

eneva day — 2023 —

March 8, 2023



Disclaimer

This presentation may contain certain forward-looking statements and information relating to Eneva that reflect the current views and/or expectations of the Company and its management with respect to its performance, business and future events. Forward looking statements include, without limitation, any statement that may predict, forecast, indicate or imply future results, performance or achievements, and may contain words like “may”, “plan”, “believe”, “anticipate”, “expect”, “envisages”, “will likely result”, or any other words or phrases of similar meaning.

Such statements are subject to a number of risks, uncertainties and assumptions. We caution you that a number of important factors could cause actual results to differ materially from the plans, objectives, expectations, estimates and intentions expressed in this presentation.

In no event, neither the Company, any of its affiliates, directors, officers, agents or employees nor any of the placement agents shall be liable before any third party (including investors) for any investment or business decision made or action taken in reliance on the information and statements contained in this presentation or for any consequential, special or similar damages.

The Company does not intend to provide potential shareholders with a review of forward-looking statements or analysis of differences between forward-looking statements and actual results.

This presentation and its contents are proprietary information and may not be reproduced or otherwise disseminated in whole or in part without Eneva’s prior written consent.

09:00 Credenciamento & *Welcome Coffee*

ACCREDITATION

09:30 Lino Cançado
CEO

SHORT TERM CHALLENGES

10:00 Financial Performance
Marcelo Habibe | CFO

10:30 Projects Under Implementation
Fausto Caretta | Exploration, Development and Construction Officer
Ricardo Pascotto | Diretor de Operação e Manutenção Ativos R2W e SSLNG

11:00 Dispatching & Monetization Alternatives
Marcelo Lopes | Commercialization and New Business Development Officer

11:30 Participation in Auctions & Rehiring of Assets
Marcelo Lopes | Commercialization and New Business Development Officer

12:10 Q&A

12:30 Lunch

2030 JOURNEY

14:00 Resources & Reserves
Frederico Miranda | Exploration Officer

14:30 Business Development
Marcelo Lopes | Commercialization and New Business Development Officer

15:10 Regulatory Agenda
Lucas Ribeiro | Regulatory Manager

15:30 Progress on ESG
Anita Baggio | ESG, Health and Safety & Communication

15:50 Low Carbon Technologies
Flavia Heller | Strategic Planning, Finance and IMO Manager | Frederico Miranda | Exploration Officer
Rafael Coitinho | Engineering Officer

16:20 Q&A

16:30 *Coffee Break*

CLOSING

17:00 Lino Cançado
CEO

17:30 Q&A with the Upper Management

eneva day

— 2023 —

Opening

Lino Cançado

March 8, 2023



Opening

In 2022 we revisited our strategy and restated our mission vision for 2030

Democratizing access to **reliable and affordable** energy

Leading

a

fair and inclusive

Expanding the use of natural gas to **replace more polluting fuels** and investing in renewable energies

with

energy

Offering **integrated energy solutions**

that

generates value

Creating **mutually beneficial** relationships between the company, employees, customers, suppliers and communities we depend on to thrive

transition

Valuing energy security and the inclusion of more vulnerable populations



MISSION & VISION

Supporting the positioning of the company in the search for new opportunities
Outstanding performance in energy transition and security

Opening

In 2022 we revisited our strategy and restated our mission vision for 2030

Be the leading Integrated energy

We must increasingly consolidate ourselves as an integrated energy player

company

We want to grow, but not at any cost; focus on achieving the ideal size to **maximize our value generation**

in terms of

Maximizing our generation of value remains the **company's main goal** – with the company's growth in size being a means of achieving it

value creation



MISSION AND VISION

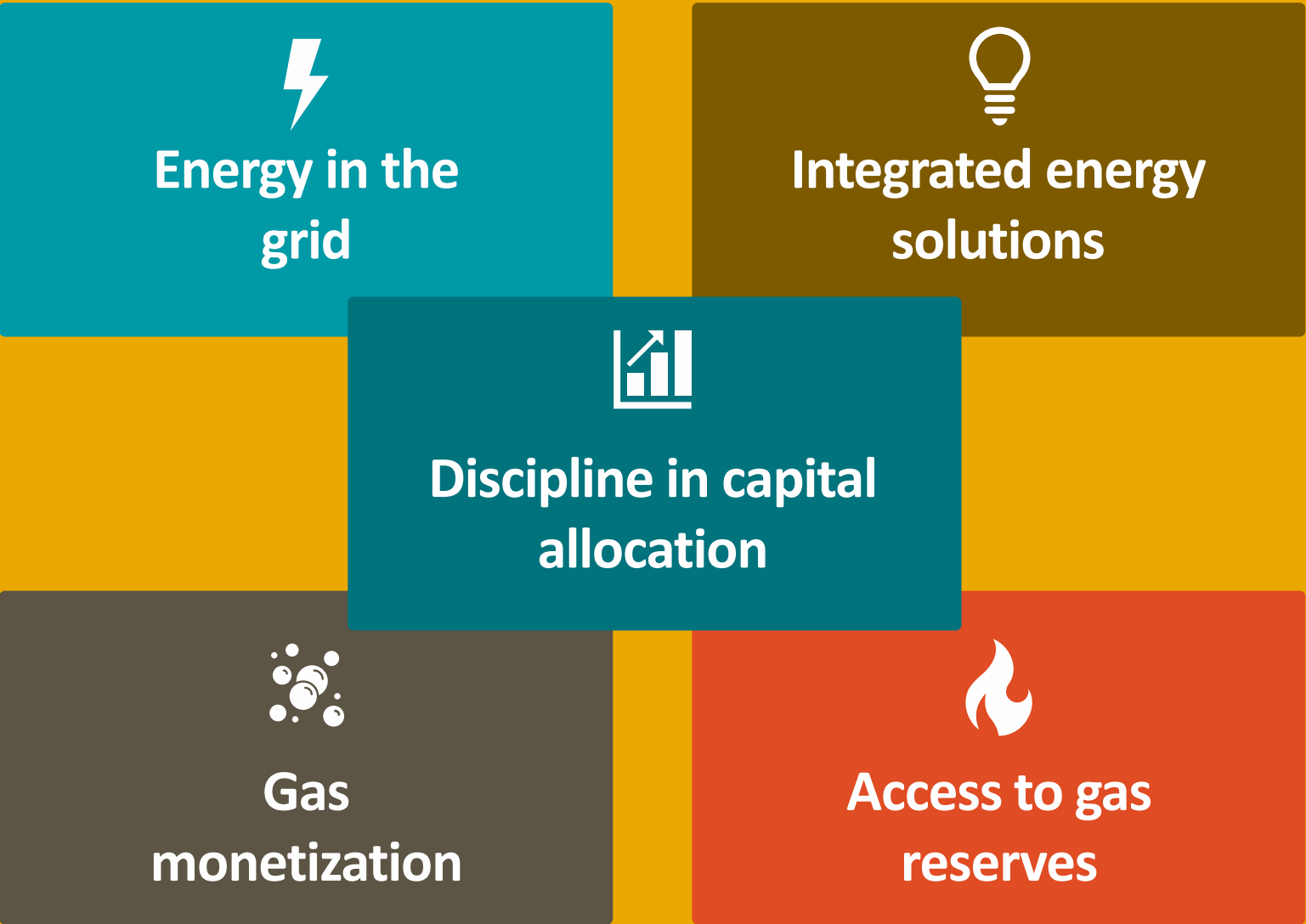
Integrated energy platform, with an optimized portfolio to maximize value generation. Leader in energy solutions, focusing on transition and energy security

Opening

We have listed our value levers and broken them down into 6 strategic challenges

VALUE LEVERS

How Eneva generates value. How we generate revenue and return.
Guidance and integrity testing for our decisions



MUST-WIN BATTLES

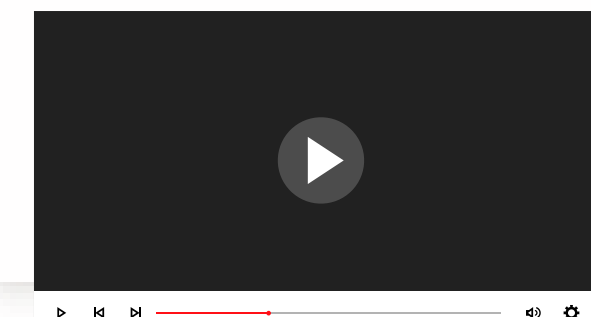
That we need to address to deliver our expected business growth



Opening

In 2022 we had the opportunity to make significant progress in all the pillars of our strategy

Highlights
2022



Extend current assets
lifecycles and replicate
R2W to other geographies

RESERVES CERTIFICATION ✓

- 2nd cycle of Parnaíba 1 and 3 TPPs
- 103% increase in reserves in the state of Amazonas ✓

EXPANSION AND ENERGY EFFICIENCY

- PV and PVI



Commercialize energy
resources and develop new
business models

GAS SALE AND NEW BUSINESS LINE ✓

- First gas sales contracts for end customers
- SSLNG business creation

EXPANSION OF THE TRADING COMPANY ✓



Maximize reserves and
develop integrated
solutions in the North
Region

AZULÃO 950 MW ✓

- Expansion of reserves and resources in the Amazon Basin
- 1GW thermoelectric complex in Amazonas

COD AZULÃO – JAGUATIRICA ✓



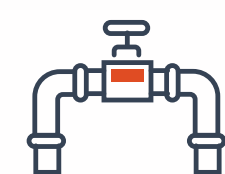
Develop renewable energy
portfolio and foster low
carbon technologies

RENEWABLE PORTFOLIO ✓

- Focus acquisition with Futura I and its renewable portfolio

LOW CARBON TECHNOLOGIES ✓

- Investment Plan of R\$ 500 mi



Develop
infrastructure Gas
Hubs

GAS HUB ✓

- Acquisition of Celse
- Creation of Sergipe Hub
- Access to the grid and national coverage in gas access



Build an agile and fit for
purpose organization

REORGANIZATION ✓

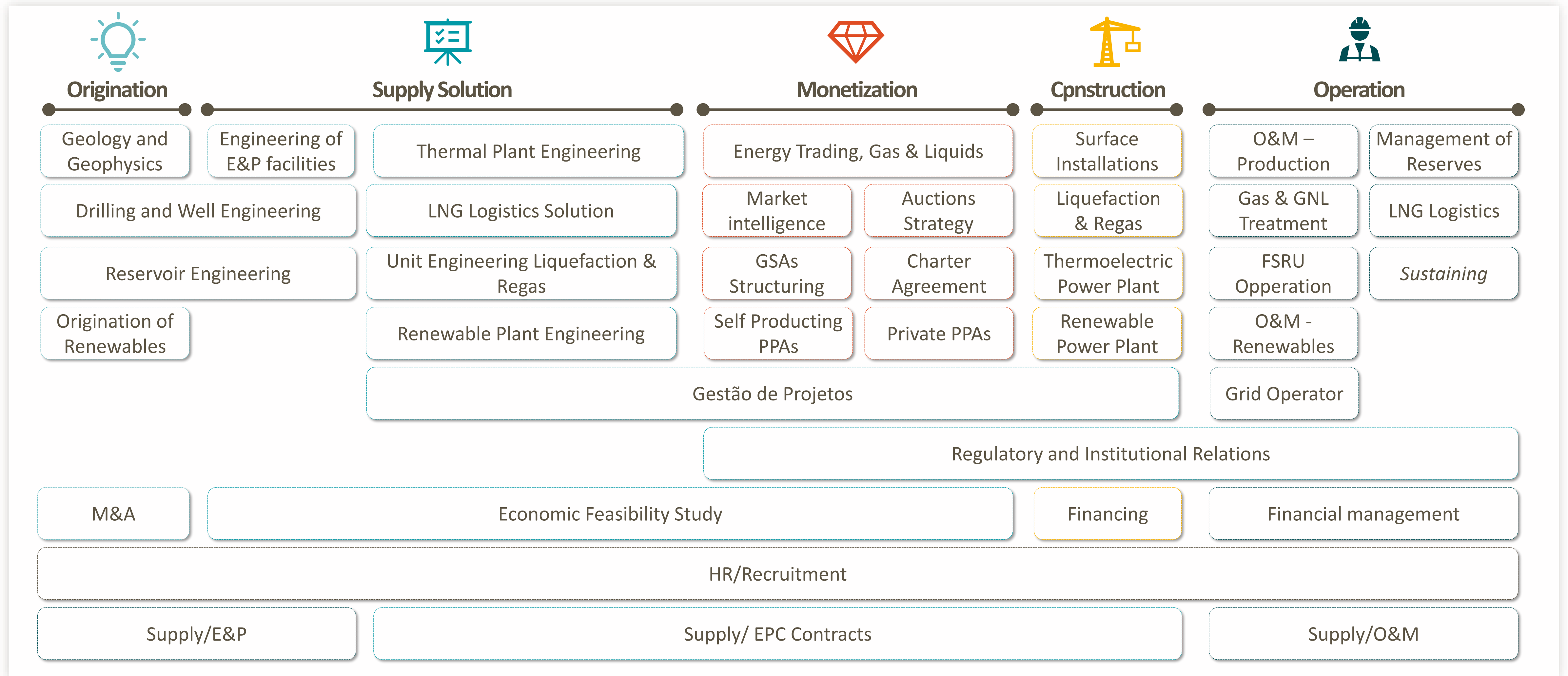
- New Executive Officers of Operations
- New Executive HR Officer
- Structuring of the Leadership Academy

ESG ✓

- Entry in the ISE B3 index, promotion in REFINITIV and grade B in CDP

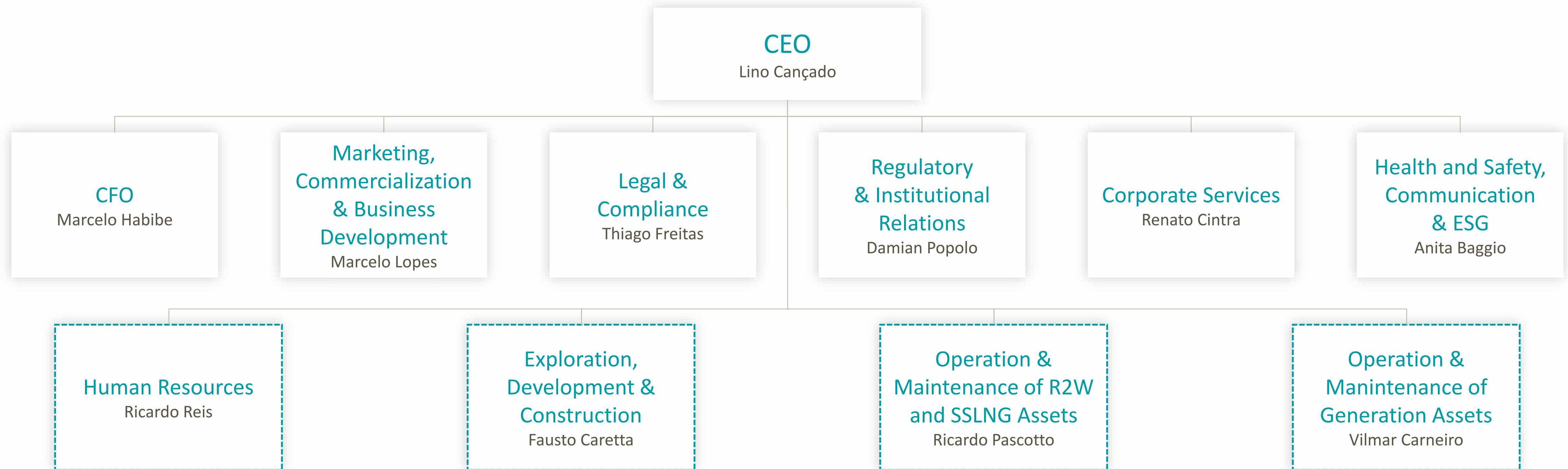
Opening

Our greatest asset is our people and set of skills we have in the gas and thermoelectric power generation value chains



Opening

The advances achieved changed the size of Eneva, demanding a restructuring of our organization



HUMAN RESOURCES
Recruiting people for new
projects and operations and
developing leaders



**EXP, DEVELOPING &
CONSTRUCTION**
Focus on planning and
executing organic growth
investments



OPERATION & MAINTENANCE
Focus on operational
excellence, asset integrity,
operational safety and results
(EBITDA)

 New Executive
Officers

Company organization chart

The new Operations Executive Offices simplify the management of our portfolio and were created without increase of headcount



FAUSTO CARETTA

Exploration, Development & Construction Officer

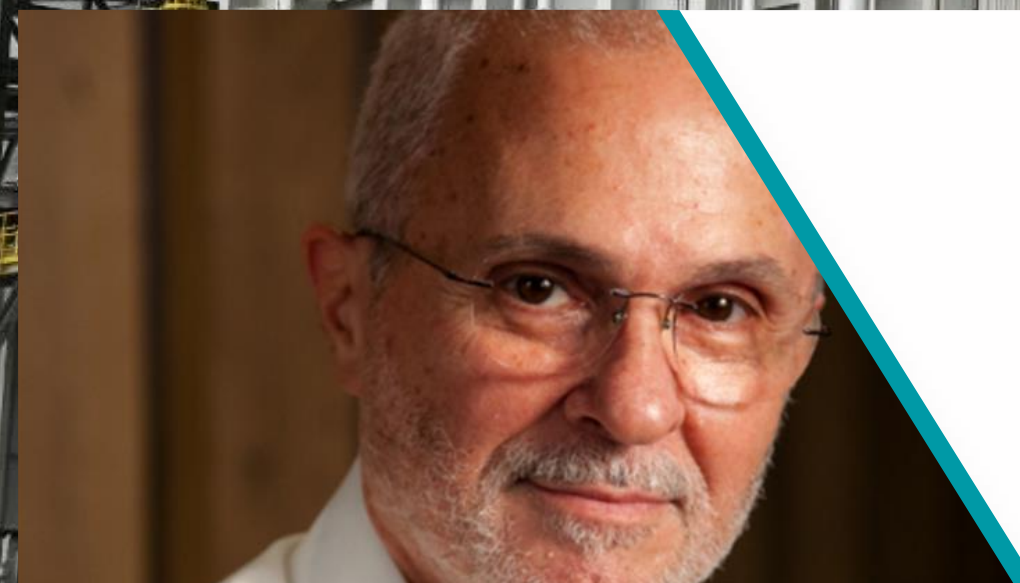
E&P | Unconventional Exploration | Anebá and Juruá Development Plan | Engineering, construction and development



RICARDO PASCOTTO

Operation and Maintenance of R2W & SSLNG Assets Officer

Parnaíba Complex | Azulão Complex | SSLNG



VILMAR CARNEIRO

Operation and Maintenance of Generation Assets Officer

Coal Power Plants | Porto de Sergipe | TPP and Fortaleza TPP | Futura 1

Company organization chart

And the new Human Resources Office brings exclusive focus to our greatest asset: our people

Our accomplishments were achieved thanks to our greatest asset: our leaders and collaborators.

With that in mind, our Executive Office will seek to:

- Attract and retain talent
- Develop leaders
- Strategic workforce planning



RICARDO MATHEUS REIS

Bachelor's degree in Mechanical Engineering from Universidade Federal Itajubá (UNIFEI), with an Executive MBA from COPPEAD (UFRJ) and Especialization in Digital Business from the University of California at Berkeley, USA



Over 20 Years of professional experience in the O&G and energy industry, having worked in the areas of operations, sales, strategy, training and management of talents, crisis management and human resources.

Opening

Ensuring strategy execution: Our strategic challenges are broken down into corporate goals which are then distributed throughout the organization

ENEVA JOURNEY



How we communicate our short-term goals, aligned with our strategic challenges



COMMUNICATION
“Eneva Journey”

Estender ciclo de vida dos ativos atuais e replicar R2W em outras geografias

Comercializar recursos energéticos e desenvolver novos modelos de negócios

Maximizar reservas e desenvolver soluções integradas na Região Norte

Desenvolver portfólio renovável e promover tecnologias de baixo carbono

Desenvolver infraestrutura de Hubs de Gás

Construir uma organização ágil e adequada aos desafios

STRATEGIC CHALLENGES

Pillars that support our goals



Corporate Goals Panel 2023						
	Weight (%)	MWB 1	MWB 2	MWB 3	MWB 4	MWB 5
1 - Limit accident rates	10					
2 - Renew existing PPAs	15	✓				
3 - Reach Eneva's Leverage level	20					✓
4 - Ensure 95% physical adherence of capital projects	10	✓	✓		✓	✓
5 - Increase Eneva's reserve and resource position	15	✓	✓			
6 - Celebrate energy sales contracts with final customers	10			✓	✓	✓
7 - Execute hiring plans for the Azulão project, map successors to occupy management positions and retain people in critical positions at Eneva	10					✓
8 - Execute the investment plan in technologies for decarbonization	5					✓
9 - Ensure adherence to the Contracting Plan for Strategic Capex and E&P Initiatives	5					✓

CORPORATE GOALS

Set for the Executive Officers



Opening

Excellence in strategy execution:

We consolidated our position as one of the main investment platforms in integrated solutions for the country

2018

+385MW
+7.6bcm

2019

+384MW
+4.1bcm

2020

+5.5bcm

2021

+966MW
+6.9bcm

2022

+2,5GW
+12.0bcm

Opening

And the Eneva team has delivered surprising results over the past 5 years, delivering in advance an ambitious business plan and growing with quality

	Where we came from (2017)	Where we have arrived (2022)	Variation 2022 vs 2017
 Market Cap.	R\$4.4bn Dec/17	R\$18.9bi Dec/22	+R\$ 14.5bn
 Installed Capacity	2.2GW	6.3GW ⁽¹⁾	+4.1 GW
 Gas and Condensate Reserves (2P)	18.8bcm	47.5bcm gas ⁽²⁾ 5.7 MM bbl Liquids ⁽²⁾	+28.7 bcm +5.7 MM bbl
 Gas, Oil and Condensate Resources (2C)	-	26.6 bcm Gas ⁽²⁾ 13.6 MM bbl Liquids ^{(2), (3)}	+26.6 bcm +13.6 MM bbl
 Adj. EBITDA & Margin ⁽⁴⁾	R\$1.4bi ⁽⁵⁾ 39,3%	R\$2.5bi 44.6%	+R\$1.1 bi 44.6%
 Cost of Debt ⁽⁶⁾	IPCA +7.8% CDI +1.6% IPCA: 12%  CDI: 88%	IPCA +4.9% CDI +1.4% IPCA: 59%  CDI: 56%	IPCA+: -290 bps CDI+: -22 bps
 ROE	1.5%	9.4% 3Q22	+793 bps
 ENEV3 - ADTV	R\$ 3.7MM/day Average Dec/17	R\$ 129.6MM/day Average Dec/22	+R\$125.9 MM/day

301%
TSR
2017-22

R\$8.4bn
Invested
CAPEX
2017-3Q22

Notes:

1. Includes the Parnaíba V and VI TPPs, Azulão I TPP and Futura 1 photovoltaic plant, currently under construction;

2. Gaffney Cline & Associates Reports as of 12/31/2021

3. The Juruá condensate was estimated by the Company based on laboratory tests

4. Calculated in accordance with CVM Instruction 527/12 and its accompanying Explanatory Note, excluding dry wells. 2022 considers EBITDA LTM 3Q22

5. Considers pro forma result with PECÉM II at 100%

6. Dec/17 and Sep/22, considers the portion of debt indexed to pre-fixed rate within IPCA and the portion of debt indexed to LIBOR within CDI.



ri@eneva.com.br



tel: (21) 3721-3030



ri.eneva.com.br/

eneva day

— 2023 —

Financial Performance

Marcelo Habibe

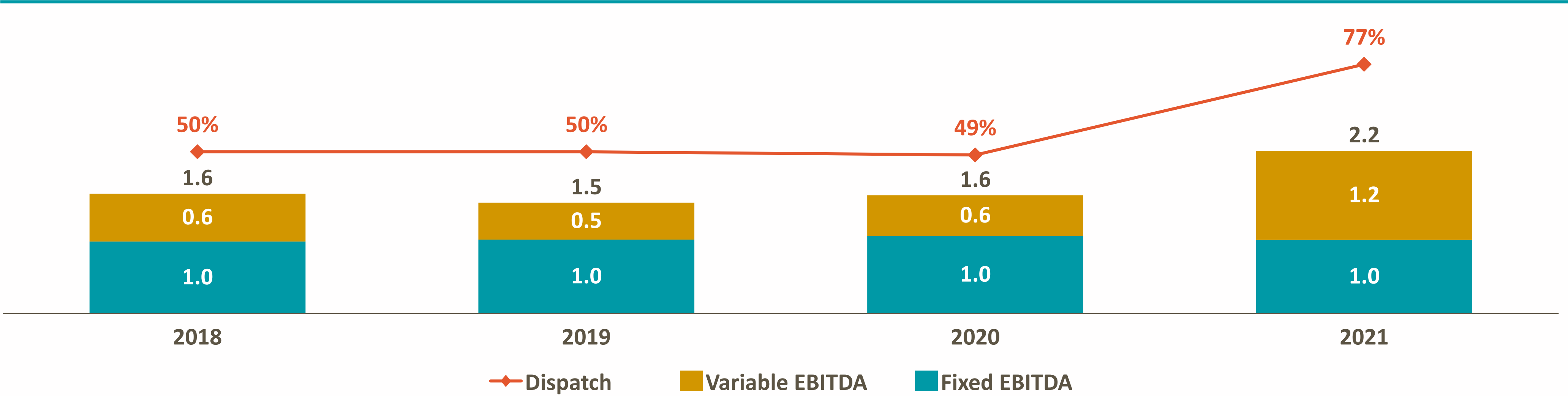
March 8, 2023



Financial Performance

Up to 2021, Eneva’s results were highly dependent on dispatch

EBITDA Eneva & Parnaíba Complex Dispatch
R\$ bi, %



40%

Avg
Variable EBITDA

57%

Avg
Dispatch

R\$ 1.0 bi

Avg
Fixed EBITDA

Financial Performance

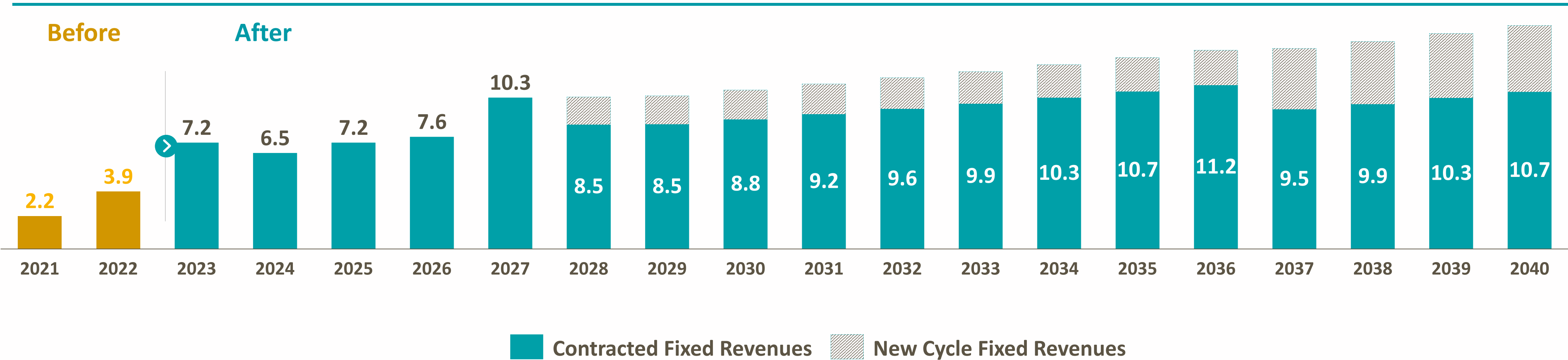
Throughout 2022, we accelerated the implementation of our strategic plan and materialized initiatives that were planned until 2025



- ✓ COD Jaguatirica II TPP in 1H22
- ✓ COD Parnaíba V in Nov/22

A large share of our contracted revenues is now fixed and long-term...

Gross Fixed Revenues
Contracted, R\$ bi

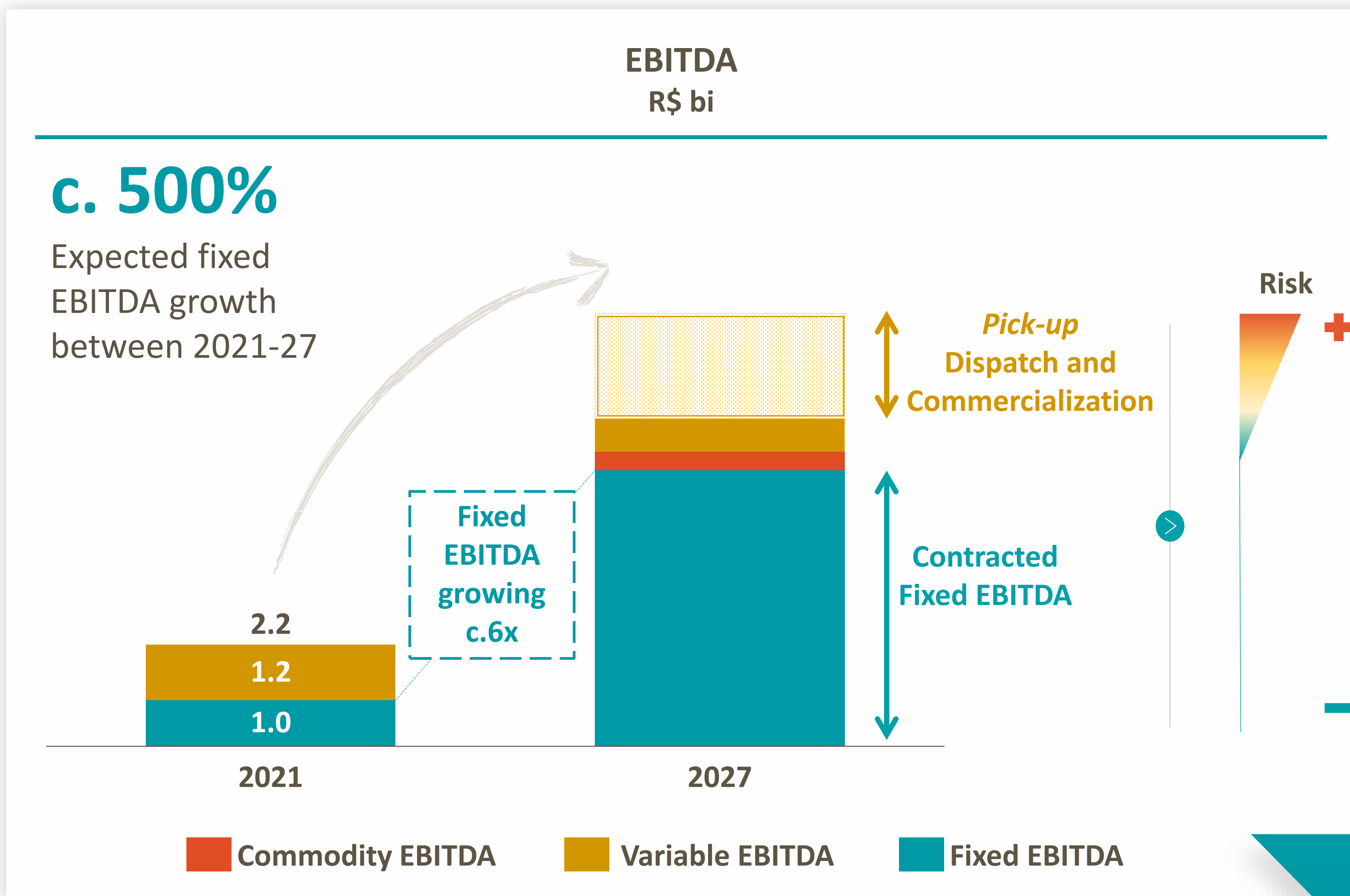


CONTRACTED FIXED REVENUES

Contracted fixed revenues increased substantially with the acquisition of Celse and auction wins in the last 5 years

Financial Performance

... resulting in an EBITDA less dependent on dispatch and with unique characteristics in the sector



Eneva is creating a cash flow that is:

- ✓ Robust
- ✓ Predictable
- ✓ Long duration
- ✓ Inflation protected
- ✓ With substantial upsides

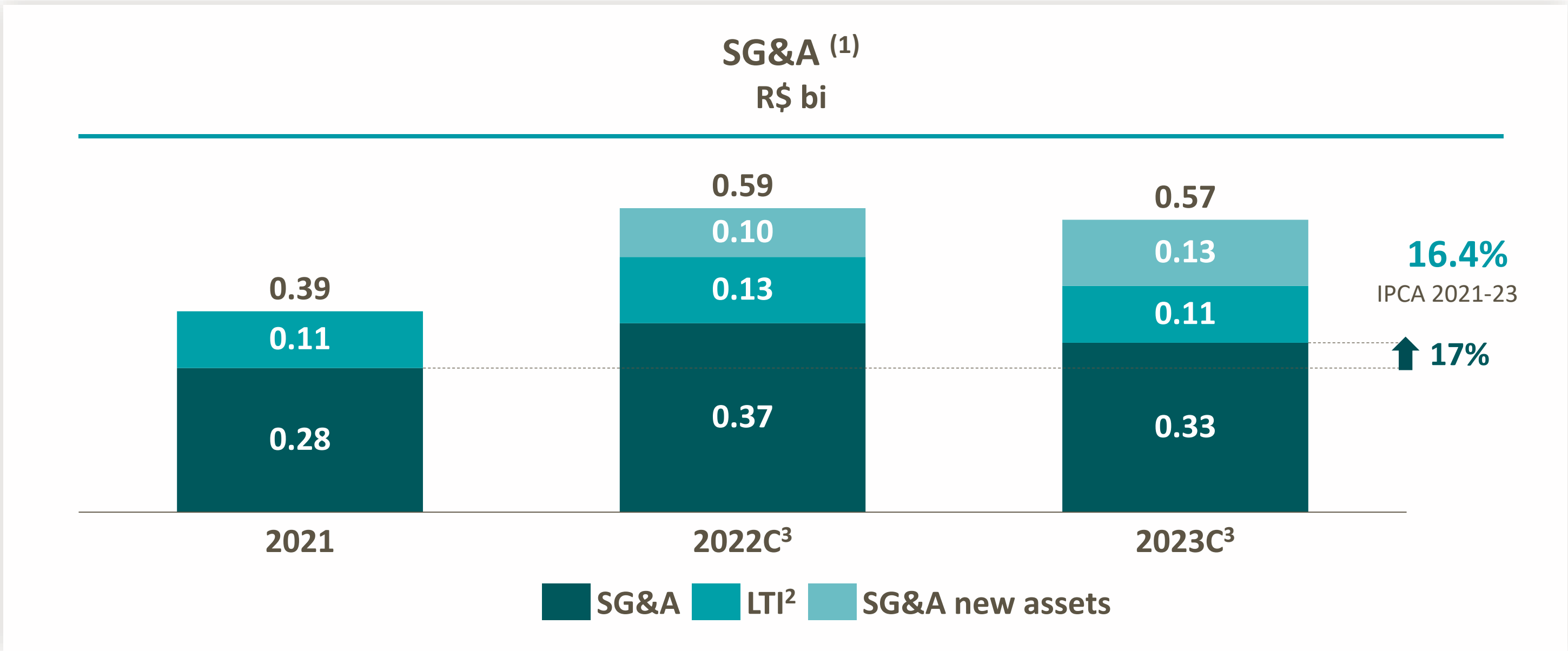


EBITDA GROWTH

Considering only contracted projects and acquisitions concluded up to YE 2022

Financial Performance

Growth was accompanied by non-recurring expenses and increases in our corporate structure

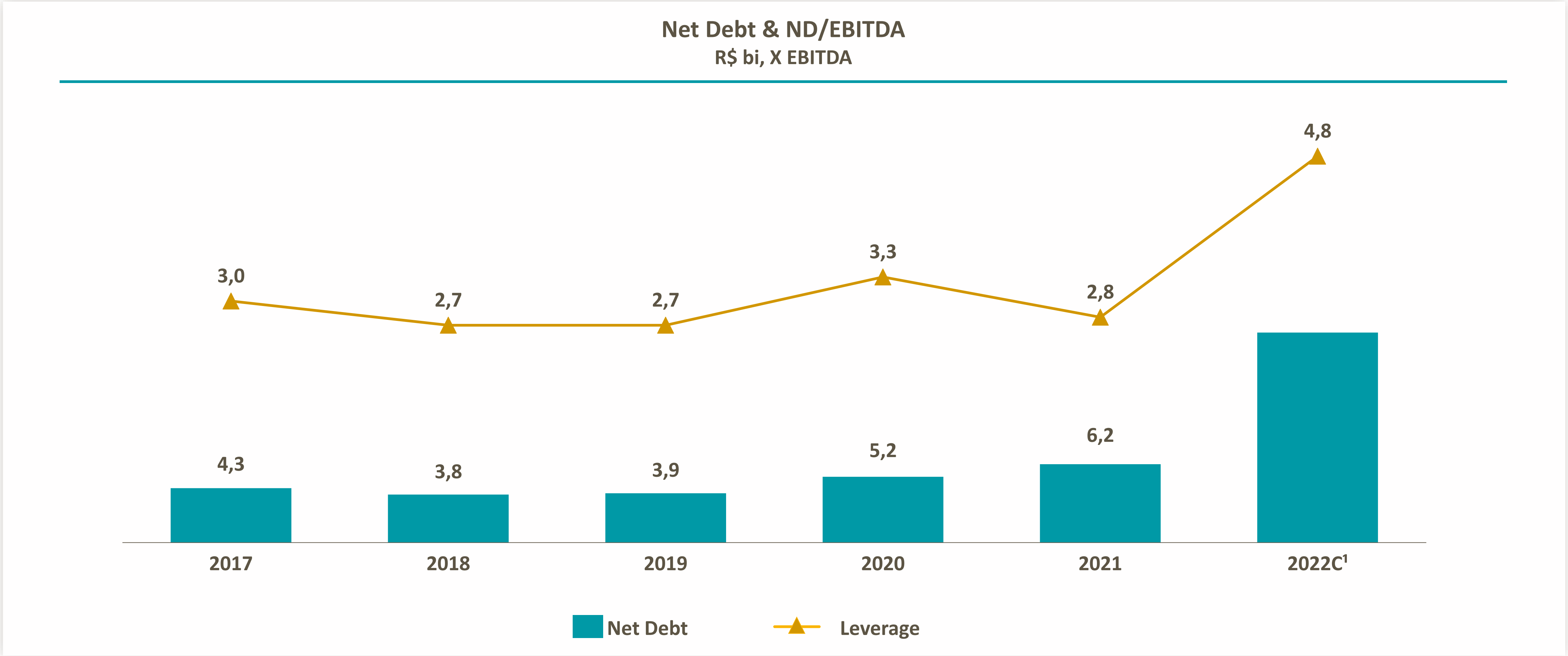


Note: (1) Does not consider expenses with exploration, dry wells allowance for doubtful accounts; (2) Considers SOP, Long Term Incentives and Performance Bonus; (3) Consensus

... that translate into new skills and are now undergoing a phase of stabilization and optimization

- + Commercialization
Hydrocarbons and Power
- + Growth Support
IT Restructuring, HR and Supply Restructuring
- + Small Scale LNG
Operations and Logistics
- + Renewables
Structuring, Construction and Operation
- + Gas Hubs
Infrastructure and Operations

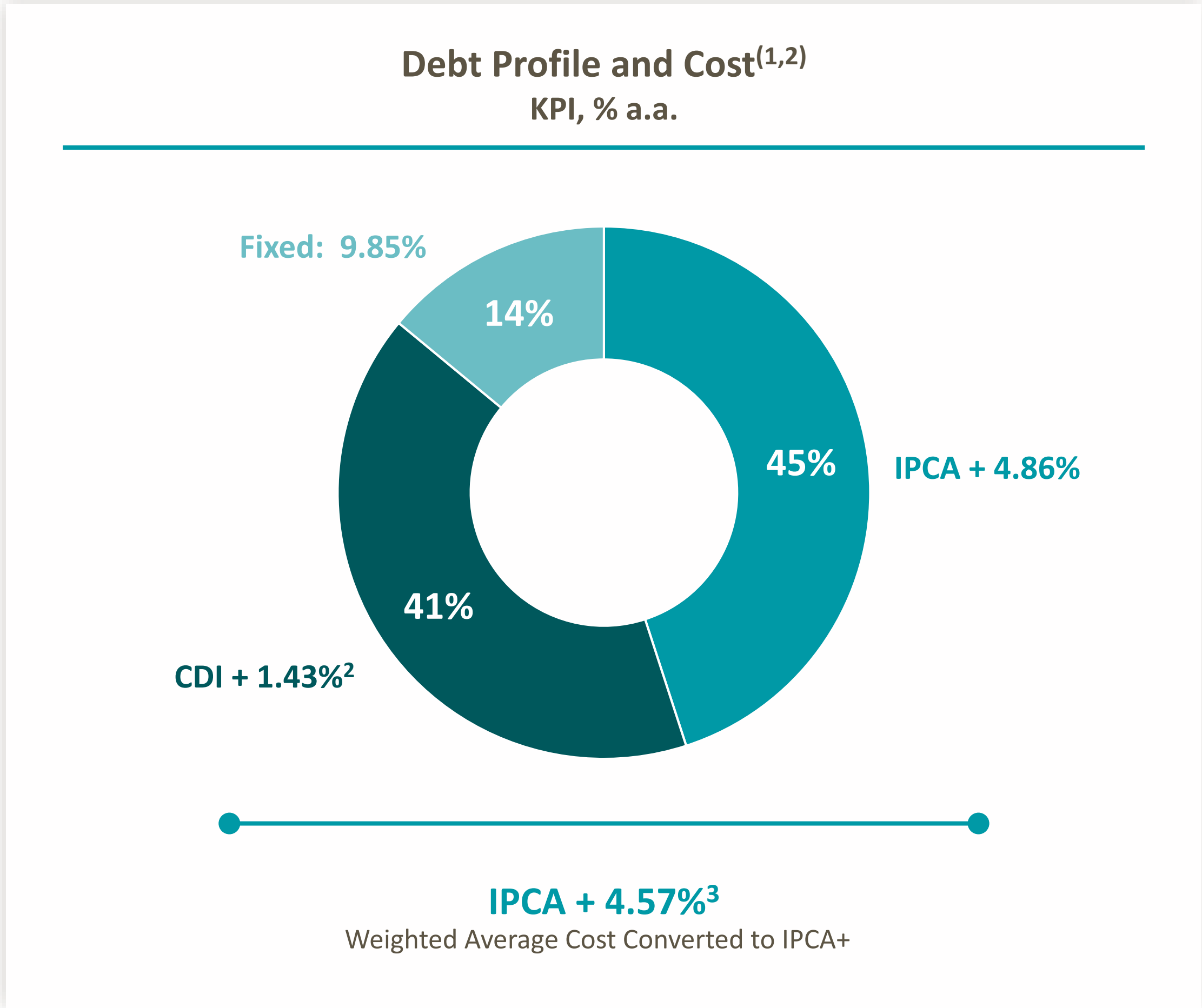
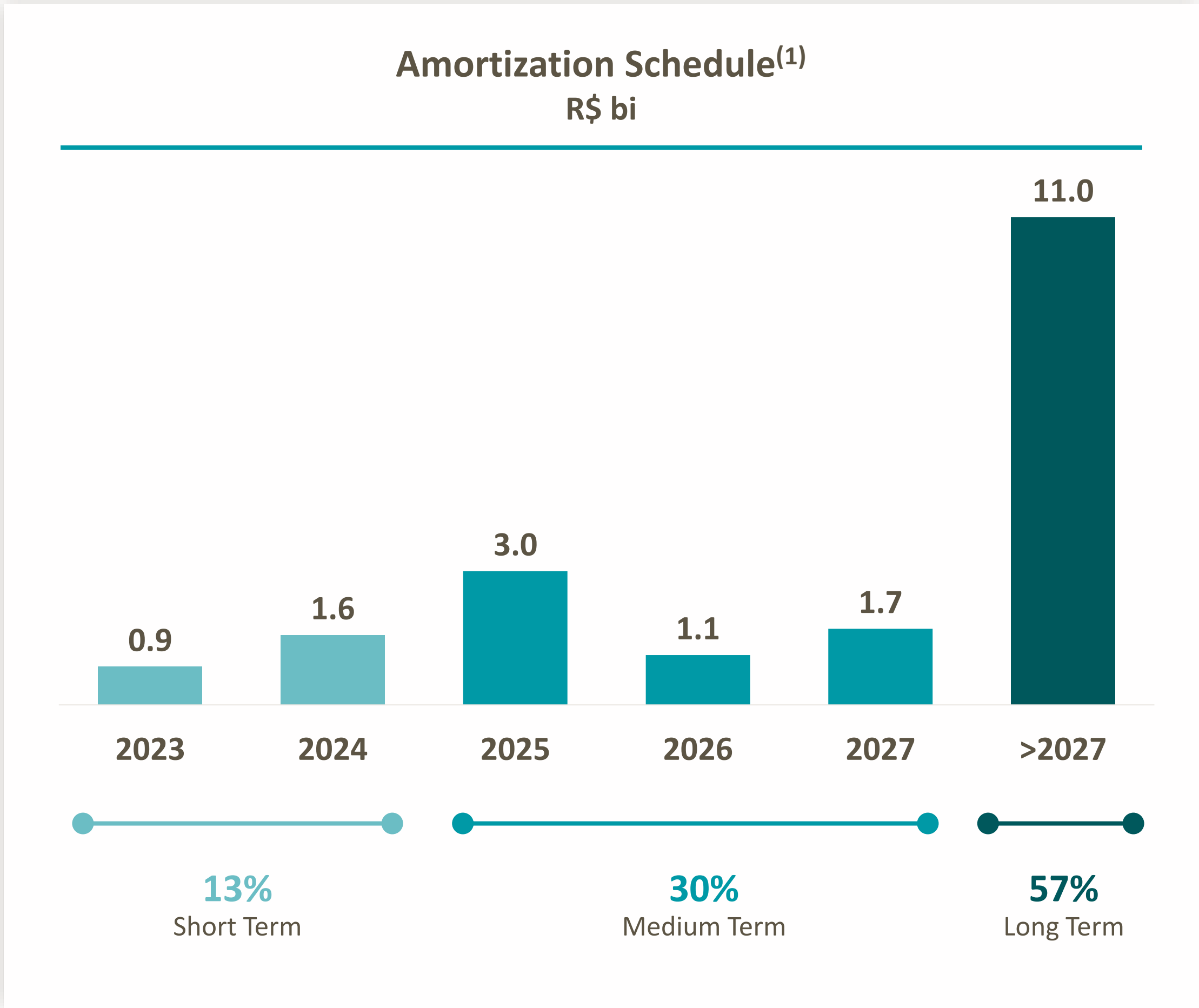
Rapid growth also brought higher momentary leverage...



