CREDIT OPINION
18 October 2023

Update

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RATINGS

Interconexion Electrica S.A. E.S.P.

Domicile	Colombia
Long Term Rating	Baa2
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.

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Interconexion Electrica S.A. E.S.P.

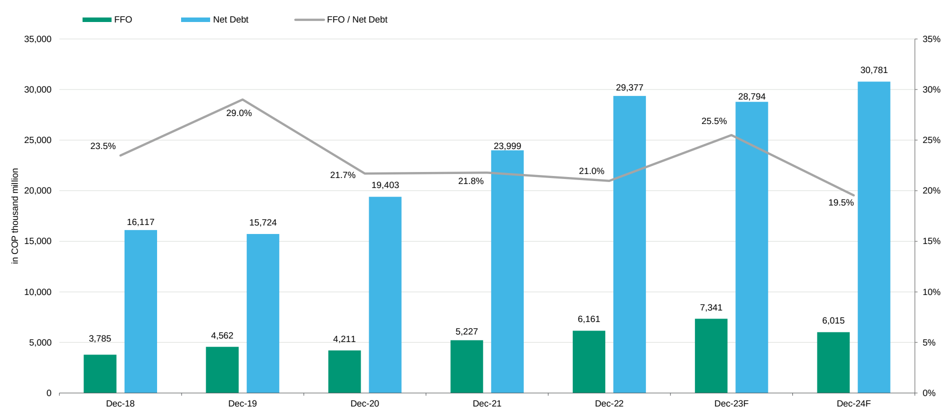
Update to credit analysis

Summary

Interconexion Electrica S.A. E.S.P.'s (ISA) credit profile reflects its position as one of the largest transmission companies in Latin America and its diversified operations through its subsidiaries located in Colombia (Baa2 stable), Brazil (Ba2 stable), Chile (A2 stable) and Peru (Baa1 negative) with exposure to different regulatory regimes. The company also participates in toll road and telecom businesses. Furthermore, the ratings capture ISA's adequate leverage, as reflected in the ratio of funds from operations (FFO) to net debt of 21% as of December 2022. Despite ISA's material investment program, we expect that credit metrics will remain strong and in line with the assigned ratings (see Exhibit 1).

The credit view further reflects Ecopetrol S.A.'s (Baa3 negative) 51.4% ownership in ISA and the links with the Government of Colombia (GOC).

Credit metrics will remain strong despite the increase in leverage due to capital investments



Source: Moody's Financial Metrics™

Credit strengths

» Diversified geographic profile, with most of the cash flow derived from the very stable transmission business

» Strong market share in strategic sectors essential to the economies in which it operates

Credit challenges

» Substantial capital spending program, exposing the company to delays and cost overrun risks, which are typical of projects under construction

» Potential uncertainty over the remuneration for Colombian and Brazilian transmission lines

» Appetite for growth and M&A activity that could pressure leverage

Rating outlook

The stable rating outlook reflects our expectation that the company will prudently manage its capital investment program and dividends distribution, such that interest coverage and FFO/net debt remain around 4.0x and 20%, respectively.

Factors that could lead to an upgrade

Upward momentum on ISA's ratings could result from continued diversification or greater presence in higher-rated countries carrying adequate leverage profiles. A positive rating action would require clear evidence of leverage reduction such that prospective interest coverage and FFO/net debt sustainably exceed 6.0x and 30%, respectively.

Factors that could lead to a downgrade

Downward pressure on the ratings could result from our perception of higher risk in ISA's business portfolio, such as the deterioration in the credit quality of the sovereign ratings of the countries in which ISA holds substantial operations or a perception of lower support from their regulatory regimes. Pressure could also result from a more aggressive capital spending plan, or if the company faces any significant delays or cost overruns that significantly postpone or dent the recovery of its key credit metrics. Quantitatively, ISA's rating could be downgraded if:

» FFO/net debt decreases below 15%

» interest coverage ratio falls below 3.0x

» retained cash flow/net debt falls below 4%

Key indicators

Exhibit 2

Interconexion Electrica S.A. E.S.P. (consolidated)

