

TAG, Gas Transportation role and Brazilian natural gas market opening

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Rio de Janeiro | March 23rd, 2023

Realização

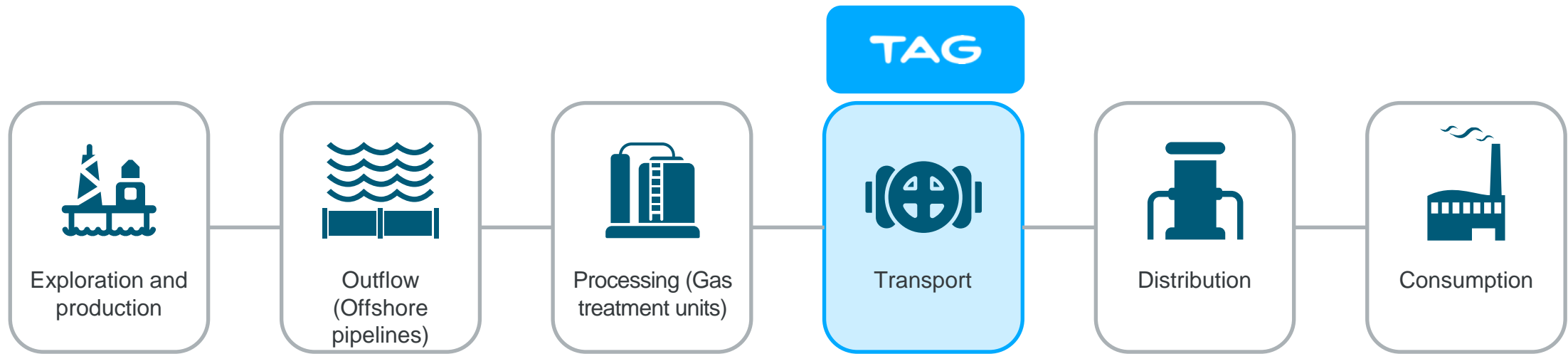
FGV ENERGIA

LANÇAMENTO

**CADERNO
FGV ENERGIA DE
GÁS NATURAL**

TAG

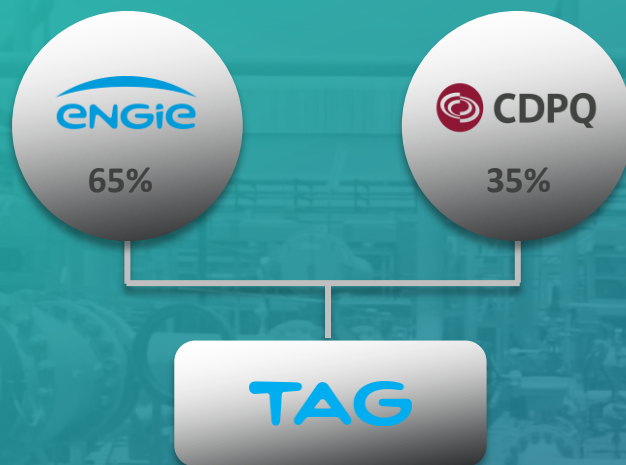
TAG in the Natural Gas Chain



TAG – Main figures

2019/2020

TAG's acquisition by ENGIE and CDPQ



Total Contracted Capacity

>74
million m³/day

“AAA”(bra)

Credit rating from Fitch and Moody's

Net Revenues of

8,4

Billion Reais in 2022

CAPEX invested

750+

Million Reais
2019-2022 period

New Clients (Shippers)

17%

Of TAG's revenues in
2022 (integrated
network)

Contracts (GTAs)

+40

in Jan/2023
(16 clients – Entry &
Exit Model)

Employees

+180

in Dec/2022

TAG – Main Assets Characteristics

TAG is the largest Brazilian gas transportation company in terms of length

- ~4,500 km of gas pipelines that accounts for 47% of the country's gas transport infrastructure
- 3,700 km in the coastal region of Brazil, crossing almost 200 municipalities in 9 Brazilian states (CE, RN, PB, PE, AL, SE, BA, ES e RJ)
- 800 km in Amazon region, connecting Urucu to Manaus

11 compression stations
(6 owned and 5 subcontracted),
connected to 2 LNG terminals

+ 1 under development

14 entry points
(including 2 LNG terminals)

+ 1 under construction

90 delivery points
Connected to 10 LDCs

+ 1 under construction &
+ 5 being expanded

High levels of reliability and safety in gas transport, attending:



10 gas distributors



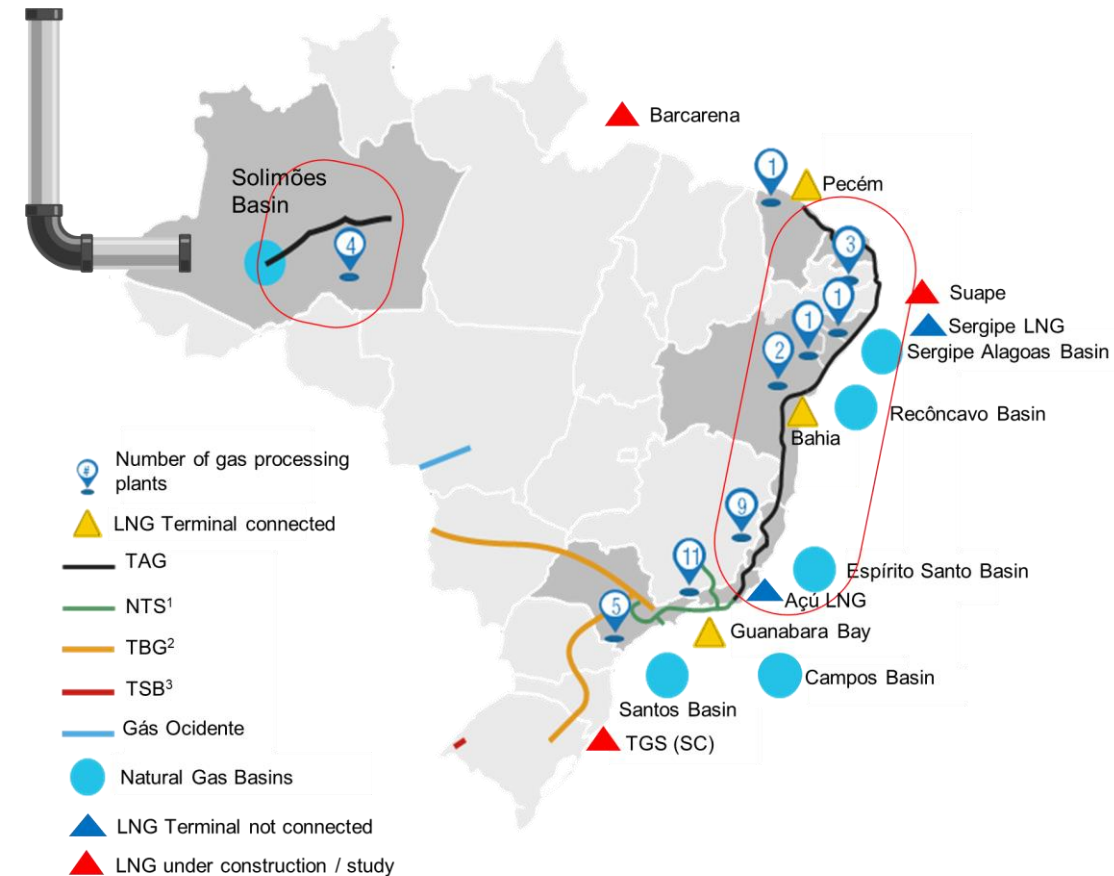
8 thermal power plants



3 refineries



2 fertilizer plants



(1) Nova Transportadora do Sudeste
(2) Transportadora Brasileira Gasoduto Bolívia-Brasil
(3) Transportadora Sulbrasileira de Gás

TAG – Control Room | CSC

One of the most modern control room in South America, ensuring the integrity of our assets and the quality of the transport service (24x7 remote operation – HQ in Rio)



- 500+** operational screens
- 100.000+** monitored points
- 186** site connections (CLPs)
- 10** regional diagnostic stations
- 18** integrated bases
- 80.000** points historical data register
- 380+** flow computers
- 1600+** controlled instruments

