



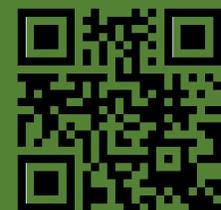
MINISTRY OF MINES AND ENERGY

# MINES & ENERGY PARTNERSHIP

BENTO ALBUQUERQUE  
MINISTER OF MINES AND ENERGY

CHINA | BEIJING, AUGUST 13, 2019

This document was prepared by MME and presents the best estimates, based on the available data.  
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.”

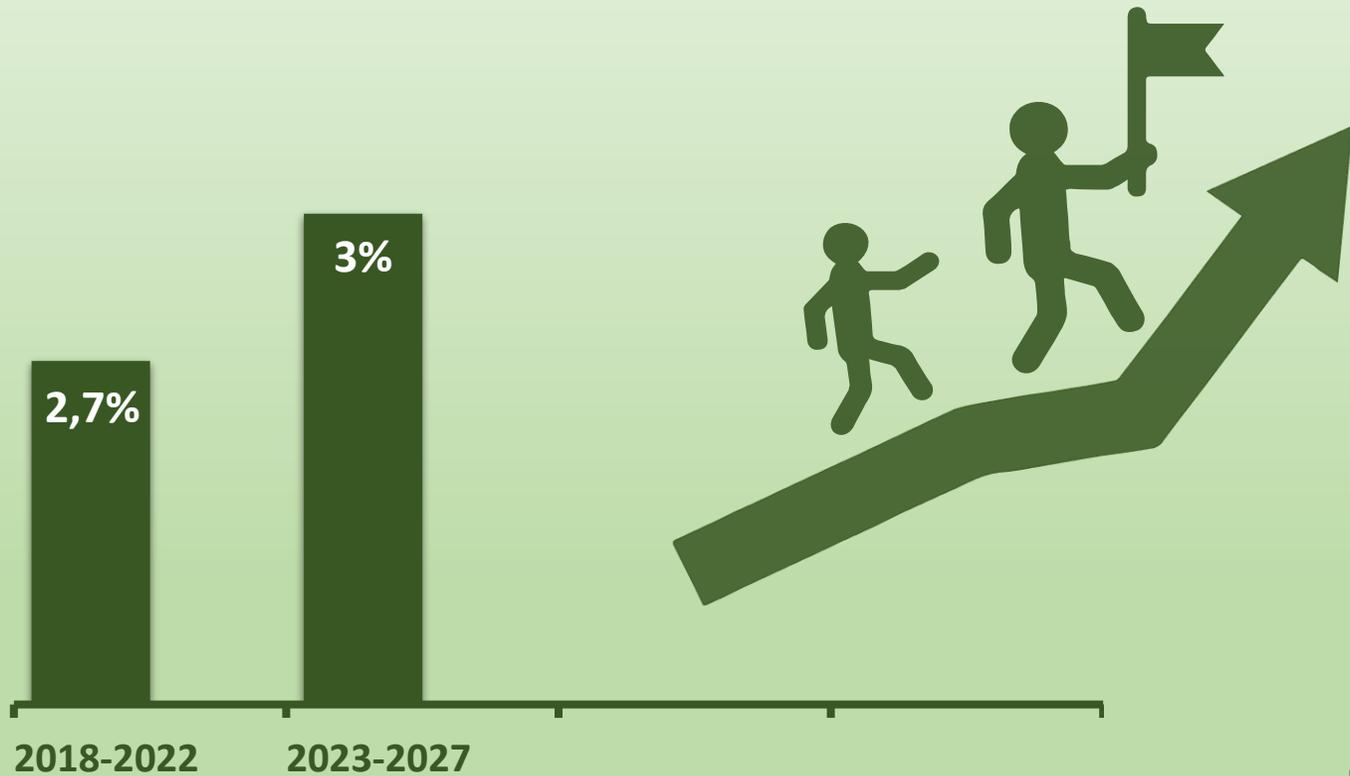
Jair Bolsonaro | President  
Inauguration speech, 01/01/19





