



MINISTRY OF MINES AND ENERGY

PERSPECTIVES & OPPORTUNITIES

INDIA | NEW DELHI, JANUARY 23, 2020

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BRAZIL SNAPSHOT



- Area: 8,5MM sq km (5th)
- Population: approx. 210 MM (6th)
- Labor force: 104MM (5th)
- GDP 2019E: US\$ 2.095 Trillion (9th)
- GDP per capita (PPP): US\$ 15,600 (108th)
- International reserves: US\$ 378 Bi (feb/19)
- Urbanization: 86.6%

Brazil is the 6th most populous country and the 9th biggest economy in the world. Its economy represents almost 40% of Latin American and Caribbean GDP

Subtitle



Oil and Gas



Mining exploration



Power Transmission

(Source: Central Bank, 2019)

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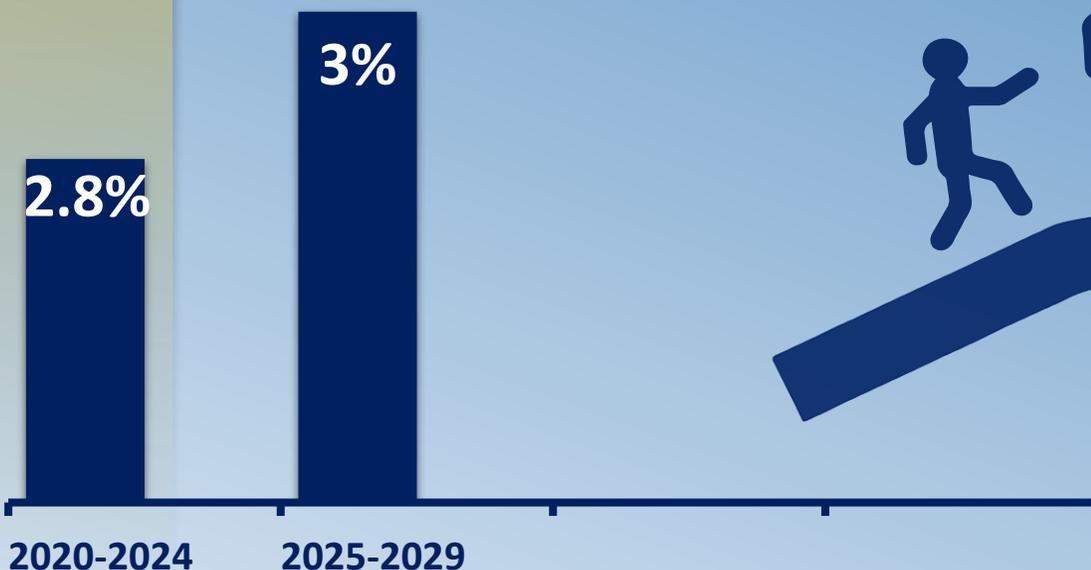




1. ECONOMIC GROWTH DEMANDS ENERGY

Average Electricity consumption

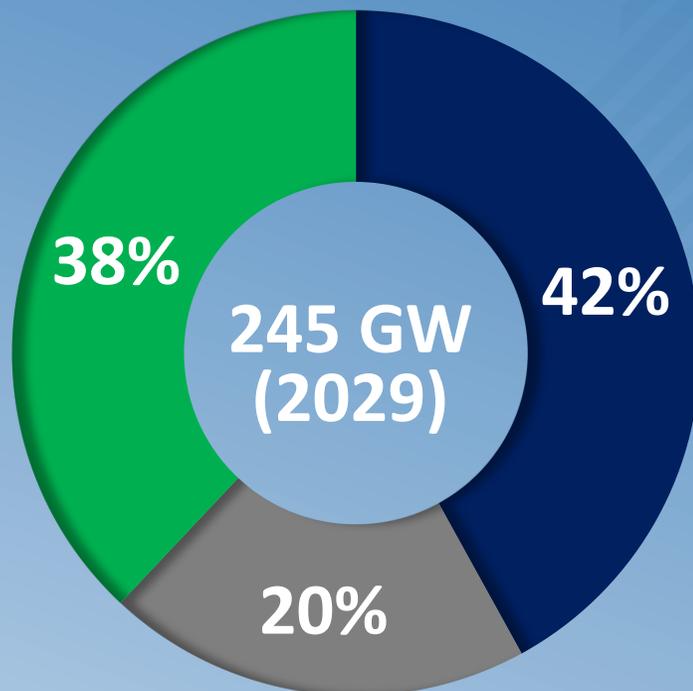
3,8%
(2020-2029)