Robust Operation to assure operational efficiency and security of supply

16 Operational Bases throughout 10 states



TAG – Market Opening Milestones

TAG`s pioneering on Brazilian Market



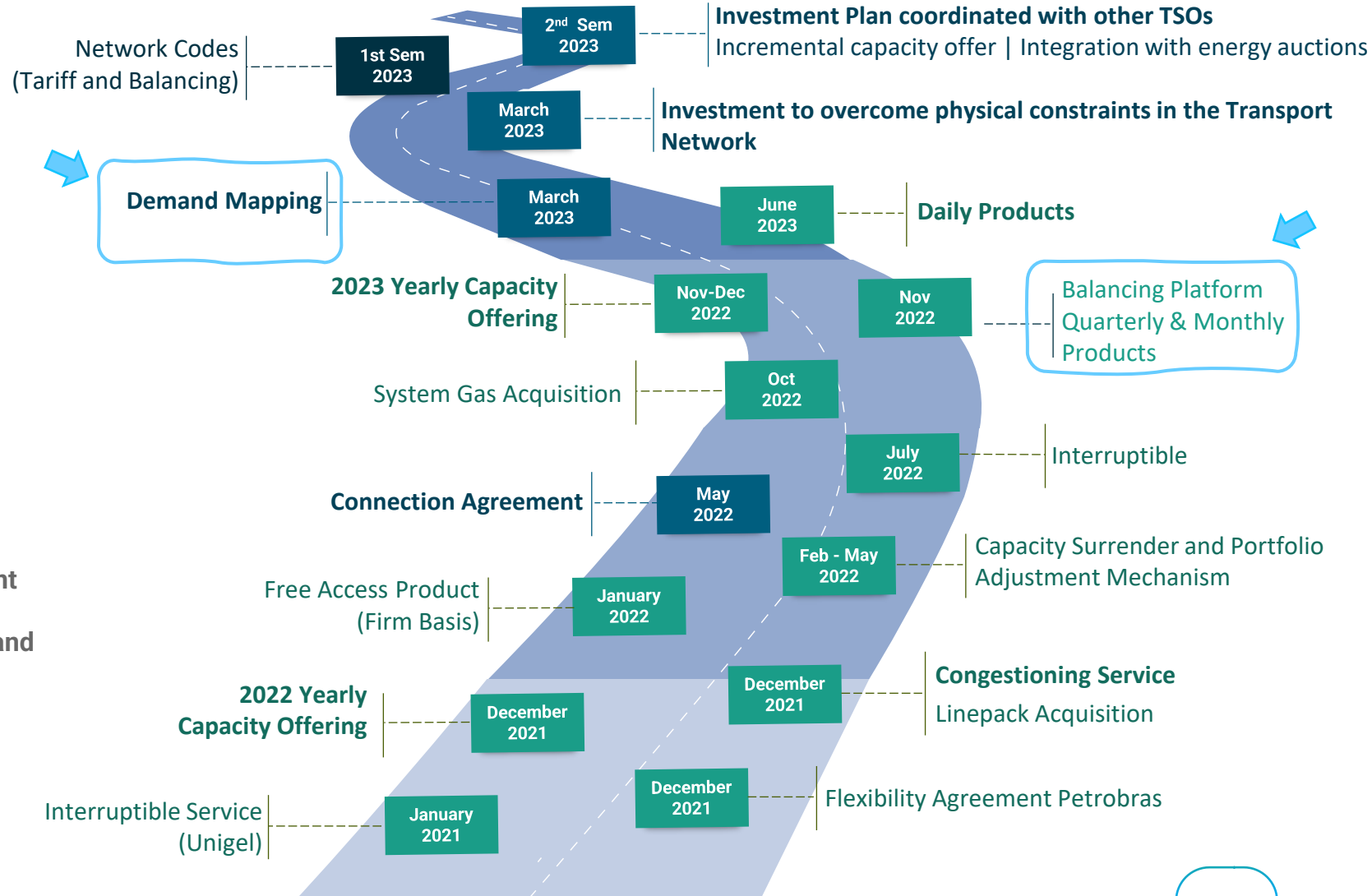
Solutions within the Regulatory framework:

- ✓ Access to Existing Infrastructure
- ✓ New Investment
- ✓ Sustainable Market Design