# ENERGY DEMAND

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



Source: SDI/MME, 2019

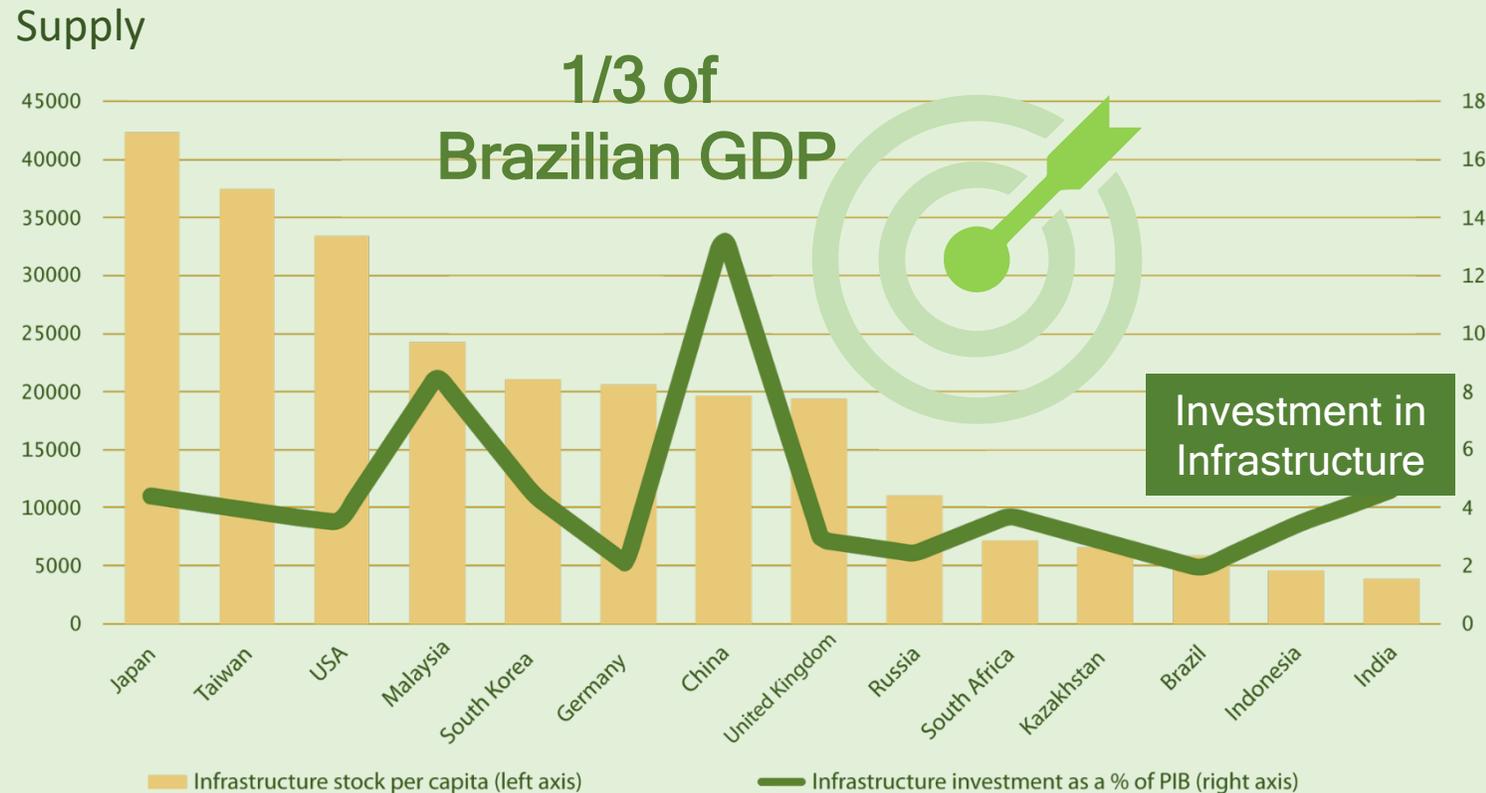
Bento Albuquerque,  
Minister of Mines and Energy  
Summit 06/17/2019

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

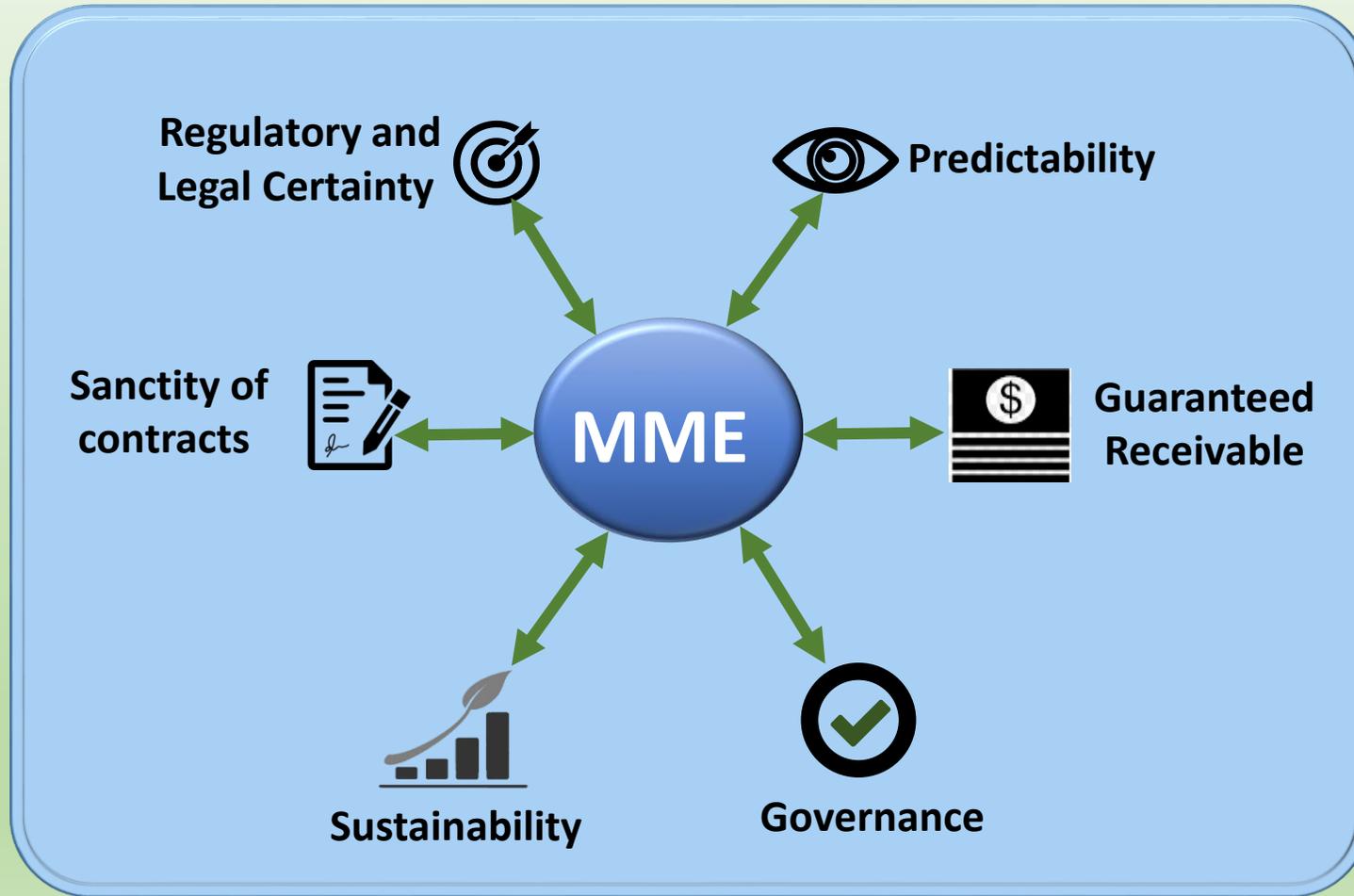
Bento Albuquerque,  
Minister of Mines and Energy Ethanol  
Summit 06/17/2019

