022-2025 and maintenance capex of about €600 million per year in the same period.
- Sunseap acquisition for about €700 million in 2022.
- Dividend payout (including dividends to minority shareholders) averaging €880 million over 2022-2024.
- Disposal of majority stakes in wind and solar assets, targeting about €1.7 billion-€2.0 billion per year over 2022-2024 (about €850 million of asset rotation deals already signed in 2022).
- Disposal of about €150 million per year in 2022 and 2023, with the €1 billion disposal plan being back-loaded.
- Issuance of a €1.25 billion green bond in March 2022 with 1.9% yield and 7.5 years maturity.
- Tariff deficit sale of €562 million to be cashed-in in 2022.

Key metrics

EDP--Key Metrics

	2020A	2021A	2022P	2023E	2024E
EBITDA (bil. €)	3.3	3.3	3.7-3.8	4.1-4.2	4.2-4.3
FFO (bil. €)	2.6	2.7	2.9-3.0	3.2-3.3	3.3-3.4
Capex and Inv. (bil. €)	3.6	3.6	5.3-5.7	4.6-5.0	4.6-5.0
Dividends (mil. €)	831.0	931.0	900-950	900-950	900-950

EDP--Key Metrics (cont.)					
	2020A	**2021A**	**2022P**	**2023E**	**2024E**
Debt (bil. €)	15.7	14.6	16.0-17.0	16.0-17.0	16.0-17.0
FFO/debt (%)	16.7	18.3	17.5-18.5	19.0-20.0	20.0-21.0
Debt/EBITDA (x)	4.7	4.4	4.0-4.5	3.8-4.3	3.8-4.3

a--Actual. Capex and Inv.--Capital expenditure, includes financial investments. e--Estimate. FFO--Funds from operations. All data is adjusted by S&P Global Ratings.

We expect EBITDA growth from business-risk-supportive capex that's focused on regulated networks and contracted renewables. EDP's ratios will be supported by increasing wind and solar installed capacity, with an expected contribution of 60% of EBITDA in 2024. The network contribution will be mostly stable at 30% of EBITDA over 2021-2025, with growth mainly coming from electricity transmission in Brazil (18% growth on 2020-2025, 32% of connection points in 2021) and, much less so, its Iberian power DSO segment (Portugal and Spain representing 56% and 12% of connection points respectively following Spanish DSO Viesgo successful integration in 2021).

EDP's capex will remain €4 billion-€5 billion from 2022, fueled by asset rotations of about €1.7 billion to €2.0 billion annually. We expect EDP to continue to heavily invest in renewables as part of its strategic plan to focus on the energy transition. While we perceive some execution risk in capex implementation, downside is limited by a solid track record in concluding asset rotation deals (in 2021 1.1GW of asset rotation deals for €0.6 billion of proceeds including capital gains).

2021 leverage was significantly improved thanks to credit supportive measures. In 2021, EDP completed three hybrid issuances: €750 million in January and €500 million and €750 million in September, all accredited with a 50% equity feature by S&P Global Ratings. These credit-supportive financings protect EDP from high debt increases and secure capex funding ahead of time. There was also a €1.5 billion capital increase performed at the EDPR level on March 2021 (see "Portuguese Electric Utility EDP Upgraded To 'BBB/A-2' On Stronger Metrics; Outlook Stable," published March 16, 2021). The acquisition of Sunseap in fourth-quarter 2021 should affect the FFO to debt ratio by about 70 basis points (bps) in 2022, on a stand-alone basis, but we already incorporate the expansion in Asia-Pacific into our base case.

We forecast EDP will retain credit headroom over our FFO to debt trigger in 2023-2024 after a weak 2022. We expect EDP's FFO to debt to increase gradually toward 21% in 2023-2024, above our 19% trigger for the rating level. This is mainly supported by strong growth in EBITDA from renewables and realized high power prices compensating for high capex and negative free cash flows. In 2021, the debt-funded acquisition of Sunseap for €700 million marginally eroded credit headroom with a negative effect on FFO to debt of about 70 bps, consolidating an additional €50 million of EBITDA. Consequently, we expect FFO to net debt to remain between 19% and 20% on a weighted average basis over 2022-2023, from 18.3% in 2021, remaining above the 19% downside threshold for the current rating. We adjust from reported EBITDA about €400 million in annual capital gains from asset rotations. Adjusted debt to EBITDA should therefore remain close to 4.0x on 2022-2024.

Company Description

EDP is a vertically integrated utility company. It is the largest generator, distributor, and supplier of electricity in Portugal, and the third-largest electricity generator on the Iberian Peninsula.

EDP is one of the largest wind power operators worldwide. Through its subsidiary EDPR, the group develops and operates wind and solar energy generation in 28 markets across Europe, North and Latin America and, more recently, in the Asia-Pacific region with the expected Sunseap acquisition.

EDP – Energias do Brasil, S.A. (EDP Energias do Brasil or the company), 55.97% held by EDP – Energias de Portugal, S.A.

In Brazil, EDP is the fifth-largest private operator in electricity generation, with two electricity distribution concessions (EDP São Paulo and EDP Espírito Santo). It is Brazil's fourth-largest private supplier in the liberalized market, and recently entered into power transmission there.

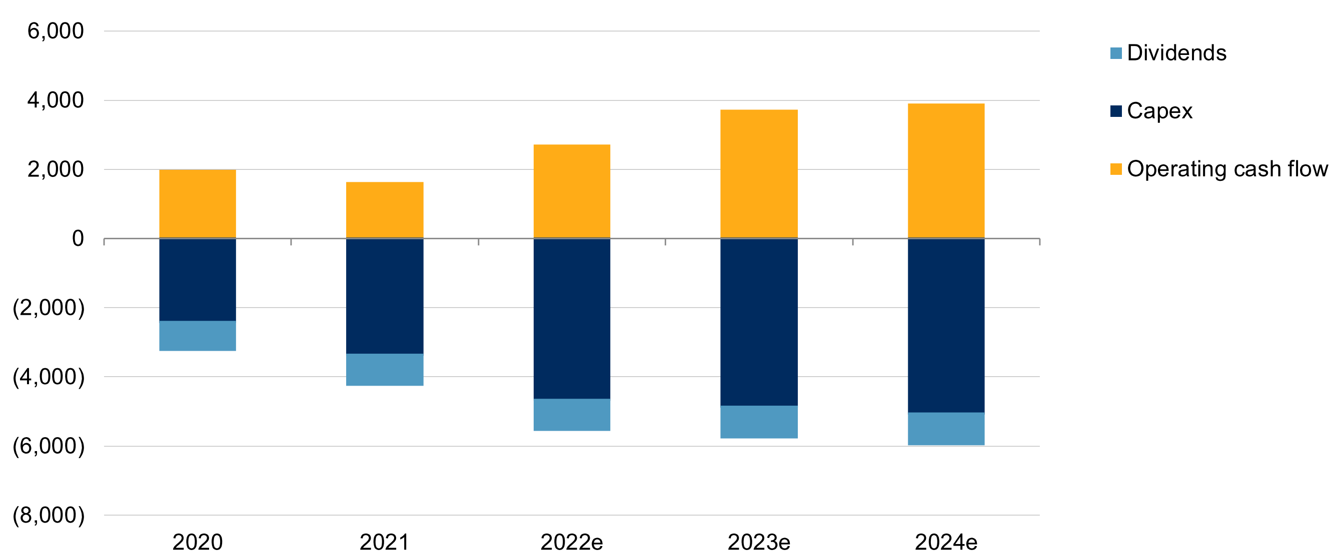
EDP reports its operations under the following three business segments:

- Renewables (61% of 2021 EBITDA). This segment includes EDP's hydro, wind, and solar power assets across all geographies. EDP's renewables capacity accounts for 78% of total installed capacity, equivalent to 18.6 GW (including equity MW).
- Networks (36%). This segment includes EDP's electricity distribution activities in the Iberian Peninsula (25%) and Brazil, transmission lines in Brazil, and electricity last resort supply activity in Portugal.
- Client Solutions and Energy Management (3%). This segment includes EDP's supply activities in Iberia and Brazil, thermal generation, and energy management businesses.

As of Dec. 31, 2021, EDP had an installed capacity of 24.7GW and generated 60.9TWh of electricity over the previous 12 months, about 75% of which came from renewables.

Chart 2

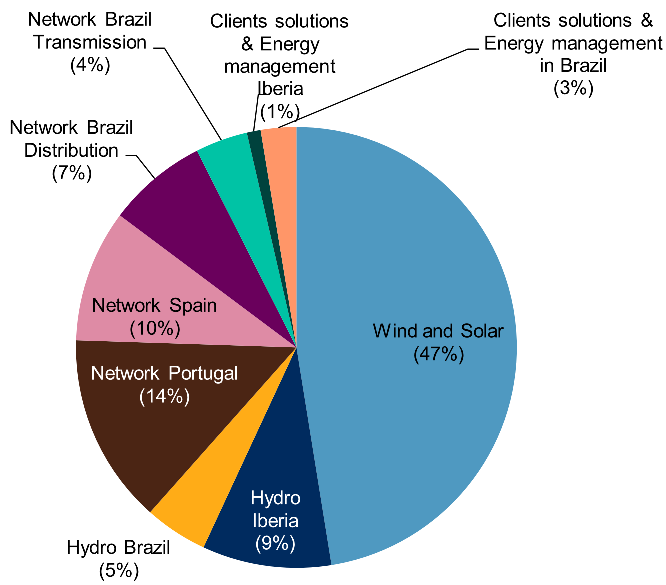
Free Operating Cash Flow Evolution*



e--Estimate. *Excluding asset rotations. Source: S&P Global Ratings.

Chart 3

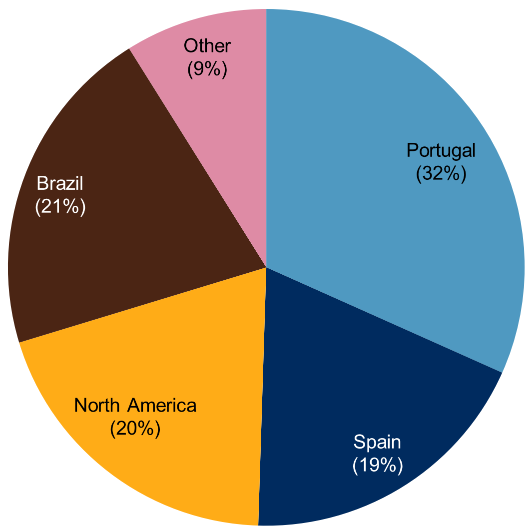
2021 EBITDA Detailed By Segment



Source: S&P Global Ratings.

Chart 4

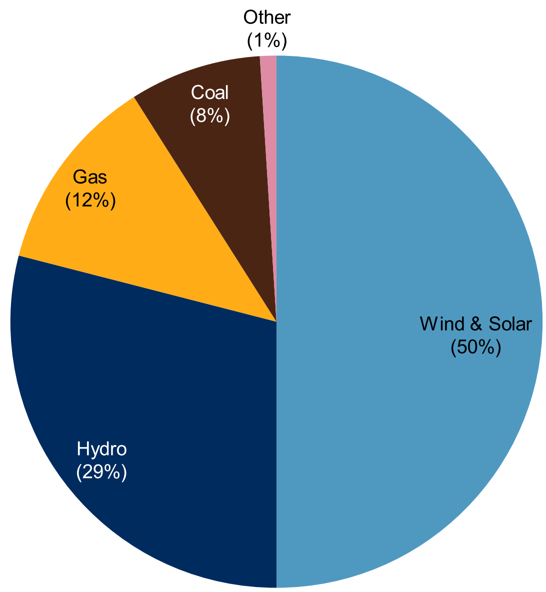
2021 EBITDA By Geography



Source: S&P Global Ratings.

Chart 5

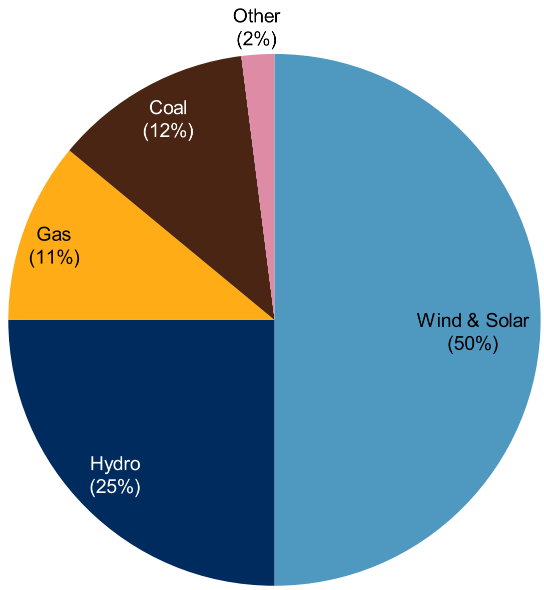
Installed Capacity As Of December 2021



Source: S&P Global Ratings.

