

CREDIT OPINION

10 April 2019

Update

Rate this Research

RATINGS

Energest S.A.

Domicile	Brazil
Long Term Rating	Ba2
Type	LT Issuer Rating - Dom Curr
Outlook	Stable

Please see the ratings section at the end of this report for more information. The ratings and outlook shown reflect information as of the publication date.

Contacts

Cristiane Spercel +55.11.3043.7333  
VP-Senior Analyst  
cristiane.spercel@moodys.com

Yug Santana +55.11.3043.7307  
Associate Analyst  
yug.santana@moodys.com

Alejandro Olivo +1.212.553.3837  
Associate Managing Director  
alejandro.olivo@moodys.com

CLIENT SERVICES

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

Energest S.A.

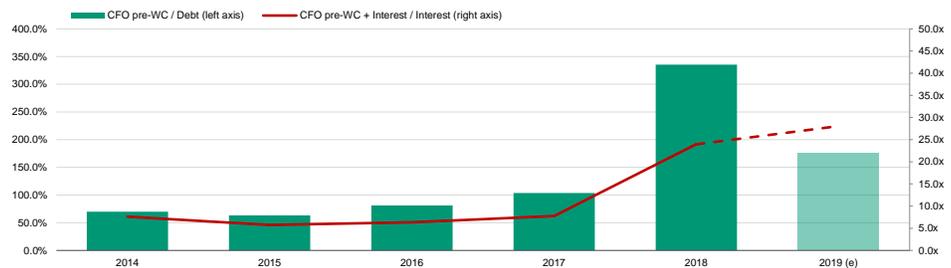
Update to credit analysis

Summary

The credit profile of [Energest S.A.](#)'s (Energest, Ba2/Aa2.br stable) reflects its long track record and mature operating profile with robust operating margins and a low leveraged capital structure. The ratings also take into consideration the intrinsic benefits from being part of the [EDP Energias do Brasil S.A.](#) (EDB; Ba2 stable) group, given its expertise in operating hydro plants in Brazil and resilient access to the debt and banking markets. The ratings also take into consideration (1) Energest's relatively small scale, (2) the high sales concentration to a single client, EDP Comercialização e Serviços de Energia Ltda. (EDP Comercializadora), which represents around 51% of the company's energy supply contracts; (3) a track record of high dividend payout to the parent. The ratings are constrained by the [Government of Brazil's](#) rating (Ba2 stable), given the intrinsic links between the company and the credit quality of the sovereign because of its regional customer base.

Exhibit 1

Credit metrics to remain robust after a significant decrease in leverage in 2018



Source: Moody's Investors Service

Credit strengths

- » Stable and predictable cash flows, supported by medium-term supply contracts
- » Strong credit metrics for the rating category
- » Long operating track record

Credit challenges

- » Small scale and limited asset and revenues diversification
- » Exposure to hydrological risks
- » Track record of high dividend distribution

## Rating outlook

The stable outlook on Energest's ratings reflects our expectation that the company's credit metrics will remain well positioned for the rating category, despite volatile hydrologic conditions. The stable outlook is also in line with that on EDB's and Brazil's ratings.

## Factors that could lead to an upgrade

A rating upgrade would be considered if the sovereign rating or EDB's rating, or both, are upgraded. A ratings' upgrade would also take into account the company's liquidity and business profile, along with the regulatory environment in which the company operates.

## Factors that could lead to a downgrade

Sales volume below our expectations or a significant mismatch on spot market exposure could prompt a downgrade, as well as a rapid or significant deterioration in leverage and liquidity. A downgrade of EDB's rating or Brazil's sovereign rating could strain Energest's ratings. Quantitatively, the ratings could be downgraded if:

- » cash flow from operations (CFO) pre-working capital (WC)/debt falls below 50%, or
- » interest coverage remains below 5.0x for a prolonged period

## Key indicators

Exhibit 2

### Energest S.A.

	12/31/2014	12/31/2015	12/31/2016	12/31/2017	12/31/2018
(CFO Pre-W/C + Interest) / Interest	7.6x	5.7x	6.3x	7.8x	23.9x
(CFO Pre-W/C) / Debt	69.9%	63.1%	81.1%	103.5%	335.2%
RCF / Debt	28.5%	-5.7%	6.1%	62.1%	137.2%

[1] All ratios are based on 'Adjusted' financial data and incorporate Moody's Global Standard Adjustments for Non-Financial Corporations.

