

# Contributing to energy transition

August - 2022

Who are we?

**2.2**  
MILLION  
BARRELS  
PER-DAY  
OF-OIL  
PRODUCTION

0.4  
EXPORTED

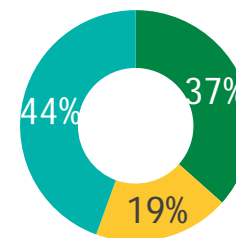


1.8  
REFINED  
in BRAZIL

**40,000**  
EMPLOYEES



## SHAREHOLDERS



- Brazilian government
- Brazilian investors
- Foreign investors

**>850,000**  
RETAIL INVESTORS

# Brazilian Oil-Gas company

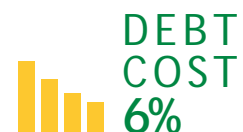
Offshore C.C.S.

Global-Leader

**30** MM TONS  
OF CO<sub>2</sub>e  
REINJECTED IN  
CCUS PROJECTS

Accumulated CO<sub>2</sub> reinjections 2008-2021

MARKET  
VALUE  
**75**  
US\$ BN



2021

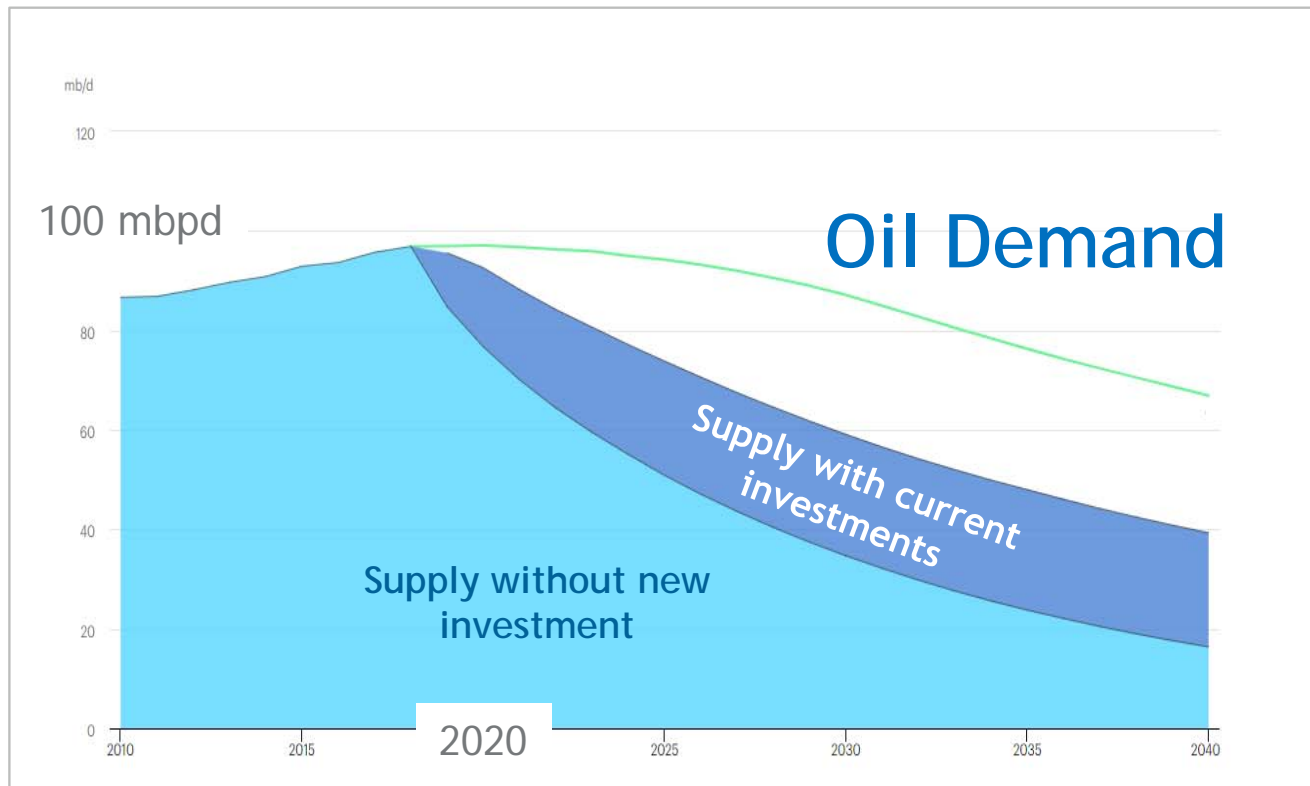
**> 500**  
Thousand  
BARRELS  
PER-DAY  
OF-N-Gas  
PRODUCTION