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# BEST PRACTICES

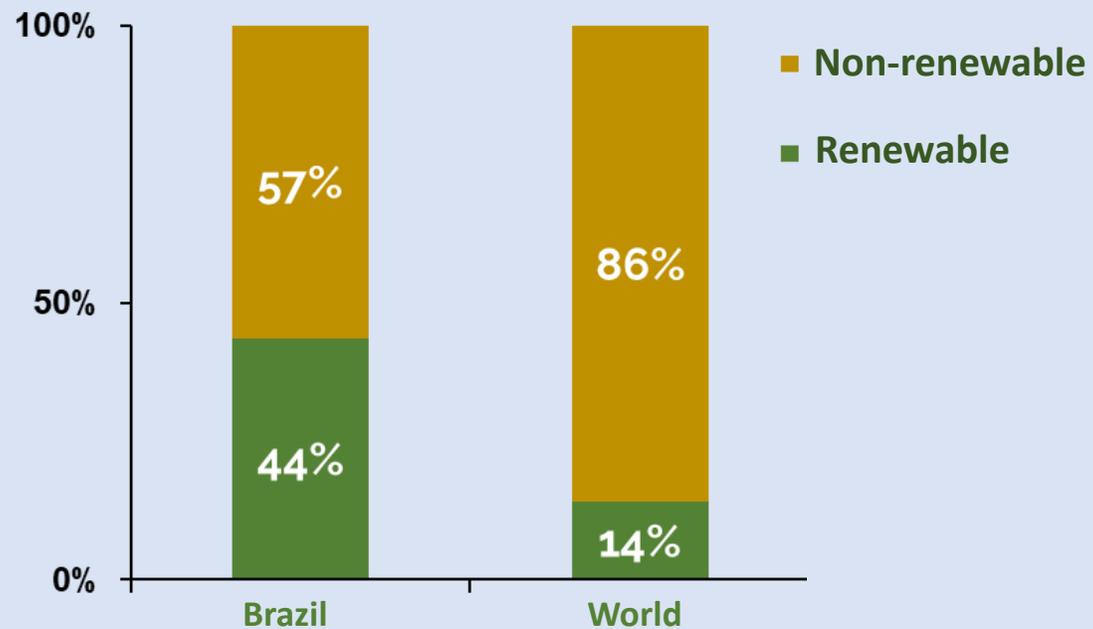




# SOURCES DIVERSIFICATION

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

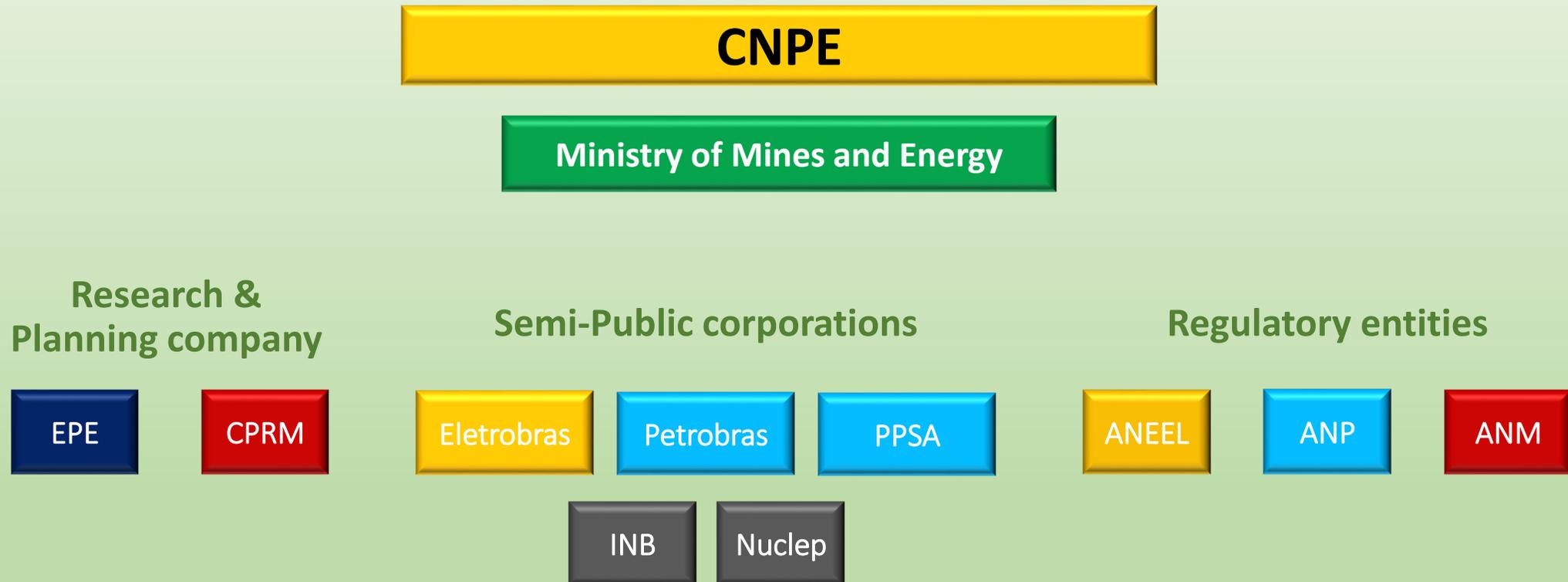
**In 2029, the renewable share of the energy supply will be around 48%**



