



MINISTÉRIO DA ECONOMIA

Newsletter Debentures

And other financial instruments under the terms of Law # 12,431 dated June 24, 2011
Real Estate Receivables Certificates - CRI's and Investment Funds

August 2019

69 th Edition

SECRETARIA DE
POLÍTICA ECONÔMICA

SECRETARIA ESPECIAL DE
FAZENDA

MINISTÉRIO DA
ECONOMIA



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Objective: Law 12,431/11

Present the number of projects authorized to raise funds in the capital markets, as well as the number and volume of debentures issued (Investment Projects and Infrastructure Investment Projects of Law 12,431 of 2011).

In particular, the market for incentive debentures for infrastructure is analyzed, in accordance with current legislation.

Brazilian Infrastructure Bonds (main features)

- Minimum duration of 4 years at issuance (6 years in the case of FIDC);
- Fixed rate or inflation-linked;
- There should be no repurchase by issuer during the first 2 years after the issuance date.
- No resale commitment undertaken by the buyer.
- Periodic interest payments (if applicable) of no less than 180 days.
- The instrument must be registered in a regulated securities market authorized by the Central Bank of Brazil or the Brazilian Securities Commission.
- Simplified procedure showing issuer's commitment to allocate raised funds in future payments or reimbursements of expenses, costs or liabilities related to investment projects;
- Dollar-denominated instruments are not eligible for the tax breaks.
- Public Issuance (Securities Commission Instruction 400) or Public Issuance with Restricted Efforts (Securities Commission Instruction 476).
- The National Monetary Council (CMN) Resolution 4,476 of April 11, 2016 authorizes the anticipated settlement of debentures at the issuer sole discretion, since it cumulatively meets the following requirements:
 - After at least four years from the debentures issuance date; and
 - If there is an express provision in the debentures indenture.
 - This resolution only applies to bonds issued between April 12, 2016 and December 31, 2017.
- CVM Ruling 400 - Public Offer. CVM Ruling 476 - limited public offering in which up to 50 professional investors can participate.
- CAPEX Bonds (also referred to as Law # 12,431/2011 article 1 debenture) - Local currency IOF and tax-exempt bond for non-residents. The funds raised will be used for investments.
- Infrastructure Bond (also referred to as Law # 12,431 article 2 debenture) - tax-exempt bond for resident natural persons. A ten-percentage point reduction for local companies. Funds raised must be used in infrastructure investments or in research, development and innovation-intensive economic production.
- Decree 8.874 / 2016, which regulates the tax benefit of DI's, currently covers seven sectors: (i) logistics and Transport; (ii) Urban Mobility; (iii) Energy; (iv) Telecoms; (v) Radiofusion; (vi) Water and Sewerage (vii) Irrigation (Article 2).

The incentivized debentures instituted by Law 12,431 / 2011, related to investment projects in general and specifically to investment projects in the area of infrastructure defined as priority and regulated by Decree No. 8.874 / 2016, enjoy tax benefits and constitute a funding mechanism long-term via the capital market, as an alternative to traditional sources of financing.

In August 2019, it was offered in the market with restricted distribution efforts 07 (seven) debentures of infrastructure, linked to the energy sector (transmission, UHE). The total volume of the supply distributed in the period was R\$ 2.8 billion. Between 2012 and August 2019, the total volume disbursed in infrastructure debentures, with ample and restrictive efforts was R\$ 67.3 billion.

Regarding total Issuances distributed Through Public Offers (Brazilian Securities and Exchange Commission - CVM No. 400/2003) and Restricted Offers (Brazilian Securities and Exchange Commission - CVM No. 476/2009), the individual investors participation accounted for R\$ 22 billion of the total amount until August 2019, corresponding to 33% of all incentive debentures distributed since 2012.

The volume of tax-benefited debentures traded in the secondary markets exceeded the volume of non-tax benefited debentures. In August, the traded volume for tax-benefited debentures was 6.4% against 3.0% for non-tax benefited debentures.

Regarding Anbima Debentures Index (Índice de Debentures Anbima - IDA), over the past 12 months the IDA-DI's value rose 7.2% , against an increase of 17.4% in the IDA-IPCA (National Consumer Price Index (IPCA)-CPI) Infrastructure and 15.4% in the IDA-IPCA Exclusive Infrastructure. Regarding risk, in the last 12 months, IDA-IPCA Infrastructure reached a risk rate of around 2.9%, while IDA-DI and IDA-IPCA ex-infrastructure respectively reached 0.1% and 1.8%.

Regarding Infrastructure Funds, the percentage investment in Debentures through August 2019 in Fixed Income Funds (Fundos de Renda Fixa - FIRF), was 82%, while investments in Direct Credit Funds reached 92%, of Net Equity (NE).

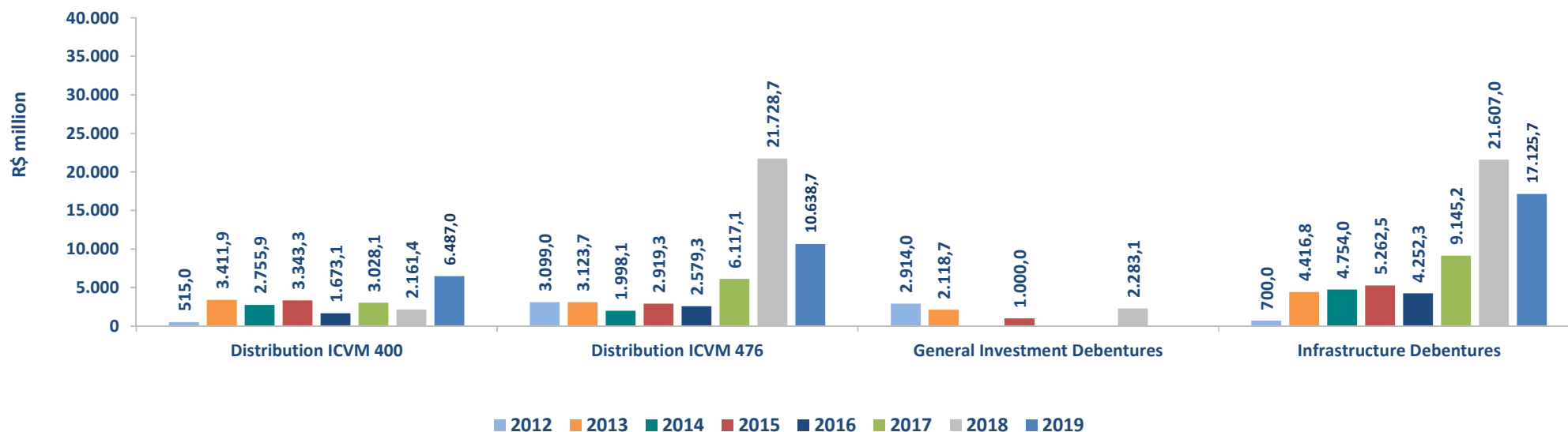
Law No. 12,431/11 prescribes a minimum investment of 85% of Net Equity in infrastructure projects (debentures, quota funds, and direct credits), although in the first two years from the first pay-in, the minimum permitted percentage of infrastructure assets relative to Net Equity is 67%.

The National Civil Aviation Agency (ANAC) made available on its website - (www.anac.gov.br/assuntos/paginas-tematicas/concessoes) - the financial demonstrations of the airports granted. Such an initiative may contribute to the development of the secondary market for debentures in the sector.

Capex and Infrastructure Bonds: 2012 to 2019¹

| INFRASTRUCTURE DEBENTURE | Value (R\$ million) | | | | | | | | Total Value |
|------------------------------------|---------------------|----------------|----------------|----------------|----------------|----------------|-----------------|-----------------|-----------------|
| | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | |
| Distribution ICVM 400 ² | 515.0 | 3,411.9 | 2,755.9 | 3,343.3 | 1,673.1 | 3,028.1 | 2,161.4 | 6,487.0 | 23,375.5 |
| Distribution ICVM 476 ³ | 3,099.0 | 3,123.7 | 1,998.1 | 2,919.3 | 2,579.3 | 6,117.1 | 21,728.7 | 10,638.7 | 52,203.8 |
| Total..... | 3,614.0 | 6,535.6 | 4,754.0 | 6,262.5 | 4,252.3 | 9,145.2 | 23,890.1 | 17,125.7 | 75,579.3 |
| General Investment Debentures | 2,914.0 | 2,118.7 | 0.0 | 1,000.0 | 0.0 | 0.0 | 2,283.1 | 0.0 | 8,315.8 |
| Infrastructure Debentures | 700.0 | 4,416.8 | 4,754.0 | 5,262.5 | 4,252.3 | 9,145.2 | 21,607.0 | 17,125.7 | 67,263.5 |
| Total..... | 3,614.0 | 6,535.6 | 4,754.0 | 6,262.5 | 4,252.3 | 9,145.2 | 23,890.1 | 17,125.7 | 75,579.3 |

Capex and Infrastructure Bonds: 2012 to 2019



Source: Anbima - Brazilian Financial and Capital Markets Association and Ministerial Orders
Elaborated by SPE/ME

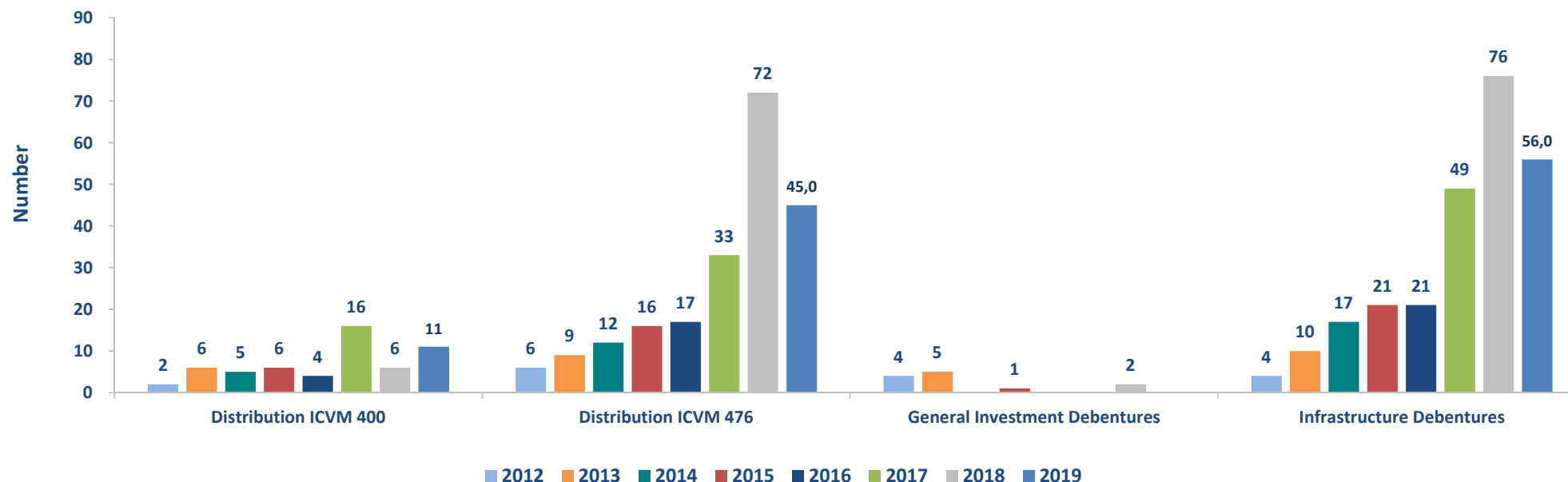
Note:

- (1) Volume by year of distribution
- (2) CVM Ruling 400 - Public Offer
- (3) CVM Ruling 476 - limited public offering in which up to 50 professional investors can participate.

Number of Infrastructure Bonds: 2012 to 2019¹

| INFRASTRUCTURE DEBENTURE | Number | | | | | | | | Total Number |
|------------------------------------|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|--------------|
| | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | |
| Distribution ICVM 400 ² | 2 | 6 | 5 | 6 | 4 | 16 | 6 | 11 | 56 |
| Distribution ICVM 476 ³ | 6 | 9 | 12 | 16 | 17 | 33 | 72 | 45 | 210 |
| Total..... | 8 | 15 | 17 | 22 | 21 | 49 | 78 | 56 | 266 |
| General Investment Debentures | 4 | 5 | 0 | 1 | 0 | 0 | 2 | 0 | 12 |
| Infrastructure Debentures | 4 | 10 | 17 | 21 | 21 | 49 | 76 | 56 | 254 |
| Total..... | 8 | 15 | 17 | 22 | 21 | 49 | 78 | 56 | 266 |

Number of Infrastructure Bonds: 2012 to 2019



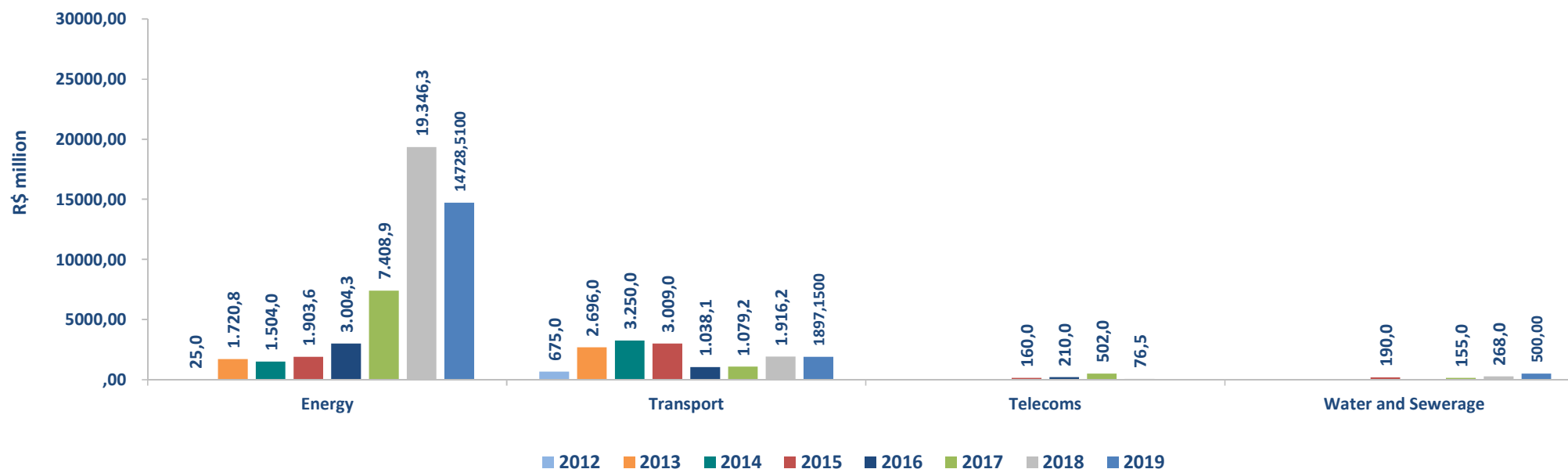
Source: Anbima - Brazilian Financial and Capital Markets Association and Ministerial Orders
 Elaborated by SPE/ME

Note:
 (1) Quantity by year of distribution
 (2) CVM Ruling 400 - Public Offer
 (3) CVM Ruling 476 - limited public offering in which up to 50 professional investors can participate.

Infrastructure Bonds: 2012 to 2019¹
(by sector)

| Sector Debenture | Value (R\$ million) | | | | | | | | Total Value |
|--------------------|---------------------|----------------|----------------|----------------|----------------|----------------|-----------------|-----------------|-----------------|
| | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | |
| Energy | 25.0 | 1,720.8 | 1,504.0 | 1,903.6 | 3,004.3 | 7,408.9 | 19,346.3 | 14,728.5 | 49,641.3 |
| Transport | 675.0 | 2,696.0 | 3,250.0 | 3,009.0 | 1,038.1 | 1,079.2 | 1,916.2 | 1,897.2 | 15,560.6 |
| Telecoms | 0.0 | 0.0 | 0.0 | 160.0 | 210.0 | 502.0 | 76.5 | 0.0 | 948.5 |
| Water and Sewerage | 0.0 | 0.0 | 0.0 | 190.0 | 0.0 | 155.0 | 268.0 | 500.0 | 1,113.0 |
| Total..... | 700.0 | 4,416.8 | 4,754.0 | 5,262.5 | 4,252.3 | 9,145.2 | 21,607.0 | 17,125.7 | 67,263.5 |

Infrastructure Bonds - 2012 to 2019



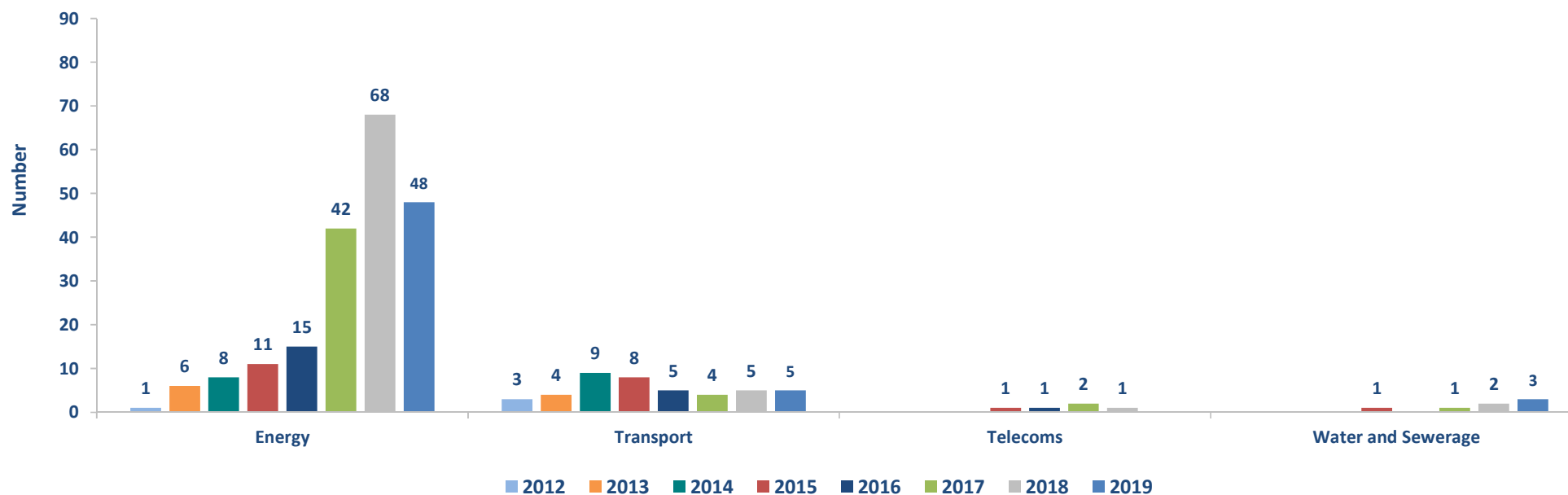
Source: Anbima and Ministerial Ordinances
Elaborated by SPE/ME

Note:
(1) Volume by year of distribution

Number of infrastructure Bonds: 2012 to 2019¹
(by sector)

| Sector Debenture | Number | | | | | | | | Total Number |
|--------------------|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|--------------|
| | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | |
| Energy | 1 | 6 | 8 | 11 | 15 | 42 | 68 | 48 | 199 |
| Transport | 3 | 4 | 9 | 8 | 5 | 4 | 5 | 5 | 43 |
| Telecoms | 0 | 0 | 0 | 1 | 1 | 2 | 1 | 0 | 5 |
| Water and Sewerage | 0 | 0 | 0 | 1 | 0 | 1 | 2 | 3 | 7 |
| Total..... | 4 | 10 | 17 | 21 | 21 | 49 | 76 | 56 | 254 |

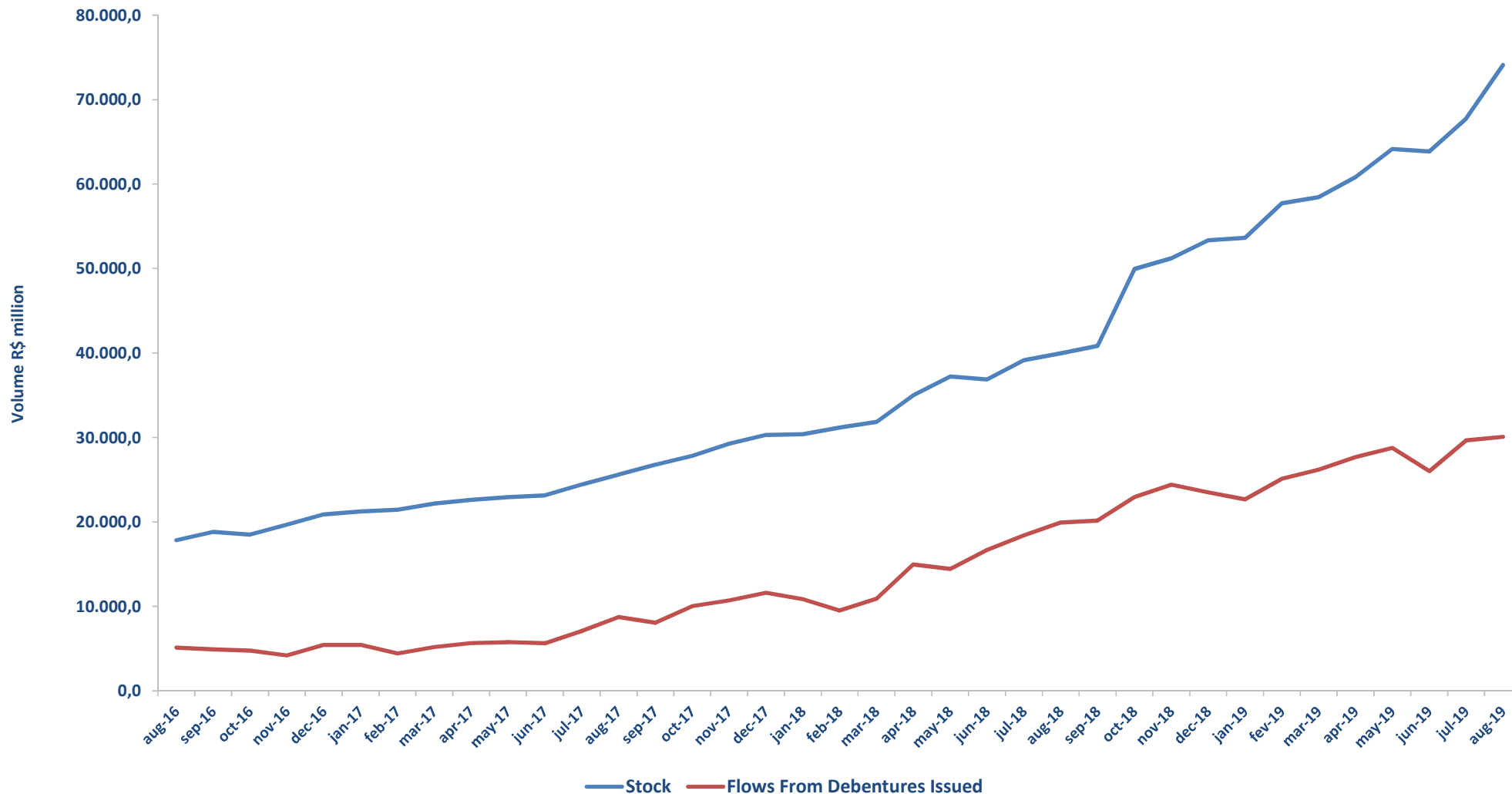
Number of infrastructure Bonds - 2012 to 2019



Source: Anbima and Ministerial Ordinances
Elaborated by SPE/ME

Note:
(1) Quantity by year of distribution

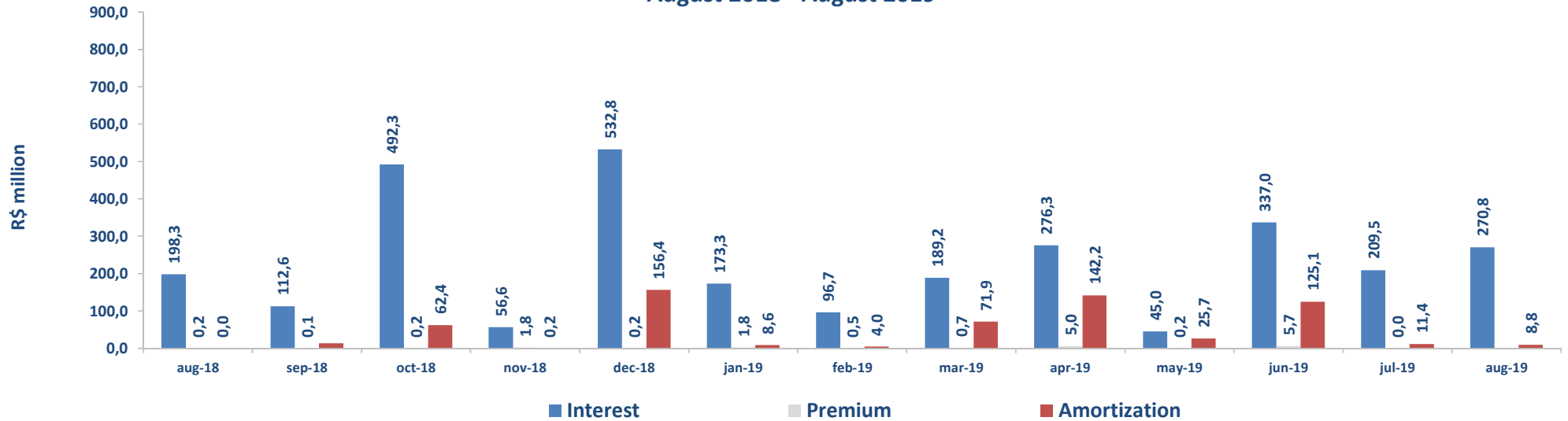
Stock and volume - Infrastructure Debentures (Volume - Rolling Average in the last 12 (twelve) months)



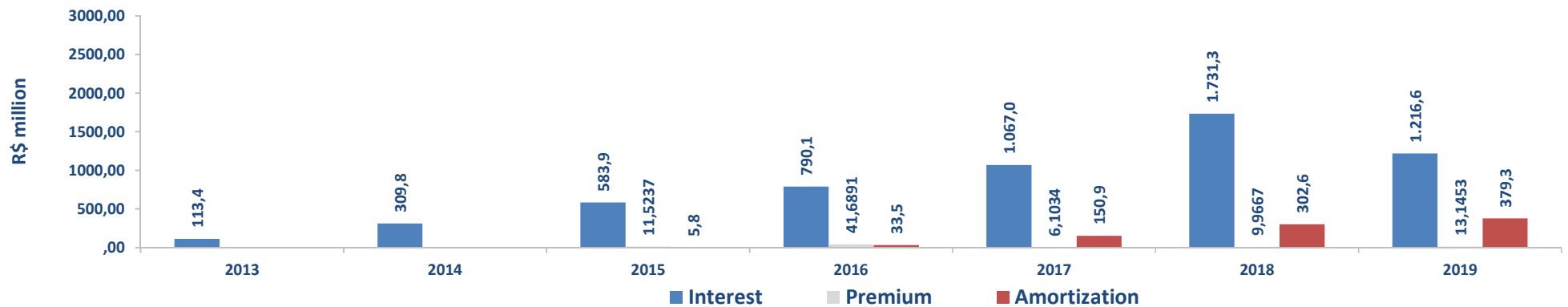
Source: Anbima and Ministerial Ordinances
Elaborated by SPE/ME

Note: Sum of the emission values of the last 12 months.

