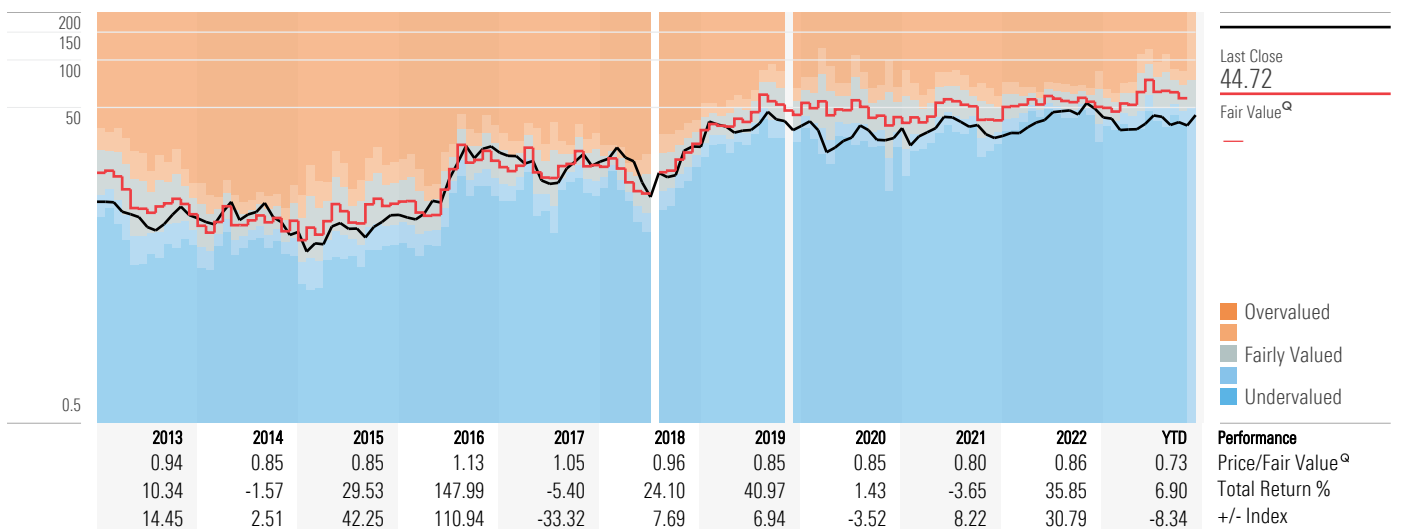


# Centrais Eletricas Brasileiras SA Class B ELET6 ★★★ Q 29 Nov 2023, 23:40 UTC

<b>Economic Moat</b> <sup>Q</sup>	<b>Uncertainty</b> <sup>Q</sup>	<b>Price/Fair Value</b> <sup>Q</sup>	<b>ESG Risk Rating Assessment</b> <sup>1</sup>	<b>Trailing Dividend Yield %</b>	<b>Market Cap</b>	<b>Investment Style</b>	<b>Sector</b>	<b>Industry</b>
None	Very High	0.7	1 Nov 2023 05:00, UTC	3.34	93.5147 Bil	Large Value	Utilities	Utilities - Renewable



As of 29 Nov 2023 | Index: Morningstar Brazil GR BRL. Fair Value data as of 29 Nov 2023, 23:40 UTC.

<sup>1</sup>The ESG Risk Rating Assessment is a representation of Sustainalytics' ESG Risk Rating. Lee Davidson, Chief Analytics Officer for Morningstar, Inc, oversees the methodology that supports Quantitative Fair Value Estimates and Quantitative Star Ratings. Mr. Davidson is guided by the Morningstar, Inc. Code of Ethics in carrying out his responsibilities. For information regarding Conflicts of Interests, visit <http://global.morningstar.com/equitydisclosures>.