Immediate consequence of the **ECONOMIC GROWTH** is the increase in **ENERGY CONSUMPTION**



2. ENERGY DEMANDS PLANNING



Considering the **limits of hydroelectric** energy, **new sources of energy** will be more **demand**ed in the next years. Wind (from 9.3 to 17.9%), Solar (from 1.4 to 4.8%) and Gas (8 to 16.4%).

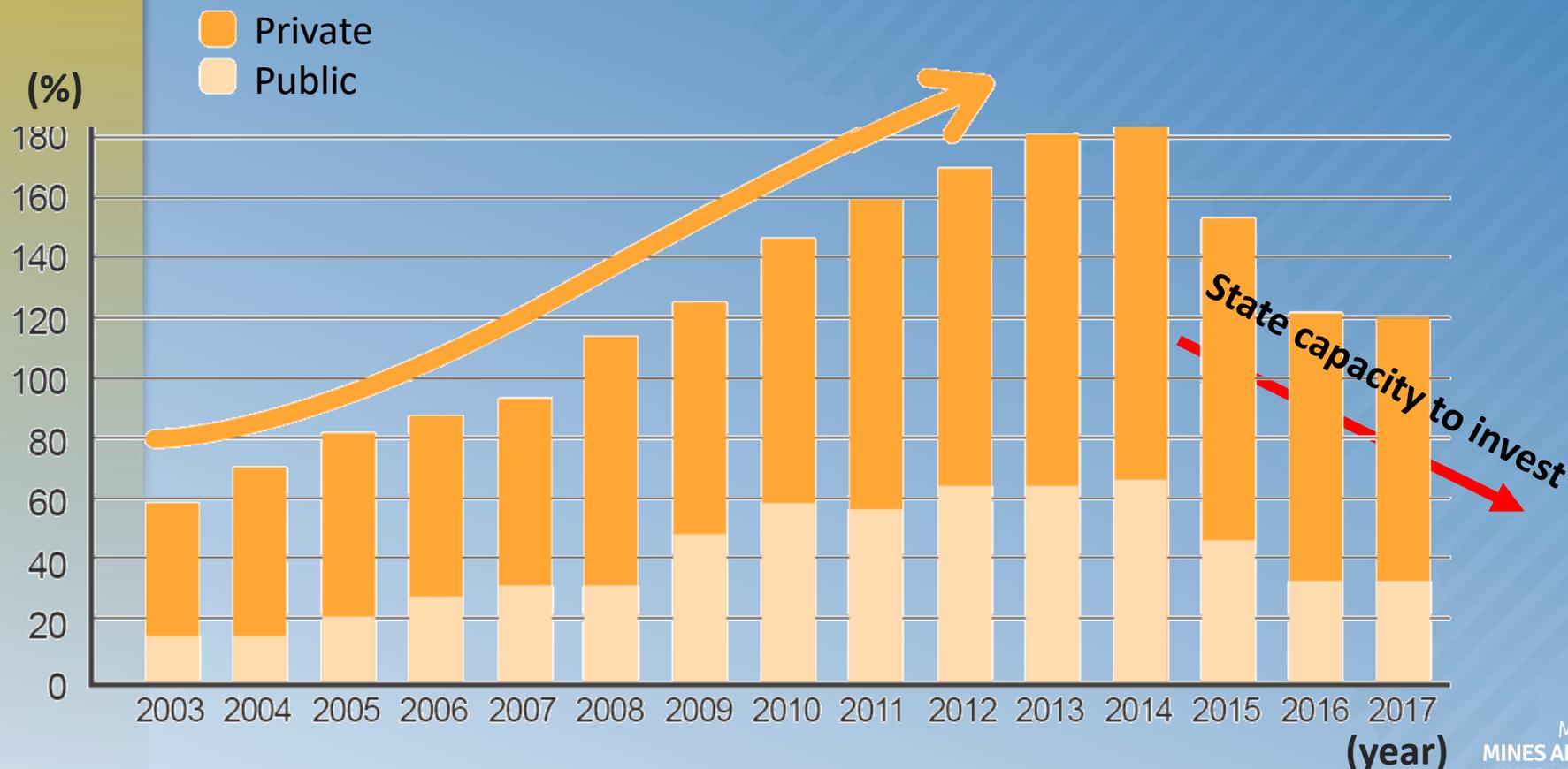
- Hidropower
- Thermal plants (Coal, Gas, Oil and Nuclear)
- Renewable (Small Hydro Plants, Biomass, Wind and Solar)

