

CREDIT OPINION

2 July 2025

Update

Send Your Feedback

RATINGS

Grupo Energia Bogota S.A. E.S.P.

Domicile	Bogota, Distrito Capital, Colombia
Long Term Rating	Baa3
Type	LT Issuer Rating - Fgn 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

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

Jose Batalla Diez
Analyst
jose.batalladiez@moodys.com

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

CLIENT SERVICES

Americas	1-212-553-1653
Asia Pacific	852-3551-3077
Japan	81-3-5408-4100
EMEA	44-20-7772-5454

Grupo Energia Bogota S.A. E.S.P.

Update following rating downgrade to Baa3; outlook changed to stable

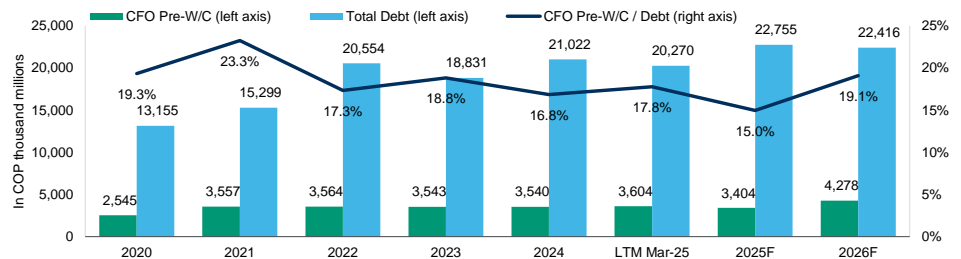
Summary

Grupo Energia Bogota S.A. E.S.P.'s (GEB, Baa3 stable) credit profile benefits from its geographically diversified operations and cash flow from its creditworthy key controlled subsidiaries [Transportadora de Gas Internacional](#) (TGI, Baa3 stable) and [Gas Natural de Lima y Callao S.A. \(Calidda\)](#) (Baa2 negative). The ratings also reflect its ownership structure and links with [Distrito Capital Bogota \(Colombia\)](#) (Bogota, Baa3 stable).

GEB's credit quality is constrained by the structural subordination of its parent-only debt, which constituted nearly 49% of the company's total consolidated debt as of March 2025, and its dependence on subsidiaries' cash upstreams to cover capital requirements and debt service despite its own profitable transmission operations. The company's credit profile is also constrained by potential new investments that could lead to a slight deterioration in credit metrics (Exhibit 1).

Exhibit 1

Increase in debt and hedging costs will mainly drive deterioration in credit metrics



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

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

Credit strengths

- » Ownership structure, with strong links to the District of Bogota
- » Operationally and geographically diversified portfolio of subsidiaries
- » Growing importance of key controlled subsidiaries

Credit challenges

- » Structural subordination that results from the nearly 49% parent-only debt, compared with consolidated debt
- » Strong dependence on subsidiaries' cash upstreams to meet capital requirements, including its debt service, partially offset by GEB's own profitable transmission operations

Rating outlook

The stable outlook on GEB's rating reflects the stable outlook on Bogota, its support provider. It also takes into account that historically GEB has been able to successfully execute its growth investments without materially affecting its creditworthiness. Moody's base case incorporates a cash interest coverage ratio around 3.2x over the next 12-18 months with (CFO pre-W/C)/debt around 16.5%.

Factors that could lead to an upgrade

An upgrade in the ratings of GEB could materialize if the ratings of Colombia and Bogota – the support provider - are upgraded. A rating upgrade would also require cash interest coverage ratios above 3.5x on a sustained basis and our assessment that government or regulatory interference is immaterial to the company's credit profile.

Factors that could lead to a downgrade

GEB's ratings could be downgraded as a result of a downgrade of Bogota's ratings. Additionally, negative regulatory or government intervention that significantly affects GEB's financial performance would also trigger a downgrade. For example, the BCA of baa3 could be lowered if GEB records cash interest coverage ratios below 3.0x or cash flow from operations preworking capital (CFO pre-W/C)/debt below 14%, with dividends above the minimum legal requirement on a projected and sustained basis.

Key indicators

Exhibit 2

Grupo Energia Bogota S.A. E.S.P.