## Key Metrics as of 27 Nov 2023

Metrics		Percentile in Sector
Earnings Yield (%)	4.3	40.0
Sales Yield (%)	39.7	39.0
Book Value Yield (%)	124.0	78.0
Return on Assets (%)*	1.2	31.0
Revenue(Bil)*	7.4	76.0
Market Value (Bil)	18.8	86.0
Enterprise Value (Bil)	27.5	84.0
EV/MV Ratio	1.5	51.0
Volatility TTM (%)	25.6	57.0
Drawdown TTM (%)	24.9	51.0
Volume (Mil)	10.3	90.0

\*30 Sep 2023

## Business Description

Centrais Eletricas Brasileiras SA, or Eletrobras, is a mixed capital, Brazilian electric utility company of which the majority shareholder is the Government of Brazil. Eletrobras, through its subsidiaries, controls a sizable amount of total installed electricity generation, transmission, and distribution in Brazil. The company operates a portfolio of wind, thermal, hydro, and nuclear power plants located throughout the country. The vast majority of the total energy produced by Eletrobras comes from its hydroelectric facilities. The company primarily generates revenue from the administration segment. About half of Eletrobras' electricity sales are made using free market agreements, while the other half is completed through auctions and contracts.

## Valuation <sup>Q</sup> as of 30 Nov 2023

Centrais Eletricas achieves a 3-star quantitative star rating based on Morningstar's equity model. This reflects the company's valuation and uncertainty scores under this assessment system. The Quantitative Fair Value estimate is 61.41, above the previous closing price of 44.88. The stock has been trading between a 42.67% and 7.93% discount to its quantitative fair value over the past year. The stock's current valuation rating sits at the 53rd percentile in the coverage universe and 37th percentile in the utilities sector (higher percentile indicates more undervalued). The quantitative uncertainty rating for Centrais Eletricas is Very High. Our quantitative star rating last differed from the current rating on 11/24/2023; the uncertainty rating last differed on 11/16/2023. The previous ratings were 4 and Extreme, respectively. The main drivers of the company's valuation and uncertainty are its EV-MV ratio and drawdown. The enterprise value-to-market value ratio of 1.46 falls

at the 75th percentile in the equity universe and the 51st percentile in its sector. The trailing 12-month maximum drawdown of 21.72% corresponds to the 31st percentile overall and the 43rd percentile in the industry.

## Economic Moat <sup>Q</sup> as of 29 Nov 2023

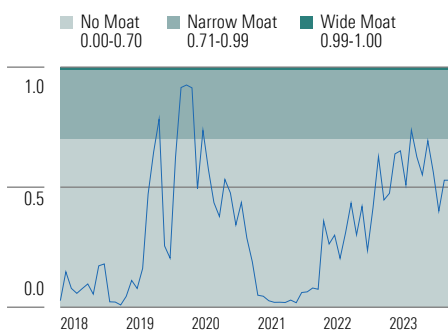
Morningstar maintains a quantitative moat rating of None on the company. The firm's quantitative moat score of 0.53 sits at the 57th percentile in the utilities sector. This is a decrease from 0.79, the maximum of its moat scores over the past year. The quantitative financial health rating for Centrais Eletricas is Moderate. Its financial health score, termed Distance to Default, sits at the 39th percentile in the universe and 42nd percentile in the sector.

The significant drivers of these ratings are the company's book value yield and annualized trailing 12-month volatility. The book value yield for Centrais Eletricas is 122.35%, and its annualized trailing 12-month volatility is 25.48%. They sit at the 77th and 35th percentile in the global equity universe, respectively.


## Fundamentals as of 29 Nov 2023

Centrais Eletricas reports earnings per share of 1.65. Its return on invested capital is 4.03%. The company maintains a dividend yield of 3.88%, paying out 149.08% of earnings. These values are calculated over a trailing 12-month period. As of last market close, Centrais Eletricas has a price-to-earnings ratio of 26.09, falling at the 82nd percentile in its sector (where a lower percentile means a lower ratio) and ranging between 21.68 and 41.69 over the past year. The company's price-to-free cash flow ratio is 9.14, falling at the 41st percentile in its sector and ranging between 8.36

