

CREDIT OPINION

28 July 2025

Update



Send Your Feedback

RATINGS

Colbun S.A.

Domicile	Santiago, Chile
Long Term Rating	Baa2
Type	LT Issuer Rating - Dom Curr
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.

Contacts

Daniela Cuan +54.11.5129.2617
VP-Senior Analyst
daniela.cuan@moodys.com

Adrian Garza, CFA +52.55.1253.5709
VP-Sr Credit Officer
adrianjavier.garza@moodys.com

Cristiane Spercel +55.11.3043.7333
Associate Managing Director
cristiane.spercel@moodys.com

Colbun S.A.

Update to credit analysis

Summary

[Colbun S.A.](#)'s (Colbun, Baa2 stable) credit profile reflects the company's strong positioning in the Chilean market, its successful commercial policy with an extended contractual profile (8 years average life of contracts) with a diversified client's base, strong liquidity and adequated credit metrics.

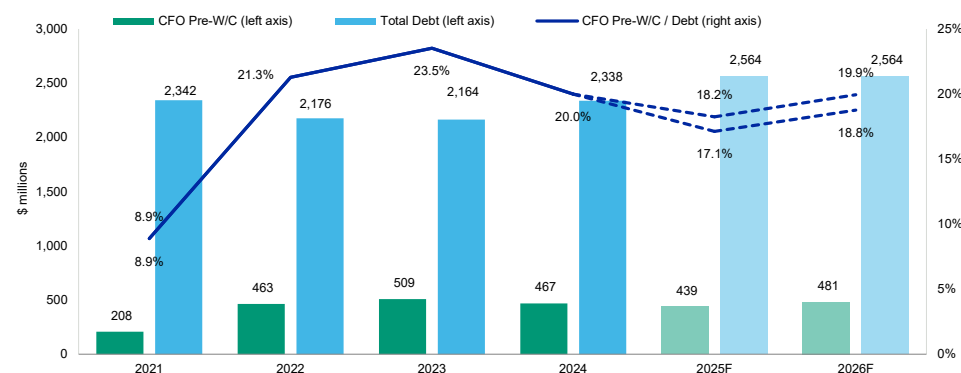
Colbun's Baa2 rating and stable outlook considers that, despite the company's growth plans, credit metrics are expected to support the current rating level. If fully implemented, the plan, which involves investments of approximately \$1 billion, would imply some additional debt, leading to a temporary peak in leverage (D/E ratio around 4x in 2025). However, this ratio is expected to decline to around 3x once the investments begin generating additional revenue.

The company's credit profile also reflects the strategic positioning of its assets in Chile and the strengthening of its presence in the northern part of the country, where the company already operates sizable renewable projects that are also adding some storage capacity. These projects align with significant supply contracts that Colbun has secured with major mining and industrial clients in that area.

The profile also takes into consideration the company's robust liquidity and a comfortable debt profile.

Exhibit 1

Metrics will remain adequate in the next 12-18 months despite higher investments.



All data based on adjusted financial data, which follow our Financial Statement Adjustments in the Analysis of Nonfinancial Corporations methodology. Moody's forecasts are Moody's opinion and do not represent the views of the issuer.

Dotted line indicate min. and max. for the forecasted period

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

Credit strengths

» Scale and market position in Chile

- » Prudent commercial policy
- » Equilibrium of its energy balance
- » Sound credit metrics

Credit challenges

- » Declining power prices adding pressure to margins
- » Exposure to water stress and high fuel prices, mitigated by increased renewable output
- » Growth strategy in place that could entail an increase in debt and execution risks

Rating outlook

The stable rating outlook incorporates our expectation that Colbun will be able to sustain a ratio of CFO pre WC/Debt above 20%, despite some execution risks pursuant its growth initiatives and higher than historical leverage through 2026.

Factors that could lead to an upgrade

The rating could be upgraded if Colbun extends its contracted position further at price levels that lead to a sustained improvement in its credit metrics, such that its interest coverage is above 8.0x; CFO pre-WC/debt is above 35% retained cash flow (RCF)/debt is above 15%.

The diversification and expansion of operations into other markets that have stable, creditor-friendly regulatory frameworks could also have a positive impact on the rating.

Factors that could lead to a downgrade

A downgrade of Colbun's rating would be triggered if the company is unable to sustain its revenue profile, leading to a shorter-than-expected weighted average contracted life and limited cash flow visibility; it were to undertake large, debt-funded acquisitions; its liquidity deteriorates significantly; or we perceive a weakening in the regulatory frameworks where it operates. Quantitatively, downgrade rating pressure would increase if, on a sustained basis, its interest coverage remains consistently below 5.0x; CFO pre-WC/debt remains below 20% and RCF/debt remains below 10%.

Key indicators

Exhibit 2

Colbun S.A.

