



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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МИНЕРНЫЕ И ЭНЕРГЕТИКА

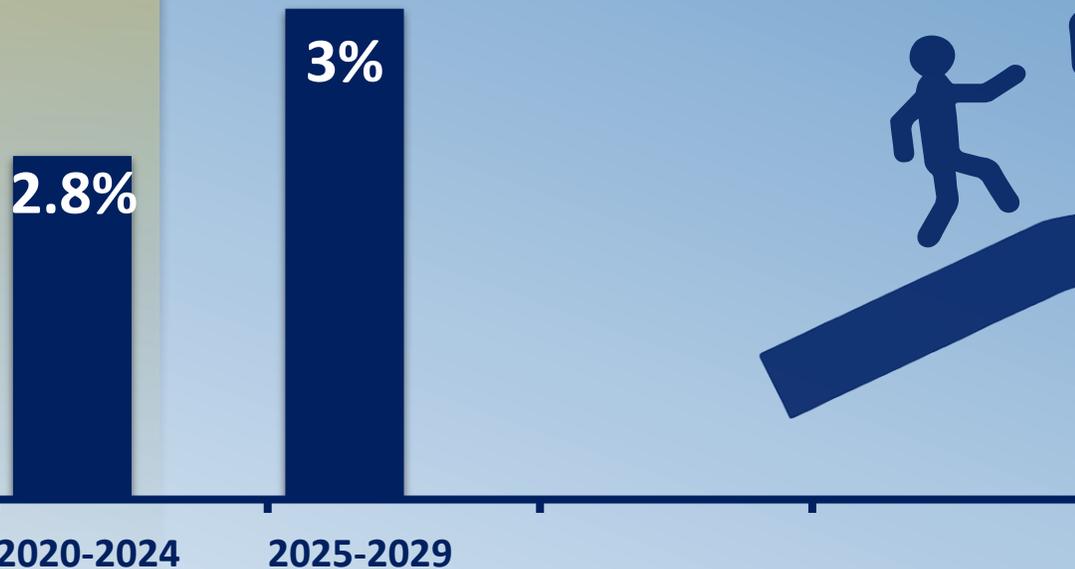




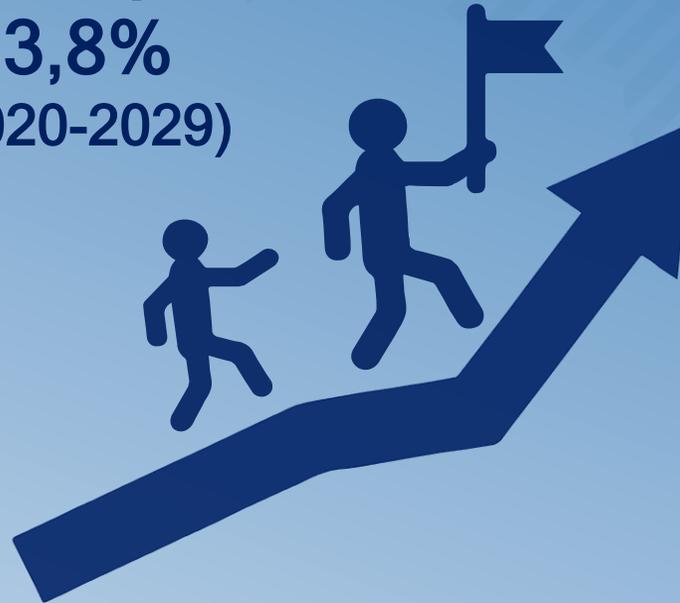
1. ECONOMIC GROWTH DEMANDS ENERGY

Average Electricity consumption

3,8%
(2020-2029)