(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.”**

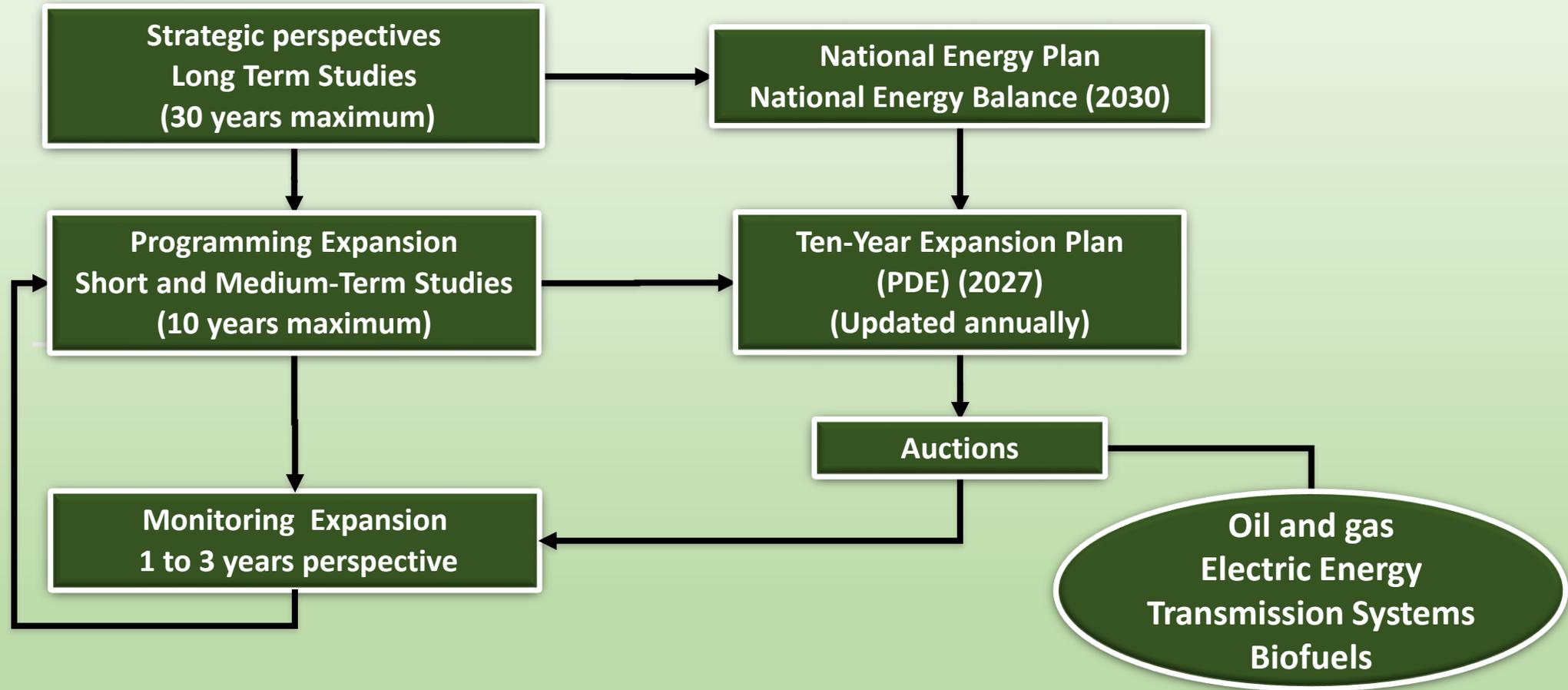
Bento Albuquerque  
Minister of Mines and Energy  
Inauguration speech, 01/02/19