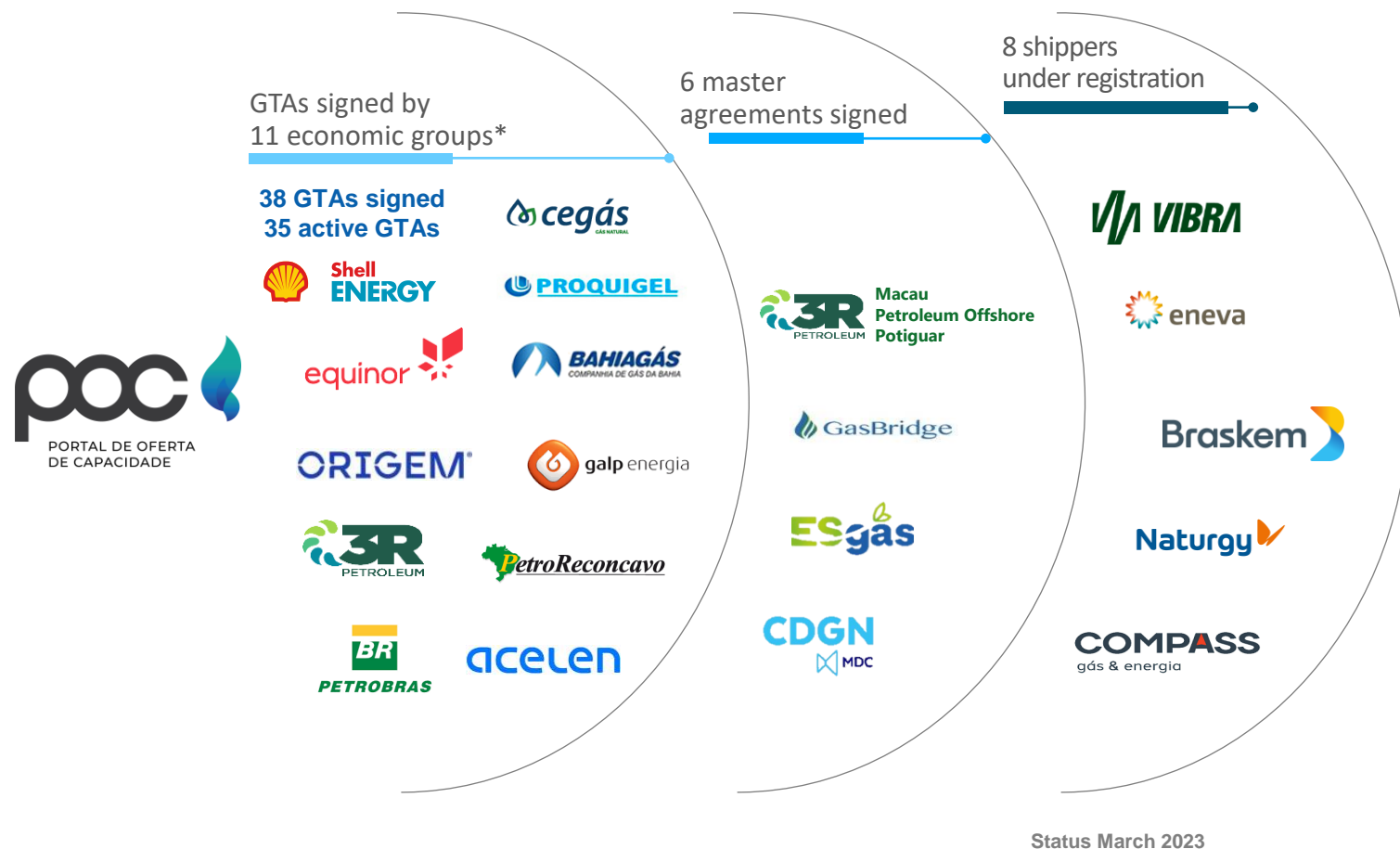
2022 - 2023

- ❑ Enhance operational efficiency with digital tools and process improvement
- ❑ Advocacy of the New Market Model and bypass avoidance



TAG – Commercial Pipeline

Market opening achievements and evolution in addition to our legacy contracts



Highlights

- **Protagonist in the market opening:**
 - 2021: free consumer access
 - 2022: capacity offer with new players + connection contract model approval & signature
 - 2023: Usage of Balancing Platform
- **Capacity Offer Platform (POC)** as a transparent and practical tool used and maintained by the 3 main TSOs, supporting competition for shipper's gas transactions
- **Entry/Exit model implemented** and operational
- **Leading role and record time in the market opening:** in one year TAG has a portfolio of 35 extraordinary contracts with new agents, moving from originally 5 GTAs with Petrobras to 40
- **GTA signed with 2 LDCs:** Bahiagás and Cegás

Jan 2022
11.2 MMm³/d

➔

Jan 2023
13.7 MMm³/d

+ 2,5 Mm³/d booked capacity (22.3%)

* The 11 economic groups represent 16 companies with GTAs signed.

