

RAILWAYS CONCESSIONS

PROJECTS



EF-170 (Ferrogrão): from Sinop/MT to Itaituba/PA (port of Miritituba) – Length: 933 km – Greenfield undertaking. New export railway corridor through Arco Norte that aims to improve Middle-West agricultural production flow by connecting Mato Grosso State to Miritituba Port. Planned investment: US\$ 3.37 billion. Planned cargo: 13 million tons in 1st year and 42 million in 2050. Auction criterion: highest grant value, with no minimum offer. Concession period: 65 years.



EF-151 (North-South Railway): from Porto Nacional/TO to Estrela d'Oeste/SP – Length: 1,537 km – 93.5% executed. Backbone of the Brazilian railway system, extends the railway connection of the country's central region to Rumo Malha Paulista (Santos port) and to North/Northeast Ports. Planned investment: US\$ 716 million. Planned cargo: 1.2 million tons in 2019 and 68 million in 2051. Auction criterion: highest grant value (minimum US\$ 262 million). Concession period: 30 years.



EF-334 (West-East Integration Railway): from Ilhéus/BA to Caetité/BA – Length: 537 km – 75.7% executed. It will flow iron ore produced in Caetité/BA region (BAMIN mines) and grain production from Bahia west region through Porto Sul, port complex to be built in the county of Ilhéus/BA. Planned investment: US\$ 795 million to conclude. Planned cargo: 20 million tons in 2023 and 70 million in 2053. Auction criterion: highest grant value (under study). Concession period: 33 years (under study).



SCHEDULE

| | feasibility studies | public consultation | Audit Court approval | bidding notice | auction | contract signature |
|--|---------------------|---------------------|----------------------|-------------------------------|-------------------------------|--------------------|
| EF-170 (Ferrogrão) | OK | OK | | 4 th quarter/ 2019 | 1 st quarter/ 2020 | |
| EF-151 (North-South Railway) | OK | OK | OK | OK | OK | |
| EF-334 (West-East Integration Railway) | OK | OK | | 3 rd quarter/ 2019 | 4 th quarter/ 2019 | |

Exchange rate: 1 US\$ = 3,78 BRL, as of April 5, 2019.

The Brazilian Railway Sector development has always been closely linked to government policies, which have undergone great variations throughout history.

The growth of the railway sector began as a result of the privatization process of the national railway network, carried out between 1996 and 1998, and its operation and maintenance were private companies responsibility.

These companies have made heavy investments in the recovery of the rail network and in the acquisition and recovery of locomotives and wagons. As a result, there was an increase in transportation production and a reduction in the accident rate, with positive impacts on the country's economic growth.

Railways are one of the fastest growing sector in Brazil, with great increase in productivity. Our railways produced, in 2003, 181.5 billion tku. In 2013 this figure rose to 297.6 billion tku, representing a growth of 64% in 10 years.

However, there was no expansion of the railway network, which proved to be insufficient in meeting the nation's development needs.

The National Logistics Plan (PNL) has shown that North-South Railway, West-East Integration Railway and Ferrogrão are the most important railways to be built, and railway transport system participation in the cargo transport matrix will grow from 18% (in 2018) to 31% (in 2025) with the three railways in full operation.

National Logistic Plan - Global results

| Mode | Basic Network Scenario | | | NLP 2025 Scenario | | | NLP 2025 Scenario* | | |
|----------|------------------------|-----------------|-------------------|-------------------|-----------------|-------------------|--------------------|-----------------|-------------------|
| | TKU | CO ₂ | Cost of transport | TKU | CO ₂ | Cost of transport | TKU | CO ₂ | Cost of transport |
| Highway | 1900.2 | 1141 | 311 | 1462.9 | 878 | 236.8 | 1734.4 | 1041 | 281.7 |
| Railway | 536 | 10.7 | 16.3 | 896.1 | 17.9 | 36.4 | 615.4 | 12.3 | 23.3 |
| Waterway | 160.6 | 3.2 | 6.4 | 141.1 | 2.8 | 5.3 | 154.6 | 3.1 | 6.1 |
| Cabotage | 291 | 5.8 | 8.3 | 308.4 | 6.2 | 8.8 | 339.8 | 6.8 | 9.7 |
| Duct | 94.4 | | | 107.5 | | | 107.9 | | |
| Total | 2,982.2 | 133.8 | 342 | 2,916 | 114.7 | 287.3 | 2,952.1 | 126.3 | 320.8 |

Units: TKU: billion; CO₂: million of tons, Cost of transport: BRL billion

*NLP 2025 Scenario: without early renewals of EFVM, EFC, MRS, RMP and FCA Concessions

Basic Concepts – for all the Investment Partnership Program projects:

- High quality projects and strict technical requirements
- Performance based contracts versus construction contracts
- Special focus on risk sharing among partners
- Environmental feasibility required
- Foreign companies now have effective opportunities
- The “100 days rule” (between bid notice publication and the auction event)
- Bidding documents published in English
- Investments to be triggered due by real demand
- IRR according to each sector and not determined in advance
- Arbitration legally admitted in infrastructure contracts
- Special focus on the project bankability
- Capital markets as a fundamental source of funding
- Commitment to regulatory certainty and stability

Regulatory Framework – Regulation is conducted by ANTT – National Land Transport Agency. It is based mainly on the quality of services and performance indicators, that may include goals of production and reduction of accident numbers. For Ferrogrão, as a greenfield undertaking, goals of production should not be defined.

CAPEX – For the North-South Railway, some investments will be based on demand triggers, with initial investment obligations. For Ferrogrão, rolling stock represents 36% of total investment, starting on the 5th year of concession.

Bidding Process – The Auctions will take place at BM&FBOVESPA (São Paulo’s Stock Exchange), winner will be defined by the highest grant value.