	Dec-18	Dec-19	Dec-20	Dec-21	Dec-22	LTM Jun-23
FFO Interest Coverage	5.3x	5.8x	4.7x	4.0x	4.1x	4.7x
Net Debt / Fixed Assets	48.0%	45.5%	47.1%	52.2%	49.9%	51.1%
FFO / Net Debt	23.5%	29.0%	21.7%	21.8%	21.0%	24.7%
RCF / Net Debt	11.9%	21.6%	15.2%	9.1%	17.6%	16.6%

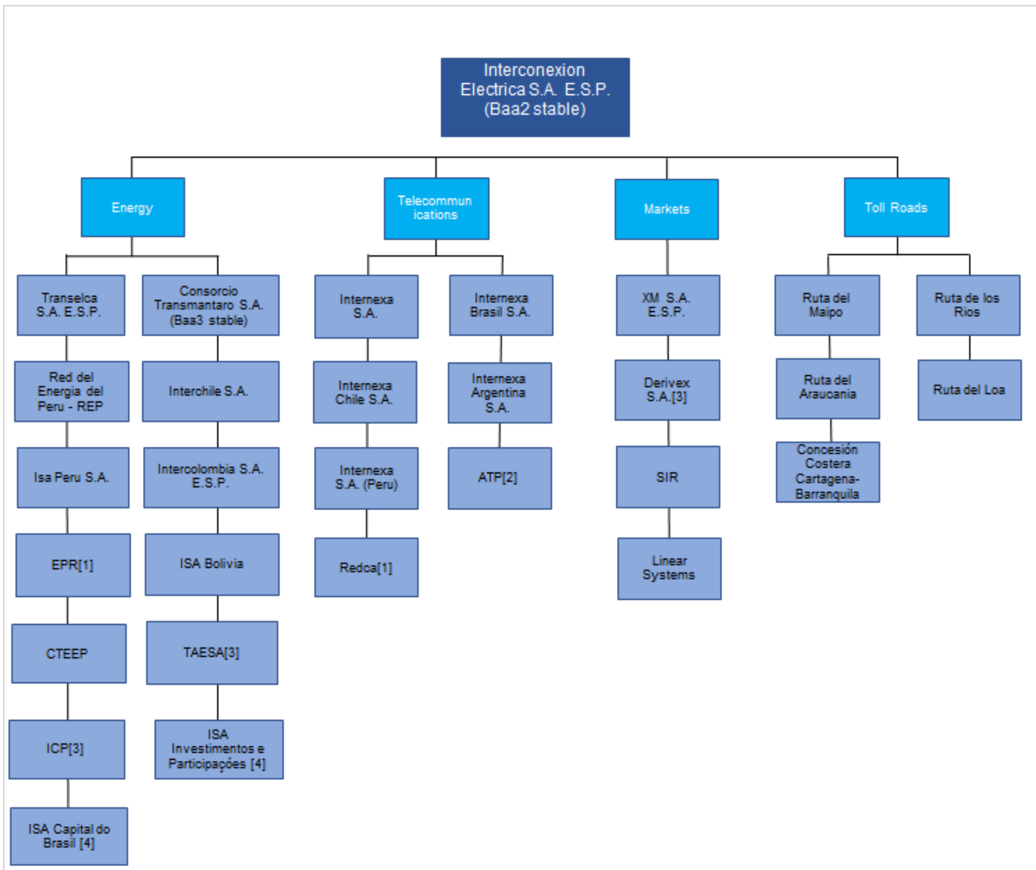
Source: Moody's Financial Metrics™

Profile

Headquartered in Medellin, Interconexion Electrica S.A. E.S.P. is an operating holding company with businesses in the electricity transmission, toll roads, telecommunications, and systems management sectors. The company is headquartered in Colombia, and holds direct and indirect ownership stakes in a portfolio of subsidiaries located in Colombia, Brazil, Chile, Peru, Bolivia and Argentina. In the twelve months that ended in June 2023, the company reported net sales of COP14.8 trillion according to our standard adjustments.