	2021	2022	2023	2024	LTM Mar-25
CFO Pre-W/C + Interest / Interest	3.7x	6.4x	7.5x	7.1x	7.9x
CFO Pre-W/C / Debt	8.9%	21.3%	23.5%	20.0%	22.5%
RCF / Debt	-47.9%	19.5%	8.8%	13.1%	14.3%

All data based on adjusted financial data, which follow our Financial Statement Adjustments in the Analysis of Nonfinancial Corporations methodology.

LTM = Last 12 months.

Source: Moody's Financial Metrics™

Profile

Headquartered in Santiago, Chile, Colbun S.A. (Colbun) is an operational holding company engaged in power generation in Chile (87% of consolidated EBITDA in 2024); and [Peru](#) (Baa1 stable), through its controlling stake in Fenix Power Peru S.A. As of March 2025, the company had a total combined installed capacity of 5,037 megawatts (MW), of which 58% was renewable and 42% comprised of thermal plants.

This publication does not announce a credit rating action. For any credit ratings referenced in this publication, please see the issuer/deal page on <https://ratings.moody.com> for the most updated credit rating action information and rating history.

The company is controlled by the Matte Group, which holds 50% of Colbun's total capital. Matte Group has investments in the energy, financial, forestry, real estate and telecom sectors. The remaining owners are pension funds with 17%, Angelini Group 10% and 23% of shares publicly traded.

Recent developments

- » On April 29, 2025, through Colbún Perú S.A., a subsidiary of Colbún S.A., signed a purchase agreement to acquire 41.38% of Fenix Power Perú S.A., thereby reaching 100% ownership of the company.
- » On March 23, 2025, the Santa María Thermal Power Plant suffered a major failure due to loss of lubrication in the steam turbine, resulting in a prolonged outage. Although repairs were already completed, logistics are delaying the return of the equipment to the site. Santa Maria is expected to be back on operations in September.
- » On March 20, 2025, Colbún inaugurated the largest wind farm in Chile, with an installed capacity of 816 MW, located in the north of the country. The project required an investment of \$900 million.

Detailed credit considerations

Leading market position in Chile

Colbun has a leading position in the Chilean market, with a 13% market share as of March 2025 in terms of energy production. Colbun energy generation is behind Enel Generacion Chile, the subsidiary of [Enel Chile S.A.](#) (Baa2 stable) and at around the same level than [AES Andes S.A.](#) (Baa3 stable). Most of Colbun's Chilean assets are located in the south-central region of the country but it has been recently expanding its capacity in the North of the country, enhancing its regional diversification. The company has 4,465 MW of installed capacity in Chile and total energy generation of 11.8 terawatt-hours (TWh) in 2024.

Prudent commercial policy and manageable re-contracting risks supported by a diversified generation fleet

Colbun has an adequate contracted position, currently with an average life of 8 years and at least 14TWh contracted until 2029. We note the company has been shifting away from regulated contracts to PPAs with unregulated clients, the most recent with mining companies with long tenors (10-15 years). In 2024 Colbun had commitments with regulated clients for about 6% of its power generation output, this amount will continue to decline to 2% in 2027.

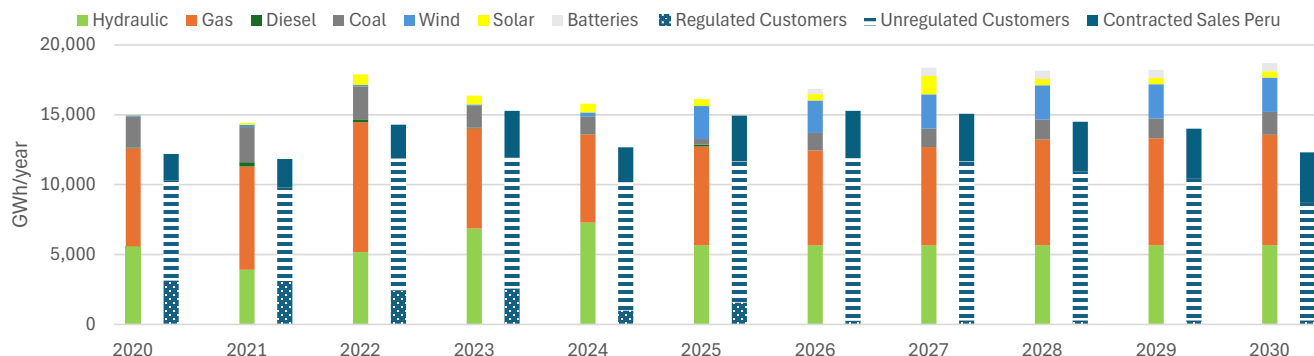
Colbun has continuously increased its customers' base and successfully renewed maturing contracts. We also acknowledge the diversity of Colbun's customer base (more than 300 unregulated clients), and its ability to negotiate collateral packages to mitigate the counterparty risk. These packages include corporate guarantees and letters of credit from creditworthy shareholders.