	2020	2021	2022	2023	2024	LTM Mar-25
CFO Pre-W/C + Interest / Interest	4.6x	6.1x	4.2x	3.3x	3.3x	3.4x
CFO Pre-W/C / Debt	19.3%	23.3%	17.3%	18.8%	16.8%	17.8%
CFO Pre-W/C – Dividends / Debt	8.7%	6.3%	8.0%	7.2%	5.1%	5.8%
Debt / Capitalization	44.5%	46.2%	46.2%	45.7%	48.3%	49.0%

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

Source: Moody's Financial Metrics™

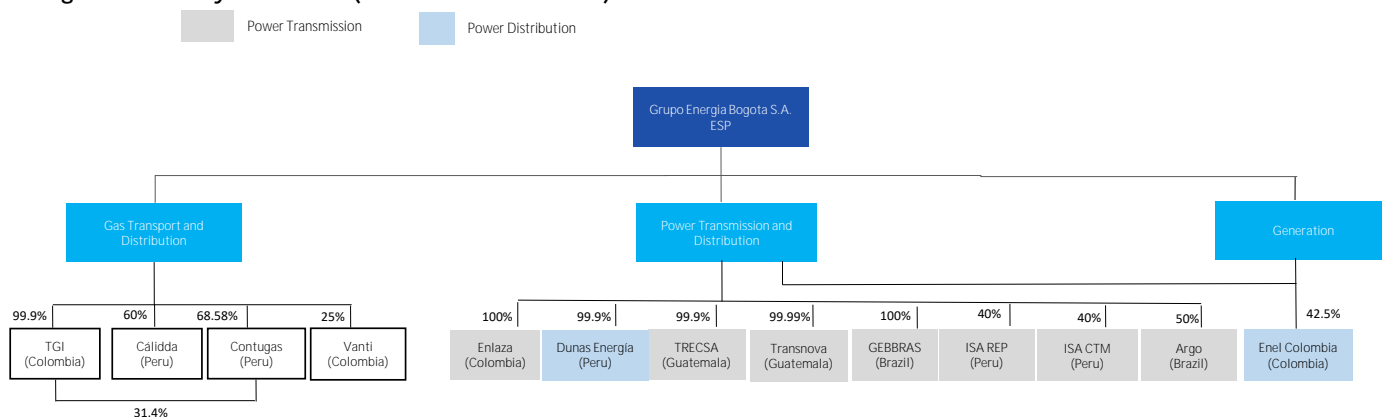
This publication does not announce a credit rating action. For any credit ratings referenced in this publication, please see the issuer/deal page on <https://ratings.moodys.com> for the most updated credit rating action information and rating history.

Profile

Headquartered in Bogota, Colombia, Grupo Energia Bogota S.A. E.S.P. (GEB) is a Colombian company with geographically and operationally diversified operations in the energy sector. GEB is subject to the purview of the Comision de Regulacion de Energia y Gas. It is also a holding company with significant equity interests in controlled and noncontrolled subsidiaries that conduct their electric and natural gas operations mainly in [Colombia](#) (Baa3 stable), [Peru](#) (Baa1 stable), [Guatemala](#) (Ba1 stable) and [Brazil](#) (Ba1 stable). GEB's interest stakes in its core controlled and noncontrolled subsidiaries, and their allocation within the group according to its operational segments (energy generation, transmission and distribution; and gas transport and distribution) are shown in Exhibit 3.

Exhibit 3

Strategic units and key subsidiaries (direct economic interest)



Note: Enel Colombia is in the Distribution and Generation sector. Transnova is 99,99% of Conecta Energias S.A. that is 99,99% of GEB

Sources: GEB's financial statements, corporate presentation and Moody's Ratings

As of March 2025, Bogota was GEB's majority shareholder (66%). GEB's remaining shareholders include pension funds (21%), Corporación Financiera Colombiana S.A. (5%) and others (8%).

