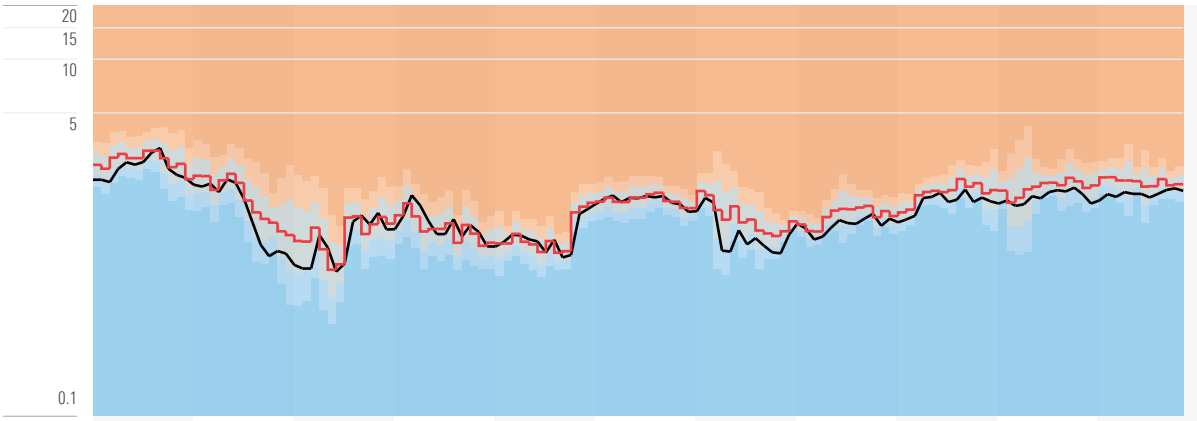
# Cia Energetica DE Minas Gerais - Cemig XCMIG ★★★ Q 10 Oct 2024 22:42, UTC

| Economic Moat Q | Uncertainty Q | Price/Fair Value Q | ESG Risk Rating Assessment[1] | Trailing Dividend Yield % | Market Cap | Investment Style | Sector | Industry |
|---|---|---|---|---|---|---|---|---|
| None | High | 0.92 | 2 Oct 2024 05:00, UTC | 7.47 | — | Large Value | Utilities | Utilities - Diversified |




Fair Value Q
1.99

Last Close
1.83

Overvalued
Fairly Valued
Undervalued

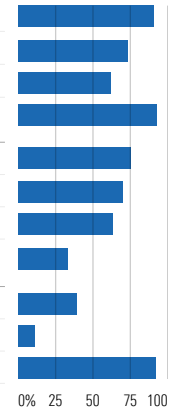
| | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | YTD |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Price/Fair Value Q | 0.93 | 0.68 | 0.93 | 0.95 | 0.99 | 0.96 | 0.97 | 0.92 | 0.84 | 0.82 | 0.92 |
| Total Return % | 11.36 | -61.19 | 72.05 | -18.46 | 82.30 | -3.87 | -11.11 | 10.11 | 50.13 | 15.83 | 26.73 |
| +/- Index | -4.09 | -12.72 | 37.05 | 27.92 | 16.40 | 34.03 | 4.95 | -11.87 | 5.06 | 23.11 | -1.35 |

As of 10 Oct 2024 | Index: Morningstar Brazil GR BRL. Fair Value data as of 10 Oct 2024 00:00, UTC.

[1]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.

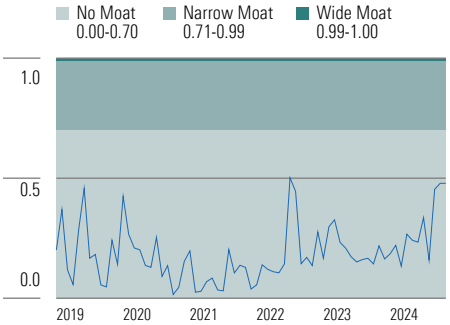
## Key Metrics as of 9 Oct 2024

| Metrics | | Percentile in Sector |
|---|---|---|
| Earnings Yield (%) | 17.3 | 91.0 |
| Sales Yield (%) | 116.7 | 73.0 |
| Book Value Yield (%) | 79.6 | 62.0 |
| Return on Assets (%)* | 9.9 | 93.0 |
| Revenue(Bil)* | 6.7 | 75.0 |
| Market Value (Bil) | 6.2 | 70.0 |
| Enterprise Value (Bil) | 7.4 | 63.0 |
| EVMV Ratio | 1.2 | 33.0 |
| Volatility TTM (%) | 20.3 | 39.0 |
| Drawdown TTM (%) | 8.6 | 11.0 |
| Volume (Mil) | 15.1 | 92.0 |