Note:
1. Consensus

Financial Performance

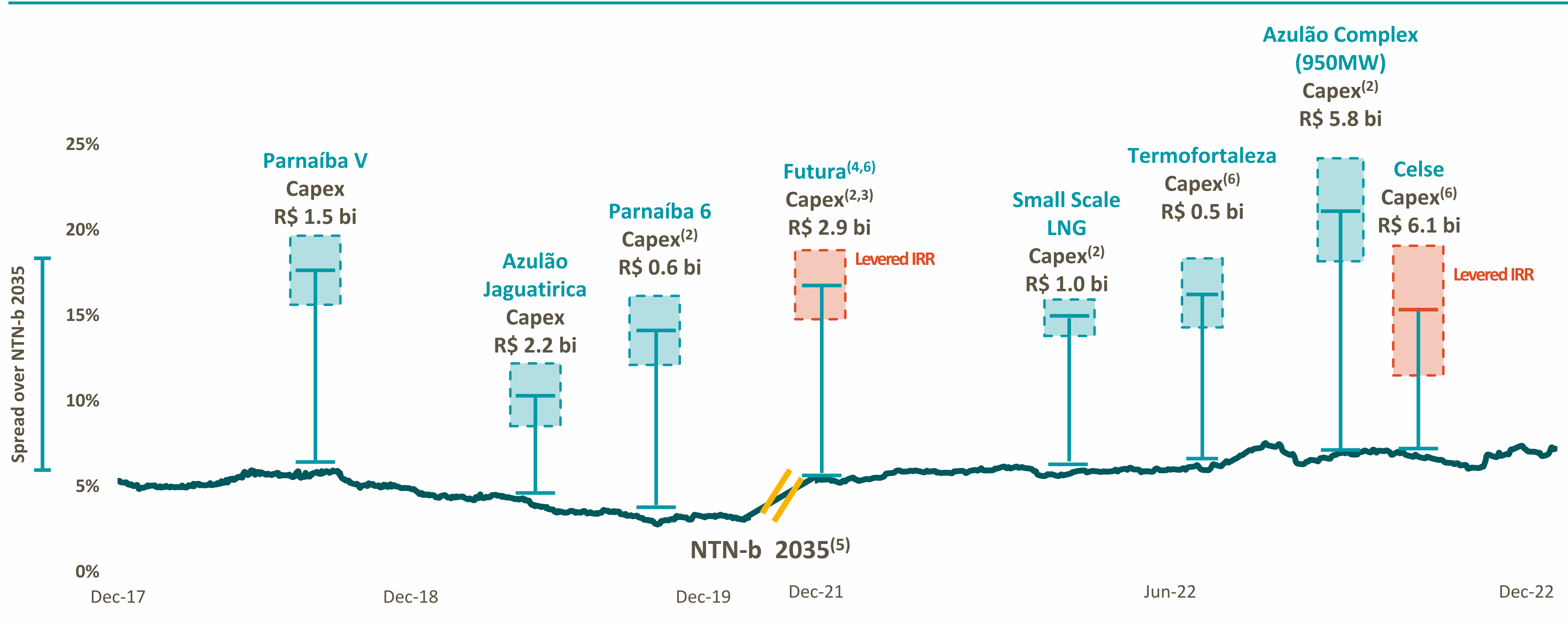
...however, with long-term and low-cost debt, mostly indexed to inflation



Notes:
1. 3Q22 considering the effects of the acquisition of Celse
2. Considers debts indexed to LIBOR and TJLP as CDI
3. Considers last 12 months for conversion

Eneva has always been a growth play...

Internal Rate of Return (IRR)¹
(in real terms)

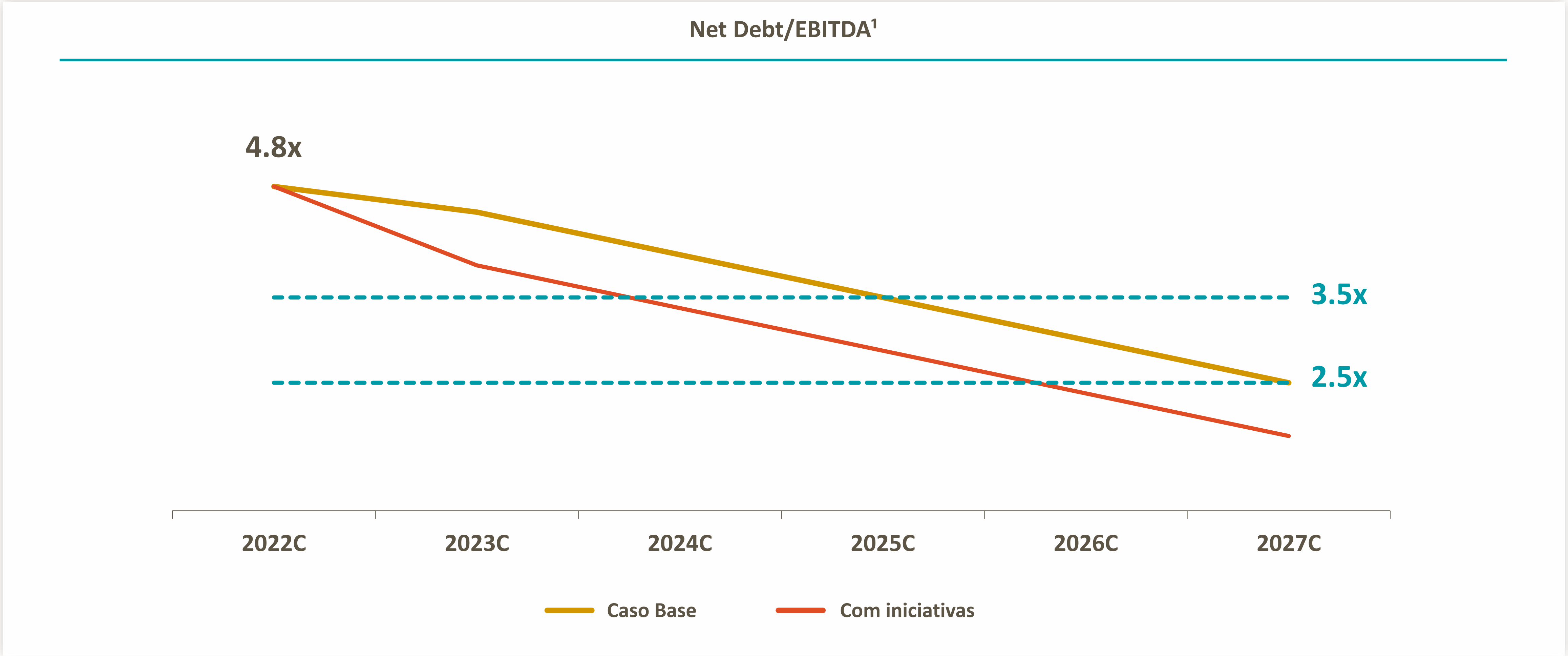


Notes:

- 1. Legend: (i) boxes in blue represent unlevered IRR; and (ii) boxes in red leveraged IRR
- 2. Estimated capex
- 3. Capex of the Futura I photovoltaic plant
- 4. Includes Futura I and Trading
- 5. Brazilian T-bill
- 6. Equity acquisition value

Financial Performance

... and we will seek to accelerate deleveraging to open-up space on the balance sheet and capture new short-term growth opportunities



Note:
1. Consensus

To accelerate deleveraging, we are working on several fronts

Equity

- ✓ Issuance of preferred shares in the Parnaíba complex
- ✓ Partner for our renewable assets platform

To accelerate deleveraging, we are working on several fronts

Equity

- ✓ Issuance of preferred shares in the Parnaíba complex
- ✓ Partner for our renewable assets platform

Working Capital

- ✓ Sale of coal inventory
- ✓ Payment term extension
- ✓ Prepayment of receivables

To accelerate deleveraging, we are working on several fronts

Equity

- ✓ Issuance of preferred shares in the Parnaíba complex
- ✓ Partner for our renewable assets platform

Working Capital

- ✓ Sale of coal inventory
- ✓ Payment term extension
- ✓ Prepayment of receivables

Revenue

- ✓ Exports to Argentina
- ✓ GSUB
- ✓ Sergipe gas sales and SSLNG
- ✓ Hiring of infrastructure

To accelerate deleveraging, we are working on several fronts

Equity

- ✓ Issuance of preferred shares in the Parnaíba complex
- ✓ Partner for our renewable assets platform

Working Capital

- ✓ Sale of coal inventory
- ✓ Payment term extension
- ✓ Prepayment of receivables

Revenue

- ✓ Exports to Argentina
- ✓ GSUB
- ✓ Sergipe gas sales and SSLNG
- ✓ Hiring of infrastructure

Finance

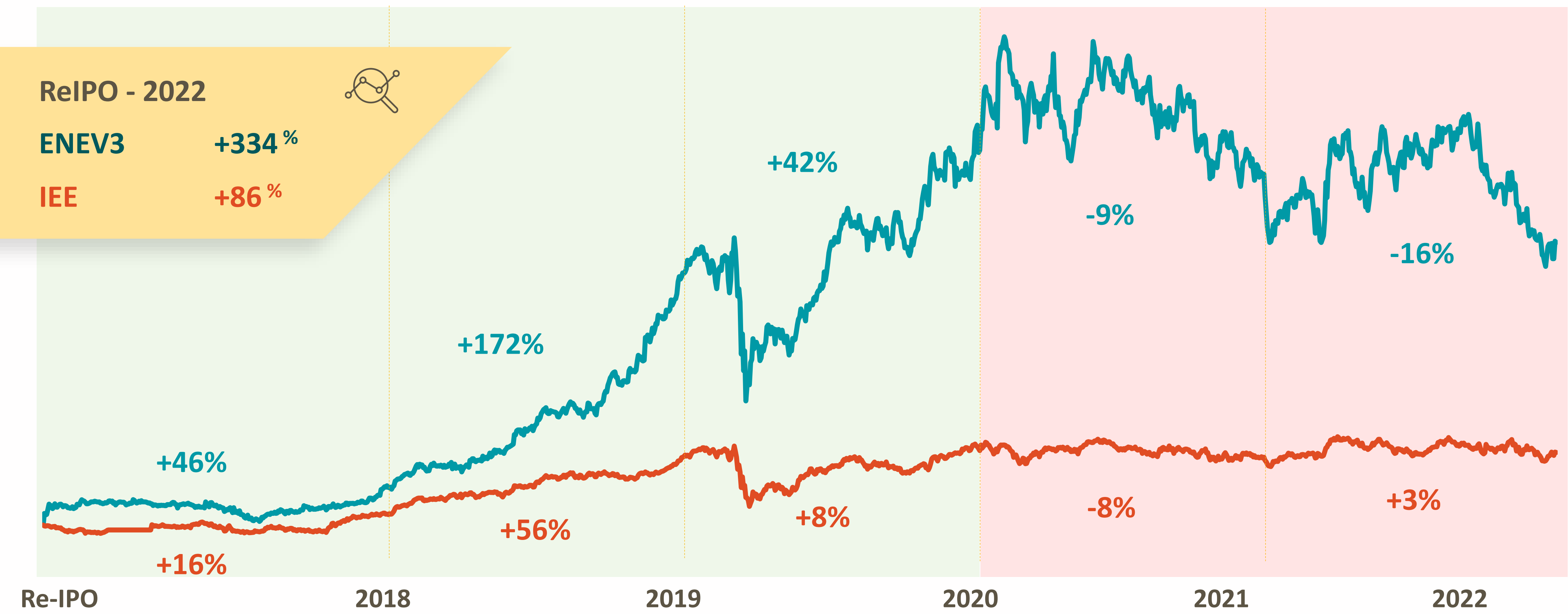
- ✓ Corporate restructuring
- ✓ Liability management
- ✓ Cost and SG&A optimization

... which we will further detail throughout the day

Financial Performance

Aiming to once again be perceived as the company that creates most value, with our shares outperforming the industry average

ENEV3 Performance





ri@eneva.com.br



tel: (21) 3721-3030



ri.eneva.com.br/

eneva day
— 2023 —

Projects Under Implementation

Fausto Caretta



March 8, 2023

eneva day / 2023

PARNAÍBA V

CLOSING OF THE PARNAÍBA I CYCLE
385 MW



Parnaíba V

Emblematic project that demonstrates Eneva's capabilities

- ✓ **First contract** after the restructuring of the Company in 2017
- ✓ **Unique technological solution** in Brazil
- ✓ Construction and assembly in **SIMOPS**
- ✓ Closing of the Parnaíba I cycle → capacity increase to **1.8 GW**
- ✓ Reduction of greenhouse effect emissions in **412k ton CO2e**
- ✓ **35%** Increased energy efficiency (PI+PV)
- ✓ Since the start of operations, the turbine has already generated 329 GWh of power for Argentina

385^{MW}

Installed Capacity

Nov/22

Start of commercial operation

353R\$MM/year

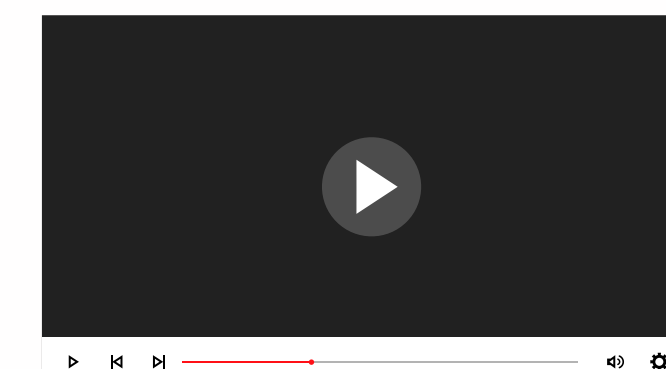
Fixed annual revenue¹ from 2024 for 25 years

Note:

1- Fixed revenue readjusted as of Nov/22.

Steam turbine in operation

[Link Video](#)

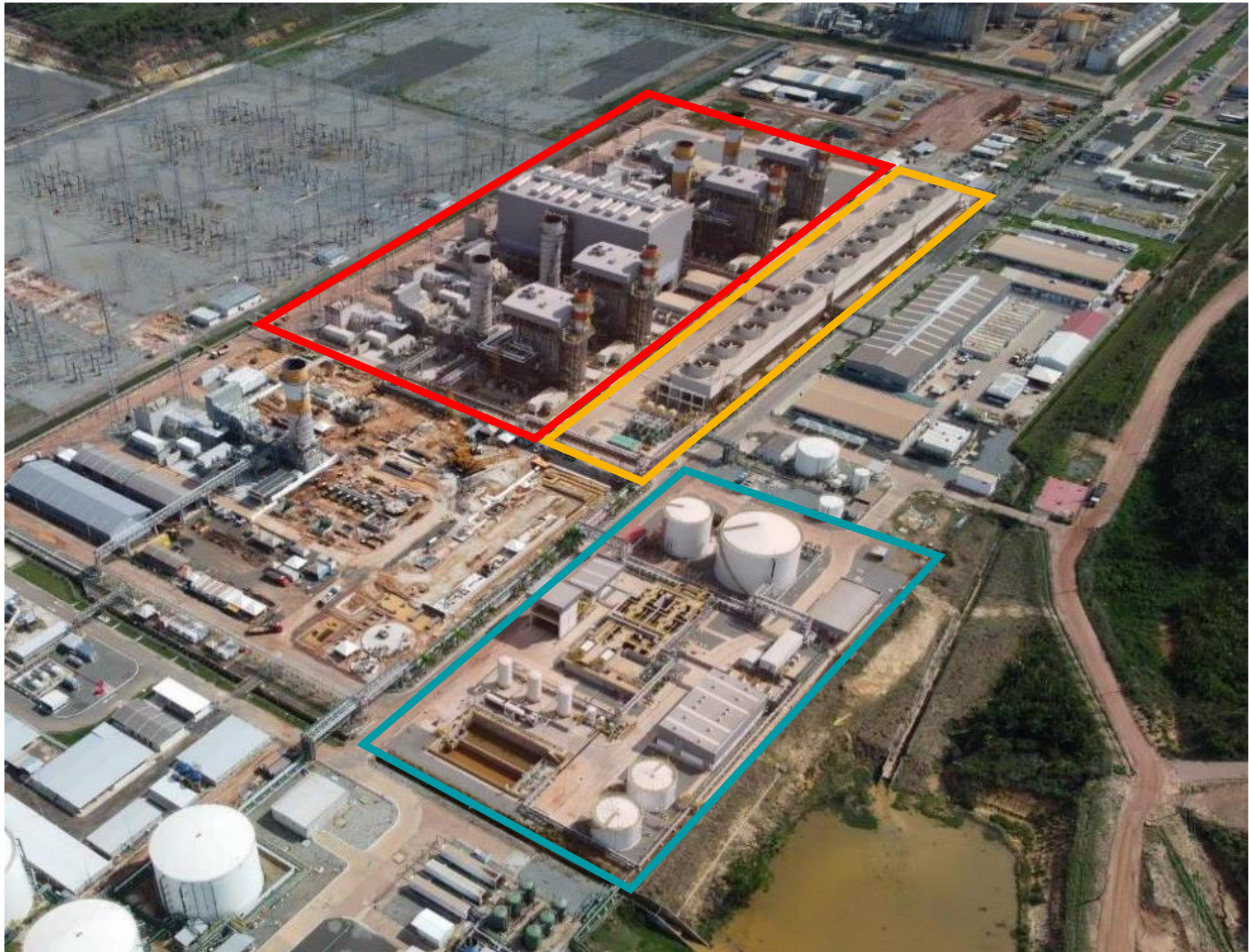


Evolution of the Project

OCTOBER 2019
Start of civil works



NOVEMBER 2022
During Commercial Operation



Turbines before and after
Heat exchangers
Water treatment plant

eneva day / 2023

PARNAÍBA VI

CLOSING OF THE PARNAÍBA III CYCLE
92 MW



Parnaíba VI

Closes the cycle on the last gas turbine, becoming the largest thermal complex in the country

- ✓ Closing of the Parnaíba III cycle → capacity increase to **1.9 GW**
- ✓ Complex with **7 turbines in combined cycle**
- ✓ Reduction of greenhouse effect emissions in **61.6k ton CO₂e**
- ✓ **30%** Increased energy efficiency (PIII+PVI)
- ✓ **900 jobs** will be created during works between direct and indirect employees

Steam turbine rotor undergoing factory acceptance test

651R\$MM

Investment

92MW

Installed Capacity

Oct/24

Start of commercial operation

105R\$MM/year

Fixed annual revenue¹ from 2025 for 25 years

Note:
1- Fixed revenue readjusted as of Nov/22.

Evolution of the Project

JANUARY 2022
Project start



JANUARY 2023
Transformer test and boiler assembly



Parnaíba VI

Execution of the Project

97%

Physical
Adherence

100%

Contracted work

3.94%

TRIF

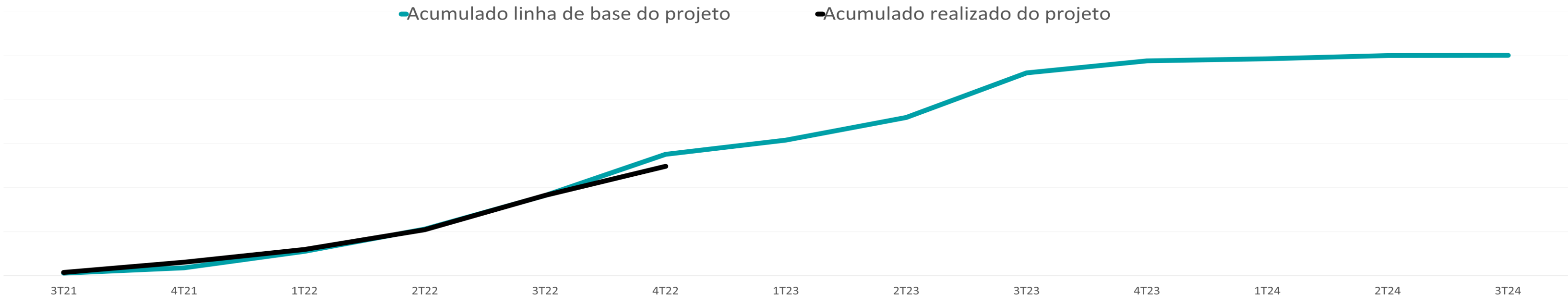
0.00%

LTIF

507Mhours

Accrued HHER

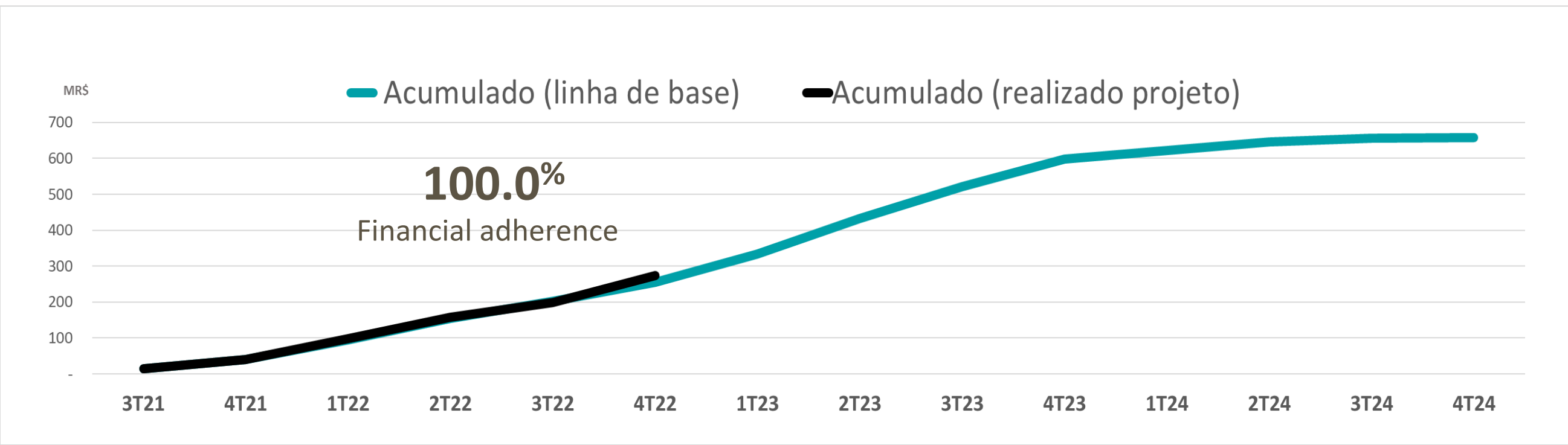
PHYSICAL PROGRESS CURVE OF THE PARNAÍBA VI PROJECT



NEXT MAIN MILESTONES

Delivery of the steam turbine in Parnaíba	09/23
Transformer power-up	11/23
Completion of mechanical assembly	02/24
Start of Test Operation	07/24
Start of Commercial Operation	10/24

INVESTMENT CURVE



eneva day / 2023

PARNAÍBA SSLNG

SMALL-SCALE LIQUEFIED GAS CRYOGENIC PLANT
600kNm³/d



Provides an efficient and cleaner energy solution in the region

LNG plant type

- ✓ Incorporates all lessons learned from Azulão-Jaguatirica
- ✓ Application of new efficient and proven technologies
- ✓ Switching from current fuels will decrease greenhouse gas emissions by about **23%** for industrial customers
- ✓ Around **850 jobs** will be created during works between direct and indirect employees
- ✓ Remaining installed capacity being allocated with potential **new contracts** for the sale of LNG or gas

980R\$MM
Investment

600kNm³/d
Capacity

May/24
Start of
commercial
operation

430R\$MM
Annual revenue
(current contracts)

Parnaíba SSLNG

Innovative model as a sustainable power solution



TRADING

- ✓ Two LNG sales contracts signed in 2022
- ✓ Customers shall convert fuel oil into Natural Gas

TECHNOLOGY

- ✓ Cosmodyne is a leader in cryogenic process technology
- ✓ Equipment manufactured in California, USA
- ✓ Simple, reliable and proven technology with 450 plants in operation



OPERATION AND LOGISTICS

- ✓ Conversion into LNG at the Parnaíba Complex liquefaction plant
- ✓ LNG transported by cryogenic trucks to the regasification points
- ✓ GNL Brasil, Joint-Venture formed by Eneva and VirtuGNL, creates new logistics capacity in the SSLNG value chain



Parnaíba SSLNG

Execution of the Project

100.7%

Physical Adherence

82%

Contracted work

0.00%

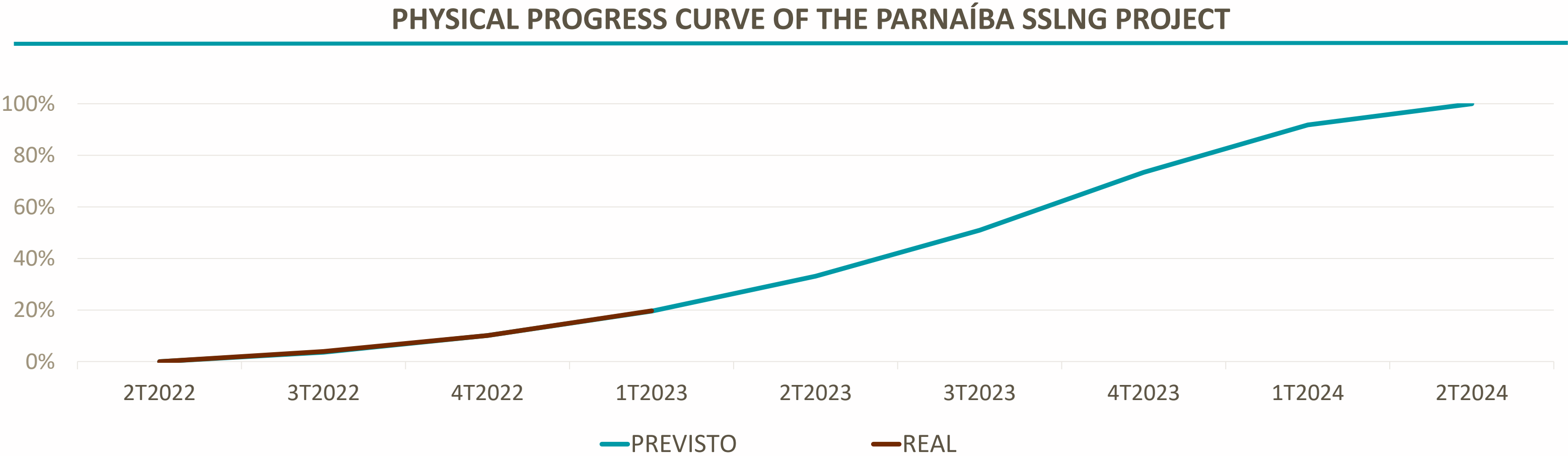
TRIF

0.00%

LTIF

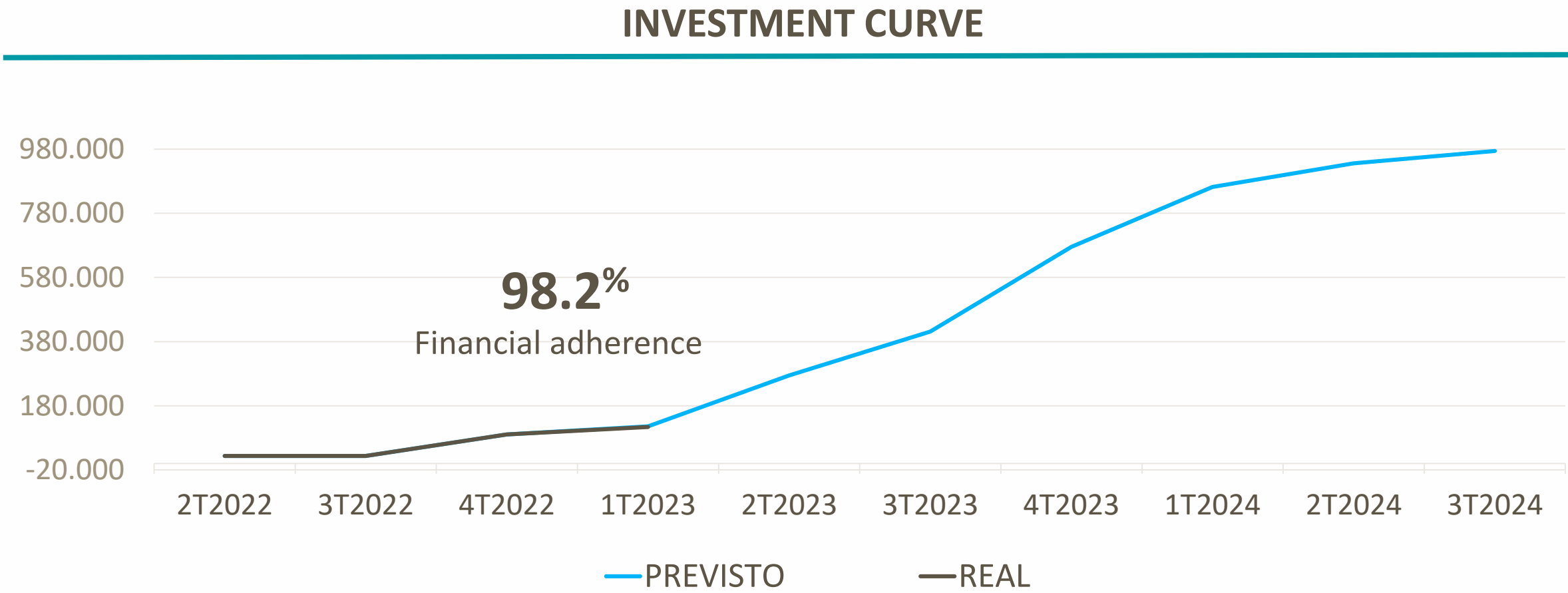
26,880hours

Accrued HHER



NEXT MAIN MILESTONES

Mobilization of EPC (regasification site)	05/23
Start of equipment arrival at the sites	06/23
Conclusion: Manufacturing of trailers (100% contracted)	08/23
Conclusion: Foundation and civil works	12/23
Conclusion: equipment arrival at the sites	01/24
Conclusion: Liquefaction Commissioning	04/24
Conclusion: Commissioning of Regasification	05/24



eneva day / 2023

AZULÃO 950 MW

NEW AMAZONAS THERMAL COMPLEX
950 MW



Azulão 950 MW

The combination of the results of the Power Auctions in 2021 and the Energy Auctions in 2022 will allow replicating the R2W model in Amazonas

Concept design of the complex

- ✓ Azulão field gas reserves (2P: 14.5 Bcm) monetized in the new complex
- ✓ Drilling services **100% already hired** (16 wells)
- ✓ Increase in installed capacity in R2W to **2.95 GW**
- ✓ Minimal impact with vegetation suppression of c.30 ha vs. commitment to **120 ha in Legal Reserves**, 450 ha of restoration (Living Forest) and implementation of Agroforestry Systems in 350 ha
- ✓ **5000 jobs will be created** during works, between direct and indirect employment.

5.8R\$Bi

Investment

950MW

Installed
Capacity

Dec/26

Start of
commercial
operation¹

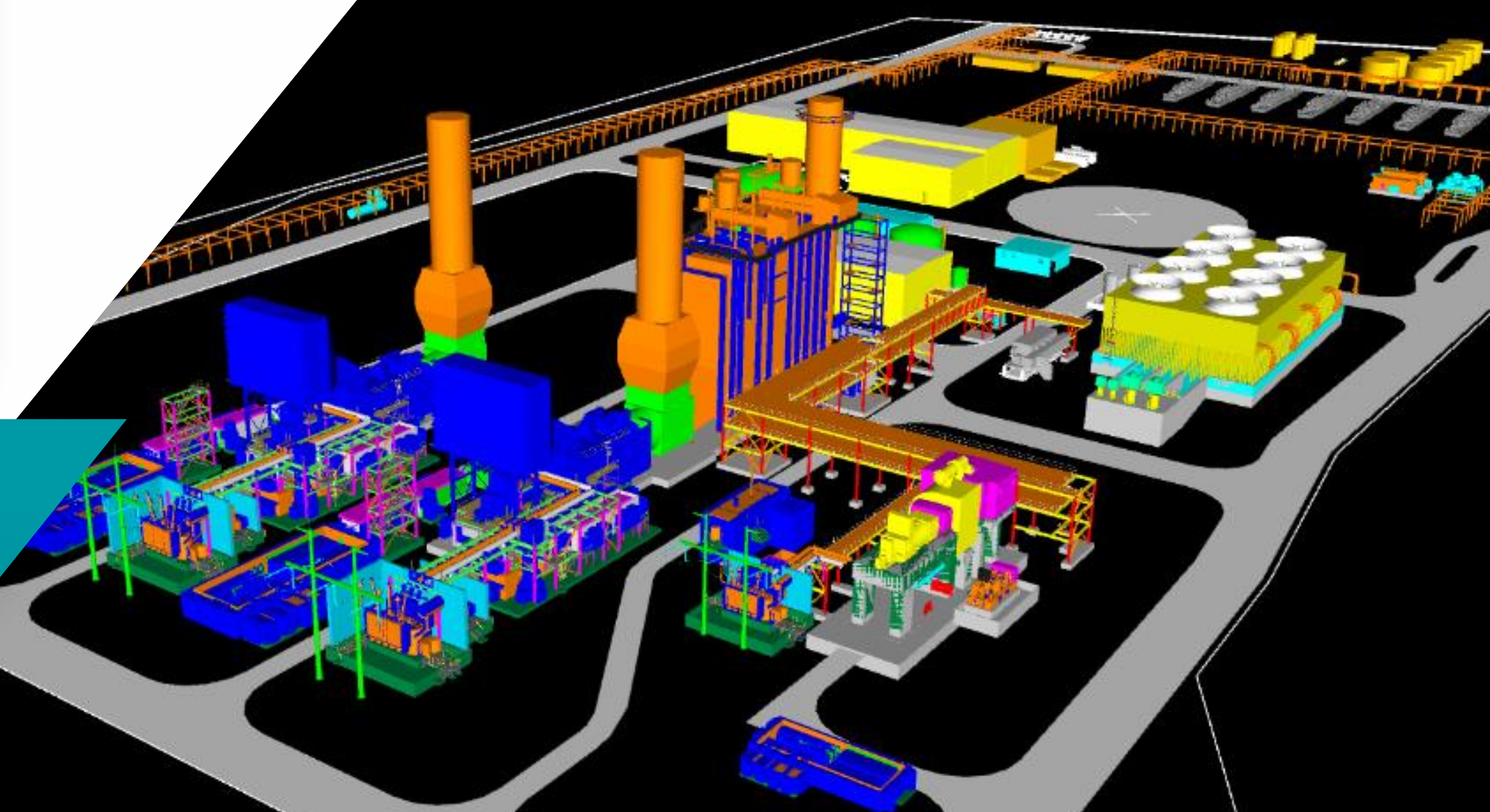
2.2R\$Bi

Fixed annual
revenue² from
2027 for 15 years

Notes:

1- 100% of the project

2- Adjusted fixed income values as of Nov/22. Considers fixed revenue of R\$239MM from Azulão I, open cycle, as of Jul/26.



Result of Eneva's experience in exploration, construction and R2W operation

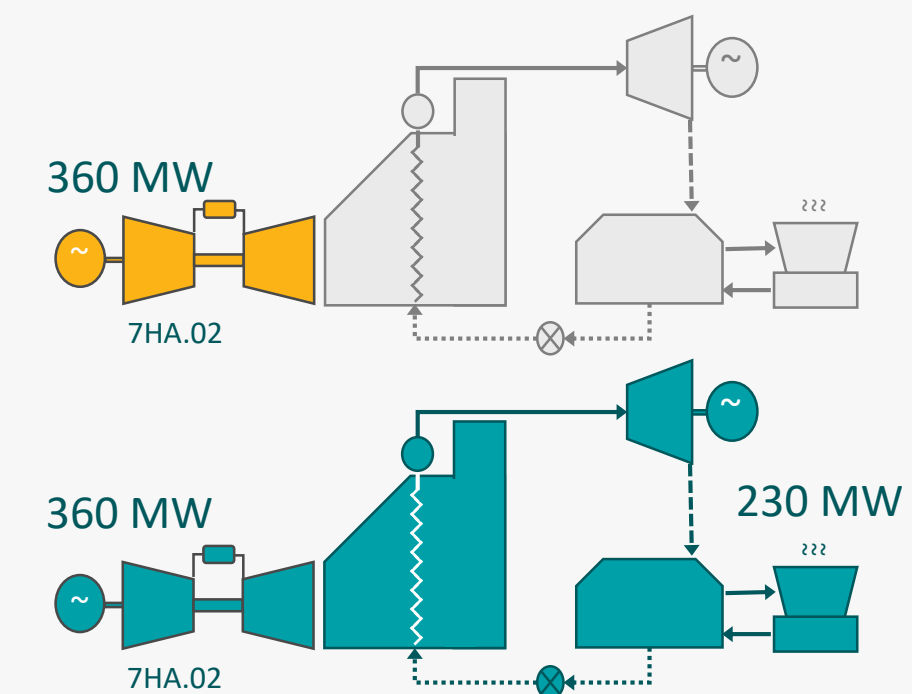
AZULÃO 950 MW
UTG & UTE

AZULÃO
LNG

PRESERVATION
AREA

Image © 2023 Maxar Technologies

Azulão 950 MW



TRADING

- Azulão I (295 MW) obtained in the 2021 Power Reserve Auction
- Azulão II (590 MW) at the Energy Reserve Auction (Eletrobrás) in 2022

TECHNOLOGY



- One gas turbine in simple cycle and one in combined cycle
- Both state-of-the-art GE 7HA to achieve the best energy efficiency standards

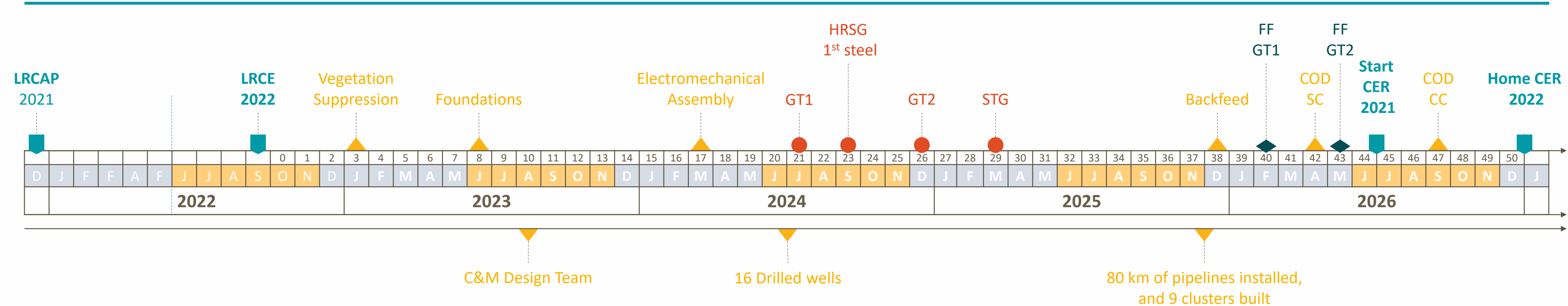
OPERATION AND LOGISTICS

- Gas production for the new GTU
- The condensate will be transported by trucks to Itacoatiara

Azulão 950 MW

Project Performance

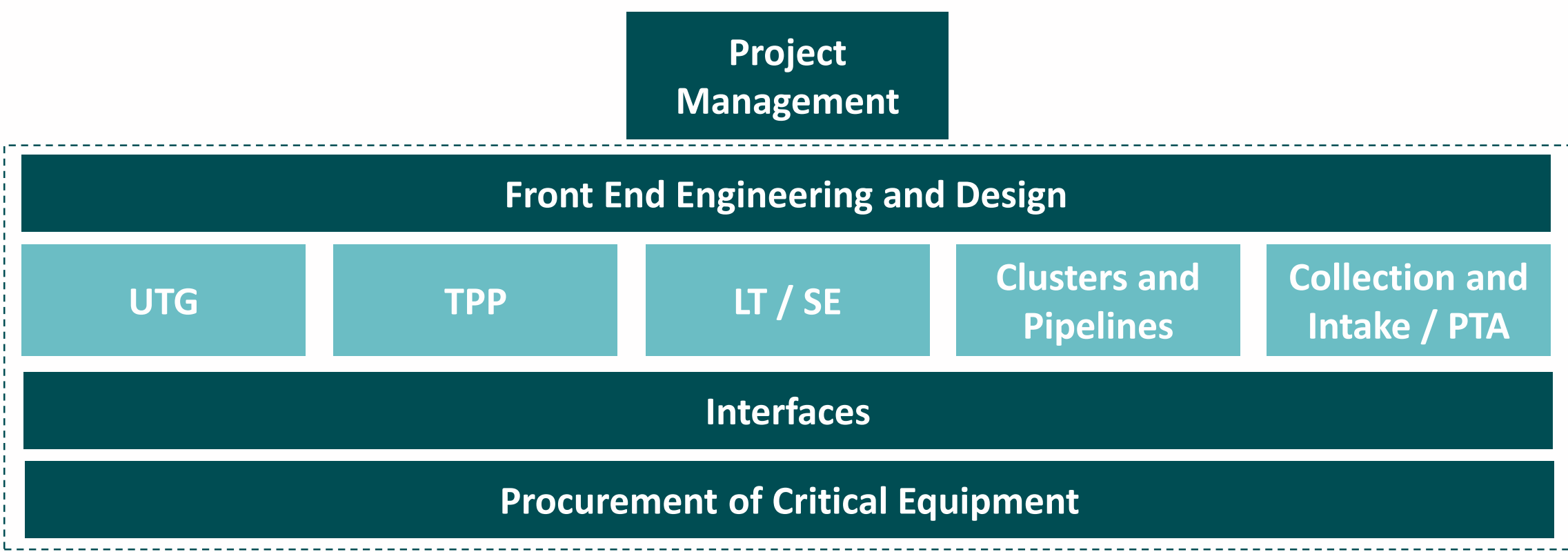
PLANNED SCHEDULE



NEXT MAIN MILESTONES

FEED	06/23
Purchase of GE equipment	02/23
Formation of the project team (64 professionals)	08/23
Vegetation suppression	03/23
Mobilization for civil works	06/23
Subscription to EPC packages (5 packages)	12/23
Mobilization for electromechanical assembly	03/24

CONTRACTING AND PERFORMANCE STRATEGY



eneva day / 2023

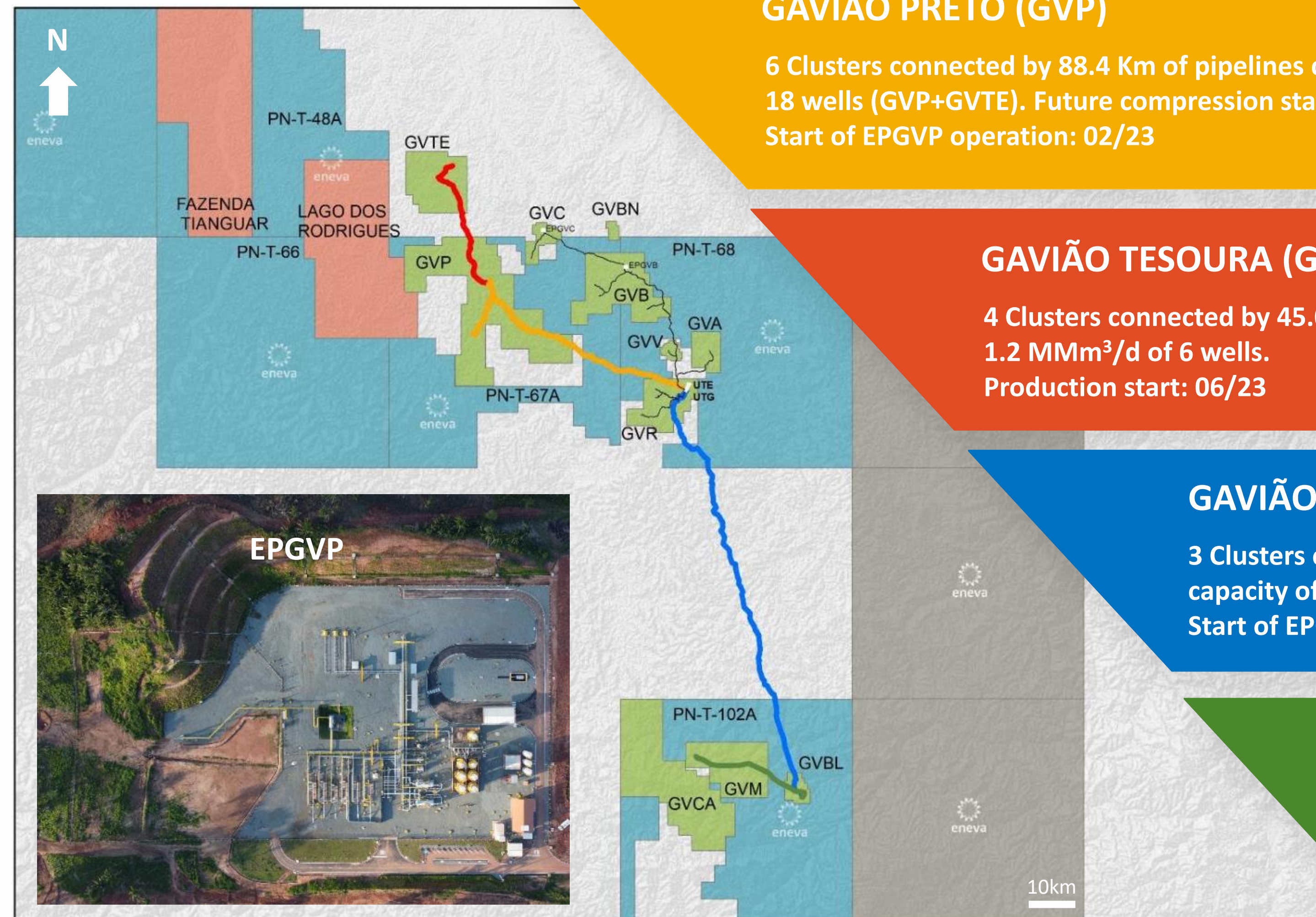
E&P PROJECTS

DEVELOPMENT OF GAS FIELDS



E&P Projects

Gas field development projects, expanding the current pipeline network of 203 km by 125% and creating optionality



GAVIÃO PRETO (GVP)

6 Clusters connected by 88.4 Km of pipelines crossing 6 municipalities with a capacity of 4 MMm³/d of 18 wells (GVP+GVTE). Future compression station.
Start of EPGVP operation: 02/23

GAVIÃO TESOURA (GVTE)

4 Clusters connected by 45.0 Km of pipelines crossing 5 municipalities with a capacity of 1.2 MMm³/d of 6 wells.
Production start: 06/23

GAVIÃO BELO (GVBL)

3 Clusters connected by 121.9 Km of pipelines crossing 8 municipalities with a capacity of 2.5 MMm³/d of 8 wells. Future compression station.
Start of EPGVBL operation: 06/26

GAVIÃO MATEIRO (GVM)

4 Clusters connected by 30.0 Km of pipelines crossing 4 municipalities with a capacity of 2.5 MMm³/d of 9 wells.
Start of EPGVBL operation: 06/26

eneva day / 2023

FUTURA I

PHOTOVOLTAIC PLANT
671 MWac



Futura I

One of the largest solar parks in the American continent

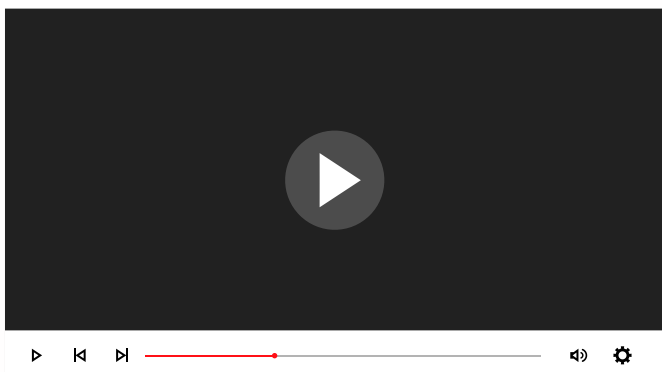
CONSTRUCTION AND ASSEMBLY

- 22 UFVs, 2 transformers (400 MVA), 2 15.6 km circuits (500 KV)
- 1.6 million solar panels and 5000+ km of cables
- 100% completed

COMMISSIONING

- Energized Substations
- Test operations in progress
- Commercial operation in Apr/23

Link
Video



eneva day / 2023

AZULÃO- JAGUATIRICA

R2W WITH VIRTUAL PIPELINE
141 MW



Disruptive and innovative project in Northern Brazil



DEVELOPMENT AND IMPLEMENTATION

- ✓ Project with challenging deadline for the construction of a thermal and a liquefaction plant in just 2 years
- ✓ Disruptive and pioneering R2W project through a virtual gas pipeline using a cryogenic truck
- ✓ Largest fleet of LNG trucks in Brazil
- ✓ Creation of a new SSLNG line of business

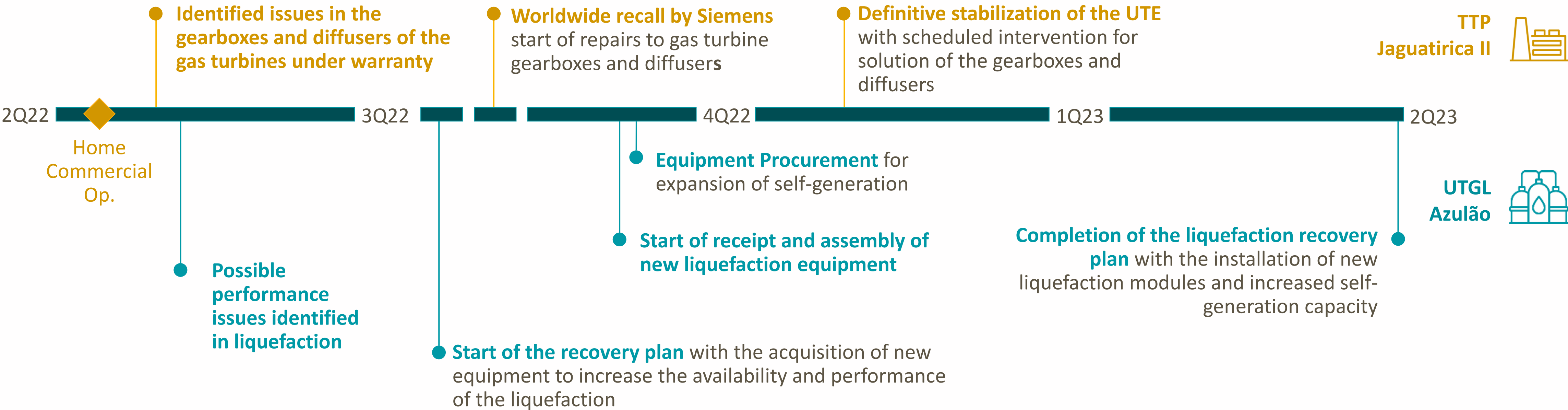
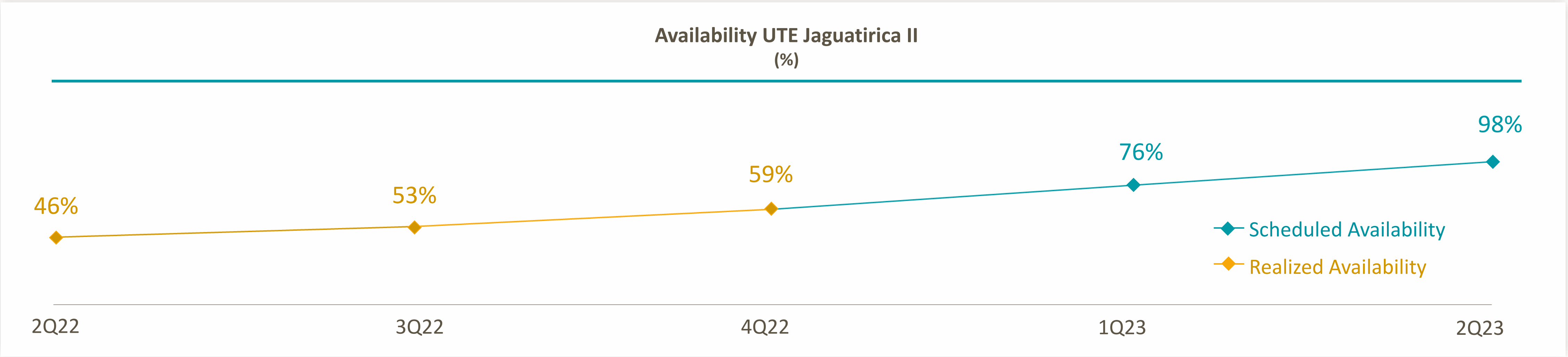
RORAIMA ISOLATED SYSTEM

- ✓ First thermal plant to enter into commercial operation in the auction of the isolated system of Roraima
- ✓ Highly relevant project, with capacity for supplying 70% of all the power in the state. Reliable power at the most competitive price
- ✓ Replacement of the energy matrix of the isolated system with a reduction of 178,700 ton/year of CO₂ and 99% less Nox emissions

AZULÃO FIELD

- ✓ Largest LNG Plant in Brazil
- ✓ Project responsible for starting the development of the Amazon Basin
- ✓ Development of inner Amazon

O&M Evolution for Azulão-Jaguatirica





ri@eneva.com.br



phone: (21) 3721-3030



ri.eneva.com.br/

eneva day
— 2023 —

Dispatch & Monetization Alternatives

Marcelo Lopes

March 8, 2023

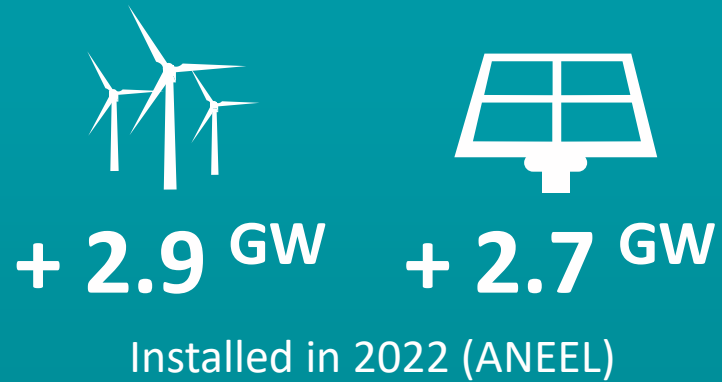


Dispatch Forecast and Monetization Alternatives

Brazilian energy sector is undergoing a period of conjunctural oversupply, which has put downward pressure on prices...