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



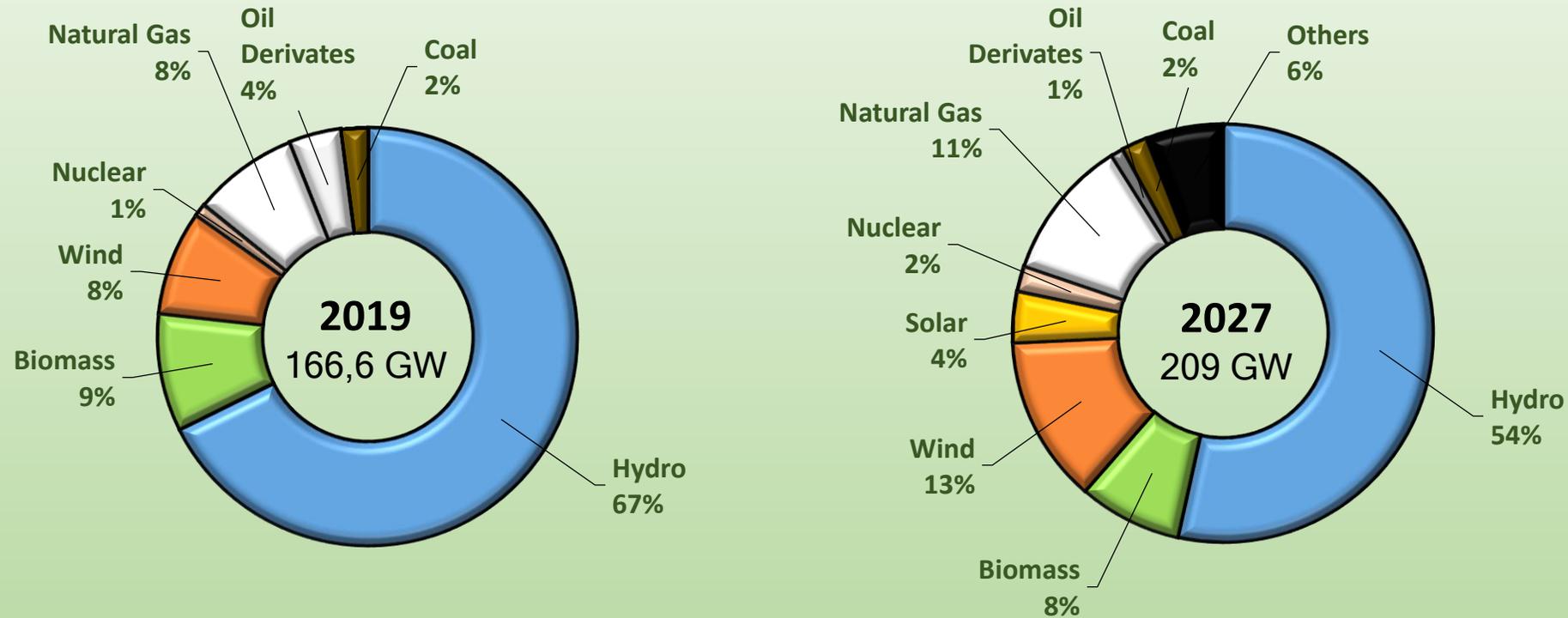


# PLANNING APPROACH





# 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



**+23%**

**205 GW**



**+33%**

**147,3 thou. km**

Transmission lines

**US\$ 100 Bi**

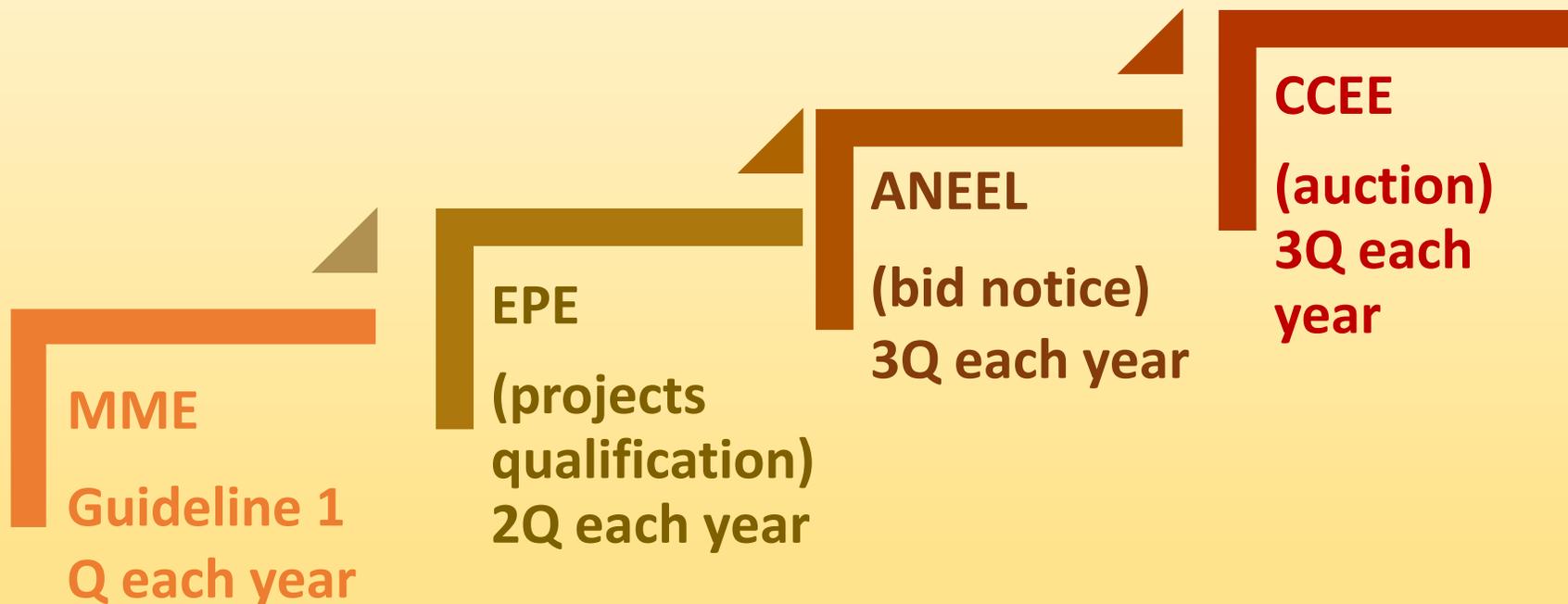
Required  
Investments  
until 2027



(Source: EPE, 2018)