## Economic Moat <sup>Q</sup> History as of 29 Nov 2023



## Centrais Eletricas Brasileiras SA Class B ELET6 ★★★ Q 29 Nov 2023, 23:40 UTC

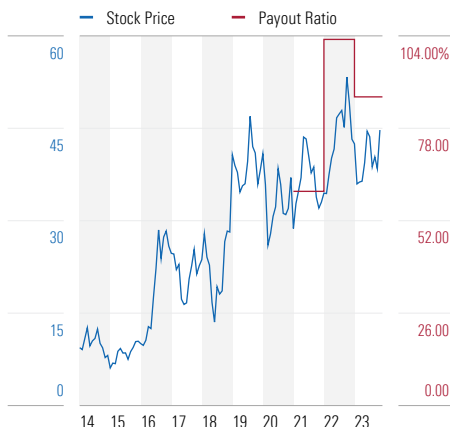
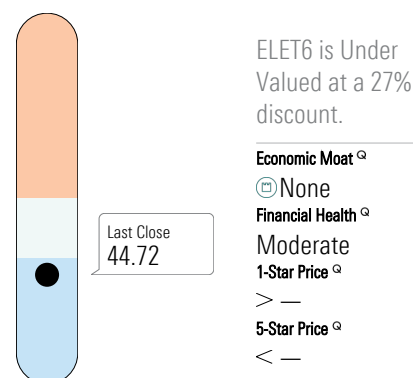
<b>Economic Moat</b> <sup>Q</sup>	<b>Uncertainty</b> <sup>Q</sup>	<b>Price/Fair Value</b> <sup>Q</sup>	<b>ESG Risk Rating Assessment</b> <sup>1</sup>	<b>Trailing Dividend Yield %</b>	<b>Market Cap</b>	<b>Investment Style</b>	<b>Sector</b>	<b>Industry</b>
None	Very High	0.7	 1 Nov 2023 05:00, UTC	3.34	93.5147 Bil	Large Value	Utilities	Utilities - Renewable

**Earnings** as of 27 Nov 2023

Earnings	%	Percentile in Sector
Dividend Yield*	3.9	42.0
Payout Ratio*	149.1	91.0
Price to Earnings	26.3	82.0
Price to Cash Flow	9.2	40.0
ROIC**	4.0	38.0

\*31 Oct 2023

\*\*30 Sep 2023

**Dividends** as of 29 Nov 2023**Valuation** <sup>Q</sup> as of 29 Nov 2023

and 16.87 over the past year.

**Contact**

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<https://www.eletronbras.com>**Financials** as of 29 Nov 2023 (Fiscal Year End 31 Dec 2023)

2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	YTD	Fiscal
24	30	32	50	29	26	29	25	35	34	27	Revenue (Bil)
-8.38	-10.24	-16.16	24.21	4.26	16.36	8.84	1.95	4.51	4.19	10.40	Operating Income (Bil)
-35.16	-33.98	-50.21	48.04	14.48	62.42	30.42	7.69	13.02	12.29	38.17	Operating Margin (%)
-6.19	-6.23	-11.41	3.43	-1.76	14.47	11.20	6.39	5.71	3.64	3.50	Net Income (Bil)
-4.65	-4.60	-8.43	2.45	-1.30	10.40	6.96	4.00	3.48	1.80	1.55	Diluted Earnings/Share
9,329	5,192	6,515	370	694	4,357	779	5,127	8,226	9,276	6,636	Operating Cash Flow (Mil)
-2.30	-2.92	-4.52	-1.68	-1.24	-1.26	-2.02	-1.06	-1.19	-33.62	-2.28	Capital Spending (Bil)
7.03	2.27	1.99	-1.31	-0.55	3.10	-1.24	4.07	7.04	-24.35	4.35	Free Cash Flow (Bil)
1,353	1,353	1,353	1,369	1,352	1,352	1,289	1,254	1,289	1,686	2,254	Avg Shares Outstand(Mil)

**Valuation** as of 29 Nov 2023

2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Current	Calendar
0.94	0.85	0.85	1.13	1.05	0.96	0.85	0.85	0.80	0.86	0.73	Price/Fair Value <sup>Q</sup>
0.42	0.42	0.41	0.62	0.78	0.97	1.94	1.77	1.45	2.58	2.79	Price/Sales
—	—	—	14.63	—	—	3.97	6.31	7.54	27.75	26.09	Price/Earnings
1.07	2.88	1.78	6.48	32.64	9.10	12.72	—	12.28	9.41	7.17	Price/Cash Flow
0.21	0.19	0.27	0.68	0.66	0.88	0.82	0.77	0.68	0.89	0.89	Price/Book