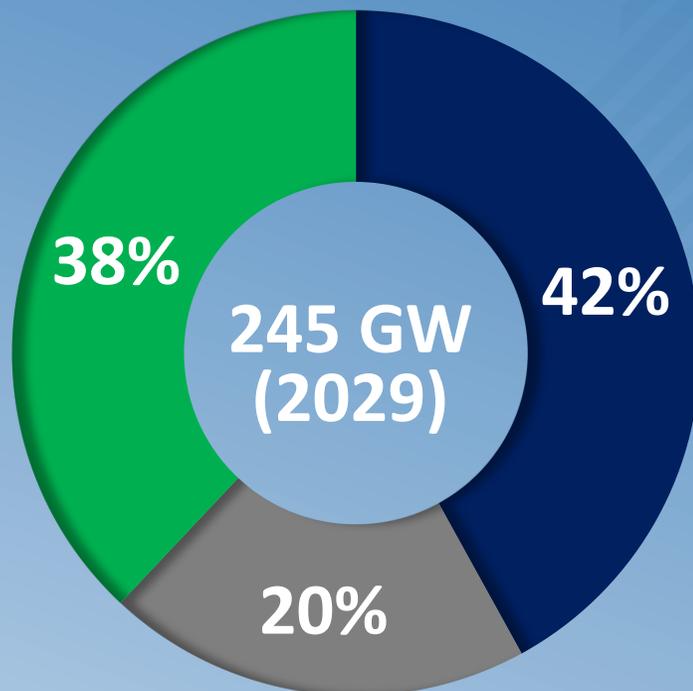


Immediate consequence of the **ECONOMIC GROWTH** is the increase in **ENERGY CONSUMPTION**





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%).

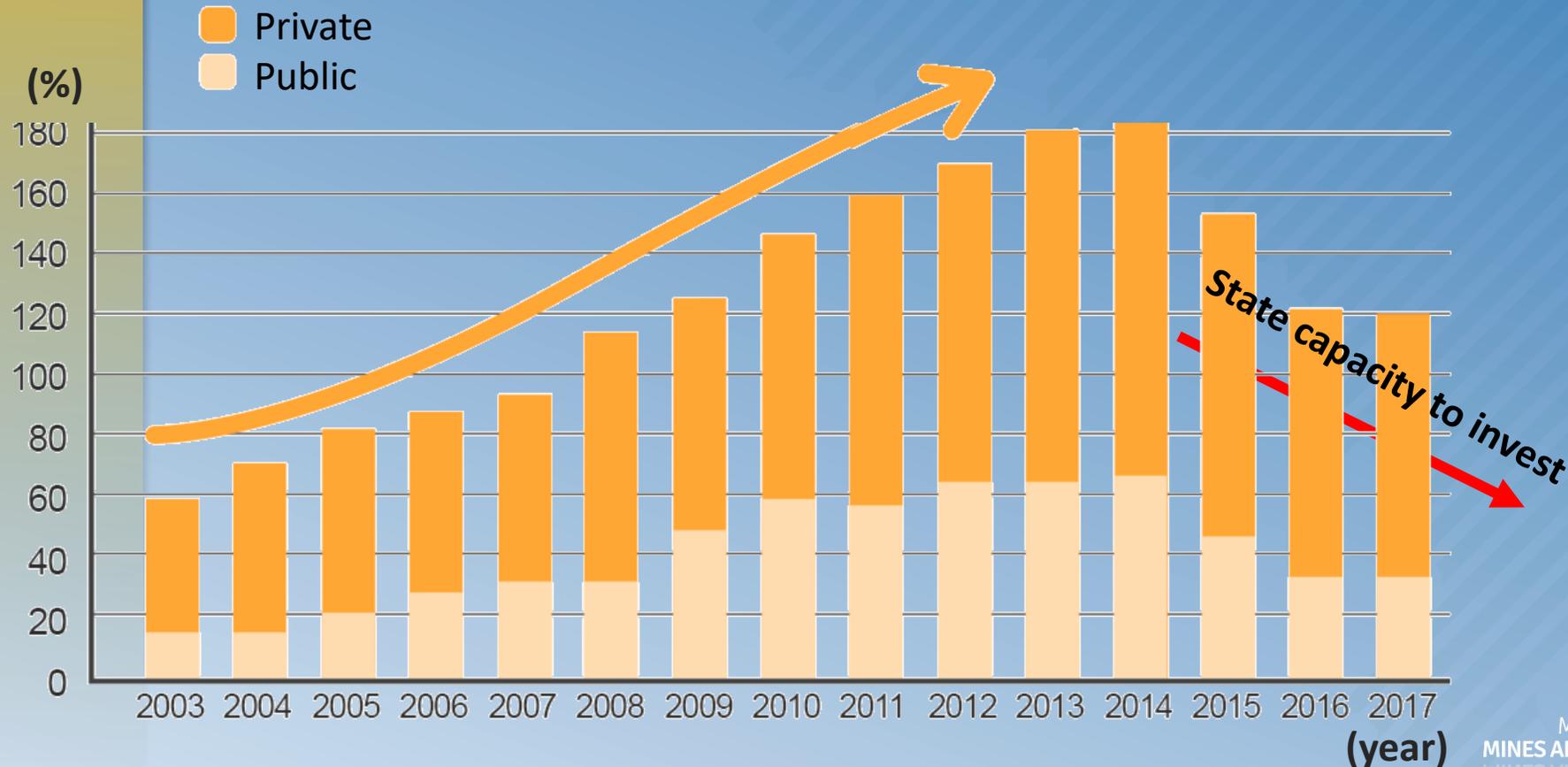
- Hidropower
- Thermal plants (Coal, Gas, Oil and Nuclear)
- Renewable (Small Hydro Plants, Biomass, Wind and Solar)