*31 Mar 2024

## Economic Moat Q History as of 10 Oct 2024




## Business Description

Cia Energetica DE Minas Gerais - Cemig Formerly Energy Company of Minas Gerais is a Brazilian power company that generates, transmits, and distributes electricity. As one of the largest power companies in Brazil, the firm operates across most Brazilian states and Chile. The company has various subsidiaries and operates chiefly through its generation, transmission, distribution, and gas segments. The majority of the company's revenue is derived from electricity sales to consumers. The company generates power primarily through hydroelectric resources and secondarily through thermal and wind resources.

## Valuation Q as of 10 Oct 2024

Morningstar maintains a 3-star quantitative star rating for Cia Energetica DE Minas, derived from the firm's valuation and uncertainty scores.

The company's shares last closed at 1.85, in-line with our quantitative fair value estimate of 1.94. These shares have traded between a 25.14% and 1.46% discount to their fair value estimate over the past year. In Morningstar's equity coverage universe for this methodology, the company's valuation rating lands at the 84th percentile; in the utilities sector, the firm's score lies at the 71st percentile.

Furthermore, Cia Energetica DE Minas maintains a quantitative valuation uncertainty rating of High.

The company has held this star rating since the previous rating of 4, which was last assigned on 08/08/2024. The uncertainty rating for Cia Energetica DE Minas has remained High since the previous rating of Very High, which was last assigned on 09/23/2024.

The key factors behind these ratings are the company's EV-MV ratio and volatility. The enterprise value-to-market value ratio is 1.19, and its maximum annualized trailing 12-month volatility is 28.09%. The EV-MV ratio falls at the 33rd percentile in the utilities sector while the volatility is at the 39th percentile. Over the past year, the company's EV-MV ratio has been between 1.18 and 1.29; its volatility has ranged between 18.11% and 28.09%.

## Economic Moat Q as of 10 Oct 2024

Morningstar maintains a quantitative moat rating of None on the company. The firm's quantitative moat score of 0.48 sits at the 50th percentile in the utilities sector. This is a decrease from 0.49, the maximum of its moat scores over the past year.

The quantitative financial health rating for Cia Energetica DE Minas is Moderate. Its financial health score, termed Distance to Default, sits at the 66th percentile in the universe and 82nd percentile in the sector.

The significant drivers of these ratings are the company's book value yield and enterprise value-to-market value ratio. The book value yield for Cia Energetica DE Minas is 79.61%, and its enterprise value-to-market value ratio is 1.19. They sit at the 62nd and 63rd percentile in the global equity universe, respectively.

## Fundamentals as of 10 Oct 2024

Cia Energetica DE Minas maintains earnings per share of 1.93. The company further earns a return on invested capital of 17.48%. The shares offer a dividend yield of 7.23%. These values are calculated over a trailing 12-month period.

As of last market close, Cia Energetica DE Minas has a price-to-earnings ratio of 5.78, falling below the 12th percentile in its sector (where a lower percentile means a lower ratio) and ranging between 4.49 and 6.32 over the past year. The company's price-to-free cash flow ratio is 5.51, falling at the

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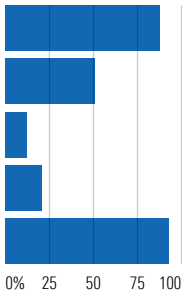
# Cia Energetica DE Minas Gerais - Cemig XCMIG ★★★ 10 Oct 2024 22:42, UTC

| Economic Moat | Uncertainty | Price/Fair Value | ESG Risk Rating Assessment[1] | Trailing Dividend Yield % | Market Cap | Investment Style | Sector | Industry |
|---|---|---|---|---|---|---|---|---|
| None | High | 0.92 | 2 Oct 2024 05:00, UTC | 7.47 | — | Large Value | Utilities | Utilities - Diversified |