Our 5 key-contributions  
to energy transition

in a world 80% dependent on C.O.G

# 1. Low carbon oil: Brazilian ultra-deep waters

Global Oil Demand - in MM bpd  
(Sustainable Development Scenario - IEA )

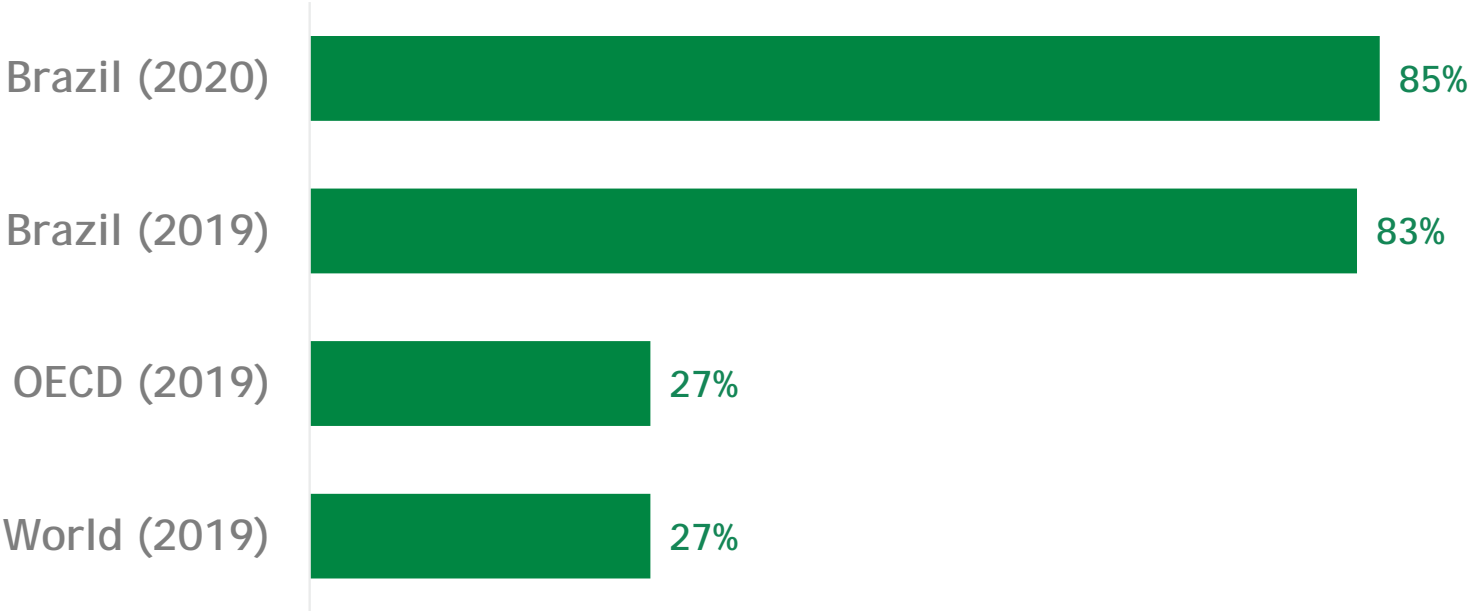


- $< 10\text{KgCO}_2\text{eq/boeq}$
- $< 3\%$  of global demand
- Finance energy transition