# ENERGY AUCTIONS FRAMEWORK





# ATTRACTING INVESTORS – AUCTIONS

**Electricity 2019**



**A-6**  
**Transmission Line**

**2**

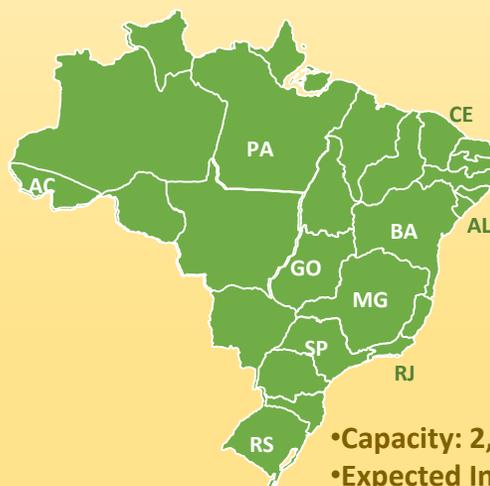
**Electricity 2020-2021**



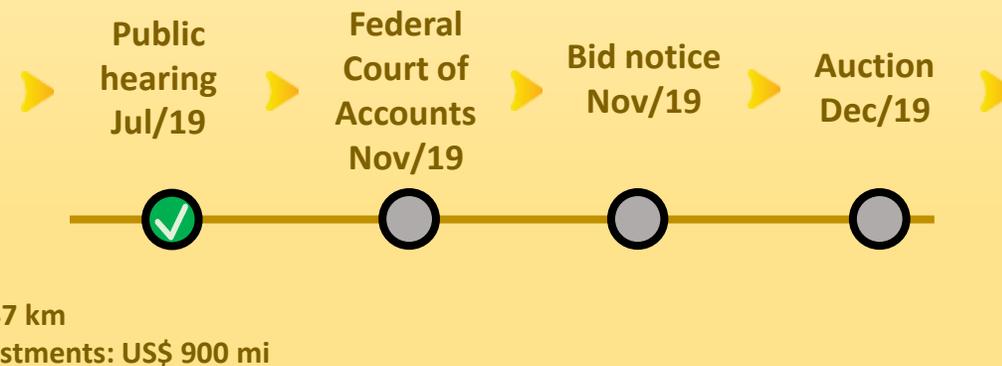
**2A-4**  
**2A-6**  
**5 Transmission Lines**

