



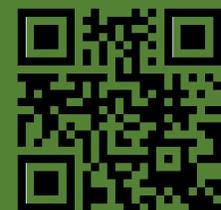
MINISTRY OF MINES AND ENERGY

MINES & ENERGY PARTNERSHIP

BENTO ALBUQUERQUE
MINISTER OF MINES AND ENERGY

CHINA | BEIJING, AUGUST 13, 2019

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The recipient of this document is entitled to appropriate treatment and interpretation





AGENDA

- **THE ROAD AHEAD!**
- **HOW IS IT WORKING IN PRACTICE?**
- **YOU'RE WELCOME TO INVEST IN BRAZIL!**



BRAZIL - SNAPSHOT



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

- 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%
- Main export partners: **China**, US, Argentina and Netherlands
- Main import partners: **China**, US, Argentina and Germany
- Agricultural products: coffee, soybeans, wheat, rice, corn, sugarcane, cocoa, citrus; beef
- Main industries: textiles, shoes, chemicals, cement, lumber, iron ore, tin, steel, aircraft, motor vehicles and parts, other machinery and equipment

Subtitle



Oil and Gas



Mining exploration



Power Transmission



THE ROAD AHEAD!

ECONOMY, ENERGY, INVESTMENTS
AND GOVERNANCE



ECONOMIC COMMITMENT

- “In the economy we will bring the mark of trust, national interest, free market and efficiency. Confidence that contracts and properties will be respected.”

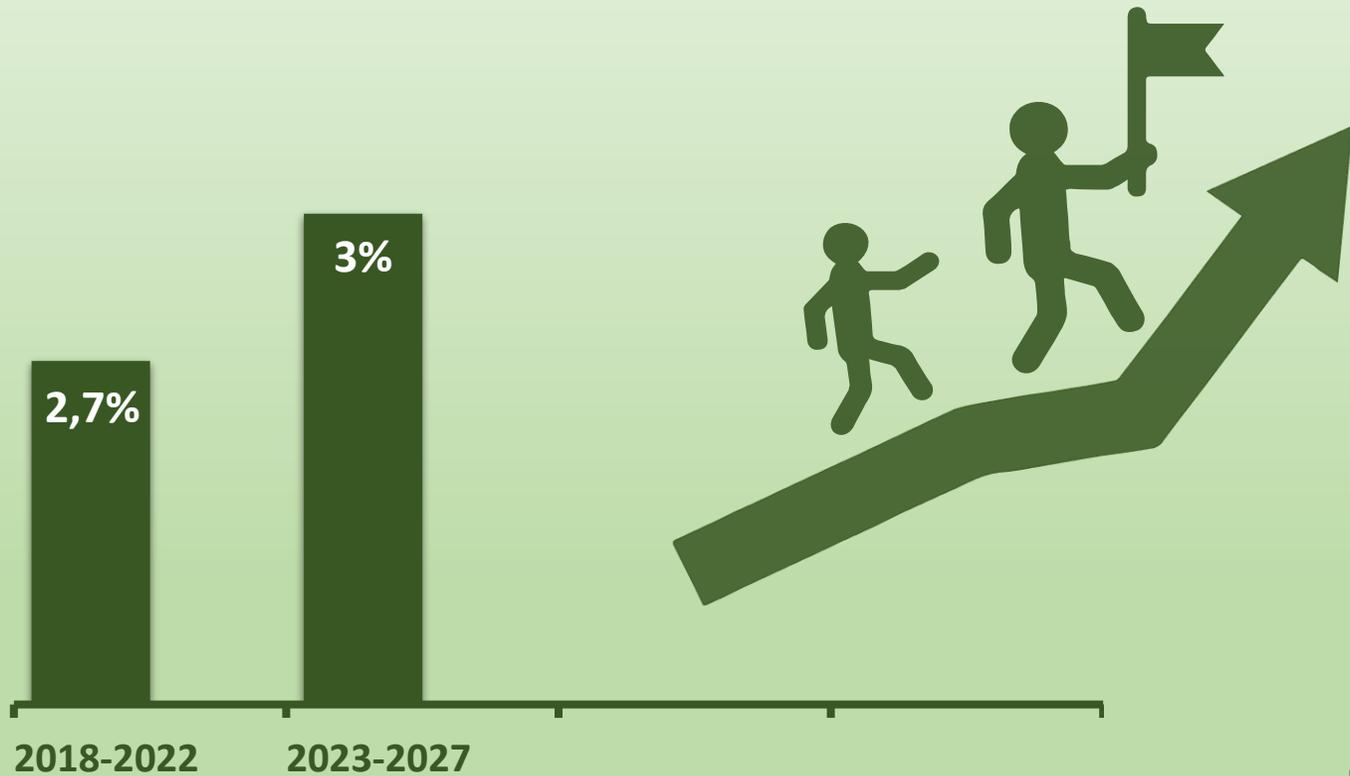
Jair Bolsonaro | President
Inauguration speech, 01/01/19





ENERGY DEMAND

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



Source: SDI/MME, 2019

Bento Albuquerque,
Minister of Mines and Energy
Summit 06/17/2019

MINISTRY OF
MINES AND ENERGY





INFRASTRUCTURE OPPORTUNITIES



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

“Brazil needs and wants to grow”