**Energy transition  
must be responsible**

# 2. Supplying natural gas for “dispatchable” energy

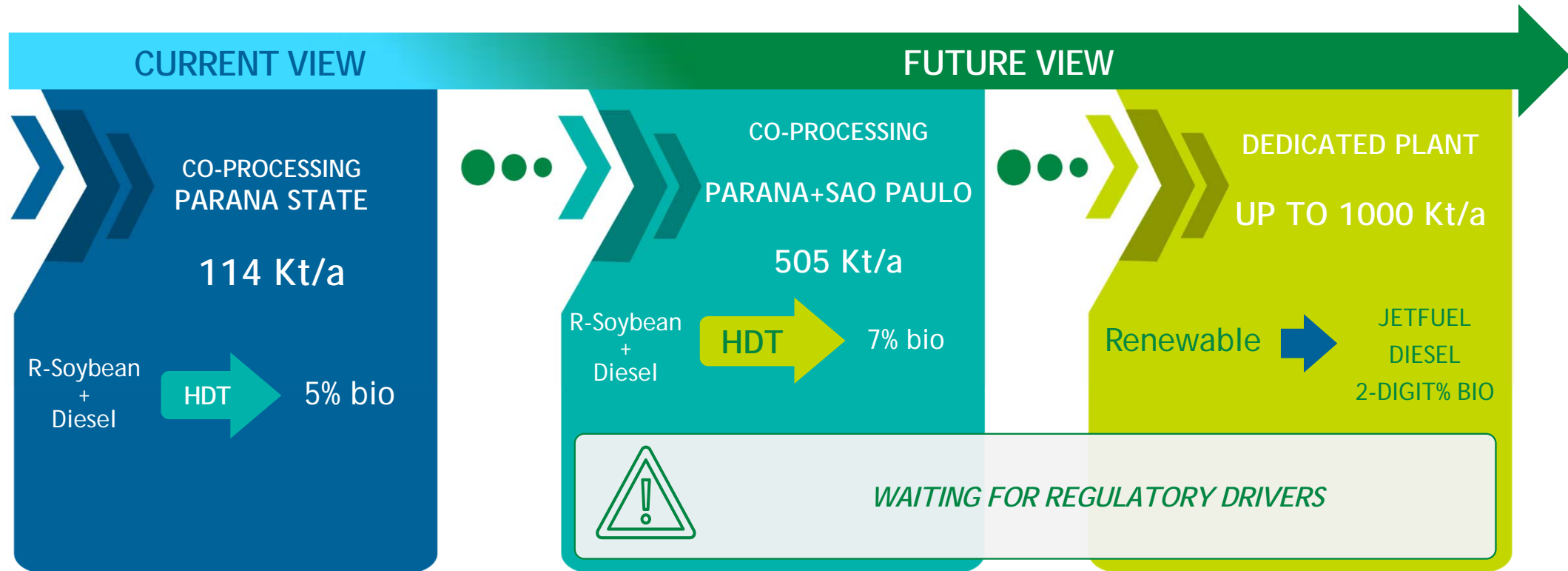
Share of renewable in power sector mix (%)



**Energy Security** for the high renewable power sector mix

LNG cargoes imported by Brazil: 43 (2019); 33 (2020); 119 (2021)

### 3. Bio Fuels

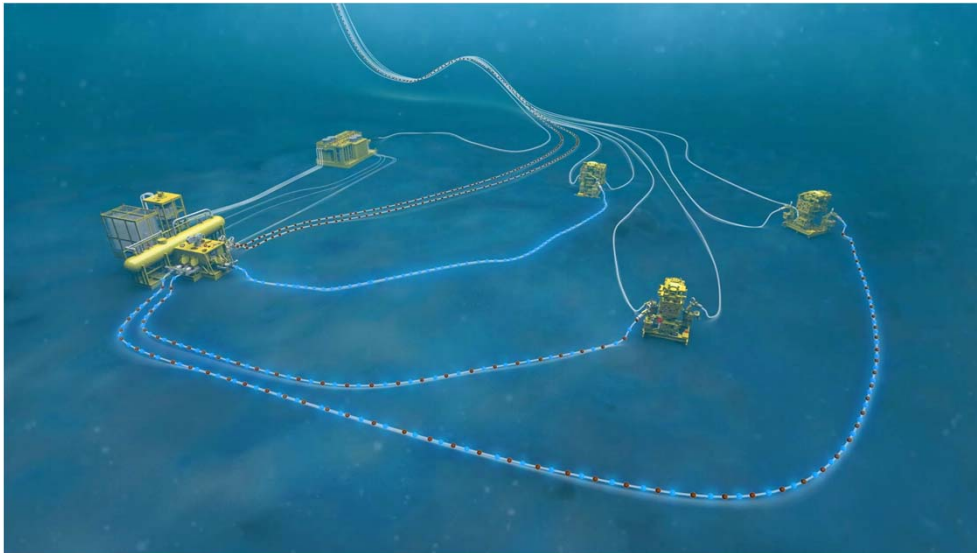


Biofuels: 25% of transport energy consumption in Brazil (5% in the world)

## 4. R&D to low carbon solutions

**HISEP<sup>®</sup>**: increasing CCS underwater

*Expected  
4% reduction in carbon intensity*



**OFFSHORE WIND**: evaluation of  
wind farm in the Campos Basin  
(Aracatu) joint with *Equinor*

*4 GW capacity under evaluation*





## 5. Local people and forest: 21 big-projects

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Action in 3% of Brazilian territory

+17 thousand people

Small farmers, traditional communities, students

167 partnerships

Universities, research institutes, environmental agencies

**WHY FOREST ?**

A low-angle photograph of a large tree trunk and canopy against a bright sky. The tree trunk is thick and textured, with a rough, greyish-brown bark. The canopy is dense with green leaves, filling the upper half of the frame. The sky is visible through the branches, appearing bright and slightly overcast.