Source: Moody's Financial Metrics™

## Profile

Energest, a wholly owned subsidiary of EDB, is a hydro generation company with an installed capacity of 198 megawatts (MW; 134.8 MW of assured energy) consisting of a single hydropower plant, UHE Mascarenhas, located between the states of Espírito Santo and [Minas Gerais](#) (B2 stable). The concession was granted in July 1995 for 30 years and will expire in July 2025, subject to a 20-year renewal depending on regulatory approvals. In 2018, Energest posted consolidated net sales of BRL283 million and a net income of BRL127 million.

## Detailed credit considerations

### Medium-term supply contracts support cash flow, but are concentrated in a single off-taker

Energest relies primarily on medium-term energy supply contracts to the unregulated market that provide predictable and stable cash flows over the next 12 to 18 months. As its former long-term energy supply contracts with distribution companies expired in recent years, the company has gradually shift focus to supply contracts with free consumers. As of March 2019, the company had 19.9% of its contracted energy in the regulated market and 80.1% of PPAs in the free market, with an average tenor of 7.2 years, up from 3.7 years in 2017. We estimate the weighted average price of those PPAs was at BRL204/MWh in January 2019, adjusted for inflation from the energy auction date.

This publication does not announce a credit rating action. For any credit ratings referenced in this publication, please see the ratings tab on the issuer/entity page on [www.moody's.com](http://www.moody's.com) for the most updated credit rating action information and rating history.

Exhibit 3

**80% contracted position in the free market and 51% intragroup**

Contract type	Volume (MWh)	Updated price (BRL/MWh) [1]	Auction price (BRL/MWh)	Inflation index	Start Date	End Date
Regulated	201,480	234.07	115.98	IPCA	Jan-08	Dec-37
Unregulated	473,040	194.96	112.00	IGP-M	Jan-13	Dec-22
Unregulated	78,840	293.67	233.00	IPCA	Jan-15	Dec-19
Unregulated	35,916	135.38	95.31	IPCA	Jan-17	Dec-44
Unregulated	5,589	116.47	82.00	IPCA	Jan-17	Dec-46
Unregulated	70,080	188.24	175.00	IGP-M	Jan-19	Dec-19
Unregulated	148,920	172.10	160.00	IGP-M	Jan-20	Dec-20

[1] Updated prices from auction date to January 1, 2019.

Sources: Energest, Moody's Investors Service

On the other hand, most of Energest's sales volume is concentrated intragroup. EDP Comercializadora, a wholly owned subsidiary of EDB, is a pure electricity trading company that plays a strategic role within the EDB group. Most of the large industrial consumers that migrated from the regulated markets served by affiliates [EDP Sao Paulo Distribuicao de Energia S.A.](#) (Ba2/Aa1.br stable) and [EDP Espirito Santo Distribuicao de Energia SA](#) (Ba2/Aa1.br stable) to the free market over the past several years have signed bilateral supply contracts with EDP Comercializadora, which now represents about 51% of Energest's energy PPAs for 2019.

**Hydrological risk issue mitigated**

Brazilian hydro generation companies have been experiencing a challenging operating environment over the past few years as a combined result of prolonged drought seasons and ineffective government policies toward operation and expansion of the energy matrix. In this scenario, hydropower generators experienced a significant increase in energy costs related to purchases on the spot market to make up for generation shortfalls. In 2018, the Generation Scaling Factor (GSF), which indicates the level of stored energy of hydropower reservoirs in Brazil, fell to an average of 84% from 85% in the previous three years. Meanwhile, the average spot prices reached BRL294/MWh in 2018 from an average of BRL250 in the previous three years. We currently expect a GSF of 86% in 2019 and 91% in 2020, up from 84% in 2018. The improvement is a combination of more favorable rainy season, additional installed power capacity coming on stream and a gradual recovery in electricity consumption.