(Source: EPE, 2018)



3. PLANNING DEMANDS INVESTMENTS

- Economic
 - Public pension
 - Trade openness
 - Tax reform
- Sectorial
 - Planning
 - Integration
 - Governance



(Source: Valor Econômico, 2018)

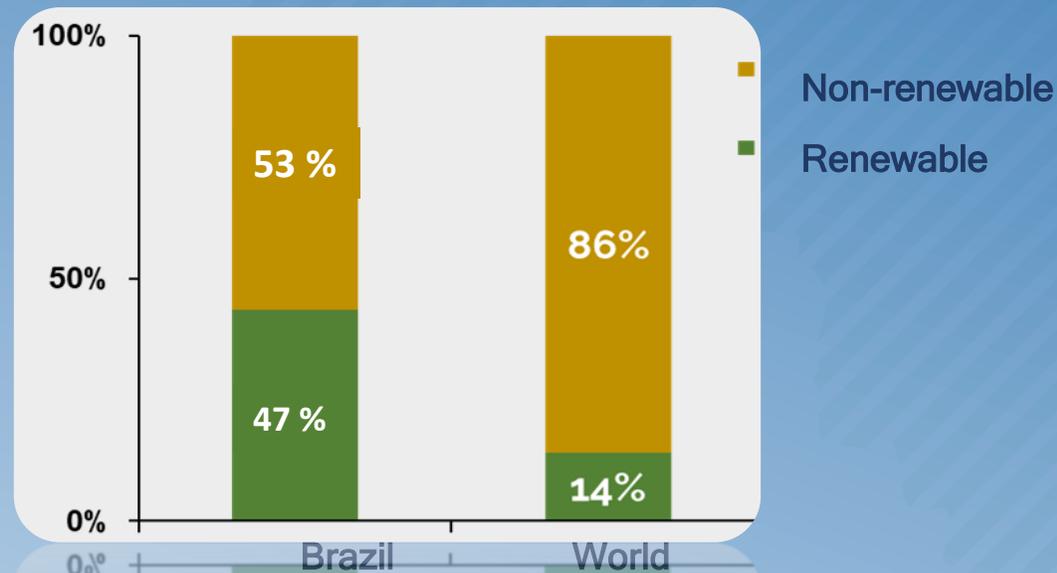


4. INVESTMENTS DEMANDS SOURCES OPPORTUNITIES