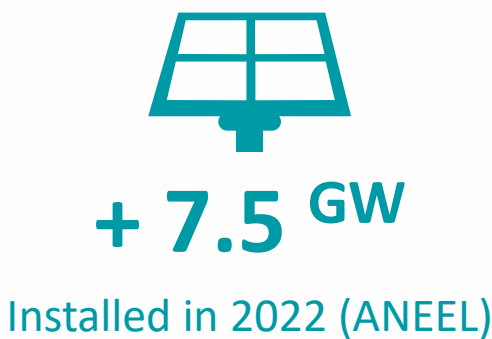
RENEWABLE EXPANSION (CENTRALIZED)

Incentives have stimulated inefficient expansion



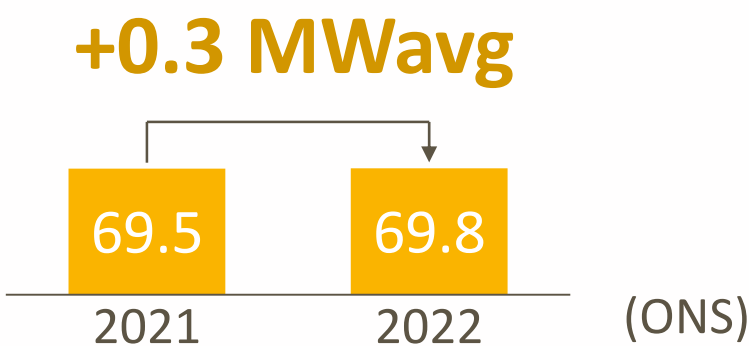
DISTRIBUTED GENERATION

Subsidies have created great arbitrage within the captive market

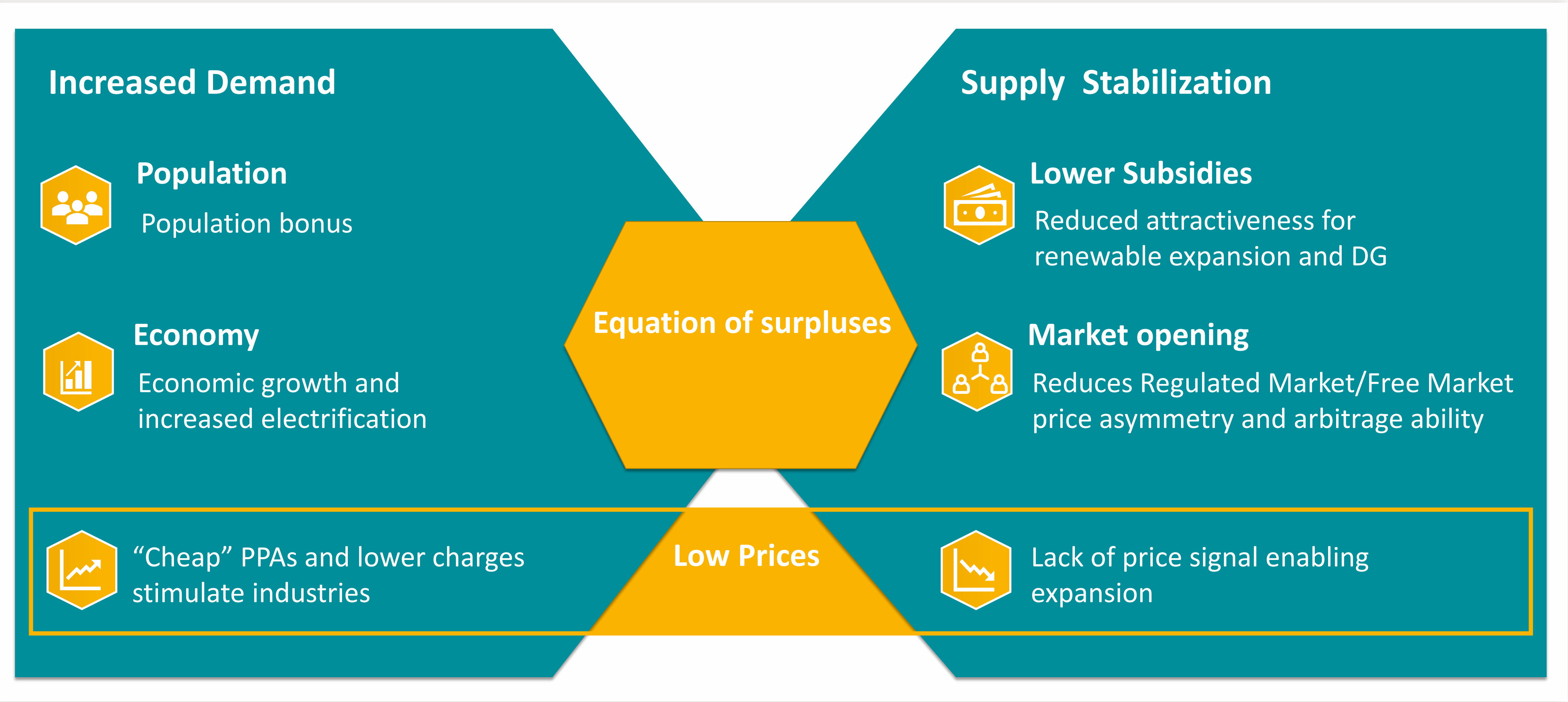


DEMAND PERFORMANCE

Crises harm the economy and GD “conceals” part of consumption

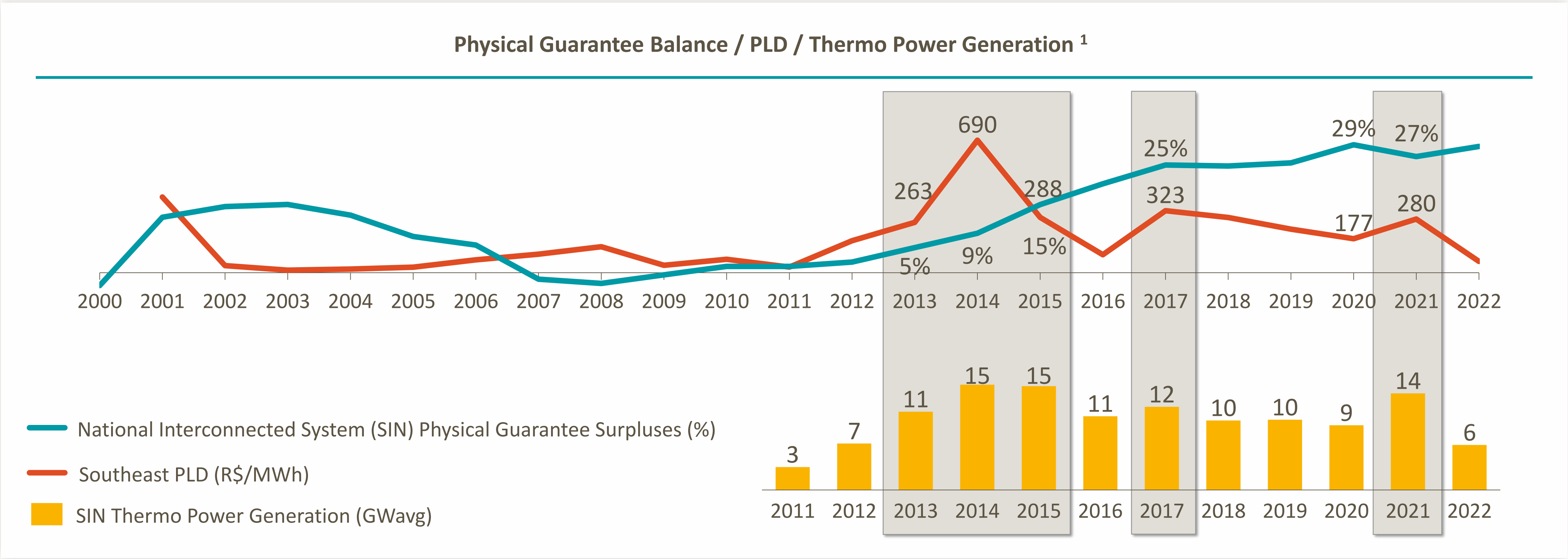


... but the economic rationale associated with the regulatory agenda is expected to equate surpluses in the medium term (the supply and demand rule)...



Dispatch Forecast and Monetization Alternatives

Even with the short-term surpluses, the hydro prevalence in the matrix means that short-term hydrology sets the conditions for dispatch and PLD...

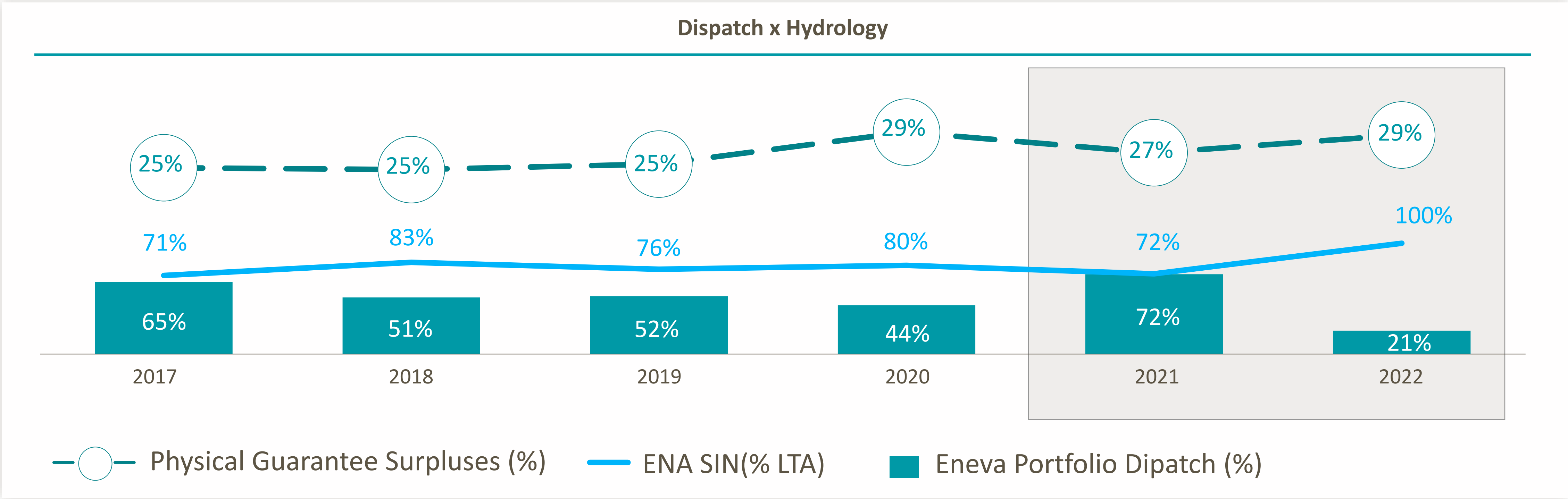


Energy Matrix ²	Total	Hydro	Thermal
	190 GW	103 GW (54%)	30 GW (16%)
		Dispatchable	Dispatchable

(1) Prepared in-house. (Source: ANEEL/ONS/CCEE)
(2) Installed Capacity (Source: SIGA ANEEL)

Dispatch Forecast and Monetization Alternatives

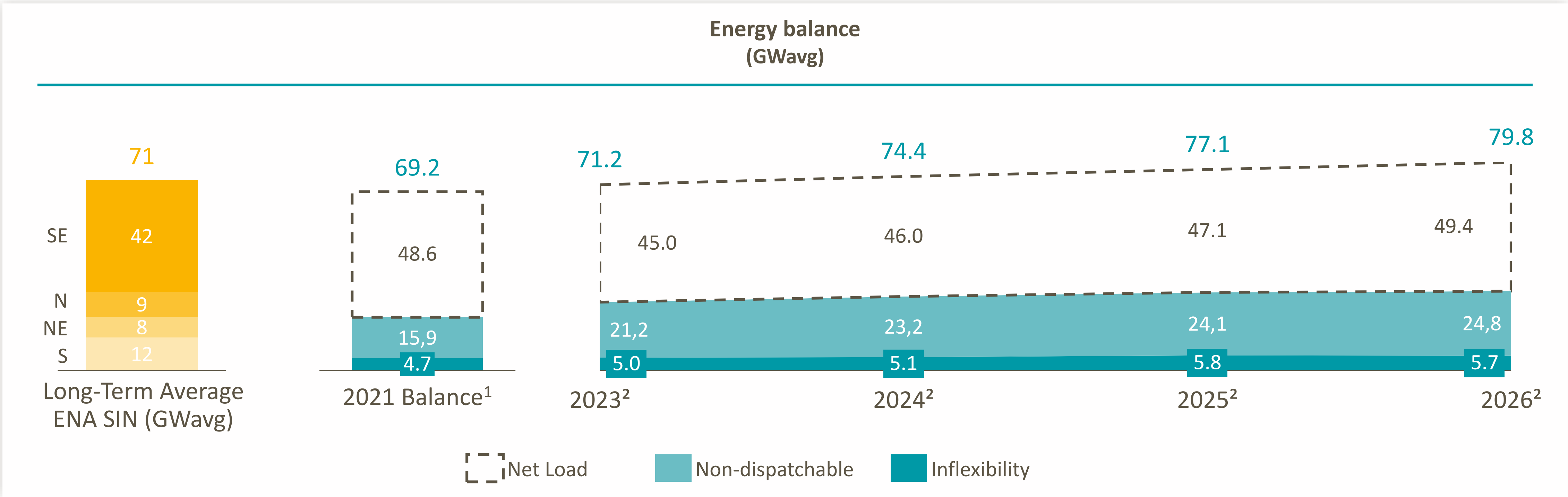
From 2017 to 2021, even with structural surplus, the Eneva's dispatch remained above 40%. The reduction as of 2022 was due to the improvement in hydrology...



In 2021 even with 27% surpluses, the system almost went through rationing...

Dispatch Forecast and Monetization Alternatives

Energy balance does not show a structural change compared to 2021, and, depending on the hydrology, thermal power plants will be activated again for the safety of the system...



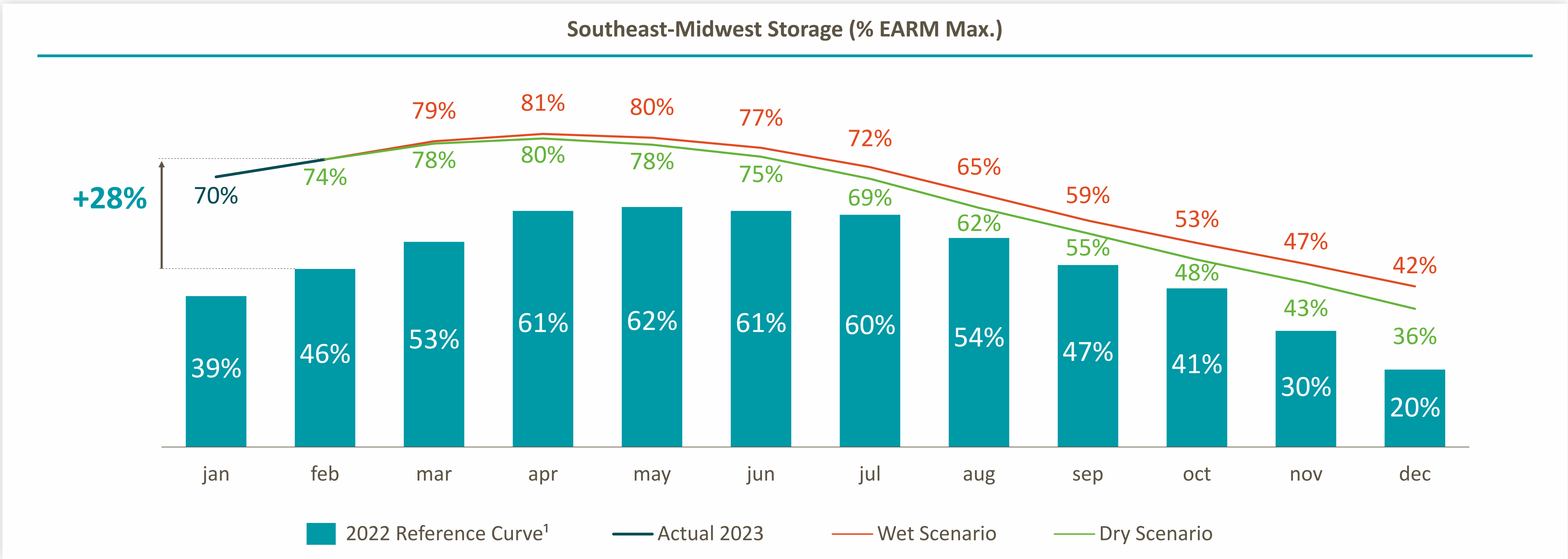
The “free gap” in the energy balance expected for 2023-2026 is similar to that seen in 2021: year in which the system was on the verge of rationing...

(1) CCEE January/2021;
(2) CCEE January/2023;

Extreme weather events, which became increasingly common expose apparently “loose” systems

Dispatch Forecast and Monetization Alternatives

The actual free gap of the current reservoir level as compared to ONS reference curve is 28%, which is equal to less than 10% of the one-year LTA...



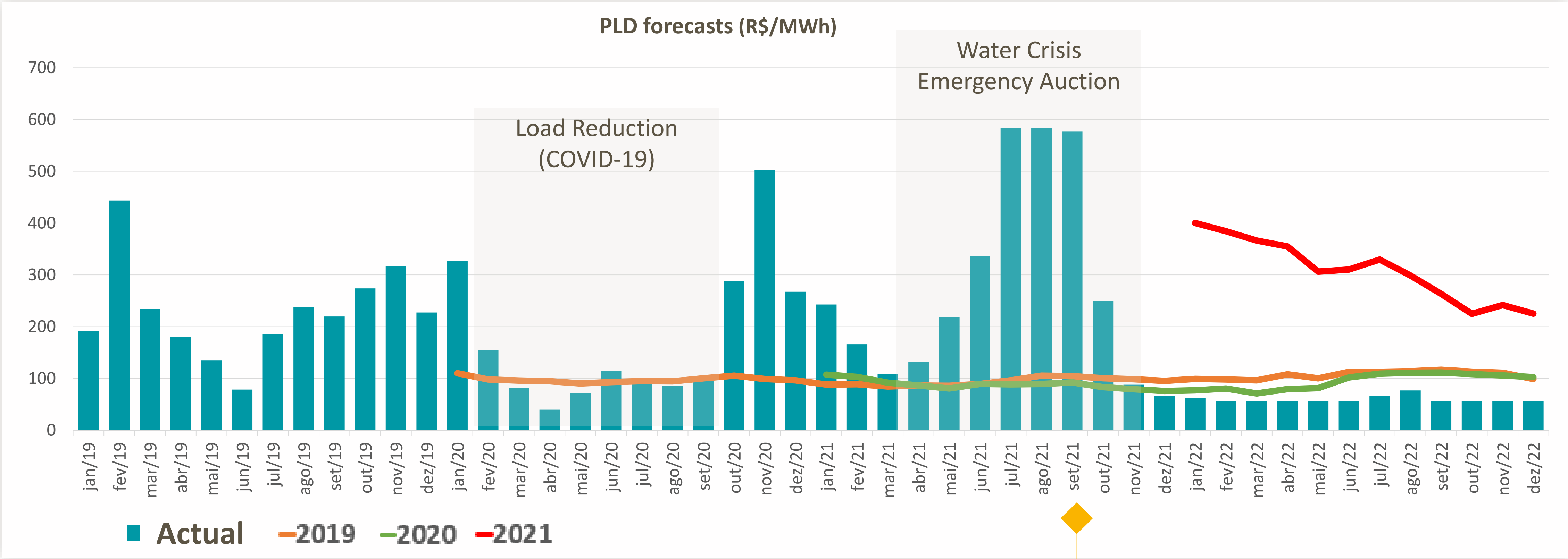
“Actual” free gap of the reservoirs is 28% as compared to ONS reference curve, equivalent to 81.6 GWmonth (100% annual LTA equal to 852 GWmonth)

(1) NT-ONS DPL 0156/2021

Just one summer with no rain, followed by a critical period, is enough for the system to return to stressed conditions, as seen in 2021

Dispatch Forecast and Monetization Alternatives

Future price forecasts are always "contaminated" by the short-term environment - the only certain thing is that it is unpredictable...



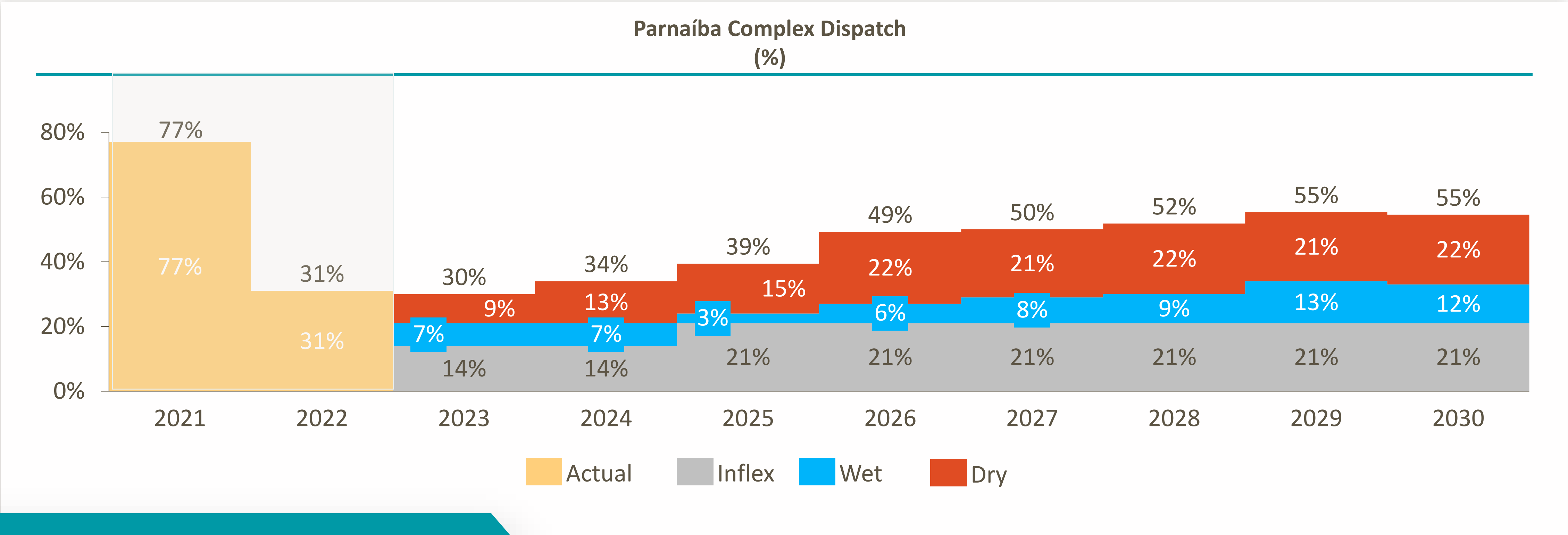
Except for 2021 (water crisis), everyone was anticipating a structural drop in PLD due to the surplus of physical guarantee

EMERGENCY AUCTION

Contracting 1.3 GW

Dispatch Forecast and Monetization Alternatives

Hydrological uncertainty opens a dispatch range for the next few years, even with a conjunctural oversupply that will be equated throughout this time...

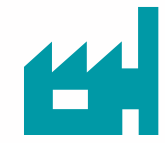


AND OUR STRATEGY MUST BE RESILIENT FOR ALL SCENARIOS

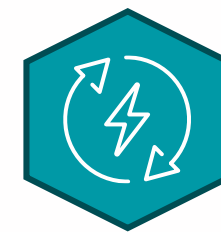
- ✓ Dry: E&P + Reserves
- ✓ Wet: Commercial + Monetization Alternatives

Dispatch Forecast and Monetization Alternatives

A lower SIN dispatch opens up opportunities for other forms of monetization...



Generation Optimization



ENERGY EXPORT



SUBSTITUTE GENERATION



Commercialization & Trading



ENERGY STRUCTURED PRODUCTS



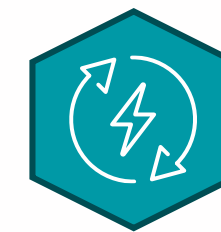
NATURAL GAS SALE TO FINAL CUSTOMER

Dispatch Forecast and Monetization Alternatives

A lower SIN dispatch opens up opportunities for other forms of monetization...



Generation Optimization



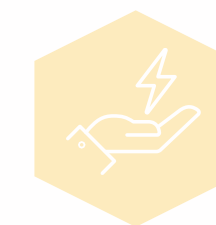
ENERGY EXPORT



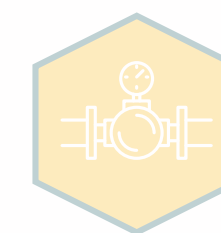
SUBSTITUTE GENERATION



Commercialization & Trading



ENERGY STRUCTURED PRODUCTS



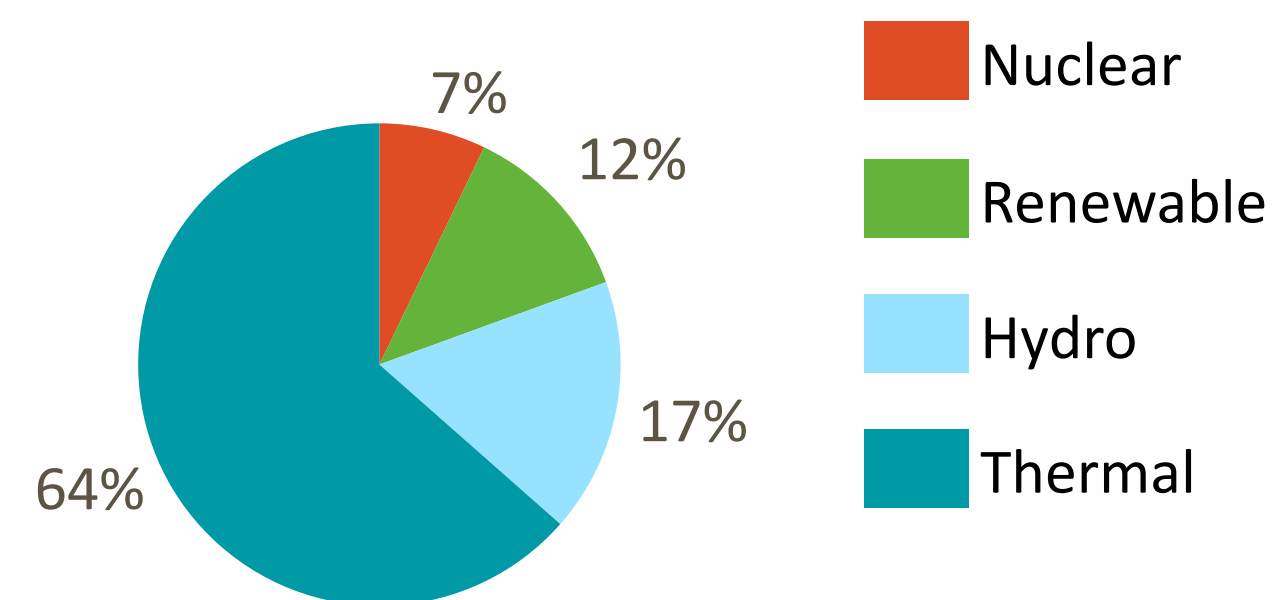
NATURAL GAS SALE TO FINAL CUSTOMER



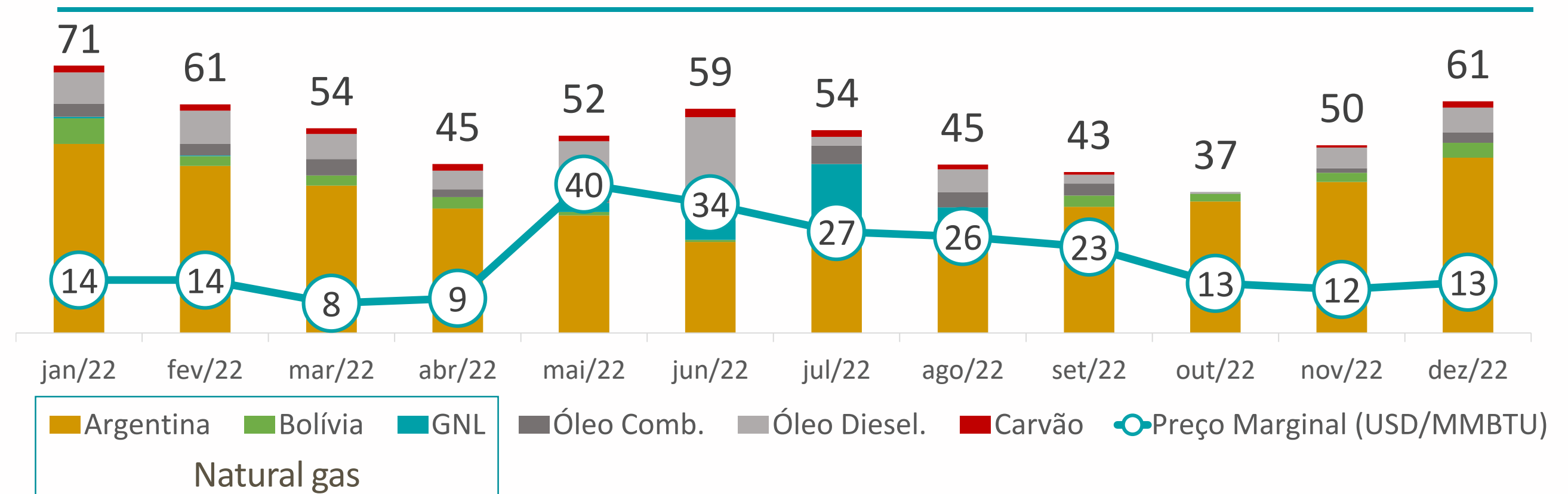
Dispatch Forecast and Monetization Alternatives

Exports should again be an excellent monetization opportunity during winter 2023...

Argentina's matrix



Fuel Supply for Thermal Power Plants
MMm³/day¹



(1) Cammesa website

- ✓ Predominantly thermoelectric matrix with low penetration of renewables
- ✓ Water complementarity

- ✓ High prices of Argentine supply
- ✓ Summer and winter bring opportunities

...but with the Vaca Muerta Gas Pipeline...

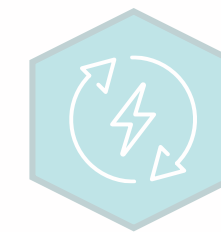
- ✓ Expected to be in operation in 2H23
- ✓ Displaces a good part of the need for imports, but does not eliminate it
- ✓ Even with Gas, Argentina's thermal park **needs investments**

Dispatch Forecast and Monetization Alternatives

A lower SIN dispatch opens up opportunities for other forms of monetization...



Generation Optimization



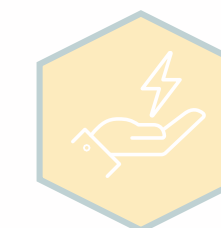
ENERGY EXPORT



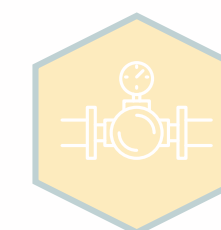
SUBSTITUTE GENERATION



Commercialization & Trading



ENERGY STRUCTURED PRODUCTS

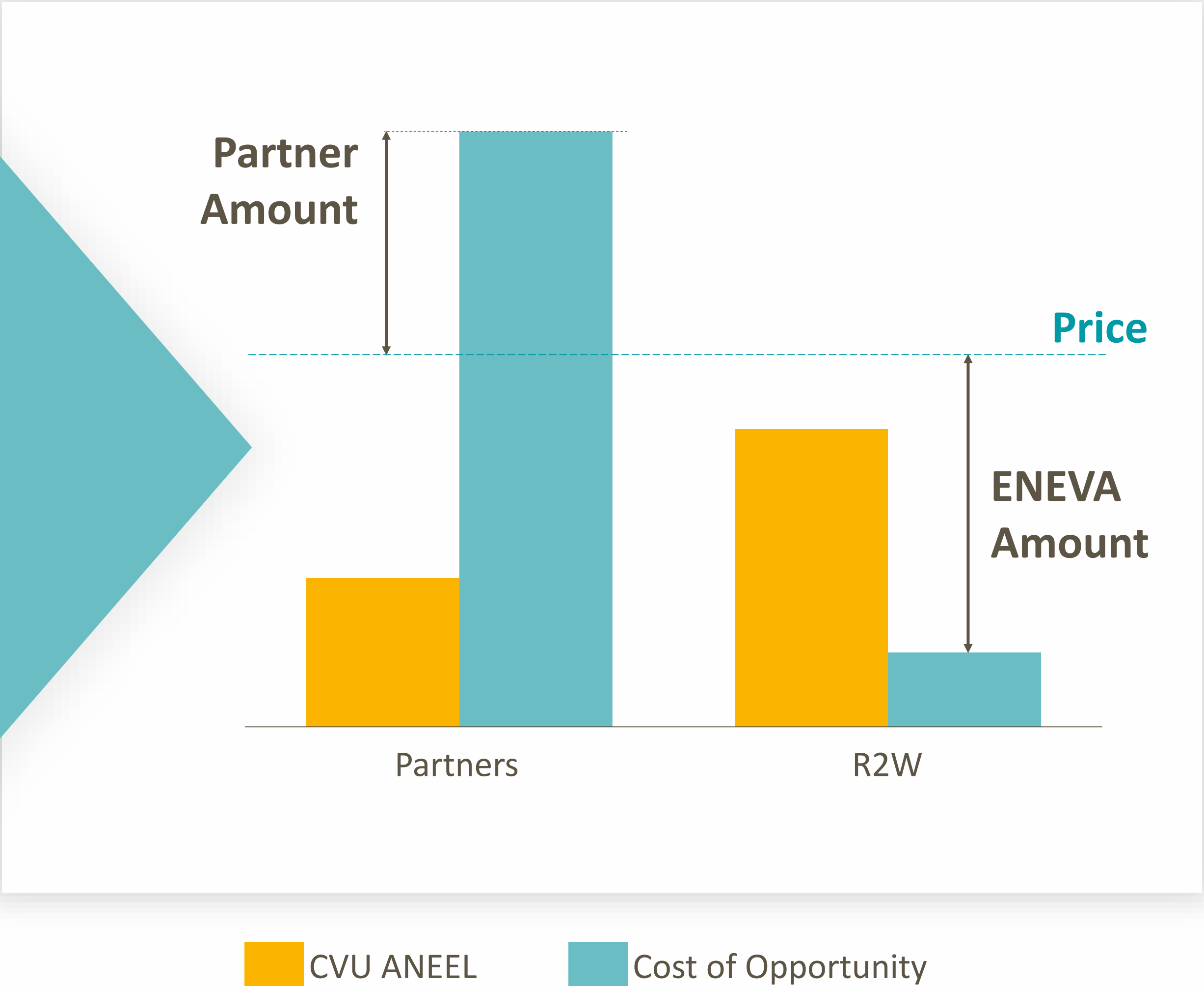


NATURAL GAS SALE TO FINAL CUSTOMER

Substitute Generation: Options for optimization and value capture

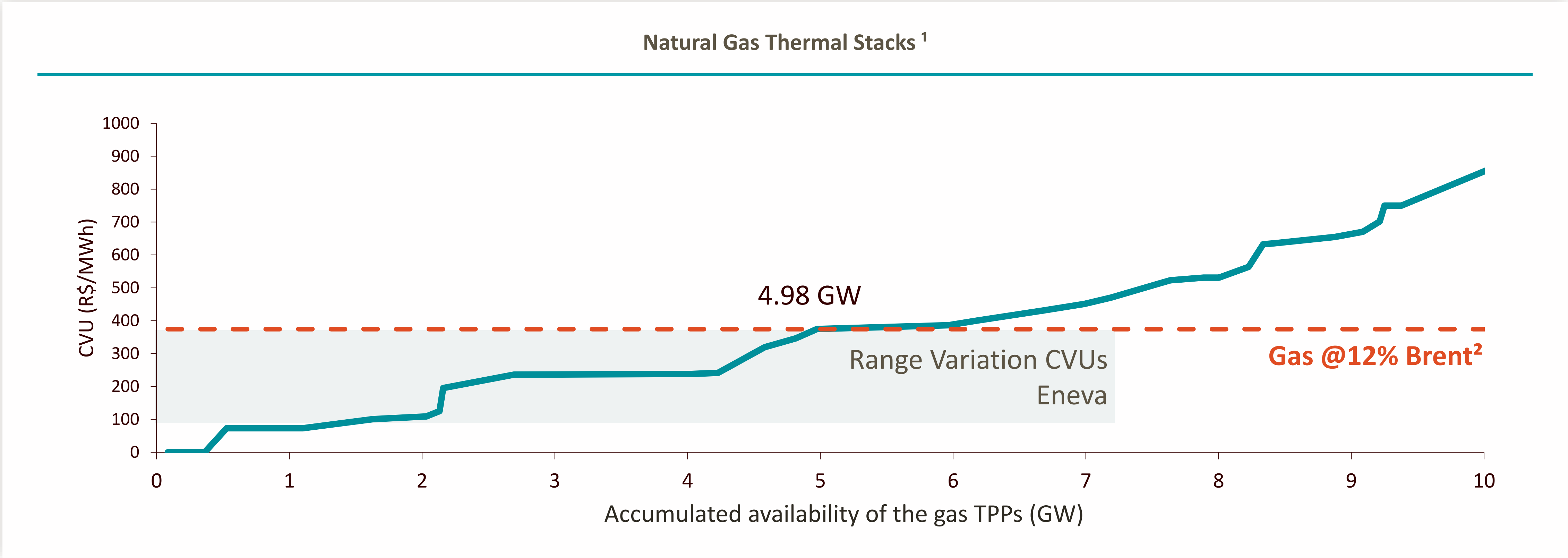
 Bilateral optimization of results - *Win-Win*

 Regulatory effort to broaden applicability (e.g. inflexibility)



Dispatch Forecast and Monetization Alternatives

Stacks of gas thermal power plants in the system shows the difference between the unitary variable revenues for each plant and the existence of possible arbitrage....



CVUs have different indexes and arbitrations will vary over time. R2W generation supply enables placing gas on the domestic market (or avoiding imports)

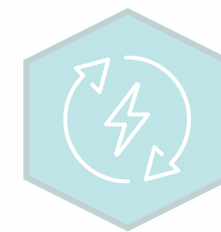
(1) Deck NEWAVE fev/2022; (2) Heat rate: 7.5 MWh/MMBTU (Combined Cycle), FX: 5.2 R\$/US\$, Brent: 80 US\$/bbl

Dispatch Forecast and Monetization Alternatives

A lower SIN dispatch opens up opportunities for other forms of monetization...



Generation Optimization



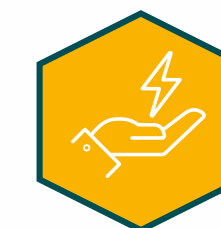
ENERGY EXPORT



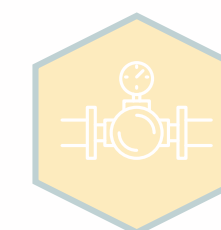
SUBSTITUTE GENERATION



Commercialization & Trading



ENERGY STRUCTURED PRODUCTS



NATURAL GAS SALE TO FINAL CUSTOMER

Dispatch Forecast and Monetization Alternatives

Multidisciplinary team qualified to generate value from market opportunities and a distinguished asset portfolio

In 2022, Eneva consolidated its role in the Free Market, expanding the diversity of variable revenue sources in addition to thermoelectric dispatch

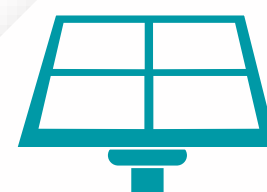
Competitive Edge

- ✓ Thermoelectric dispatch associated with variable cost control enables assets in R2W model to be valuable options for trading



DIRECTIONAL TRADING

Purchase and Sale Agreements in the Free Market



ASSET BACK TRADING

Renewable portfolio
+ R2W enables competitive edge



SALE OF OPTIONS

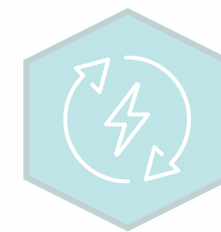
Sale of option associated with generation under R2W model

Dispatch Forecast and Monetization Alternatives

Lower dispatch to SIN opens up opportunities for other forms of monetization...