ISA is a mixed utility company with state and private shareholders. Ecopetrol S.A. is ISA's majority or controlling shareholder, holding 51.4% of the capital stock, followed by Empresas Publicas de Medellin E.S.P (Baa3 stable) with a 8.8% stake, local institutional investors (26.5% stake), individuals (3% stake) and foreign investment funds (10.2% stake).

Exhibit 3
ISA's organizational structure



[1] Investments in Financial Instruments: EPR y Redca
[2] Investments in Associates or with significant influence: ATP
[3] Investments with Joint Control: ICP, Taesa and Derivex
[4] Investment vehicles
Source: ISA

Detailed credit considerations

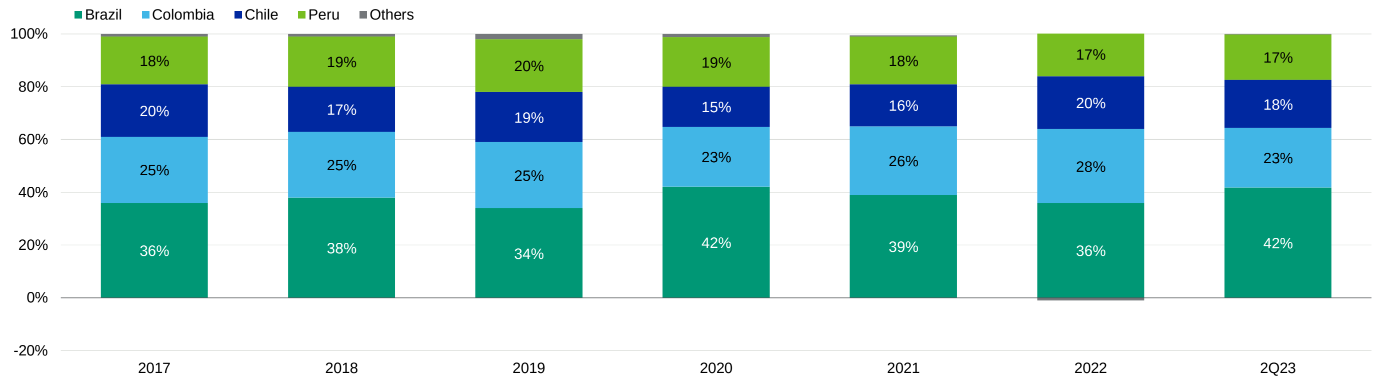
Geographic diversification is credit positive; Colombian operations carry higher credit quality, while Brazil weighs on the consolidated view

ISA's credit profile benefits from the geographic diversification of operating in four different countries with different regulatory regimes. Over the course of the last five years, as a result of its large investment cycle, the operations in Brazil have increased in overall representation to 41.8% of the consolidated EBITDA as of June of 2023, with the contribution of Colombian operations declining from 34% in 2015 to 23% as of June 2023 (see Exhibit 4). However, when considering the effective participation (only considering the percentage of EBITDA that corresponds to the actual ownership) in subsidiaries, the EBITDA represented 25% and 32% for Brazil and Colombia as of June 2023, respectively. We expect the effective share of Brazilian operations to continue growing given the investments in that country, although the EBITDA mix will not have a significant change. We see the company's credit quality somewhat linked to the sovereign-related risks of the countries where it operates.

The toll road business has historically been concentrated in Chile. However, there has been recent expansion in Colombia through the fourth generation toll road concessions program (4G) and in Panama via ISA Intervial Chile. Nonetheless, the ramping up of transmission operations in Brazil and Chile have outpaced that of toll roads. As a result, we expect the toll roads business contribution to EBITDA to decline to 18% 2023 from 28% in 2015.

Exhibit 4

We expect ISA's EBITDA breakdown by country to remain stable overall in the next 12 to 18 months



Sources: Company and Moody's Investors Service

The diversification is generally positive, but our overall view is that the Colombian operations carry the highest credit quality. The credit quality of the Brazilian operations, managed through Companhia de Transmissão de Energia Elétrica Paulista S.A. (ISA CTEEP), is viewed as somewhat limited at the level of Brazil's sovereign rating, in spite of the recognition of the stability of the transmission business in that country. The credit profile of the Peruvian transmission company Consorcio Transmantaro S.A. (Baa3 stable) is constrained by its leverage.