## Earnings as of 9 Oct 2024

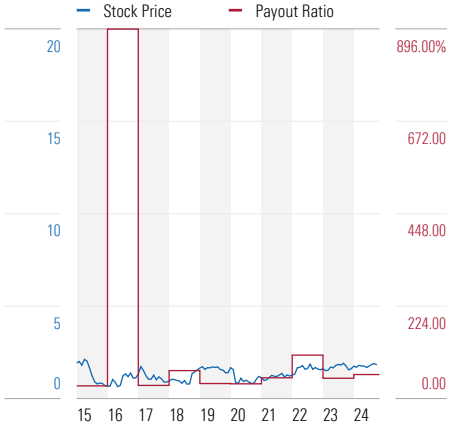
| Earnings | % | Percentile in Sector |
|---|---|---|
| Dividend Yield* | 7.2 | 88.0 |
| Payout Ratio* | 57.8 | 51.0 |
| Price to Earnings | 5.8 | 12.0 |
| Price to Cash Flow | 5.5 | 21.0 |
| ROIC** | 17.5 | 93.0 |



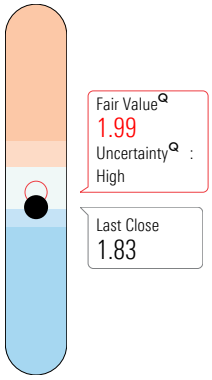

*30 Sep 2024
**31 Mar 2024

21st percentile in its sector and ranging between 4.11 and 17.12 over the past year.

## Dividends as of 10 Oct 2024




## Valuation as of 10 Oct 2024




Undervalued (8% Discount)

Economic Moat
None
1-Star Price
> 2.50
5-Star Price
< 1.59

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**Financials** (Fiscal Year End 31 Dec 2023)

| 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 06/2024 | Fiscal |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 19.54 | 21.29 | 18.77 | 21.71 | 22.27 | 25.39 | 25.23 | 33.65 | 34.46 | — | 37.75 | Revenue (Bil) |
| 5.05 | 2.89 | 2.78 | 2.84 | 2.78 | 2.91 | 4.30 | 5.62 | 4.96 | — | 6.82 | Operating Income (Bil) |
| 25.85 | 13.58 | 14.81 | 13.08 | 12.48 | 11.47 | 17.04 | 16.72 | 14.40 | — | 17.45 | Operating Margin (%) |
| 3.14 | 2.47 | 0.34 | 1.00 | 1.70 | 3.13 | 2.86 | 3.75 | 4.09 | — | 5.96 | Net Income (Bil) |
| 1.27 | 1.00 | 0.04 | 0.19 | 0.60 | 1.09 | 0.90 | 1.31 | 1.43 | — | 2.09 | Diluted Earnings/Share |
| 3.73 | 3.01 | 1.21 | 0.58 | 1.01 | 2.04 | 8.61 | 3.69 | 6.61 | — | 6.83 | Operating Cash Flow (Bil) |
| 0.92 | 1.08 | 1.14 | 1.12 | 0.11 | 1.93 | 0.17 | 0.23 | 0.29 | — | — | Capital Spending (Bil) |
| 3.32 | 1.33 | 2.36 | 0.11 | 0.08 | -0.65 | 3.18 | 0.73 | 1.51 | — | 6.75 | Free Cash Flow (Bil) |
| 2.54 | 2.54 | 2.54 | 2.86 | 2.86 | 2.86 | 2.86 | 2.86 | 2.86 | — | 2.86 | Avg Shares Outstand(Bil) |

**Valuation** as of 10 Oct 2024

| 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | Current | Calendar |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.93 | 0.68 | 0.93 | 0.95 | 0.99 | 0.96 | 0.97 | 0.92 | 0.84 | 0.82 | 0.92 | Price/Fair Value |
| 0.84 | 0.25 | 0.60 | 0.41 | 0.79 | 0.76 | 0.74 | 0.89 | 0.75 | 0.69 | 0.75 | Price/Sales |
| 4.90 | 1.78 | 17.29 | 18.51 | 27.29 | 10.32 | 19.61 | 5.71 | 9.15 | 4.72 | 4.75 | Price/Earnings |
| 3.32 | 1.97 | 3.58 | 4.93 | 338.64 | 10.62 | 7.09 | 8.36 | 15.43 | 8.79 | 4.20 | Price/Cash Flow |
| 1.17 | 0.57 | 0.73 | 0.64 | 1.23 | 1.15 | 1.24 | 1.04 | 1.18 | 1.01 | 1.16 | Price/Book |