**9**

## A-6 (Entry in operation in 6 years)

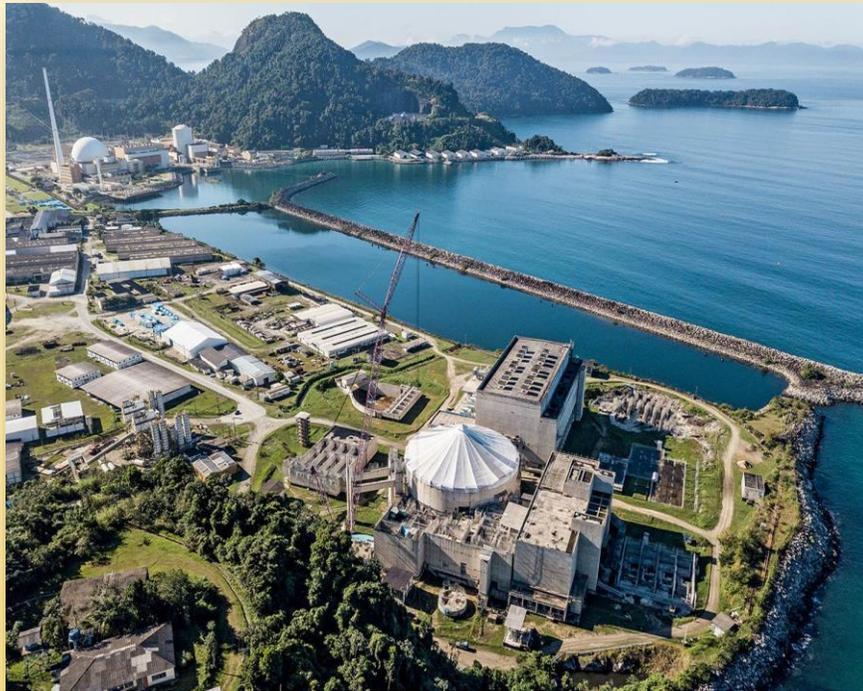


## Transmission Lines





# 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 m<sup>3</sup> / day**

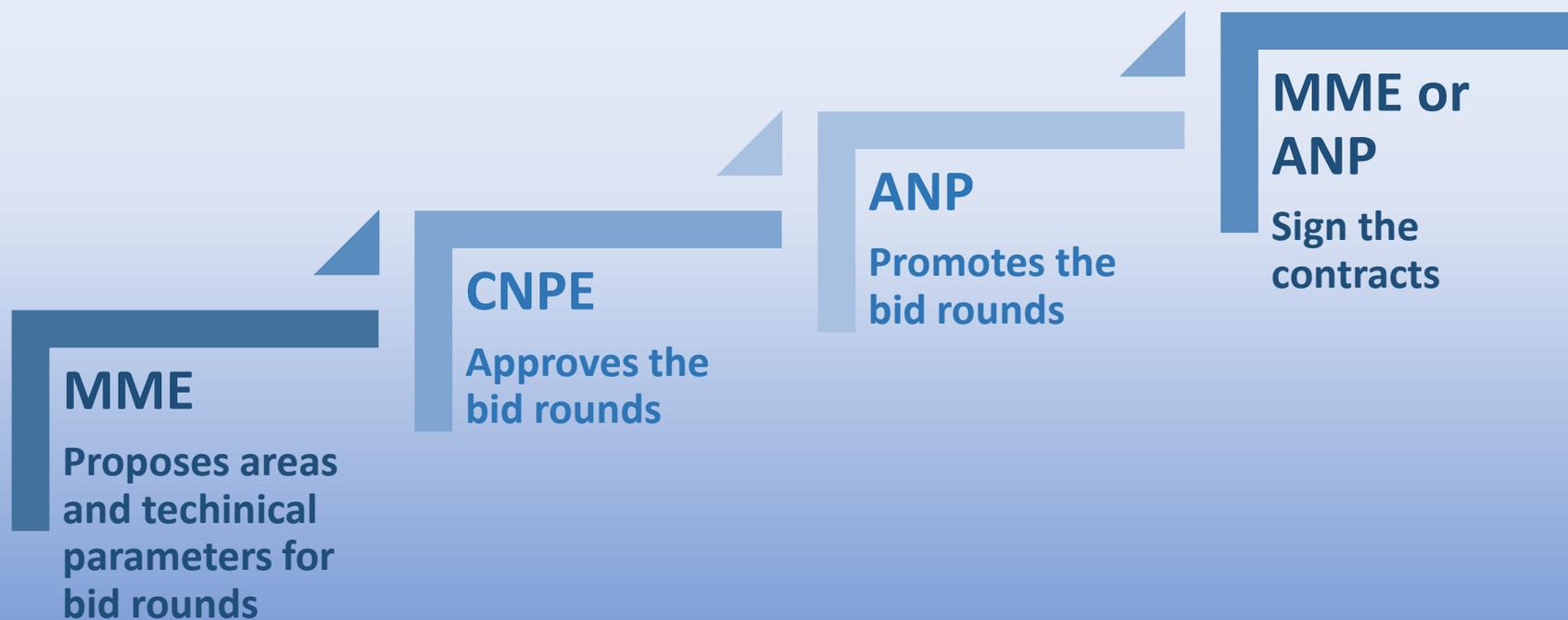
**Oil and gas sector  
accounts for 13% of  
the Brazilian GDP**

\*Barrels per day

(Source: MME, 2019, ANP, 2019)



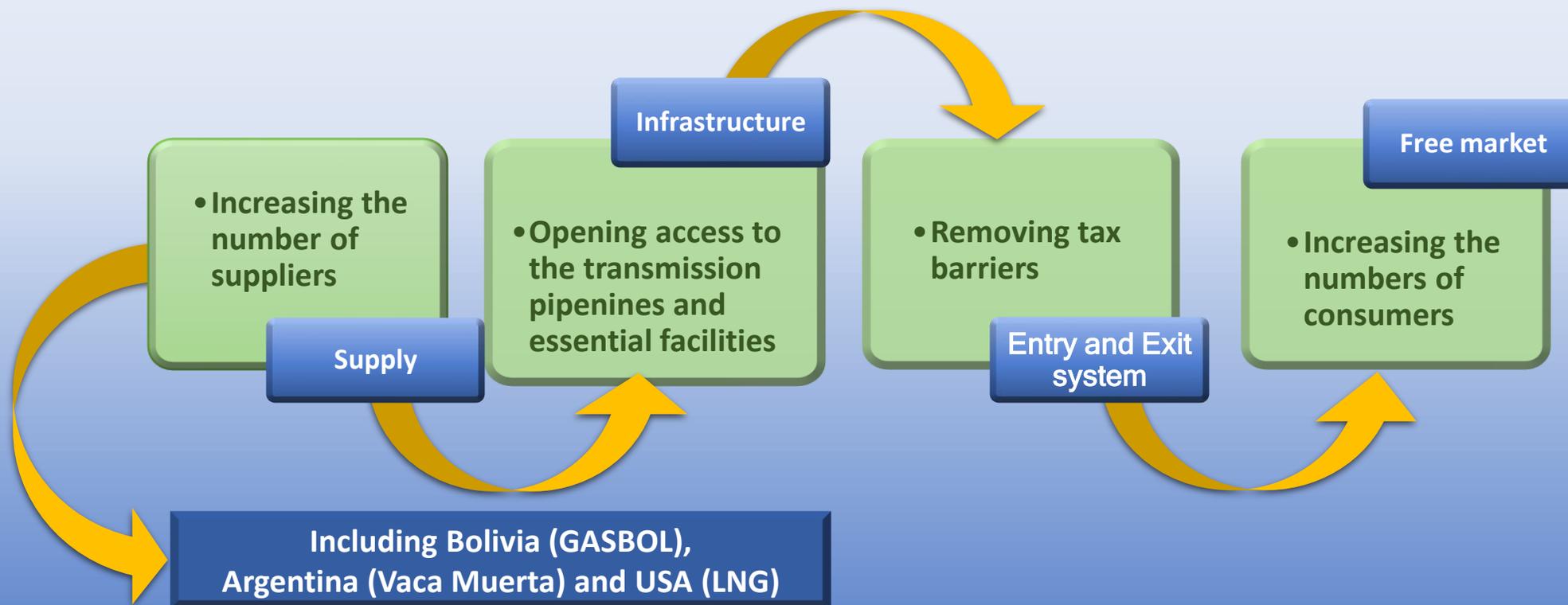
# OIL & GAS AUCTIONS FRAMEWORK





# 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.28<sup>th</sup>)  
Roraima Auction (May. 31st)

- By September, B11 mix will be operative
- Brazil is the 2<sup>nd</sup> 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