**Operating Performance** as of 29 Nov 2023 (Fiscal Year End 31 Dec 2023)

2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Q3	Fiscal (%)
-4.05	-4.4	-7.76	2.24	-1.03	7.49	5.96	3.56	3.07	1.59	0.37	Return on Assets
-9.86	-10.94	-23.94	8.32	-4.08	27.1	16.92	8.78	7.55	3.9	0.89	Return on Equity
-5.25	-4.9	-8.87	7.7	1.6	13.25	10.9	6.74	5.79	4.47	1.16	Rtn on Invested Capital

**Dividends** as of 29 Nov 2023

2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Current	Calendar (%)
1.63	1.63	0.10	—	1.79	—	1.47	1.79	2.64	1.61	1.49	Dividend Per Share
16.45	20.07	—	—	—	—	—	—	7.99	3.73	3.34	Trailing Dividend Yield
—	—	—	—	—	—	—	—	—	—	—	Buyback Yield

# Appendix

**Economic Moat** <sup>®</sup>History as of 29 Nov 2023 (No Moat: 0.00-0.70, Narrow Moat: 0.70-0.99, Wide Moat: 0.99-1.00)

Year	January	February	March	April	May	June	July	August	September	October	November	December
2023	0.47	0.64	0.65	0.51	0.74	0.63	0.55	0.69	0.56	0.40	0.53	—
2022	0.36	0.26	0.30	0.20	0.31	0.43	0.30	0.42	0.24	0.41	0.63	0.45
2021	0.05	0.05	0.03	0.02	0.02	0.02	0.03	0.02	0.06	0.06	0.08	0.07
2020	0.91	0.49	0.74	0.57	0.44	0.38	0.53	0.48	0.34	0.44	0.29	0.19
2019	0.05	0.11	0.08	0.16	0.47	0.65	0.78	0.26	0.20	0.63	0.91	0.93
2018	0.03	0.15	0.08	0.06	0.08	0.10	0.05	0.17	0.18	0.02	0.02	0.01

## Quantitative Equity Report Overview

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### Quantitative Equity Ratings

Morningstar's quantitative equity ratings consist of: (i) Quantitative Fair Value Estimate, (ii) Quantitative Star Rating, (iii) Quantitative Uncertainty, (iv) Quantitative Economic Moat, and (v) Quantitative Financial Health (collectively the "Quantitative Ratings").

The Quantitative Ratings are calculated daily and derived from the analyst-driven ratings of a company's peers as determined by statistical algorithms. Morningstar, Inc. ("Morningstar", "we", "our") calculates Quantitative Ratings for companies whether or not it already provides analyst ratings and qualitative coverage. In some cases, the Quantitative Ratings may differ from the analyst ratings because a company's analyst-driven ratings can significantly differ from other companies in its peer group.

i. **Quantitative Fair Value Estimate:** Intended to represent Morningstar's estimate of the per share dollar amount that a company's equity is worth today. Morningstar calculates the Quantitative Fair Value Estimate using a statistical model derived from the Fair Value Estimate Morningstar's equity analysts assign to companies. Please go to <http://global.morningstar.com/equitydisclosures> for information about Fair Value Estimate Morningstar's equity analysts assign to companies.

ii. **Quantitative Economic Moat:** Intended to describe the strength of a firm's competitive position. It is calculated using an algorithm designed to predict the Economic Moat rating a Morningstar analyst would assign to the stock. The rating is expressed as Narrow, Wide, or None.

**Narrow** – assigned when the probability of a stock receiving a "Wide Moat" rating by an analyst is greater than 70% but less than 99%.

**Wide** – assigned when the probability of a stock receiving a "Wide Moat" rating by an analyst is greater than 99%.

**None** – assigned when the probability of an analyst receiving a "Wide Moat" rating by an analyst is less than 70%.

iii. **Quantitative Star Rating:** Intended to be the summary rating based on the combination of our Quantitative Fair Value Estimate, current market price, Quantitative Uncertainty Rating, and momentum. The rating is expressed as One-Star, Two-Star, Three-Star, Four-Star, and Five-Star.