Chart 6

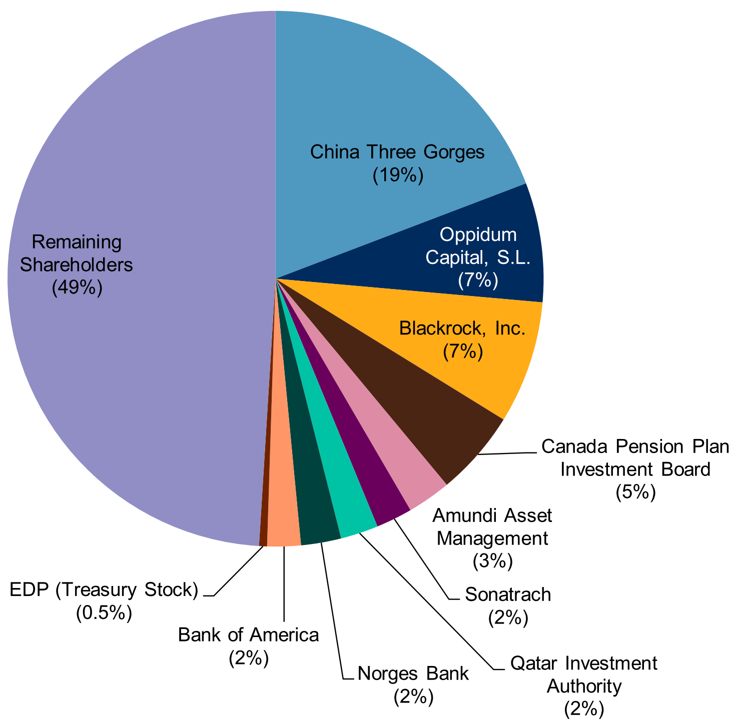
Production Mix 2021



Source: S&P Global Ratings.

Chart 7

Shareholding Structure EDP



e--Estimate. Source: S&P Global Ratings.

Peer Comparison

Table 1

EDP - Energias de Portugal S.A.--Peer Comparison

Industry Sector: Energy

	EDP - Energias de Portugal S.A.	Enel SpA	Iberdrola S.A.	Engie S.A.	Verbund AG	Orsted A/S
Ratings as of June 2, 2022	BBB/Stable/A-2	BBB+/Stable/A-2	BBB+/Stable/A-2	BBB+/Stable/A-2	--/--/--	BBB+/Stable/A-2
	--Fiscal year ended Dec. 31, 2021--					
(Mil. €)						
Revenue	15,206.9	86,159.0	39,114.0	57,866.0	4,751.5	10,446.4
EBITDA	3,288.9	14,676.0	11,072.0	10,203.0	1,558.5	2,205.1
Funds from operations (FFO)	2,668.6	11,011.5	9,258.0	8,794.8	1,297.5	1,684.9
Interest expense	537.6	3,265.0	1,628.5	1,545.2	75.3	457.9
Cash interest paid	583.8	1,818.5	982.0	840.2	22.8	334.6

Table 1

EDP - Energias de Portugal S.A.--Peer Comparison (cont.)

Industry Sector: Energy

	EDP - Energias de Portugal S.A.	Enel SpA	Iberdrola S.A.	Engie S.A.	Verbund AG	Orsted A/S
Cash flow from operations	1,552.1	10,154.5	6,954.0	6,101.8	(71.6)	1,503.6
Capital expenditure	3,260.6	12,201.0	7,181.0	5,895.0	959.3	4,544.1
Free operating cash flow (FOCF)	(1,708.5)	(2,046.5)	(227.0)	206.8	(1,030.9)	(3,040.5)
Discretionary cash flow (DCF)	(2,639.5)	(7,186.0)	(2,970.0)	(1,601.0)	(1,350.2)	(3,765.9)
Cash and short-term investments	3,222.1	8,780.0	4,045.0	13,718.0	308.6	4,014.9
Debt	14,581.2	70,374.1	44,488.4	43,051.5	3,310.6	6,085.9
Equity	15,852.6	39,934.5	52,001.0	40,095.5	6,362.9	10,240.9
Adjusted ratios						
EBITDA margin (%)	21.6	17.0	28.3	17.6	32.8	21.1
Return on capital (%)	5.4	9.9	8.1	6.4	13.6	7.4
EBITDA interest coverage (x)	6.1	4.5	6.8	6.6	20.7	4.8
FFO cash interest coverage (x)	5.6	7.1	10.4	11.5	57.9	6.0
Debt/EBITDA (x)	4.4	4.8	4.0	4.2	2.1	2.8
FFO/debt (%)	18.3	15.6	20.8	20.4	39.2	27.7
Cash flow from operations/debt (%)	10.6	14.4	15.6	14.2	(2.2)	24.7
FOCF/debt (%)	(11.7)	(2.9)	(0.5)	0.5	(31.1)	(50.0)
DCF/debt (%)	(18.1)	(10.2)	(6.7)	(3.7)	(40.8)	(61.9)

EDP's closest peers are the large European integrated utilities. While EDP compares very favorably in terms of the low carbon footprint of its fleet--being focused on wind and solar with a lower share of thermal generation in its mix--it is much smaller than peers. It has a 36% exposure to regulated networks at the year-end 2021, similar to Engie's share, however its network activities are supported by a weaker regulatory framework versus other European countries like France and Italy, notably for Engie and Enel. EDP operates largely in low risk countries in Iberia, the U.S., and Canada while Enel is exposed to higher country risk through its larger presence in Brazil and Italy.

Business Risk: Strong

A high share of EDP's cash flow stems from long-term contracted asset-based operations and regulated networks. These activities represented 83% of 2021 EBITDA (with long-term contracted generation operations 48% and regulated network activities representing 36%) and provide a stable and predictable source of cash flow generation that supports our assessment of EDP's business risk profile as strong. EDP benefits from a favorable remuneration scheme for the majority of its renewable generation portfolio, which has a ow exposure to merchant risk, with average contract life of 20 years at an average price of €75/MWh. EDP has slightly reduced its more volatile hydro generation--from 32% of installed capacity in 2018, to 29% in 2021. EDP-Brazil announced in October 2021 it aims to sell three hydro plants, aligned with the group's plan of reducing exposure to hydro activities. This follows EDP's sale of six of its Portuguese hydro plants in December 2020 for €2.2 billion, which materially reduced its exposure to volatility of hydro volumes.