The company's commercial policy is further enhanced by its increasingly diversified generation fleet, with an increasing share of less expensive renewable sources of energy to supply its power commitments, particularly with Ilap's acquisition plus the start of operations in March of this year of its Horizonte wind project (816MW). With these additions to the portfolio, Colbun presents a well-diversified generation base, with more than 50% of its output coming from renewables (hydro, wind and solar). Colbun currently presents an adequate energy balance, with a power generation output that generally exceeds or matches its contractual PPA obligations, which we expected to be maintained over the upcoming years.

Exhibit 3

Colbun balance of power generation output and contractual PPAs obligation is adequate.

Amounts in TWh/year

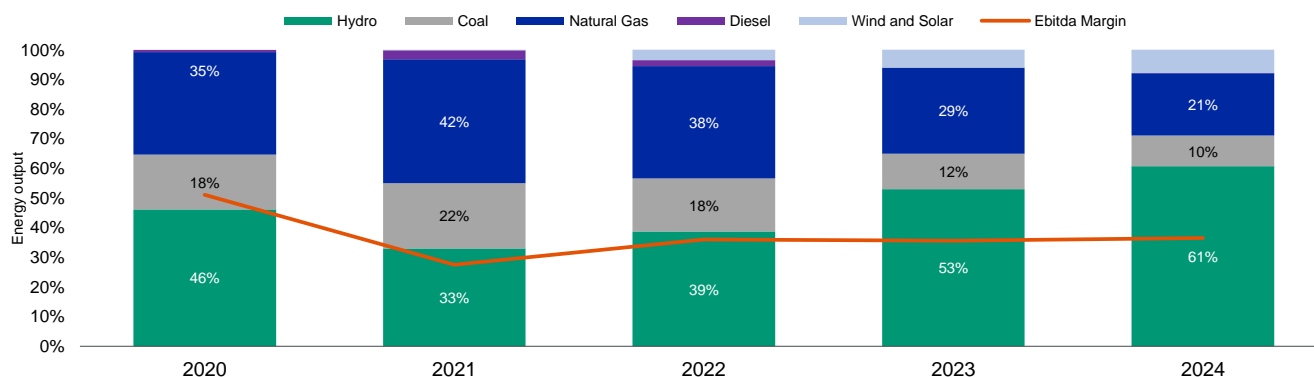


Source: Company reports and Moody's Ratings estimates

Better hydro conditions drove EBITDA improvement

Colbun's hydro generation in 2024 reached 61% of its total output improving from 33% in 2021, the driest year in almost a decade. The drought in 2021 together with higher thermal generation and high and coal and gas prices increased the company's variable costs, contributing to a lower EBITDA margin in 2021 as compared to historical margins. However, in 2023, hydro conditions improved and EBITDA margin grew to 36%. Moreover, in 2024 hydro generation contributed 46% of overall generation, natural gas dispatch reached 40% and coal contributed 8% of the energy, with the remaining 6% coming from wind and solar. The company's prudent commercial policy, in combination with its diversified and efficient energy generation fleet, has helped it cope with continued volatile hydro conditions.

Exhibit 4

Recovered hydro generation and margins in 2024

Source: Systept

Credit metrics are expected to remain adequate for the rating level

Colbun's historical credit metrics have been strong. As of LTM March 2025, the metrics showed improvement as compared to the FYE2024, with CFO (pre-WC)+ interest/interest expense increasing to 7.9x from 7.1x in 2024, and CFO pre-WC/debt rising to 22.5% from 20.0% in 2024. However, due to the company's planned investments, we expect an increase in debt that will result in a temporary decline in coverage metrics in 2025 before starting to improve again in 2026.

We expect the Colbun's credit metrics to remain in line with its current rating, with the cash interest coverage to be around 5 times in 2025 and 2026, and CFO pre-WC/debt around 18%-20% in 2025-26 even as the company implements its capital investment program and distributes dividends to shareholders in accordance with its stated policy of 50% of net income. Colbun currently has a solid cash balance, and its investment plan is focused on a more diversified and cheaper-to-operate fuel resource base, which will help to sustain its EBITDA and EBITDA margins. The company's growth plans entail additional debt, which in our view would lead to a transitory peak

in leverage to around 4 times debt-to-EBITDA in 2025, but that would revert to the 3 times once the planned investments mature and start producing incremental cash flows.

Continued appetite for renewable project development

In addition to maintaining its expansion within the region to countries with stable regulatory environments, the company has realigned its growth strategy to focus on Chile, with a pipeline of over 5 GW of renewables projects in the country (solar, wind and batteries) at different stages of development, plus an additional pipeline of 1.8GW in Peru. The business case is enhanced by the persistent low development costs and increasing technological efficiencies, which are likely to increase generation output per installed capacity, and a broader generation policies impulsing decarbonization.

We expect the company to continue to pursue new investments at a moderate pace over the next three to four years, increasing its investment budget. Recently, the company succeeded in achieving a partial COD on April 2025 for its Horizonte wind farm (816 MW) with an investment of \$898 million.