Recent developments

- » On 1 July 2025, Moody's Ratings downgraded the issuer and debt ratings assigned to Grupo Energia Bogota S.A. E.S.P. (GEB or Issuer) to Baa3 from Baa2. Moody's also downgraded GEB's Baseline Credit Assessment to baa3 from baa2, the measure of GEB's standalone creditworthiness. The outlook on the ratings changed to stable from negative.
- » On 27 June 2025, we downgraded the rating and Baseline Credit Assessment (BCA) of Bogota to Baa3 from Baa2 and to baa3 from baa2, respectively. Concurrently, we changed the outlook to stable from negative. The rating action followed the downgrade of the Government of Colombia's rating to Baa3 from Baa2, and change in its outlook to stable from negative. For more information, please refer to the [press release](#).

Detailed credit considerations

Ownership structure

GEB's Baa3 issuer ratings reflect the application of our Joint Default Analysis (JDA) framework for government-related issuers, which takes into account the following input factors: a BCA of baa3 as a measure of GEB's standalone creditworthiness; the Baa3 ratings of Bogota as GEB's support provider; our estimate of strong implied government support in case of financial distress; and a moderate default dependence between GEB and Bogota. These assumptions take into consideration the company's links with Bogota, which owns 66% of the company. These assumptions also reflect the strategic and essential nature of the services provided, the government control and the direction of the company.

Our assessment of Bogota's willingness and ability to provide extraordinary financial support takes into consideration the fact that GEB is strategically important to the city government; historically, GEB's dividend distributions have represented less than 5% of the municipality's total budget; and Bogota will remain the majority shareholder. Pursuant to Agreement 01, 1996, the district is required to hold at least a 51% ownership stake in the issuer. A modification of this agreement requires certain regulatory approvals (including the municipal council's authorization), which is currently not planned.

Structural subordination considerations

GEB's reliance on dividends from its subsidiaries, particularly the noncontrolled companies, and the substantial amount of holding company debt (around 49% of total consolidated debt as of March 2025, slightly above the 48% reported as of December 2024) underpin our structural subordination considerations. GEB's credit profile takes into consideration the fact that the company's unconsolidated operations generated 28% of its 2024 consolidated EBITDA (including noncontrolled companies). As of March 2025, distributions represented 31% of total consolidated EBITDA (LTM). Thus, GEB relies on its subsidiaries' cash to cover capital requirements and debt service. TGI and Gas Natural de Lima y Callao S.A. (Calidda), GEB's key controlled subsidiaries with investment-grade profiles, contributed 31.7% and 16.8%, respectively, of consolidated EBITDA as of March 2025 (LTM), generating relatively stable cash flow streams for the company. GEB expects the Brazilian Gebbras to start distributing dividends in 2026, once the intercompany loans with the company are repaid.

We expect GEB's noncontrolled subsidiaries' dividends to remain a significant amount of cash flow in upcoming years. The regulated nature of the natural gas distribution operations, Gas Natural S.A. E.S.P. (Vanti), provides visibility into the upstreamed cash flow. We expect the ownership of Enel Colombia and TGI, with a dividend distribution of around 90%, to be a key source of cash flow for the company. In addition, we take into consideration GEB's minority ownership of Red Electrica del Peru and [Consorcio Transmantaro S.A.](#) (Baa3 stable). Argo, a joint venture in Brazil, will also contribute with dividend distributions that started in 2024.

Deterioration in credit metrics, driven mainly by the increase in debt

GEB's consolidated credit metrics have been relatively stable and consistent over the last few years. However, there was a deterioration in 2024 as a result of increased leverage for investments, higher interest rates, the volatility of the Colombian currency and lower cash flow following the extraordinary dividends received in 2021 after the agreement with Enel Colombia and Red de Energía del Perú (ISA REP). Consequently, (CFO pre-W/C)/debt as of December 2024 deteriorated to 16.8% from 18.8% in 2023 while cash interest coverage (measured as [CFO pre-W/C + interest]/interest expense) remained at the same level of 3.3x.