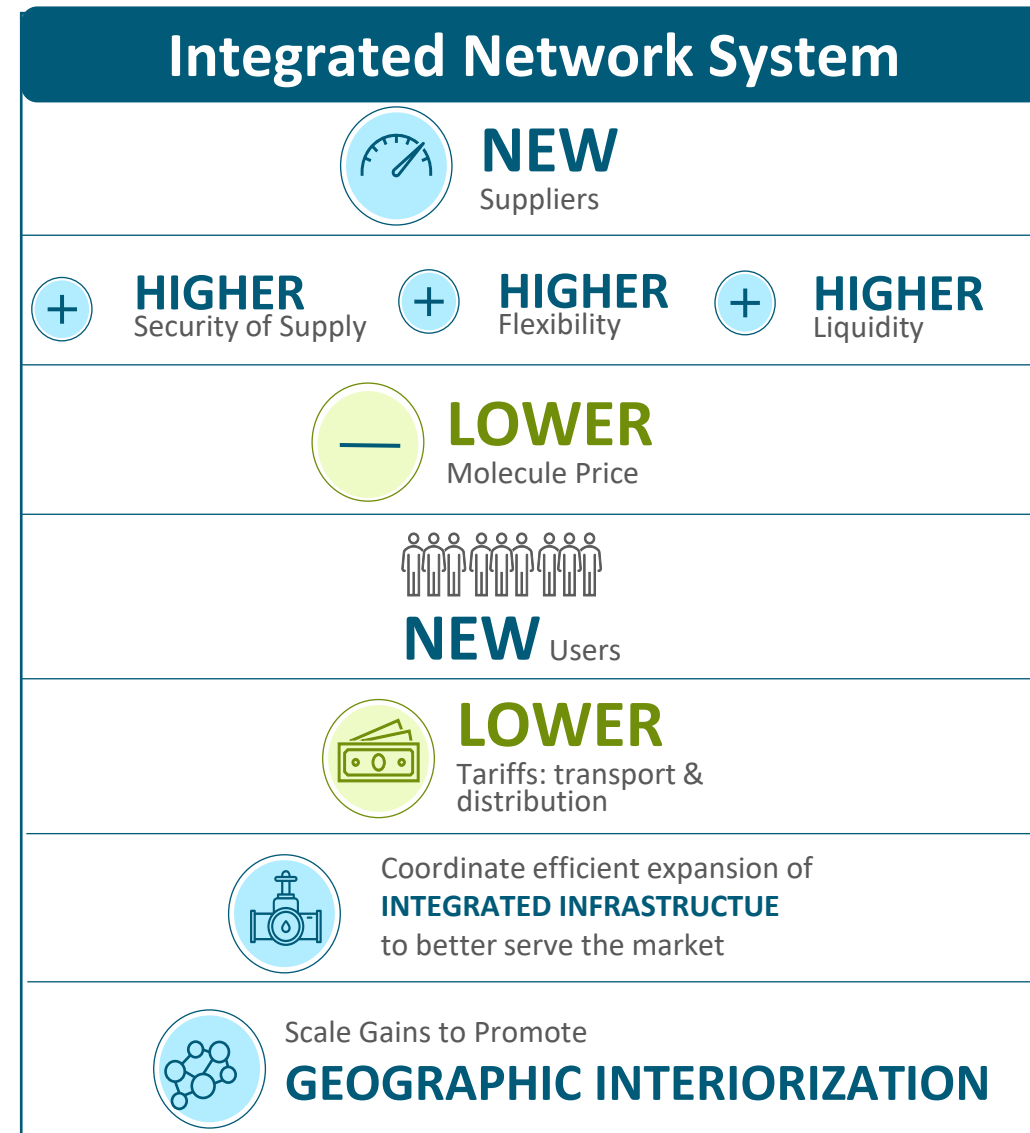
The Future of the Brazilian Gas Market

Challenges & Opportunities to promote a sustainable Gas Value Chain Growth

- **Expedite Infra Legal Agenda (New Regulation & Network Codes)**
- **Coordination of network infrastructure** development plans in a national integrated view, ensuring liquidity, security of supply & molecule competition
- **Avoid “island” projects formation**
- **Celerity on regulatory process on the approval of new investments** and remuneration rules
- **Harmonization between electrical & gas sectors** sustaining an **integrated view** of Energy sector
- Promote policies to **stimulate natural gas demand growth on strategic sectors** aligned to the energy transition agenda
- **Harmonization of good practices between federal & state levels**

The Virtuous Circle

Increase supply options → Increase liquidity & competition in the molecule
 New investment in infrastructure ← Increase Demand ← Decrease price



TAG

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Rio de Janeiro-RJ



[company/tag-transportadora-associada-de-gas](https://www.linkedin.com/company/tag-transportadora-associada-de-gas)

A modern interior space with a curved wooden ceiling and a glowing blue 'TAG' sign on a wall. The ceiling features a series of vertical wooden slats that curve upwards, creating a dome-like structure. The walls are a light, textured grey. In the foreground, there is a white reception desk and a small green plant. The overall lighting is warm and modern.

TAG

APPENDIX

TAG – Mission & Vision



MISSION

Transporting energy safely, integrating the natural gas market for sustainable development of the society.



VISION

Be the protagonist of the natural gas market transformation, connecting energy to life.

TAG – ESG at the heart of our activities

We support inclusion & operational excellence

44% Women of the total workforce and 38% of them occupy Leadership positions

~**256 KBRL** invested in training & development of our employees

~**7,127 hours** dedicated to training

98% of our employees received training in different areas.

0,79% frequency rate of work accidents of employees and subcontractors on controlled access sites.

We contribute to reduce environmental impact

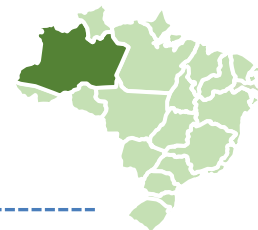
Urucu-Manaus transports more than 90% of its capacity to supply thermal power plants and these projects replaced oil thermal power dispatch

Energy Transition: From 2 to 3 million of tCO2 per year of avoided emissions⁽¹⁾

We build stakeholders engagement

Independent whistleblowing channel in place open for all stakeholders (including suppliers & subcontractors) in relation with our asset, aiming to build a vigilant culture against corruption, fraud and noncompliant practices

More than 300 subcontractors' employees acknowledge our ethics principles



We support the communities where we operate

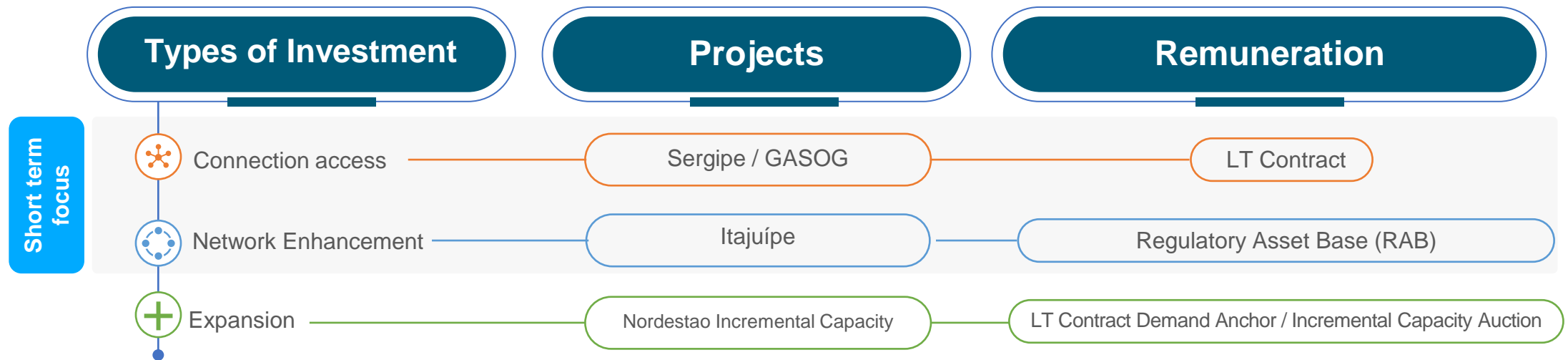
~**2000 community members and 21 municipalities** were contemplated by different social actions through the year