We view networks as slightly less risky than long-term contracted asset-based operations because they are less exposed to long-term technological risk, although we recognize the strength of EDP's renewable operations, which provide long-term earnings visibility. Growth will come mainly from contracted activities, under EDP's 2021-2025 strategic plan about 80% of total capex will be allocated to renewables, 14% to networks, and 6% to conventional generation and supply. We see the successful integration of Spain-based Viesgo in 2021 as marginally improving EDP's business risk given that Viesgo's power network activities (75% of EBITDA) provide perpetual regulated licenses with good cash flow visibility for the next five years within the 2020-2025 regulatory period, and renewables operations (25%) are largely contracted. The EBITDA contribution from networks will increase from 23% in 2020 to 30% in 2021-2025 with the integration of the Viesgo distribution network, while EBITDA from renewables will stay relatively unchanged at about 60% in 2021-2025 (from 66% in 2020, due to the hydro sale) with a slight dilution in EBITDA contribution from conventional generation and supply activities, to 10%, from 12% in 2020.

EDP's power networks are covered by mostly supportive regulatory frameworks in Iberia and long-term contracts in Brazil. Network activities represented 36% of EDP's EBITDA in 2021, which we anticipate will remain almost stable over the business plan horizon to 2024.

- Monopolistic power distribution networks in Iberia are assessed with a strong/adequate regulatory advantage as remuneration is fully secured. Regulatory frameworks are considered mostly supportive in Portugal (15% of EBITDA,) and Spain (11% of 2021 EBITDA, with the integration of the power grid of Viesgo held through a 75.01% stake since December 2020).
- In Spain, regulation of electricity distribution provides a favorable remuneration scheme, high earnings stability with framework parameters determined under a six-year regulatory period, and minimal exposure to volume and inflation risk. On Jan. 1, 2020, the new regulatory period commenced, with remuneration declining to 6.003% in 2020 and 5.580% from January 2021 until Dec. 31, 2025, from the previous 6.500%, but overall showing continuity with the previous period. Reduced remuneration for regulated assets may support the gradual repayment of the accumulated tariff deficit. In addition, the electricity reform in 2013, under Law 24/2013, incorporated mechanisms to prevent the tariff deficit from building up again (see "COVID-19: What Would A New Tariff Deficit Mean For Spain's Electricity System Operators?," published June 25, 2020, on RatingsDirect).
- In Portugal, the regulatory framework for electricity is in its nineth period, having started in January 2025 and ending in December 2025. The regulator Entidade Reguladora dos Serviços Energéticos' (ERSE) has published the final decision on the new electricity framework for the new regulatory period. The period was lengthen to four years from three previously, increasing predictability of earnings (see "Portuguese Electricity Regulatory Update Will Have Limited Financial Impact On Main Operators REN And EDP," Feb. 23, 2022). Electricity distribution remuneration decreased with a 45 bps decline in RoR to 4.75% in 2022, from 4.9% in 2021. The estimated impact on EDP's Portuguese network revenues is about €2 million year-on-year. The new regulatory mechanism is based on a revenue cap applied to controllable total expenditure for electricity distribution activities in high and medium voltage. The Portuguese regulatory framework has an annual RoR indexation to the 10-year Portugal treasury bond yield, to update the weighted-average cost of capital (WACC) within each regulatory period, with a cap and floor for the RoR to limit earnings fluctuations. Under the new electricity period, the indexation mechanism is kept, with a range reduced to 4.0%-7.3%, as well as the annual update to the GDP deflator, protecting EDP from inflation. This

mechanism, as well as a track record of predictability, support our assessment of the Portuguese framework. An efficiency factor of 0.75% is applied to the regulated asset base of around €2.8 billion.

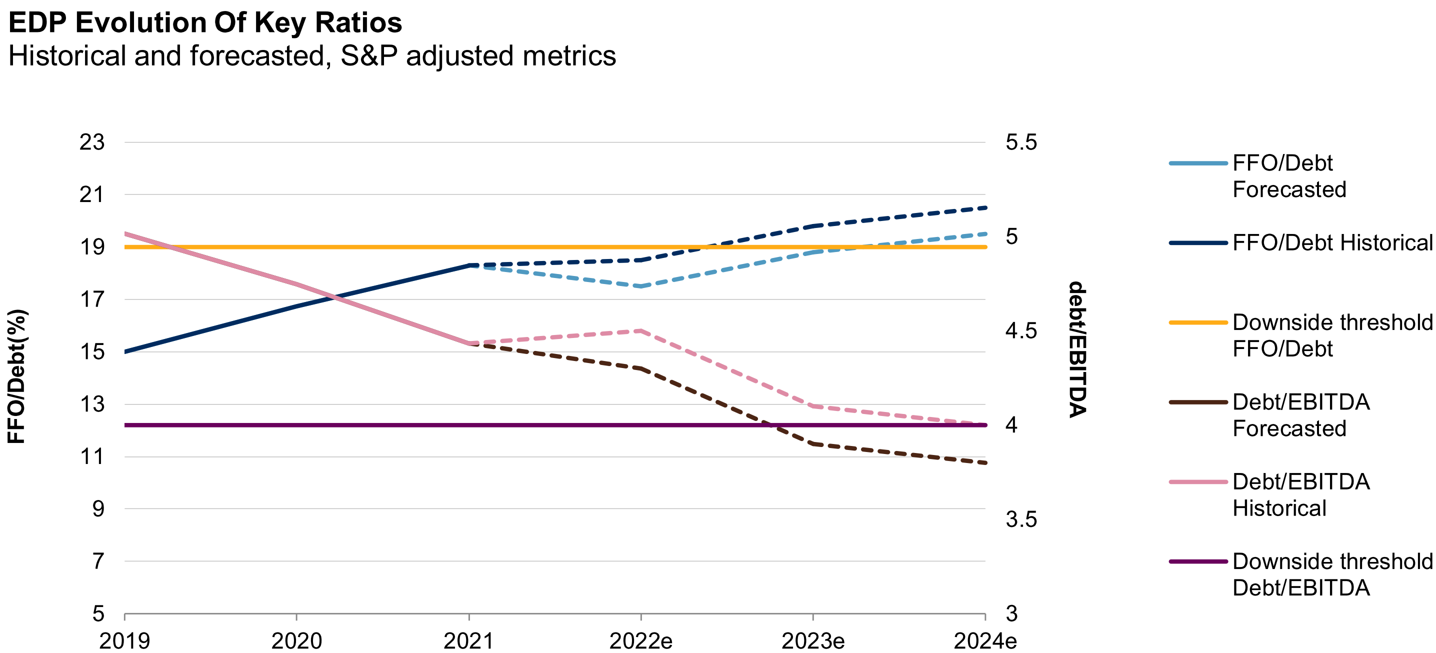
EDP also operates a distribution network (operated by subsidiaries EDP São Paulo and EDP Espírito Santo) and transmission lines in Brazil--4% of 2021 EBITDA--through its 55.97% owned subsidiary EDP – Energias do Brasil. While growth in its Iberian networks is limited with a 1% increase in connection points year-on-year, EDP is expanding its transmission assets in Brazil. In December 2021, EDP completed an asset rotation deal in Brazil with the disposal of 439 kilometers of transmission lines made in conjunction with the acquisition of Celg-T (756 kilometers of transmission networks, operated under contracts that run until 2043 and 2046) on Oct. 14, 2021.