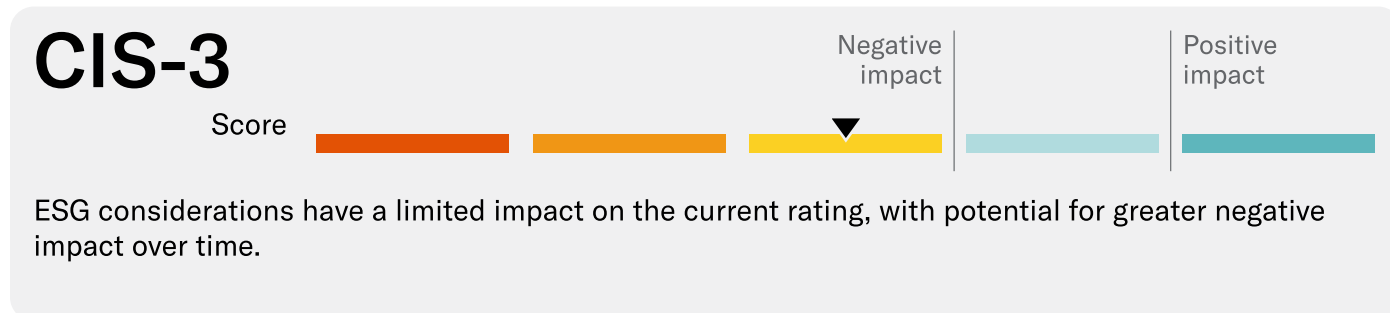
In 2025, we expect credit metrics to deteriorate further, primarily because of higher debt levels to cover their investment program. Consequently, (CFO pre-W/C)/debt will be 15% while cash interest coverage will be 3.0x. Thereafter, we expect metrics to start strengthening to 19.1% and 3.7x, respectively. The capital spending program for 2025-30 is \$1,459 million with more than half focused in transmission business.

GEB also has a long history of access to debt financing. Its credit ratings reflect a manageable debt maturity profile and our expectation that its dividend distributions will be reasonable and sustainable with a 70% dividend payout ratio.

ESG considerations

Grupo Energia Bogota S.A. E.S.P.'s ESG credit impact score is CIS-3

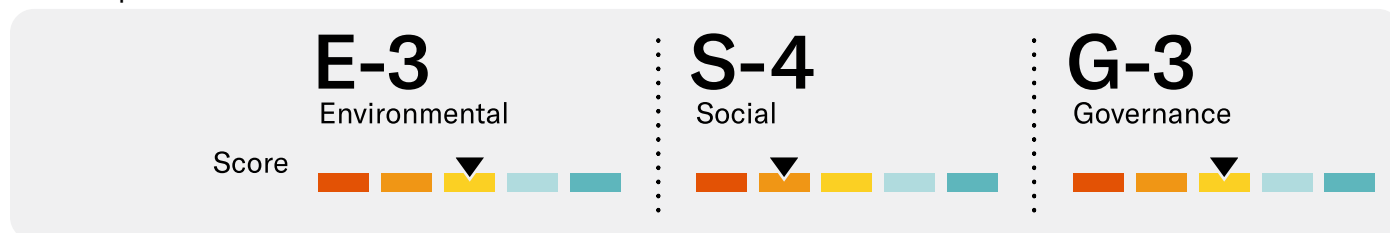
Exhibit 4
ESG credit impact score



Source: Moody's Ratings

Grupo Energia Bogota S.A. E.S.P.'s (GEB) ESG Credit Impact Score (**CIS-3**) indicates that its ESG attributes are overall considered as having a limited impact on the current rating, with greater potential for future negative impact over time. The score reflects GEB's material exposure to social risks, partially balanced with moderate exposures to environmental and governance risks.

Exhibit 5
ESG issuer profile scores



Source: Moody's Ratings

Environmental

GEB's exposure to environmental risks (**E-3** issuer profile score) is mainly driven by its exposure to physical climate risks such as floods, droughts, and sea level rise, and to carbon transition from its natural gas transport and distribution businesses and to a lesser extent, fossil-fuel based generation. These exposures are partially mitigated by the business and geographic diversification of the company. Our score also incorporates low exposures to water management, waste and pollution and natural capital risks.

Social

GEB's **S-4** issuer profile score reflects a material exposure to demographics and societal trends due to increasing public concern over environmental, social, or affordability issues that could lead to adverse regulatory political intervention. These risks are partially balanced by low exposures to customer relations, human capital, responsible production, and health and safety considerations.