Interest, Premium, Amortization Payments - Infrastructure Debentures
August 2018 - August 2019

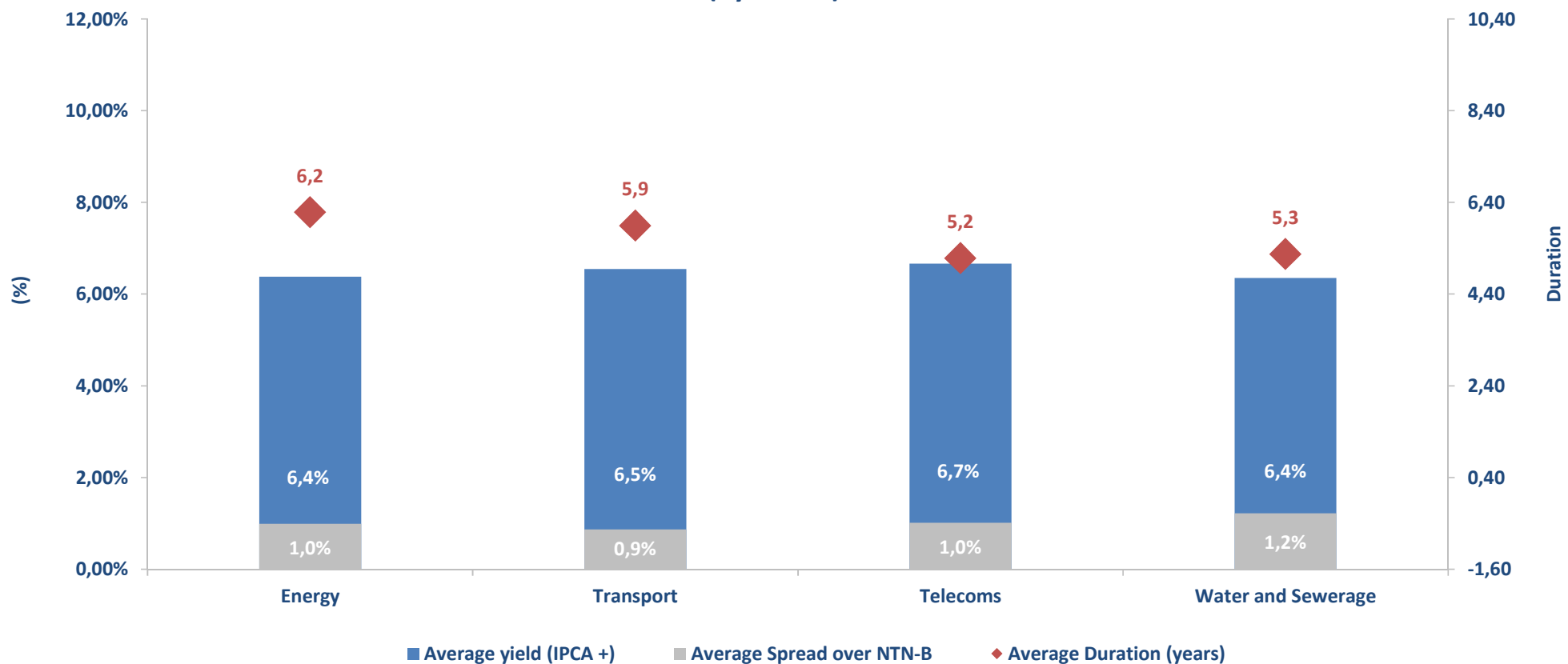


Interest, Premium, Amortization Payments (by year) - Infrastructure Debentures
2013 and August 2019



Source: Anbima
Elaborated by SPE/ME

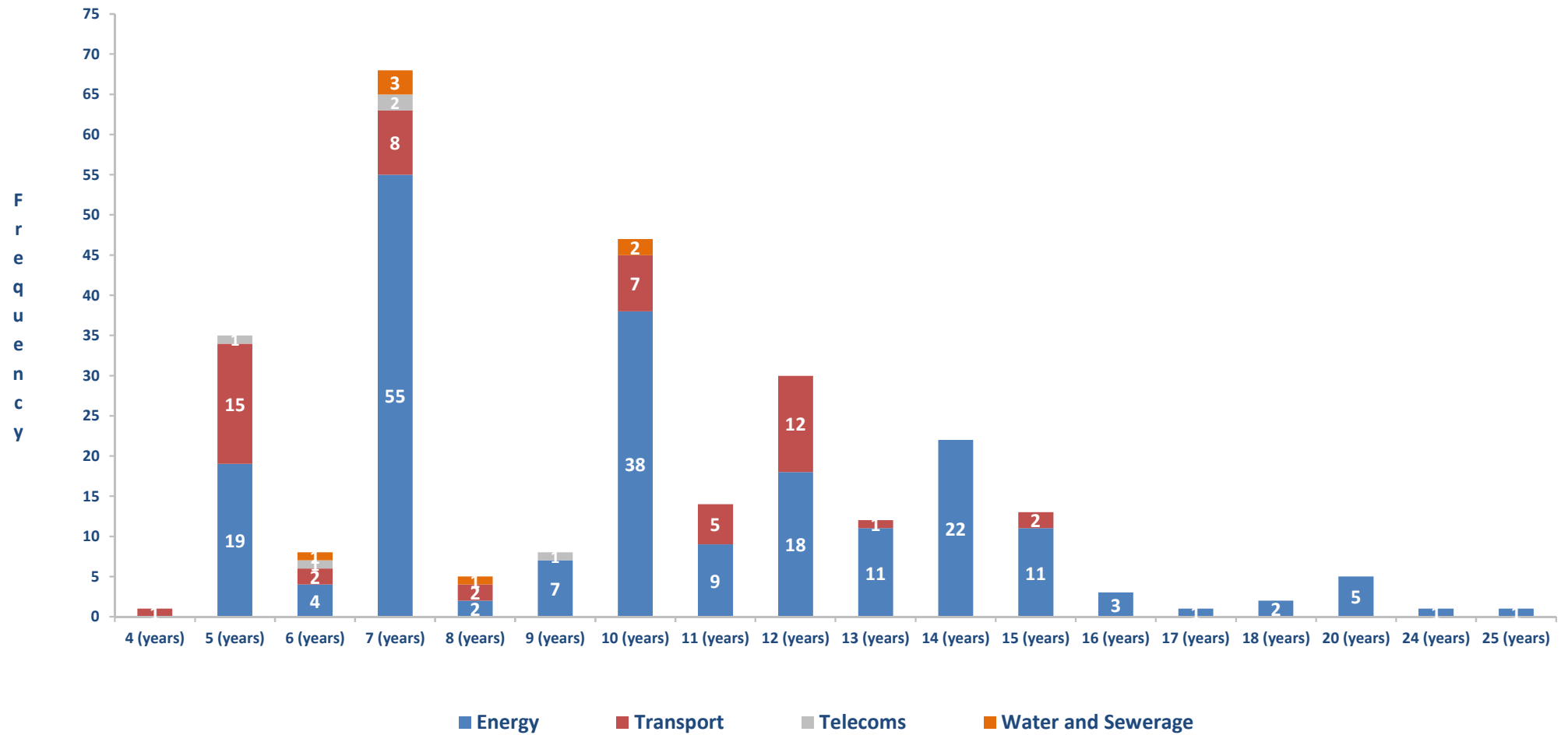
Average - Remuneration, Spread and Duration
Debentures Infrastructure
(by sector)



Source: Anbima
Elaborated by SPE/ME

Note: Duration of macaulay expressed in years (252 d.u.)
Consumer Price Index - CPI (IPCA)

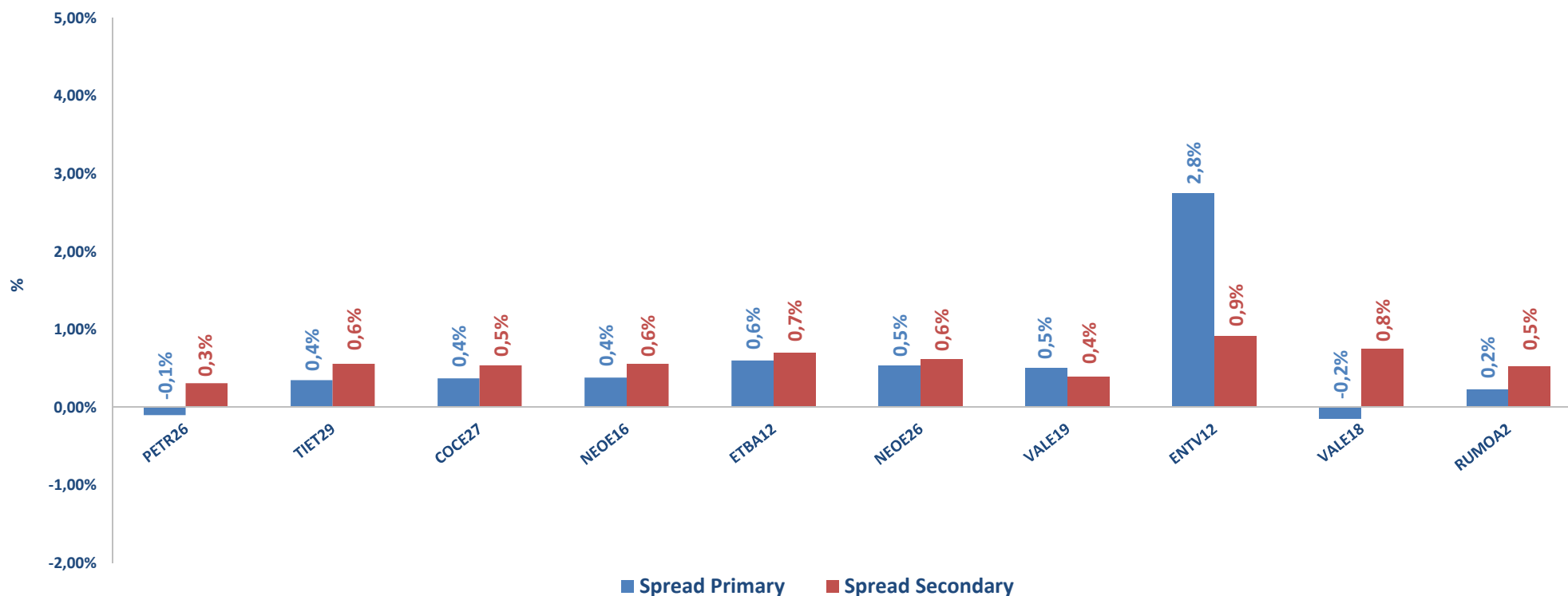
Maturity - Infrastructure Debentures by Issue Series (in years)
2012 to August 2019



Source: Source : Scripture of the Debentures
Elaborated by SPE/ME

Infrastructure Debenture Spread Comparison - Primary¹ Market vs. Secondary² Market

(Criterion applied to graph - ten (10) top traded assets per month by volume - Infrastructure Debenture)



Rating: (AAA) COCE27, ETBA12, VALE19, VALE18 (AA+) TIET29, NEOE16, NEOE26, RUMOA2 (AA) PETR26, ENTV12

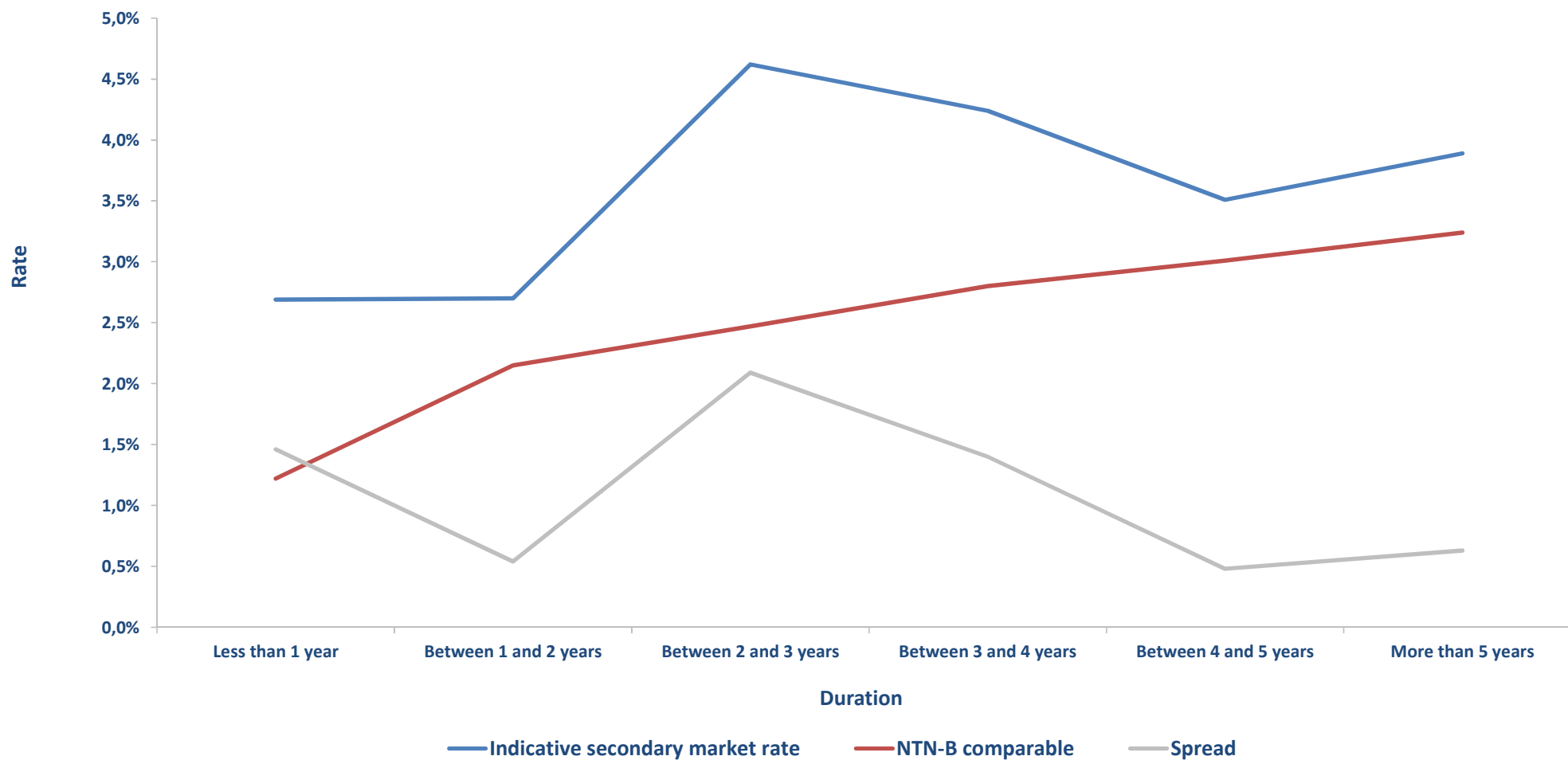
Source: Anbima and Cetip
Elaborated by SPE/ME

Note:

(1) *Bookbuilding* final interest rate defined.

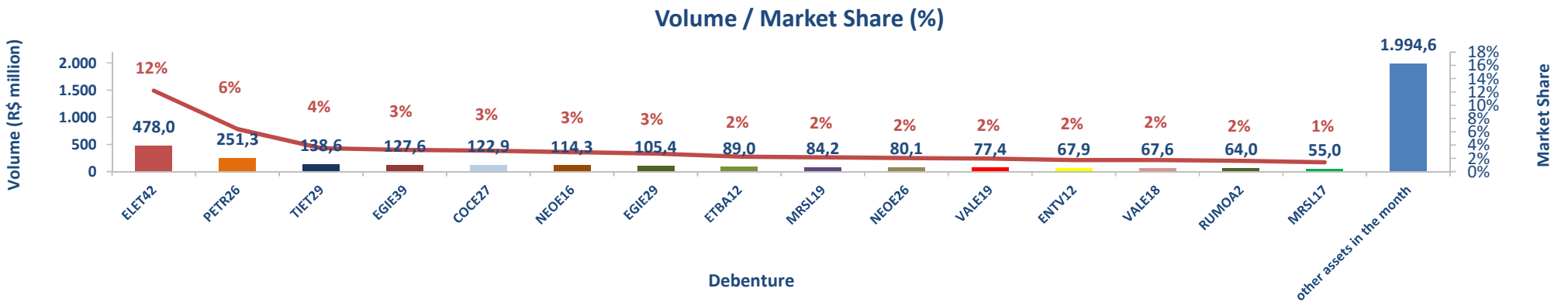
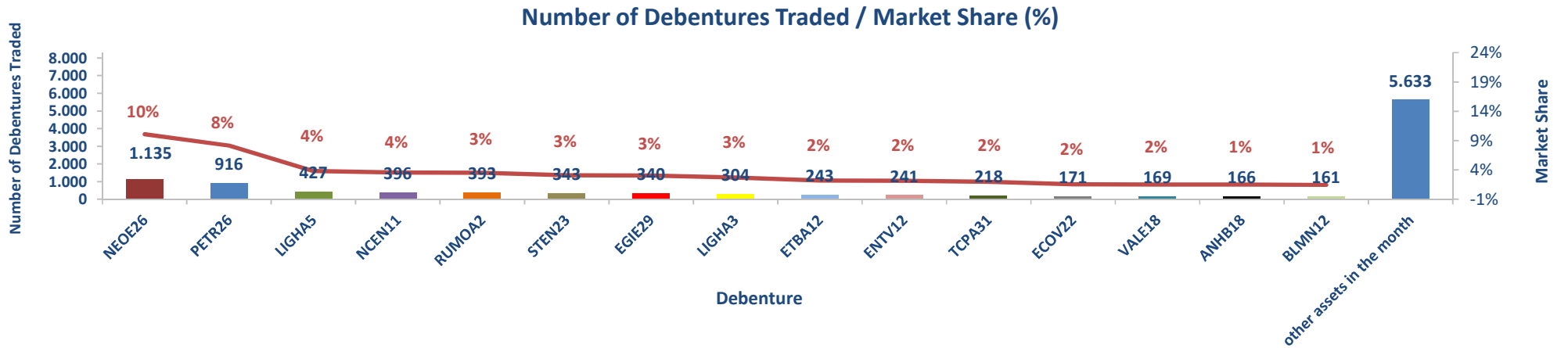
(2) Rate observed in Secondary Market considers average premium over NTN-b duration equivalent of negotiations held July 1 through 30, 2019.

Spread Curve on NTN-B Comparable - (Secondary Market - second four-month period of 2019)
Infrastructure Debentures



Source: Anbima
Elaborated by SPE/ME

Secondary Market - Quantity and Volume of Debentures Traded - August 2019
 Infrastructure Debentures - Law # 12,431/2011
 15 most actively traded



Source : Anbima and Cetip
 Elaborated by SPE/ME

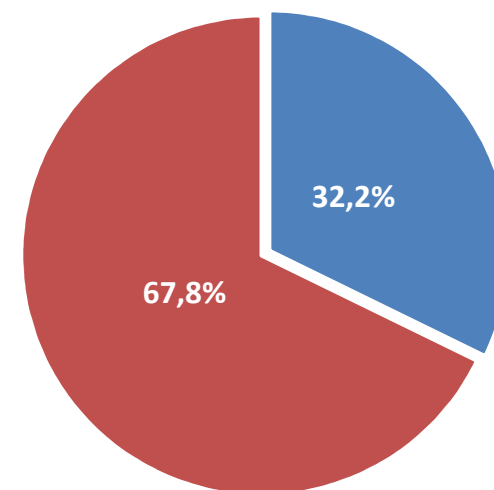
Note: Includes Intra-group and Extra-group transactions (Without Leasing).

Debentures Secondary Market - Trading Volume and Turnover

R\$ million

| Period | Trading Volume ¹ | | | | | | Total Trading Volumes |
|---------|-----------------------------|---------------|----------|--|----------------------------|----------|-----------------------|
| | Debentures | | | Infrastructure Debentures-Law # 12,431/11 ² | | | |
| | Trading Volume | Market Volume | Turnover | Trading Volume | Market Volume ³ | Turnover | |
| 2017/08 | 2,611.7 | 227,542.7 | 1.1% | 1,284.5 | 25,590.4 | 5.0% | 3,896.2 |
| 2017/09 | 3,136.0 | 227,854.9 | 1.4% | 935.2 | 26,773.4 | 3.5% | 4,071.2 |
| 2017/10 | 4,534.1 | 230,354.7 | 2.0% | 1,187.5 | 27,835.5 | 4.3% | 5,721.6 |
| 2017/11 | 3,786.9 | 231,567.5 | 1.6% | 1,542.3 | 29,266.3 | 5.3% | 5,329.2 |
| 2017/12 | 7,361.9 | 242,485.9 | 3.0% | 1,852.2 | 30,316.5 | 6.1% | 9,214.1 |
| 2018/01 | 2,582.4 | 243,323.2 | 1.1% | 1,374.6 | 30,388.3 | 4.5% | 3,957.0 |
| 2018/02 | 2,200.7 | 246,084.2 | 0.9% | 1,519.9 | 31,166.6 | 4.9% | 3,720.6 |
| 2018/03 | 3,380.2 | 251,234.4 | 1.3% | 2,250.8 | 31,849.8 | 7.1% | 5,631.0 |
| 2018/04 | 3,523.8 | 251,455.2 | 1.4% | 1,707.3 | 35,017.6 | 4.9% | 5,231.1 |
| 2018/05 | 3,592.3 | 254,144.9 | 1.4% | 1,530.9 | 37,224.2 | 4.1% | 5,123.2 |
| 2018/06 | 4,468.7 | 257,571.5 | 1.7% | 1,618.8 | 36,865.7 | 4.4% | 6,087.5 |
| 2018/07 | 2,492.4 | 258,354.8 | 1.0% | 1,596.6 | 39,137.7 | 4.1% | 4,089.0 |
| 2018/08 | 3,842.5 | 262,431.0 | 1.5% | 1,460.0 | 39,964.9 | 3.7% | 5,302.5 |
| 2018/09 | 3,146.7 | 268,416.5 | 1.2% | 1,693.6 | 40,847.4 | 4.1% | 4,840.4 |
| 2018/10 | 5,256.8 | 287,855.3 | 1.8% | 2,272.4 | 49,954.4 | 4.5% | 7,529.2 |
| 2018/11 | 6,901.0 | 288,664.8 | 2.4% | 1,846.3 | 51,210.3 | 3.6% | 8,747.3 |
| 2018/12 | 4,143.5 | 499,475.2 | 0.8% | 3,350.8 | 53,352.5 | 6.3% | 7,494.3 |
| 2019/01 | 4,319.1 | 509,625.3 | 0.8% | 2,349.8 | 53,630.2 | 4.4% | 6,668.9 |
| 2019/02 | 4,807.2 | 298,881.4 | 1.6% | 2,121.7 | 57,718.4 | 3.7% | 6,928.9 |
| 2019/03 | 7,877.6 | 300,362.2 | 2.6% | 2,602.7 | 58,461.7 | 4.5% | 10,480.3 |
| 2019/04 | 2,993.2 | 308,697.3 | 1.0% | 3,091.2 | 60,812.2 | 5.1% | 6,084.4 |
| 2019/05 | 6,179.1 | 317,995.2 | 1.9% | 4,334.6 | 64,149.7 | 6.8% | 10,513.7 |
| 2019/06 | 5,078.3 | 344,750.0 | 1.5% | 3,007.8 | 60,271.1 | 5.0% | 8,086.1 |
| 2019/07 | 6,363.8 | 345,152.8 | 1.8% | 3,467.3 | 67,740.2 | 5.1% | 9,831.2 |
| 2019/08 | 10,463.0 | 344,721.3 | 3.0% | 4,724.5 | 74,098.5 | 6.4% | 15,187.5 |

Trading Volume August/2017 to August/2019



■ Infrastructure Debentures ■ Debentures

Source: Anbima

Elaborated by SPE/ME

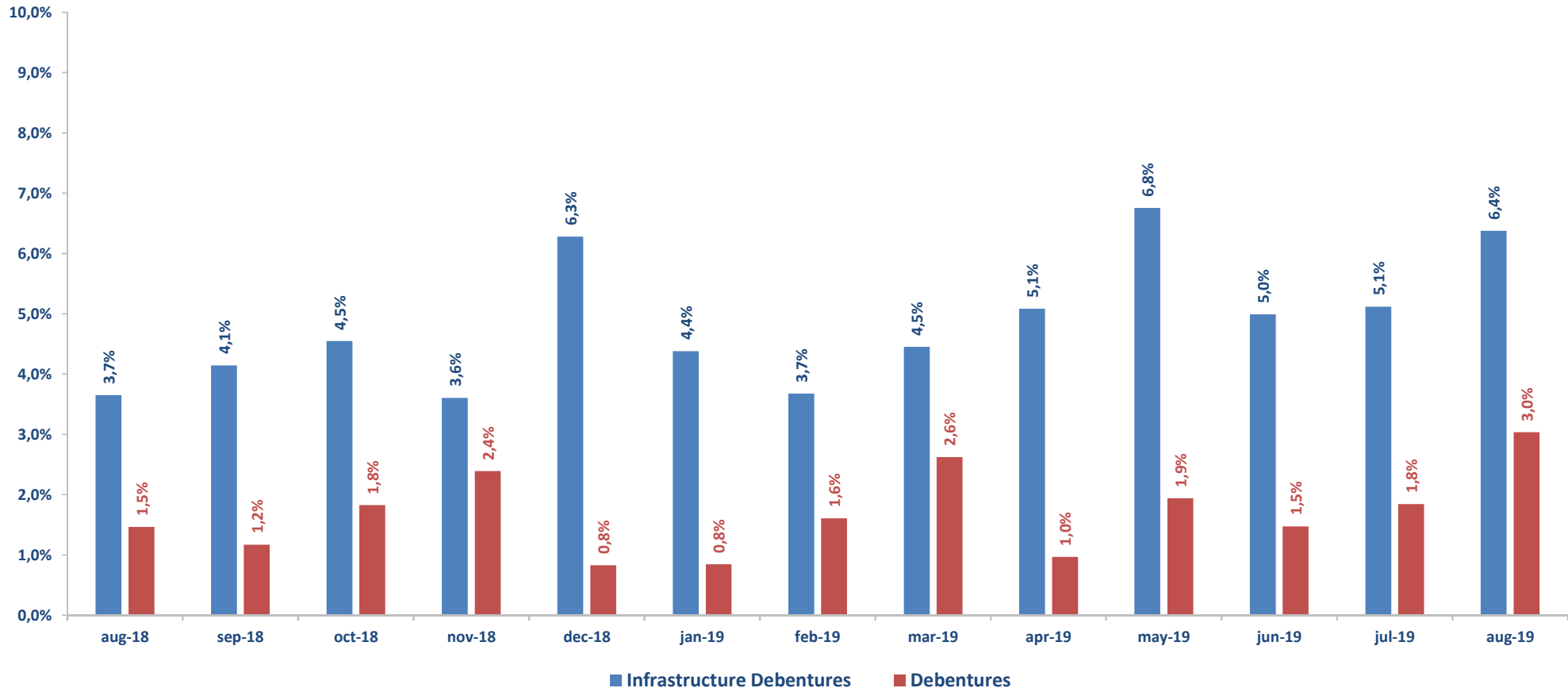
Note :

(1) Type of transaction (Intra-group and Extra-group): The intra-group transactions are negotiated between institutions belonging to the same financial conglomerate and extra-group transactions are negotiated between participants of different conglomerates and among participants with clients who are not part of the ANBIMA REUNE system. Leasing debentures are not considered.