Brazil has one of the **cleanest energy matrixes in the world**

In 2029, the renewable share of the energy supply will be around **48%**

Energy Matrix

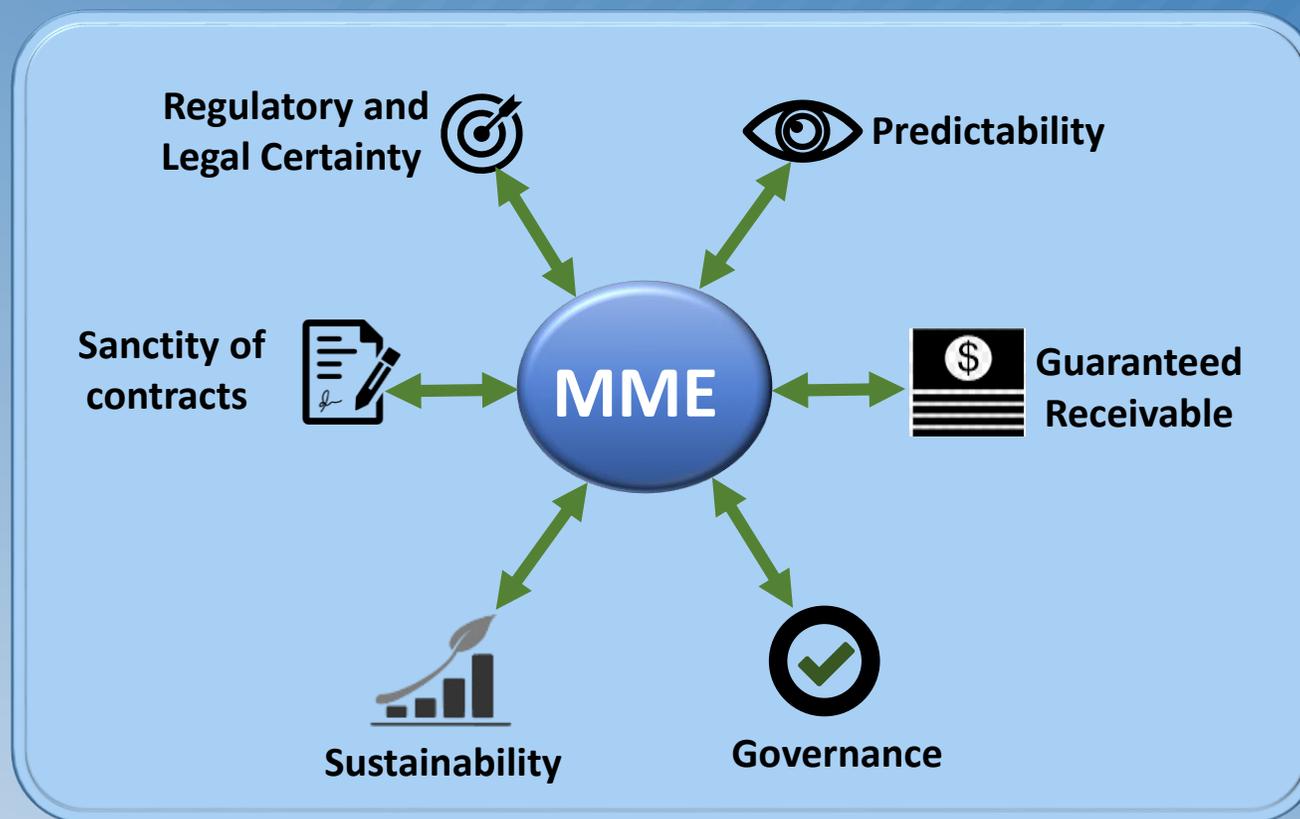


(Source: EPE, 2018)

Brazil intends to keep the energy matrix clean at its current levels, taking into account the **characteristics of the country.**