EDP's generation mix is dominated by long-term contracted onshore wind with decreasing merchant and thermal exposures. EDP's share of merchant generation is diminishing to the benefit of an expanding and more-contracted generation fleet (wind and solar plants contracted under purchase price agreements [PPAs]). The exposure to merchant risk decreased substantially as EDP is disposing of its merchant assets, notably the hydro plants in Portugal and Brazil. EDP's thermal portfolio in Iberia encompasses 4.3GW installed capacity, which plays an active role in ensuring the security of electricity supply: 67% in CCGT, 29% in coal, 4% in nuclear, and 1% of cogeneration and waste. Total coal installed capacity decreased 37% year-on-year with the decommissioning of the Sines coal plant in December 2020, as part of EDP's strategy to become coal free by 2025. Revenues from coal represent only 5% of total revenues in 2021 with the remaining coal plants located in Brazil. 90% of EDPR's revenue either comes from contracted activities and PPAs or is hedged, versus 10% that is exposed to merchant power. We will closely monitor the evolution of EDPR's merchant portfolio in the coming years. Cash flow volatility is somehow mitigated by EDP's hedging policy, which proved beneficial in previous years.

We view positively the acceleration of investments in renewables, reinforcing EDP's position as a leading asset developer in onshore wind and solar. EDP's strategic plan covers gross investments of €24 billion for the energy transition over 2021-2025. Of this, €21 billion is aimed at expansion and €3 billion relates to maintenance, mostly in networks with digitalization upgrades. S&P Global Ratings expects capex will average €4.8 billion over 2021-2025. As a result, EDP expects EBITDA to increase by 6% over 2021-2025 to €4.7 billion. This accelerated growth predominantly focuses on renewable generation. EDP aims to double its build-out renewable capacity by 2025 with an additional 20GW (mainly wind onshore, with 9GW deployed and 8GW solar PV), resulting in a net added capacity of 13GW (post asset rotation). As part of this plan, EDP acquired the solar energy system developer Sunseap in fourth-quarter 2021, which provides EDP with an additional 0.5GW of installed or under-construction solar capacity, and a 4.8GW solar-projects pipeline, located predominately in Southeast Asia. We also view as positive that solar-distribution projects are covered by long-term agreements, which should support contracted EBITDA growth with about a €50 million contribution from 2022 and increasing by about 25% year-on-year.

EDP's solid experience should mitigate the risks associated with its plan. EDP also plans to install around 3.5GW of renewables per year over 2021-2023, increasing to 4.6GW per year over 2024-2025, up from about 1.6GW annually under its 2019-2021 plan. This is ambitious and entails some execution risks, in our view--mainly the authorization process slowing the deployment of renewables capacity. EDP has a good execution track record so far and a relatively sizable already-secured pipeline. We also expect the RepowerEU plan to facilitate permitting in European countries. EDP has also shown it can negotiate remunerations on new PPAs to adjust for project-cost inflation. We understand that around 60% of the capex has been secured or is expected to be secured in the short term, while the remaining 40% is in the pipeline. In addition, the bulk of capex is concentrated on increasingly mature technologies with 45% on solar and 40% on onshore wind, where the group has built a solid track record, limiting operational risks. Remaining capacity (3GW) will be allocated to offshore wind, solar distributed generation, and storage.

Chart 8



e--Estimate. Source: S&P Global Ratings.

EDP maintains a reasonable country risk exposure supported by investment planned in less risky countries. EDP operates mostly in its home countries of Portugal and Spain, its historical markets, and will direct most of its investments to Europe and the North America. Renewables capex will focus on North America (about 45%) and Europe (about 35%) with the remaining 15% in Latin America, and will be concentrated in wind onshore and solar technologies. Of the networks' organic capex, 70% will be directed in core markets Portugal (50%) and Spain (20%), while the remaining 30% will be invested in Brazil.

Financial Risk: Significant

EBITDA growth will be supported by additional renewable capacity additions. For 2021, EDP's reported recurring EBITDA increased by 2% year-on-year to €3.7 billion (corresponding to around €3.3 billion S&P Global Ratings-adjusted EBITDA). This is in line with our previous assumptions, notably due to the depreciation of the Brazilian real. On the other hand, reported net debt decreased by about €0.6 billion year-on-year to about €11.6 billion on the back of successful disposals and EDP's asset rotation program. This led to stable reported net debt to EBITDA of 3.5x (around 4.4x S&P Global Ratings-adjusted) compared with 3.5x in 2020 (adjusted: 4.7x). For 2022, we expect EDP to achieve a reported recurring EBITDA of about €4.0 billion (€3.7 million S&P Global Ratings-adjusted EBITDA), with around €200 million coming from Viesgo, as well as a €50 million EBITDA contribution from the acquired Sunseap solar business in Asia-Pacific. Over 2022-2024, we expect EDP to focus on its high capex program, notably in renewables, which will lead to negative cash flows after capex and dividends of about €2.8 billion in 2022, reducing toward €2.0 billion thereafter. Moreover, we expect negative free cash flow after asset rotation of about €400 million-€500 million. We expect EBITDA to increase by more than adjusted debt on the back of renewable capacity additions.