★ – the stock is overvalued with a reasonable margin of safety.

*Log (Quant FVE/Price) < -1\*Quantitative Uncertainty*

*Micro-Caps: Log (Quant FVE/Price) < -1.5\*Quantitative Uncertainty*

★★ – the stock is somewhat overvalued.

*Log (Quant FVE/Price) between (-1\*Quantitative Uncertainty, -0.5\*Quantitative Uncertainty)*

*Micro-Caps: Log (Quant FVE/Price) between (-1.5\*Quantitative Uncertainty, -0.75\*Quantitative Uncertainty)*

★★★ – the stock is approximately fairly valued.

*Log (Quant FVE/Price) between (-0.5\*Quantitative Uncertainty, 0.5\*Quantitative Uncertainty)*

*Micro-Caps: Log (Quant FVE/Price) between (-0.75\*Quantitative Uncertainty, 0.75\*Quantitative Uncertainty)*

★★★★ – the stock is somewhat undervalued.

*Log (Quant FVE/Price) between (0.5\*Quantitative Uncertainty, 1\*Quantitative*

*Uncertainty)*

*Micro-Caps: Log (Quant FVE/Price) between (0.75\*Quantitative Uncertainty, 1.5\*Quantitative Uncertainty)*

★★★★★ – the stock is undervalued with a reasonable margin of safety.

*Log (Quant FVE/Price) > 1\*Quantitative Uncertainty*

*Micro-Caps: Log (Quant FVE/Price) > 1.5\*Quantitative Uncertainty*

After the initial calculation for the star rating, there is a final filtering step based on the momentum of the company. We rank the companies based on their 12-1 month momentum, then restrict those below the 30th percentile to a maximum of 3 stars.

iv. **Quantitative Uncertainty:** Intended to represent Morningstar's level of uncertainty about the accuracy of the Quantitative Fair Value Estimate. Generally, the lower the Quantitative Uncertainty, the narrower the potential range of outcomes for that particular company. The rating is expressed as Low, Medium, High, Very High, and Extreme.

**Low** – the interquartile range for possible fair values is less than 10%

**Medium** – the interquartile range for possible fair values is less than 15% but greater than 10%

**High** – the interquartile range for possible fair values is less than 35% but greater than 15%

**Very High** – the interquartile range for possible fair values is less than 80% but greater than 35%

**Extreme** – the interquartile range for possible fair values is greater than 80%

v. **Quantitative Financial Health:** Intended to reflect the probability that a firm will face financial distress in the near future. The calculation uses a predictive model designed to anticipate when a company may default on its financial obligations. The rating is expressed as Weak, Moderate, and Strong.

**Weak** – assigned when Quantitative Financial Health < 0.2

**Moderate** – assigned when Quantitative Financial Health is between 0.2 and 0.7

**Strong** – assigned when Quantitative Financial Health > 0.7

### Other Definitions

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ii. **Quantitative Valuation** – Using the below terms, intended to denote the relationship between the security's **Last Price** and Morningstar's quantitative fair value estimate for that security.

**Undervalued – Last Price** is below Morningstar's quantitative fair value estimate.

**Fairly Valued – Last Price** is in line with Morningstar's quantitative fair value estimate.

**Fairly Valued – Last Price** is in line with Morningstar's quantitative fair value estimate.

**Overvalued – Last Price** is above Morningstar's quantitative fair value estimate.

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Based on their quantitative scores, companies are grouped into one of five Risk Categories (negligible, low, medium, high, severe). These risk categories are absolute, meaning that a 'high risk' assessment reflects a comparable degree

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The ESG Risk Rating Assessment is a visual representation of Sustainalytics ESG Risk Categories on a 1 to 5 scale. Companies with Negligible Risk = 5 Globes, Low Risk = 4, Medium Risk = 3 Globes, High Risk = 2 Globes, Severe Risk = 1 Globe. For more information, please visit [sustainalytics.com/esg-ratings/](https://sustainalytics.com/esg-ratings/)

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