Source:
1 Observatório do Clima. Sistema de Estimativas de Emissões e Remoções de Gases de Efeito Estufa (SEEG), 2020

TAG – Ambition and Growth | Types of Investment

- Short-term focus on new connections and relevant integration (pipeline optimization and removal of bottlenecks).
- At the same time, TAG has the role of developing all projects for the expansion of the network and assuring isonomic access to the gas pipeline.



What are our main challenges? (i) Operational efficiency: ensure network availability & reliability; (ii) Focus on cyber security (IT & OT); (iii) Emissions Reduction; (iv) Gas advocacy: reinforce the role of Natural Gas on Energy Transition and (v) Prepare infrastructure for green gases (Biomethane, H2 blend).

TAG – Investment Plan 2023 – 2027

Growth based on greater investments in Industrial Safety, Integrity and in projects related to the gas market opening (new connections and network enhancement)

~R\$ 3.3 billion in investments for the next 5 years

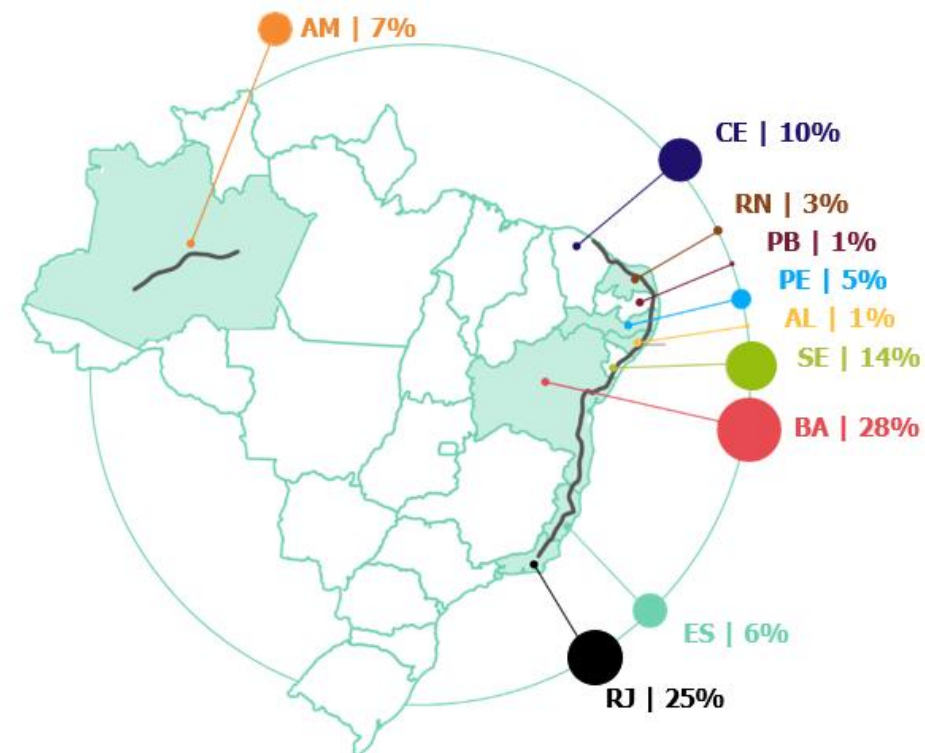
~70% in the Northeast and North of the country

CAPEX 2023-27

~ 50% Pipeline Expansion Projects

- Access connection points
- Entry (receiving) points
- New pipelines
- Compression stations

~ 50% to enhance industrial security, compliance, availability, reliability and asset integrity

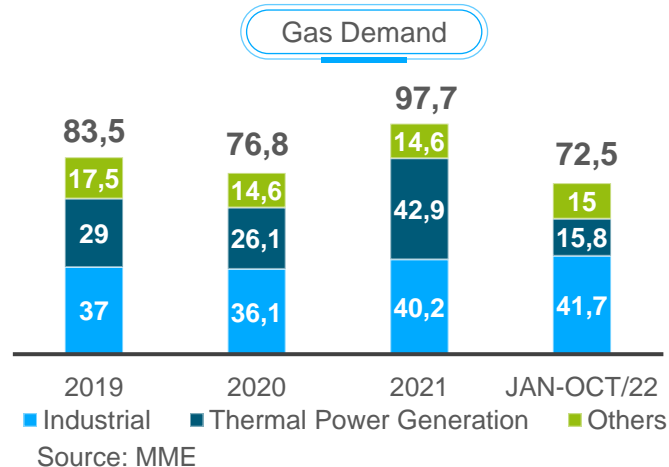
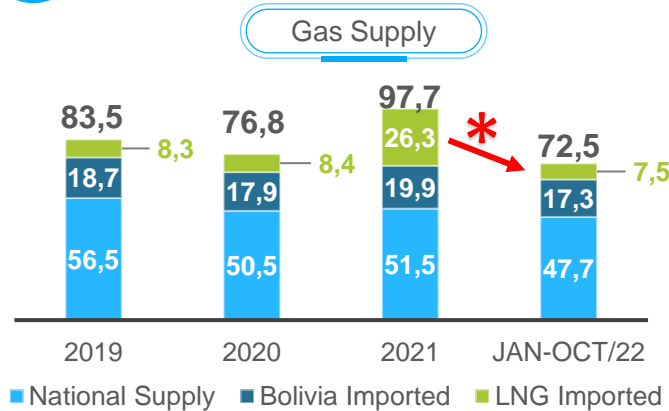