(Source: EPE, 2018)



3. PLANNING DEMANDS INVESTMENTS

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



(Source: Valor Econômico, 2018)

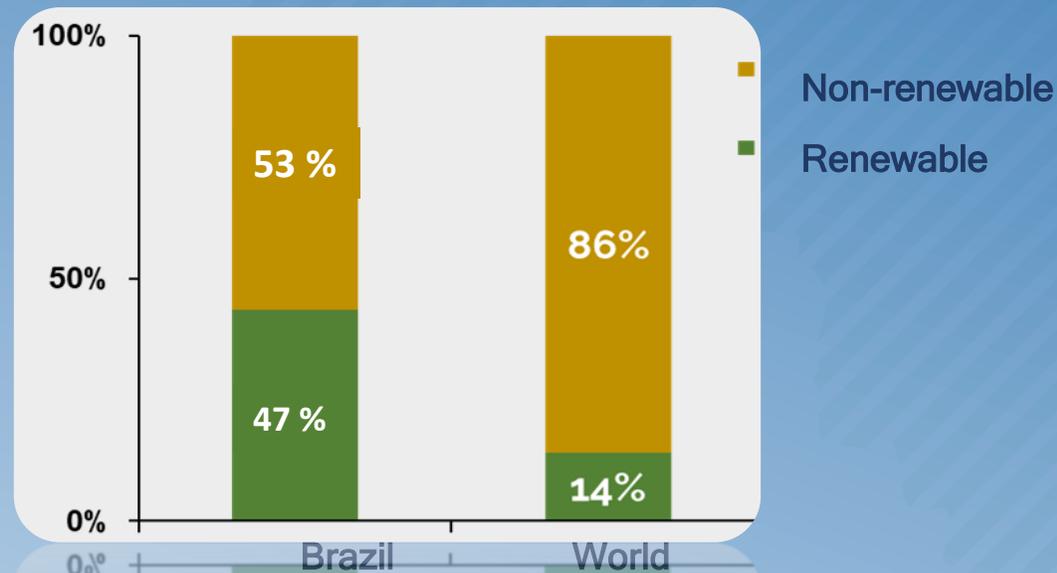


4. INVESTMENTS DEMANDS SOURCES OPPORTUNITIES

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

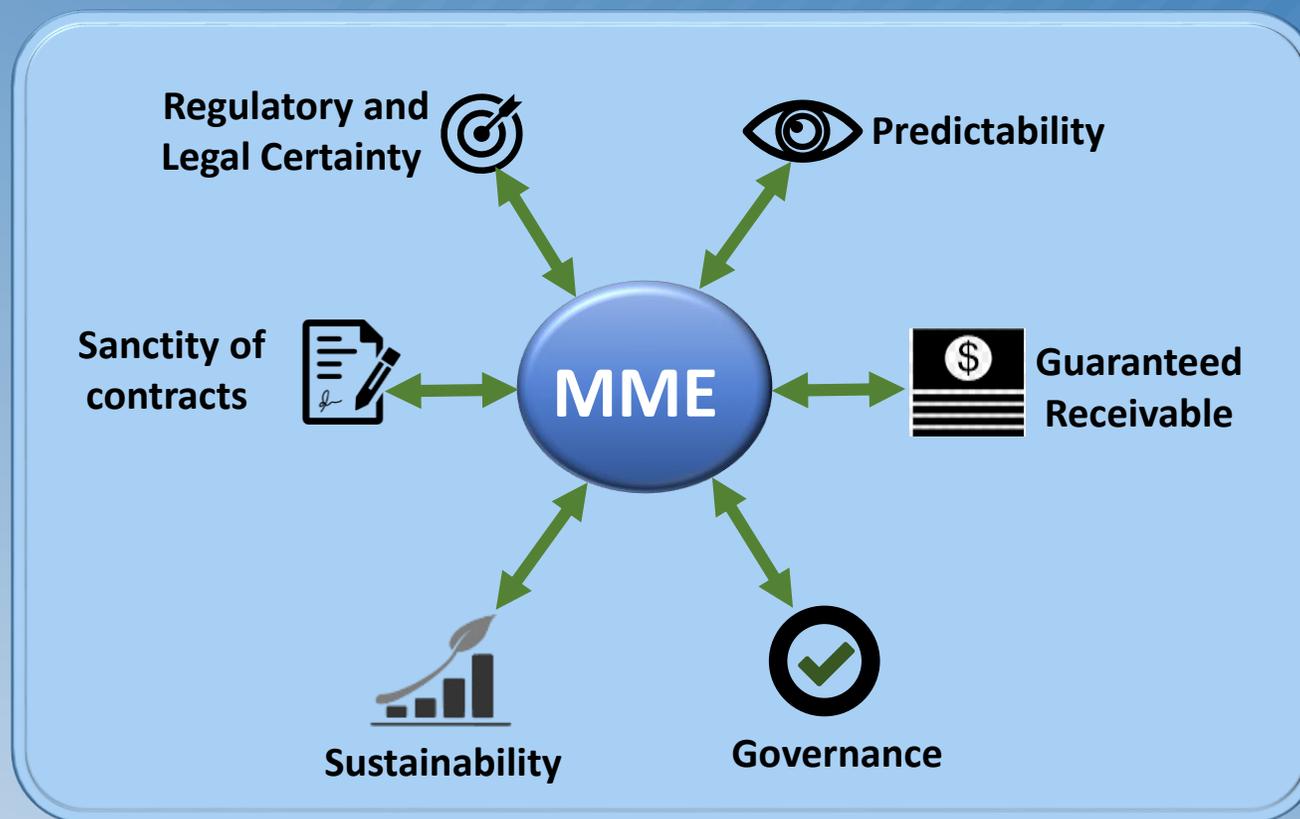


(Source: EPE, 2018)