We forecast adjusted debt to increase in the next two years with DCF remaining about negative €2.3 billion over 2022-2024 on average. We project EDP will generate healthy FOCF of more than €10 billion on average over 2022-2024, thanks to stable earnings from its global regulated power network activities and organic growth in renewables. Negative DCF will result from annual investments of €4 billion-€5 billion and shareholder distributions averaging €850 million-€950 million per year, while working capital outflows should be contained to about €300 million. Besides the organic growth in both renewables and networks, the group's €24 billion capex plan comprises bolt-on acquisitions to grow its renewable asset base, as demonstrated by the Sunseap acquisition, or networks with Celg-T in Brazil. The investment ramp-up will be partly funded by the company's asset rotation plan of about €1.5 billion-€2.0 billion per year but will still weigh on the company's balance sheet, leading to €2 billion of additional debt in 2024 compared with the €14.5 billion at end-2021. We expect most of this will happen in 2022 with the acquisition of Sunseap.

EDP's strong commitment to the current rating and unchanged financial policy are positives at a time when the company is materially ramping up investments. The aggressive capex plan will see a €2 billion increase in net debt over 2020-2023. The group will fund this investment partly with cash on the balance sheet, EU grants, and active asset rotation. During its capital markets day, EDP committed to improve its financial metrics to reach a solid investment-grade rating while maintaining sustainable leverage. We note that it reached FFO to debt around 21% in 2021 (EDP's definition) and strengthened cash flow generation. Various credit protective measures resulted in its S&P Global Ratings-adjusted FFO to debt increasing to above 18%, which reinforced its commitment to the 'BBB' rating, in our view. We understand that EDP still has some flexibility to further reinforce its balance sheet (that is, additional hybrid issuance and portfolio optimization), not currently in our base case. If EDP encounters any operational or financial underperformance in its current plan, we would expect these credit supportive measures to be implemented in such a way that FFO to debt remains above 19% and debt to EBITDA below 4.0x.

We also understand that EDP's financial policy is unchanged, with a target payout ratio of 75%-85%, staying at €0.19 per share. We expect total dividends to average €850 million-€950 million for the next two-to-three years.

We expect EDP' credit metrics will be below the current threshold in 2022 and then rebound in 2023-2024 with narrow headroom above the rating threshold. Although ratings headroom is somewhat reduced by the Sunseap acquisition and below-average hydrology in first-quarter 2022, from 2023 we factor into our forecasts some additional rating headroom. This reflects EDP's solid EBITDA growth and supportive financial policy, which should mitigate the effects of the accelerated capex plan. This will result in FFO to debt stabilizing around 18% in 2022 and leverage remaining around 4.4x. We expect the asset rotation strategy to further support EDP's credit metrics, with FFO to debt at about 19.5%–20.5% over 2023-2024. Adjusted debt will increase to about €16.6 billion in 2023 compared with the €16.5 billion in 2022 (2021: €14.5 billion), with EBITDA growth somewhat offsetting the debt increase, which explains leverage remaining at about 4.0x on average over 2023-2024.

EDP has some minority shareholdings in its subsidiaries, which increased after the recent capital increase at EDPR. A credit consideration for EDP is its relatively complex group structure, with significant and diverse minority shareholders in most of its foreign holdings (notably EDP Brazil, 55.97% owned; EDPR, 75% owned, and electricity distribution business in Spain, 75.1% owned). This is mitigated by EDPR being almost fully internally funded, with low dividend payments, and by EDP Brasil being ring-fenced. Financial leverage at EDPR is lower than consolidated leverage, meaning the consolidated debt mainly lies at the EDP level. With the recent capital increase at EDPR, EDP's minority holdings slightly increase given that it will now own 75%, from 82.56% previously. EDP's share of minority shareholders represented €4,655 million of noncontrolling interests at year-end 2021 (29% of the group's consolidated equity position as of year-end 2021). We are monitoring this source of cash-flow leakage.

Financial summary

Table 2

EDP - Energias de Portugal S.A.--Financial Summary

Industry Sector: Energy

	--Fiscal year ended Dec. 31--				
	2021	**2020**	**2019**	**2018**	**2017**
(Mil. €)					
Revenue	15,206.9	12,409.2	14,333.0	15,278.1	15,746.0
EBITDA	3,288.9	3,277.8	3,390.2	3,207.0	3,462.0
Funds from operations (FFO)	2,668.6	2,606.3	2,557.0	2,455.1	2,001.5
Interest expense	537.6	546.6	684.1	708.6	847.4
Cash interest paid	583.8	621.7	583.6	686.9	851.0
Cash flow from operations	1,552.1	1,909.0	1,741.8	2,398.2	1,574.8
Capital expenditure	3,260.6	2,339.3	2,300.7	1,674.9	1,887.7
Free operating cash flow (FOCF)	(1,708.5)	(430.3)	(559.0)	723.3	(312.9)
Discretionary cash flow (DCF)	(2,639.5)	(1,261.9)	(1,509.1)	(156.1)	(1,164.7)
Cash and short-term investments	3,222.1	2,920.0	1,481.7	1,720.3	2,298.6
Gross available cash	3,272.2	2,952.1	1,543.2	1,913.2	2,343.9
Debt	14,581.2	15,565.8	17,003.8	16,877.9	17,205.3
Equity	15,852.6	13,953.4	13,507.0	13,275.3	13,855.3
Adjusted ratios					
EBITDA margin (%)	21.6	26.4	23.7	21.0	22.0
Return on capital (%)	5.4	5.4	6.5	5.7	6.5
EBITDA interest coverage (x)	6.1	6.0	5.0	4.5	4.1
FFO cash interest coverage (x)	5.6	5.2	5.4	4.6	3.4
Debt/EBITDA (x)	4.4	4.7	5.0	5.3	5.0
FFO/debt (%)	18.3	16.7	15.0	14.5	11.6
Cash flow from operations/debt (%)	10.6	12.3	10.2	14.2	9.2
FOCF/debt (%)	(11.7)	(2.8)	(3.3)	4.3	(1.8)
DCF/debt (%)	(18.1)	(8.1)	(8.9)	(0.9)	(6.8)

Reconciliation

Table 3

EDP - Energias de Portugal S.A.--Reconciliation Of Reported Amounts With S&P Global Ratings' Adjusted Amounts (Mil. €)

	--Fiscal year ended Dec. 31, 2021--									
EDP - Energias de Portugal S.A. reported amounts										
	Debt	**Shareholders' equity**	**Revenue**	**EBITDA**	**Operating income**	**Interest expense**	**S&P Global Ratings' adjusted EBITDA**	**Cash flow from operations**	**Dividends**	**Capital expenditure**
Reported	16,817.9	9,322.8	14,982.9	3,646.1	1,883.2	472.5	3,288.9	2,019.9	884.8	3,351.5

Table 3

EDP - Energias de Portugal S.A.--Reconciliation Of Reported Amounts With S&P Global Ratings' Adjusted Amounts (Mil. €) (cont.)