5-Year Plan: Investments focused on security of supply and economic efficiency, promoting competition in the molecule and cost reduction in the natural gas chain

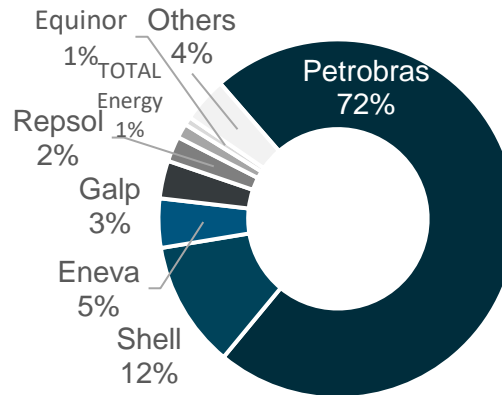
Brazilian Gas Market | Overview

The country dependency of imported gas (Bolivia and LNG)

Supply and Demand- historical volumes (Mm³/d)



National Production by Concessionaire



Source: ANP (2021)

- New infrastructure investments are needed and are back to companies agenda with the opening of the market
- Focus on (i) exploring national gas and reducing dependency of imported gas; (ii) increasing other flexibility tools (ex. UGS – Underground Gas Storage)

2021 Highlights

High Import of LNG due to the increase in thermoelectric dispatch

Even with the pandemic, the gas market continued to progress

Reinjection still high in Brazil ~60 MM m³/d



2022 Highlights

Lower participation matrix of the LNG due to the high water reservoirs level (-47% 1H22 vs 1H21)

LNG cargoes average price 1H122 ~70% higher 2021

Increase in 7.2% of industrial consumption

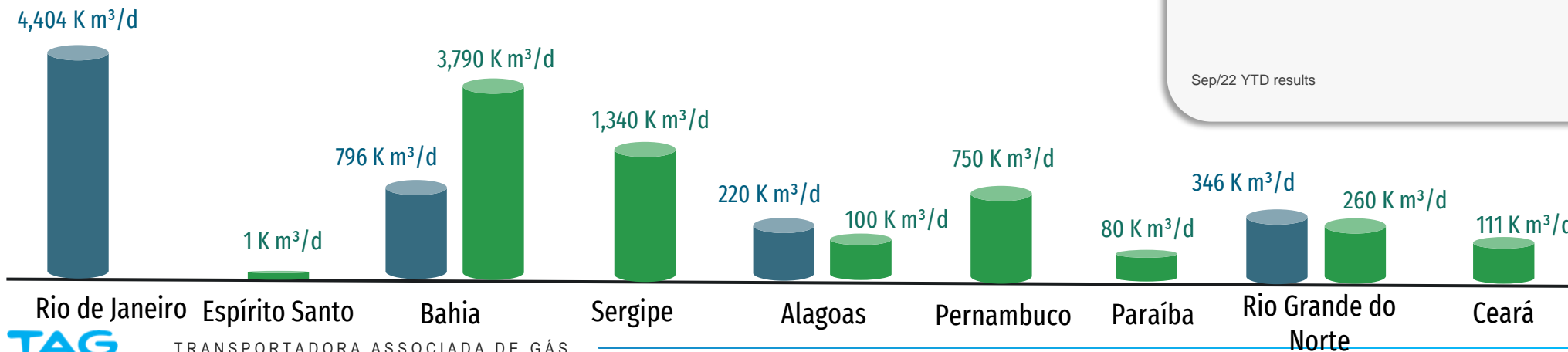
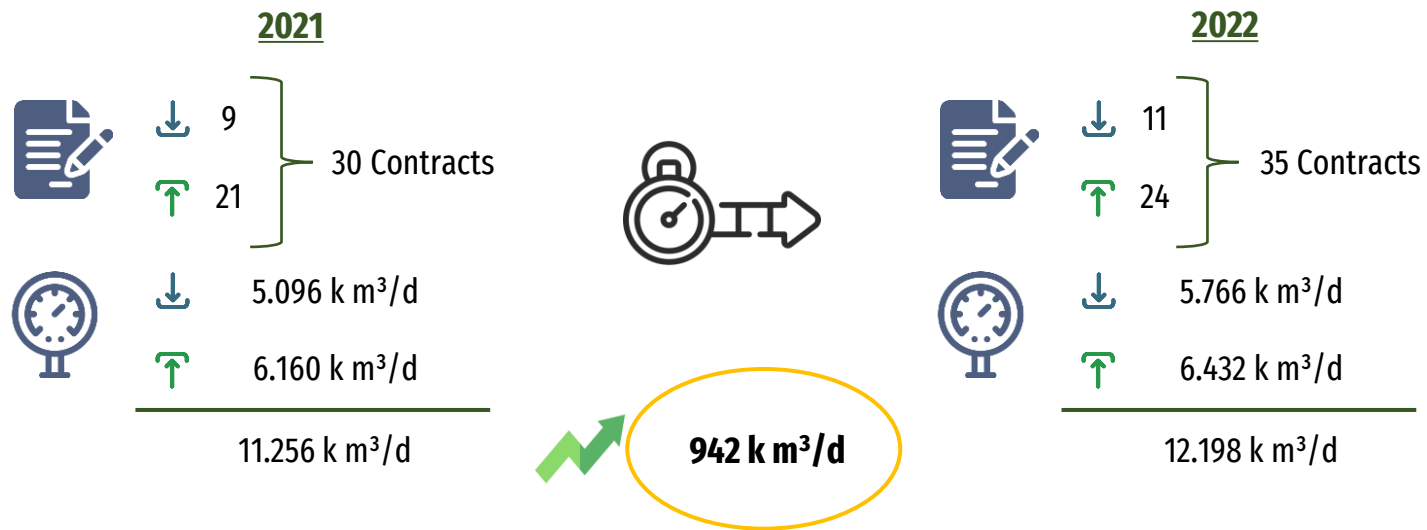
LNG exposure: **potential extra costs in 2022**