ISA's 2030 corporate strategy has the aim to expand the group's footprint outside Colombia, in countries, regions and businesses with constructive regulatory frameworks. It also focuses on improving profitability and achieving efficiencies in its core businesses. The strategy also includes the procurement of synergies, given the group's significant investment programs in Colombia, Brazil, Peru, Chile and Panama, as well as pursuing investment opportunities via partnerships (particularly if ISA is the controlling party).

Large scale and leading domestic footprint underpin a solid business profile in Colombia

ISA is the leading transmission company in Colombia, responsible for around 65% of the overall transmission capacity in the country. The company's business profile is enhanced by the very high reliability of its infrastructure, presenting an availability ratio of 99.9%, which is highly positive for the availability-based revenue profile of its contracts. The company's assets are held in perpetuity, and tariffs are subject to periodic reviews.

The company manages the portfolio of Colombian transmission lines through a contractual operating agreement with the company's subsidiary Intercolombia. With the objective of separating ISA's Colombian transmission operations from other businesses, the actual management of the transmission assets is undertaken by its own subsidiary, and the assets remain the property of ISA as an operating holding company. The contractual operating and maintenance agreement, which has the stamp of the system grid's operator, XM S.A. E.S.P (another ISA subsidiary), establishes a cost-plus mechanism, where Intercolombia holds an operating margin over incurred costs, with the remaining cash flow allocated to ISA. Independent of the fact that Intercolombia holds no financial debt, the contractual arrangement mitigates any structural subordination risks.

Update to regulatory review processes

In October 2022, Colombia's energy regulator Comision de Regulación de Energía y Gas (CREG) announced its proposed regulatory changes to lower electricity tariffs, and key companies were given the opportunity to review and comment on the changes. CREG's measures to reduce energy prices for end consumers induced power generation companies to lower prices; transmission and distribution companies to apply the lower consumer price index (CPI) rather than the producer price index (PPI); and change the future indexation (until October 2023) using the lower of these two indexes. The impact to ISA resulted in a 2% decline in its annual consolidated expected revenue. The new revenue indexation is in line with the variations in most of Colombian ISA's operating costs, reducing the impact of the mismatch in indexation. For further details, please see the report: Regulatory changes are credit negative for Colombia's electricity sector. We also acknowledge the tariff freeze in Colombian toll roads that was implemented early in the year. While the concession contracts have provisions that compensate concessionaires for these and other similar situations, there's still uncertainty around the timing and the form for the compensations. Moreover, it highlights the exposure of political intervention on tariffs amid the high inflation environment in Colombia. Nonetheless, given the diversified business operations of the company, we consider that any impact will be negligible.

In 2024, a tariff review is scheduled to take place in business sectors and countries where ISA operates. The more relevant areas are:

» Colombia: a transmission tariff review, with an expected resolution in 2024 and application in 2026 will have an impact to 53% of total transmission revenue in Colombia.

» Chile: a transmission tariff review that started in 2022 and will apply in 2024 will have an impact to 10% of total transmission revenue in Chile

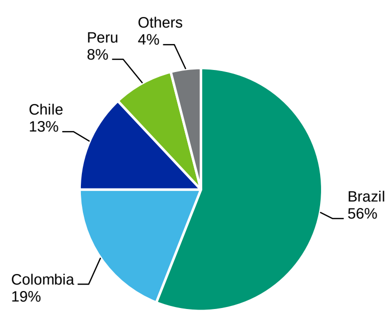
» Peru: Annual transmission tariff adjustment

» Brazil: Transmission tariff review with application in the period 2023-2028 impacting 85% of transmission revenue in Brazil.

Investment program will increase leverage, although metrics will remain strong

The company is undergoing a substantial capital investment program, sized at around $7.9 billion over 2023-30. Of this amount, $7.3 billion was already committed as of August 2023, with the main investments earmarked for Brazil (56% of total; see Exhibit 5). However, ISA is primarily investing in energy transmission assets, which make up 88% of the projected capital spending and benefit from its predictable cash flow generation. The toll road business accounts for 7%, while telecommunications make up the remaining 5%.