# natural carbon sinks

*Absorb 1/5 of emissions from burning fossil fuels*

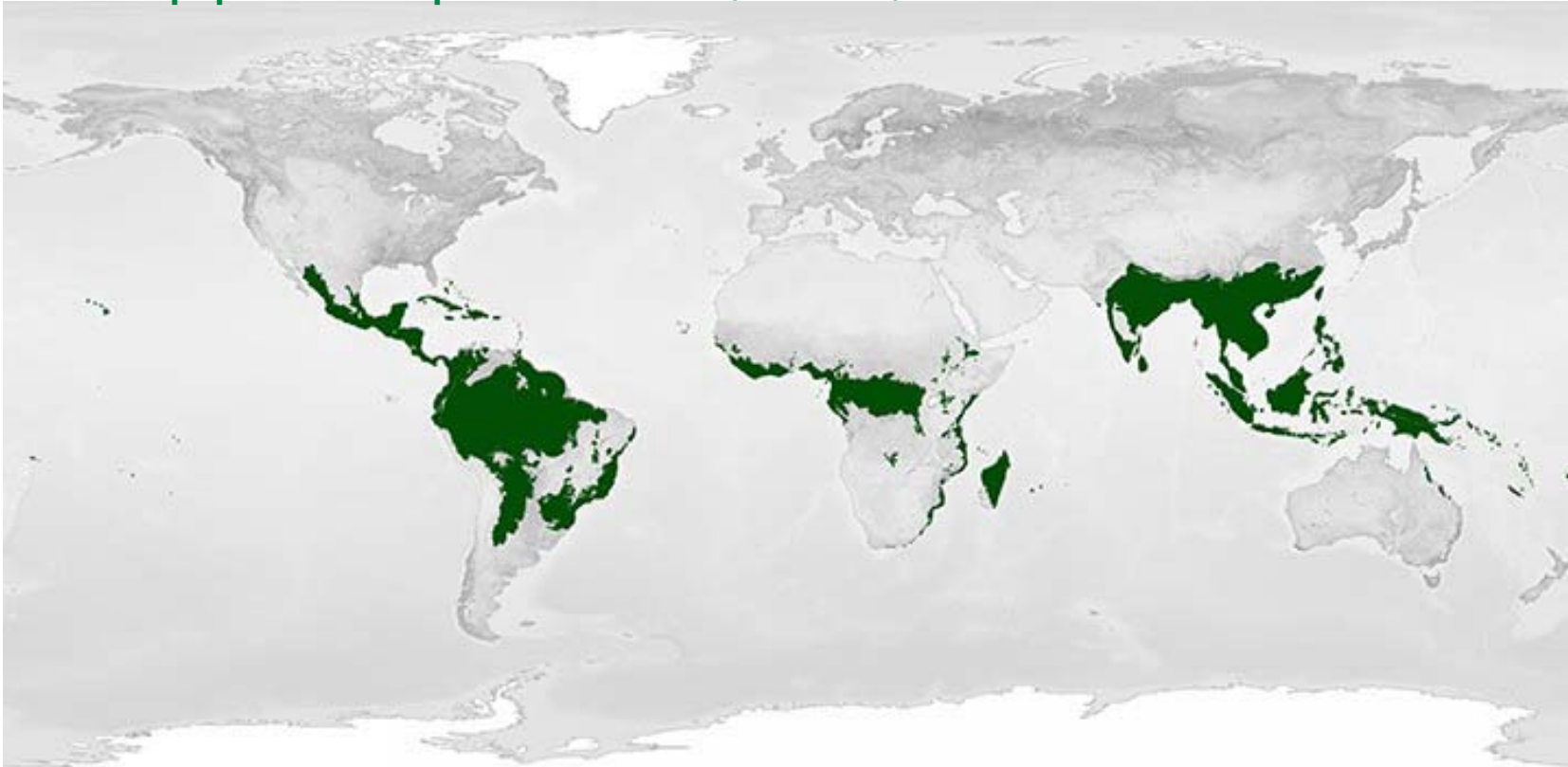
*Without them, world would be 1°C hotter*

*Tropical deforestation = emissions from cars and trucks*

# BRAZIL: 20% OF THE GLOBAL POTENTIAL NCS

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The top-potential-places: Brazil, Africa, India and Indonesia



Sources: Earthobservatory - Nasa; ; Griscom et al., 2020

**HOW ?**

# Scarce market incentives to preserve the forests

OUTPUT  
 $F(K,L)$



Local management of  
production factors  
Capital and Labor

FOREST PROVIDES  
PUBLIC BENEFITS



Prices do not provide  
adequate incentives

How value F-conservation?

# We start voluntarily “buying” forests: worth more alive

## PETROBRAS voluntarily investing

- Stakeholders claims: consumers, shareholders, banks and employees
- **Climate commitments**
- **BELIEFS**

## Empowering local people

- Restore/conservate forests
- Sustainable wood harvest
- Sustainable food production
- Eco tourism

## Create value for itself and society

- Air/water qlt.-improvement
- Pests and diseases control
- Natural disaster control
- Climate regulation
- **Pending global asset valuation**

***THANK YOU***