**Operating Performance** (Fiscal Year End 31 Dec 2023)

| 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 03/2024 | Fiscal (%) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 9.68 | 6.51 | 0.81 | 2.38 | 3.33 | 5.70 | 5.51 | 7.07 | 7.74 | — | 9.90 | Return on Assets |
| 26.23 | 20.35 | 2.59 | 7.35 | 11.76 | 20.53 | 17.17 | 20.31 | 19.85 | — | 22.90 | Return on Equity |
| 16.46 | 13.53 | 7.76 | 7.02 | 8.13 | 12.34 | 10.93 | 14.93 | 18.31 | — | 17.48 | Rtn on Invested Capital |

**Dividends** as of 10 Oct 2024

| 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | Current | Calendar (%) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1.30 | 0.31 | 0.32 | 0.06 | 0.33 | 0.37 | 0.32 | 0.66 | 1.51 | 0.99 | 0.14 | Dividend Per Share |
| 22.03 | 7.30 | 9.18 | 6.59 | 1.07 | 1.56 | 1.98 | 8.34 | 7.23 | 52.28 | 7.47 | Trailing Dividend Yield |
| — | — | — | — | — | — | — | — | — | — | — | Buyback Yield |

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# Appendix

**Economic Moat History** as of 10 Oct 2024 (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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2024 | 0.18 | 0.22 | 0.13 | 0.27 | 0.24 | 0.23 | 0.34 | 0.16 | 0.45 | 0.48 | — | — |
| 2023 | 0.17 | 0.30 | 0.33 | 0.23 | 0.21 | 0.17 | 0.15 | 0.16 | 0.17 | 0.14 | 0.22 | 0.16 |
| 2022 | 0.06 | 0.14 | 0.12 | 0.11 | 0.11 | 0.14 | 0.50 | 0.44 | 0.14 | 0.17 | 0.14 | 0.28 |
| 2021 | 0.20 | 0.03 | 0.03 | 0.07 | 0.08 | 0.03 | 0.03 | 0.20 | 0.11 | 0.14 | 0.13 | 0.04 |
| 2020 | 0.42 | 0.27 | 0.21 | 0.20 | 0.14 | 0.13 | 0.25 | 0.09 | 0.14 | 0.02 | 0.05 | 0.15 |
| 2019 | 0.20 | 0.37 | 0.12 | 0.06 | 0.28 | 0.46 | 0.17 | 0.18 | 0.06 | 0.05 | 0.24 | 0.14 |

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# Quantitative Equity Report Overview

The quantitative report on equities consists of data, statistics and quantitative equity ratings on equity securities. Morningstar, Inc.'s quantitative equity ratings are forward looking and are generated by a statistical model that is based on Morningstar Inc.'s analyst-driven equity ratings and quantitative statistics. Given the nature of the quantitative report and the quantitative ratings, there is no one analyst in which a given report is attributed to; however, Mr. Lee Davidson, Head of Quantitative Research for Morningstar, Inc., is responsible for overseeing the methodology that supports the quantitative equity ratings used in this report. As an employee of Morningstar, Inc., Mr. Davidson is guided by Morningstar, Inc.'s Code of Ethics and Personal Securities Trading Policy in carrying out his responsibilities.

## 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

i. **Last Close** – Price of the stock as of the close of the market of the last trading day before date of the report.

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.

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

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

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

**Sustainalytics ESG Risk Rating Assessment:** The ESG Risk Rating Assessment is provided by Sustainalytics; a Morningstar company. Sustainalytics' ESG Risk Ratings measure the degree to which company's economic value at risk is driven by environment, social and governance (ESG) factors.

Sustainalytics analyzes over 1,300 data points to assess a company's exposure to and management of ESG risks. In other words, ESG Risk Ratings measures a company's unmanaged ESG Risks represented as a quantitative score. Unmanaged Risk is measured on an open-ended scale starting at zero (no risk) with lower scores representing less unmanaged risk and, for 95% of cases, the unmanaged ESG Risk score is below 50.

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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of unmanaged ESG risk across all subindustries covered.

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/

Ratings should not be used as the sole basis in evaluating a company or security. Ratings involve unknown risks and uncertainties which may cause our expectations not to occur or to differ significantly from what was expected and should not be considered an offer or solicitation to buy or sell a security.

This Report **has not been made available** to the issuer of the security prior to publication.

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