Exhibit 5
Capital spending by country, projected for 2023-30



Sources: Company and Moody's Investors Service

The most recent projects awarded to ISA are the following:

» In August 2023, the company obtained 3 concession contracts (awarded through the same biding process) that totals for 242 kilometers of transmission lines in Peru through Proinversión, with a construction period of up to 51 months and an investment of $141.6 million.

» In 2023, through its Brazilian subsidiary Companhia de Transmissão de Energia Elétrica Paulista, ISA won three of the seven transmission projects for which it bid. For further information about the auction, please see the report: Brazil auctions nine electricity transmission projects, paving way for future auctions.

Considering these projects, we expect FFO/net debt to be between 20% and 25% and interest coverage to be between 3.7x and 4.1x in 2023-24, commensurate with our credit ratings. The significant expansion plan will continue to strain leverage in the period, although the credit view recognizes that revenue and cash flow will increase as the projects begin operations. We expect ISA's consolidated debt-to-EBITDA ratio to peak at 4.2x in 2025 (compared with the 4x reported in 2022).

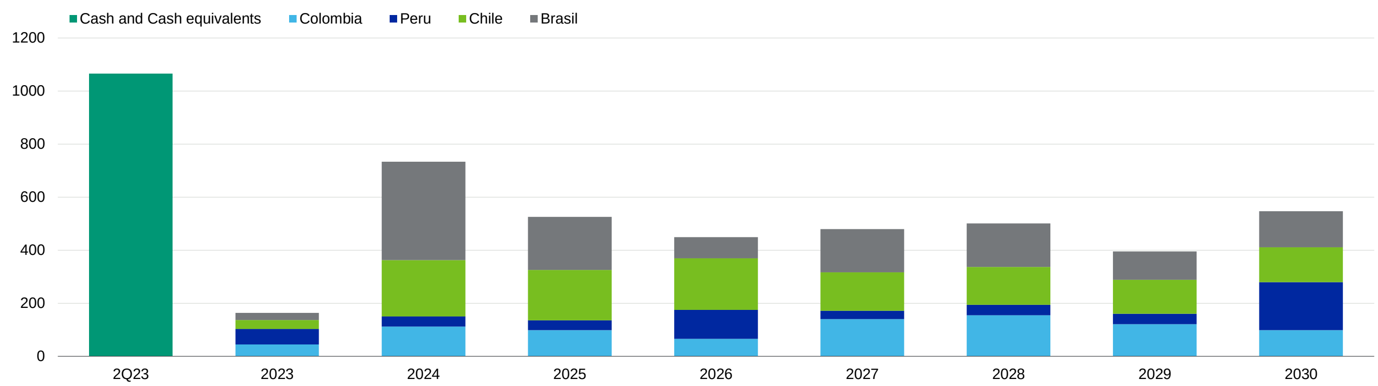
Liquidity analysis

ISA has adequate liquidity. As of June 2023, ISA reported a consolidated cash position of COP4.4 trillion, enough to cover debt maturities in 2023 and 2024. The ratings reflects our assumption that the company will sustain a reliable access to international and domestic markets to timely refinance its upcoming debt maturities if needed and also to improve its liquidity amid tougher market conditions.

Exhibit 6

Debt maturities in the 2023-30 period

In $ million



Sources: Company and Moody's Investors Service

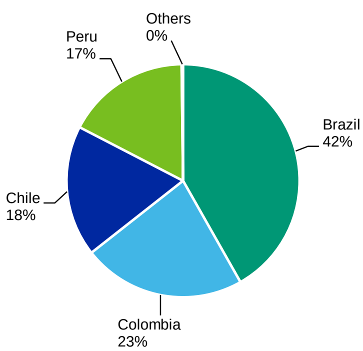
ISA has a track record of relatively high dividend payouts. In 2023, ISA paid extraordinary dividends in addition to ordinary distributions, which in total amounted to 85% of 2022 net income. We expect dividend payouts in the next two to three years to be around 70% of consolidated net income.