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



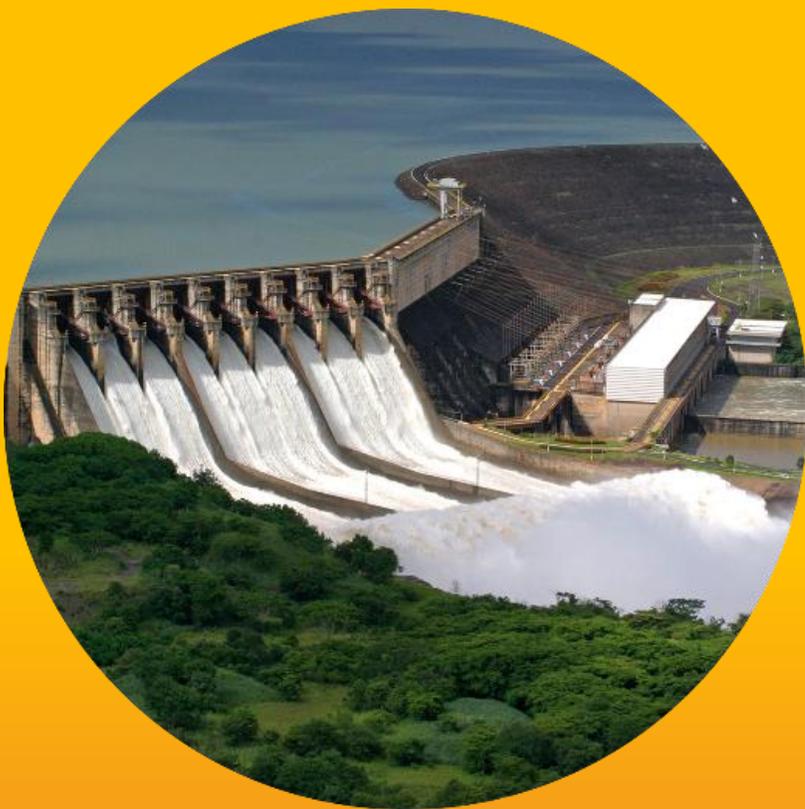
5. OPPORTUNITIES DEMANDS BEST PRACTICES





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%