Generation Optimization



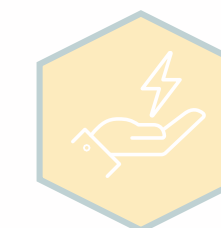
ENERGY EXPORT



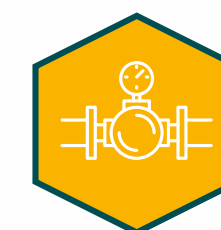
SUBSTITUTE GENERATION



Commercialization & Trading



ENERGY STRUCTURED PRODUCTS



NATURAL GAS SALE TO FINAL CUSTOMER

Dispatch Forecast and Monetization Alternatives

With the expertise acquired in Azulão-Jaguatirica project, we established the business of selling gas (via SSLNG) to end customers

We entered into agreements with Vale and Suzano and have remaining liquefaction capacity for sale



OPPORTUNITIES ARE BIGGER THAN AVAILABLE IDLE CAPACITY

The region lacks more sustainable energy solutions - less polluting and more cost-effective. The remaining LNG capacity can be absorbed by the customers that were mapped and prospected

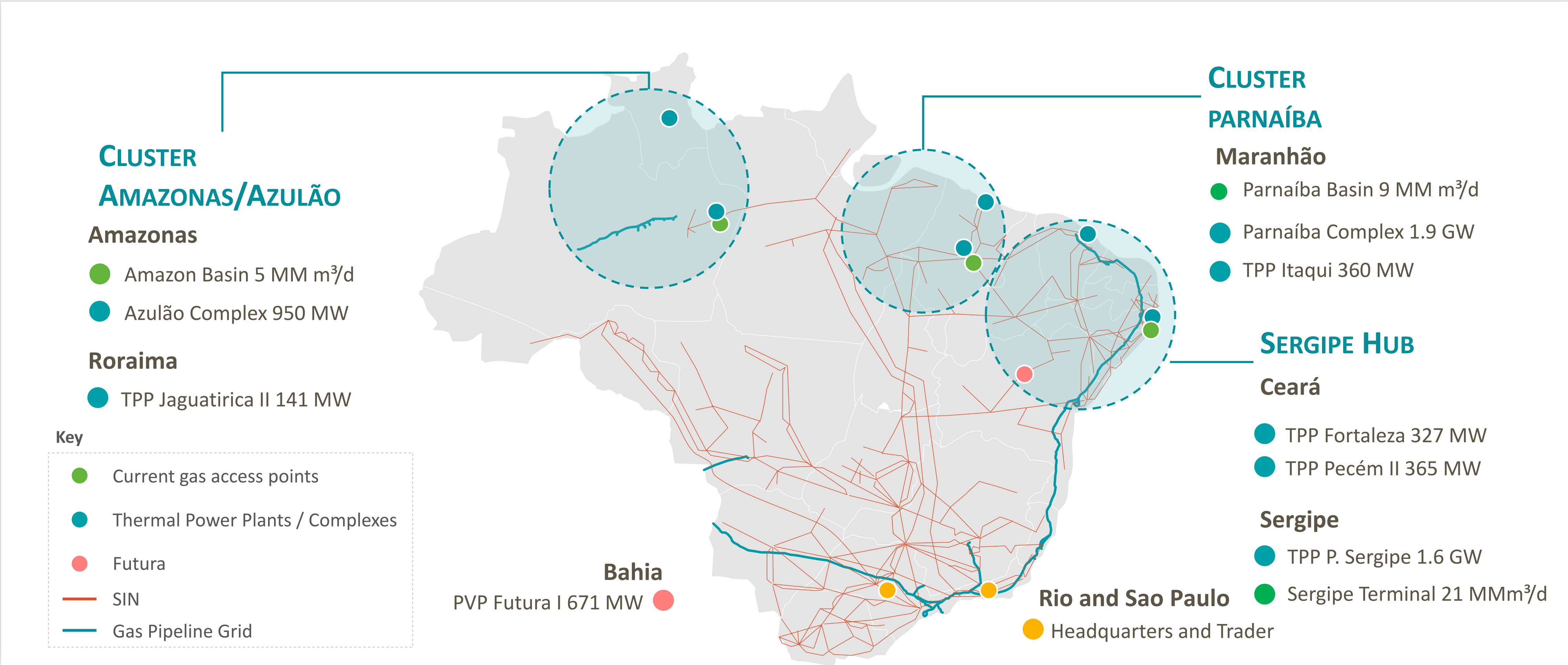


WE HAVE COMPETITIVE ADVANTAGES IN THE REGION

By being the first movers and with access to the national competitive molecule, we have advantages over new entrants

Dispatch Forecast and Monetization Alternatives

Eneva now has 3 gas clusters connected by SIN and strategic access to the molecule, opening up a range of options for capturing value in the G&E market





ri@eneva.com.br



phone: (21) 3721-3030



ri.eneva.com.br/

eneva day
— 2023 —

Participation in Auctions & Rehiring of Assets

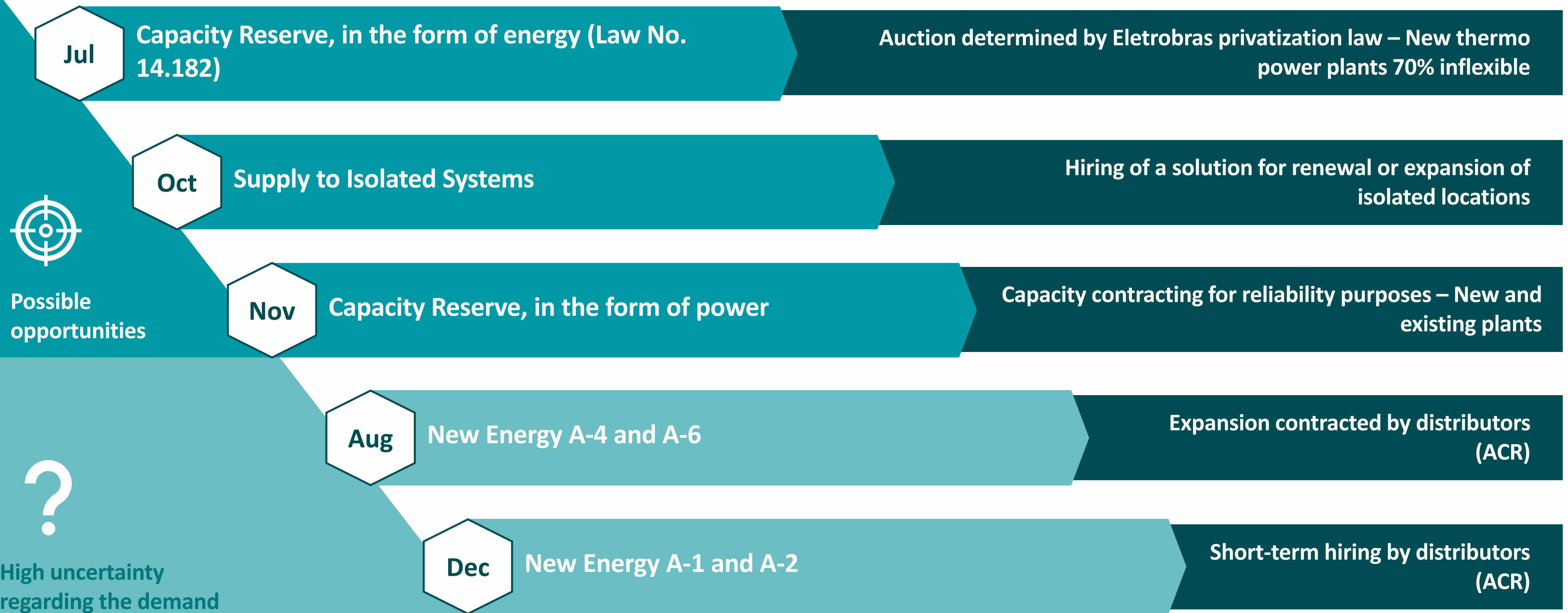
Marcelo Lopes



March 8, 2023

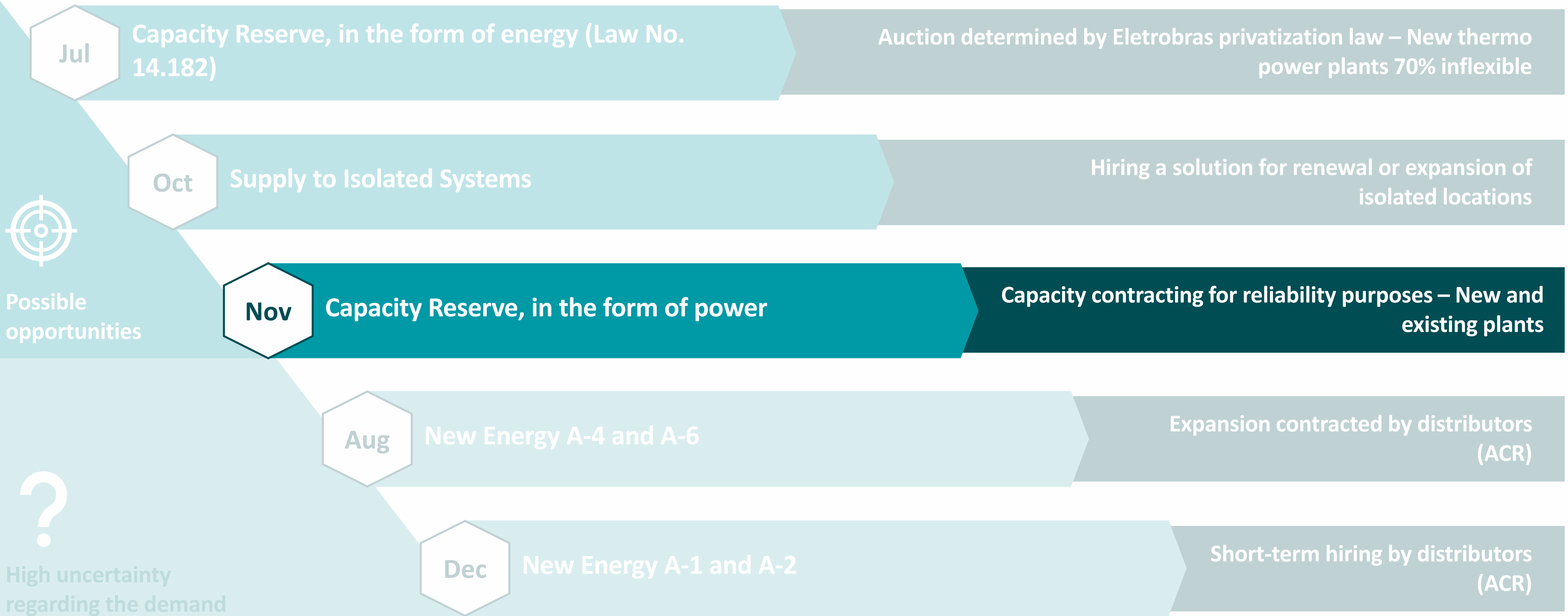
Auctions 2023

Auctions scheduled for 2023, published by the previous management of the MME, presents possible opportunities for both expansion and renewal...



Auctions 2023

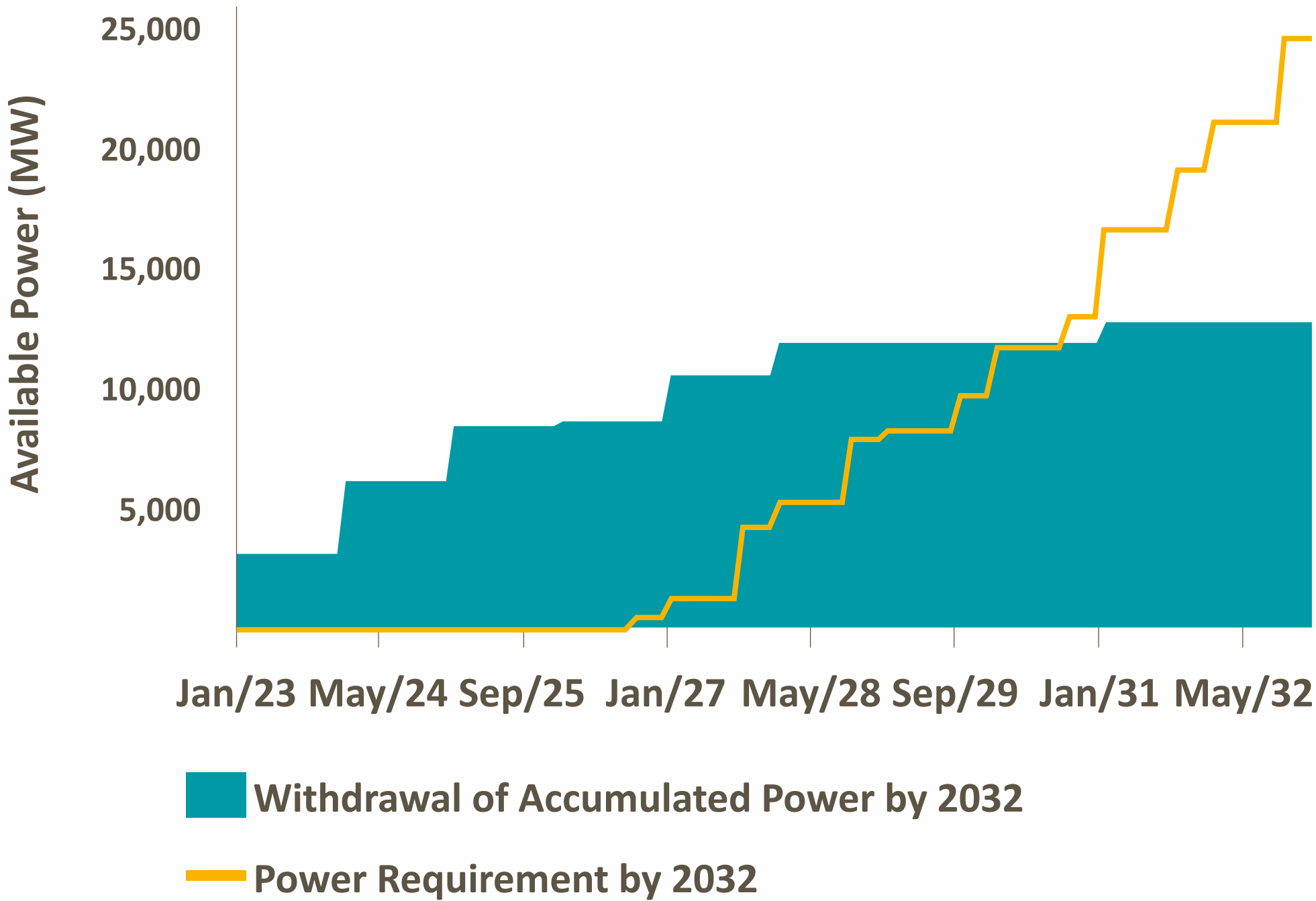
Auctions scheduled for 2023, published by the previous management of the MME, presents possible opportunities for both expansion and renewal...



The operating output of non-contracted thermal power plants reduces the operational security of the National Interconnected System (SIN) over time....

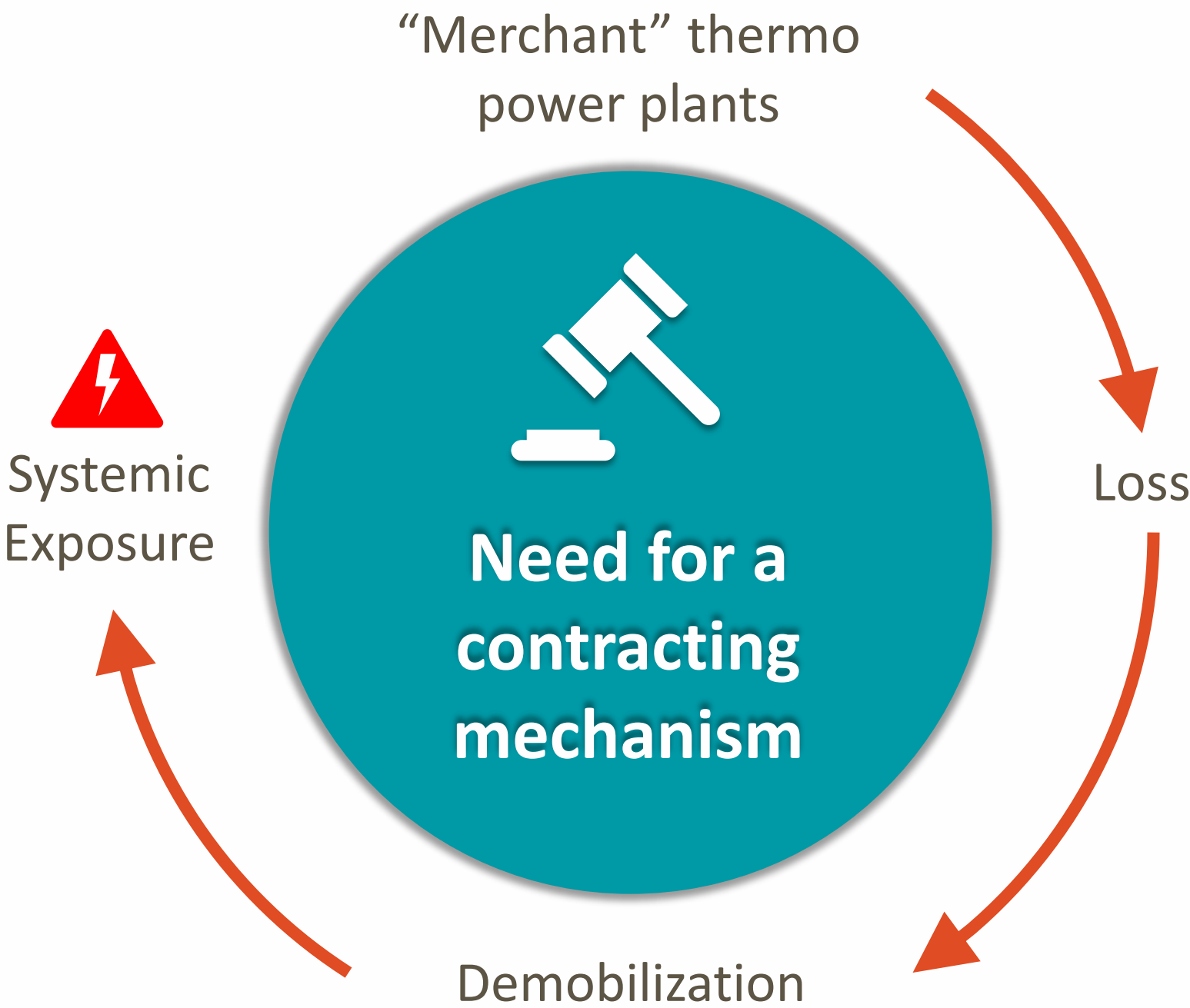
 BALANCE

Comparison between uncontracted thermoelectric supply and the power requirement
Quarterly basis (Source: EPE)



 TPPs

“Merchant” thermo power plants are not economically sustainable

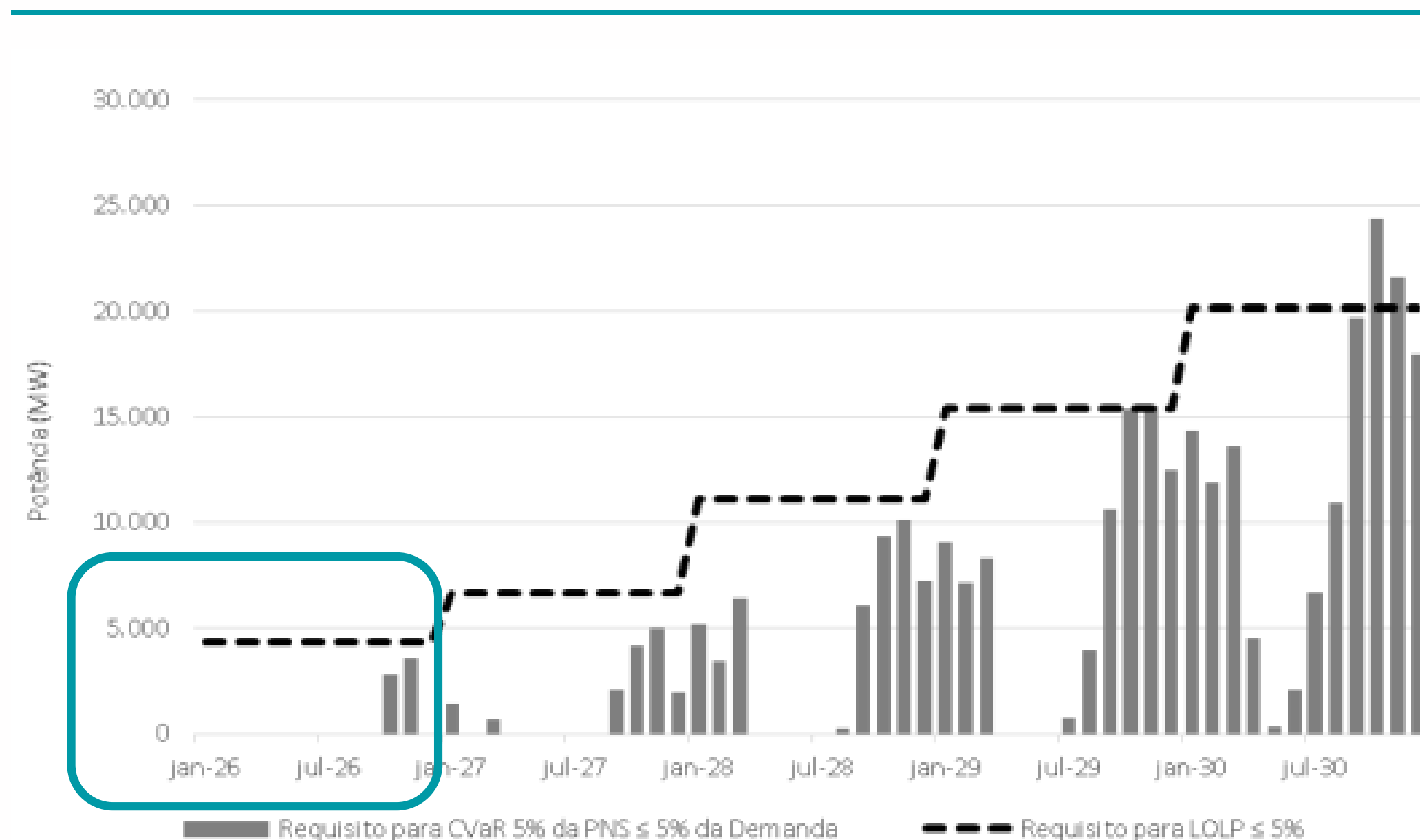


Auctions 2023

In 2021, the requirement of the Ten-Year Energy Expansion Plan (PDE) estimate “anticipated” the contracted volume in LRC21, and the same correlation is expected for LRC23...

10-Y Energy Expansion Plan (PDE) 2030

Source: EPE



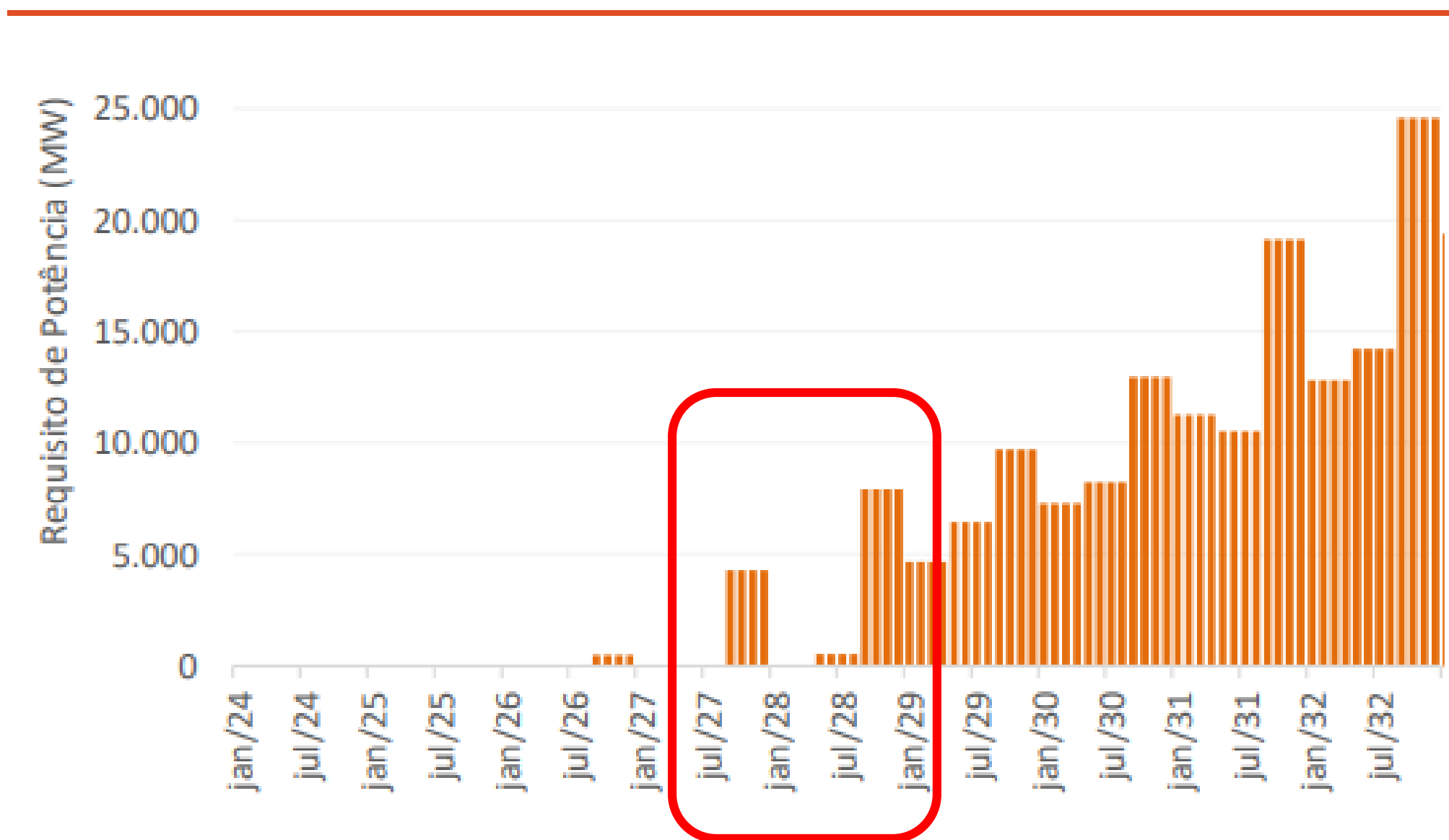
2021 LRC Demand

4.6 GW

Jul/2026

Preliminary Notebook 10-Y Energy Expansion Plan (PDE) 2032

Source: EPE



Contracting Need Pointed to 2023 LRC

~4.5 GW

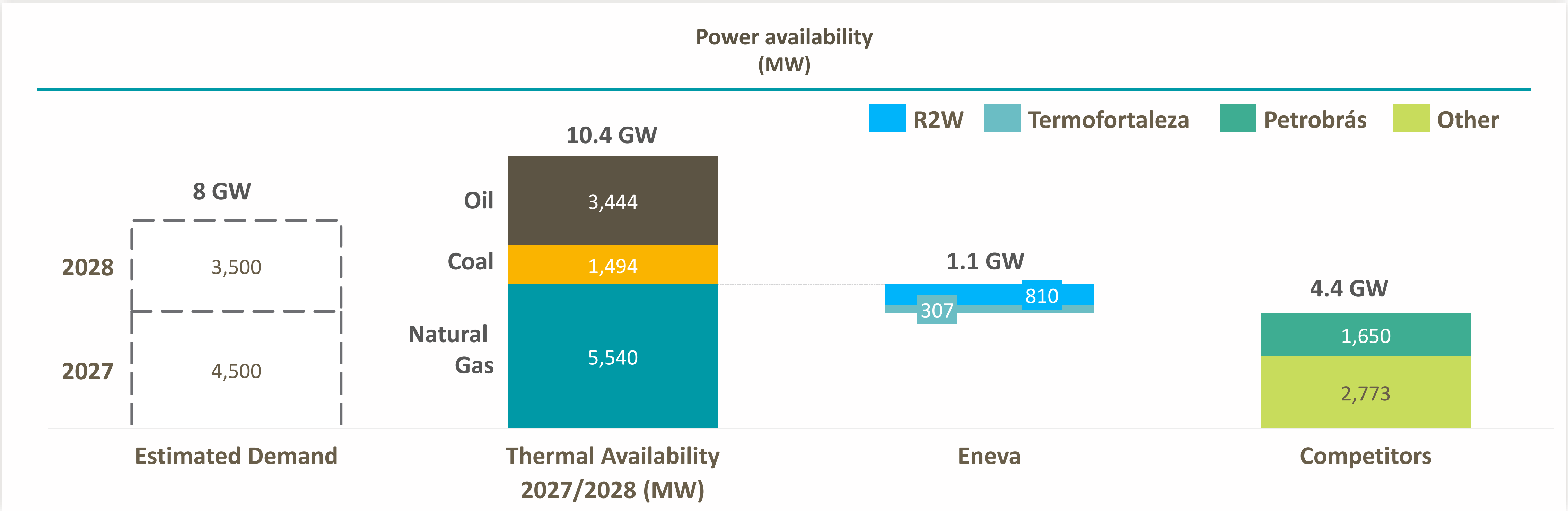
2027

+ 3.5 GW

2028

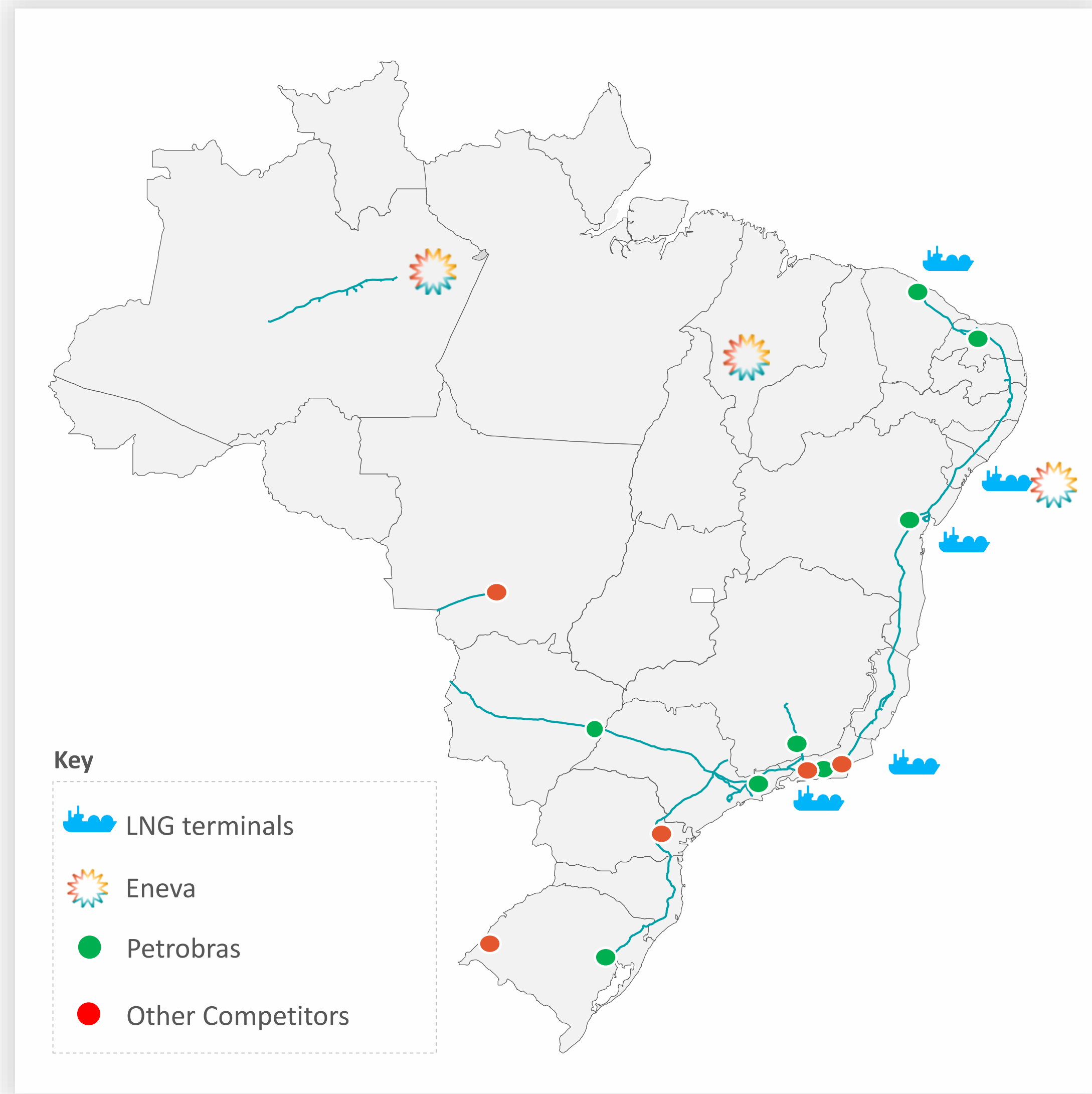
Gas-fired thermal power plants are the most competitive in LRC, among them the R2W model is the most outstanding...

2023 LRC Expectation



- ✓ Contracting price for the 2nd Cycle may be equivalent to the expansion feasibility price
- ✓ As in 2021, there should be room for expansion

Natural Gas Competitors



Petrobras 1.65 GW

- Commercial portfolio provides increased flexibility
- Cost regarding transportation network
- Flexible dispatch supplied by LNG (low margin)

Power Availability	
Name	MW
SEROPEDICA (RJ)	273
TRES LAGOAS (MS)	287
TERMOBAHIA (BA)	134
TERMOCEARA (CE)	133
CANOAS (RS)	213
JUIZ DE FORA (MG)	79
N.PIRATINING (SP)	279
VALE DO ACU (RN)	252

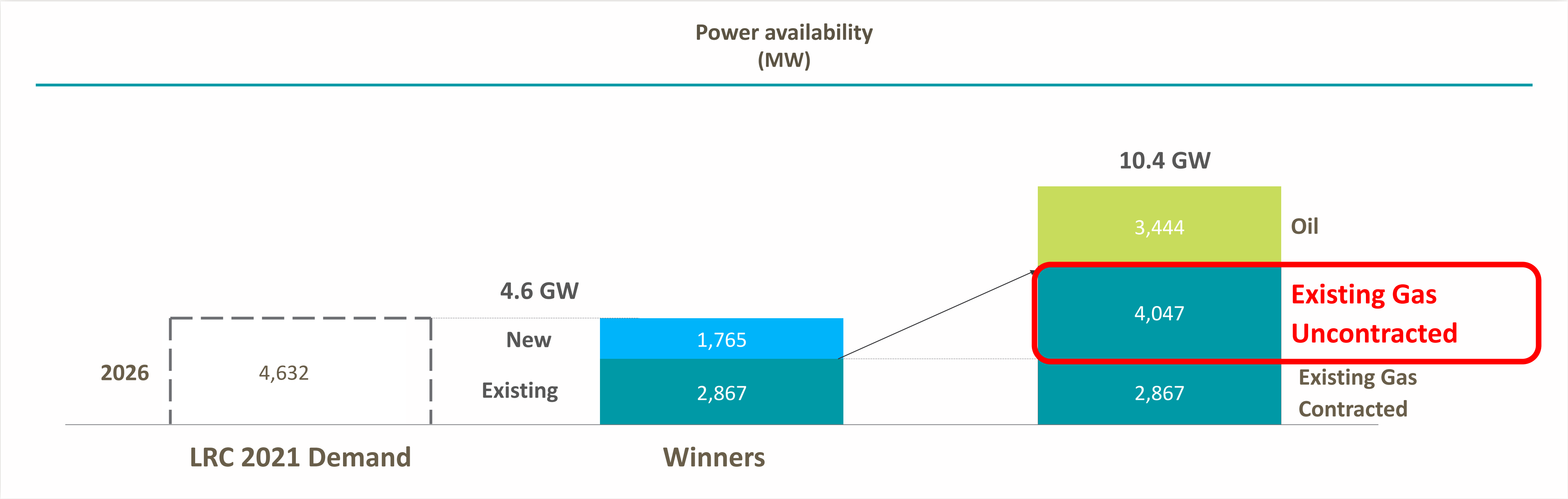
Other Competitors 2.7 GW

- High fixed infrastructure costs (network + terminals)
- Flexible dispatch supplied by LNG (low margin)

Power Availability		
Name	MW	Competitor
ST. CRUZ NOVA (RJ)	431	Furnas
NORTE FLU. (RJ)	772	EDF
CUIABA (MT)	502	Ambar
URUGUAIANA (RS)	607	
ARAUCARIA (PR)	460	COPEL

A large part of these competitors were available for the 2021 LRC, and even so they were less competitive than the 1.8 GW in new gas-fired thermal plants that won...

2021 LRC History



- ✓ High fixed costs of the molecule's logistics made the 2nd Cycle of part of the existing park (4 GW) unfeasible
- ✓ This scenario is expected to be repeated in next LRC

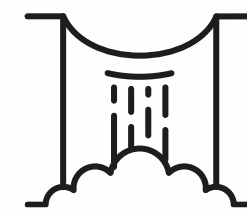
The discussion of the CP 146/2022 of the Brazilian Ministry of Mines and Energy on ballast and energy separation aims to consider contributions from various sources...



CAPACITY BALLAST

Individual contribution to meet instant demand, in periods of system overload

Proposals - Technical Notes



HPPs

Considering the average power contribution in the 5% most critical hydrological scenarios



Intermittent

5% worst case scenarios of hourly contribution of wind + solar portfolio

The discussion of the CP 146/2022 of the Brazilian Ministry of Mines and Energy on ballast and energy separation aims to consider contributions from various sources...

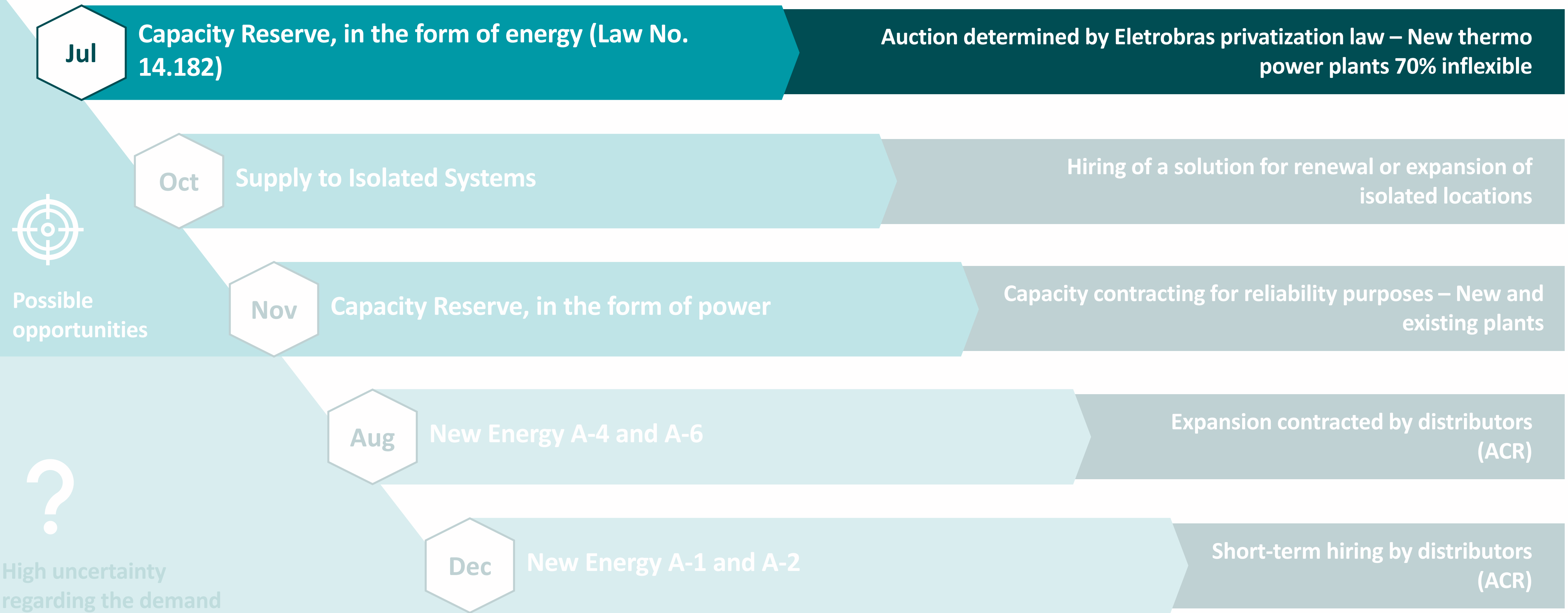


SECURITY

Contracting these sources as capacity should not affect thermal power demand as they do not feature the same supply security attribute as thermal power plants (dispatchability)...

hourly

Auctions scheduled for 2023, published by the previous management of the MME, presents possible opportunities for both expansion and renewal...



Auctions 2023

Capacity Reserve Auction in the Form of Energy (Eletrobras Auction)

North region

- ✓ Possible re-auctioning of regions not served in LRCE 2022 (246 MW)
- ✓ Up to 1.5 GW between 2027 and 2028
- ✓ Provision of service to 2 states whose capitals lack a gas supply point

Northeast Region

- ✓ Possible re-auctioning of regions not served in LRCE 2022
- ✓ 700 MW Piauí in 2028
- ✓ 300 MW Maranhão in 2028

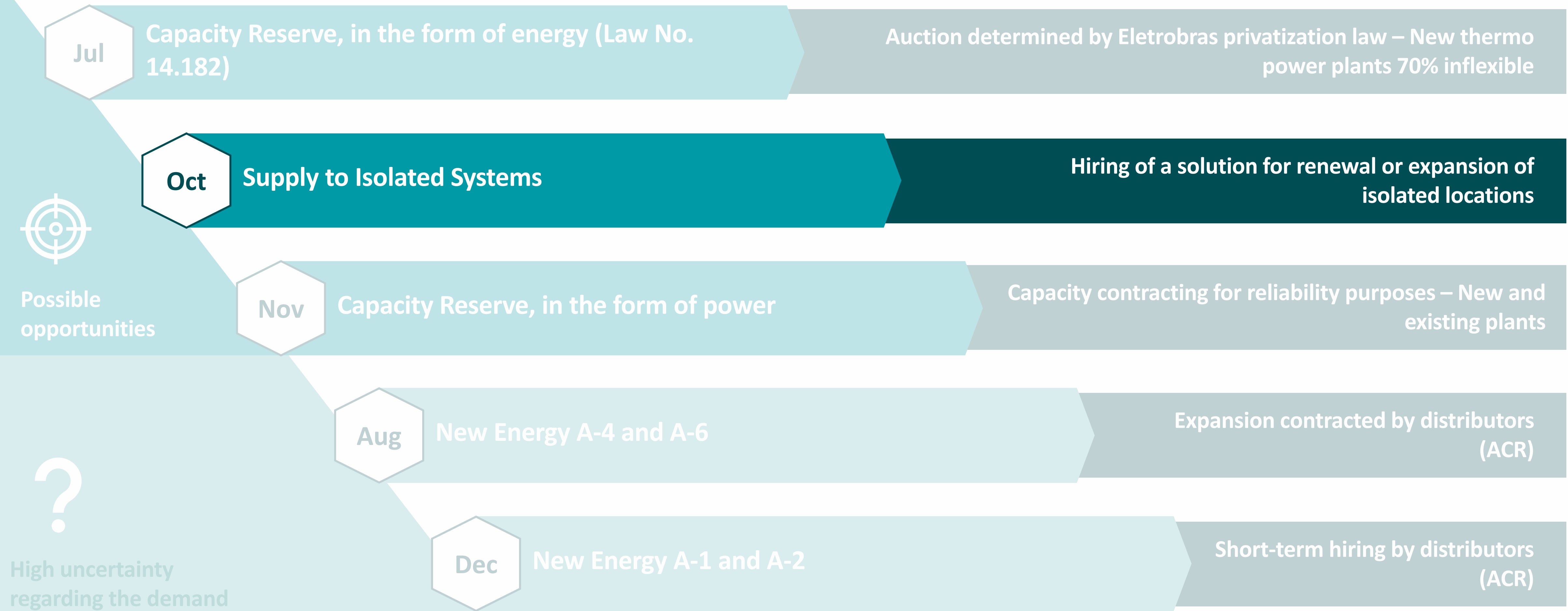
Midwest Region

- ✓ 2.5 GW in 2028 divided between capitals or metropolitan regions lacking a supply point
- ✓ It is limited to Federal District and Goiânia

Despite the high uncertainty regarding its holding, this remains a possible opportunity for 2023...

Auctions 2023

Auctions scheduled for 2023, published by the previous management of the MME, presents possible opportunities for both expansion and renewal...