(2) Financial trading Volume of infrastructure debentures.

(3) Financial stock of infrastructure debentures.

Secondary Market - Trading Volume¹
 Infrastructure Debentures Vs. Debentures
 Comparative Turnover (Trading Volume²/Market Volume³)



Source: Anbima
 Elaborated by SPE/ME

Note :
 (1) Type of transaction (Intra-group and Extra-group): The intra-group transactions are negotiated between institutions belonging to the same financial conglomerate and extra-group transactions are negotiated between participants of different conglomerates and among participants with clients who are not part of the ANBIMA REUNE system. Leasing debentures are not considered. (2) Financial trading Volume of infrastructure debentures. (3) Financial stock of infrastructure debentures.

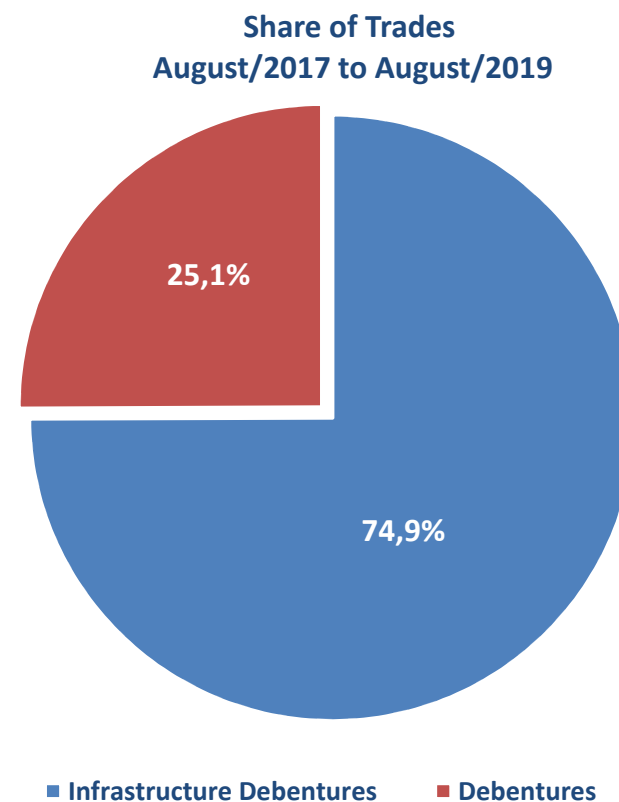
Infrastructure Debentures Secondary Market - Share of Trades

| Share of Trades ¹ | | | |
|------------------------------|-----------------|---|--------------------------|
| Period | Debentures | Infrastructure debentures-Law # 12,431/11 ² | Share Total of Trades |
| | Share of Trades | Share of Trades | |
| 2017/08 | 5,296 | 9,930 | 15,226 |
| 2017/09 | 4,719 | 7,556 | 12,275 |
| 2017/10 | 3,729 | 9,186 | 12,915 |
| 2017/11 | 3,188 | 11,355 | 14,543 |
| 2017/12 | 3,187 | 11,774 | 14,961 |
| 2018/01 | 6,639 | 8,367 | 15,006 |
| 2018/02 | 3,221 | 10,066 | 13,287 |
| 2018/03 | 3,771 | 12,375 | 16,146 |
| 2018/04 | 3,164 | 10,681 | 13,845 |
| 2018/05 | 3,099 | 12,377 | 15,476 |
| 2018/06 | 2,929 | 11,164 | 14,093 |
| 2018/07 | 3,081 | 12,671 | 15,752 |
| 2018/08 | 4,825 | 11,986 | 16,811 |
| 2018/09 | 3,270 | 8,321 | 11,591 |
| 2018/10 | 5,553 | 15,855 | 21,408 |
| 2018/11 | 4,034 | 12,019 | 16,053 |
| 2018/12 | 4,341 | 12,161 | 16,502 |
| 2019/01 | 3,394 | 12,479 | 15,873 |
| 2019/02 | 4,187 | 11,919 | 16,106 |
| 2019/03 | 3,423 | 11,351 | 14,774 |
| 2019/04 | 2,836 | 14,741 | 17,577 |
| 2019/05 | 5,046 | 18,501 | 23,547 |
| 2019/06 | 4,447 | 15,578 | 20,025 |
| 2019/07 | 5,077 | 16,260 | 21,337 |
| 2019/08 | 5,929 | 17,528 | 23,457 |

Source: Anbima
Elaborated by SPE/ME

Note:

(1) Type of transaction (Intra-group and Extra-group): The intra-group transactions are negotiated between institutions belonging to the same financial conglomerate and extra-group transactions are negotiated between participants of different conglomerates and among participants with clients who are not part of the ANBIMA REUNE system. Leasing debentures are not considered.
(2) Share of trades: infrastructure debentures.

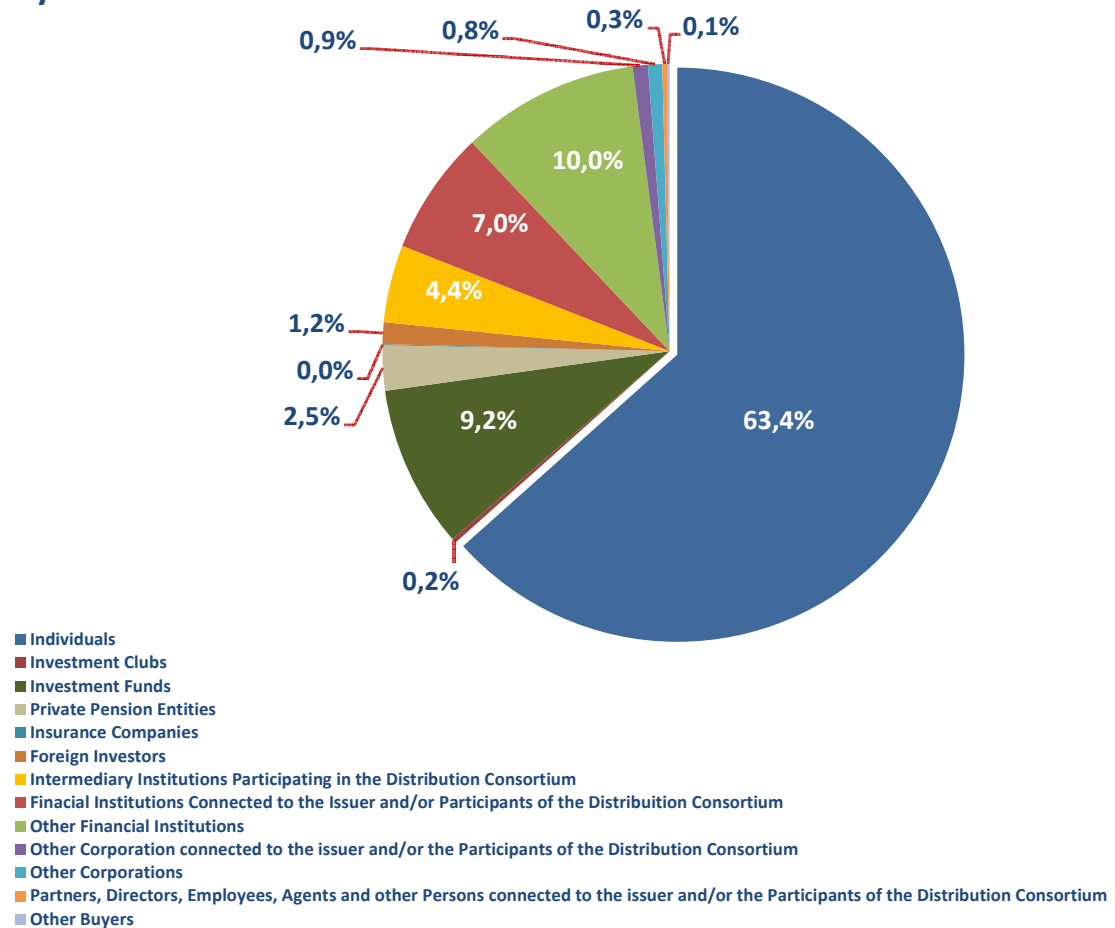


Breakdown by type of Investor - Infrastructure Debentures

Summary of breakdown - ICVM 400

| Investor | % | R\$ million |
|---|---------------|-----------------|
| Individuals | 63.4% | 10,547.2 |
| Investment Clubs | 0.2% | 40.5 |
| Investment Funds | 9.2% | 1,523.9 |
| Private Pension Entities | 2.5% | 422.9 |
| Insurance Companies | 0.0% | 7.7 |
| Foreign Investors | 1.2% | 205.7 |
| Intermediary Institutions Participating in the Distribution Consortium | 4.4% | 724.5 |
| Financial Institutions Connected to the Issuer and/or Participants of the Distribution Consortium | 7.0% | 1,159.9 |
| Other Financial Institutions | 10.0% | 1,662.9 |
| Other Corporation connected to the issuer and/or the Participants of the Distribution Consortium | 0.9% | 143.2 |
| Other Corporations | 0.8% | 132.3 |
| Partners, Directors, Employees, Agents and other Persons connected to the issuer and/or the Participants of the Distribution Consortium | 0.3% | 44.3 |
| Other Buyers | 0.1% | 23.7 |
| Total..... | 100.0% | 16,638.6 |

Summary of Breakdown - ICVM 400



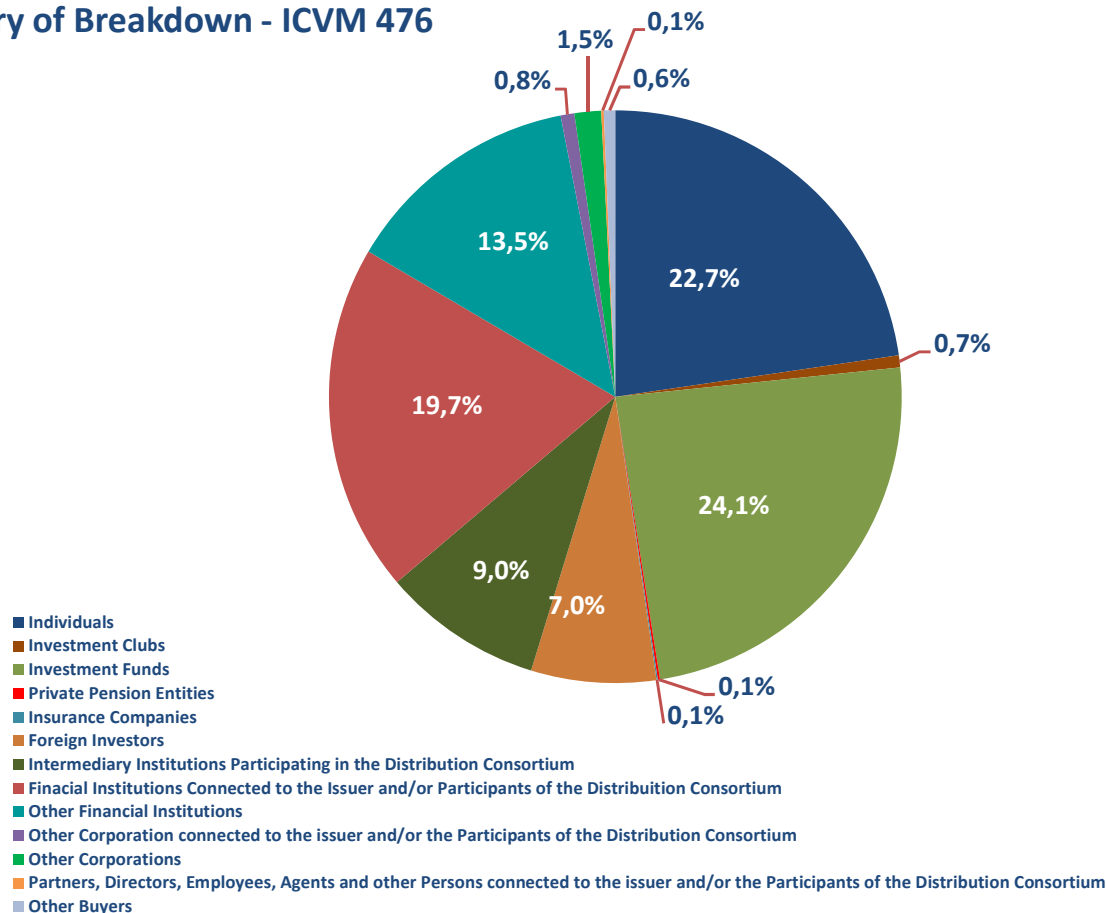
Source: Anbima. Leading Banks and closing announcement
Elaborated by SPE/ME

Breakdown by type of Investor - Infrastructure Debentures

Summary of breakdown - ICVM 476

| Investor | % | R\$ million |
|---|---------------|-----------------|
| Individuals | 22.7% | 11,489.2 |
| Investment Clubs | 0.7% | 344.8 |
| Investment Funds | 24.1% | 12,212.3 |
| Private Pension Entities | 0.1% | 70.4 |
| Insurance Companies | 0.1% | 33.7 |
| Foreign Investors | 7.0% | 3,565.9 |
| Intermediary Institutions Participating in the Distribution Consortium | 9.0% | 4,580.7 |
| Financial Institutions Connected to the Issuer and/or Participants of the Distribution Consortium | 19.7% | 9,957.4 |
| Other Financial Institutions | 13.5% | 6,821.3 |
| Other Corporation connected to the issuer and/or the Participants of the Distribution Consortium | 0.8% | 388.0 |
| Other Corporations | 1.5% | 764.0 |
| Partners, Directors, Employees, Agents and other Persons connected to the issuer and/or the Participants of the Distribution Consortium | 0.1% | 72.2 |
| Other Buyers | 0.6% | 325.0 |
| Total..... | 100.0% | 50,624.8 |

Summary of Breakdown - ICVM 476



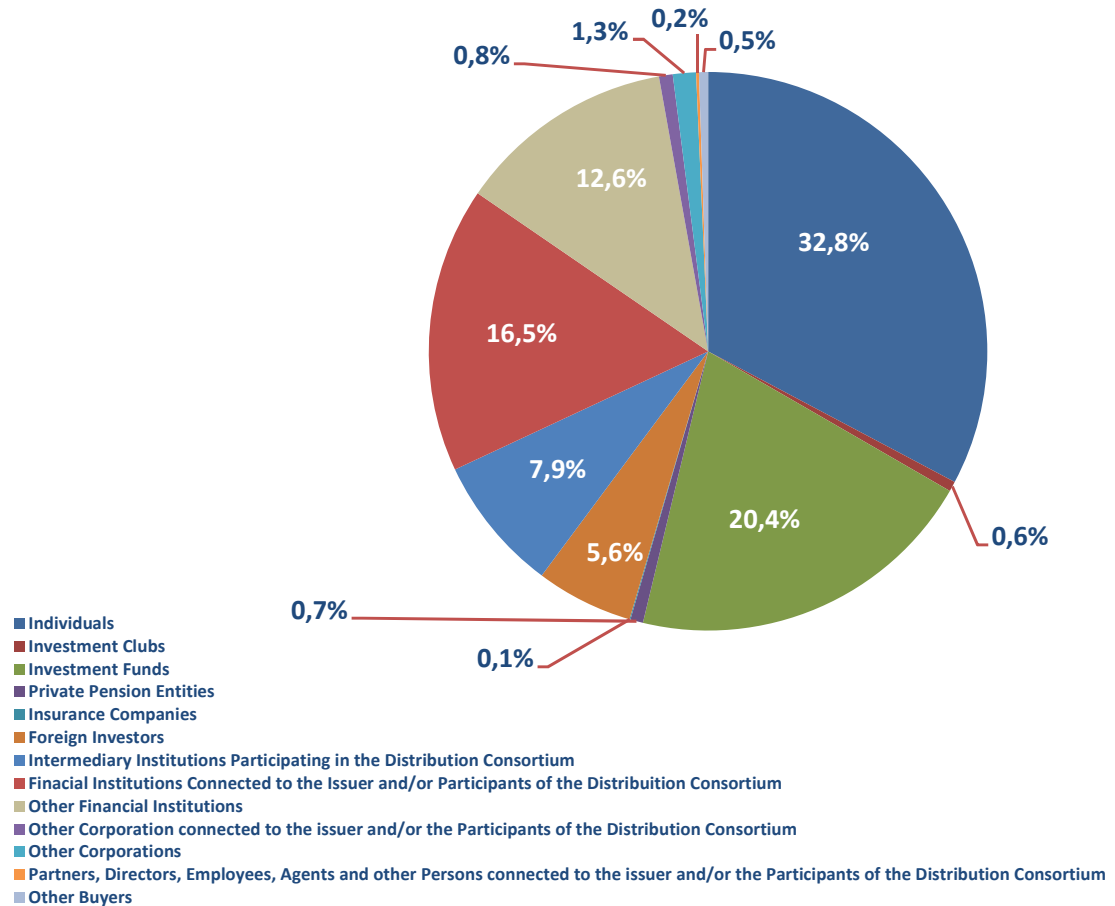
Source: Anbima. Leading Banks and closing announcement
 Elaborated by SPE/ME

Breakdown by type of Investor - Infrastructure Debentures

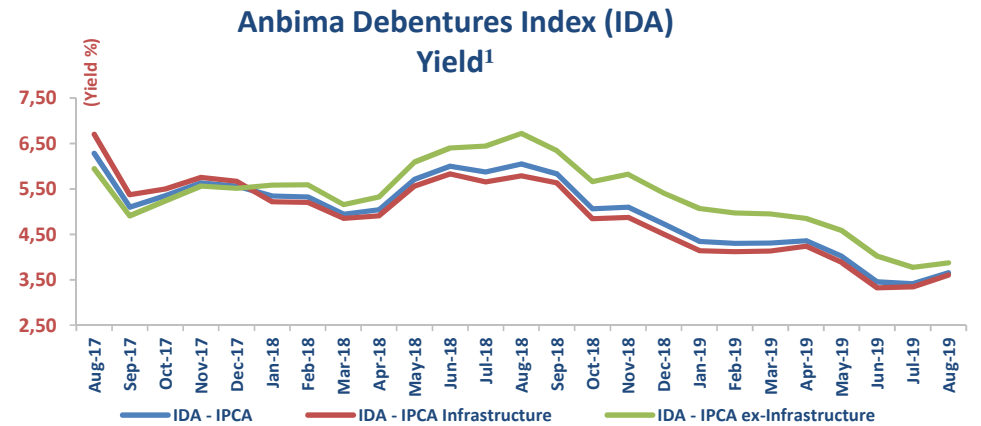
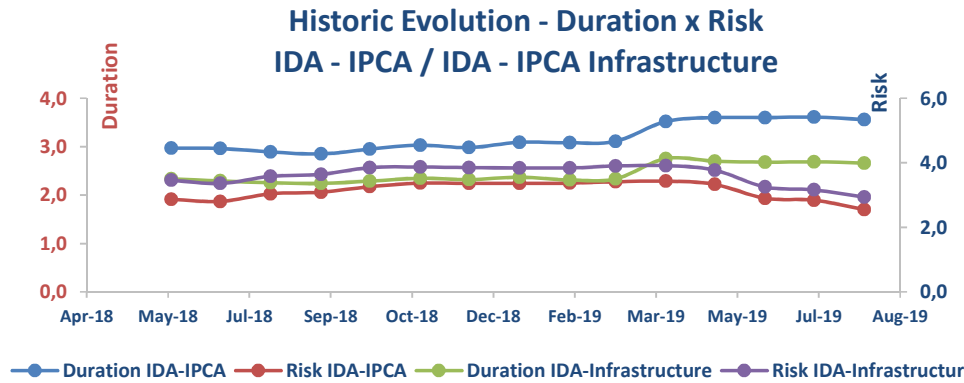
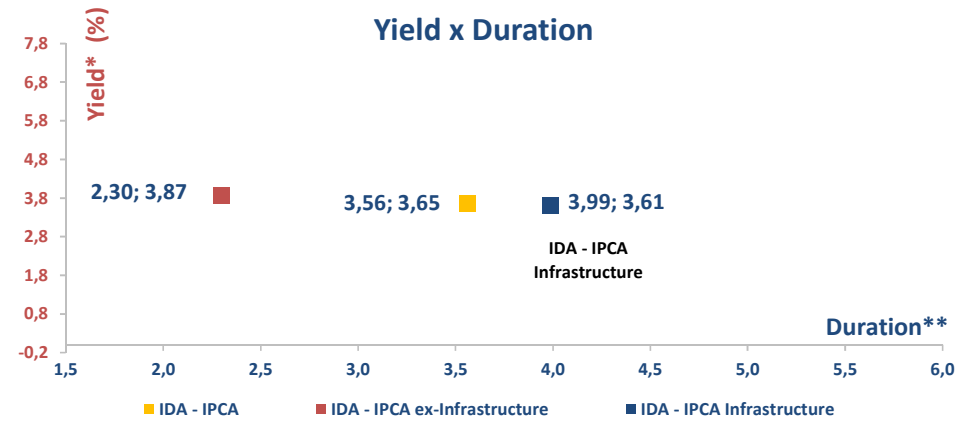
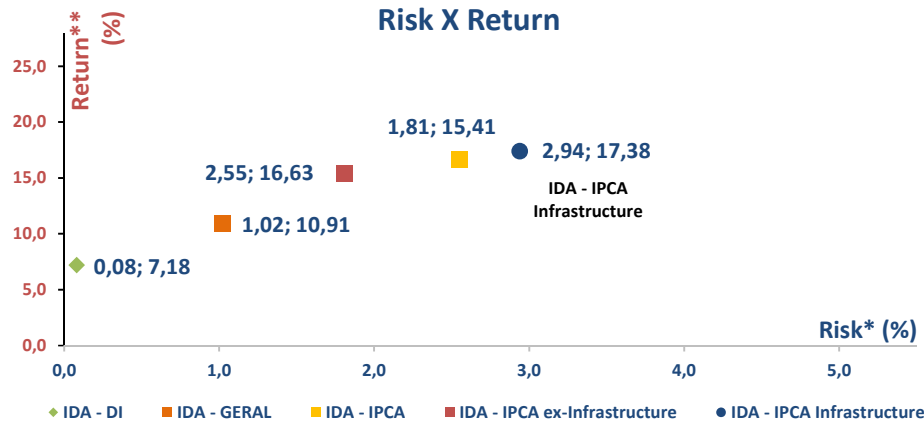
Summary of breakdown - ICVM 400 and ICVM 476

| Investor | % | R\$ million |
|---|---------------|-----------------|
| Individuals | 32.8% | 22,036.4 |
| Investment Clubs | 0.6% | 385.3 |
| Investment Funds | 20.4% | 13,736.2 |
| Private Pension Entities | 0.7% | 493.3 |
| Insurance Companies | 0.1% | 41.4 |
| Foreign Investors | 5.6% | 3,771.6 |
| Intermediary Institutions Participating in the Distribution Consortium | 7.9% | 5,305.2 |
| Financial Institutions Connected to the Issuer and/or Participants of the Distribution Consortium | 16.5% | 11,117.3 |
| Other Financial Institutions | 12.6% | 8,484.2 |
| Other Corporation connected to the issuer and/or the Participants of the Distribution Consortium | 0.8% | 531.1 |
| Other Corporations | 1.3% | 896.3 |
| Partners, Directors, Employees, Agents and other Persons connected to the issuer and/or the Participants of the Distribution Consortium | 0.2% | 116.5 |
| Other Buyers | 0.5% | 348.7 |
| Total..... | 100.0% | 67,263.5 |

Summary of breakdown - ICVM 400 and ICVM 476



Anbima Debentures Index (IDA)



Source: Anbima
Elaborated by SPE/ME

- * Annualized volatility of daily returns for the last twelve months
- ** 12-month cumulative return
- *** Weighted average of the index component fees for their respective holdings in the indices
- **** Duration of macaulay expressed in years (252 d.u.)
- ***** (1) Gross income tax data

Note:
Analysis based on Anbima IDA Debentures, composed of a family of indexes representing market price trends for a debenture portfolio. It is divided into two sub-indexes according to the respective securities indexers - DI (Interbank Deposits and IPCA - Consumer Price Index).