203 thou. km

+38%

147 thou. km

Transmission lines

US\$ 125 Bi

Required
Investments
until 2029



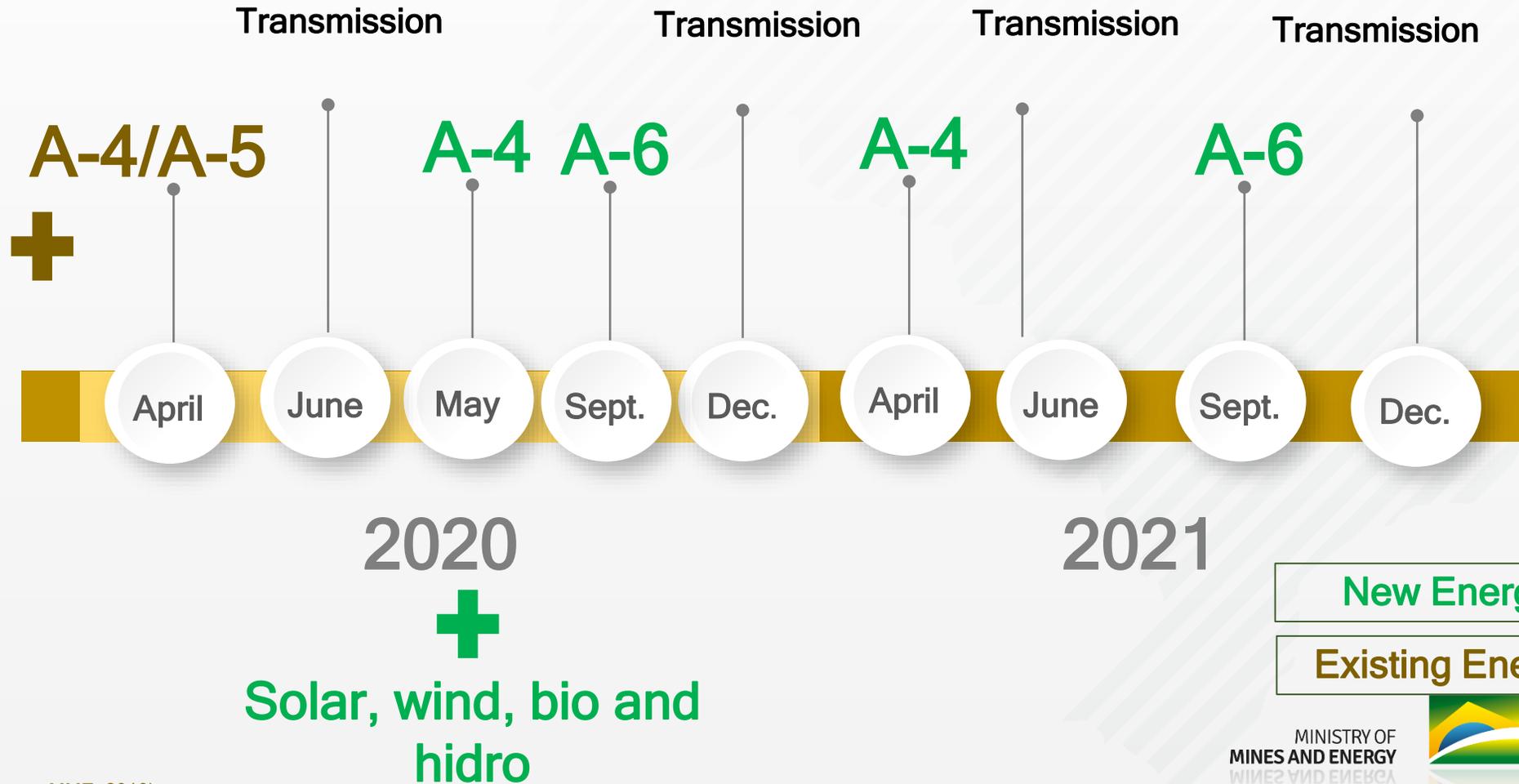
Expand generation capacity by **44%** and transmission by **38%**