Structural considerations

Management's foreign-exchange rate risk policy strives to minimize the exposure to currency volatility by trying to incur debt in proportion to the consolidated cash flow stream. The mismatch exists as the underlying subsidiaries carry different leverage profiles, largely as a function of where they are within their capital investment cycle.

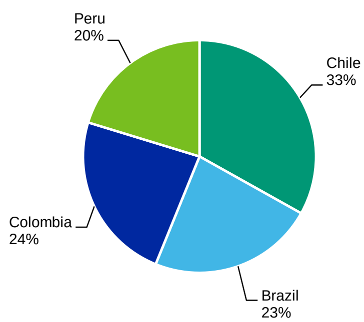
As of June 2023, almost 41% of ISA's consolidated debt was denominated in US dollars, largely backed by the Peruvian transmission concessions, which currently are more leveraged than the consolidated profile. On the other hand, Brazilian operations are less leveraged. Consequently, debt incurred in Brazilian reais represented 23% of the total, while EBITDA derived from Brazil represented 41.8% of the total in Q2 2023. On a consolidated basis, ISA does not have significant financial hedges, but this currency risk is somewhat mitigated since 25% of the Colombian revenue and 14% of the Chilean revenue are denominated in US dollars. In terms of interest rate risk, 46% of ISA's debt is denominated in a fixed rate, while the remaining is exposed to high inflation and the current high interest rate environment.

Exhibit 7
EBITDA breakdown by country
As of Q2 2023



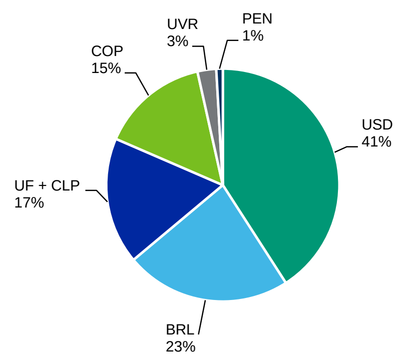
Sources: Company and Moody's Investors Service

Exhibit 8
Debt breakdown by country
As of Q2 2023



Sources: Company and Moody's Investors Service

Exhibit 9
Debt breakdown by currency
As of Q2 2023



Sources: Company and Moody's Investors Service

ESG considerations

Interconexion Electrica S.A. E.S.P.'s ESG Credit Impact Score is Moderately Negative CIS-3

Exhibit 10
ESG Credit Impact Score

CIS-3

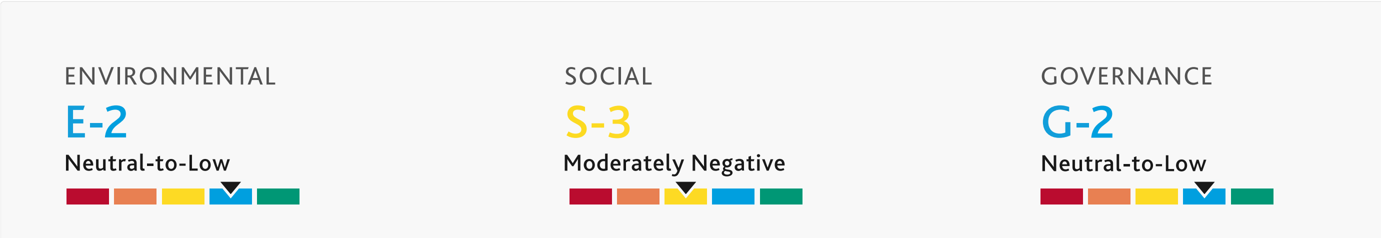
Moderately Negative

For an issuer scored CIS-3 (Moderately Negative), 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 negative influence of the overall ESG attributes on the rating is more pronounced compared to an issuer scored CIS-2.

Source: Moody's Investors Service

ISA's 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 moderate exposure to social risks balanced by a neutral exposure to environmental and governance risks.