Approved Projects up to August 2019
(Includes projects having or not having issued infrastructure Debentures)

| Sectors | Investments million | | | | | | | | Total CAPEX Issued | Total Investments BRL million |
|----------------------------------|---------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|--------------------|-------------------------------|
| | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | | |
| Transportation | 5,582.2 | 12,103.7 | 18,952.0 | 13,024.6 | 5,400.7 | 29,568.1 | 13,048.1 | 10,252.8 | 69,143.9 | 107,932.2 |
| Toll Road | 4,109.8 | 8,453.3 | 4,726.4 | 974.7 | 4,972.7 | 18,021.6 | 5,630.6 | 9,416.6 | 34,631.5 | 56,305.6 |
| Railways | 1,472.4 | 3,650.4 | 2,785.8 | 11,796.9 | 0.0 | 11,546.5 | 6,331.4 | 452.0 | 22,426.7 | 38,035.5 |
| Airports | 0.0 | 0.0 | 8,887.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 8,887.9 | 8,887.9 |
| Ports | 0.0 | 0.0 | 2,551.9 | 253.0 | 428.1 | 0.0 | 1,086.1 | 384.3 | 3,197.8 | 4,703.2 |
| Energy | 44,746.5 | 41,259.0 | 13,494.7 | 73,298.5 | 13,009.4 | 46,251.1 | 63,646.8 | 45,045.2 | 180,404.0 | 340,751.1 |
| Electric Power Transmission Line | 1,329.6 | 3,753.9 | 592.0 | 432.7 | 806.1 | 24,952.6 | 7,797.3 | 19,591.9 | 38,721.4 | 59,256.0 |
| Hydroelectric Power Plants | 42,973.4 | 19,028.6 | 3,740.5 | 46,916.7 | 1,353.9 | 445.8 | 21,789.6 | 630.8 | 82,094.9 | 136,879.3 |
| Thermoelectric | 0.0 | 4,123.9 | 1,111.1 | 5,075.5 | 3,246.3 | 860.9 | 4,563.0 | 1,088.8 | 7,565.1 | 20,069.4 |
| Small Hydro | 0.0 | 125.5 | 68.5 | 1,017.1 | 587.6 | 939.2 | 461.1 | 695.1 | 979.0 | 3,894.0 |
| Gas | 0.0 | 2,033.5 | 0.0 | 2,209.4 | 0.0 | 0.0 | 0.0 | 4,713.4 | 4,243.0 | 8,956.3 |
| Wind Farms | 443.6 | 5,193.7 | 7,982.5 | 11,671.8 | 6,645.5 | 4,774.7 | 10,969.6 | 7,502.6 | 18,652.4 | 55,184.0 |
| Pipelines | 0.0 | 7,000.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 7,000.0 |
| Oil | 0.0 | 0.0 | 0.0 | 5,975.3 | 0.0 | 0.0 | 0.0 | 0.0 | 5,975.3 | 5,975.3 |
| Distribution | 0.0 | 0.0 | 0.0 | 0.0 | 370.0 | 11,755.7 | 11,840.3 | 8,799.0 | 19,138.8 | 32,765.1 |
| Photovoltaics Energy | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2,522.1 | 6,225.9 | 1,323.7 | 2,334.3 | 10,071.7 |
| Atomic Energy | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 700.0 | 700.0 | 700.0 |
| Telecons | 0.0 | 0.0 | 0.0 | 2,882.1 | 2,147.6 | 1,733.0 | 3,603.0 | 0.0 | 10,243.3 | 10,365.7 |
| Telecoms | 0.0 | 0.0 | 0.0 | 2,882.1 | 2,147.6 | 1,733.0 | 3,603.0 | 0.0 | 10,243.3 | 10,365.7 |
| Sanitation/Urban Mobility | 0.0 | 0.0 | 0.0 | 1,095.4 | 125.8 | 1,405.5 | 6,871.5 | 74.9 | 2,738.2 | 9,573.0 |
| Water and Sewerage | 0.0 | 0.0 | 0.0 | 288.1 | 125.8 | 1,405.5 | 269.4 | 74.9 | 1,930.9 | 2,163.6 |
| Urban Mobility | 0.0 | 0.0 | 0.0 | 807.3 | 0.0 | 0.0 | 6,602.1 | 0.0 | 807.3 | 7,409.4 |
| Total..... | 50,328.8 | 53,362.7 | 32,446.6 | 90,300.6 | 20,683.5 | 78,957.6 | 87,169.4 | 55,372.9 | 262,529.4 | 468,622.0 |

Source: Ministerial Orders issued and Linked Entities
Elaborated by SPE/ME

Approved Projects up to August 2019
(Includes projects having or not having issued infrastructure Debentures)

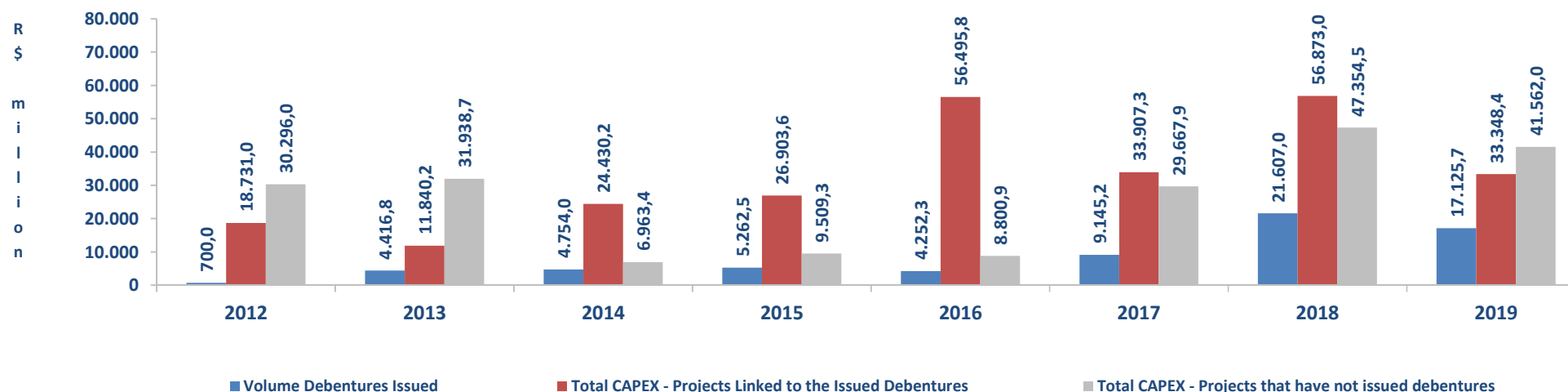
| Sectors | Approved Projects | | | | | | | | Quantity Portarias with Issuance of Debentures | Total Approved Projects |
|----------------------------------|-------------------|-----------|------------|------------|------------|------------|------------|------------|--|-------------------------|
| | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | | |
| Transportation | 3 | 5 | 11 | 5 | 4 | 10 | 11 | 12 | 39 | 61 |
| Toll Road | 2 | 4 | 5 | 3 | 3 | 8 | 1 | 6 | 24 | 32 |
| Railways | 1 | 1 | 2 | 1 | 0 | 2 | 4 | 2 | 8 | 13 |
| Airports | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 2 | 2 |
| Ports | 0 | 0 | 2 | 1 | 1 | 0 | 6 | 4 | 5 | 14 |
| Energy | 12 | 74 | 90 | 159 | 94 | 126 | 128 | 107 | 359 | 861 |
| Electric Power Transmission Line | 3 | 9 | 2 | 3 | 8 | 51 | 24 | 26 | 72 | 126 |
| Hydroelectric Power Plants | 4 | 2 | 5 | 11 | 3 | 2 | 7 | 2 | 25 | 36 |
| Thermoelectric | 0 | 5 | 1 | 3 | 2 | 1 | 2 | 1 | 5 | 15 |
| Small Hydro | 0 | 1 | 1 | 9 | 6 | 4 | 3 | 8 | 10 | 32 |
| Gas | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 2 | 2 | 4 |
| Wind Farms | 5 | 55 | 81 | 131 | 73 | 41 | 73 | 50 | 189 | 509 |
| Pipelines | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Oil | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 |
| Distribution | 0 | 0 | 0 | 0 | 2 | 27 | 19 | 18 | 37 | 66 |
| Photovoltaics Energy | 0 | 0 | 0 | 0 | 0 | 20 | 39 | 11 | 17 | 70 |
| Atomic Energy | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 |
| Telecons | 0 | 0 | 0 | 1 | 1 | 1 | 2 | 0 | 4 | 5 |
| Telecoms | 0 | 0 | 0 | 1 | 1 | 1 | 2 | 0 | 4 | 5 |
| Sanitation/Urban Mobility | 0 | 0 | 0 | 2 | 3 | 5 | 3 | 1 | 9 | 14 |
| Water and Sewerage | 0 | 0 | 0 | 1 | 3 | 5 | 2 | 1 | 8 | 12 |
| Urban Mobility | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 2 |
| Total..... | 15 | 79 | 101 | 167 | 102 | 142 | 144 | 120 | 411 | 941 |

Source: Ministerial Orders issued and Linked Entities
Elaborated by SPE/ME

Summary Table - Volume issued of infrastructure debentures - Capex linked to the issued debentures and Projects that have not issued debentures

| Status of Projects | Investment (R\$ million) | | | | | | | | Investment Total (R\$ million) |
|--|--------------------------|----------|----------|----------|----------|----------|----------|----------|--------------------------------|
| | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | |
| Volume - debentures issued | 700.0 | 4,416.8 | 4,754.0 | 5,262.5 | 4,252.3 | 9,145.2 | 21,607.0 | 17,125.7 | 67,263.5 |
| CAPEX - Projects Linked to the issued Debentures | 18,731.0 | 11,840.2 | 24,430.2 | 26,903.6 | 56,495.8 | 33,907.3 | 56,873.0 | 33,348.4 | 262,529.4 |
| CAPEX - Projects that have not issued Debentures | 30,296.0 | 31,938.7 | 6,963.4 | 9,509.3 | 8,800.9 | 29,667.9 | 47,354.5 | 41,562.0 | 206,092.6 |

Approved Projects - Volume Emission and Capex

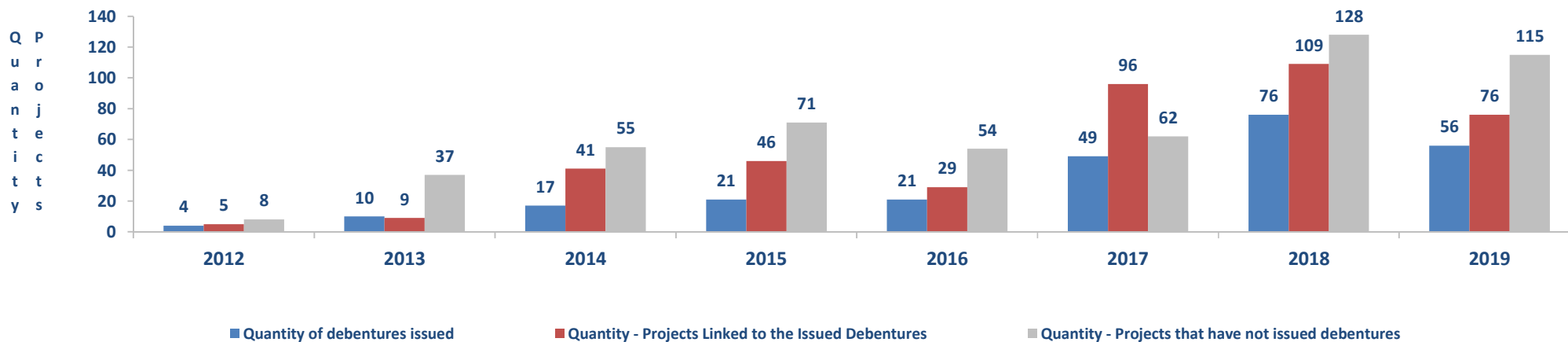


Source: Ministerial Orders issued and Linked Entities
Elaborated by SPE/ME

Summary Table - Quantity issued of infrastructure debentures - Quantity of projects linked to the issued debentures and Quantity of projects that have not issued debentures

| Status of Projects | Quantity of issued debentures and approved projects | | | | | | | | Quantity |
|---|---|------|------|------|------|------|------|------|----------|
| | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | |
| Quantity of Debentures Issued | 4 | 10 | 17 | 21 | 21 | 49 | 76 | 56 | 254 |
| Quantity - Projects Linked to the Issued Debentures | 5 | 9 | 41 | 46 | 29 | 96 | 109 | 76 | 411 |
| Quantity - Projects that have not issued Debentures | 8 | 37 | 55 | 71 | 54 | 62 | 128 | 115 | 530 |

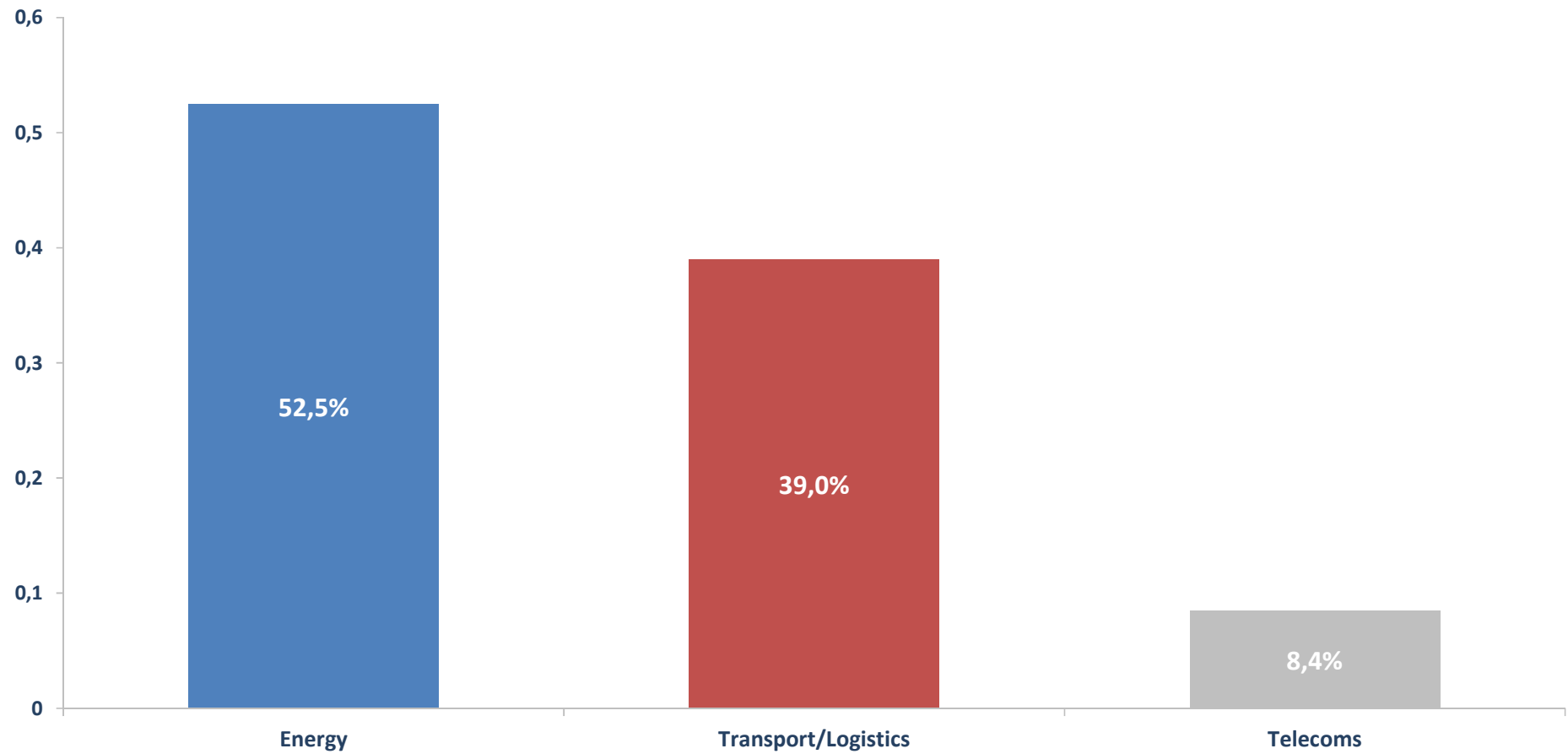
Approved Projects - Quantity Emission and Quantity Waiting Emission



Source: Ministerial Orders issued and Linked Entities
 Elaborated by SPE/ME

Note :
 The difference between the amount of debentures issued and the number of Administrative Rules issued and Projects related to the debentures issued, is due to having more than one ordinance and project linked to a single debenture - example: Ventos de São Tomé Holding S / A (TOME12). We had 01 debenture issued for 07 (seven) Administrative Rules, therefore, 07 (seven) authorized projects.

Financial leverage in infrastructure projects
(Sector)



Source: Ministerial Orders issued and Linked Entities
Elaborated by SPE/ME

Real Estate Receivables Certificate - CRI's according to Law # 12,431/2011

Summary of the Real Estate Receivables Certificates¹ - CRI 's

| Sectors | Lead Coordinator | Quantity Issued | Total Offer (R\$ million) | Yield | Capitalization | Debtor | Due Date | Project |
|-----------------------------|-------------------------|-----------------|---------------------------|------------|----------------|--|------------|--|
| Oil and Gas | Banco Bradesco BBI S.A. | 7,049 | 2,349.7 | TR + 9,5 % | Anual | Petrobrás | 2/26/2031 | Comperj |
| Oil and Gas | Banco Bradesco BBI S.A. | 4,949 | 1,649.7 | TR + 9,5 % | Anual | Petrobrás | 3/26/2031 | RNEST - Refinaria Abreu e Lima |
| Drink | Banco Bradesco BBI S.A. | 191 | 191.6 | TR + 9,4 % | Anual | Cervejarias Reunidas Skol Caracu | 1/15/2030 | Projeto Rural Uberlândia |
| Real estate | Banco Bradesco BBI S.A. | 78 | 78.0 | TR + 9,5 % | Semestral | CCP Magnólia Empreendimentos Imobiliários Ltda | 12/12/2031 | Shopping Metropolitan Barra/RJ |
| Real estate | Banco Bradesco BBI S.A. | 272 | 272.0 | TR + 9,5 % | Semestral | Cyrela Commercial Properties S/A Empreendimentos e Participações | 12/12/2031 | Cédula de Crédito Imobiliário - CCI 02 |
| Steel | Banco Bradesco BBI S.A. | 59 | 59.0 | TR + 9,8 % | Anual | Usinas Siderúrgicas de Minas Gerais - Usiminas | 4/27/2025 | Cédula de Crédito Bancário - CCB |
| Chemical and Pharmaceutical | Banco Bradesco BBI S.A. | 170 | 170.0 | TR + 9,6 % | Anual | Brainfarma, Cosmed e Hypermarcas | 12/26/2026 | Cédula de Crédito imobiliário - CCI Brainfarma |
| Metals and Mining | Banco Bradesco BBI S.A. | 700 | 700.0 | TR + 8,8 % | Anual | Vale S/A | 4/20/2022 | Complexo Portuário de Ponta Madeira/MA |
| Total | | 13,468 | 5,470.0 | | | | | |

Source : Cibrasec

Elaborated by SPE/ME

Note:

(1) Mortgage-Backed securities guaranteed by real estate credits - real estate credit certificate - CCI representative of bank credit notes - CCB issued by Petrobras to Bradesco .

(2) Investment Amount may reach up to R \$ 25 billion in civil works and R\$ 20 billion in industrial assembly.

(3) Benefits for non-resident investors: zero income tax rate (IR) and zero tax. In case of investments from countries which are not subject to income tax rate of 20% or more ("tax havens"), tax benefits do not apply.

(4) Concerning non-resident investors in financial and capital markets.

Minimum Requirements:

(i) Fixed rate or linked to price index-linked or TR - Referential Rate-linked. Total of partial use of floating rates is forbidden.

(ii) Weighted average term over four years;

(iii) No repurchase by the issuer or related party, in the first two years after issuing, nor bond redemption before its due date except in cases to be regulated by the National Monetary Council (CMN);

(iv) No resale commitment undertaken by the buyer;

(v) Coupon payments, if any, must be at least semi-annual;

(vi) Proof that the security is registered in clearing houses duly authorized by the Central Bank of Brazil or the CVM (Brazilian SEC); and

(vii) Simplified procedure to demonstrate the purpose of allocating the proceeds towards the future payment or reimbursement of expenses, costs or liabilities related to investment projects, including those relating to RD&I.

Brazilian Infrastructure Bonds Investment Funds - Fixed-Income Investment - August 2019

| Infrastructure Bonds Investment funds | Debentures (Infrastructure Bonds) | Time Deposits and Other Financial Securities | Quotas of Investment Funds | Government Securities Repurchase | Brazilian Government Bonds | Other | Net Equity | Debentures / Net Equity |
|---------------------------------------|---|---|-------------------------------|--|-------------------------------|---------------|---------------|-------------------------|
| | (R\$ million) | (R\$ million) | (R\$ million) | (R\$ million) | (R\$ million) | (R\$ million) | (R\$ million) | |
| FIRF-CA Indosuez Master | 752.91 | 0.00 | 0.00 | 90.52 | 6.69 | (0.24) | 849.87 | 89% |
| FIRF-VIC C. Privado | 67.76 | 0.00 | 0.65 | 0.00 | 4.09 | 1.20 | 73.70 | 92% |
| FIRF-BNP Paribas Plus | 17.95 | 0.00 | 0.00 | 0.02 | 2.57 | (0.08) | 20.47 | 88% |
| FIRF-Bradesco C. Privado | 103.56 | 0.00 | 0.00 | 3.61 | 7.32 | (0.06) | 114.43 | 90% |
| FIRF-CSHG AS 7.7 | 38.86 | 0.00 | 0.00 | 0.00 | 6.70 | (0.01) | 45.54 | 85% |
| FIRF-CSHG 392 | 451.12 | 0.00 | 0.00 | 0.00 | 29.97 | (0.05) | 481.04 | 94% |
| FIRF-XP | 539.05 | 0.00 | 31.27 | 3.51 | 0.00 | (0.99) | 572.83 | 94% |
| FIRF-Fator | 128.71 | 1.61 | 2.03 | 6.78 | 1.09 | (0.05) | 140.17 | 92% |
| FIRF-TFO CSHG | 52.94 | 0.00 | 0.00 | 1.54 | 2.31 | (0.09) | 56.71 | 93% |
| FIRF-CSHG Omega | 191.43 | 0.00 | 5.71 | 0.00 | 5.42 | 1.04 | 203.60 | 94% |
| FIRF-Brasil Plural Master | 34.66 | 0.00 | 0.53 | 1.39 | 0.90 | (0.03) | 37.44 | 93% |
| FIRF-Turmalina | 124.45 | 8.65 | 1.79 | 5.35 | 0.28 | (0.20) | 140.32 | 89% |
| FIRF-SDEUX | 10.93 | 0.00 | 0.64 | 0.44 | 0.00 | (0.03) | 11.99 | 91% |
| FIRF-Sul América | 38.66 | 0.33 | 0.00 | 0.47 | 4.55 | (0.06) | 43.95 | 88% |
| FIRF-XPCE II | 223.97 | 32.33 | 14.16 | 38.30 | 2.80 | (0.29) | 311.27 | 72% |
| FIRF-Pedra Negra | 8.02 | 0.00 | 1.74 | 20.74 | 0.00 | 332.68 | 363.18 | 2% |
| FIRF-Butia | 39.71 | 0.00 | 0.00 | 0.97 | 1.00 | (0.34) | 41.35 | 96% |
| FIRF-Alocação | 185.44 | 11.72 | 3.17 | 0.00 | 0.00 | (0.13) | 200.20 | 93% |
| FIRF-Águia | 22.67 | 0.00 | 0.00 | 2.37 | 0.69 | (0.01) | 25.73 | 88% |
| FIRF-CA Indosuez Master II | 807.93 | 20.31 | 0.00 | 91.09 | 48.08 | 1.78 | 969.19 | 83% |
| FIRF-Newbery | 170.81 | 0.00 | 5.59 | 20.69 | 5.97 | (4.71) | 198.34 | 86% |
| FIRF-Órama | 121.14 | 1.65 | 10.73 | 0.00 | 0.00 | 4.12 | 137.64 | 88% |
| FIRF-Brasil Plural Master II | 395.85 | 0.00 | 1.98 | 19.81 | 8.40 | (4.79) | 421.24 | 94% |
| FIRF-AZ Quest Master | 111.37 | 0.00 | 7.37 | 1.90 | 28.31 | (25.48) | 123.47 | 90% |
| FIRF-VIC Supra | 437.87 | 0.00 | 26.57 | 0.00 | 18.99 | 4.86 | 488.29 | 90% |
| FIRF-BNP Paribas | 492.46 | 0.00 | 0.00 | 13.15 | 15.83 | (0.68) | 520.76 | 95% |
| FIRF-Daycoval | 155.72 | 0.00 | 0.10 | 2.04 | 23.14 | (1.04) | 179.95 | 87% |
| FIRF-RB Capital Master | 278.48 | 0.00 | 2.91 | 13.23 | 28.89 | (1.00) | 322.51 | 86% |