Source: SDI/MME, 2019

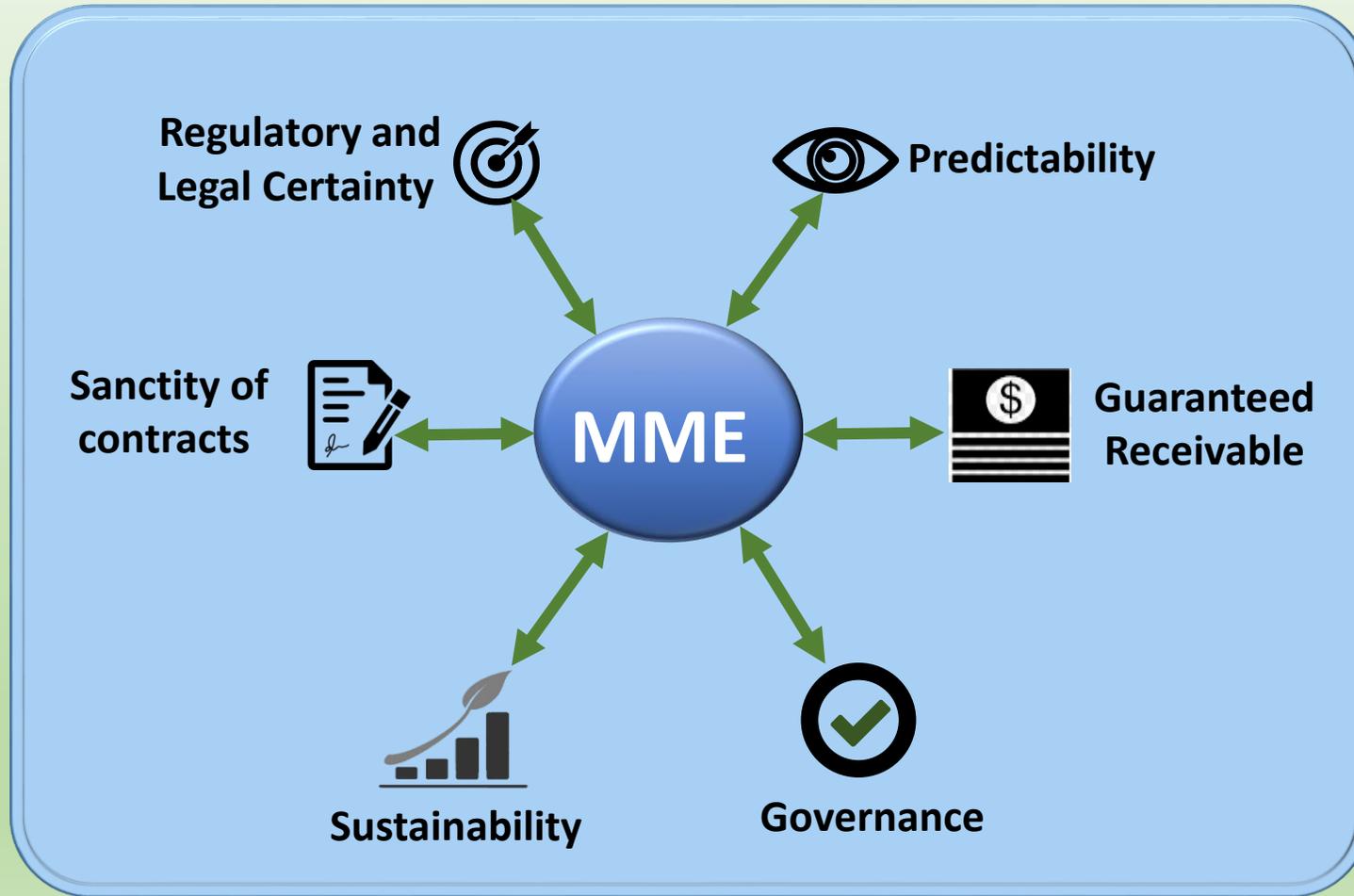
Bento Albuquerque,
Minister of Mines and Energy Ethanol
Summit 06/17/2019