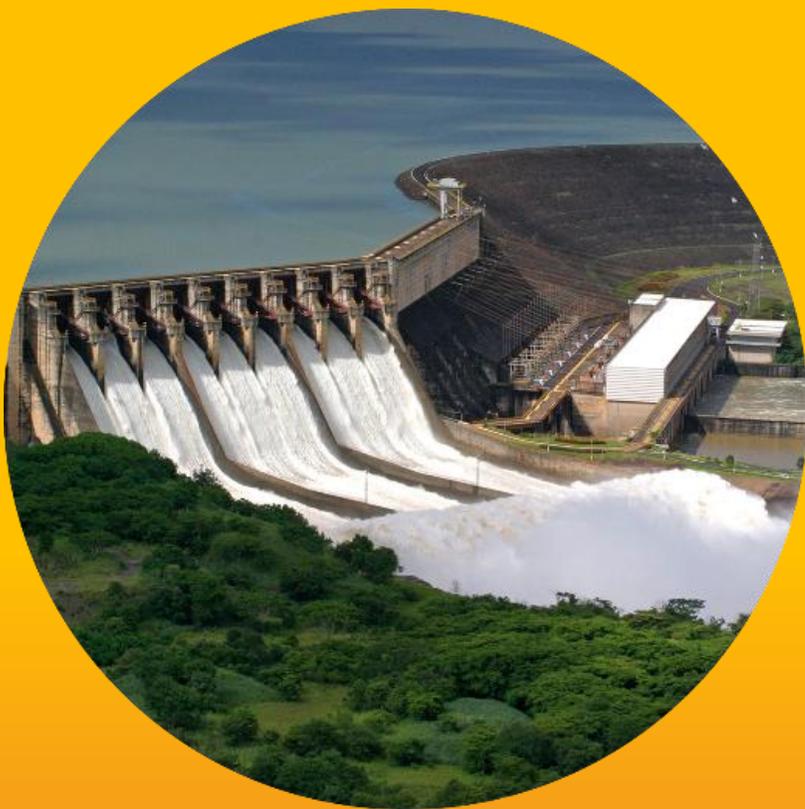
5. OPPORTUNITIES DEMANDS BEST PRACTICES





HOW IT IS WORKING IN PRACTICE?

ELECTRICITY, OIL AND GAS AND
MINING



ELECTRICITY

“THE AUCTIONS HAVE
PREDICTABILITY”