Supply to Isolated Systems



Auction 2023

- ❌ Safety criterion “N”, installation of the winners pf the LSI 2019 and the forecast for the “linhão” to be operational by Sep/2025 discourage the declaration of additional demand for Boa Vista
- ❌ If it occurs, it is likely to present geographically spaced and unattractive granular demand

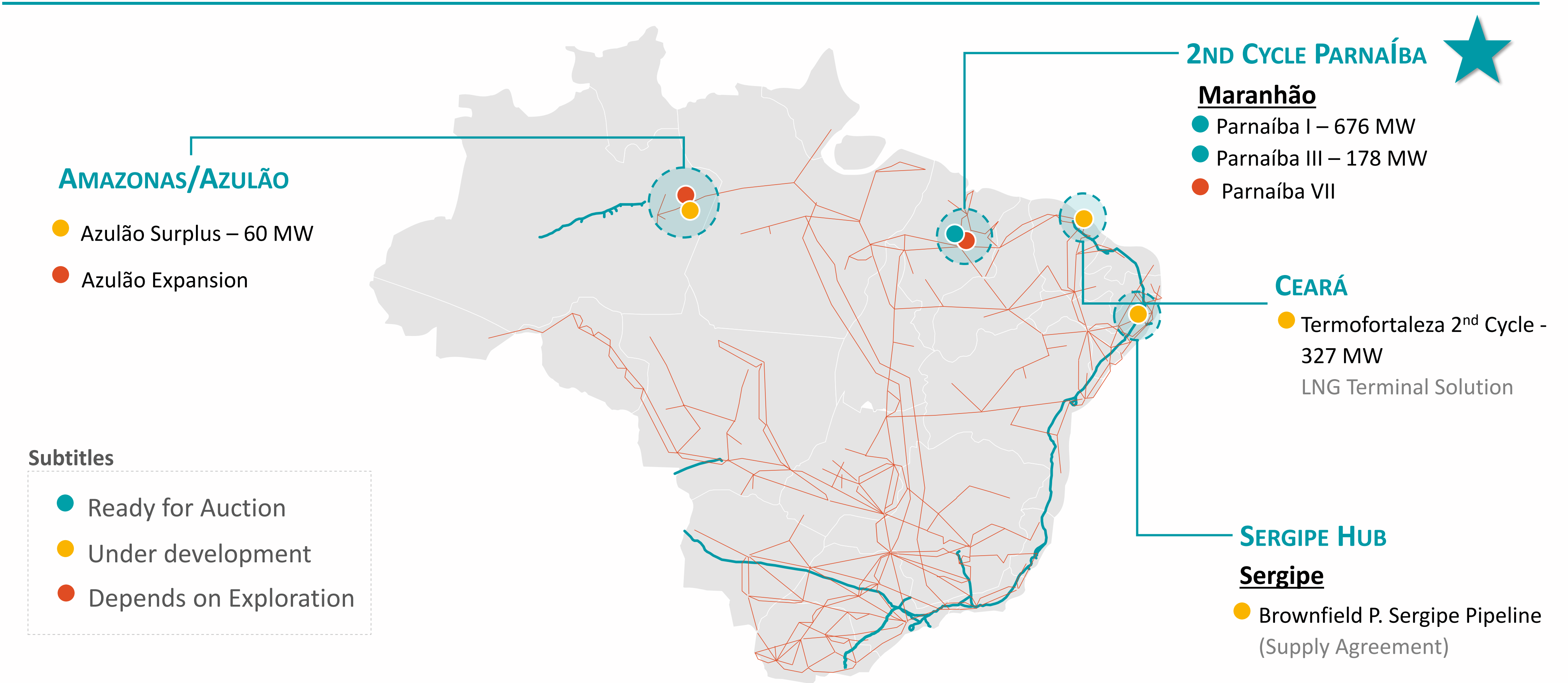


Free Proposal of Interest

- ✅ Permanent mechanism that enables the submission of proposals for profitable locations, associated with financial and environmental gains for the consumer

Priority is the recontracting of Parnaíba, which is ready for bid.
Other opportunities depend on development and exploratory campaigns during the year

Map of auction opportunities for 2023





ri@eneva.com.br



phone: (21) 3721-3030



ri.eneva.com.br/

eneva day
— 2023 —

Resources & Reserves

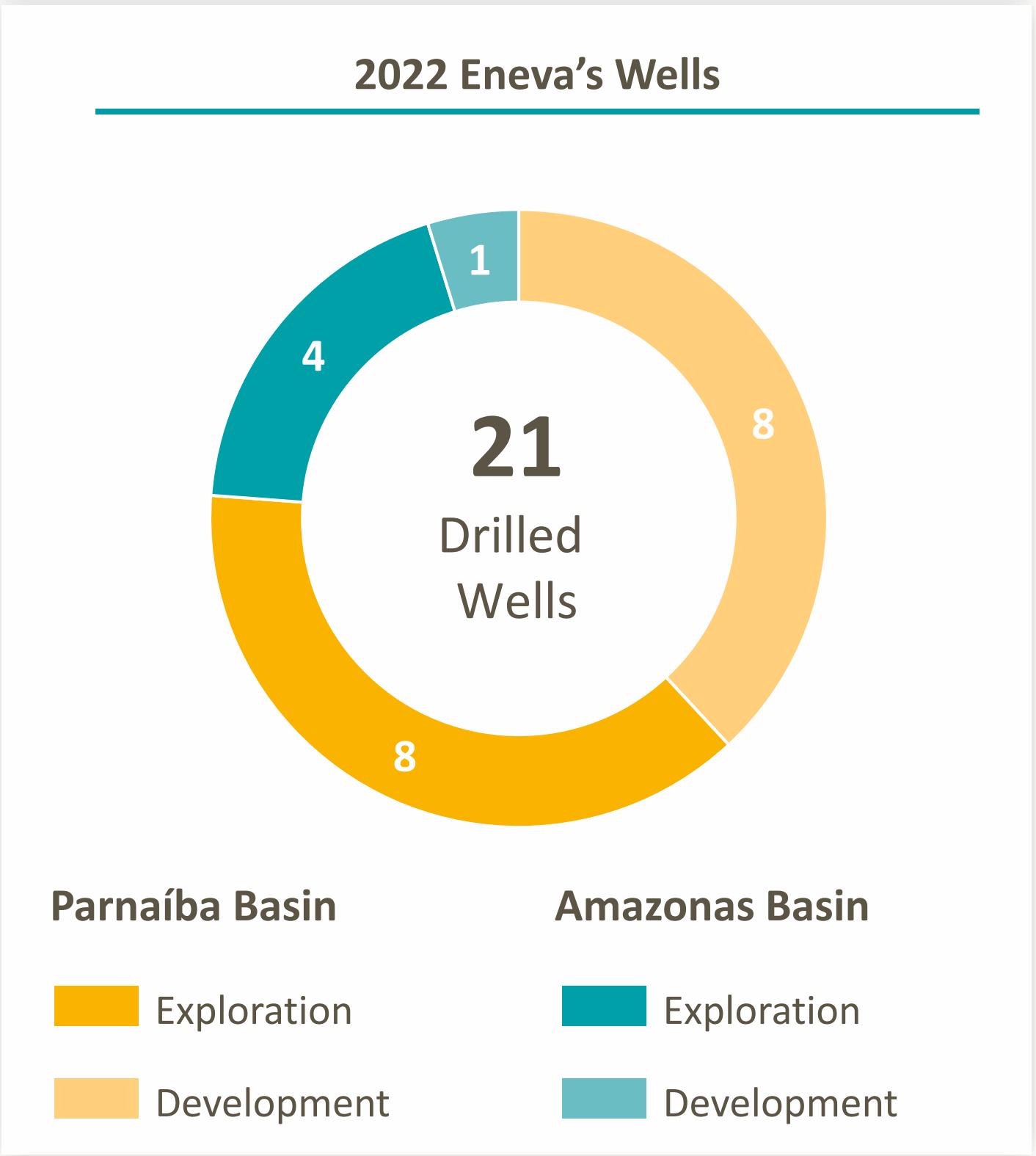
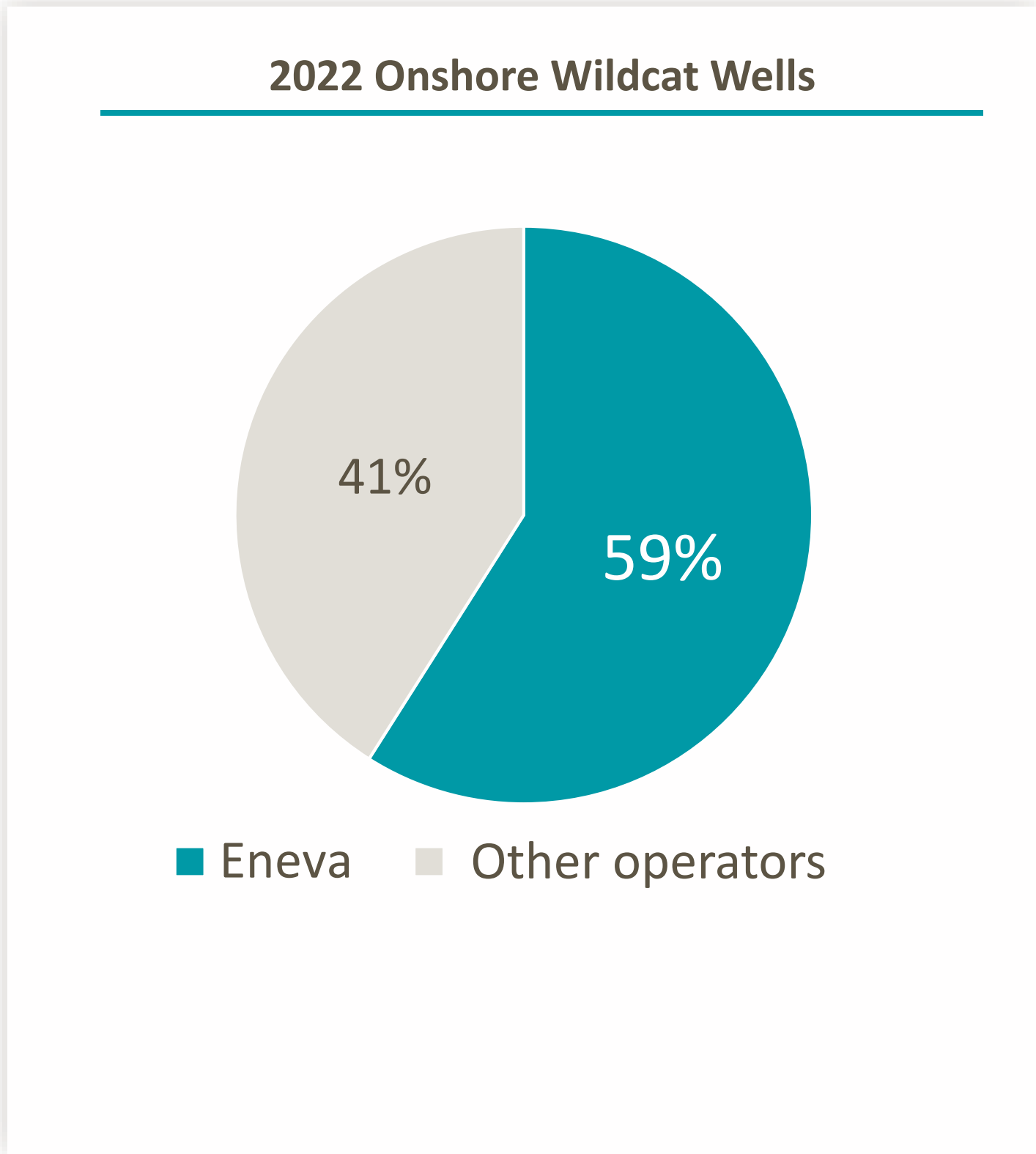
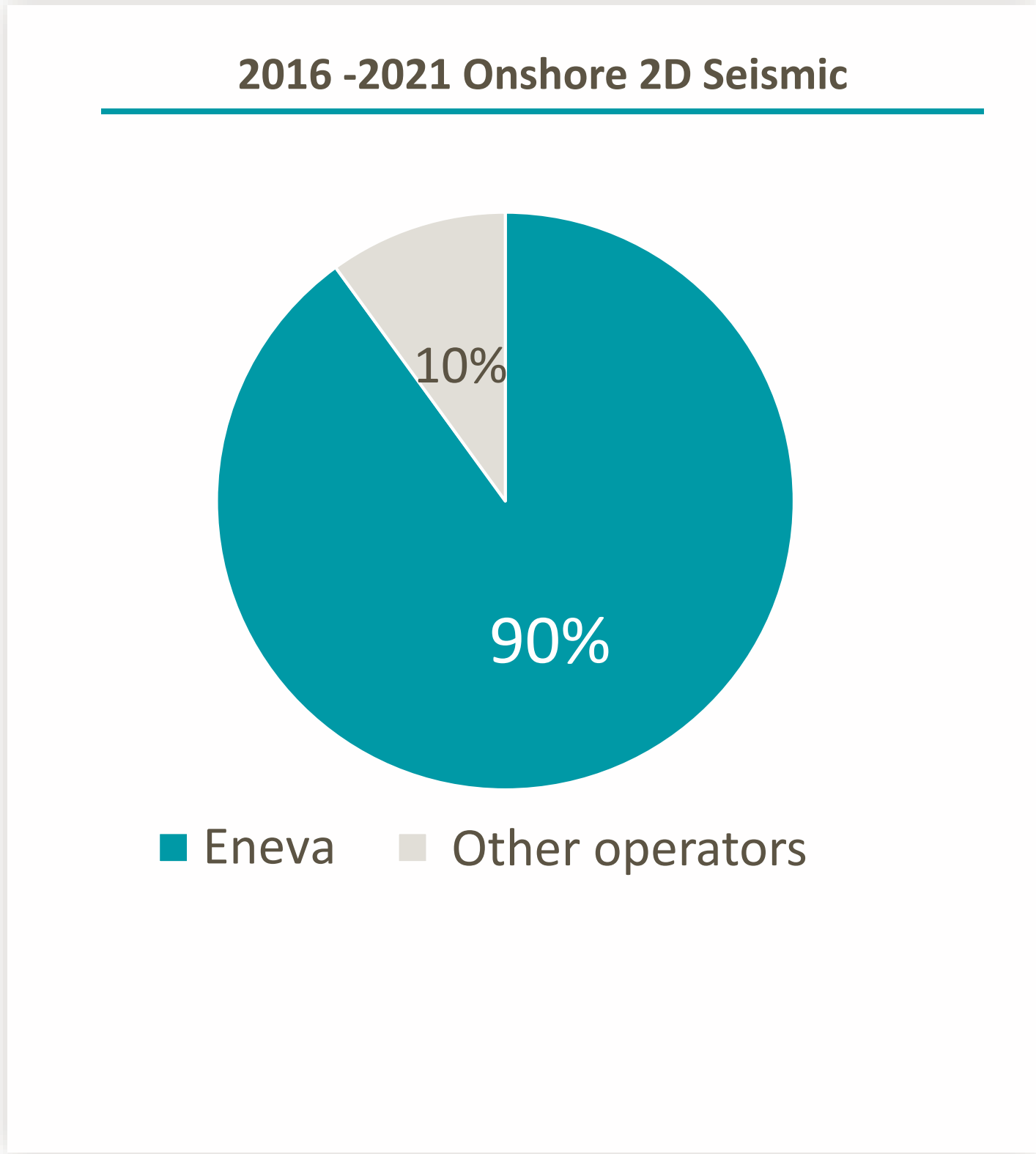
Frederico Miranda



March 8, 2023

Exploration & Production

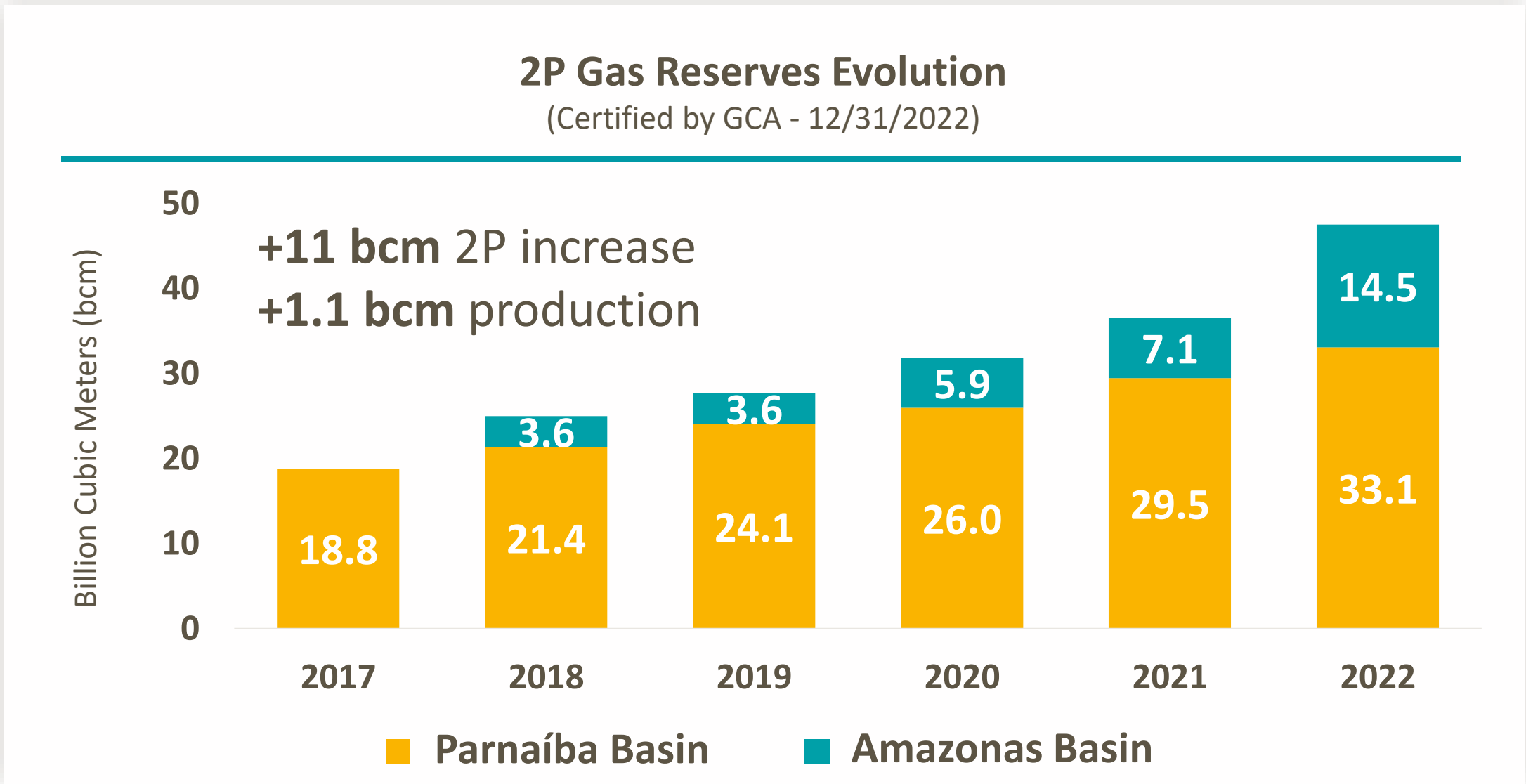
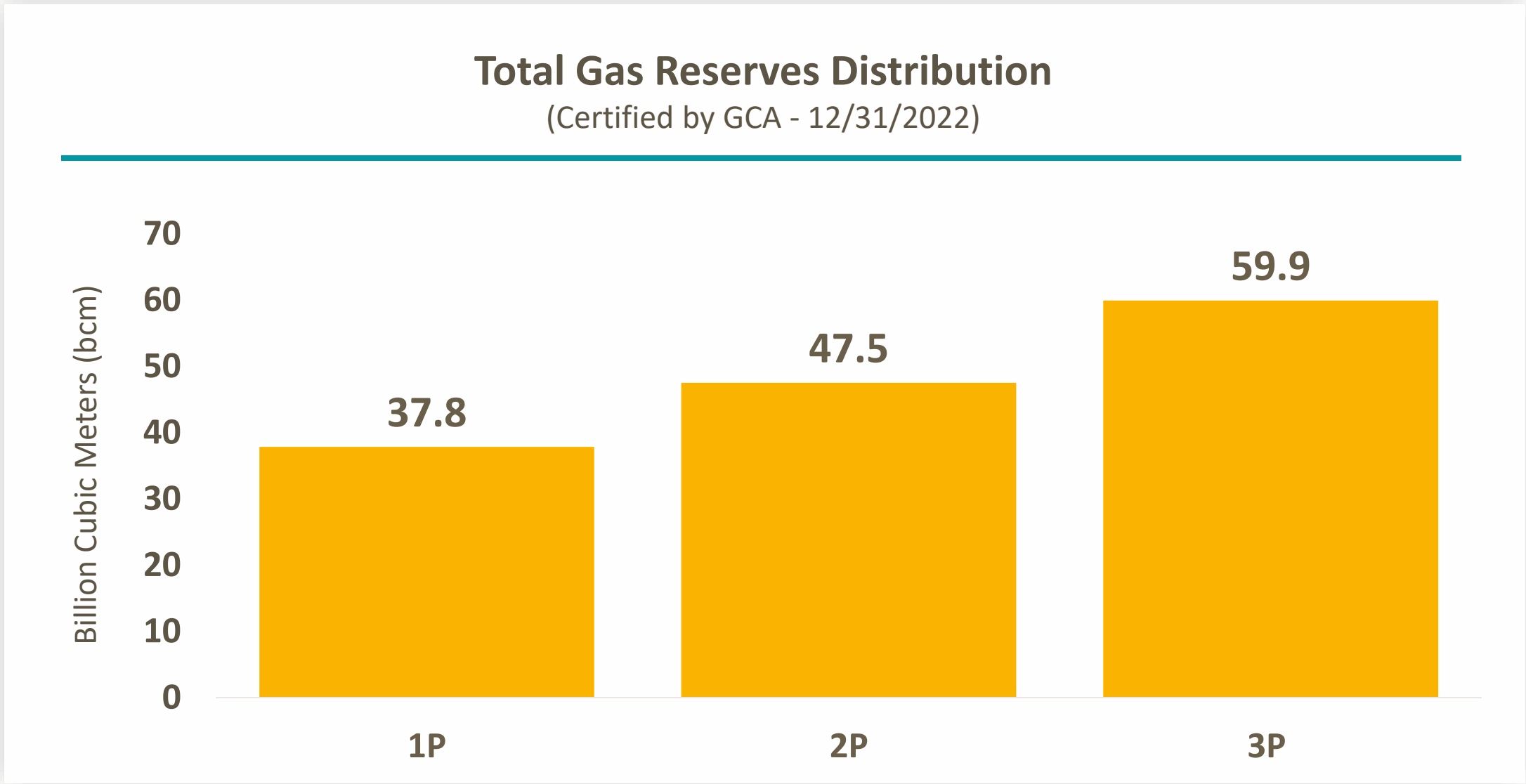
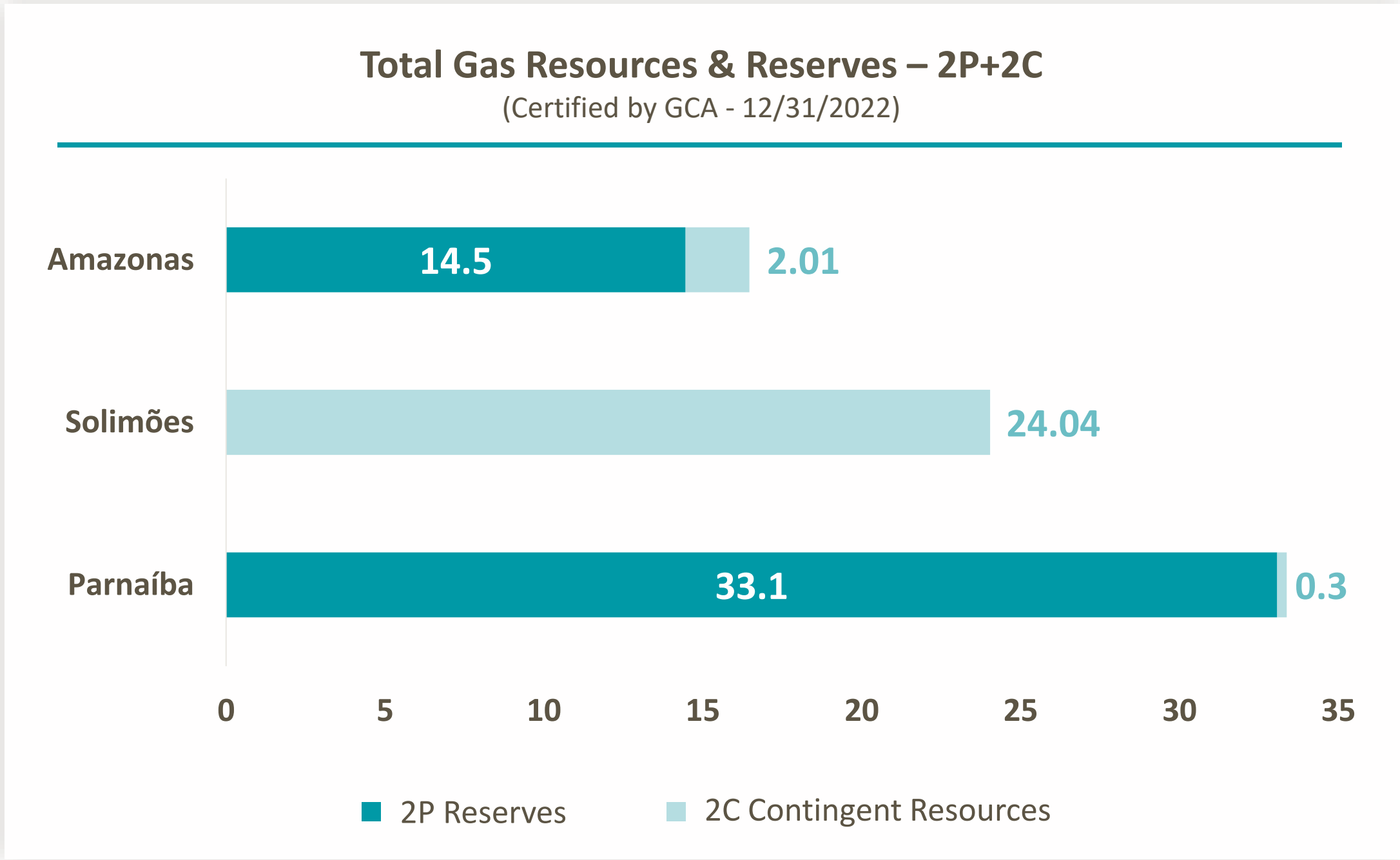
We remain the largest and most active onshore operator in 2022



Source: Eneva's Internal Data; ANP Dynamic Panels; ANP Annual Exploration Report, 2021

Exploration & Production

30% growth in gas reserves with addition of oil and condensate to our portfolio



26%

2P Gas Reserves
Compound Average
Growth Rate

319MMboe

Gas and
Condensate 2P
Reserves

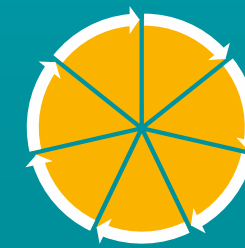
189MMboe

Oil, Gas and
Condensate 2C
Contingent Resources

Implementing a continuous exploratory cycle in all Operated Basins



PARNAÍBA BASIN



- 14 Exploratory & Development wells to be drilled
- +2,400 km of 2D seismic acquisition
- 2-year contract for drilling rig and services

AMAZONAS BASIN



- 10 Exploratory & Development wells to be drilled
- 2-year contract for drilling rig and services

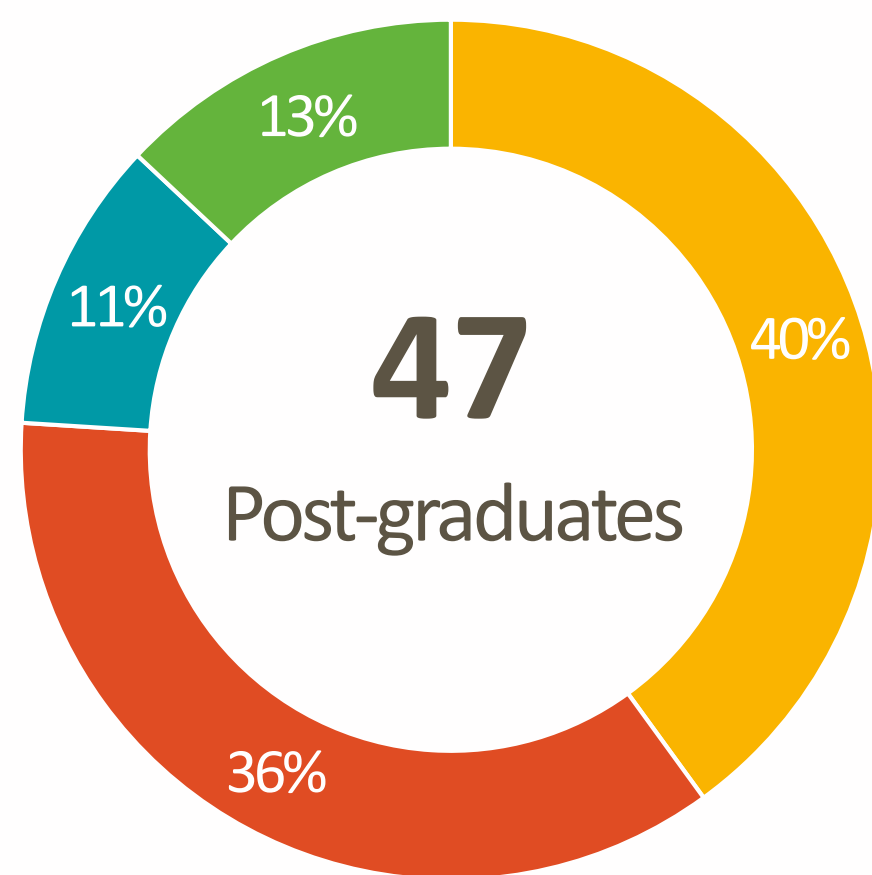
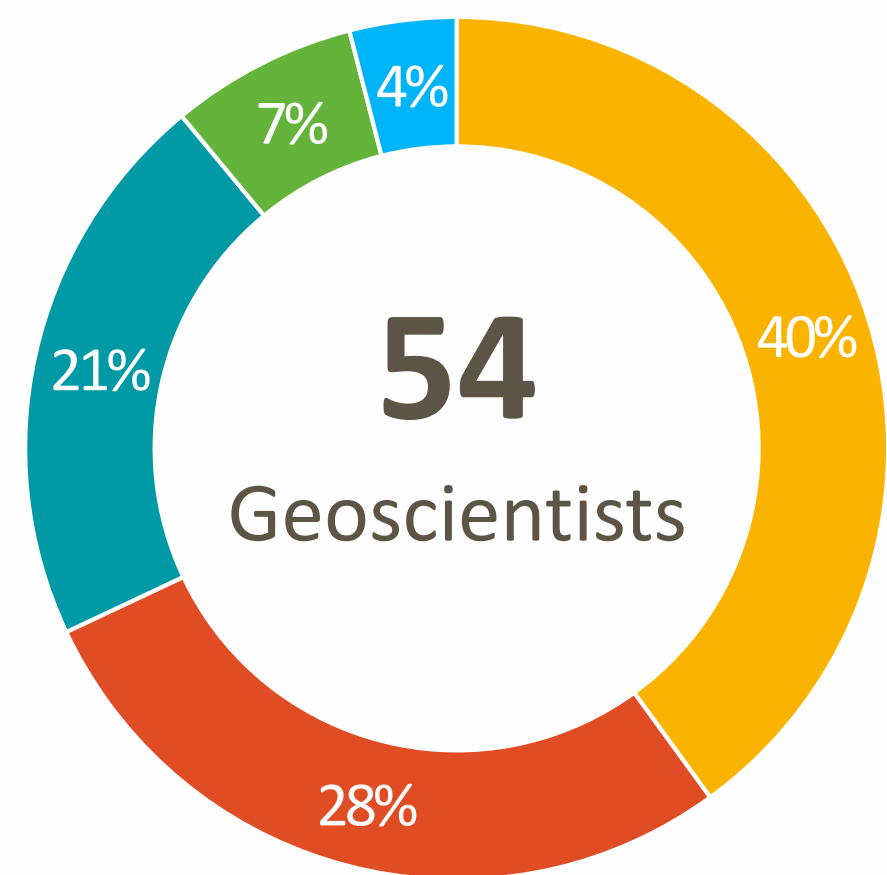
PARANÁ BASIN



- Beginning of +4,000 km 2D seismic campaign in 3Q23
- Wildcat drilling planned for 2024 and 2025

Exploration & Production

Our activities are carried out with excellence by our technical team



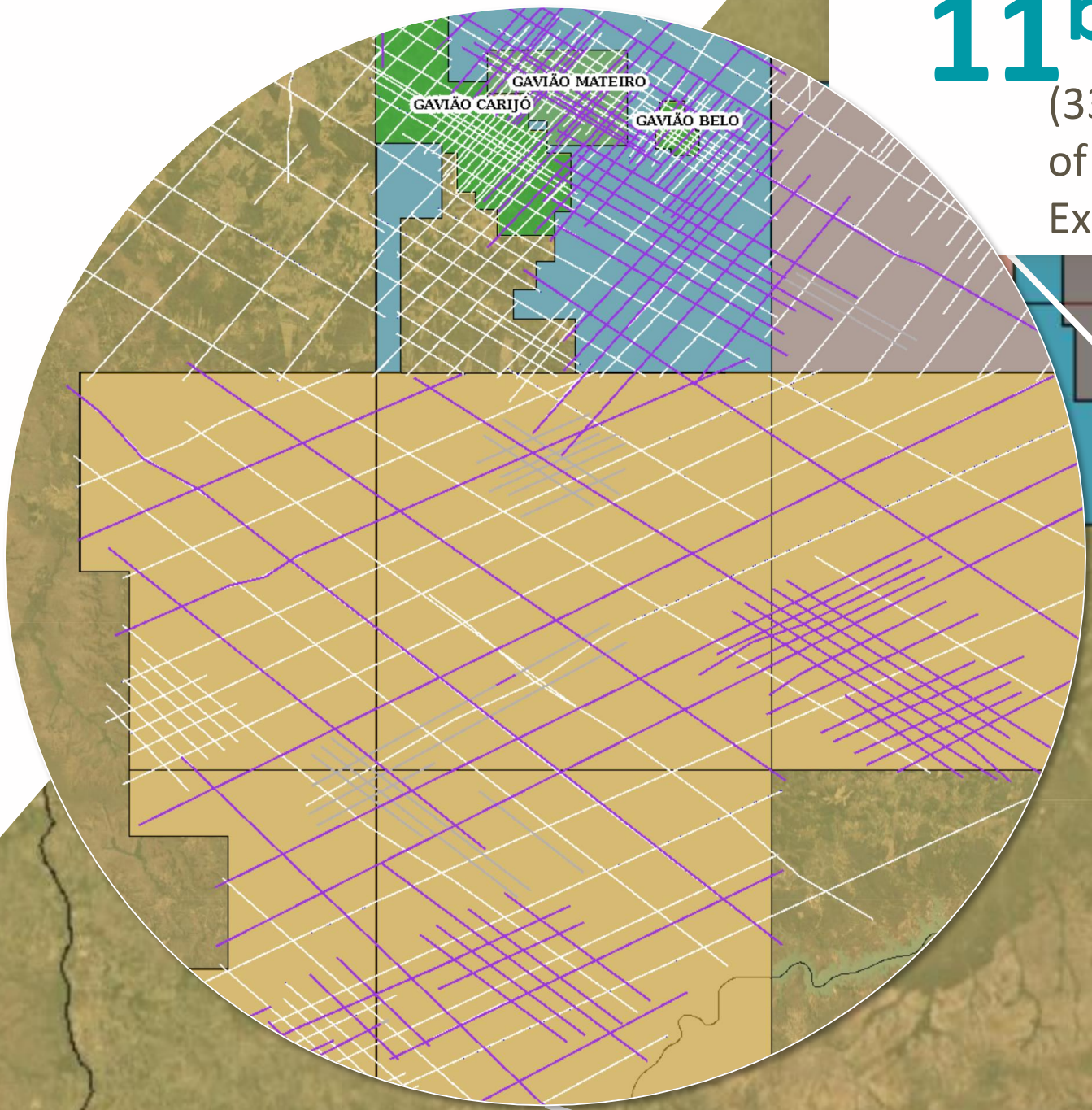
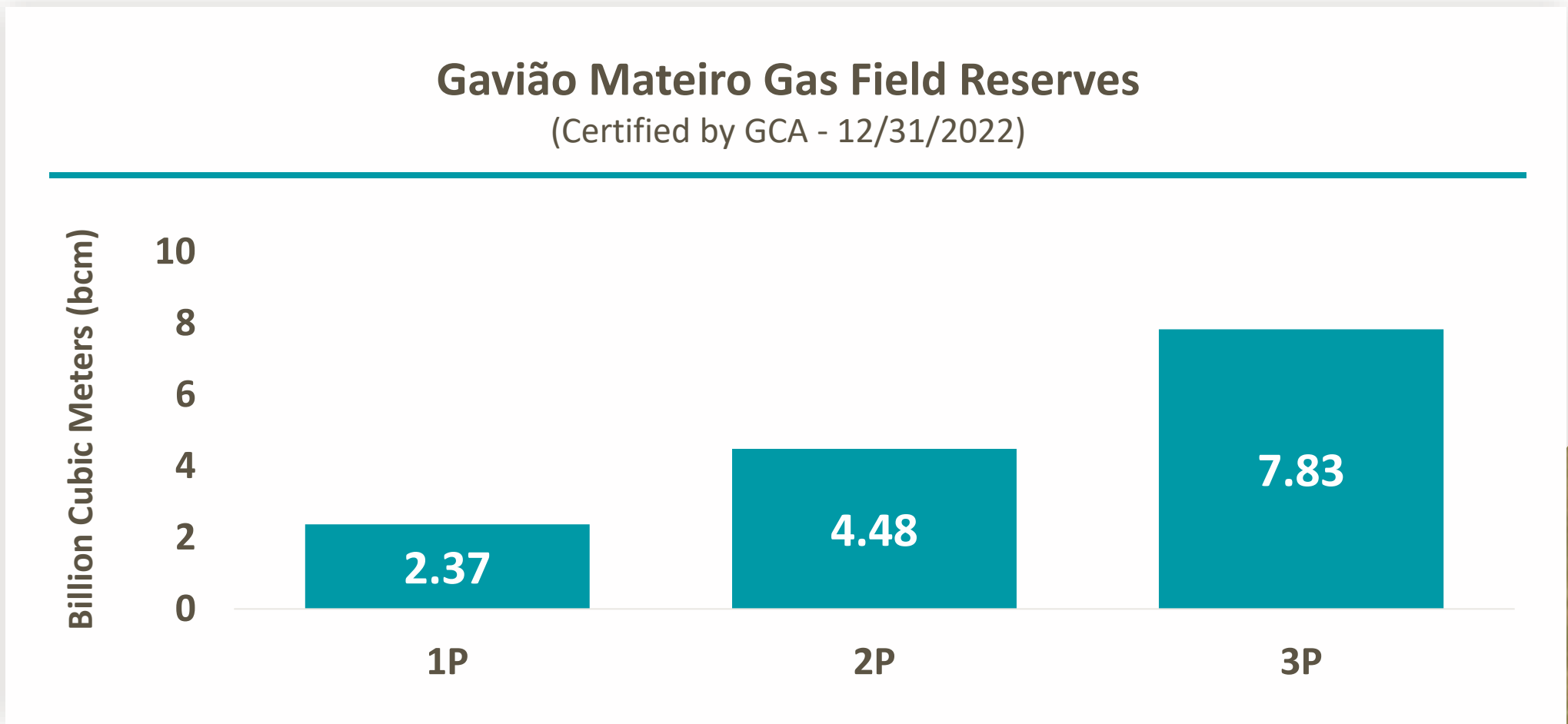
970 years of cumulative experience

Exploration & Production

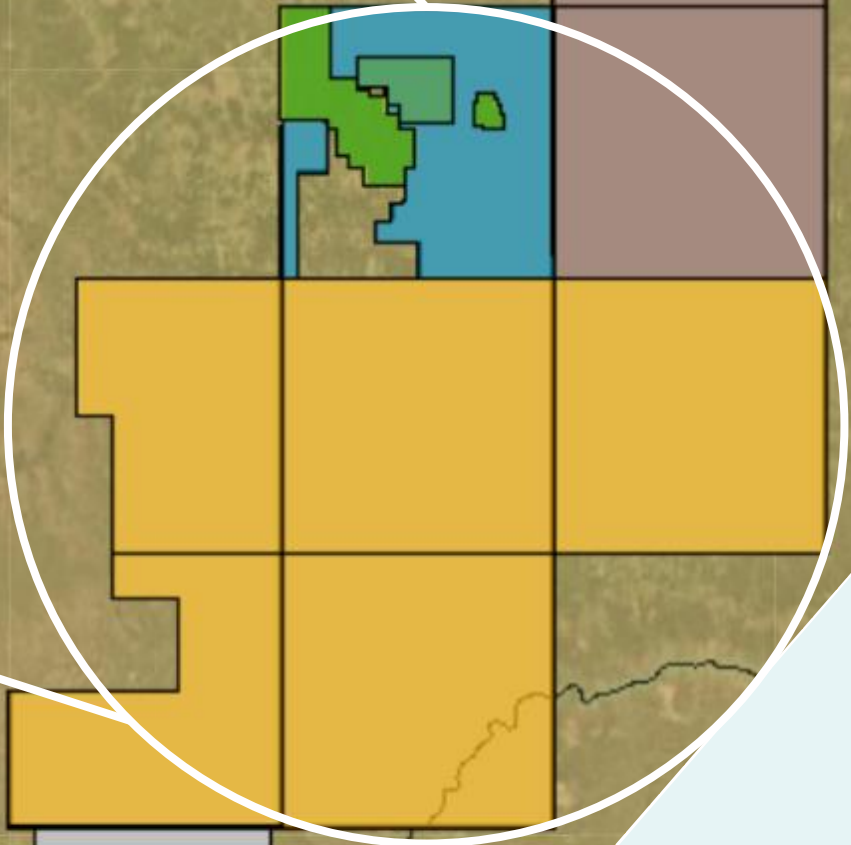
Reserves assured for the Parnaíba Power Complex's 2nd Cycle

GAVIÃO MATEIRO GAS FIELD DECLARATION OF COMMERCIALITY

Reserves incorporated enable the participation of P-I and P-III in future A-5 energy bids, expected in 2023



11bcm
(33,5%)
of 2P reserves adjacent to R14
Exploratory Blocks



490%

Parnaíba Basin 2022
reserves replacement ratio

31%

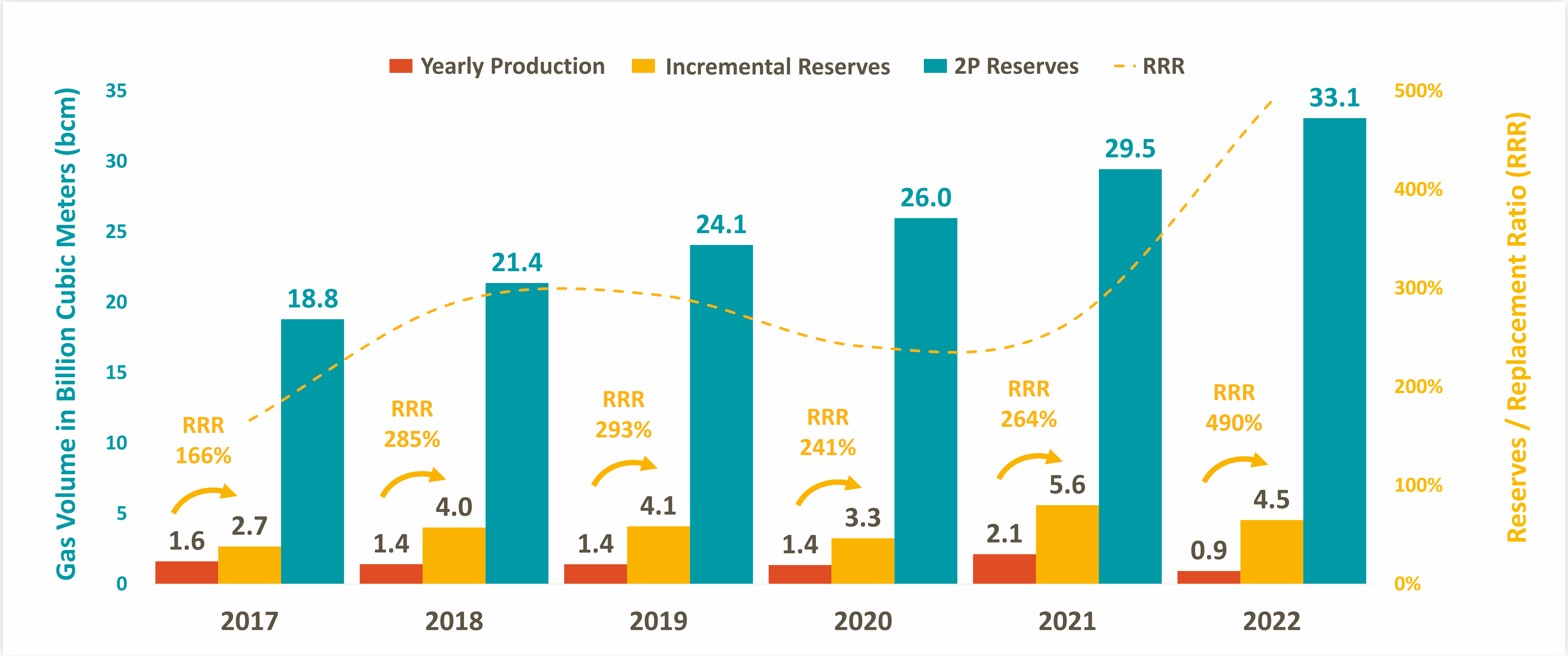
Parnaíba Basin Wildcat
Success Rate

12Months

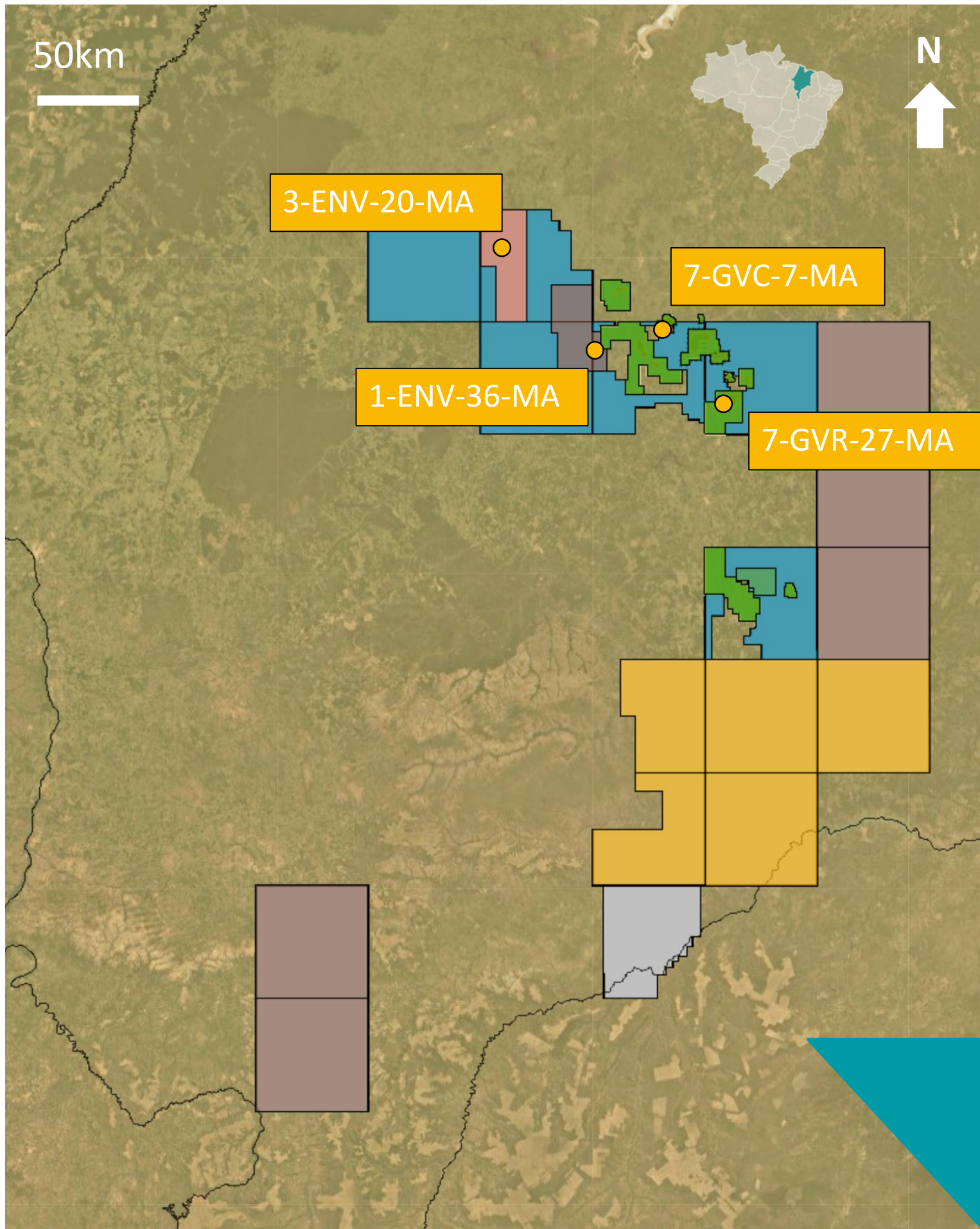
Exploratory fast track record
between wildcat and DoC

50km

Proven exploratory know-how on Parnaíba Basin with a consistent annual reserve replacement ratio (RRR)



Four wells drilled with success and de-risking process for unconventional resources ongoing



RESERVOIR CHARACTERIZATION

- 4 wells drilled: 3-ENV-20-MA, 7-GVC-7-MA, 7-GVR-27-MA e 1-ENV-36-MA
- 36 meters of core acquired in 1-ENV-36-MA well
- 1,800 lab analyses in 2022 and +2,500 scheduled for 2023
- Documentation fully filed, awaiting licensing from Maranhão State Environmental Agency

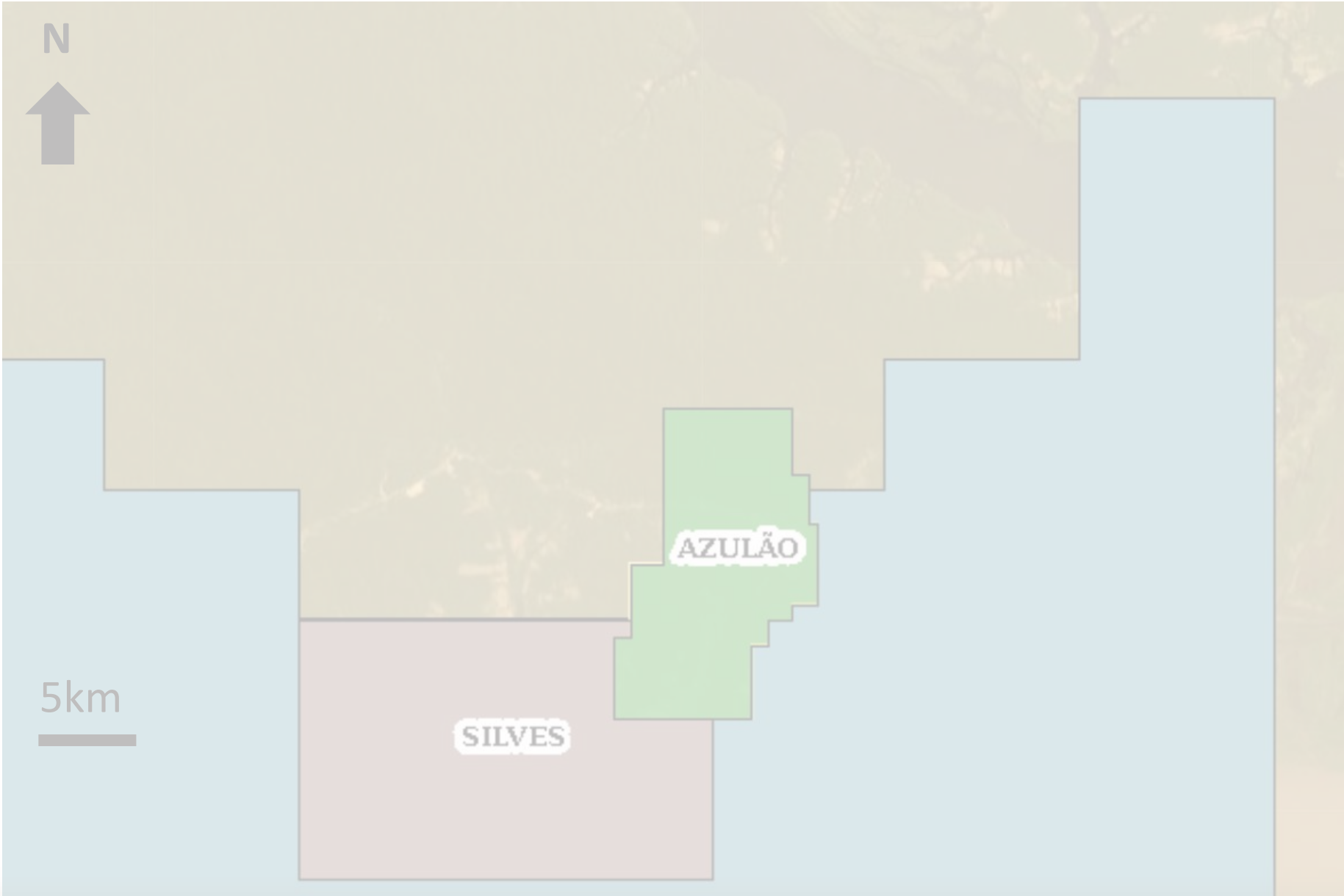
	2022	2023	2024
Licensing			
Studies & Analysis			
Hydraulic Stimulation			