Continuation - Brazilian Infrastructure Bonds Investment Funds - Fixed-Income Investment - August 2019

| Infrastructure Bonds Investment funds | Debentures (Infrastructure Bonds) | Time Deposits and Other Financial Securities | Quotas of Investment Funds | Government Securities Repurchase | Brazilian Government Bonds | Other | Net Equity | Debentures / Net Equity |
|---------------------------------------|---|---|-------------------------------|--|-------------------------------|---------------|---------------|-------------------------|
| | (R\$ million) | (R\$ million) | (R\$ million) | (R\$ million) | (R\$ million) | (R\$ million) | (R\$ million) | |
| FIRF-Brasil Plural Master TFO | 75.65 | 0.00 | 0.38 | 4.58 | 6.30 | (0.27) | 86.65 | 87% |
| FIRF-Safra Master | 517.70 | 11.09 | 0.00 | 28.40 | 32.52 | (0.15) | 589.55 | 88% |
| FIRF-Sparta Master B | 278.68 | 0.00 | 46.76 | 14.35 | 0.00 | 2.39 | 342.19 | 81% |
| FIRF-Pasárgada | 23.57 | 0.00 | 0.16 | 0.00 | 0.00 | (0.01) | 23.73 | 99% |
| FIRF-RB Capital Vitória | 362.77 | 0.00 | 2.45 | 16.33 | 30.99 | (3.78) | 408.76 | 89% |
| FIRF-Crodo | 67.14 | 0.00 | 8.04 | 0.00 | 0.00 | (0.03) | 75.15 | 89% |
| FIRF-TAO | 95.57 | 0.00 | 3.37 | 3.57 | 0.00 | (0.05) | 102.46 | 93% |
| FIRF-SPEED | 38.96 | 0.00 | 0.40 | 0.00 | 0.02 | (0.02) | 39.36 | 99% |
| FIRF-II Alocação | 178.46 | 7.87 | 5.90 | 0.00 | 0.00 | (0.15) | 192.09 | 93% |
| FIRF-Precioso | 55.73 | 0.00 | 4.25 | 0.00 | 0.00 | (0.02) | 59.96 | 93% |
| FIRF-Votorantim Hedge | 252.96 | 0.00 | 18.73 | 36.71 | 0.00 | (1.67) | 306.73 | 82% |
| FIRF-G5 | 52.35 | 2.61 | 0.34 | 0.87 | 2.09 | (0.00) | 58.25 | 90% |
| FIRF-Safra Premium | 269.78 | 3.33 | 0.00 | 10.19 | 23.15 | (0.17) | 306.28 | 88% |
| FIRF-Monte Alegre | 54.42 | 0.00 | 3.08 | 0.46 | 0.10 | 0.37 | 58.43 | 93% |
| FIRF-IDA | 48.24 | 0.00 | 3.53 | 0.00 | 0.00 | (0.02) | 51.75 | 93% |
| FIRF-Capitânea | 44.39 | 0.00 | 4.42 | 2.67 | 0.00 | (0.18) | 51.31 | 87% |
| FIRF-HIGH Income | 88.65 | 0.00 | 5.22 | 5.68 | 0.00 | (0.42) | 99.12 | 89% |
| FIRF-Iridium Pioneer | 521.82 | 0.57 | 12.55 | 27.83 | 0.00 | (2.42) | 560.35 | 93% |
| FIRF-Esposende | 21.54 | 1.11 | 0.00 | 0.29 | 2.11 | (0.01) | 25.04 | 86% |
| FIRF-ZETA | 96.65 | 2.22 | 0.00 | 0.97 | 8.22 | (0.02) | 108.04 | 89% |
| FIRF-Journey Capital | 7.53 | 0.00 | 0.00 | 0.31 | 0.45 | 0.00 | 8.28 | 91% |
| FIRF-XP 60 | 183.97 | 8.76 | 2.84 | 23.16 | 11.26 | (17.69) | 212.29 | 87% |
| FIRF-Finor | 62.41 | 2.55 | 3.30 | 10.24 | 0.00 | (0.03) | 78.46 | 80% |
| FIRF-III Alocação | 171.27 | 3.21 | 25.95 | 10.71 | 0.00 | (0.14) | 211.01 | 81% |
| FIRF-AndBank | 19.91 | 0.00 | 3.36 | 0.95 | 0.00 | (0.30) | 23.92 | 83% |
| FIRF-Santander Hermes | 0.00 | 0.00 | 0.00 | 0.00 | 8.00 | 922.45 | 930.45 | 0% |
| FIRF-Santander | 0.00 | 53.42 | 0.00 | 58.11 | 16.15 | 389.79 | 517.48 | 0% |
| FIRF-Santander CDI | 8.80 | 53.13 | 0.00 | 22.96 | 1.11 | 326.38 | 412.38 | 2% |

Continuation - Brazilian Infrastructure Bonds Investment Funds - Fixed-Income Investment - August 2019

| Infrastructure Bonds Investment funds | Debentures (Infrastructure Bonds) | Time Deposits and Other Financial Securities | Quotas of Investment Funds | Government Securities Repurchase | Brazilian Government Bonds | Other | Net Equity | Debentures / Net Equity |
|---------------------------------------|---|---|-------------------------------|--|-------------------------------|---------------|---------------|-------------------------|
| | (R\$ million) | (R\$ million) | (R\$ million) | (R\$ million) | (R\$ million) | (R\$ million) | (R\$ million) | |
| FIRF-Silver OAK | 14.70 | 0.00 | 5.16 | 0.83 | 0.00 | (0.01) | 20.67 | 71% |
| FIRF-AF 1644 | 43.70 | 0.00 | 2.07 | 11.14 | 0.00 | (0.04) | 56.88 | 77% |
| FIRF-Riska | 18.48 | 0.00 | 0.47 | 2.51 | 0.00 | (0.01) | 21.44 | 86% |
| FIRF-8.613 | 64.21 | 0.00 | 1.84 | 13.13 | 0.00 | 0.76 | 79.94 | 80% |
| FIRF-EPL | 38.84 | 0.00 | 0.92 | 7.15 | 0.00 | (0.03) | 46.88 | 83% |
| FIRF-Agadir | 0.00 | 0.00 | 0.53 | 0.00 | 0.00 | 68.65 | 69.18 | 0% |
| FIRF-Brasil Plural Master Fim | 34.19 | 0.00 | 0.37 | 7.51 | 10.85 | 0.04 | 52.97 | 65% |
| FIRF-Sparta Master A. | 454.86 | 0.00 | 40.21 | 23.77 | 0.00 | (2.92) | 515.92 | 88% |
| FIRF-DLM | 158.35 | 0.56 | 3.47 | 8.84 | 1.50 | (1.15) | 171.56 | 92% |
| FIRF-Devant | 15.07 | 0.00 | 0.23 | 1.18 | 1.40 | 2.13 | 20.01 | 75% |
| FIRF-ARX Elbrus | 151.27 | 0.00 | 5.26 | 20.68 | 0.00 | (0.18) | 177.02 | 85% |
| FIRF-Panamá Kinea | 17.47 | 0.00 | 0.00 | 3.62 | 0.89 | (0.05) | 21.94 | 80% |
| FIRF-Varese Kinea | 27.28 | 0.00 | 0.00 | 7.16 | 3.44 | (0.08) | 37.80 | 72% |
| FIRF-BTG Pactual | 235.05 | 0.00 | 15.44 | 0.00 | 263.38 | (262.39) | 251.48 | 93% |
| FIRF-Journey Capital Endurance | 344.98 | 45.23 | 8.67 | 31.35 | 104.03 | (74.74) | 459.53 | 75% |
| FIRF-Ypsilon | 102.23 | 2.22 | 0.00 | 12.39 | 6.24 | (0.02) | 123.06 | 83% |
| FIRF-Deri | 23.05 | 0.00 | 4.10 | 0.00 | 0.00 | (0.02) | 27.13 | 85% |
| FIRF-Avião III | 44.02 | 0.00 | 10.07 | 0.00 | 0.00 | (0.02) | 54.07 | 81% |
| FIRF-VBA | 17.43 | 0.00 | 0.39 | 4.44 | 0.00 | (0.01) | 22.24 | 78% |
| FIRF-Safra Master II | 265.97 | 1.11 | 0.00 | 35.35 | 16.71 | (0.03) | 319.11 | 83% |
| FIRF-Triplaris Kinea | 19.64 | 0.00 | 0.00 | 7.08 | 3.38 | (0.02) | 30.07 | 65% |
| FIRF-Quasar | 191.39 | 0.00 | 18.45 | 27.54 | 0.00 | (1.14) | 236.24 | 81% |
| FIRF-RB Capital Master II | 44.29 | 0.00 | 0.74 | 1.54 | 2.40 | (0.12) | 48.85 | 91% |
| FIRF-Nebulus | 11.35 | 0.00 | 0.17 | 0.00 | 0.00 | (0.01) | 11.51 | 99% |
| FIRF-G5 SHLIMS | 16.17 | 0.18 | 4.97 | 0.00 | 0.01 | (0.01) | 21.33 | 76% |
| FIRF-BB Primordium | 30.79 | 0.00 | 0.00 | 0.00 | 16.21 | 0.01 | 47.01 | 66% |
| FIRF-G5 Max | 4.30 | 0.00 | 1.17 | 0.00 | 0.00 | (0.00) | 5.48 | 79% |
| FIRF-Prata 51 Kinea | 9.81 | 0.00 | 0.00 | 0.00 | 0.31 | (0.01) | 10.11 | 97% |
| FIRF-ARX Hedge | 281.19 | 3.33 | 8.06 | 24.78 | 0.00 | (1.60) | 315.77 | 89% |

Continuation - Brazilian Infrastructure Bonds Investment Funds - Fixed-Income Investment - August 2019

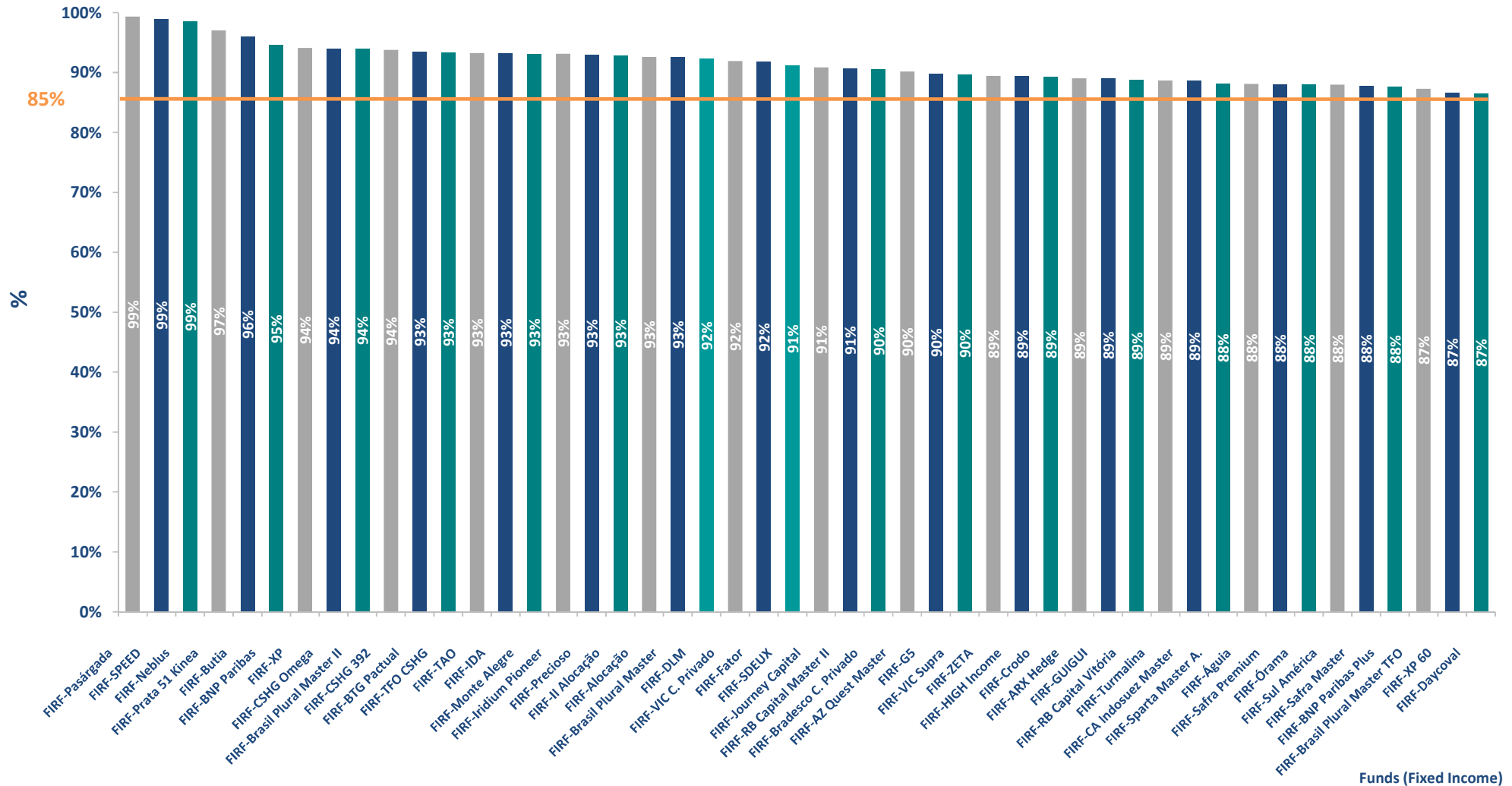
| Infrastructure Bonds Investment funds | Debentures (Infrastructure Bonds) | Time Deposits and Other Financial Securities | Quotas of Investment Funds | Government Securities Repurchase | Brazilian Government Bonds | Other | Net Equity | Debentures / Net Equity |
|---------------------------------------|---|---|-------------------------------|--|-------------------------------|-----------------|------------------|-------------------------|
| | (R\$ million) | (R\$ million) | (R\$ million) | (R\$ million) | (R\$ million) | (R\$ million) | (R\$ million) | |
| FIRF-JGP Master | 20.15 | 0.32 | 3.50 | 1.97 | 9.22 | (4.15) | 31.01 | 65% |
| FIRF-ARX Elbrus Master II | 391.99 | 14.35 | 11.86 | 103.08 | 0.00 | 0.35 | 521.63 | 75% |
| FIRF-Bram | 60.56 | 22.52 | 0.00 | 7.20 | 77.18 | (0.20) | 167.26 | 36% |
| FIRF-Votorantim Hedge Plus | 11.13 | 2.61 | 3.69 | 1.30 | 0.00 | 0.02 | 18.74 | 59% |
| FIRF-GUIGUI | 37.54 | 0.00 | 0.95 | 3.69 | 0.00 | (0.00) | 42.17 | 89% |
| FIRF-BB Top | 169.01 | 0.00 | 0.00 | 2.43 | 68.16 | 0.02 | 239.62 | 71% |
| FIRF-Syco | 0.49 | 0.00 | 0.19 | 16.29 | 0.00 | (0.01) | 16.96 | 3% |
| FIRF-Cordia | 40.10 | 0.00 | 0.07 | 7.26 | 0.00 | (0.02) | 47.41 | 85% |
| FIRF-Safra Master III | 120.50 | 0.00 | 0.00 | 108.49 | 156.83 | (2.17) | 383.65 | 31% |
| FIRF-Safra Premiun Profissional II | 85.71 | 0.00 | 0.00 | 48.62 | 8.35 | (0.07) | 142.62 | 60% |
| FIRF-Journey Endurance | 84.07 | 5.34 | 0.00 | 17.53 | 23.75 | (5.96) | 124.73 | 67% |
| FIRF-Balista | 5.20 | 0.00 | 186.16 | 0.00 | 0.00 | 24.82 | 216.18 | 2% |
| FIRF-BTG Pactual Infla Master | 13.85 | 0.00 | 0.00 | 0.82 | 3.71 | (0.02) | 18.36 | 75% |
| Total | 13,323.68 | 324.25 | 611.19 | 1,187.95 | 1,174.39 | 1,658.76 | 18,280.22 | |

Source : Brazilian Securities Commission - CVM

Elaborated by SPE/ME

Note: (i) Requirements: Investments in Brazilian Infrastructure Bonds, as previously defined, must correspond to at least 67% of the Fund portfolio within the first two years and at least 85% in the remaining years. After the incorporation of the fund, there is a 180 days period to fulfill the investment requirements above.

Infrastructure Funds - Fixed Income Debentures Participation in the Net Worth



Source : Brazilian Securities Commission - CVM
Elaborated by SPE/ME

Infrastructure Credit Rights Investment Fund – FIDC - August 2019

| Infrastructure Credit Rights Investment Fund | Credit Rights | Time Deposits and Other Financial | Quotas of Investment Funds | Government Securities Repurchase | Brazilian Government Bonds | Other | Net Equity | Credit Rights / Net Equity |
|--|-----------------|-----------------------------------|----------------------------|----------------------------------|----------------------------|---------------|-----------------|----------------------------|
| | (R\$ million) | (R\$ million) | (R\$ million) | (R\$ million) | (R\$ million) | (R\$ million) | (R\$ million) | |
| FIDC-BB Infra Votorantim Highland | 327.97 | 0.00 | 0.00 | 0.00 | 11.29 | (0.37) | 338.89 | 97% |
| FIDC-Kinea Infra I | 718.19 | 0.00 | 0.00 | 84.29 | 18.35 | (0.03) | 820.80 | 87% |
| Total | 1,046.15 | 0.00 | 0.00 | 84.29 | 29.64 | (0.40) | 1,159.69 | |

Source : Brazilian Securities Commission - CVM

Elaborated by SPE/ME

Note :

(i) Benefits for non-resident investors: zero income tax rate (IR) and zero tax. In the case of investments from countries which are not subject to an income tax rate of 20% or more ("tax havens"), tax benefits don't not apply.

(ii) The fund must have a minimum term of six years.

(iii) No full or partial payment for the main quotas during the first two years counted as of the closing date of the public offering of quotas that make up the initial assets of the fund, except in cases of early settlement of the fund provided for in its regulations;

(iv) No acquisition of quotas by their seller or transferor or by parties related to these except in the case of quotas subordinated to others for purposes of e payment and redemption;

(v) Deadlines for partial redemption of quotas, including those from incorporated income, if any, must be at least 180 days one hundred eighty days apart;

(vi) Proof that the quotas are admitted to trading on an organized securities market or registered in a registry system duly authorized by the Central Bank of Brazil or the CVM (Brazilian SEC) under their respective areas of competence;

(vii) Simplified procedure to demonstrate the purpose of allocating the proceeds of the transaction to investment projects, including those focused on research, development and innovation;

(viii) At least eighty-five percent of equity represented by receivables, and the remaining portion by federal government securities, repurchase agreements backed by government bonds or quotas from mutual funds that invest in federal government bonds.

FIP-IE and FIP-PD&I¹ under the terms of Laws # 11,478/2007 and # 12,431/2011 - August 2019

| Infrastructure funds ² | Stocks | Investment Fund Quotas | Federal Government Bonds | Government Securities Repurchase | Simple Debentures | Other Applications | Forward Market Buyer | Other Values | Net Equity |
|------------------------------------|-----------------|------------------------|--------------------------|----------------------------------|-------------------|--------------------|----------------------|-----------------|-----------------|
| | (R\$ million) | (R\$ million) | (R\$ million) | (R\$ million) | (R\$ million) | (R\$ million) | (R\$ million) | (R\$ million) | (R\$ million) |
| FIP-Energia Renovável | 875.14 | 0.03 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | (45.98) | 829.18 |
| FIP-BB Votorantim Energia Sust II | 161.42 | 58.06 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | (7.85) | 211.62 |
| FIP-BB Votorantim Energia Sust III | 155.17 | 73.37 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | (7.50) | 221.03 |
| FIP-BB Votorantim Energia Sust I | 32.86 | 13.27 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | (1.43) | 44.70 |
| FIP-CZ Fundo Investimentos | 7.67 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | (0.02) | 7.66 |
| FIP-XP OMEGA I | 121.60 | 0.49 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | (0.31) | 121.77 |
| FIP-ANESSA | 121.66 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.03 | 121.69 |
| FIP-Olime | 10.00 | 9.10 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | (0.06) | 19.03 |
| FIP-Porto Sudeste Royalties | 288.33 | 1.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | (0.14) | 289.20 |
| FIP-Paranaguá | 39.35 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | (0.09) | 39.26 |
| FIP-Prisma Hélios | 47.69 | 0.00 | 0.00 | 6.60 | 0.00 | 157.62 | 0.00 | (0.20) | 211.70 |
| FIP-TRX Infra I | 12.49 | 0.12 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.96 | 13.57 |
| FIP-Prosperidade | 131.10 | 0.89 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | (4.22) | 127.77 |
| FIP-Origem | 177.57 | 0.14 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | (128.52) | 49.19 |
| FIP-Perfin Ares I | 0.00 | 0.00 | 0.00 | 0.38 | 0.00 | 0.00 | 0.00 | 0.78 | 1.16 |
| FIP-IE Infra Perfin Ares 2 | 60.03 | 0.00 | 0.00 | 0.52 | 0.00 | 0.00 | 0.00 | (48.11) | 12.45 |
| Total | 2,242.09 | 156.47 | 0.00 | 7.50 | 0.00 | 157.62 | 0.00 | (242.68) | 2,320.99 |

Source : Brazilian Securities Commission - CVM

Produced by SPE/ME

Note:

(1) FIP-IE: Investment Fund (investment in infrastructure) and FIP-PD & I: Investment Fund for Participation in Research, Development and Innovation-Intensive Economic Production.

(2) (i) The FIP-IE and FIP-PD&I must have a minimum of 5 quota holders and no quota holder may hold more than 40% of the quotas issued by Fund (FIP-IE or FIP-PD&I) or earnings above 40% of the fund's earnings.

(ii) The FIP-IE and FIP-PD&I must be closed-end fund.

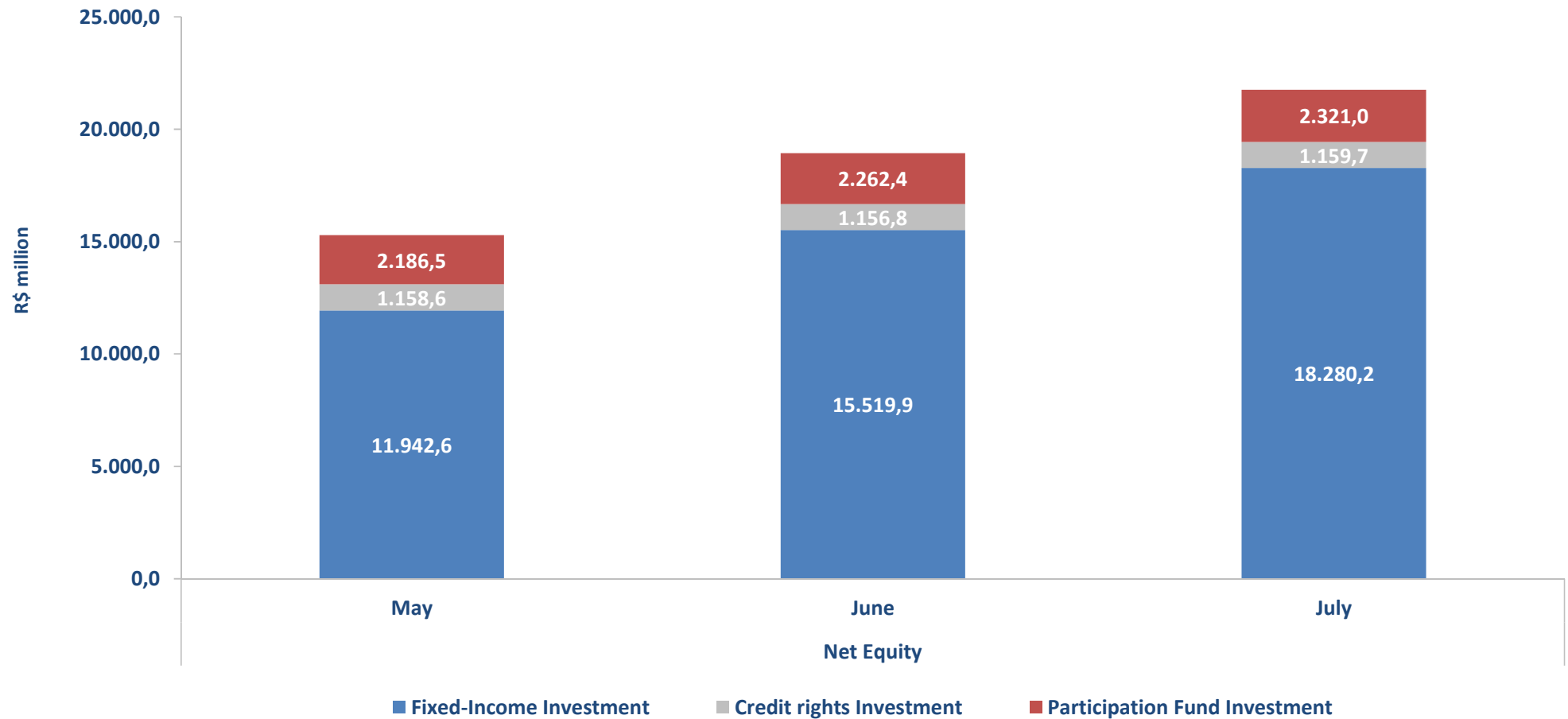
(iii) The FIP-IE and FIP-PD&I must maintain a minimum of 90% of its net worth invested in shares, subscription bonds, debentures (convertible or not into shares) or other bonds issued by either a publicly or closely-held company.

(iv) The company must be aware of infrastructure projects related to the energy, transportation, water and sewage treatment, and irrigation sectors.

(v) The FIP-IE and the FIP-PD&I must participate in the decision-making process of the issuer company with effective influence on the definition of its strategic policy and management.

(vi) Taxes: exemption for individuals and 15% rate for companies.