Governance

GEB's governance risk (**G-3** issuer profile score) captures moderate exposures to financial strategy and risk management; and board structure, policies and procedures. GEB is exposed to influence by Bogota, Distrito Capital (Colombia) (Baa3, stable), its majority owner, but as of today this has not been a material negative credit consideration. Our governance score also considers low exposures to management credibility and track record, organizational structure as well as internal controls risks.

ESG Issuer Profile Scores and Credit Impact Scores for the rated entity/transaction are available on Moody's.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

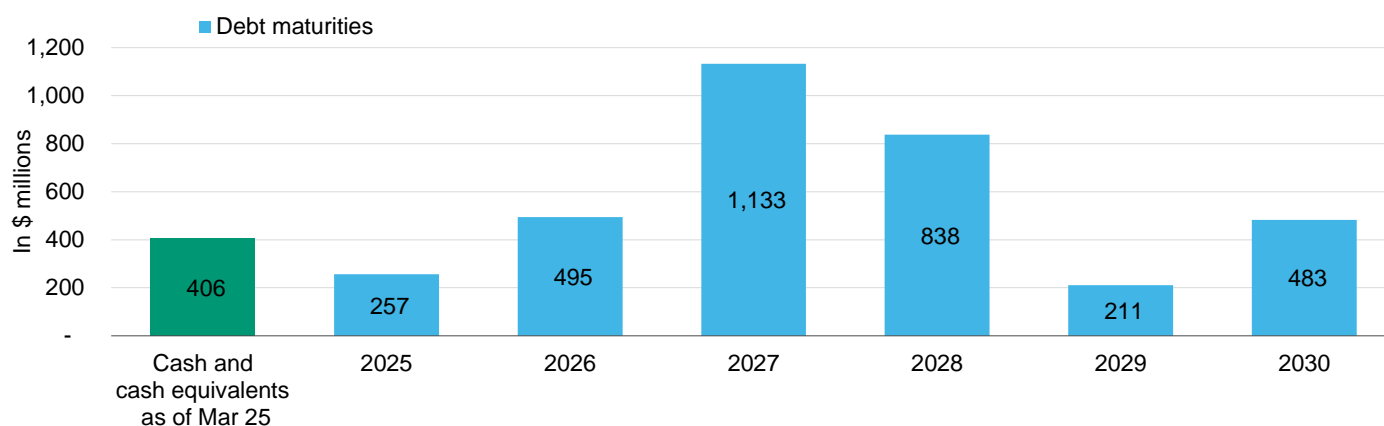
Liquidity position is currently adequate. As of March 2025, GEB's cash position was COP1,702,356 million (around \$406 million). Although this position is sufficient to cover the 2025 maturities, mostly from subsidiaries, GEB plans to refinance them. GEB also has a long history of access to debt financing, and its credit ratings reflects a manageable debt maturity profile.

The company is currently working on refinancing a \$225 million loan for one of the Guatemalan subsidiaries (TRECSEA) with guarantee from GEB, and Calidda's \$430 million debt due in 2026. We expect the company to be able to prudently refinance this loan and extend its maturity, thereby reducing refinancing risk; however, the cost could increase because of market conditions compared with those during previous issuances.

GEB maintains a high dividend distribution policy with a 70% dividend payout ratio.

Exhibit 6

GEB's refinancing needs are significant starting in 2026 but we expect the company to have access to the market to finance them
2025-30 GEB's debt maturities



Sources: GEB's financial statements and GEB's presentation

Other considerations

GEB seeks to naturally hedge its exposure to foreign-exchange risk by matching the currency of its debt to its EBITDA. However, exposure remains, with around 21% of its total EBITDA denominated or indexed to US dollars as of March 2025 and 66% of its total debt denominated in US dollars over the same period. Foreign-exchange exposure increased initially because of regulatory changes in the Colombian gas transport business, where tariff indexation shifted from US dollars to Colombian pesos. Nonetheless, TGI mitigated this exposure through a hedge contract. Furthermore, international subsidiaries and joint ventures that generate US dollar-denominated cash flow also help reduce foreign-exchange exposure.

GEB has moderate exposure to rising interest rates because around 34% of its total debt was fixed as of March 2025.