MINISTRY OF
MINES AND ENERGY





BEST PRACTICES

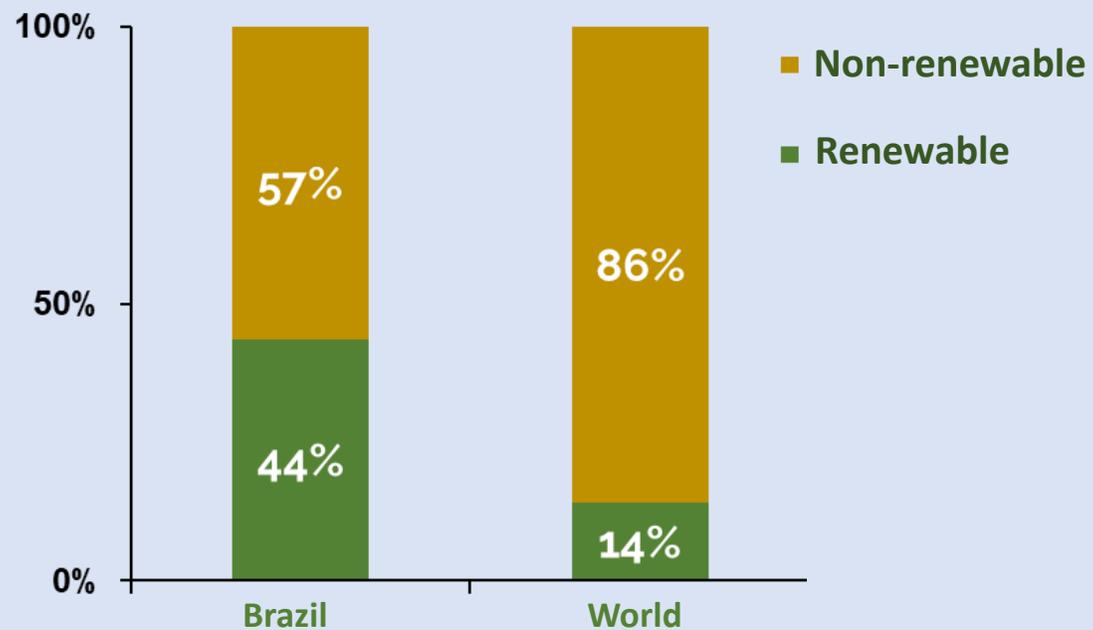




SOURCES DIVERSIFICATION

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

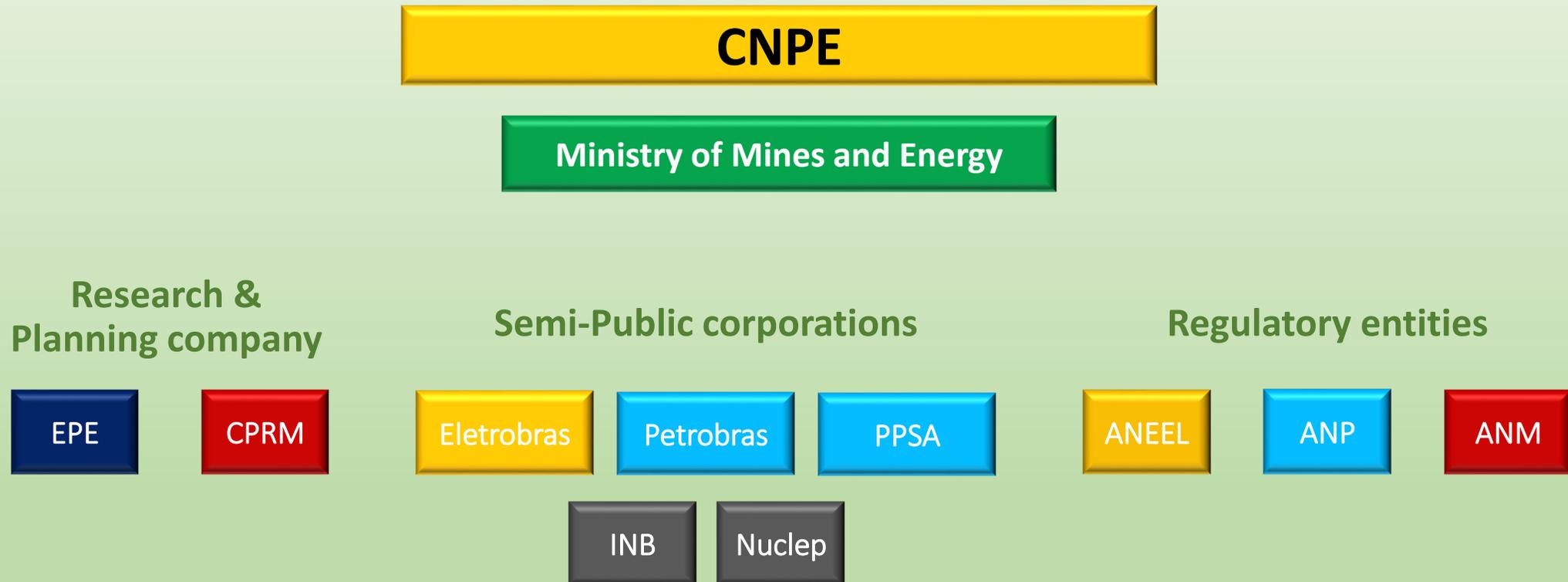
In 2029, the renewable share of the energy supply will be around 48%



(Source: EPE, 2018)



ARRANGEMENT



“Success depends on previous preparation, without such preparation, there is sure to be failure.” Confucius



HOW IS IT WORKING IN PRACTICE?

PLANNING, POLICIES AND
AUCTIONS



SECTORIAL COMMITMENT

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

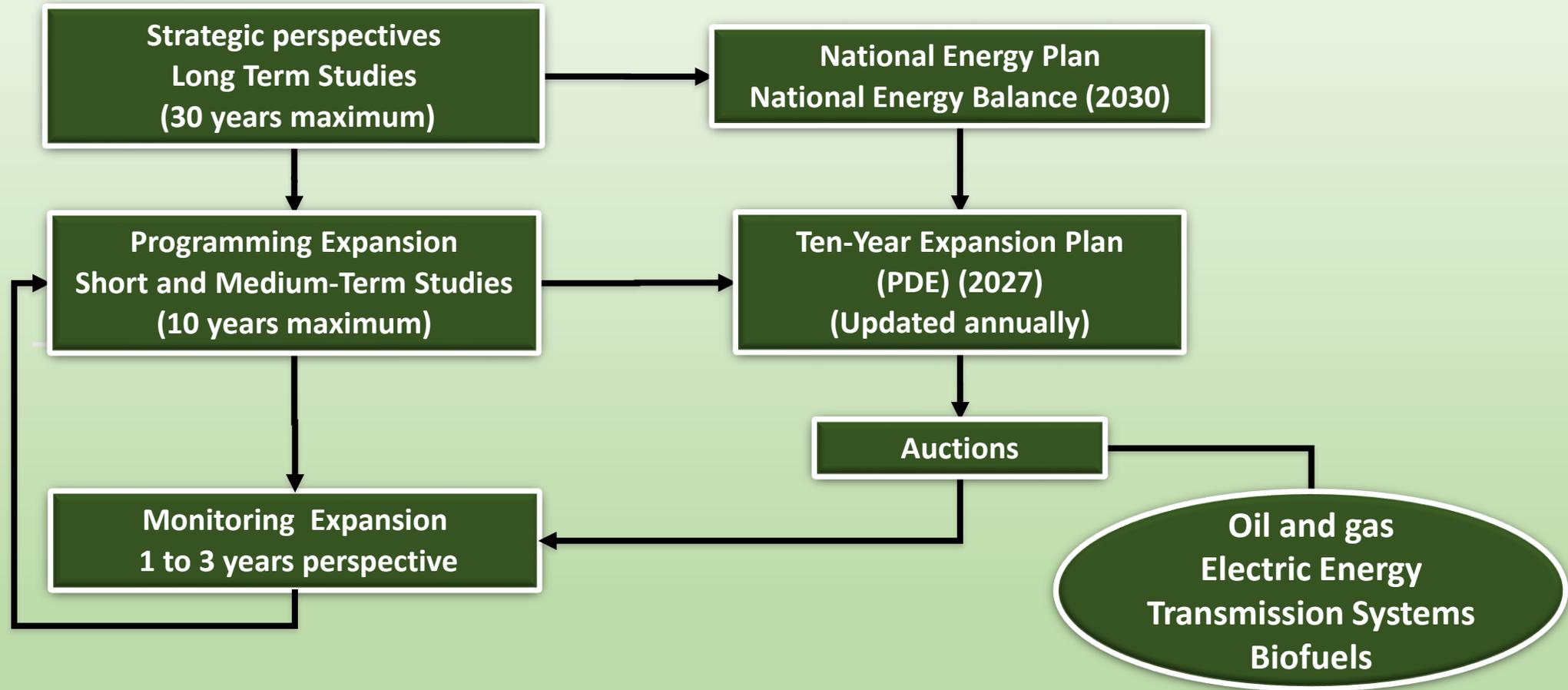
Bento Albuquerque
Minister of Mines and Energy
Inauguration speech, 01/02/19