Exhibit 11
ESG Issuer Profile Scores



Source: Moody's Investors Service

Environmental

ISA's exposure to environmental risks (**E-2** issuer profile score) is mainly driven by its low exposure across the various subfactors such as physical climate risk, carbon transition and natural capital. The score is a reflection of the company's geographically diversified business counterbalanced by its concentration in electricity transmission sector.

Social

ISA's exposure to social risks (**S-3** issuer profile score) reflects its exposure to demographics and societal trends that increase public concern over affordability issues that could lead to adverse regulatory political intervention. These risks are partially balanced by low exposures to customer relations, human capital, health and safety, and responsible production related risks.

Governance

Governance risk (**G-2** issuer profile score) is driven by its moderate exposure to policies & procedures given the high ownership concentration. Also, our governance score considers low exposures to internal controls risks and financial strategy risk due to relative low leverage and volume exposure.

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.

Methodology and scorecard

We evaluated ISA under our Regulated Electric and Gas Networks rating methodology, published in April 2022. As depicted in the grid below, the current scorecard-indicated outcome is Baa1, one notch above the assigned ratings. The differential reflects the risk associated with the planned investments and also sovereign risk exposure.

Exhibit 12
Rating factors
Interconexion Electrica S.A. E.S.P.

Regulated Electric and Gas Networks Industry[1][2]	Current LTM 6/30/2023		Moody's 12-18 Month Forward View As of 10/4/2023 [3]	
Factor 1 : Regulatory Environment and Asset Ownership Model (40%)	**Measure**	**Score**	**Measure**	**Score**
a) Stability and Predictability of Regulatory Regime	Baa	Baa	Baa	Baa
b) Asset Ownership Model	Aa	Aa	Aa	Aa
c) Cost and Investment Recovery (Ability and Timeliness)	Baa	Baa	Baa	Baa
d) Revenue Risk	Aa	Aa	Aa	Aa
Factor 2 : Scale and Complexity of Capital Program (10%)				
a) Scale and Complexity of Capital Program	Ba	Ba	Ba	Ba
Factor 3 : Financial Policy (10%)				
a) Financial Policy	Baa	Baa	Baa	Baa
Factor 4 : Leverage and Coverage (40%)				
a) FFO Interest Coverage (3 Year Avg)	4.1x	A	4.0x	Baa
b) Net Debt / Fixed Assets (3 Year Avg)	49.8%	A	49.9%	A
c) FFO / Net Debt (3 Year Avg)	22.8%	A	21.9%	A
d) RCF / Net Debt (3 Year Avg)	14.1%	A	16.2%	A
Rating:				
Scorecard-Indicated Rating from Grid Factors 1-4		Baa1		Baa1
Rating Lift		**0**		**0**
a) Scorecard-Indicated Outcome		Baa1		Baa1
b) Actual Rating Assigned		Baa2		Baa2

[1] All ratios are based on adjusted financial data and incorporate our Global Standard Adjustments for Non-Financial Corporations.
[2] As of 6/30/2023(L).
[3] This represents our forward view; not the view of the issuer; and unless noted in the text, it does not incorporate significant acquisitions and divestitures.
Source: Moody's Financial Metrics™

Ratings

Exhibit 13

Category	Moody's Rating
INTERCONEXION ELECTRICA S.A. E.S.P.	
Outlook	Stable
Issuer Rating	Baa2
Senior Unsecured	Baa2
Parent: Ecopetrol S.A.	
Outlook	Negative
Issuer Rating -Dom Curr	Baa3
Senior Unsecured	Baa3