“POÇO TRANSPARENTE” NOTICE – ANP & MME

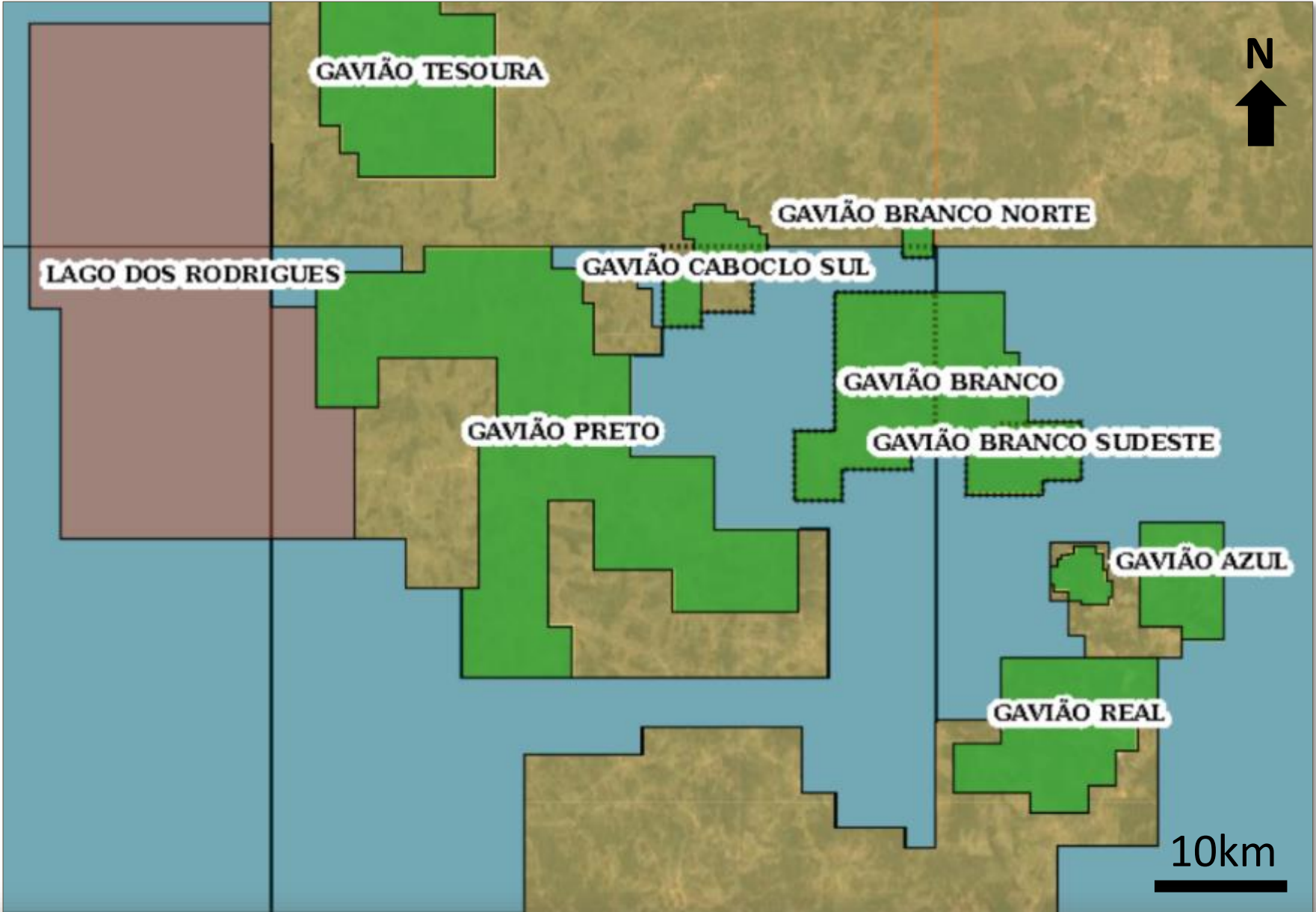
- First steps for unconventional exploration and production in Brazil
- Royalties reduction to 5% in case of commercial production
- Allowance to use R&D resources for pilot projects

Two new Discovery Evaluation Plans (DEPs)



Amazonas Basin
Silves DEP
1-ENV-31D-AM

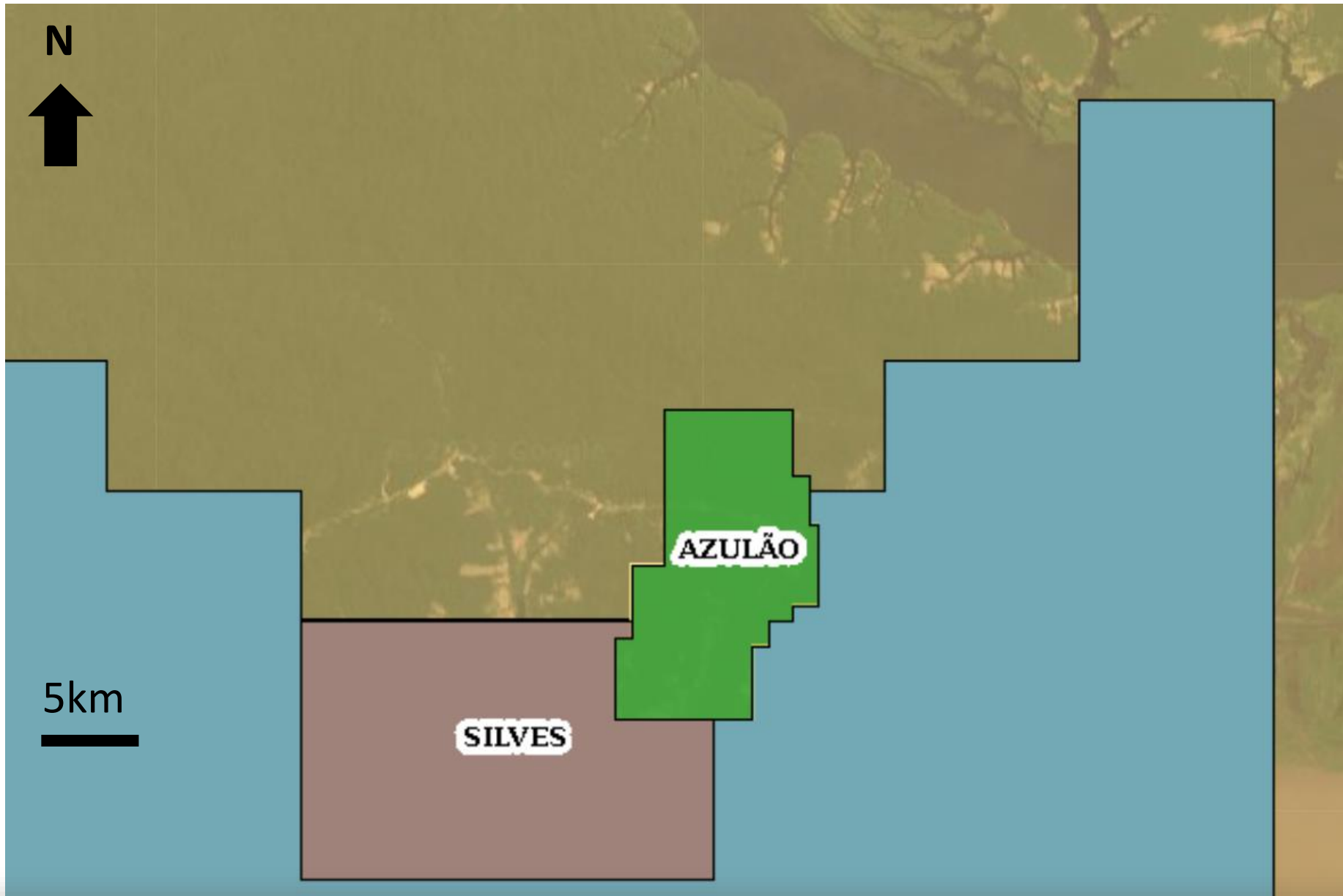
- Gas Discovery in Nova Olinda Formation Reservoirs
- Additional to Azulão 950 MW project
- 6 wells scheduled in 2023
- 124km² of acreage approved by ANP



Parnaíba Basin
Lago dos Rodrigues DEP
1-ENV-36-MA

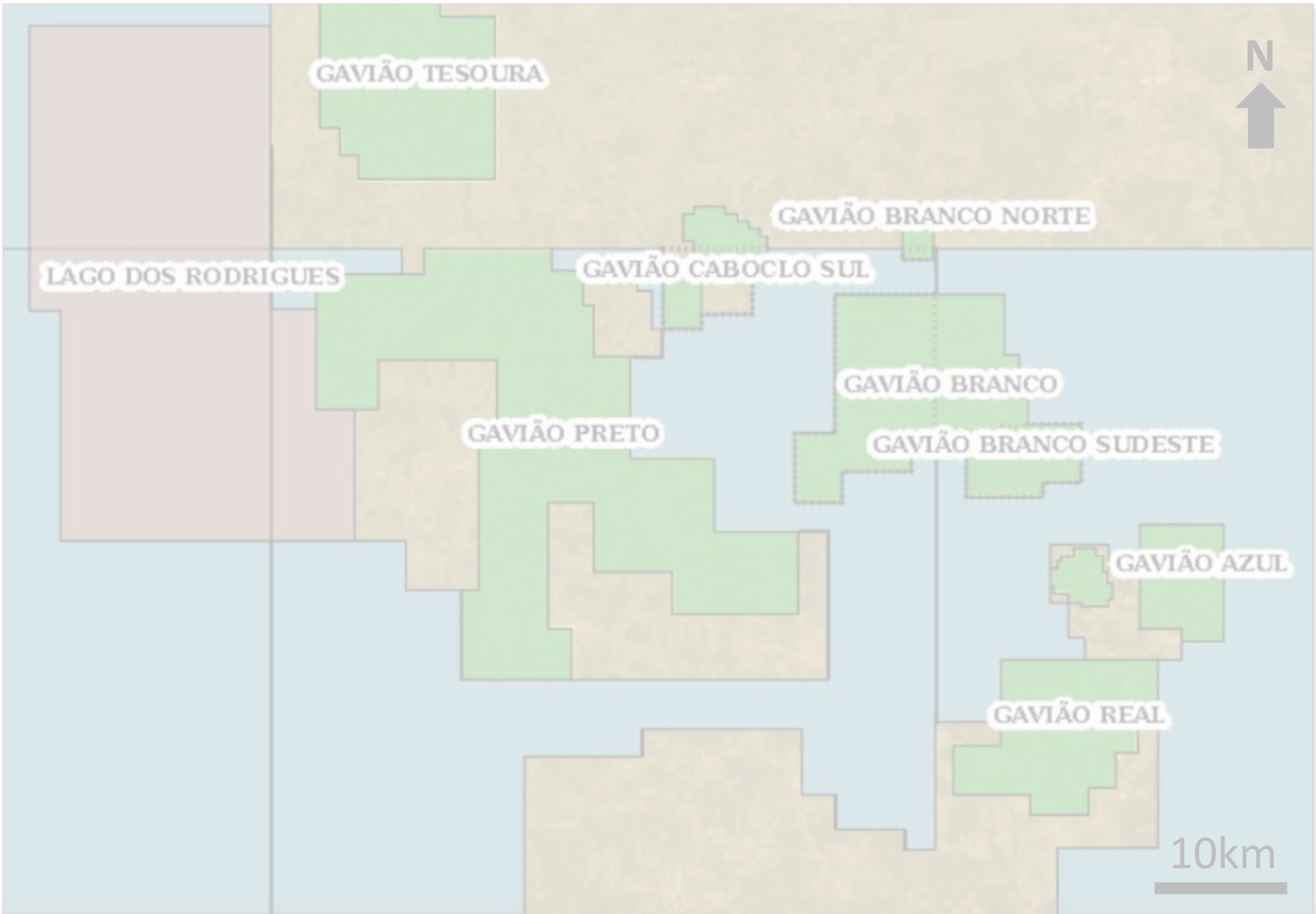
- Gas Discovery in Poti Formation
- Adjacent to the Gavião Preto gas field
- Planned 1 well & 220 km of 2D seismic in 2023
- 920 km² of acreage waiting for ANP approval

Two new Discovery Evaluation Plans (DEP)



Amazonas Basin
Silves DEP
1-ENV-31D-AM

- **Gas Discovery** in Nova Olinda Formation
- **Additional to Azulão 950 MW project**
- **6 wells** planned in 2023
- **124 km² of acreage** approved by ANP

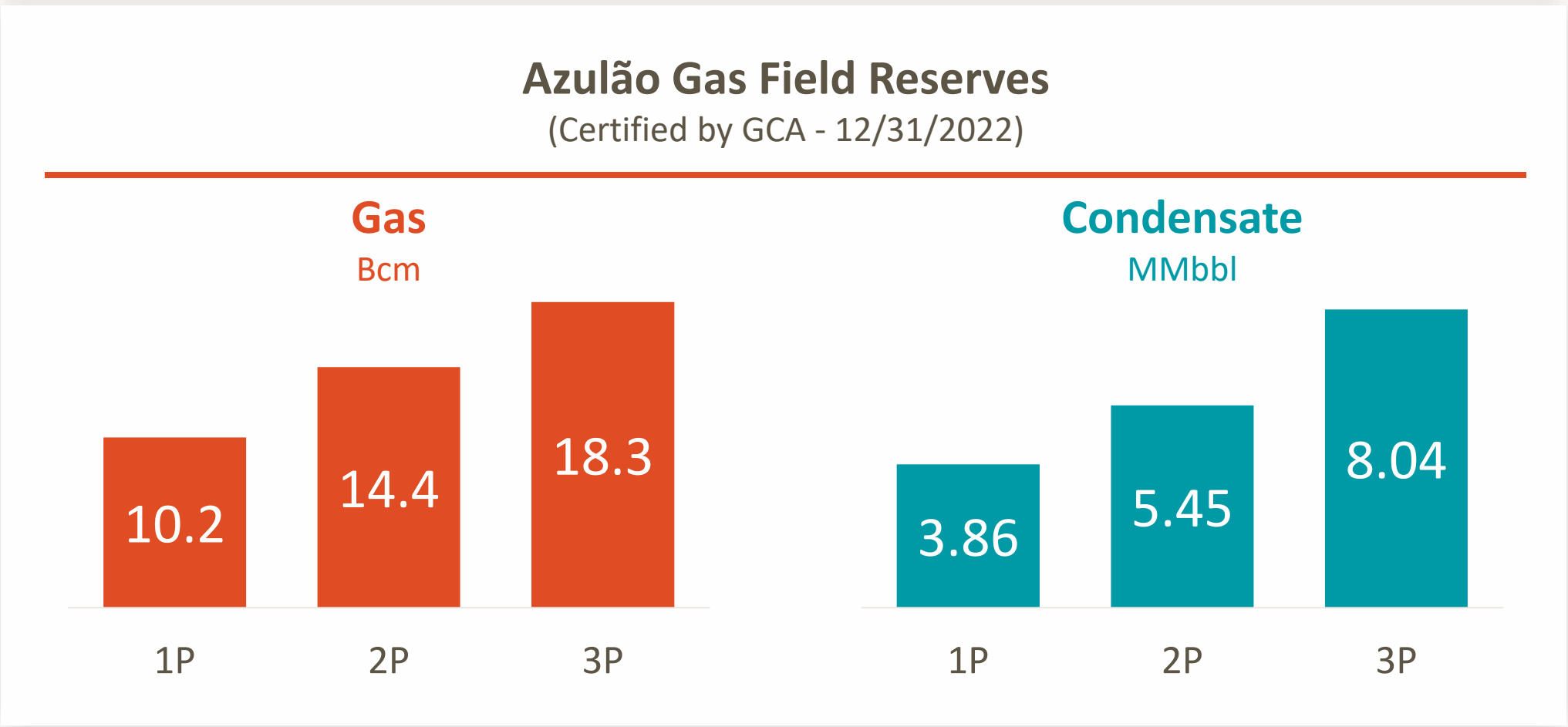


Parnaíba Basin
Lago dos Rodrigues DEP
1-ENV-36-MA

- **Gas Discovery** in Poti Formation Reservoirs
- **Adjacent to the Gavião Preto Gas Field**
- Scheduled **1 well & 220 km of 2D seismic** in 2023
- **920km² of acreage** waiting for ANP approval

Exploration & Production

Amazonas Basin reserves increase enabled the Azulão 950 MW Project

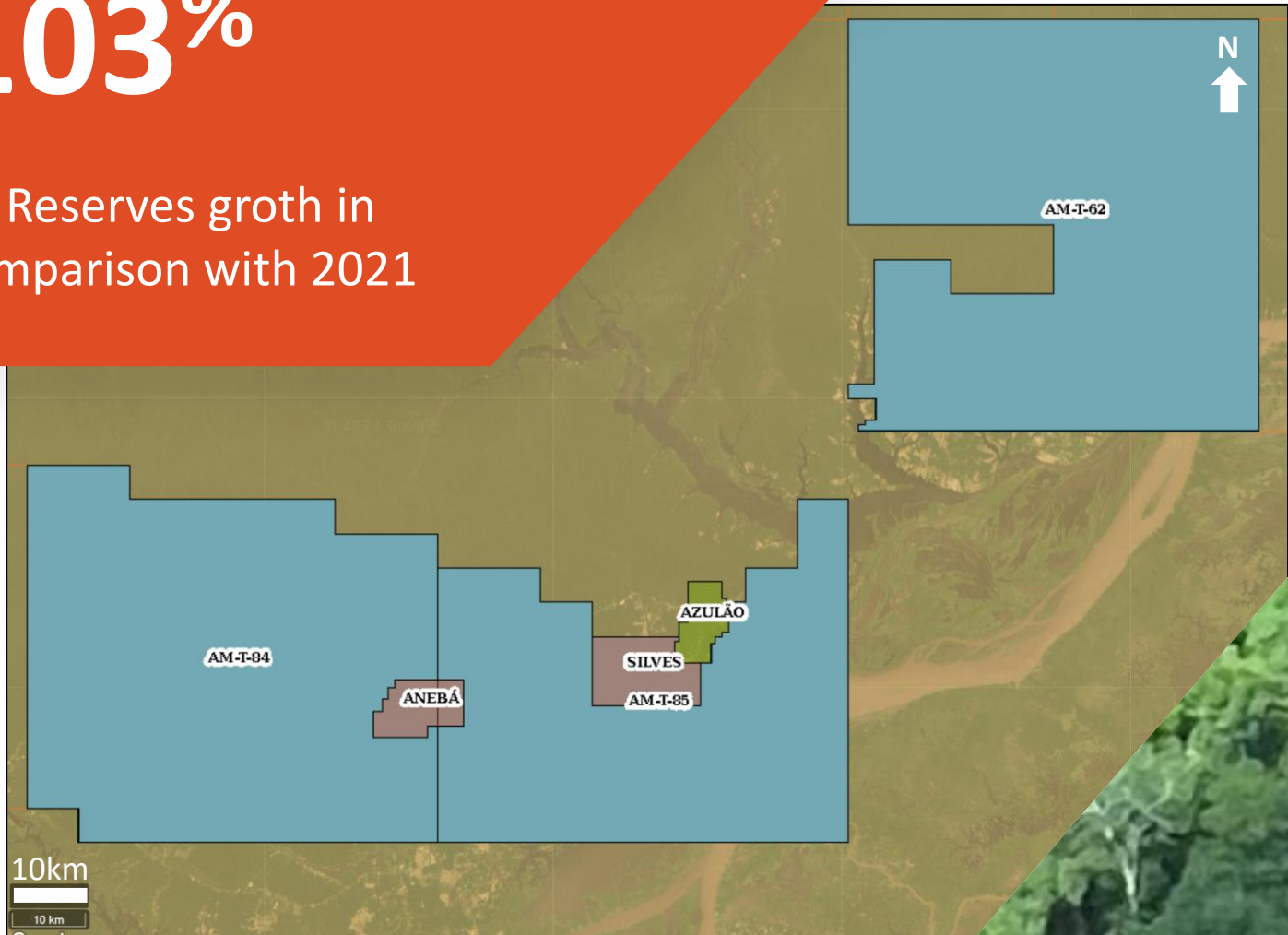


DISCOVERY ADJACENT TO THE FIELD

Silves DEP appraisal and Azulão gas field development in 2023

103%

2P Reserves growth in comparison with 2021



SIXTEEN WELLS



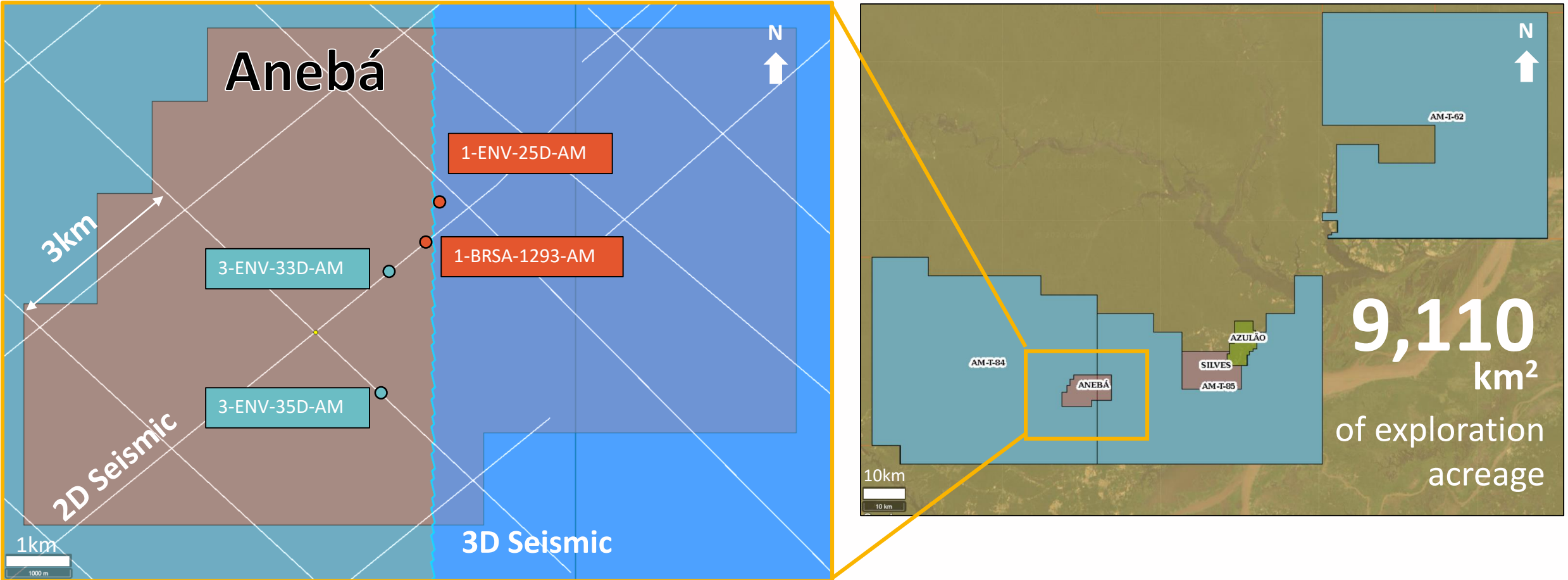
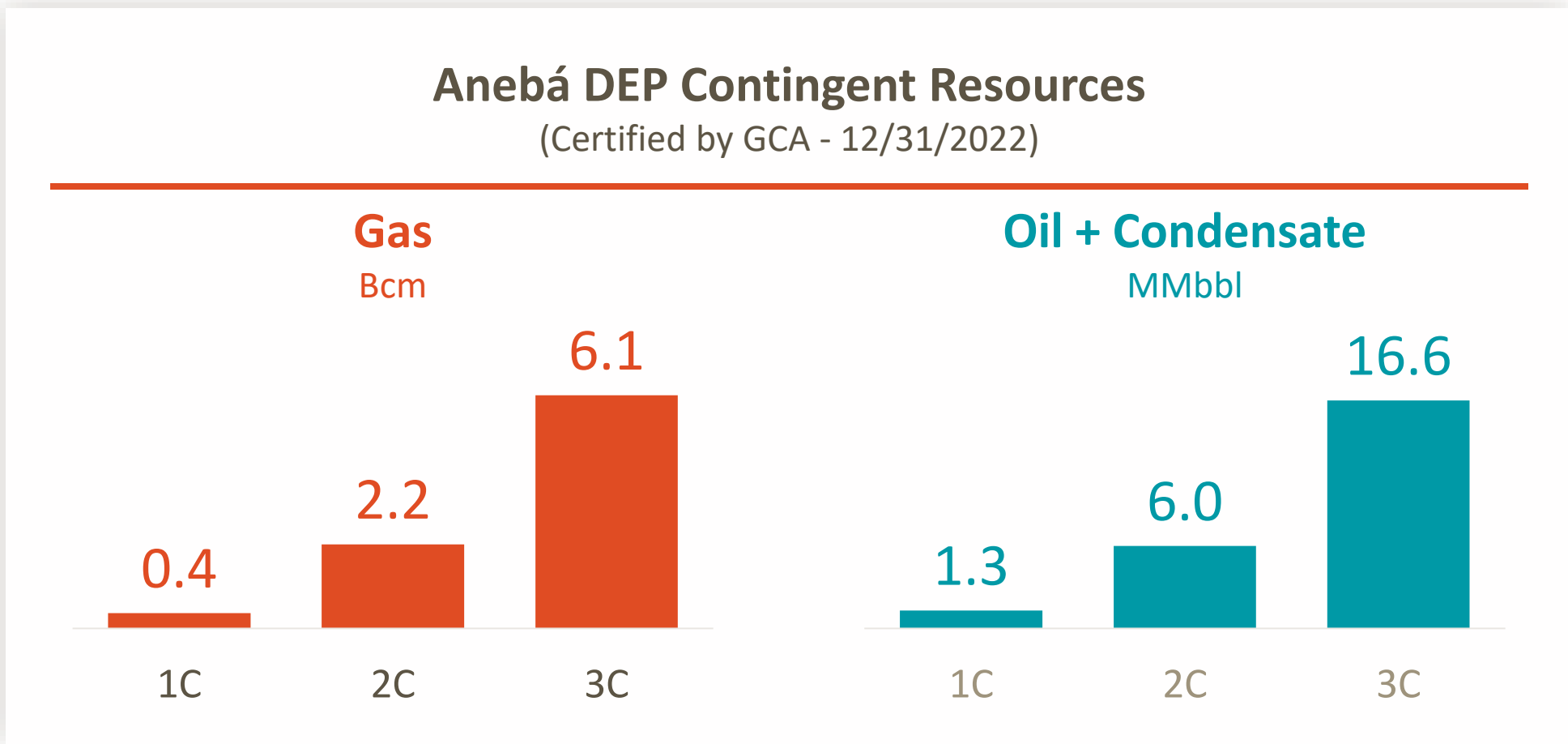
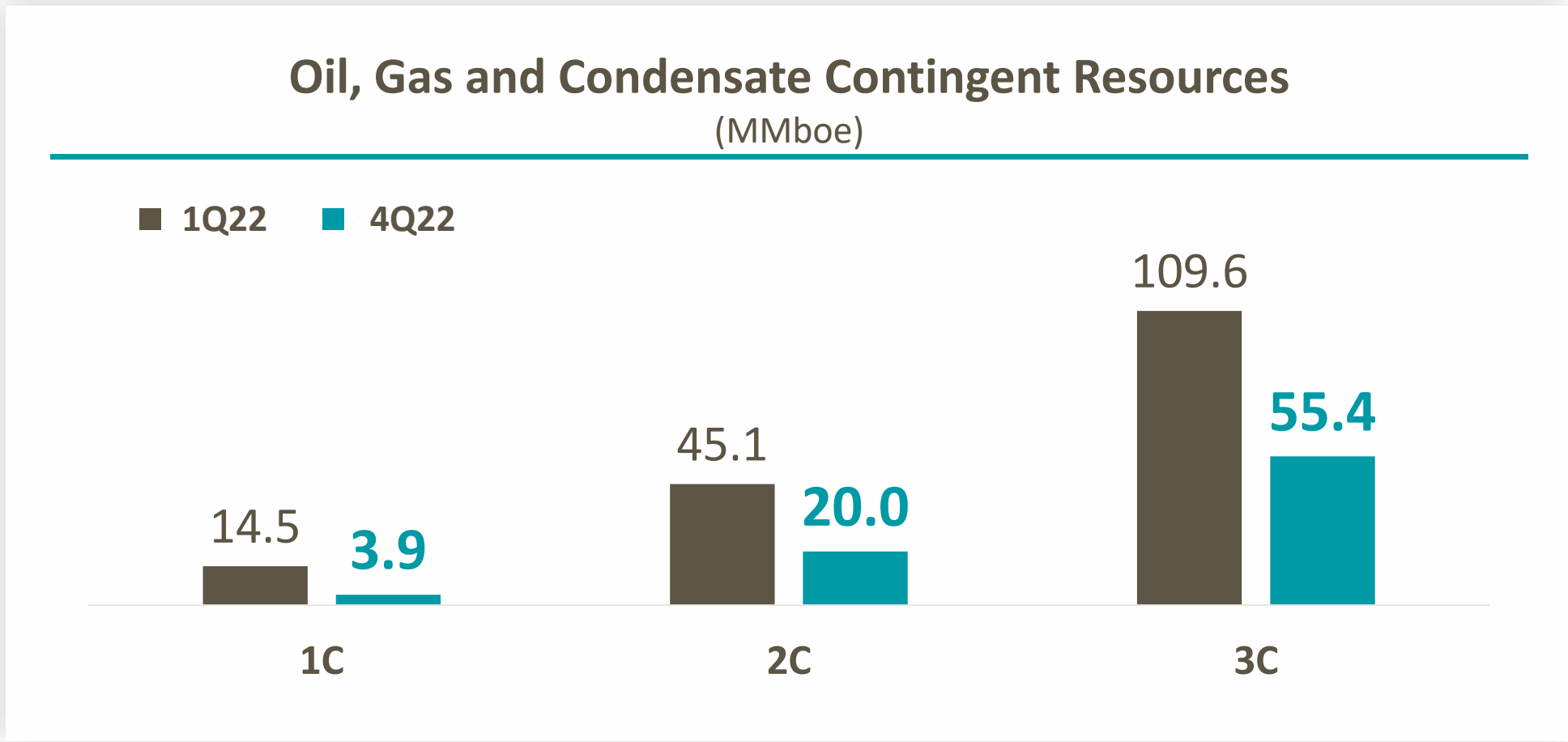
To be drilled between 2023 and 2024 in Azulão Field to supply gas for the Azulão 950 MW Project

ORGANIC GROWTH POTENTIAL



Expectation of new available areas at the next ANP Open Acreage Bidding process

Anebá DEP: understanding new accumulation models in the Amazonas Basin and creating new capabilities



73,800

Barrels of Oil

Produced in 60 days of the EWT

R\$ 30

Millions

Of revenue during the EWT

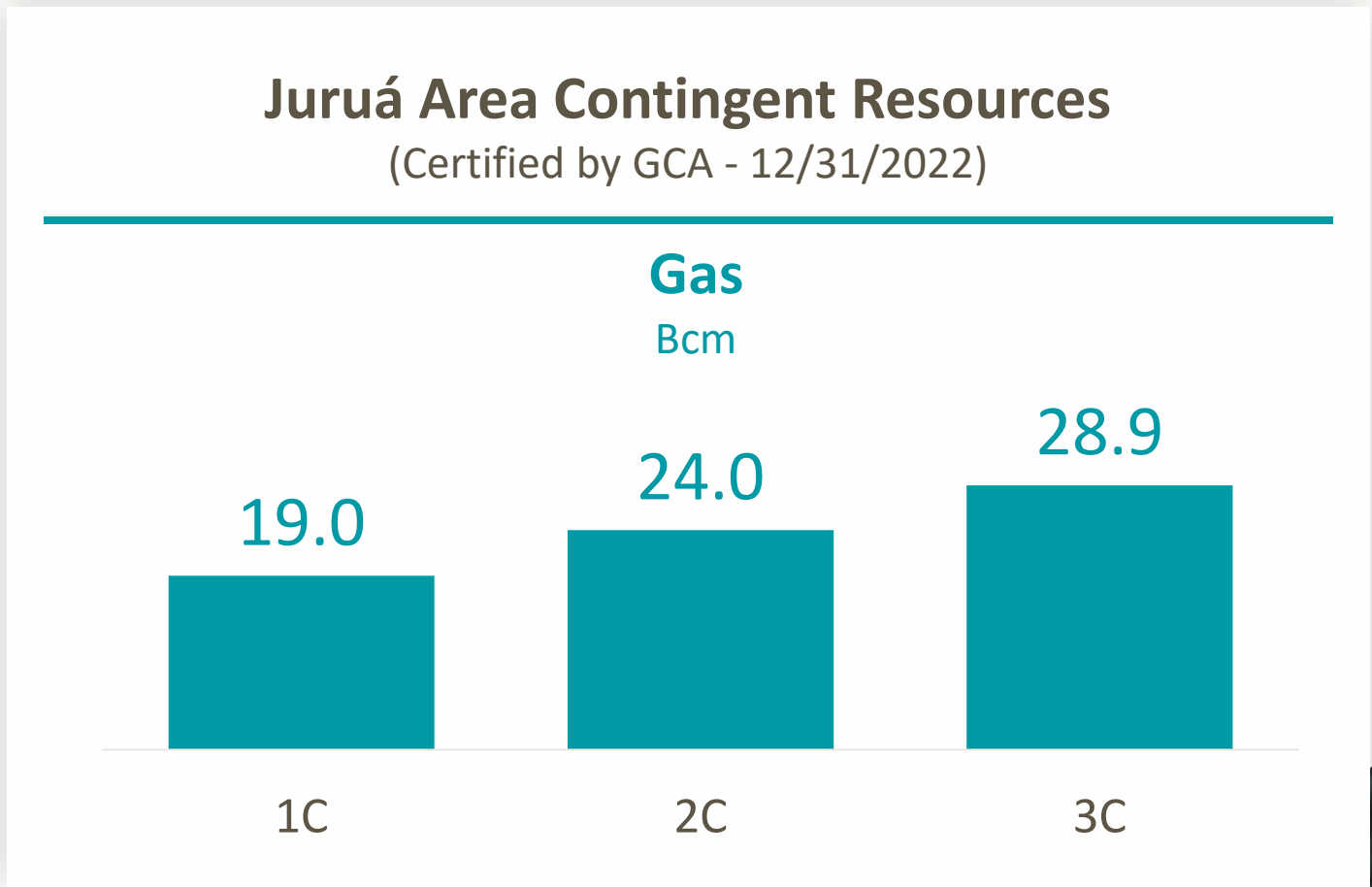
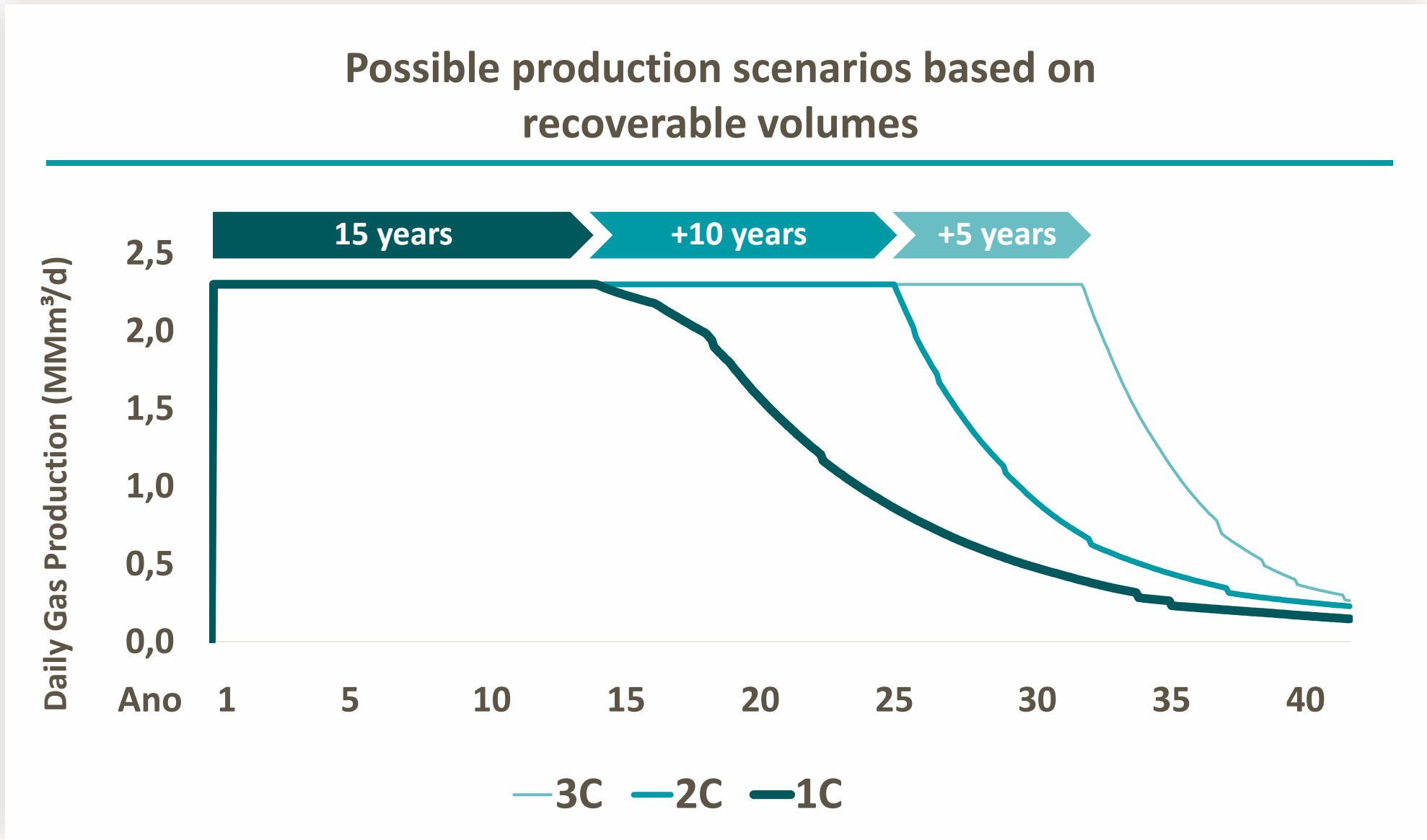


ONGOING EXTENDED WELL TEST (EWT)

- Light oil and excellent reservoir properties confirmed at 1-ENV-25D-AM discovery well
- Flow period concluded. Static pressure build-up period

Exploration & Production

Increase in contingent resources of the Juruá Area and advances on the navigability assessment



15%

2C resources increase since 2021 certification



SCENARIOS EVALUATION

In house reservoir characterization concluded with distinct production scenarios to assess market



FOUR WELLS

Re-entry and well test scheduled for 2025



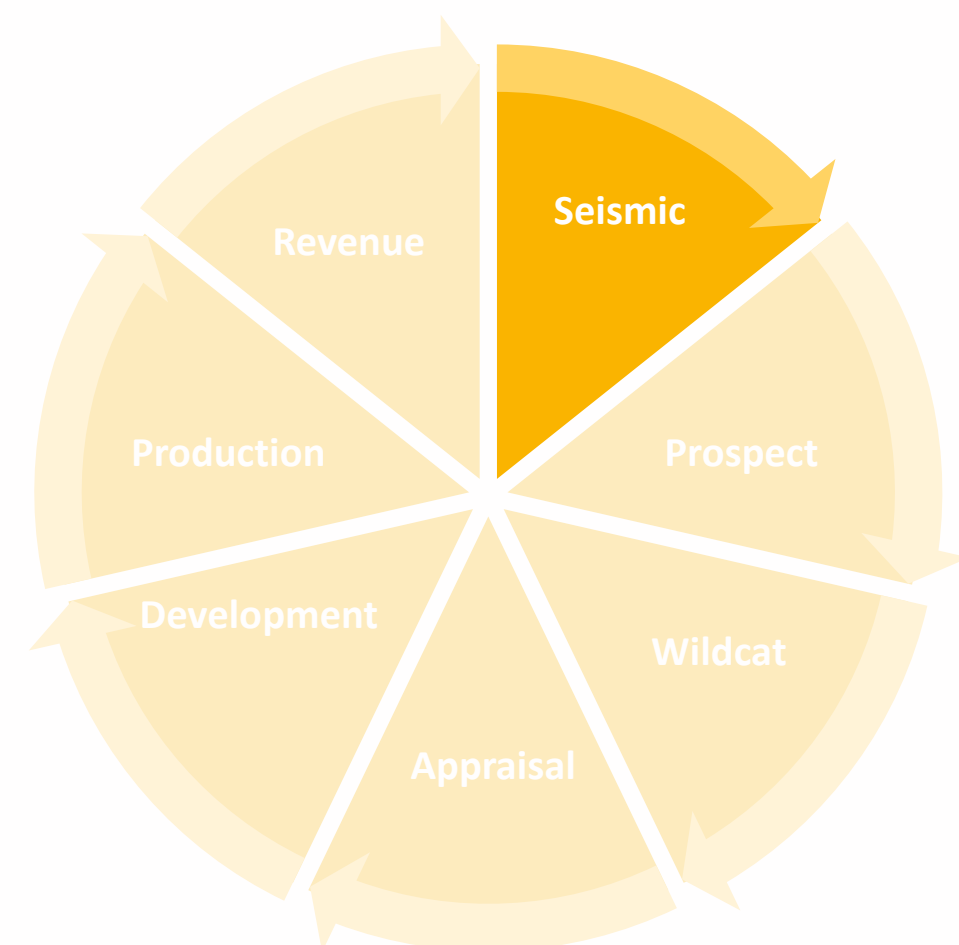
LOGISTICS & MONETIZATION

Navigability assessment studies and monetization models ongoing

Exploration & Production

Beginning of the Paraná Basin exploration campaign

- ✓ +4,000 km of 2D seismic survey contract bid ongoing with acquisition in 3Q23
- ✓ Field work with Paraná Federal University and Mato Grosso do Sul State Environmental Office
- ✓ 440 m of legacy core requested to ANP for reservoir and source rock characterization
- ✓ 1,565 km of existing 2D seismic re-processed



Perspectives of Organic and Inorganic Growth in the near-term horizon

- ✓ Countrywide strategic gas assets
- ✓ Third party assets in evaluation and negotiation
- ✓ Continuity of ANP Open Acreage Bidding rounds aligned with our exploratory workflow



33.3 %

Eneva's total wildcat success rate at Parnaíba & Amazonas Basins

47.5 Bcm

Total 2P Gas reserves

63,400 km²

Brazil's largest exploratory acreage under concession

- Eneva's assets with proven resources & reserves
- Eneva's assets without proven resources & reserves
- Third party assets with proven resources & reserves



ri@eneva.com.br



tel: (21) 3721-3030



ri.eneva.com.br/

eneva day
— 2023 —

Business Development

Marcelo Lopes

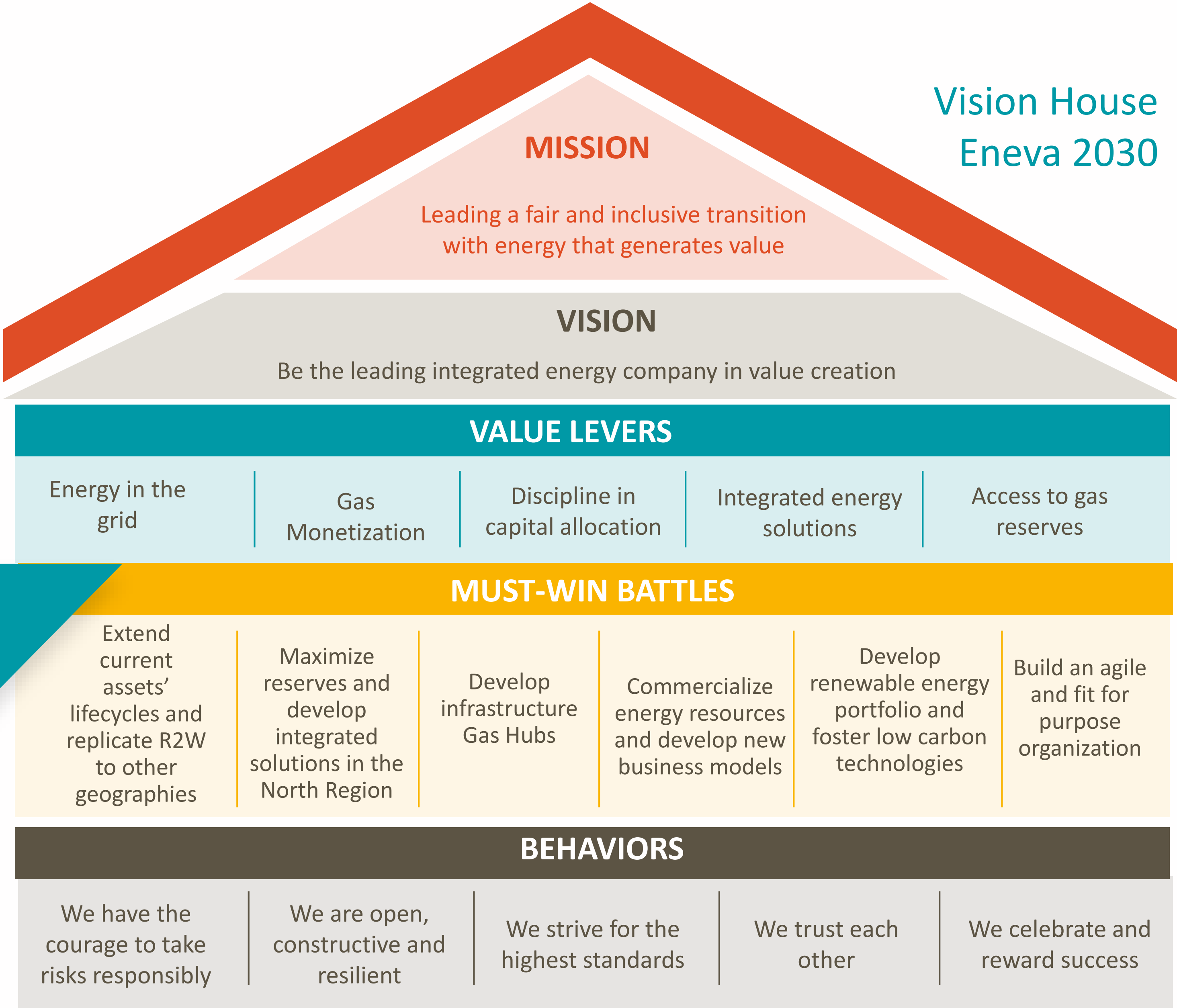


March 8, 2023

Business Development

On the 2022 Eneva Day, we detailed the main initiatives we were working on to address each of our strategic challenges...

Vision House
Eneva 2030



... throughout 2022, we advanced on several aspects and with the new acquisitions, we redesigned some initiatives and priorities, while maintaining the same strategy...

Must Win Battles and main initiatives – Business Development

01



Extend current assets lifecycles and replicate R2W to other geographies

Parnaíba 2nd Cycle

São Luís – Parnaíba Pipeline

02



Maximize reserves and develop integrated solutions in the North Region

North Monetization

03



Develop infrastucture Gas Hubs

Development of CELSE Opportunities

Termofortaleza 2nd Cycle

São Luís LNG Terminal

TEPOR

04



Commercialize energy resources and develop new business models

Implementation of the Commercial Model

05



Develop renewable energy portfolio and foster low carbon technologies

Renewable Strategy

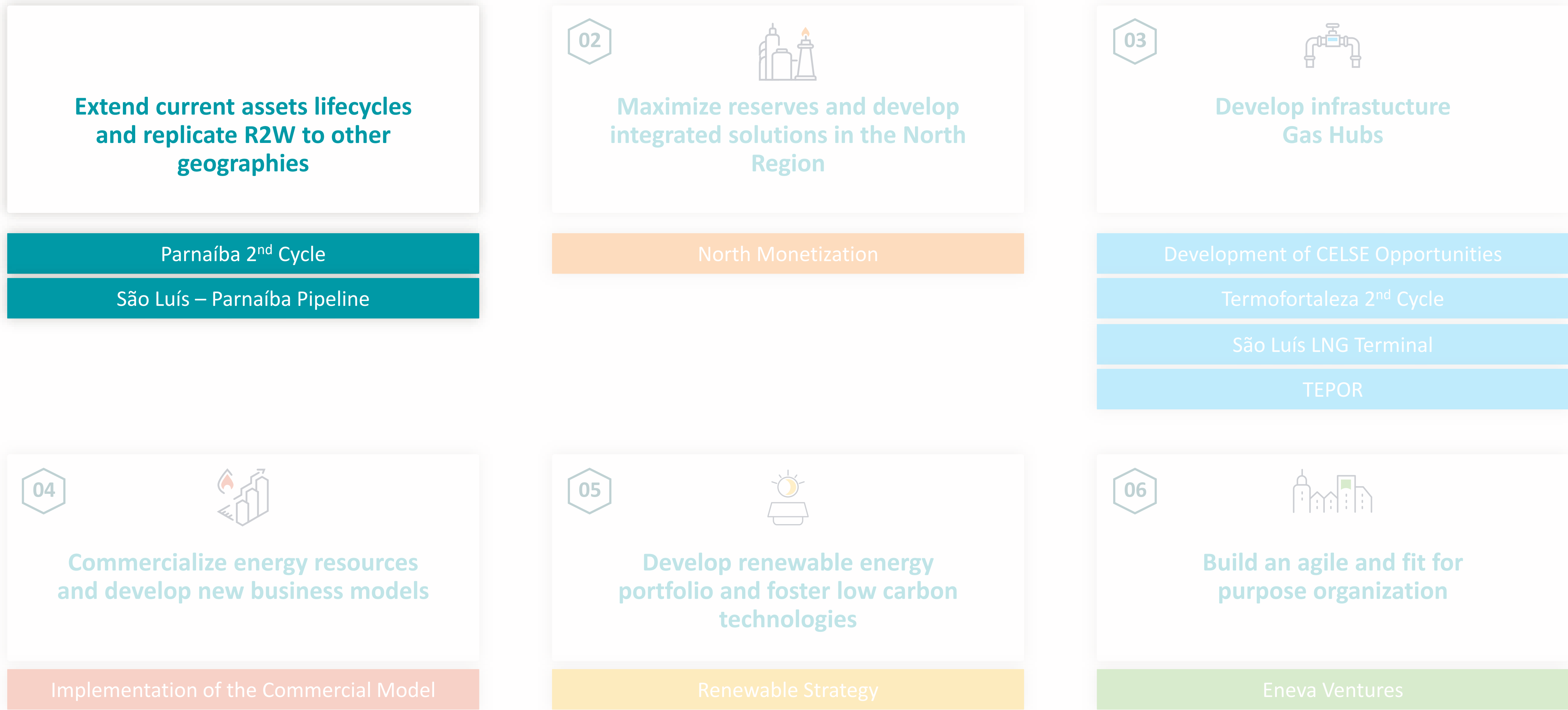
06



Build an agile and fit for purpose organization

Eneva Ventures

Must Win Battles and main initiatives – Business Development



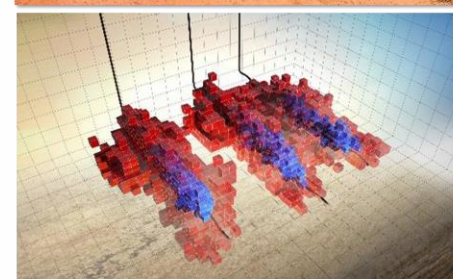
During the 2022 Eneva Day, we discussed the different alternatives to ensure the renewal of agreements and extension of the life cycle of Parnaíba...