“If a craftsman wants to do good work, he must first sharpen his tools.”
Confucius



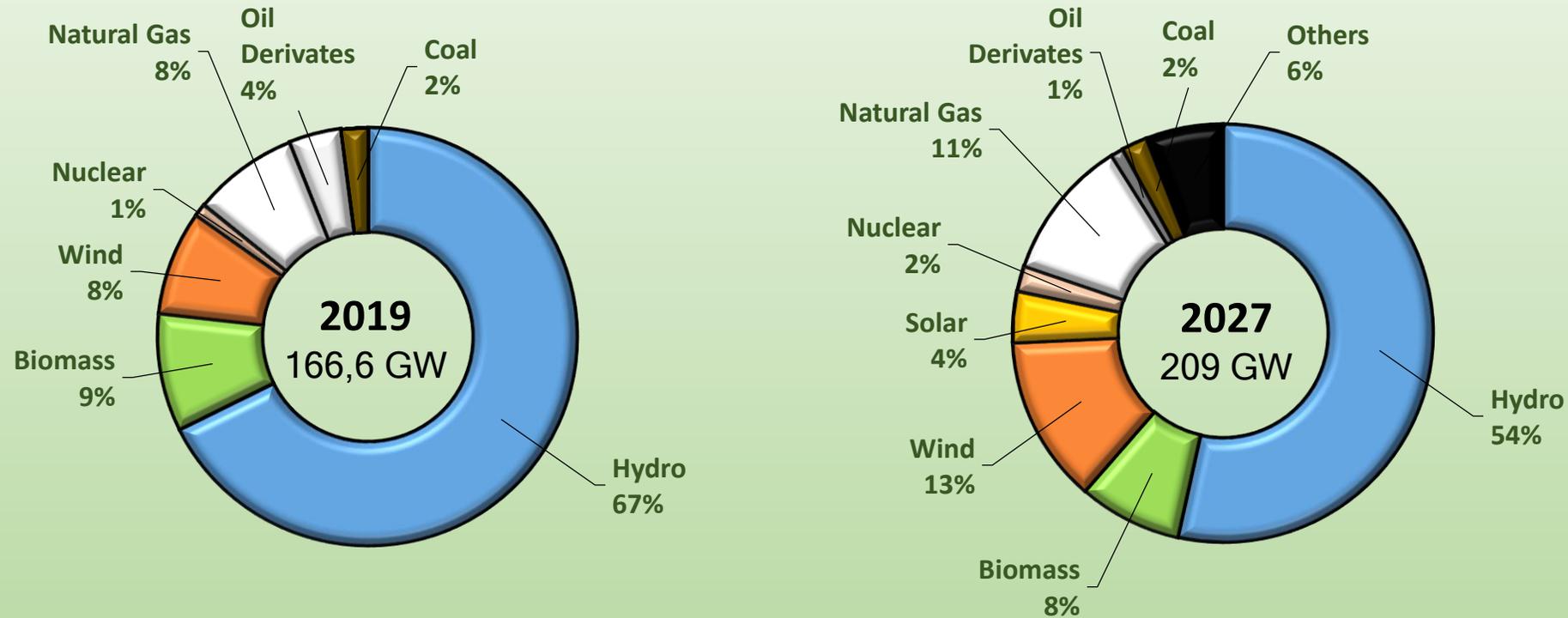


PLANNING APPROACH





ELECTRICAL ENERGY PLANNING



Considering the dependency on hydroelectric energy and its correlation with climate, new sources of energy will have more demand in the country in the next years



ELECTRICITY

“THE AUCTIONS HAVE
ALREADY BEEN DEFINED FOR
THE YEARS 2019 TO 2021”

Bento Albuquerque,
Minister of Mines and Energy
10th edition "Brazil Windpower - 2019": 06/03/2019