(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

PRE-SALT Brazil 7 PRODUCTION SHARE

PRE-SALT Brazil 8 PRODUCTION SHARE

ROUND Brazil 17 OIL AND GAS CONCESSIONS

ROUND Brazil 18 OIL AND GAS CONCESSIONS

OPEN ACREAGE Brazil OIL AND GAS CONCESSIONS

3rd Cycle



OPEN ACREAGE Brazil OIL AND GAS CONCESSIONS

2nd Cycle

(Source: MME, 2019, ANP, 2019)

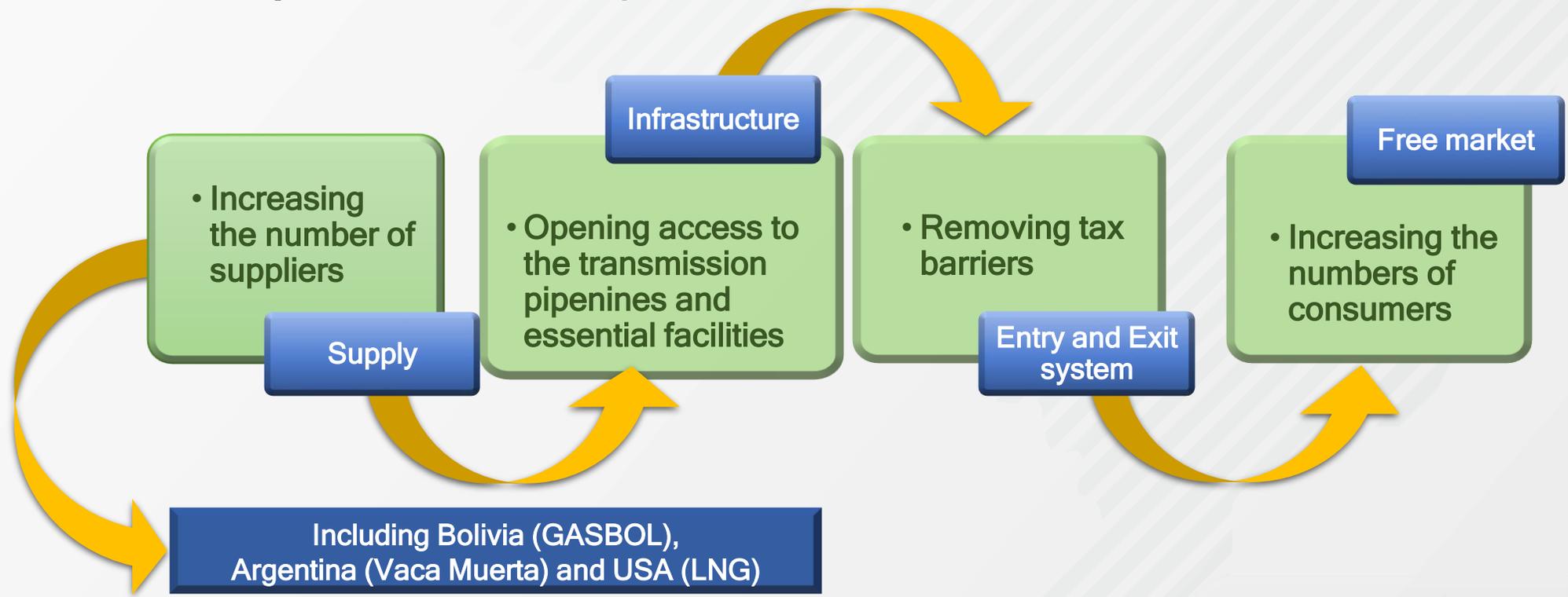
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PÁTRIA AMADA BRASIL GOVERNO FEDERAL