As of March 2019, the company's contracted position represented 85% of its physical guarantee. Since the expiration of certain supply contracts in early 2016, Energest strategically decided to maintain a portion of its energy output uncontracted which works as a buffer to reduce its exposure to mandatory purchases in the spot market in a scenario in which the total generation of hydropower is considerably lower than the allocated physical energy. As a result, the company is relatively well insulated in scenarios where the generating scaling factor (GSF) is at or above 85%.

To mitigate the exposure to hydrological risks for the regulated contracts, Energest has also adhered to the law #13,203/2015, which has established the terms on the renegotiation of the hydrological risks in 2015 and allows for the transfer of part of the hydrological risks from 2016 through 2024 to final consumers in exchange for a premium payment that varies according to the level of protection chosen. Among the different levels of protection available on the regulated market, Energest has opted for the SP94 product, which limits its exposure up to 6% of its assured energy sold in the regulated market (equivalent to 23 MW average annual production), effectively protecting its hydrological risk in the future in cases where the system GSF falls below 94%.

**Strong credit metrics, despite large dividend distributions**

Energest has historically posted strong credit metrics, characterized by low leverage and high interest coverage ratios. In the last three years ended in December 2018, the company's average consolidated CFO pre-WC/debt reached 123%, while the retained cash flow/debt was at 42% and interest coverage of 9.1x. In the same period, the company's EBITDA margin, as per our standard adjustments, has been in the 59% to 74% range. Those metrics compare favorably with those of other Ba-rated unregulated power companies. Such strong performance reflects Energest's medium- and long-term power purchase agreements (PPAs), annually adjusted by inflation, and its low cost structure and leverage.

In 2016, a corporate restructuring of the EDB group resulted in a capital split of Energest and the transfer of its small hydropower concessions to the parent company (that is, PCH Viçosa, PCH Sao Joao, PCH Alegre, PCH Fruteiras and PCH Jucu e Rio Bonito) and one large hydropower plant (UHE Suiça), with a total installed capacity of 102 MW. Those units represented one-third of Energest's installed capacity and about 15% of its consolidated gross revenue. Despite this reduction, Energest's cash flow generation continued strong, supporting a material leverage reduction in 2018.

#### Low carbon transition risk

Energest has low carbon transition risk within the utility sector because it is an electricity generation company with 100% of its installed capacity concentrated in one hydropower plant.

Brazil's energy generation matrix mostly comprises hydropower plants. The government expects the proportion of hydropower in the national energy supply to decline from 64% to 52% by 2027, due to the expansion of alternative renewables, such as wind and solar power plants. As such, renewable sources, will remain predominant in Brazil's energy matrix, at well above 85% of the energy installed capacity. As a result, we expect risks to the sector from environmental issues or those related to the transition to a low-carbon electric grid to remain low for Brazil, a country that has pledged to maintain carbon emissions below the targets set out as part of the Paris climate accord.

#### Liquidity analysis

Energest's liquidity is adequate, despite a cash position of BRL19 million as of December 31, 2018, vis-à-vis BRL22 million of debt maturities through December 31, 2019. The low cash balance is compensated by the company's resilient cash flow generation. We expect operational cash flow generation after capital spending in the range of BRL130 million-BRL140 million over the next 12-18 months.

Like other Brazilian companies, Energest does not have committed banking facilities to face any unexpected cash disbursements; however, we deem the company's liquidity as manageable, given its track record of resilient access to capital markets and intrinsic benefits derived from being part of the EDB group.

Energest has a track record of high dividend payout, which is supported by its resilient cash flow generation, low capital spending requirements and robust operating margin. We expect Energest to continue to distribute significant dividends, while its cash flow generation remains sustainable or reduce it during critical periods, if needed.