OVERVIEW – 2019/2027



166,6 GW

Installed
Generation
Capacity



205 GW

+23%



196 thou. km

+33%

147,3 thou. km

Transmission lines

US\$ 100 Bi

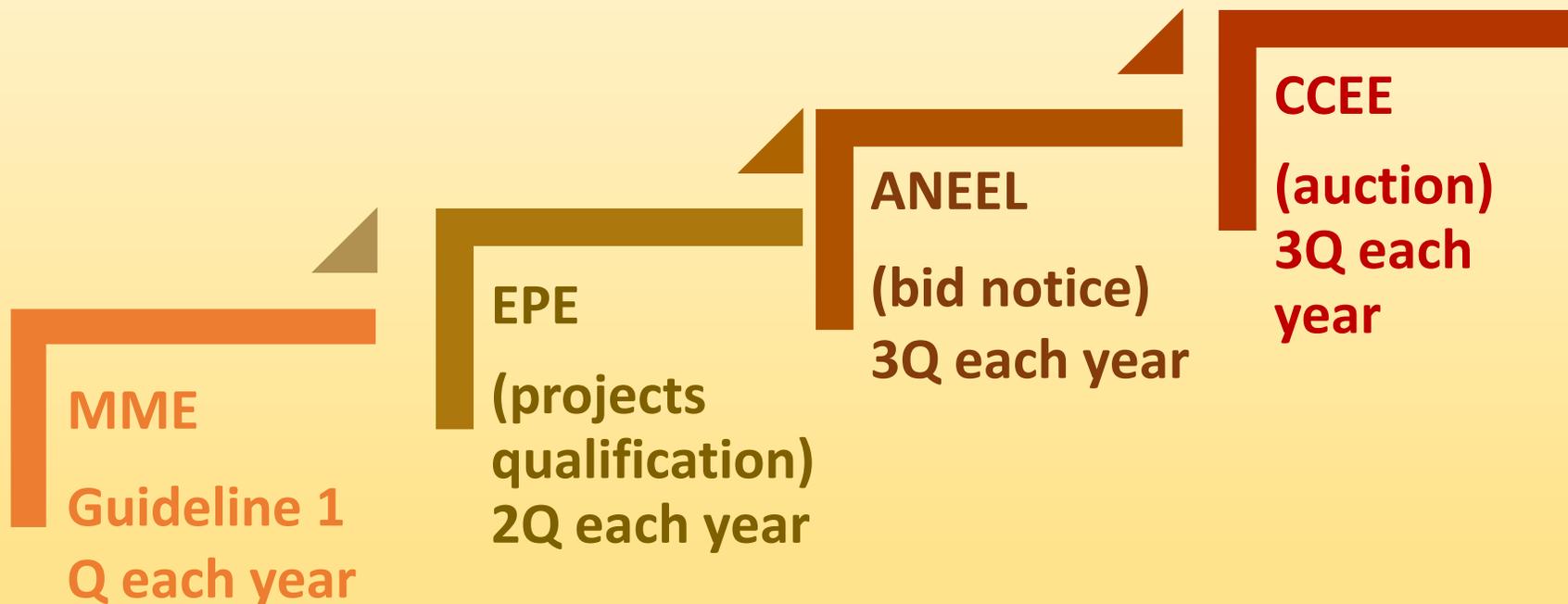
Required
Investments
until 2027



(Source: EPE, 2018)



ENERGY AUCTIONS FRAMEWORK





ATTRACTING INVESTORS – AUCTIONS

Electricity 2019



A-6
Transmission Line

2

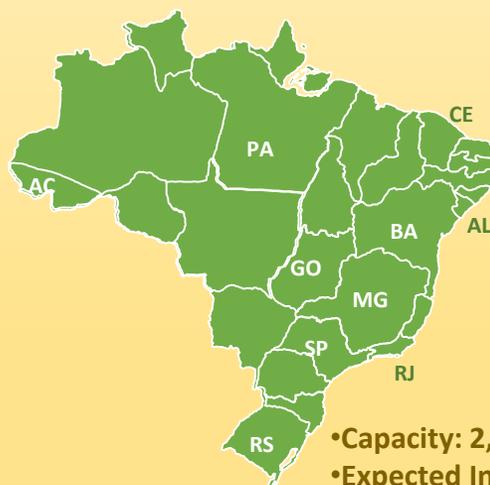
Electricity 2020-2021



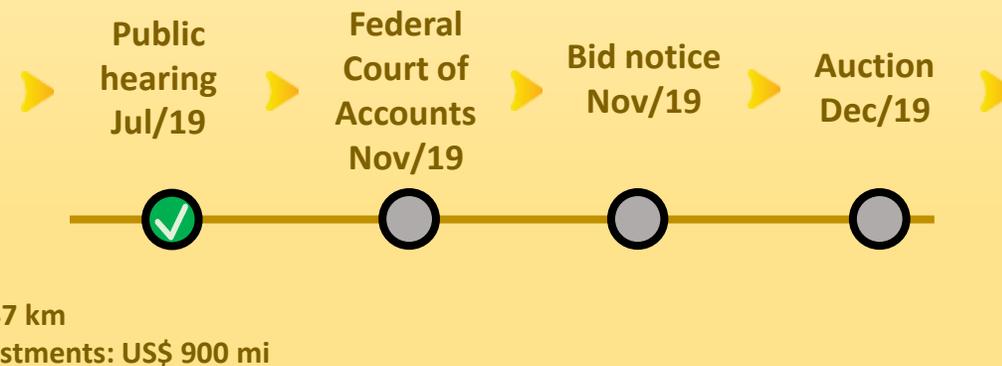
2A-4
2A-6
5 Transmission Lines

9

A-6 (Entry in operation in 6 years)