Generating optionalities for the future Working on three fronts to ensure the perpetuity of the Parnaíba Complex



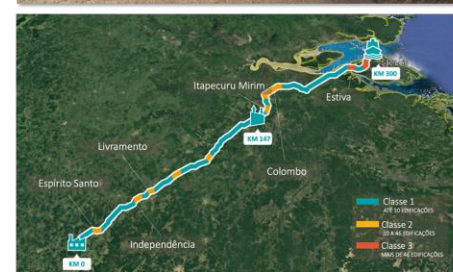
CONVENTIONAL GAS

- High geological risk
- Low economic risk
- Great know-how



UNCONVENTIONAL GAS

- Low geological risk
- High economic risk
- Regulatory challenges



GAS PIPELINE FROM SLZ TERMINAL TO PARNAIBA

- Connecting the Parnaíba Complex to a future LNG terminal in SLZ
- HUB SLZ project is independent
- Large amount of investments required

	2022	2023
Conventional Gas Exploration	Yellow bar	Yellow bar
De-risking of Unconventional Gas	Red bar	Red bar with dashed line
LNG Terminal + SLZ Gas pipeline	Blue bar	Blue bar

- Yellow bar: Exploration & Development
- Red bar: Vertical Pilot Project
- Blue bar: Licensing & Engineering

2022 – 2023
Decision making of the alternative that will be implemented

Eneva is the main energy player in Maranhão and therefore has great advantages in expanding and capturing new markets in the state



The Gas Hub in São Luís aims to:

- Develop gas market in São Luís by attracting new investments and fuel substitution
- Guarantee the perpetuity of Parnaíba's assets, creating supply optionalities
- Expand generation capacity in the region by capturing potential opportunities (example: Eletrobras Law)

Business Development

With the increase in number of reserves, gas for the 2nd cycle is guaranteed

The main initiatives for the year are focused on:

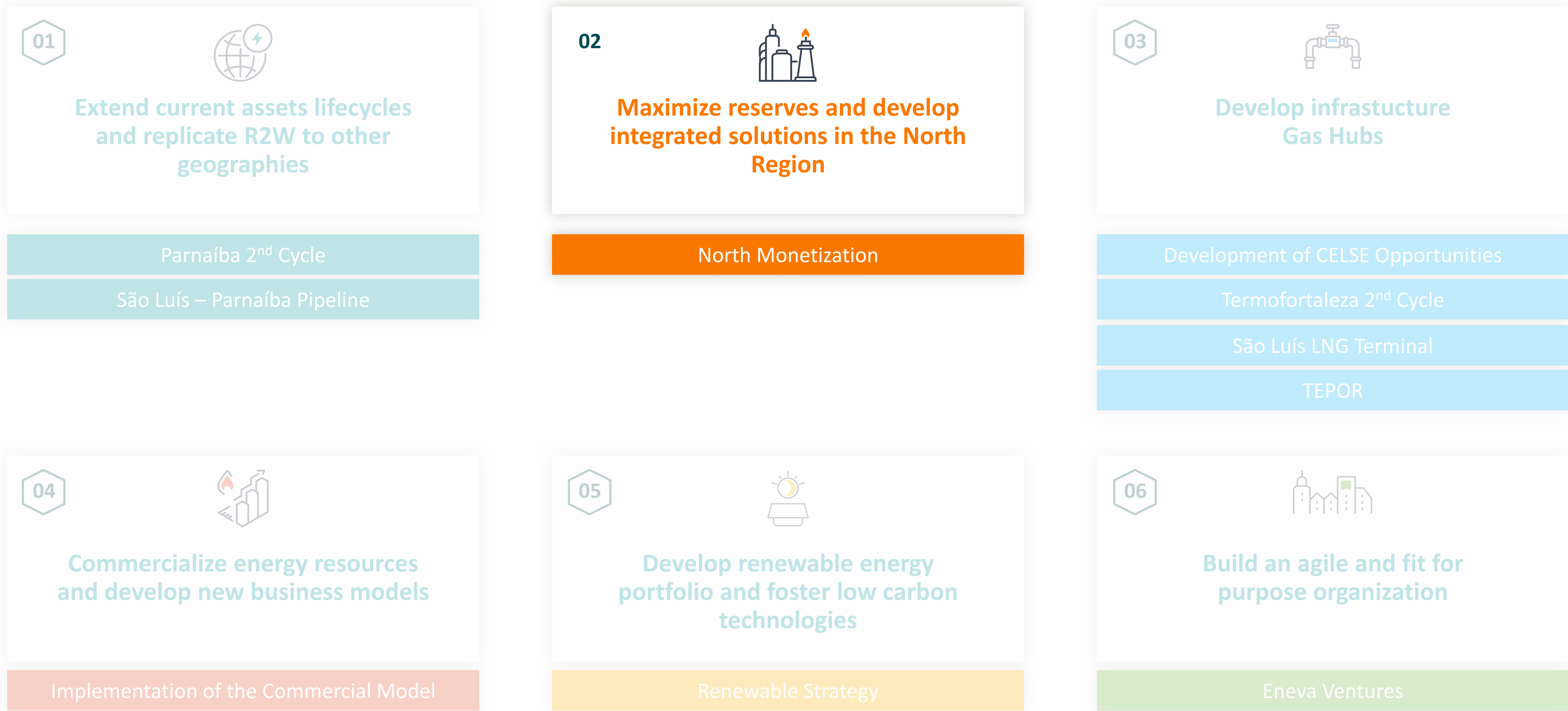
- ✓ Enable the re-contracting of PI and PIII, and viabilize the expansion of the Complex (PVII)
- ✓ Continue developing supply and customer portfolio in the region



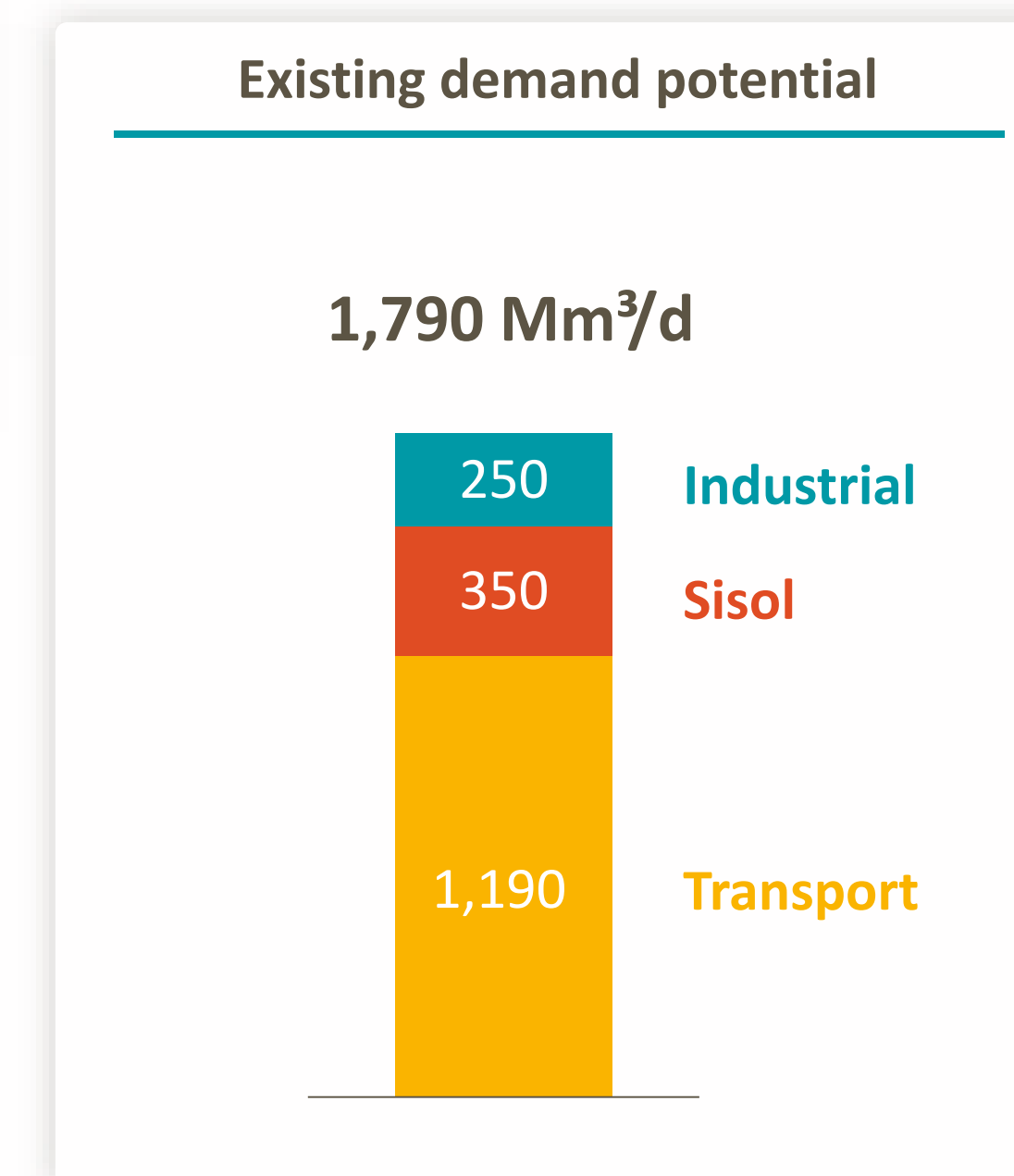
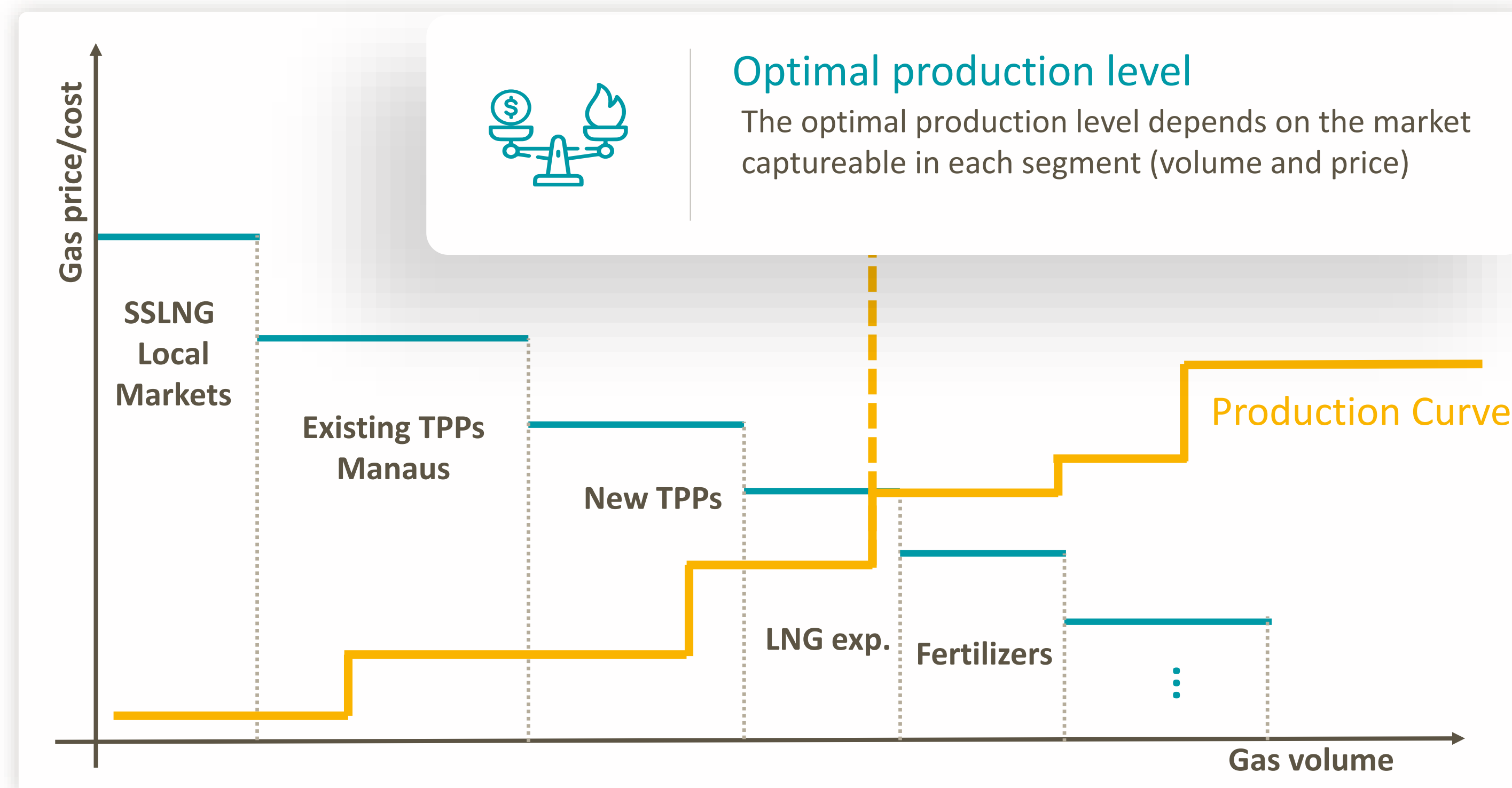
SÃO LUÍS – PARNAÍBA PIPELINE

- ✓ Studies for the construction of a gas pipeline connecting Parnaíba Complex to São Luis LNG terminal (Hub creation) at an advanced stage
- ✓ Project under development by the carrier, expected to be completed in 1H23

Must Win Battles and main initiatives – Business Development



During the 2022 Eneva Day we introduced our vision to develop monetization options for our North Region resources



We made significant progress in three of these options:

- SSLNG local markets (SISOL and transport segment)
- New TPPs
- Fertilizers

Initiatives for business development in the North Region remain focused on seeking options for monetizing Eneva's resources



Progress in 2022

Planning for 2023+

→ Victory in the LRCE ausction with TPP of 590 MW, enabling the Azulão 950 MW project

→Preparation for new energy auctions in the region



→ Creation of **Free Proposal of Interest by MME**, which reformulates the current contracting mechanism for Isolated Systems, enabling the offer of gas solutions in existing systems

→ Move forward with the first case of **converting isolated systems** to gas based on the Free Proposal of Interest



→ Completion of MoUs for launching **LNG pusher** pilots with local carriers
→ **Structuring of logistics JV**, LNG Brazil

→ **2023: approval of pilot projects**
→ waterway (LNG push boat)
→ highway (LNG truck Azulão – Jaguatirica route)
→ **2024+: scale the solutions to offer to the market**



=



+



Initiatives for business development in the North Region remain focused on seeking options for monetizing Eneva's resources

Progress in 2022

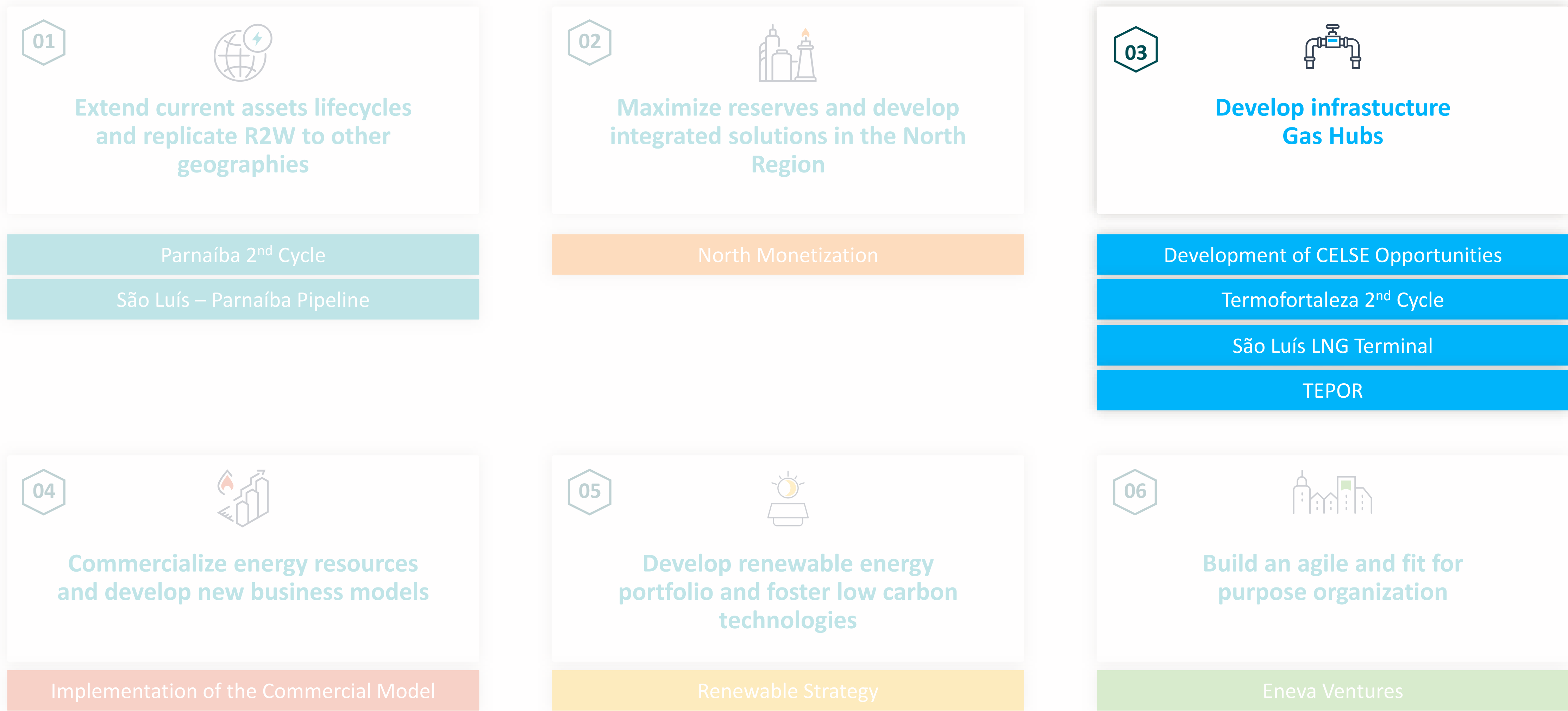
- ✓ Study of technical feasibility and navigability for Juruá outflow
- ✓ Study of **economic feasibility of nitrogenous fertilizer production**

Planning for 2023+

- Development of conceptual and basic train design for moving LNG with a specialized company
- Engagement with **potential partners** to advance the feasibility analysis of the fertilizer plant project
- Technical and economic feasibility study of the **connection via gas pipeline to Urucu** (and consequently Manaus)



Must Win Battles and main initiatives – Business Development



With Celse acquisition, we have the opportunity to start implementing the Gas Hubs strategy, accessing the gas market served by the integrated network

SERGIPE HUB PRODUCTS					
	Firm Gas	Flexible Gas (injection)	Flexible Gas (withdrawl)	Gas-fired Generation Replacement (final consumer)	TUA (Terminal Use)
Model	take-or-pay sale	Spot sale	Compra spot	Power generation to support the customer in his generation commitment with ANEEL	Commercialization of regasification capacity, with centralized operation by Eneva
		Gas injection service for balancing	Serviço de retirada de gás para balanceamento		
Value to the Client	Portfolio Diversification	Firm commitments balancing, Grid balancing		Saving penalties for unavailability of fuel and gain in generation efficiency	Portfolio diversification and flexibility
Potential Clients	Distributors, industries	Distributors, industries, TPPs, carriers, manufacturers		TPPs	IOCs LNG Traders

POTENTIAL MARKET

7.3 MMm³/d
Distributors

9.3 MMm³/d
Industries

3.2 MMm³/d
Flexibility



TERMINAL AND CONNECTION INFO

✓ 21 MMm³ gas/d of regas and 170 thousand m³ of stored LNG

✓ Construction of 25 km of pipeline with commercial operation expected for 2024

Business Development

We also have the opportunity to add domestic gas to our portfolio by accessing the resources of Sergipe-Alagoas Basin

Investment Case at SEAP



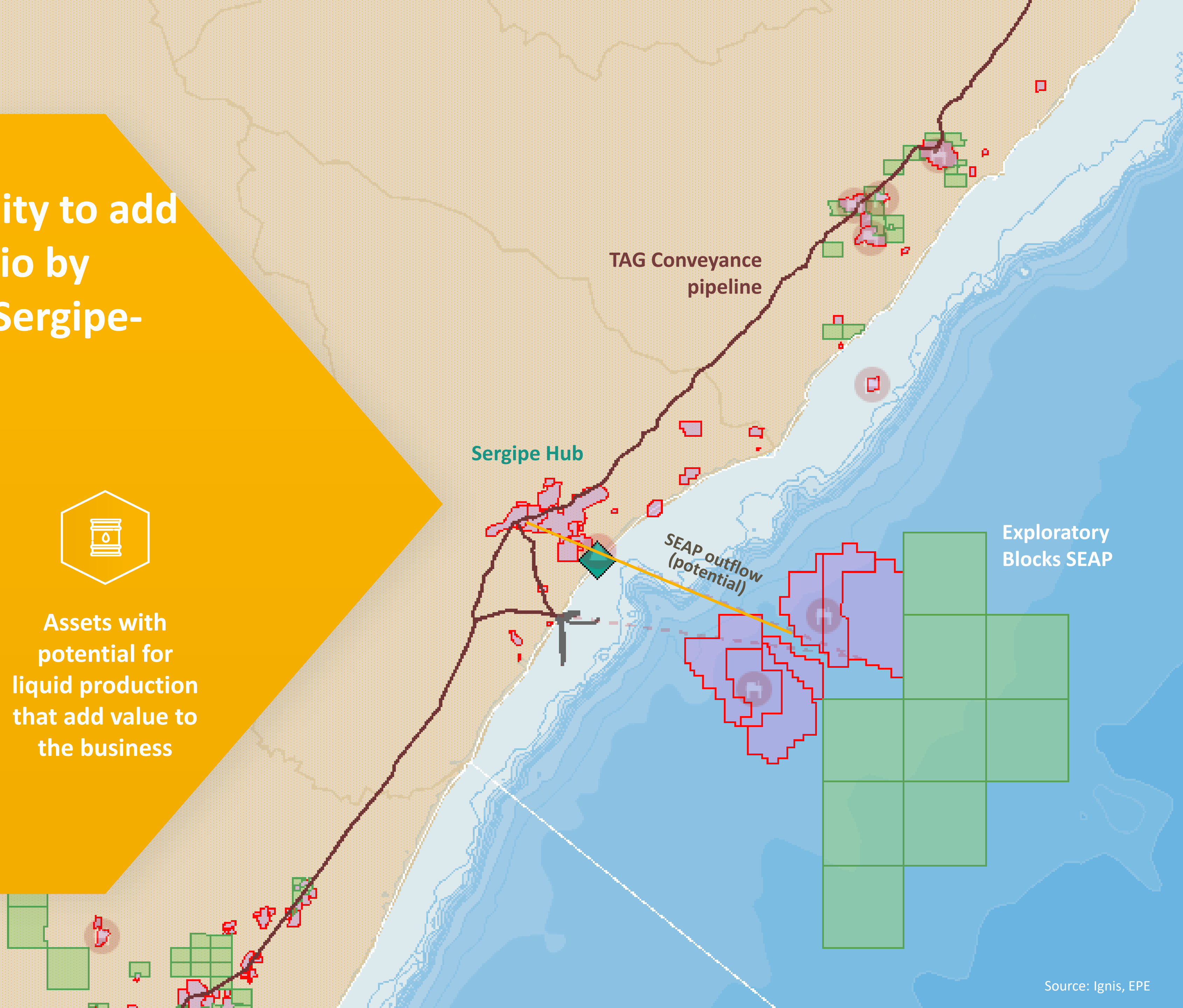
Access to domestic gas adds portfolio competitiveness, expanding the range of products that can be offered



Eneva's R2W monetization solution is an enabler of the new exploratory frontier



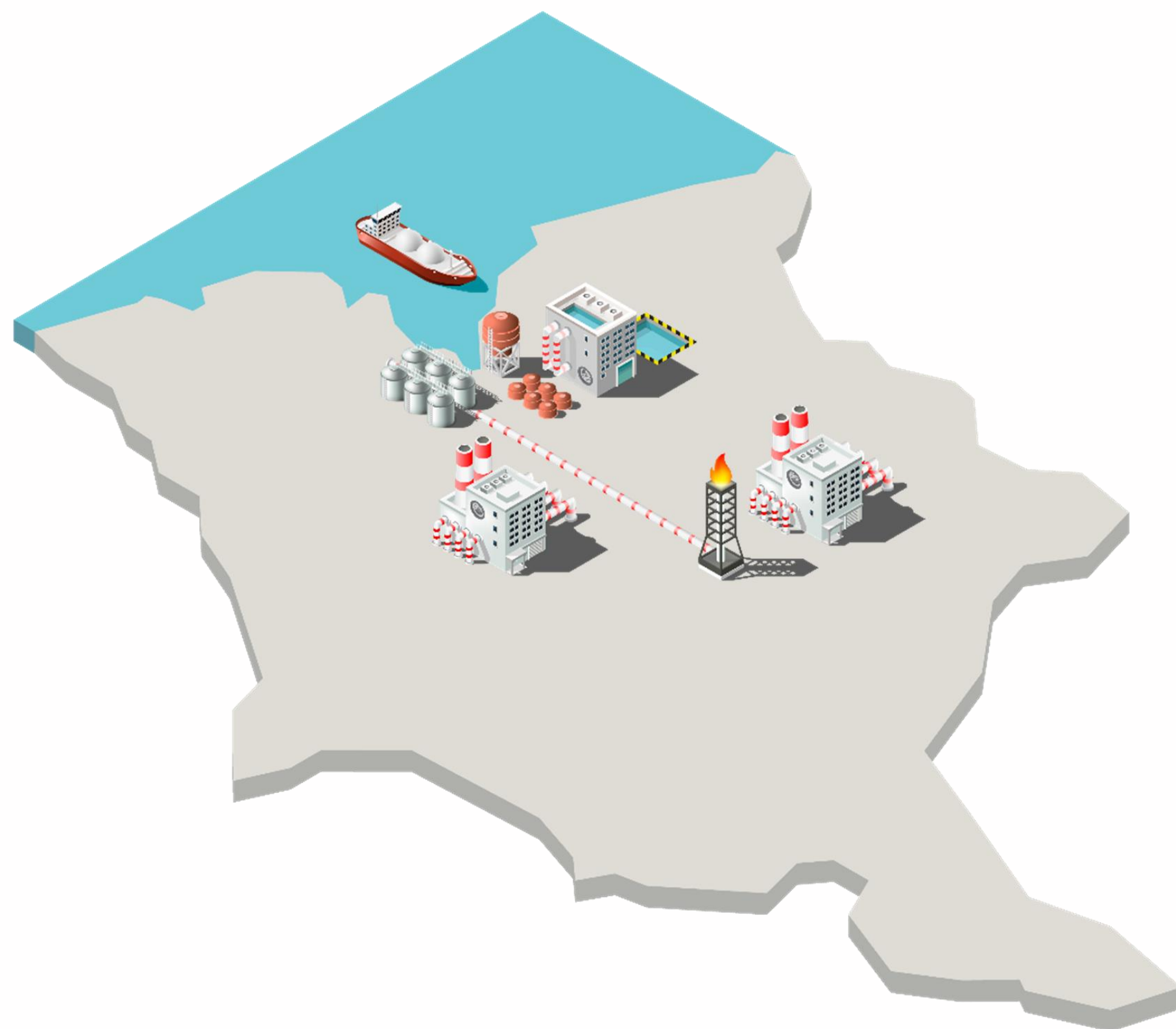
Assets with potential for liquid production that add value to the business



Celse accelerated the development of the gas hub, but other terminals remain strategically relevant to the company...

São Luís Hub is still an opportunity to generate options for the Parnaíba Complex and create more sustainable alternatives for the region

Maranhão Gas Hub Concept



São Luís Terminal

Rational

- ✓ Option for supplying Parnaíba, ensuring the perpetuity of thermo power assets
- ✓ Relevant sales opportunities in São Luís, generating option for the local energy matrix

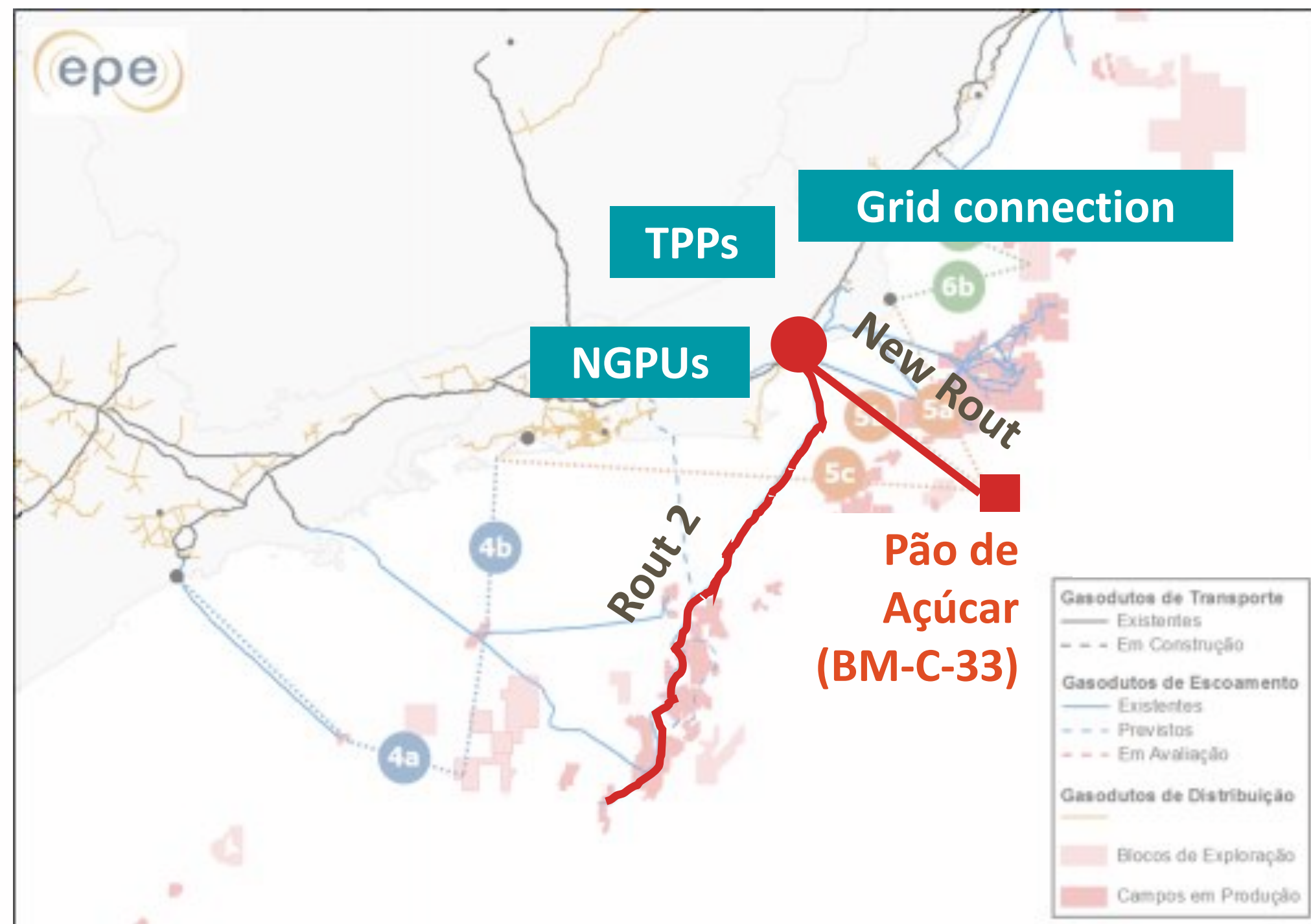
Updates

- ✓ Basic terminal design completed
- ✓ Process with EMAP at an advanced stage (onerous assignment awaiting approval with the ports department)
- ✓ EIA RIMA completed

Celse accelerated the development of the gas hub, but other terminals remain strategically relevant to the company...

In a privileged location, TEPOR is an important investment to expand Eneva's scope of activities, ensuring its presence in the Southeast

TEPOR Concept



Source: EPE.

TEPOR

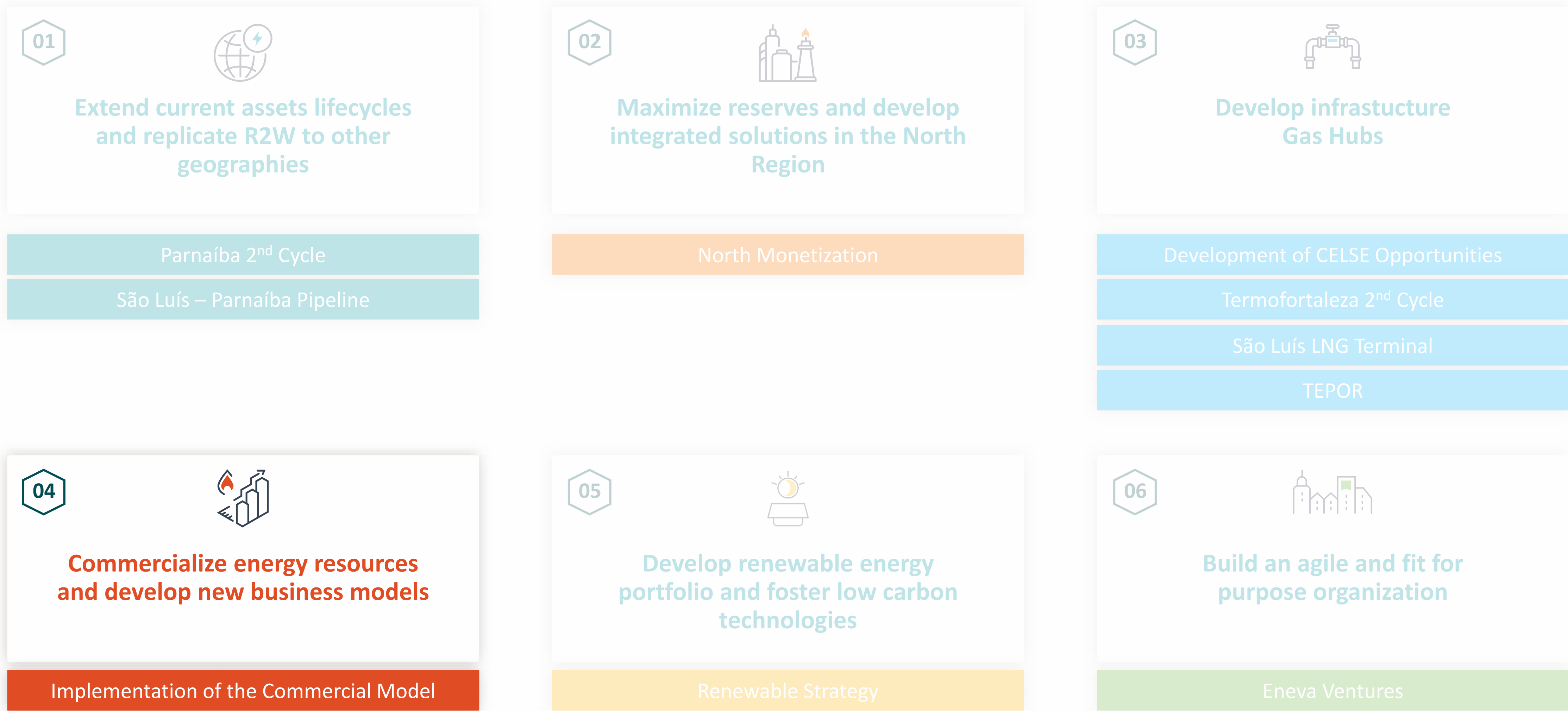
Rational

- ✓ An opening for Eneva's operations in the Southeast and synergy with the potential of the Paraná Basin
- ✓ Macaé is already a gas hub par excellence: connected to thermo power plants and brownfield and greenfield UPGNs, gas grid (TAG and NTS), domestic gas (Route 2 and new routes)

Updates

- ✓ Installation license (LI) issued
- ✓ Adhesion agreement signed with ANTAQ
- ✓ Dredging, breakwater and embankment project completed (mechanical project under review)
- ✓ Conceptual project of the Terminal for oil completed

Must Win Battles and main initiatives – Business Development



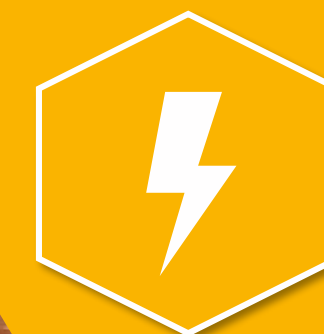
04

Business Development

During Eneva Day 2022 we discussed the two main fronts that we would explore in the Commercial area



NATURAL GAS



POWER

In gas trading, we had significant achievements in 2022, ensuring a new avenue of growth for the coming years

Parnaíba and Sergipe Hub gas commercialization



Achievements in 2022

- ✓ Signing LNG agreements from Parnaíba with Suzano and Vale, enabling the construction of liquefaction infrastructure of 600 thousand m³/d – **the largest in the country dedicated to trading**

Planning for 2023+

- ✓ Gas sales in the grid with molecule and infrastructure from Sergipe Hub
- ✓ Sale of LNG referring to the remaining capacity of Parnaíba Complex



Business Development

Focus merge accelerated the implementation of the commercial agenda, also paving a new avenue of growth in trading, portfolio optimization and energy sales to end customers

2022 Results

224 R\$ MM

EBITDA YTD 3T22
with export to
Argentina

7,386 GWh

Of energy traded with
free customers

Eneva ascension in the
CCEE ranking

56th

Position in 2021



5th

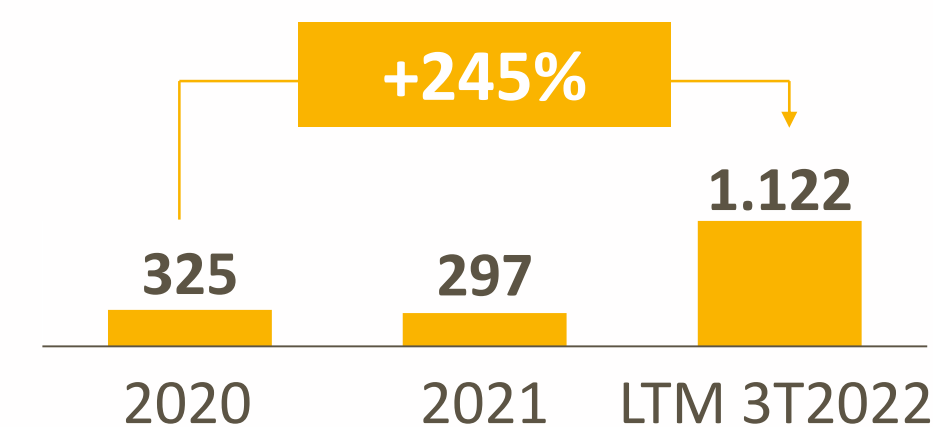
Position in 2022

Planning for 2023+

- ✓ Optimization of the contract portfolio of Futura complex, moving 100% to APE modality
- ✓ Progress in the creation of products to increase asset value generation (asset back trading)

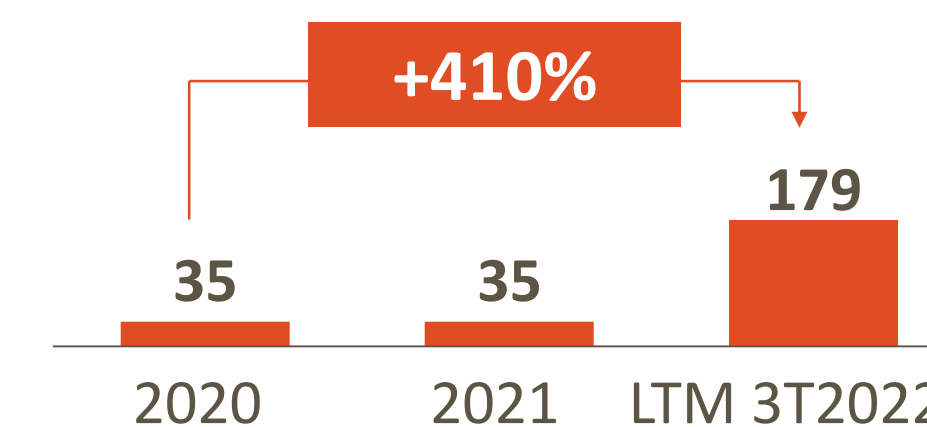
Total commercialized volume

MWm



Commercialization EBITDA

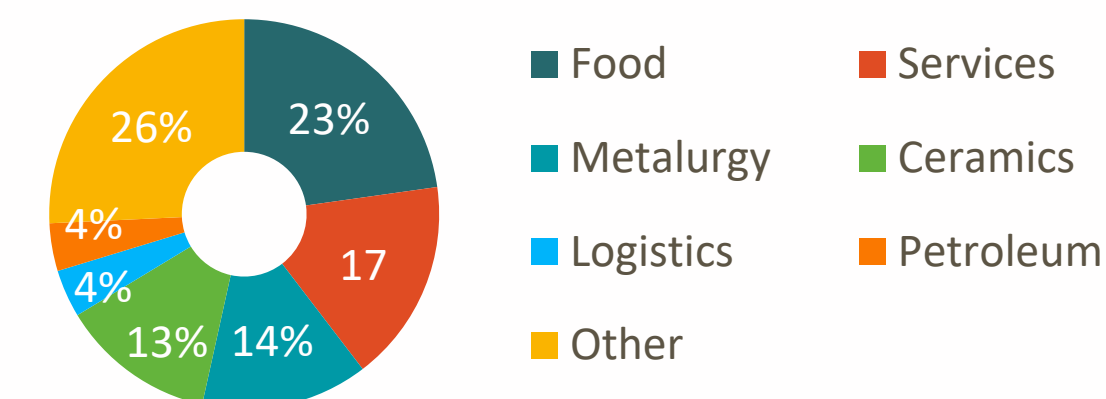
R\$ MM



Clients Portfolio 2022

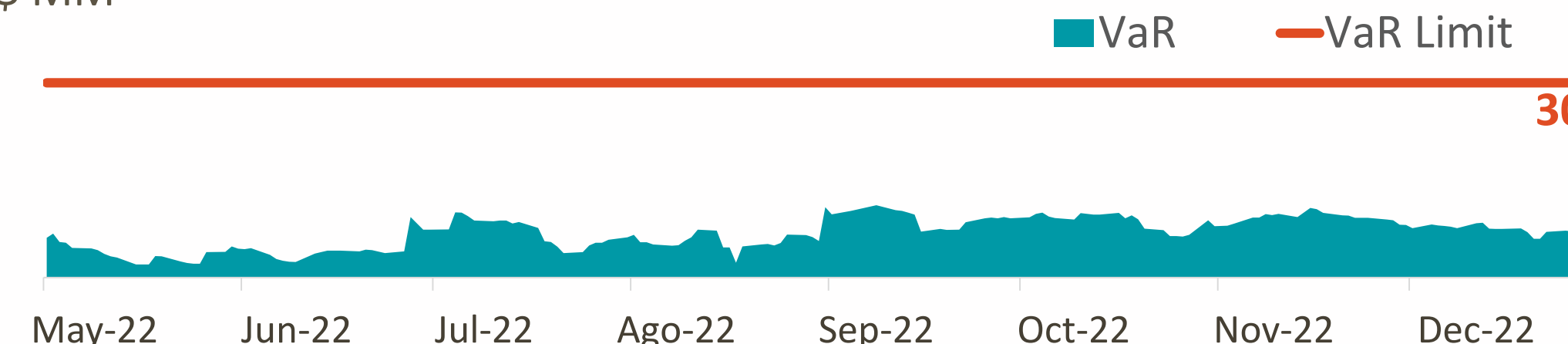
By industry sector

150 clients



VAR Risk

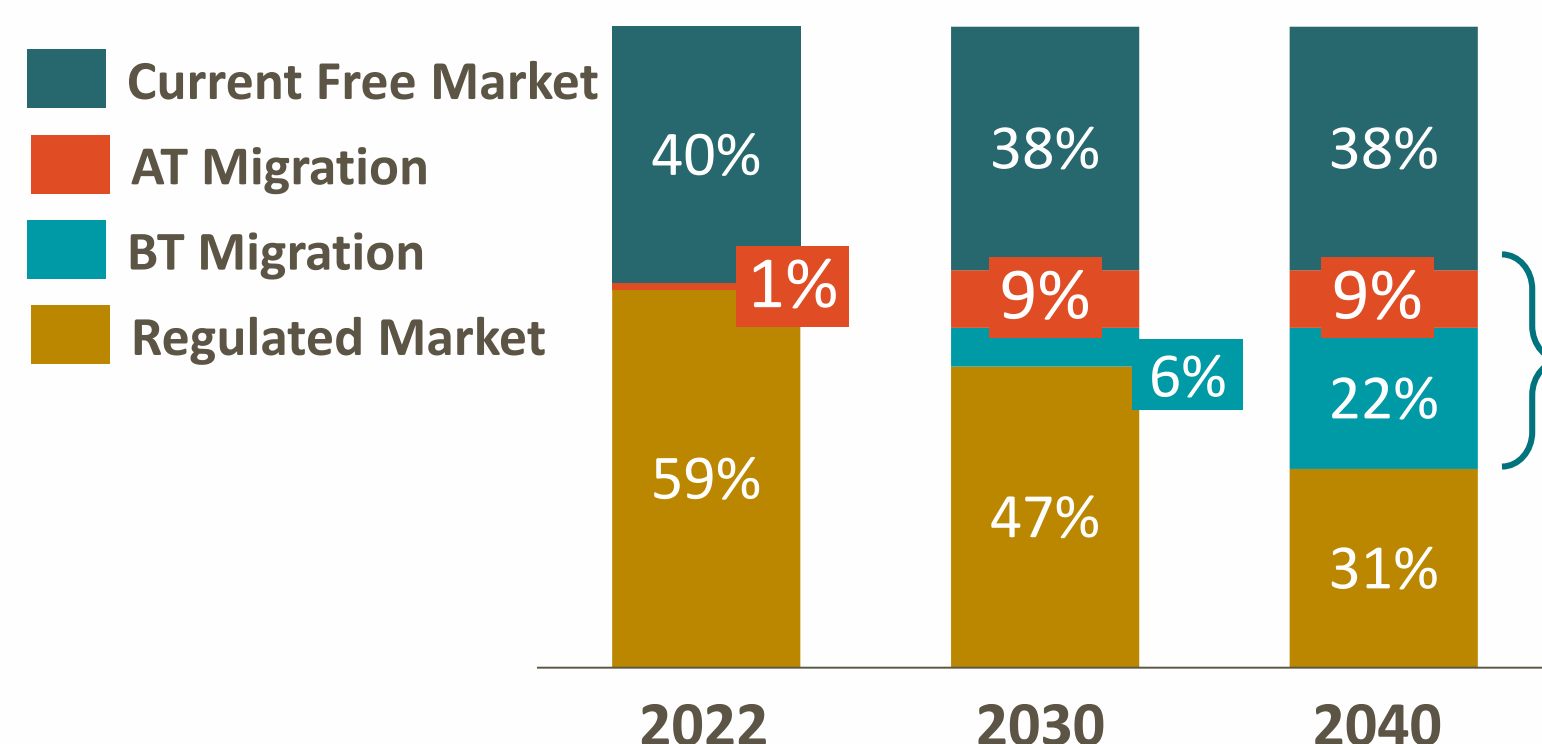
R\$ MM



In commercial activity growth initiatives, we are focused on capturing customers to maximize value generation from our asset portfolio

Opportunities in the sector aimed at market opening:

Load share by market - %



Additional volume of 33 GWavg of potential market

Source: Thymos.