Exhibit 5
Projects' pipeline

Projects	Type	Progress	Capex	Installed Capacity (MW)	Country	COD	Status
BESS Celda Solar	Batteries	13%	\$260	228	Chile	Q1 2026	Construction
BESS Diego de Almagro Sur	Batteries		\$205	228	Chile	Q3 2026	Colbun signed contract with Canadian solar for the batteries
Horizonte (expansion)	Wind		150	180	Chile		TBC
Bayovar Wind Project	Wind			660	Peru		Environmental Study was approved in Q1 2025 by SENACE

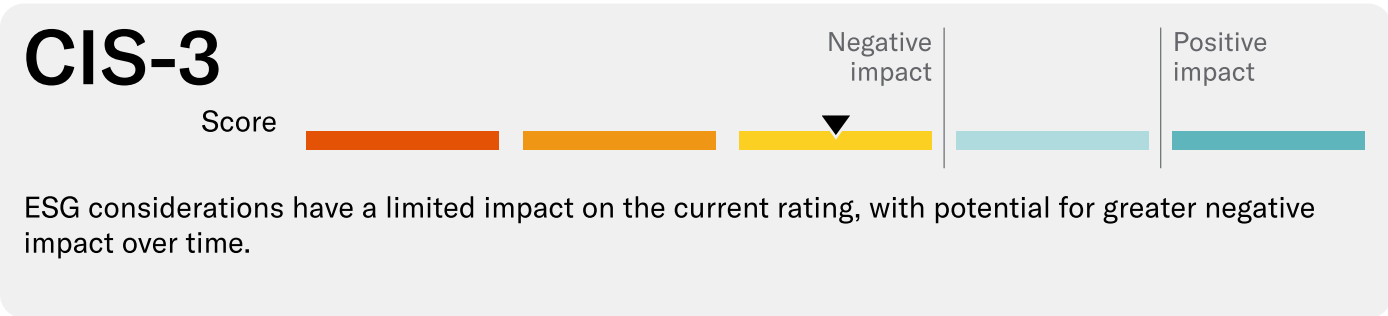
Source: Colbun

We expect the company to raise modest levels of additional debt to support this investment plan, based on our assumption that it will use a combination of its cash available and internal cash generation to support the plan while keeping distributions at 50% of net income.

ESG considerations

Colbun S.A.'s ESG credit impact score is CIS-3

Exhibit 6
ESG credit impact score

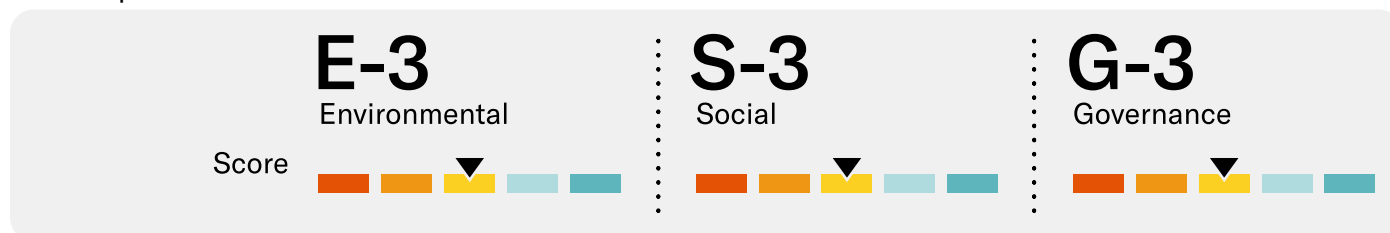


Source: Moody's Ratings

Colbun's (CIS-3), suggests that ESG considerations currently have a limited impact on the company's credit rating. However, these considerations may have a more significant negative impact over time due to for example an acceleration of decarbonization targets in Chile. The company's investment strategy could potentially provide the company with an opportunity to adapt its operations to more stringent environmental requirements from both regulations and its clients.

Exhibit 7

ESG issuer profile scores



Source: Moody's Ratings

Environmental

Colbun's **E-3** issuer profile score reflects exposure to physical climate risks that are typical for utilities, including the exposure to the resource risks and to commodity prices as well as pollution from its coal operations. The company also faces exposure to carbon transition resulting from more strict environmental regulation in Chile that increases risk for certain coal assets in operation; however, these risks are partially offset by the company's diversified energy portfolio and its ongoing expansion of its renewable capacity.

Social

Colbun's **S-3** issuer profile score reflects moderate risks of adverse regulations due to social pressures or public concern over affordability issues that had recently manifested in Chile and that resulted for example in the temporary suspension of the electricity tariffs indexation. This risk is mitigated for Colbun given the low share of revenues to clients subject to regulated prices.