Methodology and scorecard

We assign GEB's BCA using our Regulated Electric and Gas Utilities rating methodology. GEB's Baa3 ratings take into account our JDA for the company as a government-related issuer and, therefore, incorporate our expectations regarding the credit profile of Bogota, and our assumptions of moderate dependence and strong implied support.

Exhibit 7

Rating factors

Grupo Energia Bogota S.A. E.S.P.

Regulated Electric and Gas Utilities Industry Scorecard	Current LTM Mar-25		Moody's 12-18 Month Forward View	
	Measure	Score	Measure	Score
Factor 1 : Regulatory Framework (25%)				
a) Legislative and Judicial Underpinnings of the Regulatory Framework	Baa	Baa	Baa	Baa
b) Consistency and Predictability of Regulation	Ba	Ba	Ba	Ba
Factor 2 : Ability to Recover Costs and Earn Returns (25%)				
a) Timeliness of Recovery of Operating and Capital Costs	Baa	Baa	Baa	Baa
b) Sufficiency of Rates and Returns	Baa	Baa	Baa	Baa
Factor 3 : Diversification (10%)				
a) Market Position	A	A	A	A
b) Generation and Fuel Diversity	Baa	Baa	Baa	Baa
Factor 4 : Financial Strength (40%)				
a) CFO pre-WC + Interest / Interest (3 Year Avg)	3.5x	Baa	3.3x	Baa
b) CFO pre-WC / Debt (3 Year Avg)	18.2%	Baa	17%	Baa
c) CFO pre-WC – Dividends / Debt (3 Year Avg)	7.3%	Ba	6.8%	Ba
d) Debt / Capitalization (3 Year Avg)	48.1%	Baa	50.1%	Baa
Rating:				
Scorecard-Indicated Outcome Before Notching Adjustment		Baa2		Baa3
HoldCo Structural Subordination Notching	-1	-1	-1	-1
a) Scorecard-Indicated Outcome		Baa3		Ba1
b) Actual Rating Assigned				Baa3
Government-Related Issuer		Factor		
a) Baseline Credit Assessment		baa3		
b) Government Local Currency Rating		Baa3		
c) Default Dependence		Moderate		
d) Support		Strong		
e) Actual Rating Assigned		Baa3		

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

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

Appendix

Exhibit 8

Peer comparison

Grupo Energia Bogota S.A. E.S.P.

In \$ millions	Grupo Energia Bogota S.A. E.S.P. Baa3 Stable			Comision Federal de Electricidad Baa2 Negative			Gas Natural de Lima y Callao S.A. Baa2 Negative			Companhia Energetica de Minas Gerais - Ba1 Stable		
	FY	FY	LTM	FY	FY	LTM	FY	FY	LTM	FY	FY	FY
	Dec-23	Dec-24	Mar-25	Dec-23	Dec-24	Mar-25	Dec-23	Dec-24	Mar-25	Dec-22	Dec-23	Dec-24
Revenue	1,848	1,961	1,949	28,736	28,933	27,884	851	859	862	6,686	7,383	7,421
EBITDA	1,277	1,315	1,344	11,381	13,787	12,472	231	247	250	1,551	1,992	1,942
Total Debt	4,861	4,772	4,835	69,553	82,929	85,935	884	936	939	2,394	2,522	2,335
CFO Pre-W/C / Debt	18.8%	16.8%	17.8%	13.9%	11.9%	11.5%	19.6%	21.9%	22.6%	24.3%	49.2%	42.6%
CFO Pre-W/C – Dividends / Debt	7.2%	5.1%	5.8%	13.8%	11.8%	11.4%	8.0%	11.1%	14.2%	7.8%	34.3%	12.8%
Debt / Capitalization	45.7%	48.3%	49.0%	55.5%	70.7%	71.3%	66.5%	66.7%	71.2%	35.4%	32.0%	33.0%
Debt / EBITDA	3.4x	3.9x	3.6x	5.8x	6.9x	7.4x	3.8x	3.8x	3.7x	1.6x	1.2x	1.4x
EBITDA / Interest Expense	3.6x	3.5x	3.8x	3.7x	3.8x	3.7x	6.7x	6.3x	6.3x	6.5x	6.8x	7.7x

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 9

Moody's-adjusted cash flow metrics

Grupo Energia Bogota S.A. E.S.P.