S&P Global Ratings' adjustments										
Cash taxes paid	--	--	--	--	--	--	(89.8)	--	--	--
Cash taxes paid: Other	--	--	--	--	--	--	53.3	--	--	--
Cash interest paid	--	--	--	--	--	--	(499.6)	--	--	--
Cash interest paid: Other	--	--	--	--	--	--	(39.5)	--	--	--
Reported lease liabilities	1,049.4	--	--	--	--	--	--	--	--	--
Intermediate hybrids reported as debt	(1,875.0)	1,875.0	--	--	--	(46.2)	46.2	46.2	46.2	--
Postretirement benefit obligations/deferred compensation	736.2	--	--	15.3	15.3	16.6	--	--	--	--
Accessible cash and liquid investments	(3,272.2)	--	--	--	--	--	--	--	--	--
Capitalized interest	--	--	--	--	--	90.9	(90.9)	(90.9)	--	(90.9)
Share-based compensation expense	--	--	--	2.7	--	--	--	--	--	--
Dividends received from equity investments	--	--	--	50.1	--	--	--	--	--	--
Asset-retirement obligations	389.5	--	--	--	--	3.8	--	--	--	--
Nonoperating income (expense)	--	--	--	--	176.7	--	--	--	--	--
Reclassification of interest and dividend cash flows	--	--	--	--	--	--	--	(423.1)	--	--
Noncontrolling interest/minority interest	--	4,654.8	--	--	--	--	--	--	--	--
Debt: Guarantees	339.2	--	--	--	--	--	--	--	--	--
Debt: Derivatives	(76.7)	--	--	--	--	--	--	--	--	--
Debt: Other	472.8	--	--	--	--	--	--	--	--	--
Revenue: Derivatives	--	--	224.0	224.0	224.0	--	--	--	--	--
EBITDA: Gain/(loss) on disposals of PP&E	--	--	--	(9.0)	(9.0)	--	--	--	--	--
EBITDA: Business divestments	--	--	--	(587.0)	(587.0)	--	--	--	--	--
EBITDA: Other	--	--	--	(53.3)	(53.3)	--	--	--	--	--
EBIT: Other	--	--	--	--	(28.0)	--	--	--	--	--
Total adjustments	(2,236.7)	6,529.8	224.0	(357.2)	(261.3)	65.0	(620.3)	(467.8)	46.2	(90.9)

Table 3

EDP - Energias de Portugal S.A.--Reconciliation Of Reported Amounts With S&P Global Ratings' Adjusted Amounts (Mil. €) (cont.)

S&P Global Ratings' adjusted amounts

	Debt	Equity	Revenue	EBITDA	EBIT	Interest expense	Funds from operations	Cash flow from operations	Dividends paid	Capital expenditure
Adjusted	14,581.2	15,852.6	15,206.9	3,288.9	1,621.9	537.6	2,668.6	1,552.1	931.0	3,260.6

Liquidity: Strong

We view EDP's liquidity as strong, reflecting the company's proactive financing and healthy cash flow. In particular, projected sources of liquidity (predominantly operating cash flow and available bank lines) exceed projected uses (mainly necessary capex, debt maturities, and dividends) by more than 1.5x for the next 12 months and more than 1.0x in the following 12 months. EDP's strong bank relationships, prudent financial discipline, and proven access to the debt capital markets support our assessment of the company's liquidity position as strong.

Principal Liquidity Sources	Principal Liquidity Uses
We estimate the following principal liquidity sources for the 12 months from June 30, 2022: • Unrestricted cash of about €3.7 billion; • About €5.1 billion in available committed lines maturing beyond 12 months. In particular, EDP has a €3.3 billion revolving credit facility (RCF) maturing in 2024 and a €2.1 billion RCF maturing in 2025; • Forecast cash FFO of about €3.5 billion; and • Issuance of €1.25 billion green bond in March 2022, maturing in September 2029;	For the same period, we estimate principal liquidity uses as: • Short-term debt of about €1.0 billion, including subsidiaries' short-term debt; • Estimated working capital outflows of €500 million; • An estimated €4.7 billion of gross capex; and • Dividends of about €880 million, including dividends to subsidiaries' minority shareholders.

Debt maturities

EDP's green bond issuances as of Feb. 18, 2022, totalled €6.4 billion, including:

- October 2018: €600 million, 1.875% seven-year green bond (first green issuance)
- January 2019: €1.0 billion 4.496% NC5.25 green hybrid (first green hybrid)
- September 2019: €600 million, 0.375% seven-year green bond
- January 2020: €750 million, 1.7% NC5.5 green hybrid
- April 2020: €750 million, 1.625% seven-year green bond
- Sep.2020: $850 million, 1.71% long seven-year green bond (the first U.S.-dollar-denominated green issuance)

- January 2021: €750 million, 1.875% NC5.5 green hybrid
- September 2021: €750 million, 1.6% NC5.5 and €500 million, 1.95% NC8 green hybrids

Environmental, Social, And Governance

ESG Credit Indicators

E-1	**E-2**	E-3	E-4	E-5	S-1	**S-2**	S-3	S-4	S-5	G-1	**G-2**	G-3	G-4	G-5

ESG credit indicators provide additional disclosure and transparency at the entity level and reflect S&P Global Ratings' opinion of the influence that environmental, social, and governance factors have on our credit rating analysis. They are not a sustainability rating or an S&P Global Ratings ESG Evaluation. The extent of the influence of these factors is reflected on an alphanumerical 1-5 scale where 1 = positive, 2 = neutral, 3 = moderately negative, 4 = negative, and 5 = very negative. For more information, see our commentary "ESG Credit Indicators: Definition And Applications," published Oct. 13, 2021.

The power industry bears environmental risk well above other sectors as it is at the forefront of the energy transition and faces pressure to decarbonize the generation mix. It also has above-average social risk given its considerable influence on local communities, including on customers' electric bills; as a local employer; as a significant contributor to local taxes; and by ensuring safe operations at generating facilities. More particularly renewables face some environmental and social risks as the significant acceleration of new builds requires more land and acceptance from local communities, together with workforce adequation. (See "ESG Credit Indicator Report Card: Power Generators," published on Nov. 18, 2021.)