Brazilian Infrastructure Bonds Investment Funds - Net Worth Growth
June/July/August 2019



Source: Brazilian Securities Commission - CVM
Produced by SPE/ME

Annex 1

Capex Bonds: General Investment Debentures - 2018

| Issuer | Ticker | Distribution Date | Due Date | Offer type | Maturity (years) | Value (R\$ million) | Yield ¹ | Sector | Rating (local) |
|------------------------|--------|-------------------|-----------|------------|------------------|---------------------|--------------------|--------|----------------|
| Rede D'OR São Luiz S/A | HSLZA0 | 1/4/2018 | 1/13/2028 | ICVM 476 | 10 | 1,628.1 | Pré 11,82% | Health | AA (bra) Fitch |
| Heinz Brasil S/A | HENZ11 | 4/11/2018 | 4/15/2028 | ICVM 476 | 10 | 655.0 | Pré 11,50% | Foods | N/D |
| Total..... | | | | | | 2,283.1 | | | |

Capex Bonds: General Investment Debentures - 2015

| Issuer | Ticker | Distribution Date | Due Date | Offer type | Maturity (years) | Value (R\$ million) | Yield ¹ | Sector | Rating (local) |
|------------|--------|-------------------|------------|------------|------------------|---------------------|--------------------|--------|----------------|
| AMBEV S/A | ABEV11 | 10/30/2015 | 10/30/2021 | ICVM 476 | 6 | 1,000.0 | Pré 14,47% | Drink | brAAA (S&P) |
| Total..... | | | | | | 1,000.0 | | | |

Capex Bonds: General Investment Debentures - 2013

| Issuer | Ticker | Distribution Date | Due Date | Offer type | Maturity (years) | Value (R\$ million) | Yield ¹ | Sector | Rating (local) |
|---|--------|-------------------|------------|------------|------------------|---------------------|--------------------|---------------------------------|-------------------|
| Marfrig Global Foods S/A. - (Vencida) | MRFG14 | 4/15/2013 | 1/22/2019 | ICVM 476 | 6 | 570.0 | Pré 15,85% | Foods | AA+ (bra) Fitch |
| Centrad - Conc. Centro Adm. Distrito Federal S/A. - (Vencimento Antecipado) | CTRD11 | 7/11/2013 | 3/15/2018 | ICVM 476 | 5 | 50.0 | IPCA + 7,97% | Real Estate Industry | N/D |
| | CTRD21 | | | | | 50.0 | | | |
| OAS S.A. - (Em Recuperação Judicial) | OAEP18 | 7/25/2013 | 7/21/2024 | ICVM 476 | 11 | 347.4 | Pré 9,47% | Sanitation and Shipyard | BB+sf (bra) Fitch |
| | OAEP28 | | | | | 347.4 | | | |
| LafargeHolcim (BRASIL) S/A - (Resgate Total Antecipado) | HOLC11 | 10/21/2013 | 10/1/2023 | ICVM 476 | 10 | 450.0 | Pré 14% | Cement | AAA |
| Raizen Energia S/A | RESA31 | 10/29/2013 | 10/15/2020 | ICVM 400 | 7 | 304.0 | IPCA + 6,38% | Production of Sugar and Ethanol | brAAA (S&P) |
| Total..... | | | | | | 2,118.7 | | | |

Source: Anbima, Rating reports and Debentures Agreements
Elaborated by SPE/ME

Note:

(1) Consumer Price Index - CPI (IPCA)

Capex Bonds: General Investment Debentures - 2012

| Issuer | Ticker | Distribution Date | Due Date | Offer type | Maturity (years) | Value (R\$ million) | Yield ¹ | Sector | Rating (local) |
|---|--------|-------------------|------------|------------|------------------|---------------------|--------------------|-------------------|-----------------|
| Minerva S/A. - (Vencimento Antecipado) | BEEF13 | 6/20/2012 | 1/29/2022 | ICVM 476 | 10 | 450.0 | Pré 16,95% | Foods | BB (bra) Fitch |
| Rio Canoas Energia S/A. | RCNE22 | 8/15/2012 | 12/15/2024 | ICVM 476 | 12 | 75.0 | IPCA + 7,89% | Energy | N/D |
| OGX Petróleo e Gás S/A. - (Em Recuperação Judicial) | OGXP11 | 9/28/2012 | 3/28/2022 | ICVM 476 | 10 | 2,025.0 | Pré 10,50% | Oil and Gas | A+ (bra) Fitch |
| BR Malls Participações S/A. - (Vencimento Antecipado) | BRML13 | 12/17/2012 | 1/17/2024 | ICVM 476 | 11 | 364.0 | Pré 13,49% | Comercial Centers | AA+ (bra) Fitch |
| Total..... | | | | | | 2,914.0 | | | |

Source: Anbima, Rating reports and Debentures Agreements
Elaborated by SPE/ME

Note:

(1) Consumer Price Index - CPI (IPCA)

Annex 2

Infrastructure Bonds: Infrastructure Investment Projects - 2019

| Issuer | Ticker | Distribution Date | Due Date | Offer type | Maturity (years) | Duration ¹ (years) | Value (R\$ million) | Yield ² | Sector | Spread Over NTN-B | Rating (local) |
|---------------------------------------|--------|-------------------|------------|------------|------------------|-------------------------------|---------------------|--------------------|--------------------|-------------------|------------------|
| Januba Transmissora de Energia S.A. | JTEE11 | 1/16/2019 | 7/15/2033 | ICVM 476 | 15 | 8.10 | 224.0 | IPCA + 4,50% | Energy | 0.20% | Aaa (br) Moody's |
| Equatorial Transmissora 1 SPE S.A. | EQTS11 | 2/2/2019 | 1/15/2033 | ICVM 476 | 14 | 7.92 | 55.0 | IPCA + 4,85% | Energy | 0.48% | AA+ (bra) Fitch |
| Equatorial Transmissora 3 SPE S.A. | EQSP11 | 2/4/2019 | 1/15/2033 | ICVM 476 | 14 | 7.92 | 45.0 | IPCA + 4,80% | Energy | 0.43% | AA+ (bra) Fitch |
| Equatorial Transmissora 3 SPE S.A. | EQSP21 | 2/4/2019 | 1/15/2034 | ICVM 476 | 15 | 8.03 | 45.0 | IPCA + 4,65% | Energy | 0.28% | AA+ (bra) Fitch |
| Equatorial Transmissora 2 SPE S.A. | EQTN11 | 2/4/2019 | 1/15/2033 | ICVM 476 | 14 | 7.92 | 45.0 | IPCA + 4,85% | Energy | 0.48% | AA+ (bra) Fitch |
| Petróleo Brasileiro S/A - Petrobras | PETR16 | 2/12/2019 | 1/15/2026 | ICVM 400 | 7 | 6.12 | 898.4 | IPCA + 4,05% | Energy | (0.20)% | AA (bra) Fitch |
| Petróleo Brasileiro S/A - Petrobras | PETR26 | 2/12/2019 | 1/15/2029 | ICVM 400 | 10 | 8.13 | 1,694.1 | IPCA + 4,22% | Energy | (0.10)% | AA (bra) Fitch |
| Rumo Malha Norte S/A. | RUMOB1 | 2/22/2019 | 2/15/2026 | ICVM 476 | 7 | 7.50 | 500.0 | IPCA + 4,68% | Transport | 0.22% | AA+ (bra) Fitch |
| Porto Primavera Transmissora S.A. | PPTE11 | 3/1/2019 | 2/15/2029 | ICVM 476 | 10 | 6.20 | 112.3 | IPCA + 4,45% | Energy | 0.31% | AAA (bra) Fitch |
| COELCE - Estado do Ceará | COCE27 | 3/15/2019 | 2/15/2026 | ICVM 476 | 7 | 4.57 | 300.0 | IPCA + 4,50% | Energy | 0.37% | AAA (bra) Fitch |
| AES Tietê S/A | TIET29 | 3/17/2019 | 3/15/2029 | ICVM 476 | 10 | 7.43 | 641.1 | IPCA + 4,71% | Transport | 0.35% | AA+ (bra) Fitch |
| Rumo Malha Norte S/A. | RUMOA2 | 3/19/2019 | 2/15/2029 | ICVM 400 | 10 | 8.00 | 600.0 | IPCA + 4,50% | Water and Sewerage | 0.23% | Ba3 (br) Moody's |
| Cia Águas de Itapema | ITPE12 | 3/22/2019 | 2/15/2029 | ICVM 476 | 10 | 4.35 | 100.0 | IPCA + 7,07% | Energy | 0.30% | Ba3 (br) Moody's |
| Eólica Bons Ventos da Serra 2 S.A. | GEBV11 | 3/29/2019 | 6/30/2033 | ICVM 476 | 14 | 6.44 | 56.5 | IPCA + 6,50% | Energy | 2.44% | Aa3 (br) Moody's |
| AES Tietê S/A | TIET39 | 4/17/2019 | 3/15/2029 | ICVM 476 | 10 | 7.51 | 178.9 | IPCA + 4,71% | Energy | 0.35% | AA+ (bra) Fitch |
| Mata de Santa Genebra Transmissão S/A | MSGT12 | 4/22/2019 | 11/15/2030 | ICVM 476 | 12 | 6.10 | 210.0 | IPCA + 4,95% | Energy | 0.69% | AA- (bra) Fitch |
| Cutia Empreendimentos Eólicos S.A. | CUTI11 | 4/29/2019 | 12/15/2031 | ICVM 476 | 13 | 6.00 | 360.0 | IPCA + 5,88% | Energy | 1.55% | AA- (bra) Fitch |
| MRS Logística S.A. | MRS19 | 4/30/2019 | 4/15/2024 | ICVM 476 | 5 | 4.50 | 367.2 | IPCA + 4,10% | Transport | 1.06% | AAA (bra) Fitch |
| Energisa S.A. | ENGIA1 | 5/3/2019 | 4/15/2026 | ICVM 476 | 7 | 6.13 | 500.0 | IPCA + 4,62% | Energy | 0.35% | AAA (bra) Fitch |
| CIA. Energética Canoas | KNOA11 | 5/10/2019 | 1/15/2031 | ICVM 476 | 12 | 5.91 | 21.8 | IPCA + 6,96% | Energy | 2.50% | AA- (bra) Fitch |

Continuation – 2019

| Issuer | Ticker | Distribution Date | Due Date | Offer type | Maturity (years) | Duration ¹ (years) | Value (R\$ million) | Yield ² | Sector | Spread Over NTN-B | Rating (local) |
|--|--------|-------------------|------------|------------|------------------|-------------------------------|---------------------|--------------------|--------------------|-------------------|------------------|
| Centrais Elétricas Bras S.A - Eletrobras | ELET42 | 5/17/2019 | 5/15/2029 | ICVM 476 | 10 | 7.50 | 700.0 | IPCA + 5,18% | Energy | 1.00% | AAA (bra) Fitch |
| CIA Energética do RN - Cosern | CSRN19 | 5/22/2019 | 4/15/2026 | ICVM 476 | 7 | 6.12 | 179.5 | IPCA + 4,25% | Energy | 0.13% | AAA (bra) Fitch |
| | CSRN29 | | 4/15/2024 | | 5 | 7.48 | 38.5 | IPCA + 4,50% | | 0.22% | |
| Equatorial Transmissora 5 SPE S.A. | EQTC11 | 5/23/2019 | 4/15/2039 | ICVM 476 | 20 | 11.26 | 66.0 | IPCA + 4,85% | Energy | 0.56% | AA+ (bra) Fitch |
| Equatorial Transmissora 8 SPE S.A. | EQTR11 | 5/23/2019 | 4/15/2039 | ICVM 476 | 20 | 11.26 | 102.0 | IPCA + 4,85% | Energy | 0.56% | AA+ (bra) Fitch |
| | EQTR21 | | | | 20 | 11.26 | 87.0 | | | 0.56% | |
| Equatorial Transmissora 7 SPE S.A. | ETSP12 | 5/23/2019 | 4/15/2039 | ICVM 476 | 20 | 11.26 | 130.0 | IPCA + 4,85% | Energy | 0.56% | AA+ (bra) Fitch |
| Transmissora Aliança S.A. | TAEE26 | 5/24/2019 | 5/15/2044 | ICVM 476 | 25 | 14.00 | 210.0 | IPCA + 5,50% | Energy | 0.95% | AAA (bra) Fitch |
| Omega Geração S.A. | OMGE41 | 5/24/2019 | 5/15/2027 | ICVM 476 | 8 | 6.50 | 150.0 | IPCA + 5,00% | Energy | 0.83% | AA (bra) Fitch |
| Eneva S.A. | ENEV32 | 5/31/2019 | 5/15/2029 | ICVM 476 | 10 | 7.33 | 500.0 | IPCA + 5,05% | Energy | 0.96% | AAA (bra) Fitch |
| | BTLM11 | | 9/15/2031 | | 12 | 4.04 | 12.7 | | | 2.01% | |
| | BTLM21 | | 4/15/2031 | | 12 | 4.81 | 12.5 | | | 2.01% | |
| | BTLM31 | 6/5/2019 | 5/15/2031 | ICVM 476 | 12 | 4.98 | 12.7 | | | 2.01% | |
| | BTLM41 | | 6/16/2031 | | 12 | 5.04 | 12.3 | | | 2.01% | |
| | BTLM51 | | 7/15/2031 | | 12 | 5.11 | 12.4 | | | 2.01% | |
| | BTLM61 | | 8/15/2031 | | 12 | 5.20 | 12.4 | | | 2.01% | |
| ViaPaulista S.A | VPLT12 | 6/18/2019 | 6/15/2027 | ICVM 476 | 8 | 4.90 | 400.0 | IPCA + 3,94% | Transport | 0.40% | brAAA (S&P) |
| Eletropaulo SP S.A. | ELPLB4 | 6/28/2019 | 5/15/2026 | ICVM 476 | 7 | 6.17 | 800.0 | IPCA + 4,01% | Energy | 0.02% | AAA (bra) Fitch |
| Babilônia Holding S.A. | BBLN11 | 7/2/2019 | 11/15/2033 | ICVM 476 | 14 | 8.75 | 87.0 | IPCA + 4,24% | Energy | 0.75% | Ba3 (br) Moody's |
| Hidrelétrica Fockink S.A. | HFCK11 | 7/5/2019 | 5/15/2034 | ICVM 476 | 15 | 7.43 | 22.0 | IPCA + 7,95% | Energy | 4.45% | A- (bra) Fitch |
| Aliança Geração Energia S.A. | ALIG12 | 7/8/2019 | 12/15/2029 | ICVM 476 | 11 | 5.75 | 77.0 | IPCA + 3,65% | Energy | 0.43% | AAA (bra) Fitch |
| Ageo Terminais e Armazéns Gerais S.A. | AGEO24 | 7/11/2019 | 7/15/2025 | ICVM 476 | 6 | 4.60 | 30.0 | IPCA + 3,99% | Transport | 0.96% | N/D |
| Neoenergia S.A. | NEOE16 | 7/17/2019 | 6/15/2029 | ICVM 400 | 10 | 7.68 | 802.8 | IPCA + 4,07% | Energy | 0.20% | brAAA (S&P) |
| | NEOE26 | | 6/15/2033 | | 14 | 7.40 | 491.7 | IPCA + 4,22% | | 0.30% | |
| Cemig Distribuição S.A. | CMGD27 | 7/19/2019 | 6/15/2026 | ICVM 476 | 7 | 5.76 | 1,500.0 | IPCA + 4,10% | Energy | 0.25% | brA+ (S&P) |
| VDB F2 Geração Energia S.A. | VDBF12 | 7/19/2019 | 4/15/2033 | ICVM 476 | 14 | 7.70 | 106.0 | IPCA + 3,87% | Energy | 0.65% | AAA (bra) Fitch |
| CIA Saneamento Básico SP- SABESP | SBSPC4 | 7/24/2019 | 7/15/2026 | ICVM 400 | 7 | 6.37 | 100.0 | IPCA + 3,20% | Water and Sewerage | 0.19% | brAAA (S&P) |
| | SBSPD4 | | 7/15/2029 | | 10 | 7.89 | 300.0 | IPCA + 3,37% | | 0.93% | |

Continuation – 2019

| Issuer | Ticker | Distribution Date | Due Date | Offer type | Maturity (years) | Duration ¹ (years) | Value (R\$ million) | Yield ² | Sector | Spread Over NTN-B | Rating (local) |
|--------------------------------------|--------|-------------------|-----------|------------|------------------|-------------------------------|---------------------|--------------------|--------|-------------------|------------------|
| Tropicália Transmissora Energia S.A. | TRPI13 | 7/26/2019 | 8/15/2043 | ICVM 476 | 24 | 12.00 | 407.0 | IPCA + 5,09% | Energy | 1.45% | Aaa (br) Moody's |
| EDP-Transmissão SP-MG S.A. | MGSP12 | 8/6/2019 | 7/15/2039 | ICVM 476 | 20 | 10.50 | 800.0 | IPCA + 4,45% | Energy | 0.85% | AA (bra) Fitch |
| Copel Geração e Transmissão S.A. | CPGT26 | 8/7/2019 | 7/15/2025 | ICVM 476 | 6 | 5.50 | 200.0 | IPCA + 3,90% | Energy | 0.80% | N/D |
| Engie Brasil Energia S.A. | EGIE19 | 8/7/2019 | 7/15/2026 | ICVM 400 | 7 | 5.86 | 576.1 | IPCA + 3,70% | Energy | 0.48% | AAA (bra) Fitch |
| | EGIE29 | | 7/15/2029 | | 10 | 7.72 | 539.7 | IPCA + 3,90% | | 0.58% | |
| | EGIE39 | | 7/15/2026 | | 7 | 5.84 | 378.8 | IPCA + 3,60% | | 0.38% | |
| | EGIE49 | | 7/15/2029 | | 10 | 7.72 | 105.4 | IPCA + 3,70% | | 0.38% | |
| Tibagi Energia SPE S.A. | TBEG11 | 8/30/2019 | 7/15/2035 | ICVM 476 | 16 | 7.72 | 210.0 | IPCA + 5,32% | Energy | 1.85% | AAA (bra) Fitch |
| Total..... | | | | | | | 17,125.7 | | | | |

Source: Anbima, Rating reports and Debentures Agreements
Elaborated by SPE/ME

Note:

(1) In this presentation we consider duration (Macaulay duration) as a measure of the sensitivity of the price (value of principal) of a infrastructure Bond expressed as a number of years. This indicator involving present value, yield, coupon and final maturity.

(2) Consumer Price Index - CPI (IPCA)

Infrastructure Bonds: Infrastructure Investment Projects - 2018

| Issuer | Ticker | Distribution Date | Due Date | Offer type | Maturity (years) | Duration ¹ (years) | Value (R\$ million) | Yield ² | Sector | Spread Over NTN-B | Rating (local) |
|---|--------|-------------------|------------|------------|------------------|-------------------------------|---------------------|--------------------|--------------------|-------------------|------------------|
| Cantareira Transmissora Energia S/A | CTRR11 | 1/9/2018 | 8/15/2032 | ICVM 476 | 15 | 6.19 | 100.00 | IPCA + 6,91% | Energy | 1.65% | AA+ (bra) Fitch |
| Cia de Saneamento de Minas Gerais - Copasa | CSMGA1 | 2/8/2018 | 1/15/2024 | ICVM 400 | 6 | 3.94 | 187.39 | IPCA + 5,06% | Water and Sewerage | 0.30% | AA (bra) Fitch |
| | CSMGA2 | | 1/15/2026 | | 8 | 4.82 | 80.61 | IPCA + 5,27% | | 0.50% | |
| Concessionária de Rodovias Minas Gerais Goiás S/A | RMGG11 | 3/2/2018 | 12/15/2029 | ICVM 476 | 12 | 6.57 | 90.00 | IPCA + 9,00% | Transport | 3.86% | N/D |
| Entrevias Concessionária de Rodovias S.A. | ENTV12 | 3/13/2018 | 12/15/2030 | ICVM 476 | 13 | 7.11 | 1,000.00 | IPCA + 7,75% | Transport | 2.89% | AA (bra) Fitch |
| Concessionária da Linha 4 Metrô de SP S.A. | CNLM25 | 3/29/2018 | 4/15/2028 | ICVM 476 | 10 | 5.42 | 500.00 | IPCA + 7,07% | Transport | 2.53% | AA (bra) Fitch |
| CELSE - Centrais Elétricas de Sergipe S.A. | CESE11 | 4/4/2018 | 4/15/2032 | ICVM 476 | 14 | 5.94 | 3,337.00 | Pré 9,85% | Energy | | AA (bra) Fitch |
| Algar Telecom S/A | ALGA27 | 4/18/2018 | 3/15/2025 | ICVM 476 | 7 | 5.26 | 76.48 | IPCA + 5,34% | Telecoms | 0.85% | brAA- (S&P) |
| CTEEP-CIA Energia Paulista S/A | CTEE17 | 4/23/2018 | 4/15/2025 | ICVM 400 | 7 | 6.05 | 621.00 | IPCA + 4,70% | Energy | 0.06% | AAA (bra) Fitch |
| CEA II Centrais Elétricas Eólicas Assurua II SPE S.A. | CEAD11 | 5/16/2018 | 6/15/2030 | ICVM 476 | 12 | 6.10 | 158.00 | IPCA + 6,66% | Energy | 1.90% | Aa2 (br) Moody's |
| EDP Transmissão S.A. | EDPT11 | 5/30/2018 | 5/15/2033 | ICVM 476 | 15 | 6.80 | 115.00 | IPCA + 7,03% | Energy | 1.70% | Aa2 (br) Moody's |
| Ultrafertil S/A | ULFT12 | 6/4/2018 | 5/15/2025 | ICVM 476 | 7 | 2.19 | 175.00 | IPCA + 5,33% | Transport | 0.30% | AA+ (bra) Fitch |
| AES Tietê S/A | TIET18 | 6/7/2018 | 5/15/2033 | ICVM 476 | 15 | 6.50 | 200.00 | IPCA + 6,02% | Energy | 0.90% | Aa1 (br) Moody's |
| COELCE - Estado do Ceará | CEAR26 | 6/15/2018 | 6/15/2025 | ICVM 476 | 7 | 5.80 | 270.00 | IPCA + 6,20% | Energy | 0.75% | AAA (bra) Fitch |
| Rio Paraná S.A. | RIPR21 | 6/15/2018 | 6/15/2025 | ICVM 476 | 7 | 5.80 | 240.00 | IPCA + 6,15% | Energy | 0.75% | Ba1 (br) Moody's |
| Fospar S.A - Fertilizantes | FOSP11 | 6/25/2018 | 5/15/2026 | ICVM 476 | 8 | 7.00 | 151.23 | IPCA + 6,53% | Transport | 0.50% | N/D |
| Cia Energética Jaguará S.A. | ENJG21 | 6/28/2018 | 6/15/2027 | ICVM 476 | 9 | 5.50 | 634.00 | IPCA + 6,50% | Energy | 0.75% | AAA (bra) Fitch |
| Cia Energética Miranda S.A. | ENMI21 | 6/28/2018 | 6/15/2027 | ICVM 476 | 9 | 5.70 | 386.00 | IPCA + 6,50% | Energy | 0.75% | AAA (bra) Fitch |
| Elektro Redes S/A | ELEK37 | 6/28/2018 | 5/15/2025 | ICVM 476 | 7 | 4.50 | 300.00 | IPCA + 5,95% | Energy | 0.50% | AA- (bra) Fitch |
| Centrais Eólicas Assurá I S.A. | SSRU11 | 6/29/2018 | 11/28/2030 | ICVM 476 | 13 | 6.58 | 35.00 | IPCA + 7,81% | Energy | 1.90% | Ba3 (br) Moody's |
| Cia Energética Sinop S.A. | CSNP12 | 7/3/2018 | 6/15/2032 | ICVM 476 | 14 | 7.30 | 236.00 | IPCA + 7,94% | Energy | 2.10% | AA (bra) Fitch |
| Transmissora Aliança de Energia S/A | TAES15 | 7/17/2018 | 7/15/2025 | ICVM 400 | 7 | 6.50 | 525.77 | IPCA + 5,95% | Energy | 0.30% | AAA (bra) Fitch |
| Verde 08 Energia S.A. | VDEN12 | 7/19/2018 | 7/15/2025 | ICVM 476 | 7 | 5.80 | 140.00 | IPCA + 5,96% | Energy | 0.25% | AAA (bra) Fitch |