COP thousand millions	2020	2021	2022	2023	2024	LTM Mar-25
EBITDA	4,098.0	4,299.9	5,160.4	5,496.7	5,347.1	5,557.1
FFO	2,531.6	3,532.5	3,552.5	3,531.5	3,463.1	3,508.3
- Div	1,395.2	2,596.8	1,920.1	2,196.0	2,465.0	2,434.8
RCF	1,136.3	935.7	1,632.4	1,335.4	998.1	1,073.5
FFO	2,531.6	3,532.5	3,552.5	3,531.5	3,463.1	3,508.3
+/- ΔWC	(98.3)	(590.6)	396.3	(835.6)	(109.9)	(110.7)
+/- Other	13.3	24.7	11.4	11.8	77.3	95.4
CFO	2,446.6	2,966.6	3,960.1	2,707.6	3,430.5	3,492.9
- Div	1,395.2	2,596.8	1,920.1	2,196.0	2,465.0	2,434.8
- Capex	897.4	641.7	1,884.2	1,282.6	1,735.5	1,798.7
FCF	153.9	(271.9)	155.8	(771.0)	(770.0)	(740.5)

Debt / EBITDA	3.2x	3.6x	4.0x	3.4x	3.9x	3.6x
EBITDA / Interest	5.8x	6.2x	4.7x	3.6x	3.5x	3.8x
FFO / Debt	19.2%	23.1%	17.3%	18.8%	16.5%	17.3%
RCF / Debt	8.6%	6.1%	7.9%	7.1%	4.7%	5.3%
Revenue	5,125.9	5,558.6	6,874.6	7,953.7	7,971.6	8,055.2
Cost of Good Sold	2,117.2	2,535.6	3,163.5	4,376.9	4,249.9	4,330.3
Interest Expense	703.3	696.0	1,109.5	1,511.6	1,517.2	1,475.5
Net Income	2,370.7	2,472.7	2,655.6	2,349.4	2,327.8	2,509.9
Total Assets	31,116.2	34,767.9	46,597.3	43,398.6	46,049.1	46,435.4
Total Liabilities	16,897.3	19,686.6	26,187.8	24,573.0	27,017.4	28,703.7
Total Equity	14,218.9	15,081.3	20,409.4	18,825.6	19,031.7	17,731.7

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

Source: Moody's Financial Metrics™

Exhibit 10

Moody's-adjusted debt reconciliation

Grupo Energia Bogota S.A. E.S.P.

In COP thousand millions	2020	2021	2022	2023	2024	LTM Mar-25
As reported debt	12,996.2	15,186.0	20,450.6	18,699.5	20,882.1	20,130.2
Pensions	158.5	112.9	103.0	131.5	139.9	139.9
Moody's – adjusted debt	13,154.8	15,299.0	20,553.6	18,831.0	21,022.0	20,270.1

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

Source: Moody's Financial Metrics™

Ratings

Exhibit 11

Category	Moody's Rating
GRUPO ENERGIA BOGOTA S.A. E.S.P.	
Outlook	Stable
Issuer Rating	Baa3
Senior Unsecured	Baa3
PARENT: BOGOTA, DISTRITO CAPITAL (COLOMBIA)	
Outlook	Stable
Issuer Rating - Dom Curr	Baa3
Senior Unsecured	Baa3
GAS NATURAL DE LIMA Y CALLAO S.A. (CALIDDA)	
Outlook	Negative
Issuer Rating	Baa2
TRANSPORTADORA DE GAS INTERNACIONAL	
Outlook	Stable
Senior Unsecured	Baa3

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 657AFSL 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.

REPORT NUMBER 1442924

Contacts

Guillermo Guiran
Rosaldo, CFA
Lead Ratings Associate
guillermo.guiran@moodys.com

+52.55.1253.5743

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

+52.55.1253.5709

CLIENT SERVICES

Americas	1-212-553-1653
Asia Pacific	852-3551-3077
Japan	81-3-5408-4100
EMEA	44-20-7772-5454