OVERVIEW - 2019/2029



170 GW

Installed
Generation
Capacity



245 GW
+44%



147 thou. km

Transmission lines



203 thou. km
+38%

US\$ 125 Bi

Required
Investments
until 2029



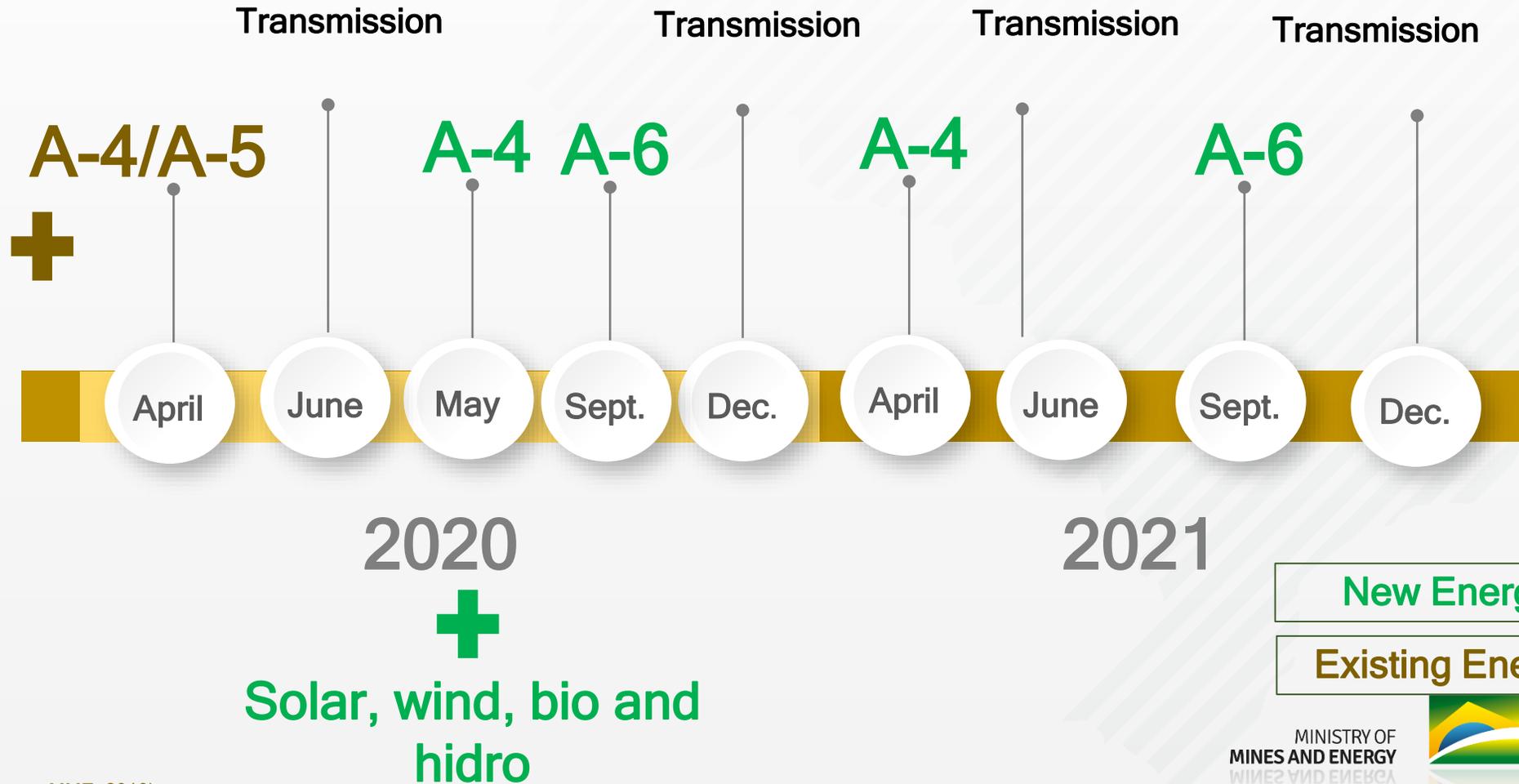
Expand generation capacity by **44%** and transmission by **38%**

(Source: EPE, 2019)



OPPORTUNITIES - AUCTIONS

40
GW
87
projects



(Source: MME, 2019)

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OIL, NATURAL GAS & BIOFUELS

“BRAZIL HAS THE MOST PRODUCTIVE WELL IN THE WORLD”

“FREE COMPETITION IN THE SECTOR”



OVERVIEW - 2019/2040

Double
current reserves
(**25** Billion barrels)

Investments
US\$460
billion

**2.5 to
7.5**
Million bpd*
(production peak)

+60 FPSO
+600 wells

- ✓ By 2040, Brazil will account for **23%** oil production increased in world, being among the **5 largest exporters in the world**
- ✓ By 2030, Brazil will have **doubled** its natural gas production capacity from **120 to 267 million m³ / day**

Oil and gas
sector already
accounts for
13% of the
Brazilian GDP

*Barrels per day

(Source: MME, 2019, ANP, 2019)



OPPORTUNITIES - AUCTIONS



(Source: MME, 2019, ANP, 2019)