Continuation – 2018

| Issuer | Ticker | Distribution Date | Due Date | Offer type | Maturity (years) | Duration ¹ (years) | Value (R\$ million) | Yield ² | Sector | Spread Over NTN-B | Rating (local) |
|---|--------|-------------------|------------|------------|------------------|-------------------------------|---------------------|--------------------|--------|-------------------|-----------------|
| Transmissão José Maria de Melo de Eletricidade S.A. | TJMM11 | 7/23/2018 | 3/15/2036 | ICVM 476 | 18 | 8.20 | 395.00 | IPCA + 8,28% | Energy | 2.50% | N/D |
| CIA Energética do RN - Cosern | CSRN18 | 7/23/2018 | 7/15/2023 | ICVM 476 | 5 | 4.50 | 130.00 | IPCA + 5,98% | Energy | 0.50% | AAA (bra) Fitch |
| Engie Brasil Energia S.A. | EGIE17 | 7/25/2018 | 7/15/2025 | ICVM 400 | 7 | 5.60 | 515.35 | IPCA + 5,66% | Energy | 0.92% | AAA (bra) Fitch |
| | EGIE27 | | 7/15/2028 | | 10 | 8.20 | 231.26 | IPCA + 5,90% | Energy | 0.28% | |
| Central Hidrelétrica Sucuri S.A. | CHSU11 | 7/27/2018 | 11/30/2027 | ICVM 476 | 9 | 4.53 | 2.50 | IPCA + 8,42% | Energy | 0.73% | N/D |
| Central Hidrelétrica Sucuri S.A. | CHSU21 | 7/27/2018 | 12/29/2027 | ICVM 476 | 9 | 4.53 | 2.26 | IPCA + 8,42% | Energy | 0.73% | N/D |
| Central Hidrelétrica Palmeira do Tocantins S.A. | CHPT11 | 7/30/2018 | 11/30/2027 | ICVM 476 | 9 | 4.53 | 2.86 | IPCA + 8,42% | Energy | 0.73% | AA- (bra) Fitch |
| Central Hidrelétrica Palmeira do Tocantins S.A. | CHPT21 | 7/30/2018 | 12/29/2027 | ICVM 476 | 9 | 4.53 | 2.59 | IPCA + 8,42% | Energy | 0.73% | AA- (bra) Fitch |
| Central Hidrelétrica Palmeira do Tocantins S.A. | CHPT31 | 7/30/2018 | 1/28/2028 | ICVM 476 | 10 | 4.53 | 2.58 | IPCA + 8,42% | Energy | 0.73% | AA- (bra) Fitch |
| Central Hidrelétrica Palmeira do Tocantins S.A. | CHPT41 | 7/30/2018 | 3/3/2028 | ICVM 476 | 10 | 4.53 | 2.59 | IPCA + 8,42% | Energy | 0.73% | AA- (bra) Fitch |
| Central Hidrelétrica Palmeira do Tocantins S.A. | CHPT51 | 7/30/2018 | 3/29/2028 | ICVM 476 | 10 | 4.53 | 2.56 | IPCA + 8,42% | Energy | 0.73% | AA- (bra) Fitch |
| Central Hidrelétrica Palmeira do Tocantins S.A. | CHPT61 | 7/30/2018 | 4/28/2028 | ICVM 476 | 10 | 4.53 | 2.84 | IPCA + 8,42% | Energy | 0.73% | AA- (bra) Fitch |
| Central Hidrelétrica Sucuri S.A. | CHSU31 | 7/30/2018 | 1/28/2028 | ICVM 476 | 10 | 4.53 | 2.26 | IPCA + 8,42% | Energy | 0.73% | N/D |
| Central Hidrelétrica Sucuri S.A. | CHSU41 | 7/30/2018 | 3/3/2028 | ICVM 476 | 10 | 4.53 | 2.26 | IPCA + 8,42% | Energy | 0.73% | N/D |
| Central Hidrelétrica Sucuri S.A. | CHSU51 | 7/30/2018 | 3/29/2028 | ICVM 476 | 10 | 4.53 | 2.24 | IPCA + 8,42% | Energy | 0.73% | N/D |
| Central Hidrelétrica Sucuri S.A. | CHSU61 | 7/30/2018 | 4/28/2028 | ICVM 476 | 10 | 4.53 | 2.49 | IPCA + 8,42% | Energy | 0.73% | N/D |
| Santa Vitória do Palmar Energias Renováveis S.A. | SAVI13 | 7/30/2018 | 9/15/2031 | ICVM 476 | 13 | 5.60 | 105.00 | IPCA + 5,95% | Energy | 0.60% | AAA (bra) Fitch |
| Serras Holding S.A. | SRRH11 | 8/3/2018 | 7/31/2032 | ICVM 476 | 14 | 6.80 | 40.00 | IPCA + 7,64% | Energy | 2.02% | AAA (bra) Fitch |
| Argo Transmissão de Energia S.A. | TRGO11 | 8/24/2018 | 12/15/2031 | ICVM 476 | 13 | 7.60 | 454.50 | IPCA + 7,02% | Energy | 1.40% | AA+ (bra) Fitch |
| CIA Energética de Pernambuco - Celpe | CEPE19 | 8/29/2018 | 7/15/2025 | ICVM 476 | 7 | 4.91 | 600.00 | IPCA + 6,04% | Energy | 0.50% | AAA (bra) Fitch |

Continuation – 2018

| Issuer | Ticker | Distribution Date | Due Date | Offer type | Maturity (years) | Duration ¹ (years) | Value (R\$ million) | Yield ² | Sector | Spread Over NTN-B | Rating (local) |
|--|--------|-------------------|------------|------------|------------------|-------------------------------|---------------------|--------------------|--------|-------------------|-----------------|
| EDP SP Distribuição de Energia S.A. | EBEN19 | 8/31/2018 | 8/15/2025 | ICVM 476 | 7 | 5.11 | 260.00 | IPCA + 5,91% | Energy | 0.60% | AAA (bra) Fitch |
| EDP ES Distribuição de Energia S.A. | ESCE17 | 8/31/2018 | 7/15/2025 | ICVM 476 | 7 | 5.11 | 190.00 | IPCA + 5,91% | Energy | 0.60% | AAA (bra) Fitch |
| Cia Eletrc. Est. Da Bahia - Coelba | CEEBA1 | 9/3/2018 | 8/15/2025 | ICVM 476 | 7 | 5.10 | 800.00 | IPCA + 6,22% | Energy | 0.50% | AA- (bra) Fitch |
| CIA Piratininga de Força e Luz | CPFPA0 | 9/5/2018 | 8/15/2025 | ICVM 476 | 7 | 5.50 | 197.00 | IPCA + 5,80% | Energy | 0.20% | AAA (bra) Fitch |
| RGE Sul Distribuidora de Energia S/A | AESL17 | 9/6/2018 | 8/15/2025 | ICVM 476 | 7 | 5.50 | 219.60 | IPCA + 5,80% | Energy | (0.02)% | AAA (bra) Fitch |
| Empresa de Energia São Manoel S/A | ESAM14 | 9/10/2018 | 6/15/2033 | ICVM 476 | 15 | 5.80 | 340.00 | IPCA + 7,31% | Energy | 1.60% | AA (bra) Fitch |
| Copacabana Geração de Energia e Participações S.A. | CGEP12 | 9/13/2018 | 4/15/2033 | ICVM 476 | 15 | 6.32 | 127.78 | IPCA + 8,47% | Energy | 2.60% | AAA (bra) Fitch |
| ETC - Emp. Transmissora Capixaba S.A. | CPXB22 | 9/19/2018 | 9/15/2025 | ICVM 476 | 7 | 5.50 | 85.30 | IPCA + 6,17% | Energy | 0.30% | AAA (bra) Fitch |
| ETAP - Empr. Transmissora Agreste Potiguar S.A. | ETAP22 | 9/19/2018 | 9/15/2025 | ICVM 476 | 7 | 5.50 | 114.70 | IPCA + 6,17% | Energy | 0.30% | AAA (bra) Fitch |
| Guaraciaba Transmissora de Energia TP Sul S.A | TPSU12 | 10/3/2018 | 12/15/2030 | ICVM 476 | 12 | 6.10 | 118.00 | IPCA + 7,39% | Energy | 1.50% | AA (bra) Fitch |
| Sobral I Solar Energia SPE S.A | SISE11 | 10/4/2018 | 12/15/2033 | ICVM 476 | 15 | 5.10 | 135.00 | IPCA + 7,89% | Energy | 1.95% | AAA (bra) Fitch |
| Copel Geração e Transmissão S.A. | CPGT15 | 10/11/2018 | 9/15/2025 | ICVM 476 | 7 | 4.25 | 290.00 | IPCA + 7,65% | Energy | 1.85% | AA- (bra) Fitch |
| Pirapora Solar Holding S.A | PRAS11 | 10/15/2018 | 8/15/2034 | ICVM 476 | 16 | 7.60 | 220.00 | IPCA + 5,77% | Energy | 0.00% | AAA (bra) Fitch |
| TCC - Transmissora Caminho do Café S.A. | TRCC11 | 10/17/2018 | 9/15/2028 | ICVM 476 | 10 | 7.12 | 680.00 | IPCA + 6,53% | Energy | 0.70% | AAA (bra) Fitch |
| TPE - Transmissora Paraíso de Energia S.A. | TPEN11 | 10/17/2018 | 9/15/2028 | ICVM 476 | 10 | 7.12 | 1,070.00 | IPCA + 6,53% | Energy | 0.70% | AAA (bra) Fitch |
| Energisa Sul-Sudeste S.A | EDVP14 | 10/19/2018 | 9/15/2025 | ICVM 476 | 7 | 4.90 | 70.00 | IPCA + 5,08% | Energy | 0.20% | AAA (bra) Fitch |
| Energisa Sergipe S.A. | ENSE16 | 10/19/2018 | 9/15/2025 | ICVM 476 | 7 | 4.90 | 65.00 | IPCA + 5,08% | Energy | 0.20% | AAA (bra) Fitch |
| Energisa Mato Grosso do Sul S.A. | ESULA1 | 10/19/2018 | 9/15/2025 | ICVM 476 | 7 | 4.90 | 155.00 | IPCA + 5,08% | Energy | 0.20% | AAA (bra) Fitch |
| Energisa Mato Grosso S.A. | CEMT19 | 10/19/2018 | 9/15/2025 | ICVM 476 | 7 | 4.90 | 385.00 | IPCA + 5,08% | Energy | 0.20% | AAA (bra) Fitch |
| Energisa Tocantins S.A. | CTNS14 | 10/19/2018 | 9/15/2025 | ICVM 476 | 7 | 4.90 | 240.00 | IPCA + 5,09% | Energy | 0.20% | AAA (bra) Fitch |
| Energisa Minas Gerais S.A. | FLCLA0 | 10/19/2018 | 9/15/2025 | ICVM 476 | 7 | 4.90 | 50.00 | IPCA + 5,09% | Energy | 0.20% | AAA (bra) Fitch |
| Energisa Paraíba S.A. | SAEL15 | 10/19/2018 | 9/15/2025 | ICVM 476 | 7 | 4.90 | 135.00 | IPCA + 5,08% | Energy | 0.20% | AAA (bra) Fitch |

Continuation – 2018

| Issuer | Ticker | Distribution Date | Due Date | Offer type | Maturity (years) | Duration ¹ (years) | Value (R\$ million) | Yield ² | Sector | Spread Over NTN-B | Rating (local) |
|---|--------|-------------------|------------|------------|------------------|-------------------------------|---------------------|--------------------|--------|-------------------|-----------------|
| Sertão I Solar Energia SPE S.A. | SRTI11 | 10/23/2018 | 12/12/2032 | ICVM 476 | 14 | 5.60 | 130.00 | IPCA + 7,09% | Energy | 1.20% | AAA (bra) Fitch |
| LIGHT Serviços de Eletricidade S/A | LIGHA5 | 10/24/2018 | 10/15/2025 | ICVM 476 | 7 | 4.71 | 540.00 | IPCA + 6,83% | Energy | 1.10% | AA+ (bra) Fitch |
| EDP Transmissão Aliança SC S.A. | EDPA11 | 10/25/2018 | 10/15/2028 | ICVM 476 | 10 | 8.27 | 1,200.00 | IPCA + 6,72% | Energy | 0.01% | AA (bra) Fitch |
| Integração Transmissora Energia S.A. | ITGT11 | 11/1/2018 | 10/15/2025 | ICVM 476 | 7 | 5.21 | 100.00 | IPCA + 5,42% | Energy | 0.72% | brAAA (S&P) |
| Parnaíba I Geração Energia S.A. | PNBI11 | 11/26/2018 | 11/15/2025 | ICVM 476 | 7 | 4.10 | 315.00 | IPCA + 7,22% | Energy | 2.50% | AAA (bra) Fitch |
| Subestação Água Azul SPE S.A. | SAAS11 | 12/26/2018 | 12/15/2029 | ICVM 476 | 11 | 5.80 | 35.00 | IPCA + 6,40% | Energy | 1.50% | N/D |
| EDTE - Diamantina Transmissão de Energia S.A. | EDTE12 | 12/26/2018 | 12/15/2028 | ICVM 476 | 10 | 8.44 | 315.00 | IPCA + 5,29% | Energy | 0.50% | AAA (bra) Fitch |
| Energisa Transmissão Energia S.A. | ETEN11 | 12/27/2018 | 12/15/2025 | ICVM 476 | 7 | 6.06 | 75.50 | IPCA + 4,92% | Energy | 0.30% | AAA (bra) Fitch |
| Energisa Transmissão Energia S.A. | ETEN21 | 12/27/2018 | 12/15/2025 | ICVM 476 | 7 | 7.38 | 51.46 | IPCA + 5,14% | Energy | 0.45% | AAA (bra) Fitch |
| Energisa Transmissão Energia S.A. | ETEN31 | 12/27/2018 | 12/15/2025 | ICVM 476 | 7 | 6.11 | 123.04 | IPCA + 4,98% | Energy | 0.35% | AAA (bra) Fitch |
| ETB - Empresa de Transmissão Baiana S.A. | ETBA12 | 12/27/2018 | 2/15/2029 | ICVM 476 | 10 | 8.80 | 715.00 | IPCA + 5,34% | Energy | 0.60% | AAA (bra) Fitch |
| Total..... | | | | | | | 21,607.0 | | | | |

Source: Anbima, Rating reports and Debentures Agreements

Elaborated by SPE/ME

Note:

(1) In this presentation we consider duration (Macaulay duration) as a measure of the sensitivity of the price (value of principal) of a infrastructure Bond expressed as a number of years. This indicator involving present value, yield, coupon and final maturity.

(2) Consumer Prince Index - CPI (IPCA)

Infrastructure Bonds: Infrastructure Investment Projects - 2017

| Issuer | Ticker | Distribution Date | Due Date | Offer type | Maturity (years) | Duration ¹ (years) | Value (R\$ million) | Yield ² | Sector | Spread Over NTN-B | Rating (local) |
|---|--------|-------------------|------------|------------|------------------|-------------------------------|---------------------|--------------------|-----------|-------------------|------------------|
| TSLE-Sul Litorânea Energia S/A | TSLE11 | 1/12/2017 | 12/15/2030 | ICVM 476 | 14 | 7.10 | 150.0 | IPCA + 7,57% | Energy | 1.40% | AA+ (bra) Fitch |
| Baraúnas II Energética S/A | BAUR11 | 1/16/2017 | 1/15/2027 | ICVM 476 | 10 | 4.11 | 8.8 | IPCA + 7,96% | Energy | 2.00% | N/D |
| Banda de Couro Energética S/A | BNDC11 | 1/16/2017 | 12/15/2030 | ICVM 476 | 14 | 4.11 | 14.5 | IPCA + 7,96% | Energy | 2.00% | N/D |
| Rio Grande Energia S/A | RIGE18 | 3/8/2017 | 2/15/2024 | ICVM 476 | 7 | 5.54 | 130.0 | IPCA + 5,35% | Energy | 0.05% | AA (bra) Fitch |
| CIA Piratininga de Força e Luz | CPFP18 | 3/16/2017 | 2/15/2024 | ICVM 476 | 7 | 5.55 | 60.0 | IPCA + 5,29% | Energy | (0.10)% | AA (bra) Fitch |
| Paranaíba Energia S/A | PRTE12 | 3/17/2017 | 3/15/2028 | ICVM 476 | 11 | 5.26 | 120.0 | IPCA + 6,90% | Energy | 1.50% | AA+ (bra) Fitch |
| Extremoz Transmissora Nordeste - ETN S/A | EXTZ11 | 3/22/2017 | 1/15/2029 | ICVM 476 | 12 | 7.58 | 168.0 | IPCA + 7,03% | Energy | 1.80% | AA+ (bra) Fitch |
| CTEEP-CIA Energia Paulista S/A | CTEE15 | 3/30/2017 | 2/15/2024 | ICVM 400 | 7 | 5.90 | 300.0 | IPCA + 5,04% | Energy | (0.24)% | AAA (bra) Fitch |
| Algar Telecom S/A | ALGA26 | 4/19/2017 | 3/15/2024 | ICVM 400 | 7 | 5.68 | 282.0 | IPCA + 6,87% | Telecoms | 1.50% | AA- (bra) Fitch |
| Ventos de São Clemente Holding S/A | VSCL11 | 4/24/2017 | 10/15/2030 | ICVM 476 | 14 | 6.40 | 180.0 | IPCA + 8,00% | Energy | 2.56% | AA (bra) Fitch |
| Delta 2 Energia S/A | PTMI11 | 5/11/2017 | 12/15/2026 | ICVM 476 | 10 | 4.33 | 42.4 | IPCA + 7,38% | Energy | 2.00% | AA (bra) Fitch |
| CIA Energética de Pernambuco - Celpe | CEPE27 | 5/15/2017 | 1/15/2022 | ICVM 476 | 5 | 4.31 | 90.0 | IPCA + 6,18% | Energy | 0.80% | AA- (bra) Fitch |
| Ventos de São Jorge Holding S/A | VSJH11 | 5/18/2017 | 7/15/2028 | ICVM 476 | 11 | 6.84 | 45.0 | IPCA + 9,00% | Energy | 2.70% | AA (bra) Fitch |
| Itarema Geração Energia S/A | ITGE13 | 6/16/2017 | 12/15/2028 | ICVM 476 | 12 | 5.98 | 111.8 | IPCA + 7,81% | Energy | 2.10% | AA (bra) Fitch |
| Ventos de São Vicente Energias Renováveis S/A | VTSS11 | 7/7/2017 | 6/15/2024 | ICVM 476 | 7 | 5.55 | 100.0 | IPCA + 5,47% | Energy | (0.20)% | AAA (bra) Fitch |
| CPFL Energias Renováveis S/A | ERSA17 | 7/17/2017 | 7/15/2022 | ICVM 476 | 5 | 4.40 | 250.0 | IPCA + 5,62% | Energy | 0.00% | AA (bra) Fitch |
| Energisa S/A | ENGI18 | 7/19/2017 | 6/15/2022 | ICVM 400 | 5 | 4.44 | 197.6 | IPCA + 5,60% | Energy | 0.00% | AA+ (bra) Fitch |
| | ENGI28 | 7/19/2017 | 6/15/2024 | 0 | 7 | 5.86 | 177.4 | IPCA + 5,66% | | 0.10% | |
| Concessionária do Sistema Anhanguera-Bandeirantes S/A | ANHB18 | 7/28/2017 | 6/15/2024 | ICVM 476 | 5 | 4.41 | 716.5 | IPCA + 5,47% | Transport | 0.20% | Aa1 (br) Moody's |
| Copel Telecomunicações S/A | CTEL12 | 8/8/2017 | 7/15/2022 | ICVM 476 | 5 | 4.41 | 220.0 | IPCA + 5,43% | Telecoms | 0.70% | AA+ (bra) Fitch |
| Petróleo Brasileiro S/A - Petrobras | PETR15 | 8/25/2017 | 8/15/2022 | ICVM 476 | 5 | 4.55 | 301.0 | IPCA + 4,72% | Energy | 0.05% | AA+ (bra) Fitch |
| | PETR25 | 8/25/2017 | 8/15/2024 | ICVM 476 | 7 | 6.02 | 1,089.9 | IPCA + 5,21% | | 0.30% | |
| Complexo Morrinhos Energias Renováveis S/A | CXER12 | 8/31/2017 | 12/15/2027 | ICVM 476 | 11 | 6.19 | 102.50 | IPCA + 7,06% | Energy | 1.85% | AA+ (bra) Fitch |

Continuation – 2017

| Issuer | Ticker | Distribution Date | Due Date | Offer type | Maturity (years) | Duration ¹ (years) | Value (R\$ million) | Yield ² | Sector | Spread Over NTN-B | Rating (local) |
|--|--------|-------------------|------------|------------|------------------|-------------------------------|---------------------|--------------------|--------------------|-------------------|-----------------|
| Nascentes do Xingu S/A | NASX13 | 8/31/2017 | 8/15/2024 | ICVM 476 | 7 | 5.46 | 155.00 | IPCA + 6,17% | Water and Sewerage | 1.25% | AA (bra) Fitch |
| Salus Infraestrutura Portuária S/A | SAIP12 | 9/13/2017 | 10/15/2024 | ICVM 400 | 7 | 4.30 | 31.17 | IPCA + 5,75% | Transport | 1.00% | AA+ (bra) Fitch |
| Lagoa 1 Energia Renovável S/A | LGEN11 | 9/29/2017 | 3/15/2029 | ICVM 476 | 12 | 7.25 | 46.21 | IPCA + 7,33% | Energy | 0.03 | AAA (bra) Fitch |
| Transmissora Aliança de Energia S/A | TAES14 | 10/9/2017 | 9/15/2024 | ICVM 400 | 7 | 5.20 | 255.00 | IPCA + 4,41% | Energy | (0.20)% | AAA (bra) Fitch |
| Rodonorte - Conces. de Rodovias Integradas S/A | RDNT26 | 10/19/2017 | 11/15/2021 | ICVM 476 | 4 | 4.00 | 170.00 | IPCA + 4,50% | Transport | 0.10% | brAA- (S&P) |
| Cia. Paulista de Força e Luz | PALF18 | 10/24/2017 | 9/15/2022 | ICVM 400 | 5 | 4.57 | 213.80 | IPCA + 4,42% | Energy | 0.00% | AAA (bra) Fitch |
| | PALF28 | | | | 7 | 5.89 | 355.72 | IPCA + 4,66% | | 0.00% | |
| | PALF38 | | | | 10 | 7.43 | 130.48 | IPCA + 5,05% | | 0.26% | |
| CIA Energética do RN - Cosern | CSRN17 | 10/24/2017 | 10/15/2022 | ICVM 400 | 5 | 4.45 | 271.44 | IPCA + 4,64% | Energy | 0.25% | brAA- (S&P) |
| | CSRN27 | | | | 7 | 5.95 | 98.56 | IPCA + 4,91% | | 0.35% | |
| Energisa S/A | ENGI19 | 10/30/2017 | 10/15/2022 | ICVM 400 | 5 | 4.57 | 61.81 | IPCA + 4,49% | Energy | 0.10% | AA+ (bra) Fitch |
| | ENGI29 | | | | 7 | 6.10 | 11.52 | IPCA + 4,71% | | 0.20% | |
| | ENGI39 | | | | 10 | 8.05 | 21.44 | IPCA + 5,11% | | 0.35% | |
| Arteris S/A | ARTR35 | 10/31/2017 | 10/15/2024 | ICVM 400 | 7 | 5.67 | 161.54 | IPCA + 5,09% | Transport | 0.50% | AA- (bra) Fitch |
| CIA de Gás de São Paulo - Comgás | GASP16 | 10/31/2017 | 10/15/2024 | ICVM 476 | 7 | 6.16 | 400.00 | IPCA + 4,33% | Energy | 0.20% | AAA (bra) Fitch |
| LIGHT Serviços de Eletricidade S/A | LIGHA3 | 11/1/2017 | 10/15/2022 | ICVM 400 | 5 | 4.34 | 458.67 | IPCA + 7,44% | Energy | 2.90% | A- (bra) Fitch |
| Ventos de Santo Estevão Holding S/A | VSEH11 | 11/7/2017 | 7/15/2032 | ICVM 476 | 15 | 7.57 | 160.00 | IPCA + 6,98% | Energy | 2.00% | AA+ (bra) Fitch |
| Omega Energia e Implantação 2 S/A | OMNG12 | 11/24/2017 | 12/15/2029 | ICVM 476 | 12 | 5.83 | 220.00 | IPCA + 7,11% | Energy | 2.00% | AA+ (bra) Fitch |
| Eólica Serra das Vacas Holding II S/A | EVOL11 | 12/11/2017 | 6/15/2031 | ICVM 476 | 14 | 6.77 | 48.00 | IPCA + 7,31% | Energy | 2.20% | AA (bra) Fitch |
| Equatorial Energia S/A | EQTL22 | 12/11/2017 | 11/15/2024 | ICVM 476 | 7 | 6.50 | 104.50 | IPCA + 5,77% | Energy | 0.75% | A+ (bra) Fitch |
| Belo Monte Transmissora Energia SPE S/A | BLMN12 | 12/11/2017 | 12/15/2031 | ICVM 476 | 14 | 6.84 | 580.00 | IPCA + 7,14% | Energy | 2.10% | AA+ (bra) Fitch |
| Esperanza Transmissora de Energia S/A | SPRZ11 | 12/12/2017 | 9/15/2030 | ICVM 476 | 13 | 6.13 | 87.00 | IPCA + 6,80% | Energy | 1.75% | AA+ (bra) Fitch |

Continuation – 2017

| Issuer | Ticker | Distribution Date | Due Date | Offer type | Maturity (years) | Duration ¹ (years) | Value (R\$ million) | Yield ² | Sector | Spread Over NTN-B | Rating (local) |
|-----------------------------------|--------|-------------------|------------|------------|------------------|-------------------------------|---------------------|--------------------|--------|-------------------|-----------------|
| Odoya Transmissora de Energia S/A | ODYA11 | 12/12/2017 | 9/15/2031 | ICVM 476 | 14 | 6.40 | 74.0 | IPCA + 6,80% | Energy | 1.75% | AA+ (bra) Fitch |
| Cia Energética do Ceará-Coelce | CEAR25 | 12/26/2017 | 12/15/2024 | ICVM 476 | 7 | 5.13 | 150.0 | IPCA + 6,00% | Energy | 0.80% | AAA (bra) Fitch |
| Enel Green Power Maniçoba Eólica | EGME11 | 12/28/2017 | 12/15/2028 | ICVM 476 | 11 | 5.22 | 10.8 | IPCA + 7,62% | Energy | 2.60% | AA- (bra) Fitch |
| Enel Green Power Damascena Eólica | ENDE11 | 12/28/2017 | 6/15/2029 | ICVM 476 | 12 | 5.28 | 11.3 | IPCA + 7,62% | Energy | 2.60% | AA (bra) Fitch |
| Total..... | | | | | | | 9,145.2 | | | | |

Source: Anbima, Rating reports and Debentures Agreements
Elaborated by SPE/ME

Note:

(1) In this presentation we consider duration (Macaulay duration) as a measure of the sensitivity of the price (value of principal) of a infrastructure Bond expressed as a number of years. This indicator involving present value, yield, coupon and final maturity.