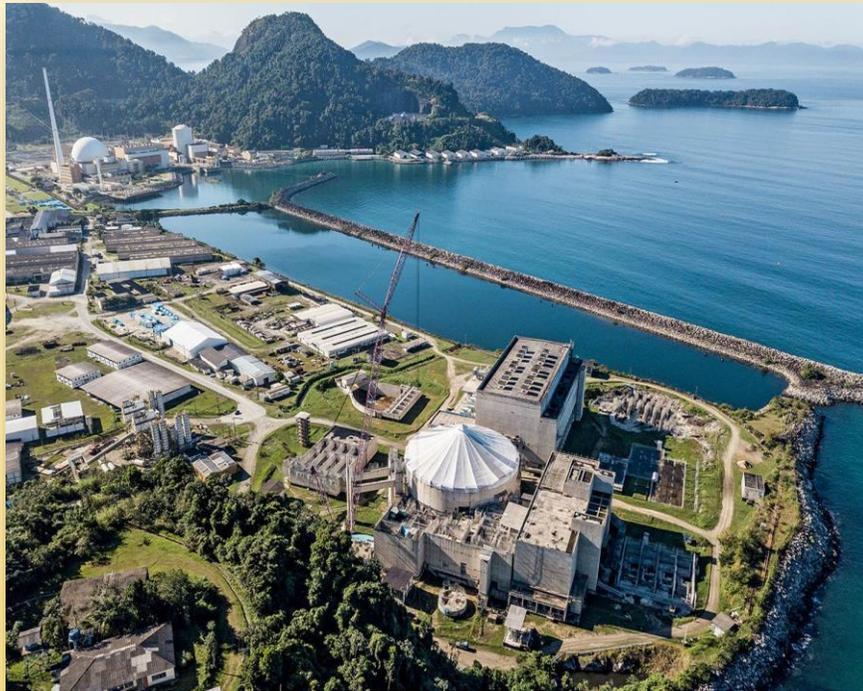


Transmission Lines





STRATEGIC OPPORTUNITIES – ANGRA 3



Angra 3 Partner selection – 1Q/20

Angra 3 is a priority IPP Project
 Reference tariff: **US\$ 123/MWh**
 Completion of facilities: **62.5%**
 Investments applied: **US\$ 2.5 bi**
 Investments required: **US\$ 3.8 bi**

 Complete
  Ongoing
  Starting

(Source: MME, 2019; Eletrobras & Eletronuclear, 2019)





STRATEGIC OPPORTUNITIES - ELETROBRAS



(Source: MME, 2019; Eletrobras, 2019)



Eletrobras capitalisation

- **31%** Generation and **47%** transmission
- **US\$ 3.6 bi** necessary to keep the current market share
- **Significant** market potential value

Eletrobras will become a corporation capable of responding to the Brazilian energy supply expansion challenges



OIL, NATURAL GAS & BIOFUELS

“THE IDEA IS TO SHOW THE FEDERAL GOVERNMENT'S INTEREST IN PROMOTING FREE COMPETITION IN OIL AND GAS SECTOR”

Bento Albuquerque, Minister of Mines and Energy
“Refining event”: 06/11/2019





OVERVIEW – 2019/2040

Double
current reserves
20 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%** of oil production increase in the world, being among the **5 largest producers in the world**
- ✓ By 2030, Brazil will have **doubled** its natural gas production capacity from **120 to 267 million m³ / day**

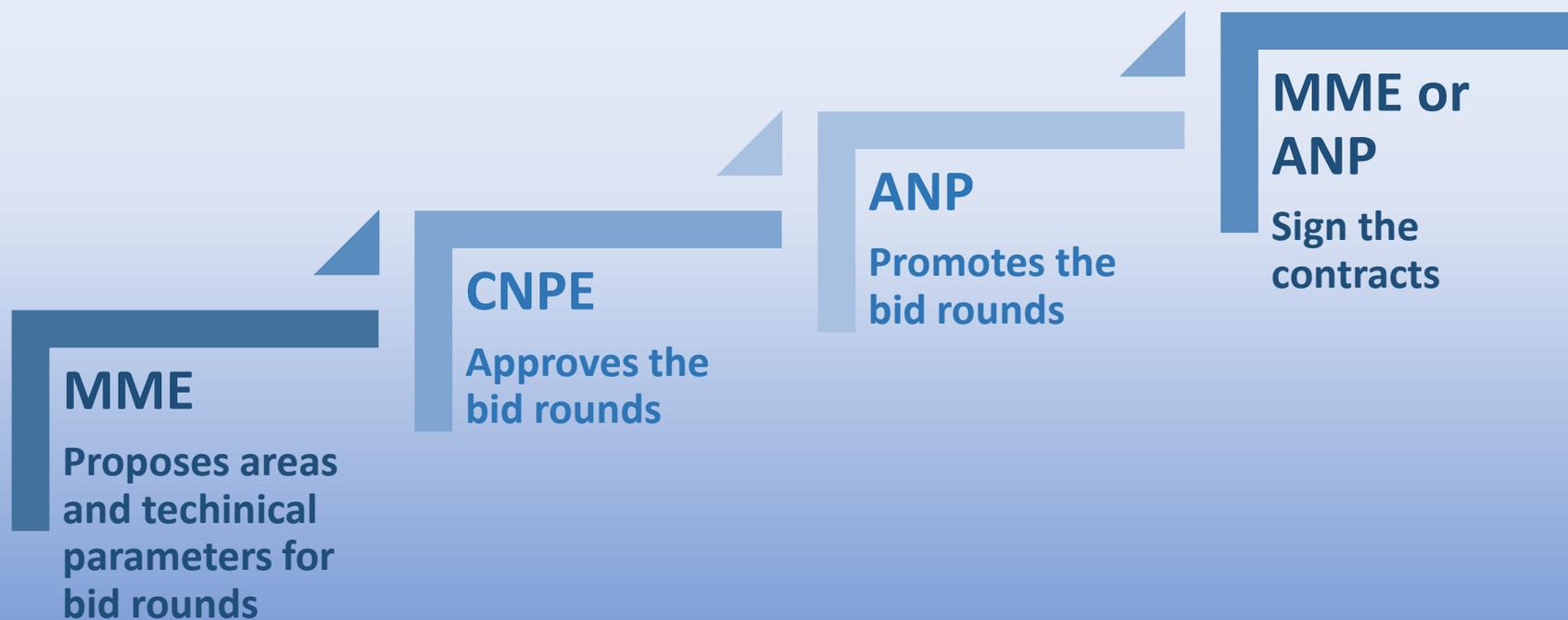
**Oil and gas sector
accounts for 13% of
the Brazilian GDP**

*Barrels per day

(Source: MME, 2019, ANP, 2019)