ESG factors have an overall neutral influence on our credit rating analysis of EDP. EDP is a world leader in renewable energy generation and has a strong commitment to the energy transition in its latest strategic plan for 2021-2025. The plan predominantly focuses on renewable generation and phasing out coal by 2025 (8% of installed capacity at year-end 2021). Its generation fleet comprises 79% renewables (versus 30%-50% for closest peers). EDP aims to double its build-out renewable capacity by 2025, from its 2019-2022 plan, with an additional 20GW (mainly wind onshore, with 9GW deployed and 8GW solar PV), resulting in a net added capacity of 13GW post asset rotation. The company stated publicly that it will reduce specific CO_2 emissions by 98% up to 2030 (compared with 2015 levels). EDP is also committed to reducing scope 3 emissions by 50% over the same timeframe. In 2021, EDP generated 176 gCO_2/kWh under scopes 1 and 2 emissions, up from 156 gCO_2/kWh in 2020, due to high thermal availability and poor hydro performance, and still in line with best-in-class utilities. Governance uncertainties related to the previous CEO's suspension in 2020 have been cleared with the nomination of Mr. Miguel Stilwell De Andrade as new CEO at the end of January 2021, and we currently assess EDP's management and governance as satisfactory.

Issue Ratings - Subordination Risk Analysis

Capital structure

EDP's policy is to issue most of its debt at the parent company directly, or via its financial subsidiary EDP Finance BV, and lend the proceeds to its operating companies. However, we calculate structural subordination to be down to 13% in first-quarter 2022, from 20% in 2021, with reduced debt at the subsidiaries following Viesgo's financing transferred to EDP level. We think EDP's size, diversity of cash flow generation, and financial ring-fencing of its Brazilian subsidiary and direct ownership of a fair amount of operating assets strongly mitigate structural subordination issues.

Analytical conclusions

The issue rating on EDP's senior unsecured debt is 'BBB', in line with the issuer credit rating, because no significant elements of subordination risk are present in the capital structure. We rate the hybrid bonds 'BB+', two notches below EDP's 'bbb' stand-alone credit profile.

Ratings Score Snapshot

Issuer Credit Rating

BBB/Stable/A-2

Business risk: Strong

- **Country risk:** Intermediate
- **Industry risk:** Intermediate
- **Competitive position:** Strong

Financial risk: Significant

- **Cash flow/leverage:** Significant

Anchor: bbb

Modifiers

- **Diversification/portfolio effect:** Neutral (no impact)
- **Capital structure:** Neutral (no impact)
- **Financial policy:** Neutral (no impact)
- **Liquidity:** Strong (no impact)
- **Management and governance:** Satisfactory (no impact)
- **Comparable rating analysis:** Neutral (no impact)

Stand-alone credit profile : bbb

- **Group credit profile:** bbb

Related Criteria

- General Criteria: Environmental, Social, And Governance Principles In Credit Ratings, Oct. 10, 2021
- General Criteria: Group Rating Methodology, July 1, 2019
- General Criteria: Hybrid Capital: Methodology And Assumptions, July 1, 2019
- Criteria | Corporates | General: Corporate Methodology: Ratios And Adjustments, April 1, 2019
- Criteria | Corporates | General: Reflecting Subordination Risk In Corporate Issue Ratings, March 28, 2018

- General Criteria: Methodology For Linking Long-Term And Short-Term Ratings, April 7, 2017
- Criteria | Corporates | General: Methodology And Assumptions: Liquidity Descriptors For Global Corporate Issuers, Dec. 16, 2014
- Criteria | Corporates | Industrials: Key Credit Factors For The Unregulated Power And Gas Industry, March 28, 2014
- General Criteria: Methodology: Industry Risk, Nov. 19, 2013
- Criteria | Corporates | General: Corporate Methodology, Nov. 19, 2013
- General Criteria: Country Risk Assessment Methodology And Assumptions, Nov. 19, 2013
- Criteria | Corporates | Utilities: Key Credit Factors For The Regulated Utilities Industry, Nov. 19, 2013
- General Criteria: Methodology: Management And Governance Credit Factors For Corporate Entities, Nov. 13, 2012
- General Criteria: Principles Of Credit Ratings, Feb. 16, 2011
- General Criteria: Stand-Alone Credit Profiles: One Component Of A Rating, Oct. 1, 2010

Business And Financial Risk Matrix

	Financial Risk Profile					
Business Risk Profile	Minimal	Modest	Intermediate	**Significant**	Aggressive	Highly leveraged
Excellent	aaa/aa+	aa	a+/a	a-	bbb	bbb-/bb+
Strong	aa/aa-	a+/a	a-/bbb+	**bbb**	bb+	bb
Satisfactory	a/a-	bbb+	bbb/bbb-	bbb-/bb+	bb	b+
Fair	bbb/bbb-	bbb-	bb+	bb	bb-	b
Weak	bb+	bb+	bb	bb-	b+	b/b-
Vulnerable	bb-	bb-	bb-/b+	b+	b	b-

Ratings Detail (As Of July 1, 2022)*

EDP - Energias de Portugal S.A.	
Issuer Credit Rating	BBB/Stable/A-2
Commercial Paper	
Local Currency	A-2
Junior Subordinated	BB+
Senior Unsecured	BBB
Short-Term Debt	A-2
Issuer Credit Ratings History	
16-Mar-2021	BBB/Stable/A-2
08-Aug-2017	BBB-/Stable/A-3
30-Jan-2015	BB+/Positive/B
Related Entities	
EDP Finance B.V.	
Issuer Credit Rating	BBB/Stable/A-2

Ratings Detail (As Of July 1, 2022)*(cont.)	
Commercial Paper	
Local Currency	A-2
Senior Unsecured	BBB
Short-Term Debt	A-2

*Unless otherwise noted, all ratings in this report are global scale ratings. S&P Global Ratings' credit ratings on the global scale are comparable across countries. S&P Global Ratings' credit ratings on a national scale are relative to obligors or obligations within that specific country. Issue and debt ratings could include debt guaranteed by another entity, and rated debt that an entity guarantees.

Additional Contact:
Infrastructure Finance Ratings Europe; InfrastructureEurope@spglobal.com