(2) Consumer Price Index - CPI (IPCA)

Infrastructure Bonds: Infrastructure Investment Projects - 2016

| Issuer | Ticker | Distribution Date | Due Date | Offer type | Maturity (years) | Duration ¹ (years) | Value (R\$ million) | Yield ² | Sector | Spread Over NTN-B | Rating (local) |
|--|--------|-------------------|------------|------------|------------------|-------------------------------|---------------------|--------------------|-----------|-------------------|------------------|
| Voltalia S. M. do Gostoso Participações S/A | VTLA11 | 3/23/2016 | 12/15/2028 | ICVM 476 | 13 | 5.50 | 57.00 | IPCA + 8,19% | Energy | 2.00% | A+ (bra) Fitch |
| EDP Energias do Brasil S/A | ENBR15 | 4/7/2016 | 4/15/2022 | ICVM 476 | 6 | 4.50 | 250.00 | IPCA + 8,34% | Energy | 1.70% | A (bra) Fitch |
| Algar Telecom S/A | ALGA15 | 6/9/2016 | 5/15/2022 | ICVM 476 | 6 | 4.55 | 210.00 | IPCA + 7,73% | Telecoms | 1.40% | AA- (bra) Fitch |
| CTEEP-CIA Energia Paulista S/A | CTEE14 | 7/15/2016 | 7/15/2021 | ICVM 476 | 5 | 4.40 | 148.27 | IPCA + 6,04% | Energy | (0.10)% | AA+ (bra) Fitch |
| Engie Brasil Energia S/A | TBLE16 | 7/27/2016 | 7/15/2023 | ICVM 476 | 7 | 5.00 | 246.60 | IPCA + 6,26% | Energy | 0.08% | AAA (bra) Fitch |
| | TBLE26 | 7/27/2016 | 7/15/2026 | | 10 | 5.00 | 353.40 | IPCA + 6,25% | | 0.08% | |
| VLI Operações Portuárias S/A | VLIO11 | 8/25/2016 | 8/15/2021 | ICVM 476 | 5 | 4.40 | 175.00 | IPCA + 6,05% | Transport | 0.00% | AA+ (bra) Fitch |
| Matrincha Transmissora de Energia (TP Norte) S/A. | TPNO12 | 9/9/2016 | 6/15/2029 | ICVM 476 | 13 | 7.60 | 180.00 | IPCA + 7,58% | Energy | 1.50% | AA+ (bra) Fitch |
| Coelba - Estado da Bahia | CEEB29 | 10/18/2016 | 10/15/2021 | ICVM 476 | 5 | 4.20 | 100.00 | IPCA + 6,75% | Energy | 0.40% | AA- (bra) Fitch |
| CPFL - Geração de Energia S/A | CPGE19 | 10/20/2016 | 10/17/2021 | ICVM 476 | 5 | 4.48 | 50.00 | IPCA + 5,48% | Energy | (0.40)% | AAA (bra) Fitch |
| Companhia Energética do Maranhão - Cemar | CEMA17 | 11/1/2016 | 10/15/2021 | ICVM 400 | 5 | 4.48 | 155.00 | IPCA + 5,48% | Energy | (0.35)% | AA+ (bra) Fitch |
| | CEMA27 | 11/1/2016 | 10/15/2023 | | 7 | 5.96 | 115.00 | IPCA + 5,54% | | (0.25)% | |
| TCP-Terminal de Contêineres de Paranaguá S/A | TCPA31 | 11/7/2016 | 10/15/2022 | ICVM 400 | 6 | 4.60 | 428.05 | IPCA + 7,82% | Transport | 0.02 | AA- (bra) Fitch |
| Autopista Fernão Dias S/A | APFD14 | 11/14/2016 | 9/15/2026 | ICVM 476 | 10 | 7.16 | 65.00 | IPCA + 7,53% | Transport | 1.70% | brAA- (S&P) |
| Rodonorte - Conces. de Rodovias Integradas S/A | RDNT15 | 11/16/2016 | 11/15/2021 | ICVM 476 | 5 | 4.37 | 100.00 | IPCA + 6,06% | Transport | 0.00% | brAA- (S&P) |
| Conces. de Rodovias do Oeste de São Paulo - Viaoeste | VOES16 | 12/5/2016 | 11/15/2021 | ICVM 476 | 5 | 4.33 | 270.00 | IPCA + 6,3% | Transport | 0.10% | Aa1 (br) Moody's |
| Eólica Serra das Vacas Holding S/A | EOVC11 | 12/13/2016 | 6/15/2028 | ICVM 476 | 12 | 5.32 | 23.00 | IPCA + 8,37% | Energy | 2.30% | AA- (bra) Fitch |
| | EOVC21 | 12/13/2016 | 6/15/2030 | | 14 | 7.74 | 45.00 | IPCA + 8,58% | | 2.50% | |
| AES Tietê S/A | TIET15 | 12/14/2016 | 12/15/2023 | ICVM 476 | 7 | 5.80 | 180.00 | IPCA + 6,54% | Energy | 0.25% | AA+ (bra) Fitch |
| Windepar Holding S/A | WDPR11 | 12/15/2016 | 12/15/2028 | ICVM 476 | 12 | 6.90 | 67.50 | IPCA + 7,63% | Energy | 1.40% | AA+ (bra) Fitch |
| Celpa - Estado do Para | CLPP13 | 12/26/2016 | 12/15/2023 | ICVM 400 | 5 | 4.38 | 199.07 | IPCA + 6,70% | Energy | 0.40% | A+ (bra) Fitch |
| | CLPP23 | | | | 7 | 5.76 | 100.93 | IPCA + 6,87% | | 0.65% | |
| Calango 6 Energia Renovável S/A | CLNG11 | 12/27/2016 | 6/27/2028 | ICVM 476 | 12 | 6.48 | 43.50 | IPCA + 8,73% | Energy | 2.50% | AA+ (bra) Fitch |

Continuation – 2016

| Issuer | Ticker | Distribution Date | Due Date | Offer type | Maturity (years) | Duration ¹ (years) | Value (R\$ million) | Yield ² | Sector | Spread Over NTN-B | Rating (local) |
|-----------------------------|--------|-------------------|------------|------------|------------------|-------------------------------|---------------------|--------------------|--------|-------------------|-----------------|
| Comgás | GASP15 | 12/28/2016 | 12/15/2023 | ICVM 400 | 7 | 5.90 | 675.00 | IPCA + 5,87% | Energy | (0.50)% | AAA (bra) Fitch |
| Marechal Rondon Energia S/A | MRHL12 | 12/29/2016 | 6/30/2026 | ICVM 476 | 10 | 6.40 | 15.0 | IPCA + 8,00% | Energy | 1.71% | N/D |
| Total..... | | | | | | | 4,252.3 | | | | |

Source: Anbima, Rating reports and Debentures Agreements
 Elaborated by SPE/ME

Note:

(1) In this presentation we consider duration (Macaulay duration) as a measure of the sensitivity of the price (value of principal) of a infrastructure Bond expressed as a number of years. This indicator involving present value, yield, coupon and final maturity.

(2) Consumer Price Index - CPI (IPCA)

Infrastructure Bonds: Infrastructure Investment Projects - 2015

| Issuer | Ticker | Distribution Date | Due Date | Offer type | Maturity (years) | Duration ¹ (years) | Value (R\$ million) | Yield ² | Sector | Spread Over NTN-B | Rating (local) |
|--|--------|-------------------|------------|------------|------------------|-------------------------------|---------------------|--------------------|--------------------|-------------------|---------------------|
| Empresa de Energia Cachoeira Caldeirão S/A | CADR13 | 1/26/2015 | 6/15/2030 | ICVM 476 | 16 | 9.20 | 156.5 | IPCA + 7,27% | Energy | 1.40% | AA (bra) Fitch |
| MRS Logística S/A | MRSL27 | 2/15/2015 | 2/15/2025 | ICVM 400 | 10 | 7.07 | 214.4 | IPCA + 6,42% | Transport | 0.35% | AA+ (bra) Fitch |
| | MRSL17 | 2/26/2015 | 2/15/2022 | | 7 | 5.54 | 336.3 | IPCA + 5,98% | | 0.00% | |
| Salus Infraestrutura Portuária S/A | SAIP11 | 3/15/2015 | 10/15/2024 | ICVM 400 | 10 | 5.48 | 320.9 | IPCA + 6,79% | Transport | 0.50% | AA+sf1 (br) Moody's |
| Autopista Planalto Sul S/A | APPS12 | 4/7/2015 | 12/15/2025 | ICVM 476 | 11 | 7.50 | 100.0 | IPCA + 8,17% | Transport | 1.70% | AAA (bra) Fitch |
| Rodovias Integradas do Oeste S/A | RVIO14 | 4/24/2015 | 4/15/2020 | ICVM 476 | 5 | 4.54 | 190.0 | IPCA + 6,38% | Transport | 0.15% | Aa1 (br) Moody's |
| Alupar Investimentos S/A | APAR16 | 5/14/2015 | 4/15/2021 | ICVM 476 | 6 | 4.60 | 250.0 | IPCA + 7,33% | Energy | 0.90% | AA+ (bra) Fitch |
| VLI Multimodal S/A | VLIM11 | 7/16/2015 | 6/15/2020 | ICVM 476 | 5 | 4.38 | 232.4 | IPCA + 6,88% | Transport | 0.30% | AA (bra) Fitch |
| Concessionária Rodovia dos Lagos S/A | RDLA12 | 7/24/2015 | 7/15/2020 | ICVM 476 | 5 | 4.29 | 150.0 | IPCA + 7,34% | Transport | 0.14% | Aa2 (br) Moody's |
| Geradora Eólica Bons Ventos da Serra I S/A | GLIC11 | 7/30/2015 | 12/15/2026 | ICVM 476 | 12 | 7.35 | 10.3 | IPCA + 9,43% | Energy | 3.00% | brBBB (S&P) |
| CIA de Saneamento do Tocantins - Saneatins | SNTI13 | 8/12/2015 | 7/31/2022 | ICVM 476 | 7 | 4.40 | 50.0 | IPCA + 10,33% | Water and Sewerage | 3.00% | A (bra) Fitch |
| | SNTI23 | | 7 | | 4.40 | 140.0 | 3.00% | | | | |
| Ventos de São Tome Holding S/A | TOME12 | 8/20/2015 | 12/15/2027 | ICVM 476 | 12 | 6.30 | 89.0 | IPCA + 8,86% | Energy | 1.70% | AA (bra) Fitch |
| Vale S/A | VALE19 | 9/11/2015 | 8/15/2020 | ICVM 400 | 5 | 4.37 | 800.0 | IPCA + 6,62% | Transport | 0.50% | AAA (bra) Fitch |
| | VALE29 | | 7 | | 5.74 | 550.0 | IPCA + 6,63% | 0.50% | | | |
| Chapada do Piauí I Holding S/A | CHPA11 | 9/17/2015 | 3/15/2029 | ICVM 476 | 14 | 7.90 | 100.0 | IPCA + 9,22% | Energy | 1.75% | brAA (S&P) |
| NC Energia S/A | NCEN11 | 10/1/2015 | 12/15/2025 | ICVM 476 | 10 | 5.70 | 31.6 | IPCA + 7,89% | Energy | 0.60% | Aa1 (br) Moody's |
| EDP Energias do Brasil S/A | ENBR24 | 10/13/2015 | 9/15/2021 | ICVM 400 | 6 | 4.10 | 179.9 | IPCA + 8,32% | Energy | 1.00% | Aa3 (br) Moody's |
| | ENBR34 | 10/14/2015 | 9/15/2024 | | 9 | 5.90 | 48.1 | IPCA + 8,26% | | 1.00% | |
| Ultrafertil S/A | ULFT11 | 10/28/2015 | 6/15/2027 | ICVM 476 | 12 | 6.40 | 115.0 | IPCA + 9,06% | Transport | 1.50% | AA- (bra) Fitch |
| Copel Telecomunicações S/A | CTEL11 | 11/10/2015 | 10/15/2024 | ICVM 476 | 9 | 6.00 | 160.0 | IPCA + 7,96% | Telecoms | 0.60% | AA+ (bra) Fitch |
| Ventos de São Tito Holding S/A | VNTT11 | 12/14/2015 | 6/15/2028 | ICVM 476 | 13 | 5.71 | 111.0 | IPCA + 9,24% | Energy | 1.70% | AA (bra) Fitch |
| AES Tietê S/A | TIET34 | 12/15/2015 | 12/15/2020 | ICVM 400 | 5 | 4.20 | 301.8 | IPCA + 8,43% | Energy | 1.50% | ba1 (br) Moody's |

Continuation – 2015

| Issuer | Ticker | Distribution Date | Due Date | Offer type | Maturity (years) | Duration ¹ (years) | Value (R\$ million) | Yield ² | Sector | Spread Over NTN-B | Rating (local) |
|----------------------------------|--------|-------------------|------------|------------|------------------|-------------------------------|---------------------|--------------------|--------|-------------------|-----------------|
| CIA de Gás de São Paulo - Comgás | GASP14 | | | | 5 | 4.36 | 269.6 | IPCA + 7,14% | | (0.30)% | |
| | GASP24 | 12/23/2015 | 12/15/2020 | ICVM 400 | 7 | 5.35 | 242.4 | IPCA + 7,48% | Energy | 0.00% | AA+ (bra) Fitch |
| | GASP34 | | | | 10 | 6.77 | 79.9 | IPCA + 7,36% | | 0.00% | |
| Centrais Eólicas Caetité S/A | CAET12 | 12/30/2015 | 12/15/2028 | ICVM 476 | 13 | 6.20 | 33.5 | IPCA + 9,31% | Energy | 1.80% | AA- (bra) Fitch |
| Total..... | | | | | | | 5,262.5 | | | | |

Source: Anbima, Rating reports and Debentures Agreements
 Elaborated by SPE/ME

Note:

(1) In this presentation we consider duration (Macauley duration) as a measure of the sensitivity of the price (value of principal) of a infrastructure Bond expressed as a number of years. This indicator involving present value, yield, coupon and final maturity.

(2) Consumer Price Index - CPI (IPCA)

Infrastructure Bonds: Infrastructure Investment Projects - 2014

| Issuer | Ticker | Distribution Date | Due Date | Offer type | Maturity (years) | Duration ¹ (years) | Value (R\$ million) | Yield ² | Sector | Spread Over NTN-B | Rating (local) |
|--|--------|-------------------|------------|------------|------------------|-------------------------------|---------------------|--------------------|-----------|-------------------|------------------|
| Aeropertos Brasil - Viracopos S.A. (Vencimento Antecipado) | VRCP11 | 2/5/2014 | 9/15/2025 | ICVM 476 | 12 | 7.4 | 75.0 | IPCA + 8,79% | Transport | 2.27% | AA- (bra) Fitch |
| | VRCP21 | | | | | | 75.0 | | | | |
| | VRCP31 | | | | | | 75.0 | | | | |
| | VRCP41 | | | | | | 75.0 | | | | |
| Vale S/A | VALE18 | 2/10/2014 | 1/15/2021 | ICVM 400 | 7 | 5.5 | 600.0 | IPCA + 6,46% | Transport | (0.15)% | brAAA (S&P) |
| | VALE28 | | | | 10 | 7.1 | 150.0 | IPCA + 6,57% | | (0.10)% | |
| | VALE38 | | | | 12 | 8.1 | 100.0 | IPCA + 6,71% | | 0.00% | |
| | VALE48 | | | | 15 | 8.8 | 150.0 | IPCA + 6,78% | | 0.00% | |
| Concessionária do Aeroporto Internacional de Guarulhos S/A | AGRU11 | 3/21/2014 | 3/15/2025 | ICVM 476 | 11 | 6.0 | 75.0 | IPCA + 7,86% | Transport | 1.40% | AA (bra) Fitch |
| | AGRU21 | | | | | | 75.0 | | | | |
| | AGRU31 | | | | | | 75.0 | | | | |
| | AGRU41 | | | | | | 75.0 | | | | |
| Santo Antônio Energia S/A. | STEN13 | 5/2/2014 | 4/15/2022 | ICVM 400 | 8 | 5.8 | 200.0 | IPCA + 7,05% | Energy | 0.85% | AA+ (bra) Fitch |
| | STEN23 | | | | 10 | 6.7 | 500.0 | IPCA + 7,49% | | 1.18% | |
| CPFL - Geração de Energia S/A - (vencida) | CPGE18 | 5/28/2014 | 4/28/2019 | ICVM 476 | 5 | 4.5 | 70.0 | IPCA + 5,86% | Energy | (0.09)% | AA+ (bra) Fitch |
| Ferreira Gomes Energia S/A | FGEN13 | 8/1/2014 | 12/15/2027 | ICVM 400 | 14 | 7.9 | 210.9 | IPCA + 6,47% | Energy | 0.48% | AA+ (bra) Fitch |
| Rodonorte - Conces. de Rod. Integradas S/A | RDNT14 | 10/15/2014 | 10/15/2019 | ICVM 476 | 5 | 4.4 | 130.0 | IPCA + 5,69% | Transport | 0.10% | Aaa (br) Moody's |
| Transmissora Sul Brasileira de Energia S/A | TSBE12 | 10/22/2014 | 9/15/2028 | ICVM 476 | 14 | 8.2 | 77.6 | IPCA + 6,80% | Energy | 1.00% | AA+ (bra) Fitch |
| Concessionária de Rodovias do Oeste de São Paulo - Viaeste | VOES25 | 10/27/2014 | 9/15/2019 | ICVM 476 | 5 | 4.4 | 150.0 | IPCA + 5,67% | Transport | 0.00% | brAAA (S&P) |
| Conces. do Sistema Anhanguera-Bandeirantes S/A | ANHB16 | 10/27/2014 | 10/15/2019 | ICVM 400 | 5 | 4.4 | 545.0 | IPCA + 5,43% | Transport | (0.15)% | AAA (bra) Fitch |
| Conces. do Aeroporto Internacional de Guarulhos S/A. | AGRU12 | 10/27/2014 | 10/15/2026 | ICVM 400 | 12 | 6.9 | 300.0 | IPCA + 6,40% | Transport | 0.90% | AA (bra) Fitch |
| Santa Vitória do Palmar Holding S/A. | SVIT11 | 10/31/2014 | 6/15/2028 | ICVM 476 | 14 | 8.0 | 90.0 | IPCA + 7,94% | Energy | 1.92% | AA (bra) Fitch |
| Conces. de Rodovias do Interior Paulista S/A | IVIA24 | 11/4/2014 | 10/15/2019 | ICVM 476 | 5 | 4.5 | 225.0 | IPCA + 5,96% | Transport | 0.12% | Aa (br) Moody's |

Continuation – 2014

| Issuer | Ticker | Distribution Date | Due Date | Offer type | Maturity (years) | Duration ¹ (years) | Value (R\$ million) | Yield ² | Sector | Spread Over NTN-B | Rating (local) |
|---|------------------|-------------------|------------|------------|------------------|-------------------------------|---------------------|------------------------------|-----------|-------------------|-----------------|
| Linhas de Taubaté Transmissora de Energia S/A | LTTE14 | 12/15/2014 | 3/15/2030 | ICVM 476 | 15 | 7.90 | 44.5 | IPCA + 7,88% | Energy | 1.50% | AA+ (bra) Fitch |
| Supervia-Concessionaria de Transporte Ferroviário S/A | SPVI12 | 12/23/2014 | 12/15/2026 | ICVM 476 | 12 | 6.04 | 300.0 | IPCA + 7,50% | Transport | 1.85% | AA- (bra) Fitch |
| Engie Brasil Energia S/A | TBLE15 | 12/23/2014 | 12/15/2024 | ICVM 476 | 10 | 7.09 | 165.0 | IPCA + 6,30% | Energy | 0.00% | AAA (bra) Fitch |
| Renova Eólica Participações S/A | RNEP11 RNEP21 | 12/29/2014 | 12/15/2025 | ICVM 476 | 11 11 | 5.40 5.50 | 73.0 73.0 | IPCA + 7,61% IPCA + 7,87% | Energy | 1.40% 1.65% | AA- (bra) Fitch |
| Total..... | | | | | | | 4,754.0 | | | | |

Source: Anbima, Rating reports and Debentures Agreements
Elaborated by SPE/ME

Note:

(1) In this presentation we consider duration (Macauley duration) as a measure of the sensitivity of the price (value of principal) of a infrastructure Bond expressed as a number of years. This indicator involving present value, yield, coupon and final maturity.

(2) Consumer Price Index - CPI (IPCA)

Infrastructure Bonds: Infrastructure Investment Projects - 2013

| Issuer | Ticker | Distribution Date | Due Date | Offer type | Maturity (years) | Duration ¹ (years) | Value (R\$ million) | Yield ² | Sector | Spread Over NTN-B | Rating (local) |
|---|--------|-------------------|------------|------------|------------------|-------------------------------|---------------------|--------------------|-----------|-------------------|----------------------|
| Santo Antonio Energia S/A. | SAES12 | 1/24/2013 | 12/27/2022 | ICVM 476 | 10 | 6.2 | 420.0 | IPCA + 6,20% | Energy | 3.11% | N/D |
| Interligação Elétrica do Madeira S/A. | IEMD12 | 3/18/2013 | 3/18/2025 | ICVM 476 | 12 | 7.0 | 350.0 | IPCA + 5,50% | Energy | 1.69% | AA+ (bra) Fitch |
| Concessionária Ecovias dos Imigrantes S/A. | ECOV12 | 5/7/2013 | 4/15/2020 | ICVM 400 | 7 | 5.9 | 200.0 | IPCA + 3,80% | Transport | 0.00% | AAA (bra) Fitch |
| | ECOV22 | 5/7/2013 | 4/15/2024 | | 11 | 5.7 | 681.0 | IPCA + 4,28% | | 0.20% | |
| Concessionária Rodovias do Tietê S/A. | RDVT11 | 7/5/2013 | 6/15/2028 | ICVM 400 | 15 | 7.4 | 1,065.0 | IPCA + 8,00% | Transport | 2.16% | Aa2 (br)- Moody's |
| CIA de Gás de São Paulo - Comgás - (Vencida) | GASP23 | 10/9/2013 | 9/15/2018 | ICVM 400 | 5 | 3.7 | 269.3 | IPCA + 5,10% | Energy | 0.00% | AA+ (bra) Fitch |
| | GASP33 | 10/10/2013 | 9/15/2020 | | 7 | 5.6 | 142.5 | IPCA + 5,57% | | 0.31% | |
| Concessionária do Sistema Anhanguera - Bandeirantes S/A | ANHB15 | 10/17/2013 | 10/15/2018 | ICVM 400 | 5 | 4.5 | 450.0 | IPCA + 4,88% | Transport | (0.38)% | AA+ (bra) Fitch |
| Norte Brasil Transmissora de Energia S/A | NRTB11 | 10/21/2013 | 9/15/2026 | ICVM 476 | 13 | 7.4 | 100.0 | IPCA + 7,15% | Energy | 1.55% | AAA (bra) Fitch |
| | NRTB21 | | | | 13 | 7.4 | 100.0 | | | 1.55% | |
| Odebrecht Transport S/A | ODTR11 | 11/14/2013 | 10/15/2025 | ICVM 476 | 12 | 8.6 | 300.0 | IPCA + 6,70% | Transport | 1.55% | A+ (bra) Fitch |
| Jauru Transmissora de Energia S/A. | JAUR12 | 11/25/2013 | 12/15/2030 | ICVM 476 | 18 | 10.4 | 39.0 | IPCA + 8,00% | Energy | 2.29% | AA- (bra) Fitch |
| Termelétrica Pernambuco III S/A-(Vencimento Antecipado) | TEPE11 | 12/20/2013 | 11/15/2025 | ICVM 400 | 12 | 5.0 | 75.0 | IPCA + 9,11% | Energy | 2.75% | AA+ (bra) Fitch |
| | TEPE21 | | | | | | 75.0 | | | | |
| | TEPE31 | | | | | | 75.0 | | | | |
| | TEPE41 | | | | | | 75.0 | | | | |
| Total..... | | | | | | | 4,416.8 | | | | |

Infrastructure Bonds: Infrastructure Investment Projects - 2012

| Issuer | Ticker | Distribution Date | Due Date | Offer type | Maturity (years) | Duration ¹ (years) | Value (R\$ million) | Yield ² | Sector | Spread Over NTN-B | Rating (local) |
|--|--------|-------------------|------------|------------|------------------|-------------------------------|---------------------|--------------------|-----------|-------------------|-----------------|
| Linhas de Transmissão de Montes Claros S/A. | LTMC12 | 9/27/2012 | 4/15/2029 | ICVM 476 | 17 | 12.9 | 25.0 | IPCA + 8,75% | Energy | 4.51% | AA+ (bra) Fitch |
| Rumo Malha Norte S/A. | FERR18 | 10/18/2012 | 10/18/2020 | ICVM 476 | 8 | 5.7 | 160.0 | Prefixado 10,10% | Transport | N/D | A (bra) Fitch |
| Concessionária Sistema Anhanguera - Bandeirantes S/A - (Vencida) | ANHB24 | 10/22/2012 | 10/15/2017 | ICVM 400 | 5 | 4.3 | 135.0 | IPCA + 2,71% | Transport | 0.01% | brAAA (S&P) |
| Concessionária Auto Raposo Tavares S/A | CART12 | 12/26/2012 | 12/15/2024 | ICVM 400 | 12 | 7.9 | 380.0 | IPCA + 5,80% | Energy | 2.41% | AA+ (bra) Fitch |
| Total..... | | | | | | | 700.00 | | | | |

Source: Anbima, Rating reports and Debentures Agreements
Elaborated by SPE/ME

Note:

(1) In this presentation we consider duration (Macaulay duration) as a measure of the sensitivity of the price (value of principal) of a infrastructure Bond expressed as a number of years. This indicator involving present value, yield, coupon and final maturity.

(2) Consumer Price Index - CPI (IPCA)

Annex 3



Green Certificated Infrastructure Debentures



| Issuer | Ticker | Distribution Date | Value (R\$ million) | Sector |
|---------------------------------------|--------|-------------------|---------------------|--------|
| Delta 2 Energia S/A | PTMI11 | 5/11/2017 | 42.4 | Energy |
| Itarema Geração Energia S/A | ITGE13 | 6/16/2017 | 111.8 | Energy |
| Omega Energia e Implantação 2 S/A | OMNG12 | 11/24/2017 | 220.0 | Energy |
| Eólica Serra das Vacas Holding II S/A | EVOL11 | 12/11/2017 | 48.0 | Energy |
| Enel Green Power Maniçoba Eolica | EGME11 | 12/28/2017 | 10.8 | Energy |
| Enel Green Power Damascena Eólica | ENDE11 | 12/28/2017 | 11.3 | Energy |
| CTEEP-CIA Energia Paulista S/A | CTEE17 | 4/23/2018 | 621.0 | Energy |
| AES Tietê S/A | TIET29 | 3/17/2019 | 641.1 | Energy |
| | TIET39 | 4/17/2019 | 178.9 | Energy |
| Transmissora Aliança S.A. | TAAE26 | 5/24/2019 | 210.0 | Energy |
| Total..... | | | 2,095.19 | |

Source: Anbima, Rating reports and Debentures Agreements
Elaborated by SPE/ME

Nota: (1) These debentures are already included in the respective slides above linked to the year of their distribution.

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