Governance

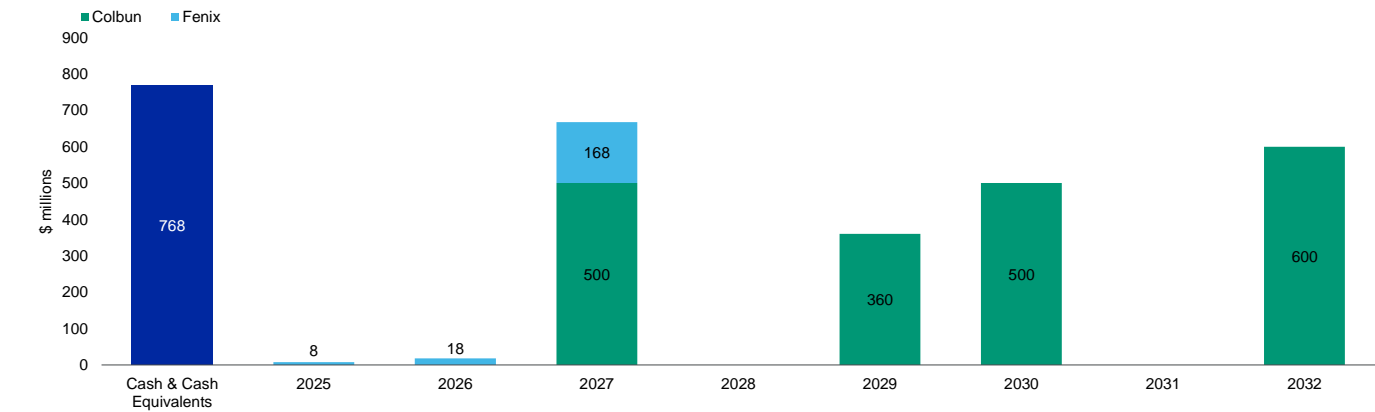
Governance risk for Colbun (**G-3** issuer profile score) reflects the company's prudent financial profile and management track record. Colbun is a publicly traded company, and its stock is listed on the Santiago Stock Exchange and the Chilean Electronic Stock Exchange. The company is controlled by the Matte Group, which shows some concentration on its shareholding structure.

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

Colbun maintains strong liquidity and a comfortable debt maturity profile, with cash and cash equivalents of \$768 million as of March 2025 and not significant maturities in the 2025-2026 period. This cash balance will support its investment plan in accordance with the company's growth strategy. As of March 2025, Colbun's debt had an average life of 4.6 years and average cost of 3.96%. Colbun's debt is 100% US dollar denominated and 83% fixed rate. We expect that the cash position will decline as a result of its investment plan, however, we also expect that the company will maintain an adequate cash position of at least \$300 million. The company's more imminent debt maturities are due in 2027, which we expect to be refinanced in advance of its contractual term.

Exhibit 8
Consolidated debt schedule (as of March 2025)



Source: Company reports

Rating methodology and scorecard factors

The principal methodology we used for Colbun's credit analysis was the Unregulated Utilities and Unregulated Power Companies rating methodology. As depicted in the grid below, Colbun's current scorecard-indicated outcome is Baa2, the same than the assigned rating.

Exhibit 9

Rating factors

Colbun S.A.

Unregulated Utilities and Unregulated Power Companies Industry		Current LTM Mar-25	Moody's 12-18 month forward view	
Factor 1 : Scale (10%)	Measure	Score	Measure	Score
a) Scale (\$ billions)	Baa	Baa	Baa	Baa
Factor 2 : Business Profile (35%)				
a) Market Diversification	Ba	Ba	Ba	Ba
b) Hedging and Integration Impact on Cash Flow Predictability	Baa	Baa	Baa	Baa
c) Market Framework & Positioning	Baa	Baa	Baa	Baa
d) Capital Requirements and Operational Performance	Baa	Baa	Baa	Baa
Factor 3 : Financial Policy (15%)				
a) Financial Policy	Baa	Baa	Baa	Baa
Factor 4 : Leverage and Coverage (40%)				
a) (CFO Pre-W/C + Interest) / Interest (3 Year Avg)	7.4x	Baa	5.8x - 6.6x	Baa
b) (CFO Pre-W/C) / Debt (3 Year Avg)	22.9%	Baa	18.3% - 19.9%	Ba
c) RCF / Debt (3 Year Avg)	14.7%	Ba	12.0% - 15.0%	Ba-Baa
Rating:				
a) Scorecard-Indicated Outcome		Baa2		Baa3 - Baa2
b) Actual Rating Assigned		Baa2		

All data based on adjusted financial data, which follow our Financial Statement Adjustments in the Analysis of Nonfinancial Corporations methodology.

LTM = Last 12 months.

Moody's forecasts are Moody's opinion and do not represent the views of the issuer.

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

Exhibit 10

Peer comparison

Colbun S.A.