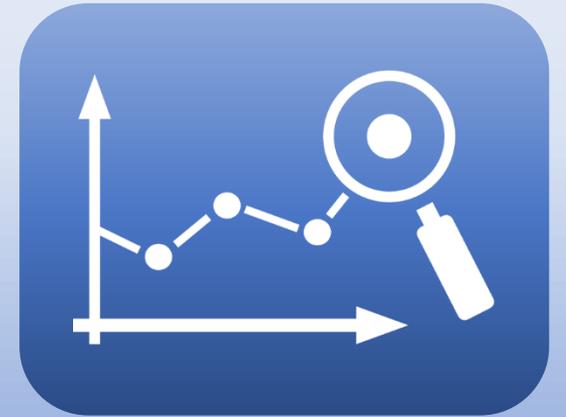
11/07/19

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

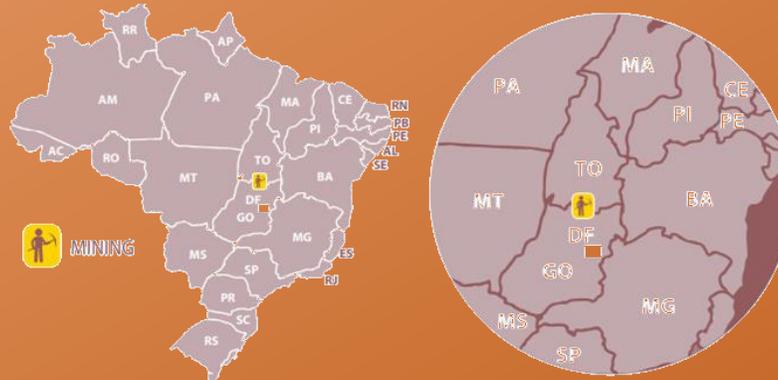
Auction of 1,000 ANM areas

Uranium Mining

Potassium Mining

## Palmeirópolis Auction

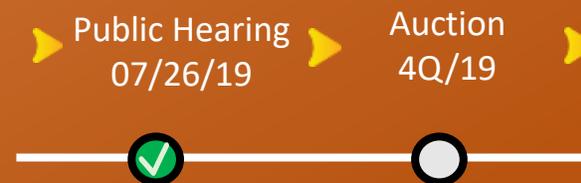
Expected investment: US\$ 65 Mi



1,000 ANM Areas

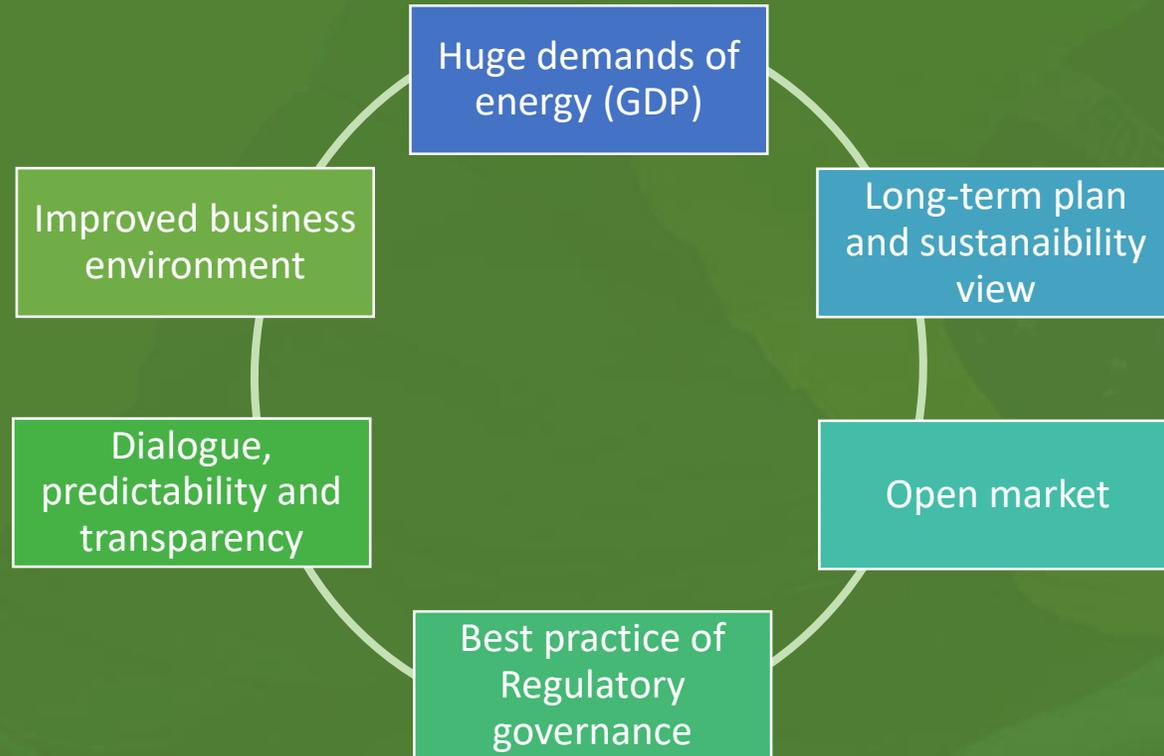
All over the country

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.”*





BENTO ALBUQUERQUE  
MINISTER OF MINES AND ENERGY  
**CHINA | BEIJING, AUGUST 13, 2019**

MINISTÉRIO DE  
MINAS E ENERGIA