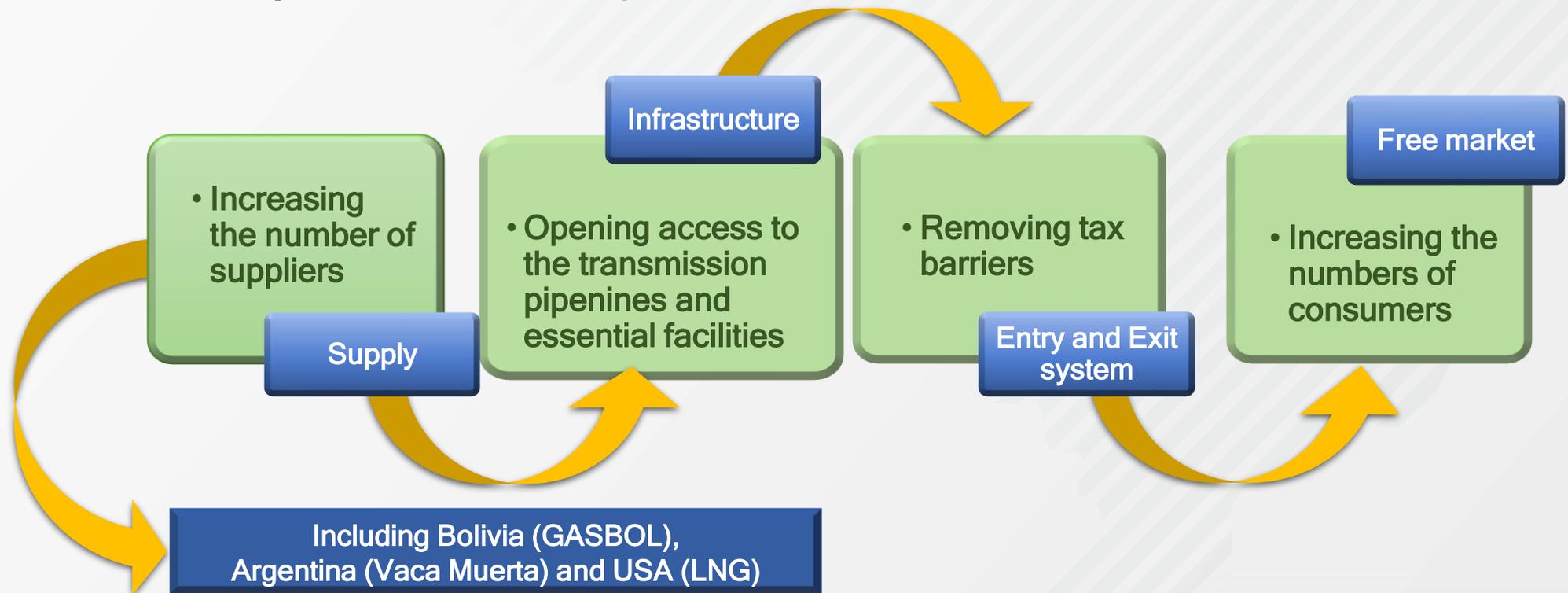
2nd Cycle





NEW GAS MARKET - POLICY

Brazilian Government Program to build an **open, dynamic** and **competitive** natural gas market

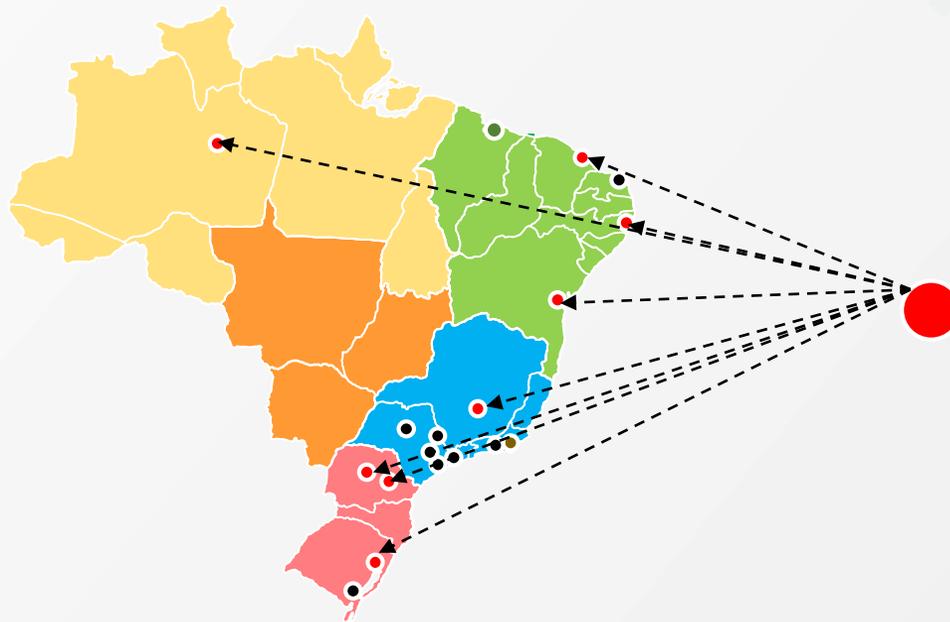


(Source: MME, 2019)