NEW GAS MARKET - POLICY

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

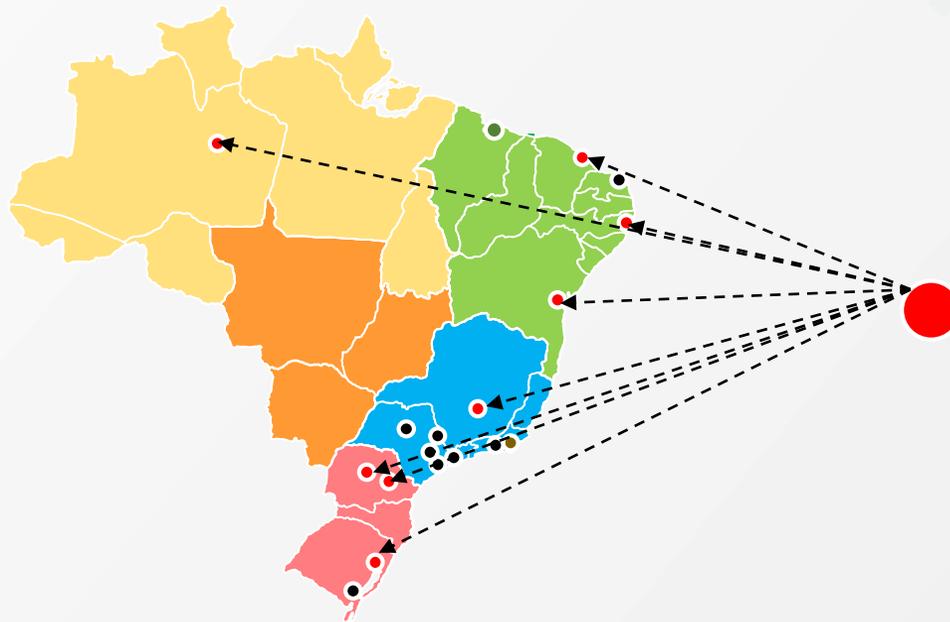


(Source: MME, 2019)



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%

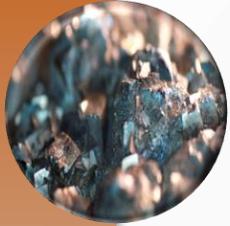
Brazilian mining production in relation to GDP

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

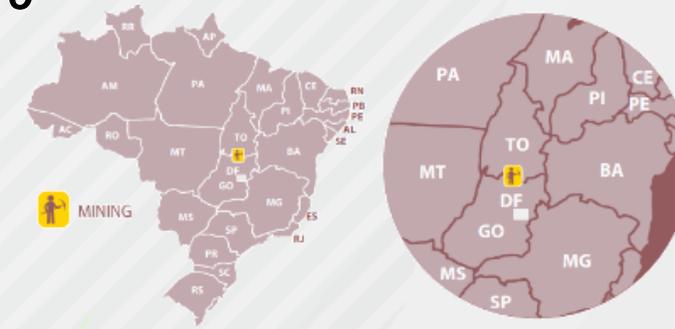
Auction of 1,000 ANM areas

Uranium Mining

Potassium Mining

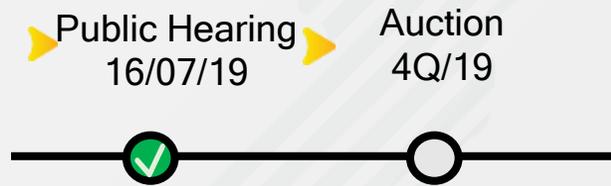
✓ Palmeirópolis Auction (polimetalic) - 21/10/19

- 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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