Source: Moody's Investors Service

Appendix

Exhibit 14

Cash flow and credit metrics

in COP thousand million	Dec-18	Dec-19	Dec-20	Dec-21	Dec-22	LTM Jun-23
As Adjusted						
EBITDA	**4,883**	**5,329**	**5,414**	**7,589**	**8,604**	**9,425**
FFO	**3,785**	**4,562**	**4,211**	**5,227**	**6,161**	**7,096**
- Div	1,864	1,170	1,253	3,042	999	2,344
RCF	**1,921**	**3,392**	**2,958**	**2,184**	**5,163**	**4,752**
FFO	3,785	4,562	4,211	5,227	6,161	7,096
+/- Other	(115)	46	352	-	-	-
CFO Pre-WC	**3,670**	**4,608**	**4,563**	**5,227**	**6,161**	**7,096**
+/- ΔWC	(270)	(928)	(2,625)	(2,249)	(3,205)	(4,536)
CFO	**3,400**	**3,680**	**1,938**	**2,977**	**2,957**	**2,560**
- Div	1,864	1,170	1,253	3,042	999	2,344
- Capex	273	2,248	3,054	1,723	1,925	2,096
FCF	**1,263**	**262**	**(2,369)**	**(1,788)**	**33**	**(1,880)**
Debt / EBITDA	3.6x	3.4x	4.3x	3.8x	4.0x	3.5x
Revenue	6,474	6,698	6,917	11,117	13,356	14,792
Interest Expense	889	955	1,142	1,766	1,969	1,908
Net Income	1,600	1,716	931	2,126	2,761	3,185
Total Assets	45,190	48,793	54,194	61,698	78,734	75,370
Total Liabilities	33,321	36,351	41,026	47,334	60,298	58,374
Total Equity	11,869	12,442	13,168	14,364	18,436	16,996

All figures and ratios are calculated using our estimates and standard adjustments.
Source: Moody's Financial Metrics™

Exhibit 15
Peer comparison

	Interconexion Electrica S.A. E.S.P. Baa2 stable			State Grid Brazil Holding S.A. Baa3 stable			Transelec S.A. Baa1 stable			Consorcio Transmantaro S.A. Baa3 stable			Interchile S.A. Baa1 stable		
	FYE Dec-21	FYE Dec-22	LTM Jun-23	FYE Dec-20	FYE Dec-21	FYE Dec-22	FYE Dec-21	FYE Dec-22	LTM Jun-23	FYE Dec-21	FYE Dec-22	LTM Jun-23	FYE Dec-20	FYE Dec-21	FYE Dec-22
Revenue (in USD millions)	2,974	3,162	3,228	572	626	695	404	506	576	370	364	375	79	86	94
EBITDA (in USD millions)	2,030	2,037	2,057	560	656	703	336	474	561	179	191	200	67	66	81
FFO Interest Coverage	4.0x	4.1x	4.7x	3.3x	5.4x	3.7x	3.2x	4.6x	5.0x	3.9x	3.5x	4.1x	1.5x	0.5x	1.4x
Net Debt / Fixed Assets	52.2%	49.9%	51.1%	3536.9%	3582.3%	3236.2%	83.0%	75.7%	81.7%	94.6%	68.6%	68.3%	69.0%	84.6%	87.9%
FFO / Net Debt	21.8%	21.0%	24.7%	15.4%	21.6%	17.4%	11.7%	22.2%	26.5%	12.8%	11.9%	14.4%	2.4%	-8.5%	2.8%
RCF / Net Debt	9.1%	17.6%	16.6%	6.1%	4.2%	1.6%	9.8%	21.0%	24.3%	2.1%	10.2%	10.8%	2.4%	-8.5%	2.8%
EBITDA / Interest Expense	4.3x	4.4x	4.9x	4.2x	6.2x	4.7x	3.2x	4.6x	5.1x	3.8x	3.6x	3.7x	1.8x	0.5x	1.4x

All figures and ratios are calculated using our estimates and standard adjustments. FYE = Financial year end. LTM = Last 12 months.
Source: Moody's Financial Metrics™

Exhibit 16
Moody's-adjusted debt breakdown

in COP thousand million	FYE Dec-18	FYE Dec-19	FYE Dec-20	FYE Dec-21	FYE Dec-22	LTM Jun-23
As Reported Debt	**17,191**	**17,984**	**22,696**	**28,160**	**34,454**	**32,831**
Pensions	222	228	489	525	293	293
Operating Leases	226	0	0	0	0	0
Moody's - Adjusted Debt	**17,639**	**18,212**	**23,185**	**28,685**	**34,746**	**33,124**

All figures and ratios are calculated using our estimates and standard adjustments. FYE = Financial year end. LTM = Last 12 months
Source: Moody's Financial Metrics™

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