(In \$ millions)	Colbun S.A. Baa2 Stable			Enel Americas S.A. Baa2 Stable			Enel Chile S.A. Baa2 Stable			AES Andes S.A. Baa3 Stable			Empresas Publicas de Medellin E.S.P. Baa3 Stable		
	FY Dec-23	FY Dec-24	LTM Mar-25	FY Dec-23	FY Dec-24	LTM Mar-25	FY Dec-22	FY Dec-23	FY Dec-24	FY Dec-23	FY Dec-24	LTM Mar-25	FY Dec-23	FY Dec-24	LTM Mar-25
Revenue	2,004	1,576	1,606	12,888	13,904	13,810	5,700	5,227	4,885	2,742	2,343	2,226	8,629	9,746	9,421
EBITDA	714	576	605	3,573	3,550	3,388	1,382	1,359	1,466	739	564	564	2,113	2,727	2,615
CFO Pre-W/C + Interest / Interest	7.5x	7.1x	7.9x	4.2x	3.0x	2.9x	4.8x	4.0x	6.4x	2.7x	4.2x	4.3x	4.0x	3.5x	3.6x
CFO Pre-W/C / Debt	23.5%	20.0%	22.5%	26.8%	30.7%	26.0%	17.6%	14.5%	30.1%	15.4%	22.9%	22.9%	24.8%	17.9%	19.5%
RCF / Debt	8.8%	13.1%	14.3%	20.3%	28.6%	21.4%	13.6%	5.6%	16.9%	12.1%	18.4%	18.4%	20.7%	18.8%	17.2%

All data based on adjusted financial data, which follow our Financial Statement Adjustments in the Analysis of Nonfinancial Corporations methodology.

LTM = Last 12 months.

Source: Moody's Financial Metrics™

Exhibit 11

Moody's-adjusted cash flow metrics

Colbun S.A.

(In \$ millions)	2021	2022	2023	2024	LTM Mar-25
EBITDA	395.4	710.2	713.8	575.9	604.7
FFO	123.6	576.7	495.3	440.9	464.7
- Div	1,244.7	151.9	304.9	134.7	132.9
RCF	(1,121.2)	424.8	190.3	306.1	331.8
FFO	123.6	576.7	495.3	440.9	464.7
+/- ΔWC	44.1	(64.2)	106.5	(120.3)	(169.9)
+/- Other	84.6	(113.8)	13.6	26.6	58.4
CFO	252.3	398.7	615.4	347.2	353.2
- Div	1,244.7	151.9	304.9	134.7	132.9
- Capex	258.1	275.7	517.6	217.9	222.8
FCF	(1,250.6)	(28.9)	(207.1)	(5.4)	(2.5)
Debt / EBITDA	5.9x	3.1x	3.0x	4.1x	3.8x
EBITDA / Interest	5.1x	8.3x	9.2x	7.5x	8.0x
FFO / Debt	5.3%	26.5%	22.9%	18.9%	20.0%
RCF / Debt	-47.9%	19.5%	8.8%	13.1%	14.3%
Revenue	1,439.7	1,974.0	2,003.6	1,576.0	1,606.4
Interest Expense	77.2	85.6	77.9	76.3	76.1
Net Income	73.9	288.0	301.5	208.4	226.7
Total Assets	6,596.4	6,596.1	6,644.9	6,877.4	6,948.6
Total Liabilities	3,879.8	3,785.7	3,683.2	3,795.6	3,773.9
Total Equity	2,716.6	2,810.4	2,961.7	3,081.8	3,174.7

All data based on adjusted financial data, which follow our Financial Statement Adjustments in the Analysis of Nonfinancial Corporations methodology.

LTM = Last 12 months.

Source: Moody's Financial Metrics™

Exhibit 12

Moody's-adjusted debt breakdown

Colbun S.A.

(In \$ millions)	2021	2022	2023	2024	LTM Mar-25
As reported debt	2,310.5	2,137.9	2,123.3	2,298.1	2,284.6
Pensions	32.0	37.8	40.4	39.9	39.9
Moody's – adjusted debt	2,342.5	2,175.8	2,163.6	2,338.0	2,324.4

All figures and ratios are based on adjusted financial data and incorporate Moody's Global Standard Adjustments for Non-Financial Corporations.

LTM = Last 12 months.

Source: Moody's Financial Metrics™

Ratings

Exhibit 14

Category	Moody's Rating
COLBUN S.A.	
Outlook	Stable
Issuer Rating -Dom Curr	Baa2
Senior Unsecured	Baa2

Source: Moody's Ratings

© 2025 Moody's Corporation, Moody's Investors Service, Inc., Moody's Analytics, Inc. and/or their licensors and affiliates (collectively, "MOODY'S"). All rights reserved.