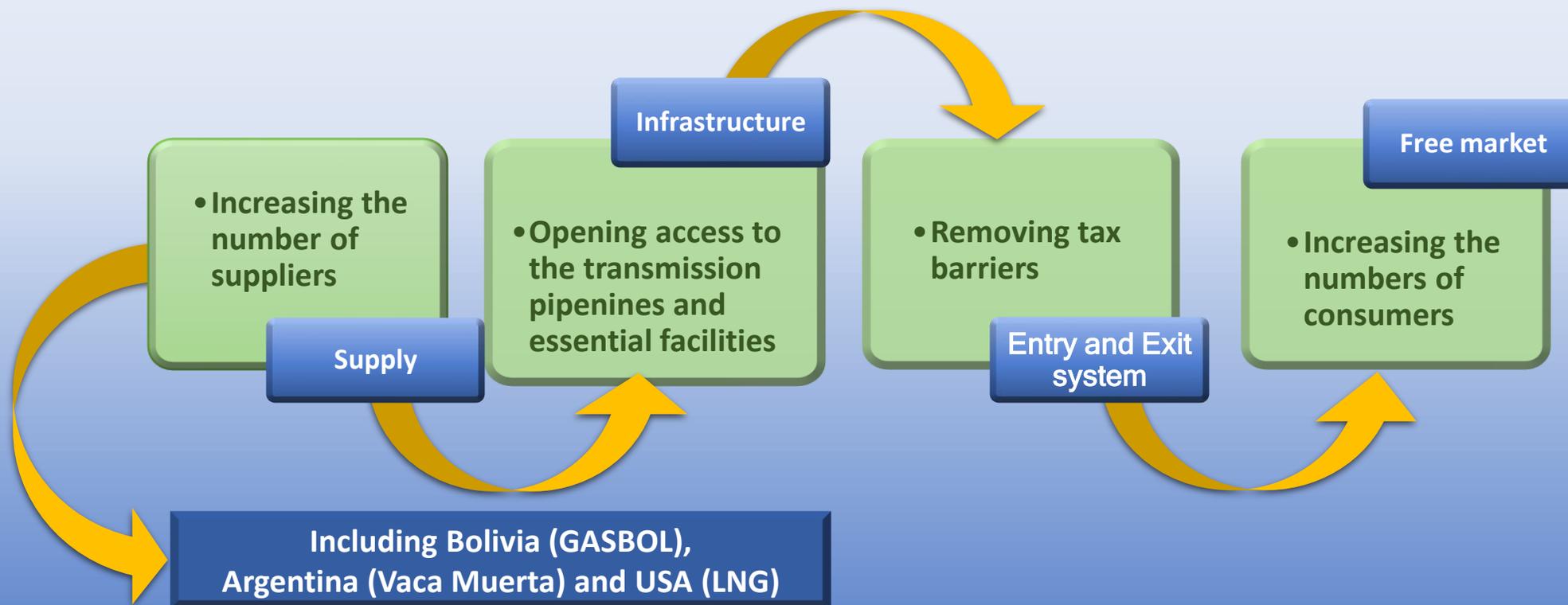
OIL & GAS AUCTIONS FRAMEWORK





NEW GAS MARKET - POLICY

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





BIOFUELS - POLICY

Renewable (45,3%)



Sugarcane biomass (17.4%)



Hydro (12.6%)



Firewood and charcoal (8.4%)

Non renewable (54,7%)



Oil and derivatives (34.4%)



Natural Gas (12.5%)



Coal (5.8%)

➤ Biomass

A-4 (Jun.28th)
Roraima Auction (May. 31st)

- By September, B11 mix will be operative
- Brazil is the 2nd largest world biodiesel producer (5.3 bi l/2018)
- By 2023, the mix will be B15
- +300 Bi US\$ investments in the next 10-years



INVESTMENT OPPORTUNITIES – AUCTIONS

Oil and Gas
2019



4

Transfer of Rights Surplus
Production Sharing Bidding
Round

6th Production Sharing
Bidding Rounds

16th Bidding Round of
Blocks

Open acreage



16th Bidding Round
of Blocks 36 blocks

10/10/19



Transfer of Rights
Surplus Production
Sharing Bidding Round

6 to 15 billion boe

11/06/19

6th Production
Sharing Bidding
Rounds

5 blocks

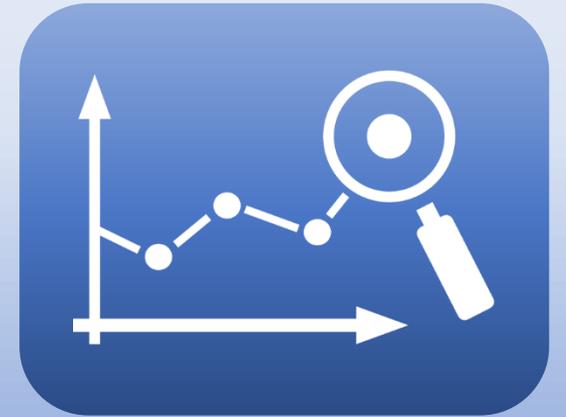
11/07/19

One of the best plays in
the world, with the biggest
offshore oil discoveries in
the last decade



PREDICTABILITY

By 2021, seven rounds offering areas containing billions of oil barrels are planned, which create opportunities for all types of exploration and production companies.





MINING SECTOR

“...OUR GOAL IS TO SURPASS THE FIGURES FOR 2018, WHEN THE MINERAL SECTOR REPRESENTED 21% OF BRAZILIAN EXPORTS.”