~12 BUSD (2021 demand at max 2022 LNG cargo imported price)

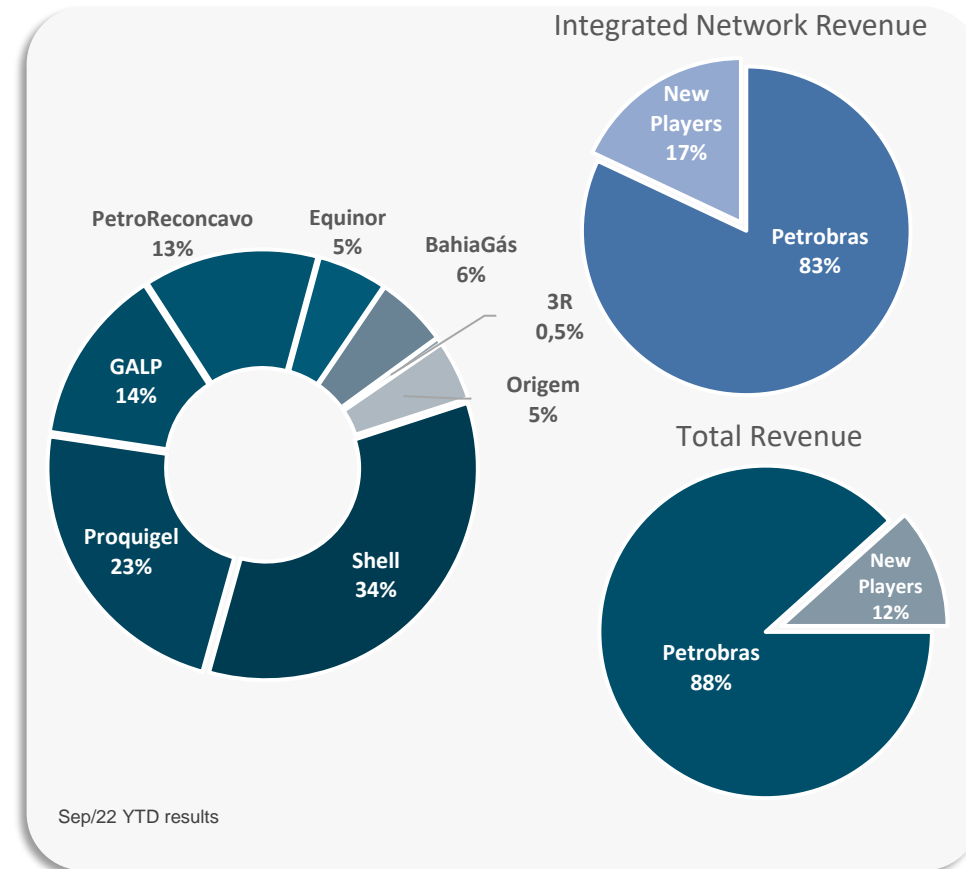
~21 BUSD (2021 demand at max 2022 JKM price)

2022 Extraordinary Hired Capacity

Market opening achievements through important players entrance into the network and its evolution



TAG's Revenue Outlook



Strategic Proposals for the New Market Model effectiveness

How to ensure the principles of market integration, security of supply and competition?