CREDIT RATINGS ISSUED BY MOODY'S CREDIT RATINGS AFFILIATES ARE THEIR CURRENT OPINIONS OF THE RELATIVE FUTURE CREDIT RISK OF ENTITIES, CREDIT COMMITMENTS, OR DEBT OR DEBT-LIKE SECURITIES, AND MATERIALS, PRODUCTS, SERVICES AND INFORMATION PUBLISHED OR OTHERWISE MADE AVAILABLE BY MOODY'S (COLLECTIVELY, "MATERIALS") MAY INCLUDE SUCH CURRENT OPINIONS. MOODY'S DEFINES CREDIT RISK AS THE RISK THAT AN ENTITY MAY NOT MEET ITS CONTRACTUAL FINANCIAL OBLIGATIONS AS THEY COME DUE AND ANY ESTIMATED FINANCIAL LOSS IN THE EVENT OF DEFAULT OR IMPAIRMENT. SEE APPLICABLE MOODY'S RATING SYMBOLS AND DEFINITIONS PUBLICATION FOR INFORMATION ON THE TYPES OF CONTRACTUAL FINANCIAL OBLIGATIONS ADDRESSED BY MOODY'S CREDIT RATINGS. CREDIT RATINGS DO NOT ADDRESS ANY OTHER RISK, INCLUDING BUT NOT LIMITED TO: LIQUIDITY RISK, MARKET VALUE RISK, OR PRICE VOLATILITY. CREDIT RATINGS, NON-CREDIT ASSESSMENTS ("ASSESSMENTS"), AND OTHER OPINIONS INCLUDED IN MOODY'S MATERIALS ARE NOT STATEMENTS OF CURRENT OR HISTORICAL FACT. MOODY'S MATERIALS MAY ALSO INCLUDE QUANTITATIVE MODEL-BASED ESTIMATES OF CREDIT RISK AND RELATED OPINIONS OR COMMENTARY PUBLISHED BY MOODY'S ANALYTICS, INC. AND/OR ITS AFFILIATES. MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS AND MATERIALS DO NOT CONSTITUTE OR PROVIDE INVESTMENT OR FINANCIAL ADVICE, AND MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS AND MATERIALS ARE NOT AND DO NOT PROVIDE RECOMMENDATIONS TO PURCHASE, SELL, OR HOLD PARTICULAR SECURITIES. MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS AND MATERIALS DO NOT COMMENT ON THE SUITABILITY OF AN INVESTMENT FOR ANY PARTICULAR INVESTOR. MOODY'S ISSUES ITS CREDIT RATINGS, ASSESSMENTS AND OTHER OPINIONS AND PUBLISHES OR OTHERWISE MAKES AVAILABLE ITS MATERIALS WITH THE EXPECTATION AND UNDERSTANDING THAT EACH INVESTOR WILL, WITH DUE CARE, MAKE ITS OWN STUDY AND EVALUATION OF EACH SECURITY THAT IS UNDER CONSIDERATION FOR PURCHASE, HOLDING, OR SALE.

MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS, AND MATERIALS ARE NOT INTENDED FOR USE BY RETAIL INVESTORS AND IT WOULD BE RECKLESS AND INAPPROPRIATE FOR RETAIL INVESTORS TO USE MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS OR MATERIALS WHEN MAKING AN INVESTMENT DECISION. IF IN DOUBT YOU SHOULD CONTACT YOUR FINANCIAL OR OTHER PROFESSIONAL ADVISER.

ALL INFORMATION CONTAINED HEREIN IS PROTECTED BY LAW, INCLUDING BUT NOT LIMITED TO, COPYRIGHT LAW, AND NONE OF SUCH INFORMATION MAY BE COPIED OR OTHERWISE REPRODUCED, REPACKAGED, FURTHER TRANSMITTED, TRANSFERRED, DISSEMINATED, REDISTRIBUTED OR RESOLD, OR STORED FOR SUBSEQUENT USE FOR ANY SUCH PURPOSE, IN WHOLE OR IN PART, IN ANY FORM OR MANNER OR BY ANY MEANS WHATSOEVER, BY ANY PERSON WITHOUT MOODY'S PRIOR WRITTEN CONSENT. FOR CLARITY, NO INFORMATION CONTAINED HEREIN MAY BE USED TO DEVELOP, IMPROVE, TRAIN OR RETRAIN ANY SOFTWARE PROGRAM OR DATABASE, INCLUDING, BUT NOT LIMITED TO, FOR ANY ARTIFICIAL INTELLIGENCE, MACHINE LEARNING OR NATURAL LANGUAGE PROCESSING SOFTWARE, ALGORITHM, METHODOLOGY AND/OR MODEL.

MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS AND MATERIALS ARE NOT INTENDED FOR USE BY ANY PERSON AS A BENCHMARK AS THAT TERM IS DEFINED FOR REGULATORY PURPOSES AND MUST NOT BE USED IN ANY WAY THAT COULD RESULT IN THEM BEING CONSIDERED A BENCHMARK.

All information contained herein is obtained by MOODY'S from sources believed by it to be accurate and reliable. Because of the possibility of human or mechanical error as well as other factors, however, all information contained herein is provided "AS IS" without warranty of any kind. MOODY'S adopts all necessary measures so that the information it uses in assigning a credit rating is of sufficient quality and from sources MOODY'S considers to be reliable including, when appropriate, independent third-party sources. However, MOODY'S is not an auditor and cannot in every instance independently verify or validate information received in the credit rating process or in preparing its Materials.

To the extent permitted by law, MOODY'S and its directors, officers, employees, agents, representatives, licensors and suppliers disclaim liability to any person or entity for any indirect, special, consequential, or incidental losses or damages whatsoever arising from or in connection with the information contained herein or the use of or inability to use any such information, even if MOODY'S or any of its directors, officers, employees, agents, representatives, licensors or suppliers is advised in advance of the possibility of such losses or damages, including but not limited to: (a) any loss of present or prospective profits or (b) any loss or damage arising where the relevant financial instrument is not the subject of a particular credit rating assigned by MOODY'S.