Bento Albuquerque,
Minister of Mines and Energy
“Brazilian Mining Day”: 03/04/2019





OVERVIEW – CURRENT/FUTURE

80

Number of mineral commodities with known reserves

0.5%

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%

Brazilian mining production in relation to GDP

**20.8% of
Brazilian exports**



US\$ 20 Bi
Investments
until 2022



MINING SECTOR POLICIES



ANALYSING THE MINING RIGHTS GUIDELINE



IMPROVING THE CAPACITY OF OUR REGULATORY AGENCY



OPENING THE AUCTION AGENDA BASED ON IPP GUIDELINES



ATTRACTING INVESTORS - AUCTIONS

Mining



4

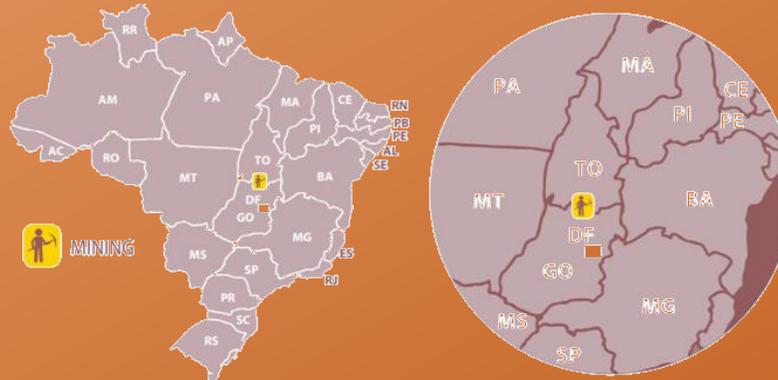
Palmeirópolis-TO Auction

Auction of 1,000 ANM areas

Uranium Mining

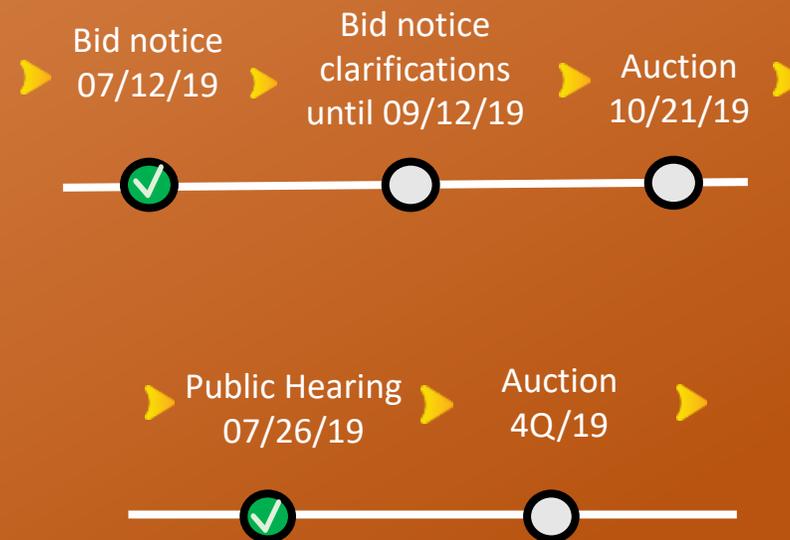
Potassium Mining

Palmeirópolis Auction
Expected investment: US\$ 65 Mi



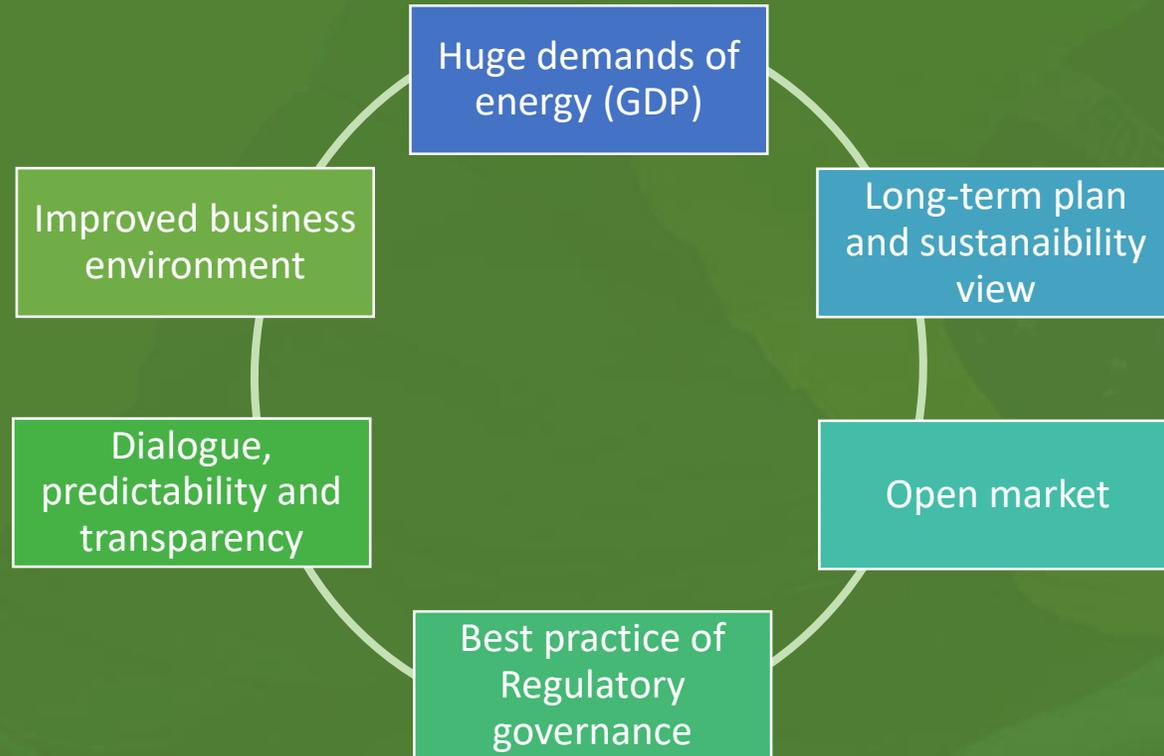
1,000 ANM Areas

All over the country
Pilot for 20,000 areas





CONCLUSION



- Bureaucracy
+ Investments



+ BRAZIL



YOU'RE WELCOME TO INVEST IN BRAZIL!

“A bright future is waiting for you to explore.”





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CHINA | BEIJING, AUGUST 13, 2019

MINISTÉRIO DE
MINAS E ENERGIA