Energest's second debenture issuance has a financial covenant of 2.5x net debt to EBITDA embedded in its indenture, which was 0.1x on December 31, 2018. We expect the company to maintain its conservative financial policy with a lowly leveraged capital structure within the covenant limit.

## Rating methodology and scorecard factors

The grid outcome from our 12-18-month forward view based on our Unregulated Utilities and Unregulated Power Companies Industry methodology is Baa1, which is four notches above Energest's current rating.

Exhibit 4

### Rating factors

#### Energest S.A.

Unregulated Utilities and Unregulated Power Companies Industry Grid [1][2]	Current FY 12/31/2018		Moody's 12-18 Month Forward View As of 4/4/2019 [3]	
Factor 1 : Scale (10%)	Measure	Score	Measure	Score
a) Scale (USD Billion)	Caa	Caa	Caa	Caa
<b>Factor 2 : Business Profile (40%)</b>				
a) Market Diversification	Ba	Ba	Ba	Ba
b) Hedging and Integration Impact on Cash Flow Predictability	Baa	Baa	Baa	Baa
c) Market Framework & Positioning	Ba	Ba	Ba	Ba
d) Capital Requirements and Operational Performance	Baa	Baa	Baa	Baa
<b>Factor 3 : Financial Policy (10%)</b>				
a) Financial Policy	Baa	Baa	Baa	Baa
<b>Factor 4 : Leverage and Coverage (40%)</b>				
a) (CFO Pre-W/C + Interest) / Interest (3 Year Avg)	9.1x	A	15x - 30x	Aaa
b) (CFO Pre-W/C) / Debt (3 Year Avg)	122.9%	Aaa	105% - 175%	Aaa
c) RCF / Debt (3 Year Avg)	41.9%	A	13% - 20%	Baa
<b>Rating:</b>				
a) Indicated Outcome from Grid		Baa1		Baa1
b) Actual Rating Assigned				Ba2

[1] All ratios are based on 'Adjusted' financial data and incorporate Moody's Global Standard Adjustments for Non-Financial Corporations.

[2] As of 12/31/2018.

[3] This represents Moody's forward view, not the view of the issuer, and unless noted in the text, does not incorporate significant acquisitions and divestitures.

Source: Moody's Investors Service

## Ratings

Exhibit 5

Category	Moody's Rating
<b>ENERGEST S.A.</b>	
Outlook	Stable
Issuer Rating -Dom Curr	Ba2
Senior Unsecured -Dom Curr	Ba2
NSR Senior Unsecured	Aa2.br
NSR LT Issuer Rating	Aa2.br
<b>ULT PARENT: EDP - ENERGIAS DE PORTUGAL, S.A.</b>	
Outlook	Stable
Issuer Rating	Baa3
Bkd Sr Unsec MTN -Dom Curr	(P)Baa3
Jr Subordinate -Dom Curr	Ba2
Commercial Paper -Dom Curr	P-3
<b>PARENT: EDP - ENERGIAS DO BRASIL S.A.</b>	
Outlook	Stable
Corporate Family Rating -Dom Curr	Ba2
Senior Unsecured -Dom Curr	Ba3
NSR Corporate Family Rating	Aa2.br
NSR Senior Unsecured	A1.br