OPPORTUNITIES - REFINING

- ✓ Petrobras' refineries divestment projects
- ✓ Greenfield and brownfield refineries



Petrobras' refineries divestment projects: eight active refineries, total capacity of 1.1 million bpd (50% of Brazil)

(Source: MME, 2019, Petrobras, 2019)



MINING SECTOR

“NEW MINERAL FRONTIER,
DIGITAL MINING AND OPEN LEGAL
AGENDA”



OVERVIEW - 2019/2022

80

Number of mineral commodities with known reserves

0.6%

Brazilian mining in rights in exploration (9400 number of active mines)

In 2018...

... there was a surplus of US\$ 23.3 billion in the mineral foreign trade

... exports totaled US\$ 49.8 billion

... and beyond

Expand the attractiveness of the mineral industry

2.7 mi

Direct and indirect jobs

4.0%

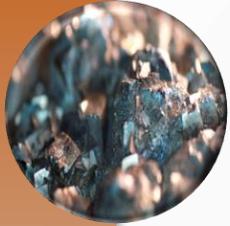
Brazilian mining production in relation to GDP

20.8% of Brazilian exports



US\$ 20 Bi

Investments until 2022



OPPORTUNITIES - AUCTIONS

Brazil successfully starts auctions of mineral areas

Mining



7

4 Auction of Geology bureau CPRM

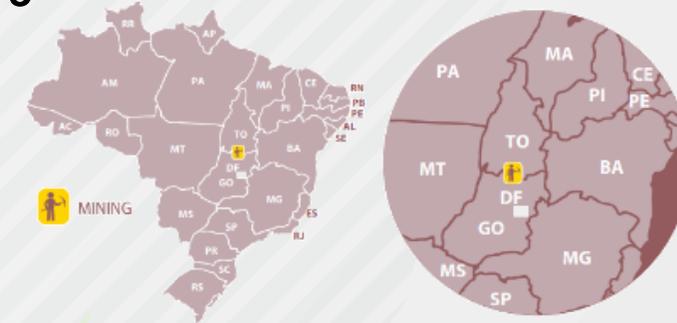
Auction of 1,000 ANM areas

Uranium Mining

Potassium Mining

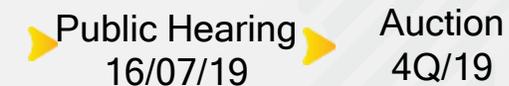
✓ Palmeirópolis Auction (polimetalic) - 21/10/19

- Expected investment: US\$ 65 Mi
- Australian firm: Perth Resources Mineral
- The last mineral auction in Brazil took place over 40 years ago



● 1,000 ANM Areas

- All over the country
- Pilot for 20,000 areas



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BRAZIL IS REALLY ON THE MAP OF INVESTORS!

Attracting investors and investing in cooperations and roadshows.



- Cooperations and Agreements (4) & Roadshows (8)
- Energy companies registered (A-4 and A-6) (5 international companies)
- Oil and Gas companies registered (16th round, TOR+ & 6th PSA) (14, 14 and 17)
- Mining company qualified (Palmeiropolis)

(Source: MME, 2019)



**YOU'RE WELCOMED
TO INVEST IN BRAZIL**



BRAZIL NEEDS AND WANTS TO GROW

“...in a harmonious and transparent manner, in constant dialogue with the various instances of government, the business community and society.”

Bento Albuquerque
Minister of Mines and Energy
Inauguration speech, 01/02/19



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