To the extent permitted by law, MOODY'S and its directors, officers, employees, agents, representatives, licensors and suppliers disclaim liability for any direct or compensatory losses or damages caused to any person or entity, including but not limited to by any negligence (but excluding fraud, willful misconduct or any other type of liability that, for the avoidance of doubt, by law cannot be excluded) on the part of, or any contingency within or beyond the control of, MOODY'S or any of its directors, officers, employees, agents, representatives, licensors or suppliers, arising from or in connection with the information contained herein or the use of or inability to use any such information.

NO WARRANTY, EXPRESS OR IMPLIED, AS TO THE ACCURACY, TIMELINESS, COMPLETENESS, MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE OF ANY CREDIT RATING, ASSESSMENT, OTHER OPINION OR INFORMATION IS GIVEN OR MADE BY MOODY'S IN ANY FORM OR MANNER WHATSOEVER.

Moody's Investors Service, Inc., a wholly-owned credit rating agency subsidiary of Moody's Corporation ("MCO"), hereby discloses that most issuers of debt securities (including corporate and municipal bonds, debentures, notes and commercial paper) and preferred stock rated by Moody's Investors Service, Inc. have, prior to assignment of any credit rating, agreed to pay Moody's Investors Service, Inc. for credit ratings opinions and services rendered by it. MCO and all MCO entities that issue ratings under the "Moody's Ratings" brand name ("Moody's Ratings"), also maintain policies and procedures to address the independence of Moody's Ratings' credit ratings and credit rating processes. Information regarding certain affiliations that may exist between directors of MCO and rated entities, and between entities who hold credit ratings from Moody's Investors Service, Inc. and have also publicly reported to the SEC an ownership interest in MCO of more than 5%, is posted annually at ir.moody.com under the heading "Investor Relations — Corporate Governance — Charter and Governance Documents - Director and Shareholder Affiliation Policy."

Moody's SF Japan K.K., Moody's Local AR Agente de Calificación de Riesgo S.A., Moody's Local BR Agência de Classificação de Risco LTDA, Moody's Local MX S.A. de C.V., I.C.V., Moody's Local PE Clasificadora de Riesgo S.A., and Moody's Local PA Clasificadora de Riesgo S.A. (collectively, the "Moody's Non-NRSRO CRAs") are all indirectly wholly-owned credit rating agency subsidiaries of MCO. None of the Moody's Non-NRSRO CRAs is a Nationally Recognized Statistical Rating Organization.

Additional terms for Australia only: Any publication into Australia of this document is pursuant to the Australian Financial Services License of MOODY'S affiliate, Moody's Investors Service Pty Limited ABN 61 003 399 657 AFSL 336969 and/or Moody's Analytics Australia Pty Ltd ABN 94 105 136 972 AFSL 383569 (as applicable). This document is intended to be provided only to "wholesale clients" within the meaning of section 761G of the Corporations Act 2001. By continuing to access this document from within Australia, you represent to MOODY'S that you are, or are accessing the document as a representative of, a "wholesale client" and that neither you nor the entity you represent will directly or indirectly disseminate this document or its contents to "retail clients" within the meaning of section 761G of the Corporations Act 2001. MOODY'S credit rating is an opinion as to the creditworthiness of a debt obligation of the issuer, not on the equity securities of the issuer or any form of security that is available to retail investors.

Additional terms for India only: Moody's credit ratings, Assessments, other opinions and Materials are not intended to be and shall not be relied upon or used by any users located in India in relation to securities listed or proposed to be listed on Indian stock exchanges.

Additional terms with respect to Second Party Opinions and Net Zero Assessments (as defined in Moody's Ratings Rating Symbols and Definitions): Please note that neither a Second Party Opinion ("SPO") nor a Net Zero Assessment ("NZA") is a "credit rating". The issuance of SPOs and NZAs is not a regulated activity in many jurisdictions, including Singapore. JAPAN: In Japan, development and provision of SPOs and NZAs fall under the category of "Ancillary Businesses", not "Credit Rating Business", and are not subject to the regulations applicable to "Credit Rating Business" under the Financial Instruments and Exchange Act of Japan and its relevant regulation. PRC: Any SPO: (1) does not constitute a PRC Green Bond Assessment as defined under any relevant PRC laws or regulations; (2) cannot be included in any registration statement, offering circular, prospectus or any other documents submitted to the PRC regulatory authorities or otherwise used to satisfy any PRC regulatory disclosure requirement; and (3) cannot be used within the PRC for any regulatory purpose or for any other purpose which is not permitted under relevant PRC laws or regulations. For the purposes of this disclaimer, "PRC" refers to the mainland of the People's Republic of China, excluding Hong Kong, Macau and Taiwan.

Contacts

Jose Aybar Critto
Sr Ratings Associate
jose.aybarcritto@moodys.com