Source: Moody's Investors Service

© 2019 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 INVESTORS SERVICE, INC. AND ITS RATINGS AFFILIATES ("MIS") ARE MOODY'S CURRENT OPINIONS OF THE RELATIVE FUTURE CREDIT RISK OF ENTITIES, CREDIT COMMITMENTS, OR DEBT OR DEBT-LIKE SECURITIES, AND MOODY'S PUBLICATIONS MAY INCLUDE MOODY'S CURRENT OPINIONS OF THE RELATIVE FUTURE CREDIT RISK OF ENTITIES, CREDIT COMMITMENTS, OR DEBT OR DEBT-LIKE SECURITIES. 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 MOODY'S RATING SYMBOLS AND DEFINITIONS PUBLICATION FOR INFORMATION ON THE TYPES OF CONTRACTUAL FINANCIAL OBLIGATIONS ADDRESSED BY MOODY'S RATINGS. CREDIT RATINGS DO NOT ADDRESS ANY OTHER RISK, INCLUDING BUT NOT LIMITED TO: LIQUIDITY RISK, MARKET VALUE RISK, OR PRICE VOLATILITY. CREDIT RATINGS AND MOODY'S OPINIONS INCLUDED IN MOODY'S PUBLICATIONS ARE NOT STATEMENTS OF CURRENT OR HISTORICAL FACT. MOODY'S PUBLICATIONS MAY ALSO INCLUDE QUANTITATIVE MODEL-BASED ESTIMATES OF CREDIT RISK AND RELATED OPINIONS OR COMMENTARY PUBLISHED BY MOODY'S ANALYTICS, INC. CREDIT RATINGS AND MOODY'S PUBLICATIONS DO NOT CONSTITUTE OR PROVIDE INVESTMENT OR FINANCIAL ADVICE, AND CREDIT RATINGS AND MOODY'S PUBLICATIONS ARE NOT AND DO NOT PROVIDE RECOMMENDATIONS TO PURCHASE, SELL, OR HOLD PARTICULAR SECURITIES. NEITHER CREDIT RATINGS NOR MOODY'S PUBLICATIONS COMMENT ON THE SUITABILITY OF AN INVESTMENT FOR ANY PARTICULAR INVESTOR. MOODY'S ISSUES ITS CREDIT RATINGS AND PUBLISHES MOODY'S PUBLICATIONS 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 AND MOODY'S PUBLICATIONS ARE NOT INTENDED FOR USE BY RETAIL INVESTORS AND IT WOULD BE RECKLESS AND INAPPROPRIATE FOR RETAIL INVESTORS TO USE MOODY'S CREDIT RATINGS OR MOODY'S PUBLICATIONS 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.

CREDIT RATINGS AND MOODY'S PUBLICATIONS 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 rating process or in preparing the Moody's publications.

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 OR 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 rating, agreed to pay to Moody's Investors Service, Inc. for ratings opinions and services rendered by it fees ranging from \$1,000 to approximately \$2,700,000. MCO and MIS also maintain policies and procedures to address the independence of MIS's ratings and rating processes. Information regarding certain affiliations that may exist between directors of MCO and rated entities, and between entities who hold ratings from MIS and have also publicly reported to the SEC an ownership interest in MCO of more than 5%, is posted annually at [www.moody.com](http://www.moody.com) under the heading "Investor Relations — Corporate Governance — Director and Shareholder Affiliation Policy."

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

Additional terms for Japan only: Moody's Japan K.K. ("MJKK") is a wholly-owned credit rating agency subsidiary of Moody's Group Japan G.K., which is wholly-owned by Moody's Overseas Holdings Inc., a wholly-owned subsidiary of MCO. Moody's SF Japan K.K. ("MSFJ") is a wholly-owned credit rating agency subsidiary of MJKK. MSFJ is not a Nationally Recognized Statistical Rating Organization ("NRSRO"). Therefore, credit ratings assigned by MSFJ are Non-NRSRO Credit Ratings. Non-NRSRO Credit Ratings are assigned by an entity that is not a NRSRO and, consequently, the rated obligation will not qualify for certain types of treatment under U.S. laws. MJKK and MSFJ are credit rating agencies registered with the Japan Financial Services Agency and their registration numbers are FSA Commissioner (Ratings) No. 2 and 3 respectively.

MJKK or MSFJ (as applicable) hereby disclose that most issuers of debt securities (including corporate and municipal bonds, debentures, notes and commercial paper) and preferred stock rated by MJKK or MSFJ (as applicable) have, prior to assignment of any rating, agreed to pay to MJKK or MSFJ (as applicable) for ratings opinions and services rendered by it fees ranging from JPY125,000 to approximately JPY250,000,000.

MJKK and MSFJ also maintain policies and procedures to address Japanese regulatory requirements.

REPORT NUMBER 1160120

## CLIENT SERVICES

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