Structuring of the comercial área based on three pillars:

Customer Centricity

what guides the design of our business model



Value-based segmentation

of our customer base (both current and potential)



Establishment of the service model, by segment

Taking into consideration assessment of partnerships, mergers, and acquisitions to serve smaller-sized clients"

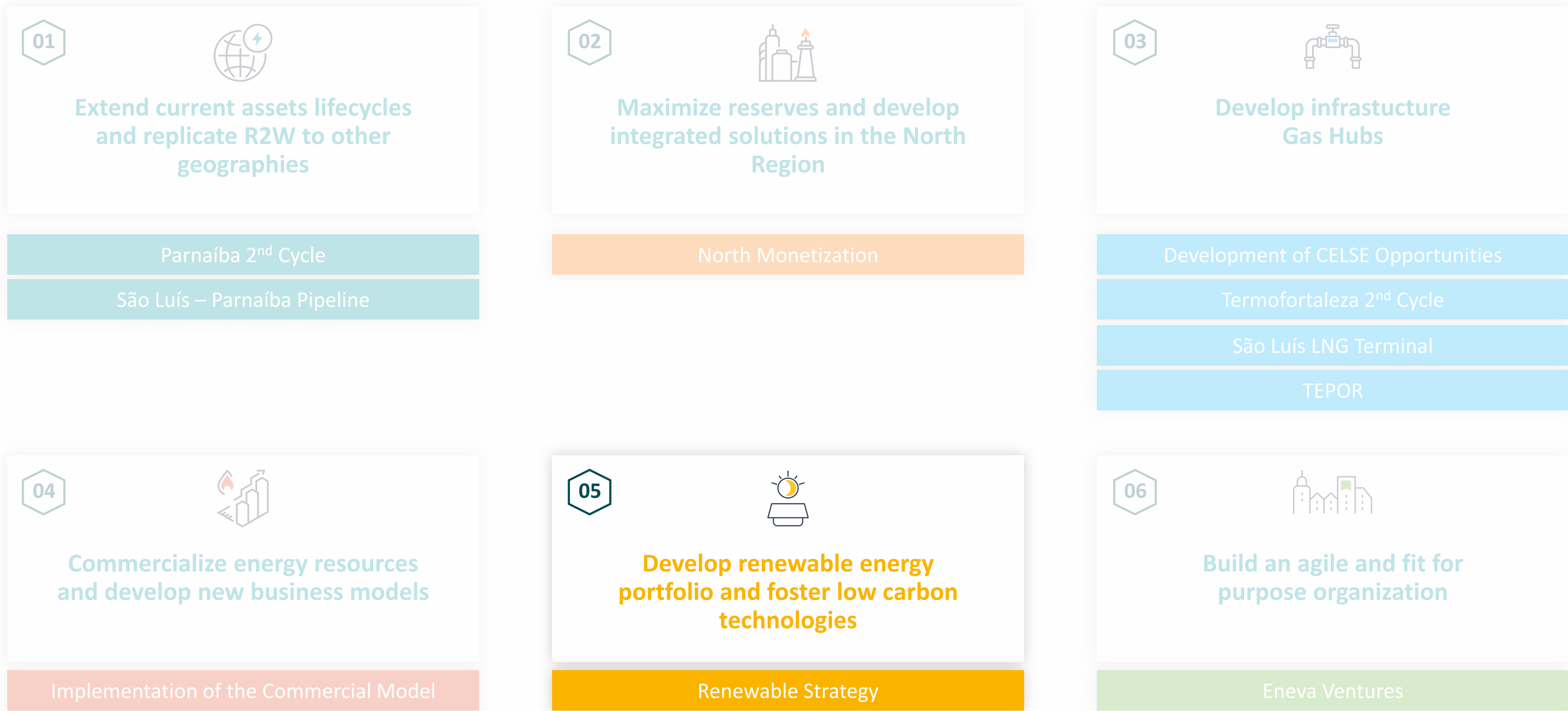


ACL growth, with opening of the high and medium voltage market in the short term, and low voltage in the long term



Eneva has integral gas and energy solutions to meet the diverse needs of its customers

Must Win Battles and main initiatives – Business Development



Business Development

With Focus acquisition, we took over Futura I and advanced in contractual optimization via Self-production, focused on generating greater value for the asset

We improved the project's return through portfolio optimization of contracts, using the self-generation modality

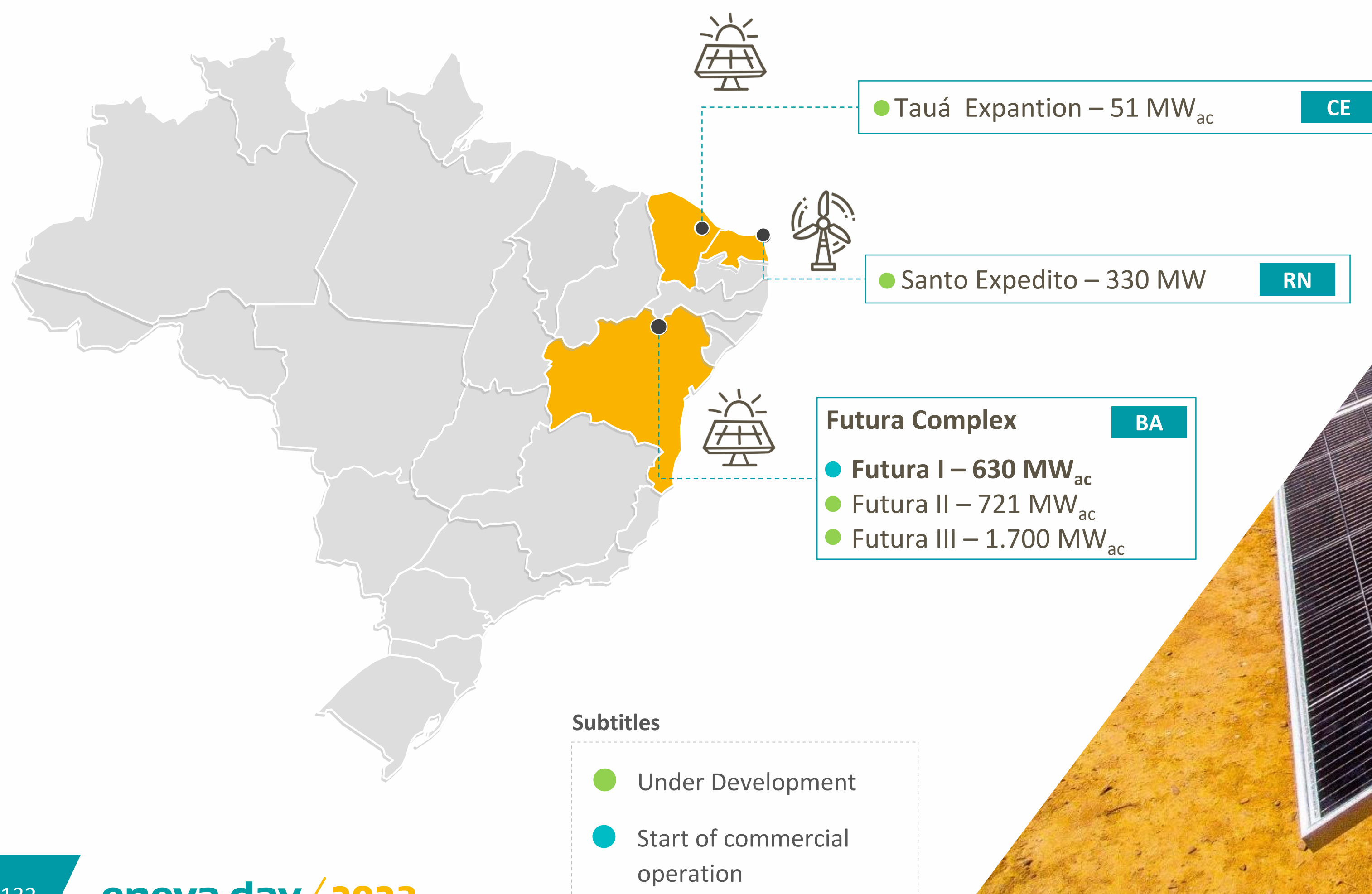
Contractual Optimization of Futura I



Self-production model is very attractive for energy-intensive companies due to the exemption of some sector charges

- ✓ Estimated average savings by GESEL of R\$ 58 /MWh

In addition to Futura 1 completion, over 2022 we have advanced in the development of the portfolio of projects reaching 2.8 GW_{ac} with wireline discount...



05

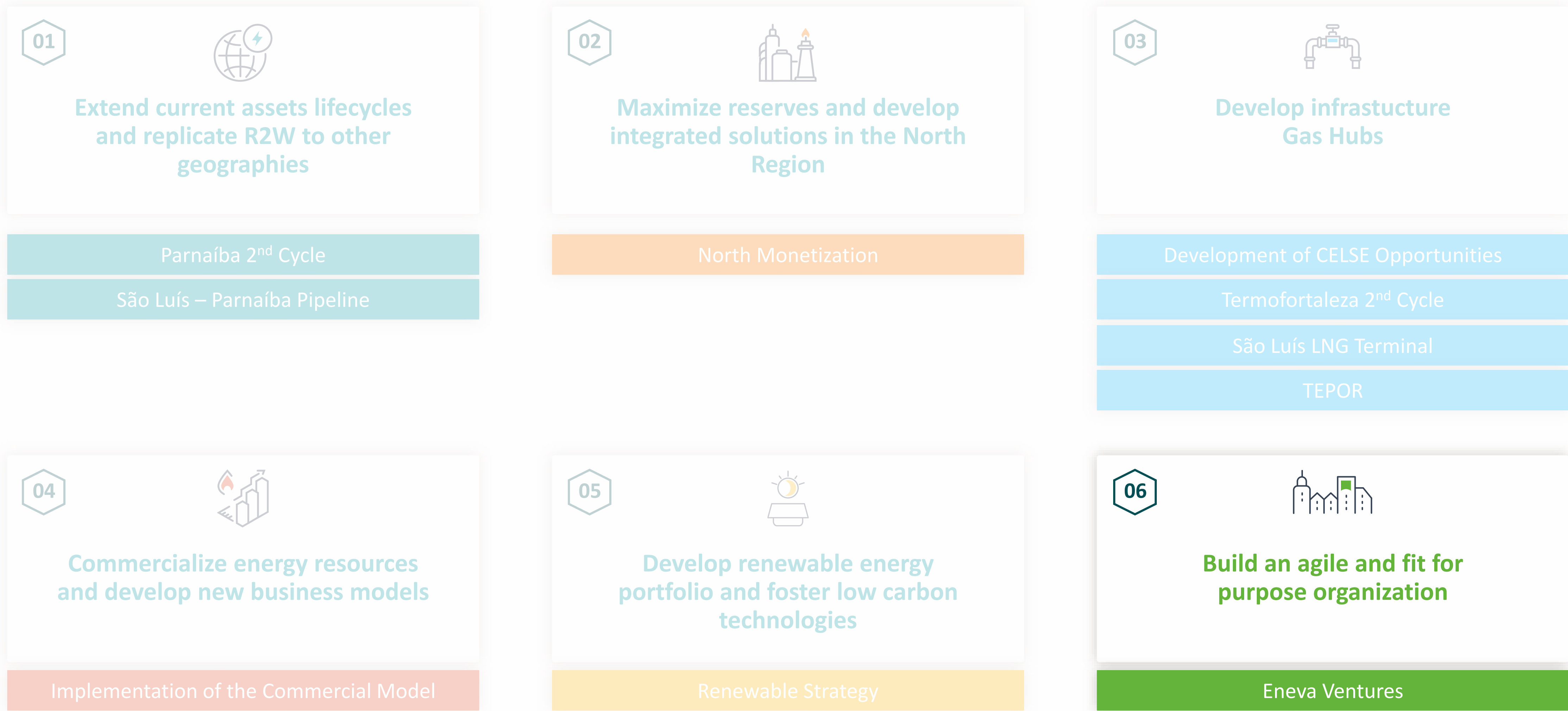
Business Development

In 2023, we will seek a partner for our renewable platform with a focus on deleveraging and advancing portfolio development

1st Movement**2nd Movement****INVESTMENT AGREEMENT WITH PARTNER**

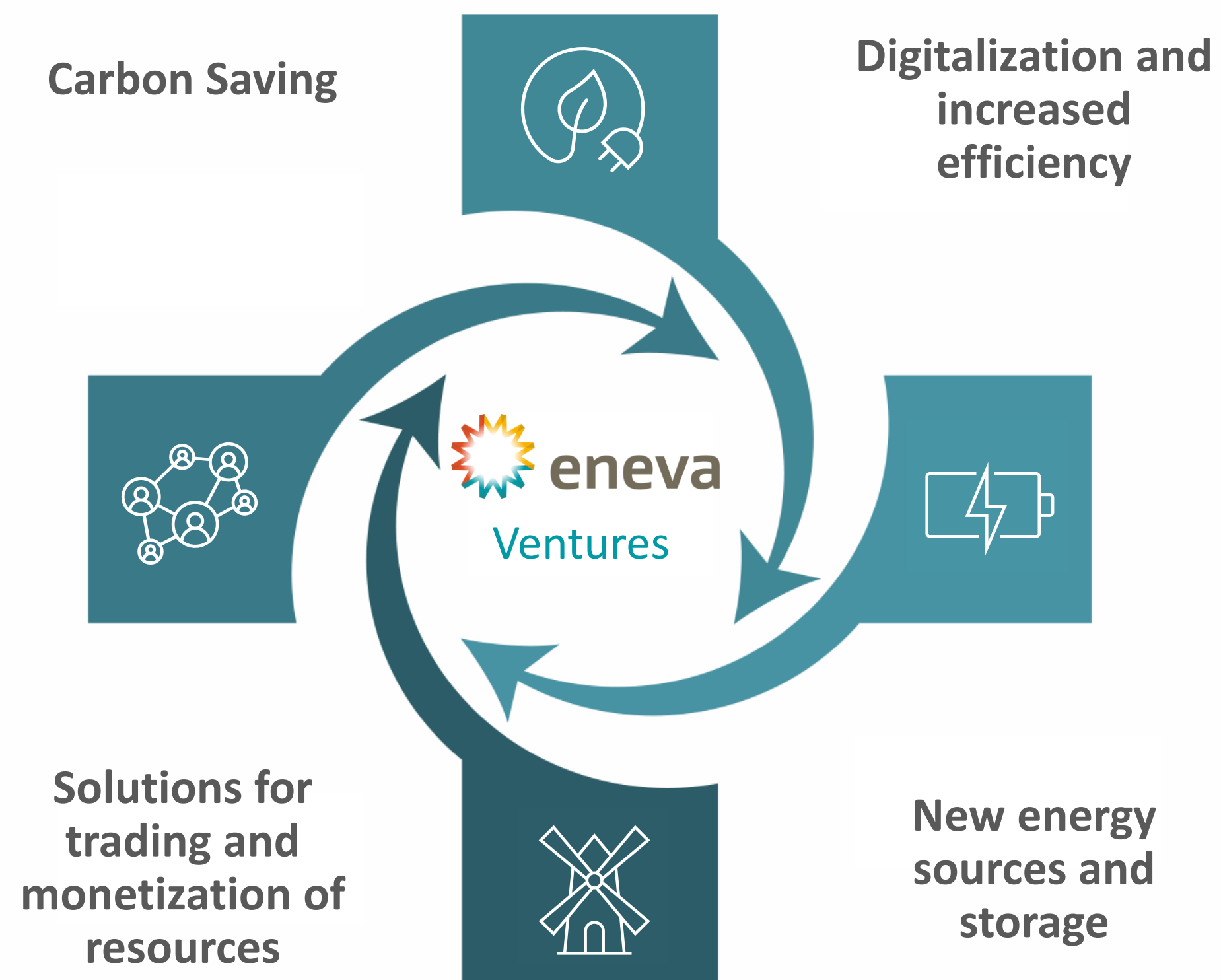
1. Sale of up to 50% of Futura I
2. Construction, operation and trading of energy of the projects by Eneva

Must Win Battles and main initiatives – Business Development



As a complement the growth fronts, we have created Eneva Ventures, a fundamental tool to help the Company leverage its business with innovative solutions

Investment Thesis



ENEVA Ventures Startup Portfolio



One-Stop-Shop platform for digital, secure, and transparent energy trading



Computer vision and machine vision solutions based on artificial intelligence and machine learning



Platform for sharing clean and renewable energy credits that interconnects micro and mini power plants with Units

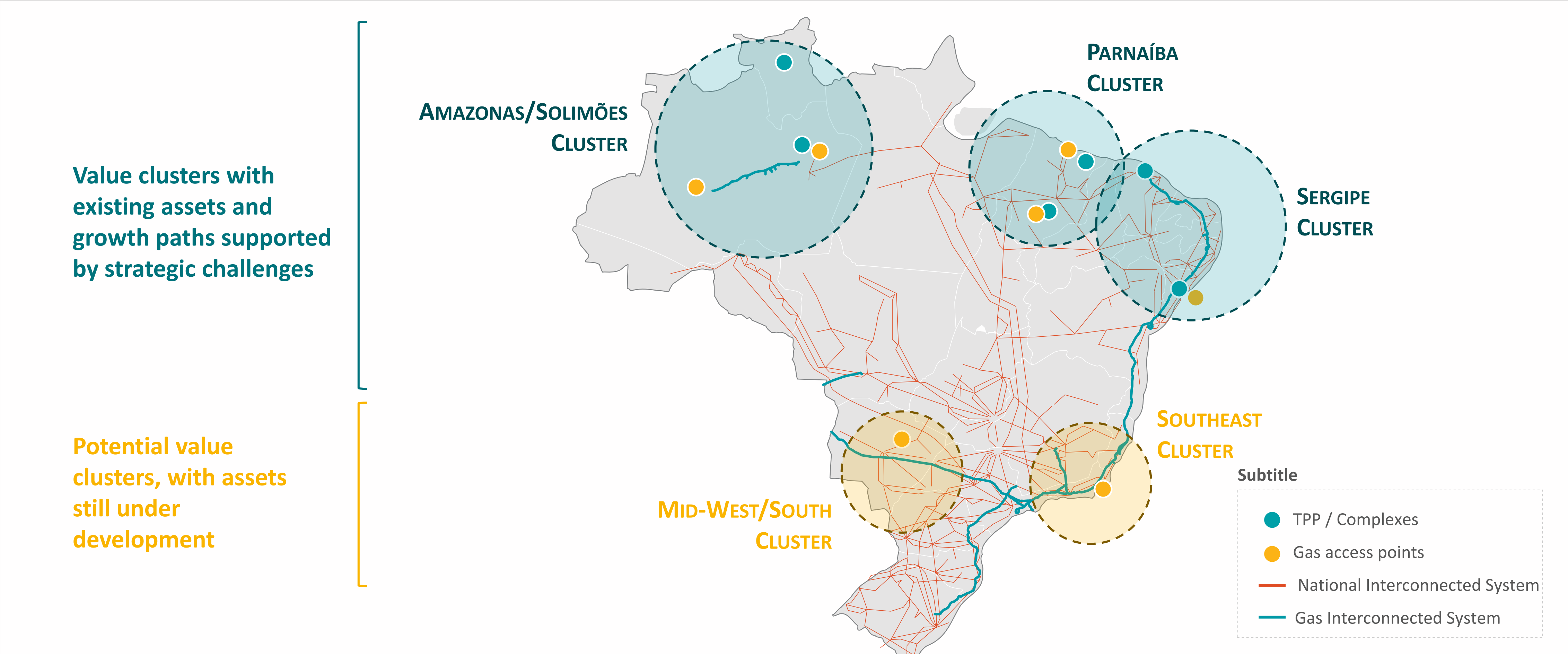


Electromobility management platform with solutions for end-users and suppliers

Business Development

Eneva has a differentiated positioning to capture opportunities generated by the existing arbitrages in the energy and natural gas markets.

Our project portfolio is broad and has the potential to add significant value aligned with the company's strategic challenges





ri@eneva.com.br



tel: (21) 3721-3030



ri.eneva.com.br/

eneva day
— 2023 —

Regulatory Agenda

Lucas Ribeiro

March 8, 2023



Capacity Reserve Auction in the form of Power

As of MME Ordinance No. 57, of 12/21/2022, the Capacity Reserve Auction is already included in the official planning of the Brazilian government for 2023. Annual auctions are scheduled for the 2023-2025 period



GOVERNMENT INDICATES THE NEED TO HIRE ADDITIONAL POWER

There is a need to contract additional power in the National Interconnected System (entry in 2027-2028), according to EPE's Decennial Expansion Plan (PDE), in order to avoid a power deficit from 2027 onwards

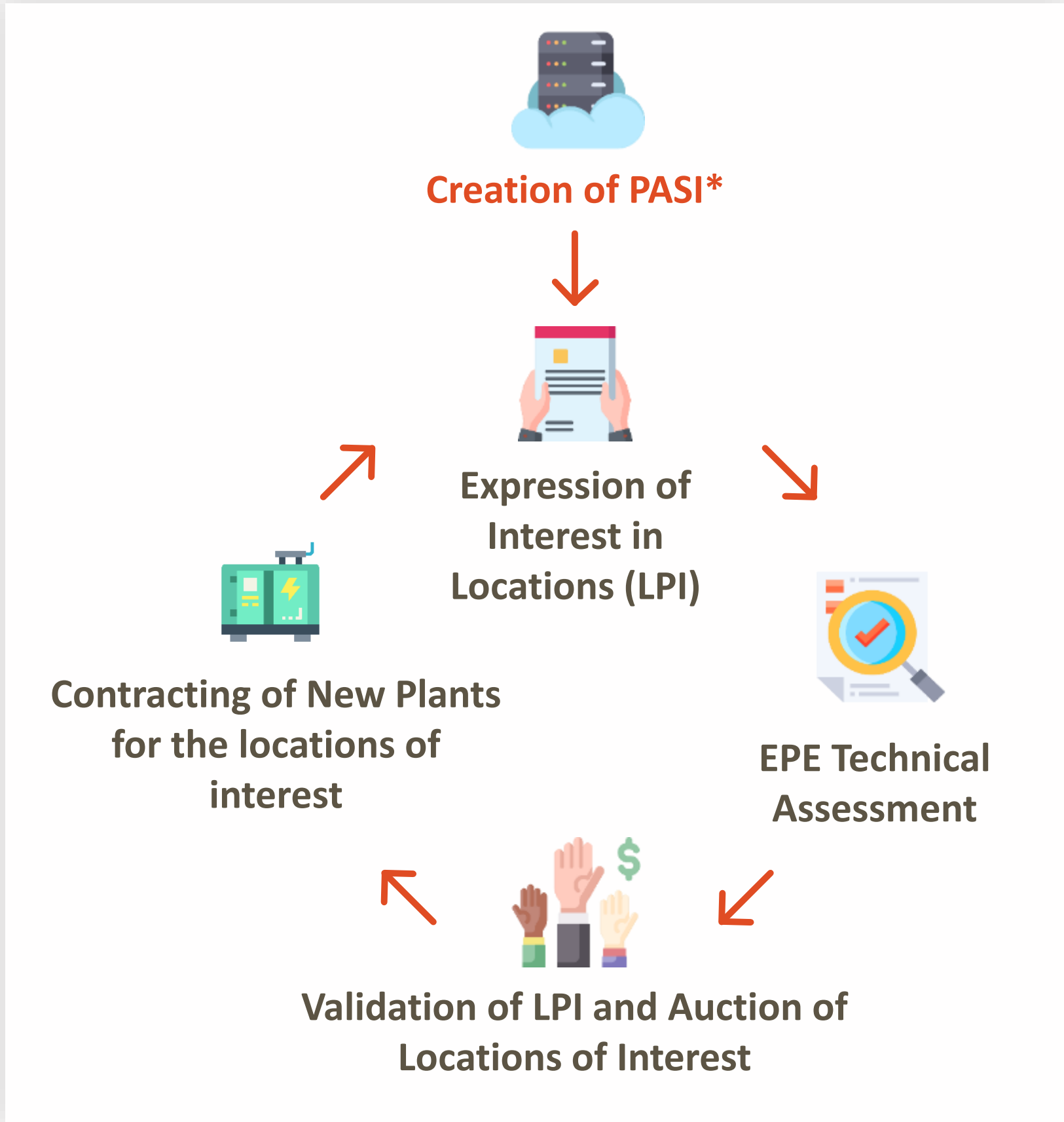
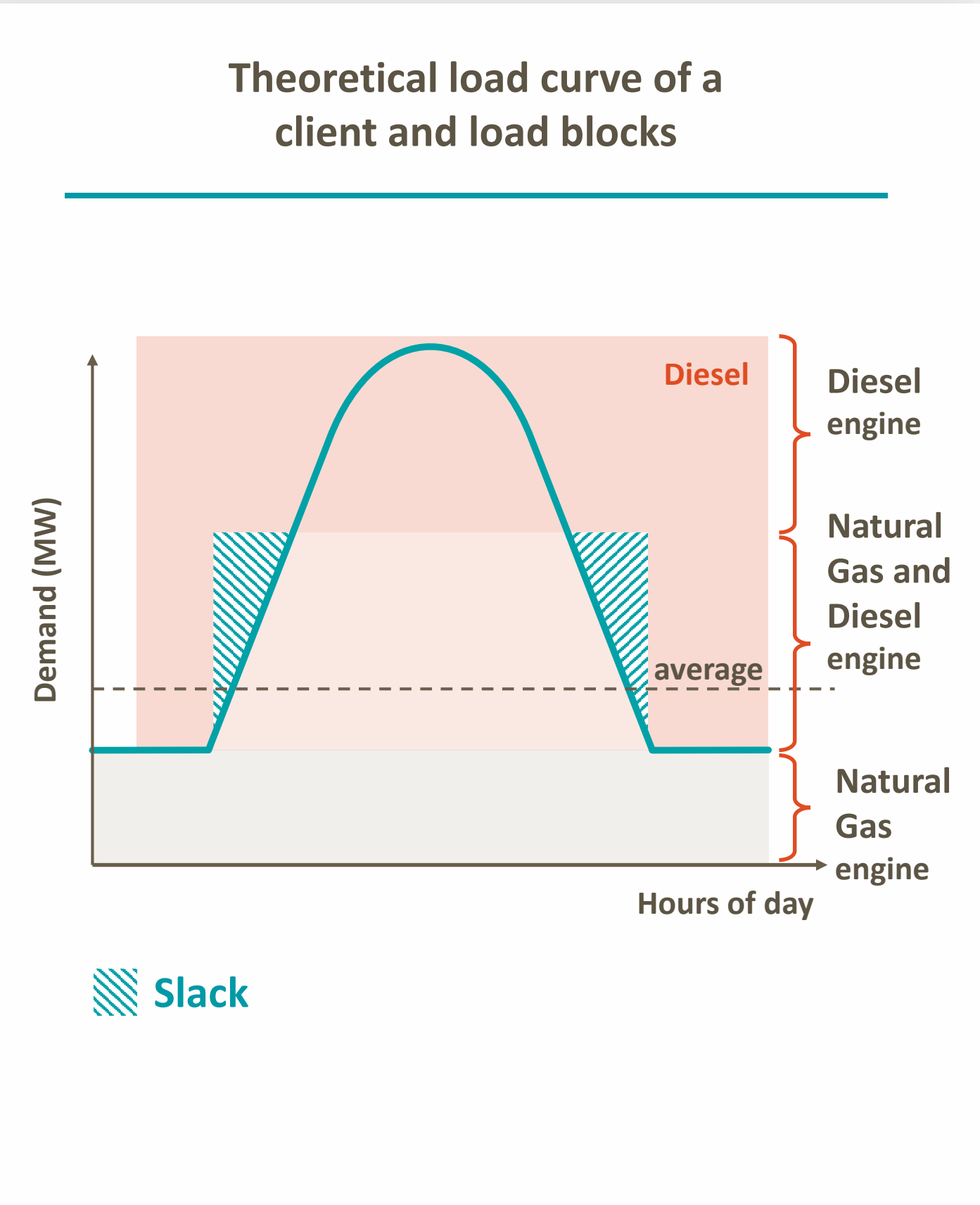


THERMAL PLANTS IN “TECHNOLOGICAL NEUTRALITY”

Thermal plants have a natural attribute of power availability that is intended to be contracted, even in the context of discussion about the inclusion of other energy sources

Isolated Systems Auction - Free Proposal of Interest

As of MME Ordinance No. 59, of 12/26/2022, there was an improvement in the contracting in Isolated Systems, after contributions from Eneva. There are forecasts for annual auctions for the 2023-2025 period.



FREE PROPOSAL OF INTEREST

Availability of all Isolated Systems for potential contracting in auctions

SECTOR EFFICIENCY

LPI brings perspective of efficiency in CCC subsidies for isolated locations

AUCTIONS REGULARITY

Auctions for Isolated Systems will continue, with opportunities for Eneva

*Monitoring and Information Portal for Isolated Systems

Ancillary Services and Opening of the Free Market

Currently on a sectoral agenda, (i) the creation of new products to provide/remunerate ancillary services for the plants and (ii) the opening of the free market

Ancillary Services Market - valuation of attributes

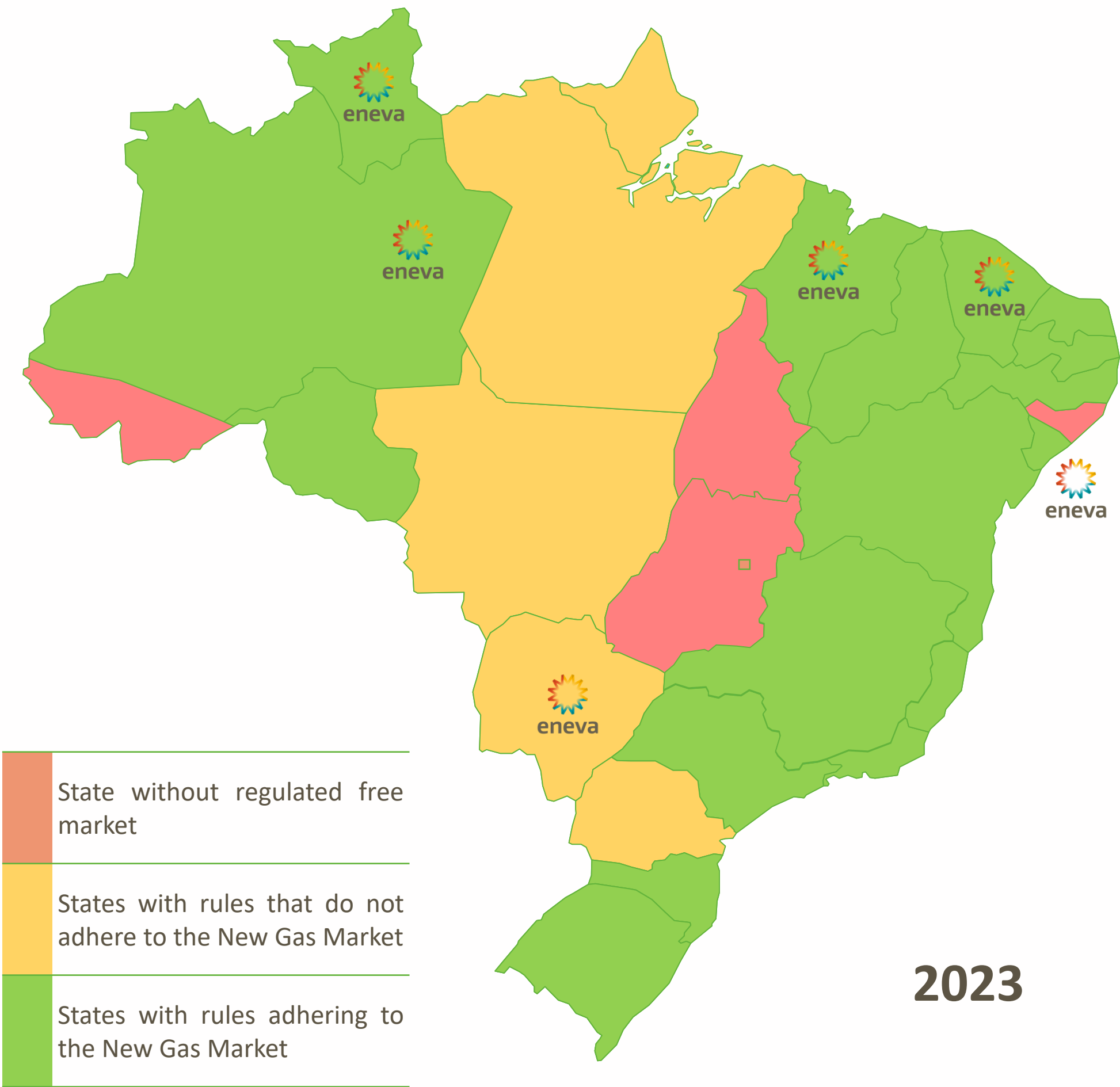
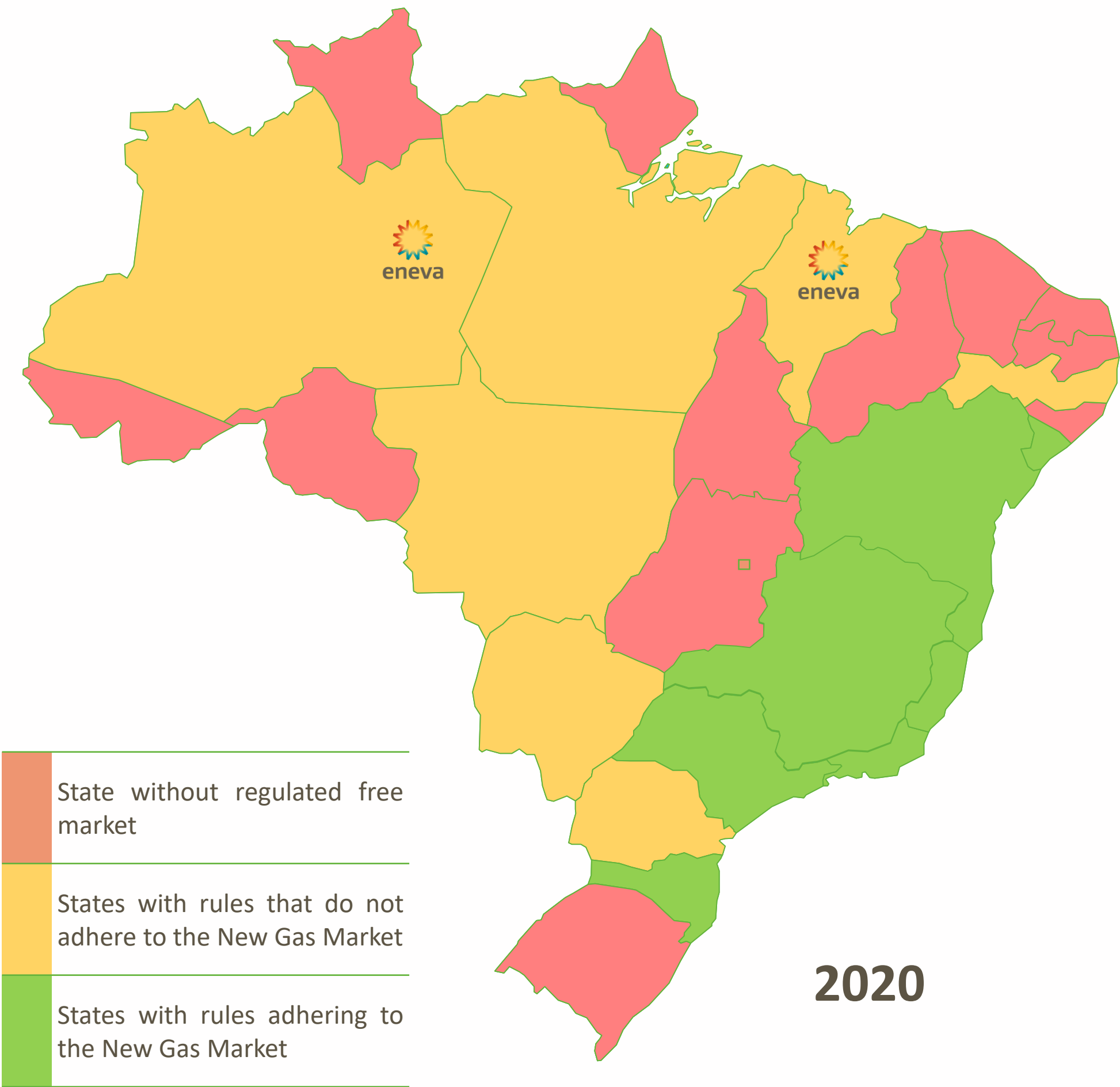
- Sectoral planning evaluates form of “hiring flexibility attributes”
- Examples of other ancillary services: frequency control, reactive support, self-healing, power reserve, standby reserve

Opening of the Free Market

- Expansion of the free market from Jan/2023 (0.5 MW and 1 MW)
- Opening of high voltage from Jan/2024
- Discussion on the opening of low voltage (Congress and MME)

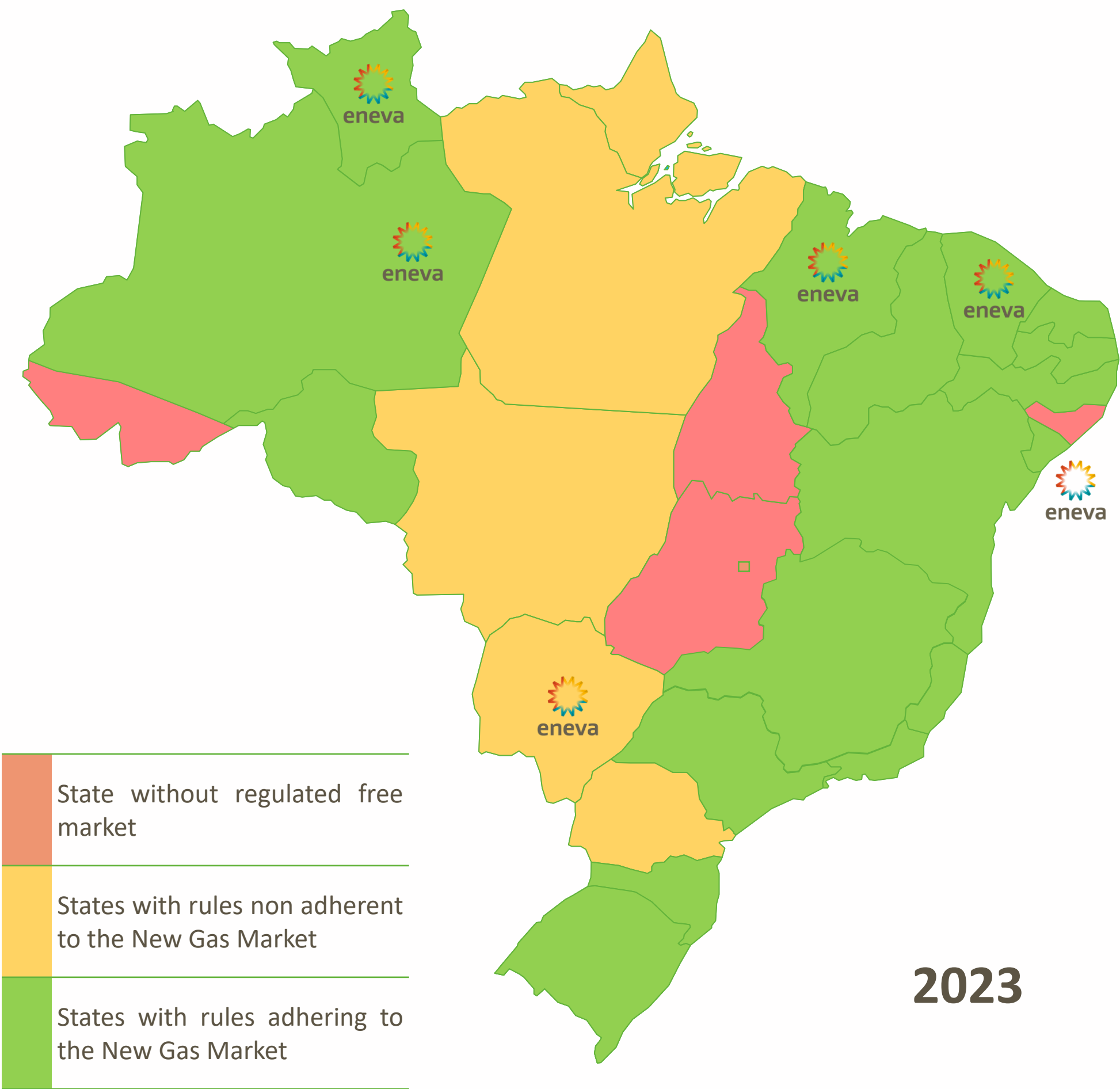
State Natural Gas Legislation

In the last 3 years, there has been a significant improvement in the state legislation where Eneva operates, improving the environment for new businesses



State Natural Gas Legislation

In the last 3 years, there has been a significant improvement in the state legislation where Eneva operates, improving the environment for new businesses



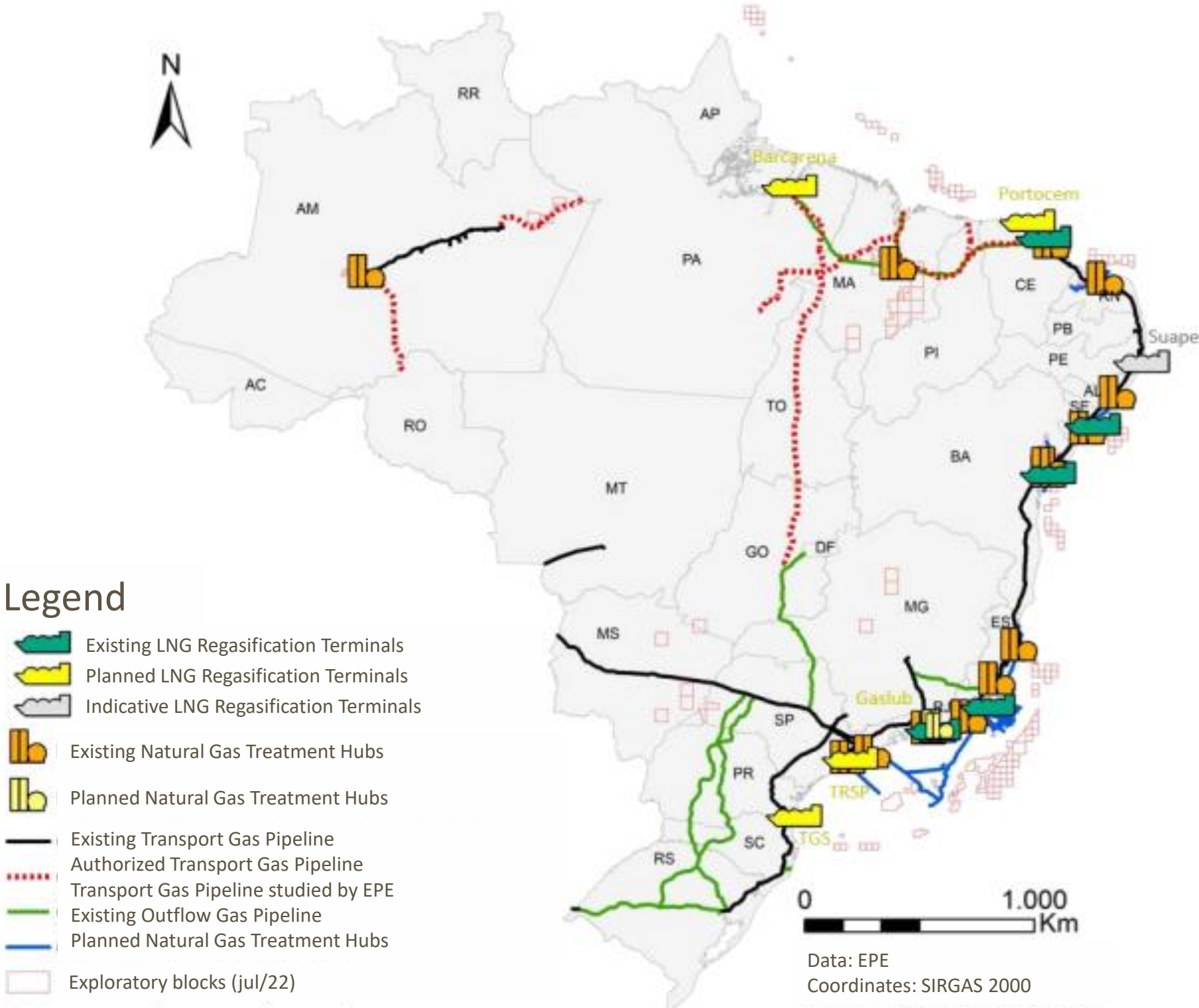
States where Eneva already has natural gas operations

UF	Act	Expected Approval and Publication (update: Dec/22)
AM	State Law No. 5.420/2021	Reduced the free consumer limit from 500,000 m³/d for 10,000 m³/d; removed the obligation of acquisition and sale of gas with the distributor for thermal power plants; redefinition of tariff methodology; withdrawal of LNG distribution from the distribution activity
MA	State Law No. 11.662/2022	Reduced the free consumer limit from 500,000 m³/d to 100,000 m³/d, which allowed Eneva to sign gas supply contracts with Suzano and Vale in 2022
RR	Deregulated market	Absence of gas distributor
SE	Technical Note AGRESE/CAMGAS No. 14/2018 and Conclusive Order	Waiver of fee (T-MOV) for Porto de Sergipe I TPP, as it is an integral pipeline of the LNG terminal
CE	State Law No. 17.897/2022	Established a free consumer limit at 10,000 m³/d, in line with the good practices of other states

Regulatory Agenda - Gas (Federal Sphere)

Federal Legislation - New Gas Market

After the new Federal Gas Law (Law No. 14,134/2021), the ANP has a very broad Regulatory Agenda 2023 to face the challenges of the opening of the market. There are opportunities for Eneva



Main topics included in the 2023/2024 ANP Regulatory Agenda	Expected Approval and Publication (update: Dec/22)
Regulate the interconnection and interoperability of transport gas pipelines	May/2023 - Nov/2023
Criteria to characterize expansion of transport gas pipelines	May/2023 – Jul/2023
Criteria for calculating tariffs and transport revenues	Jul/2023 – Jan/2024
Common Transport System Access Codes	Jul/2023 – Sep/2024
Provision of transport services by carriers; assignment of contracted capacity under firm modality; operational gas exchange; approval and registration of transport contracts; public call	Mar/2024 – Nov/2024
Non-discriminatory and negotiated third-party access to essential natural gas infrastructure	Apr/2023 – Dec/2023
Construction, expansion and operation of facilities – including LNG	Jan/2023 – Apr/2024
Hiring of transport simplification	Jan/2023 – Jul/2023



ri@eneva.com.br



tel: (21) 3721-3030



ri.eneva.com.br/

eneva day — 2023 —

Progress on ESG

Anita Baggio

March 8, 2023



eneva day / 2023

2030 JOURNEY

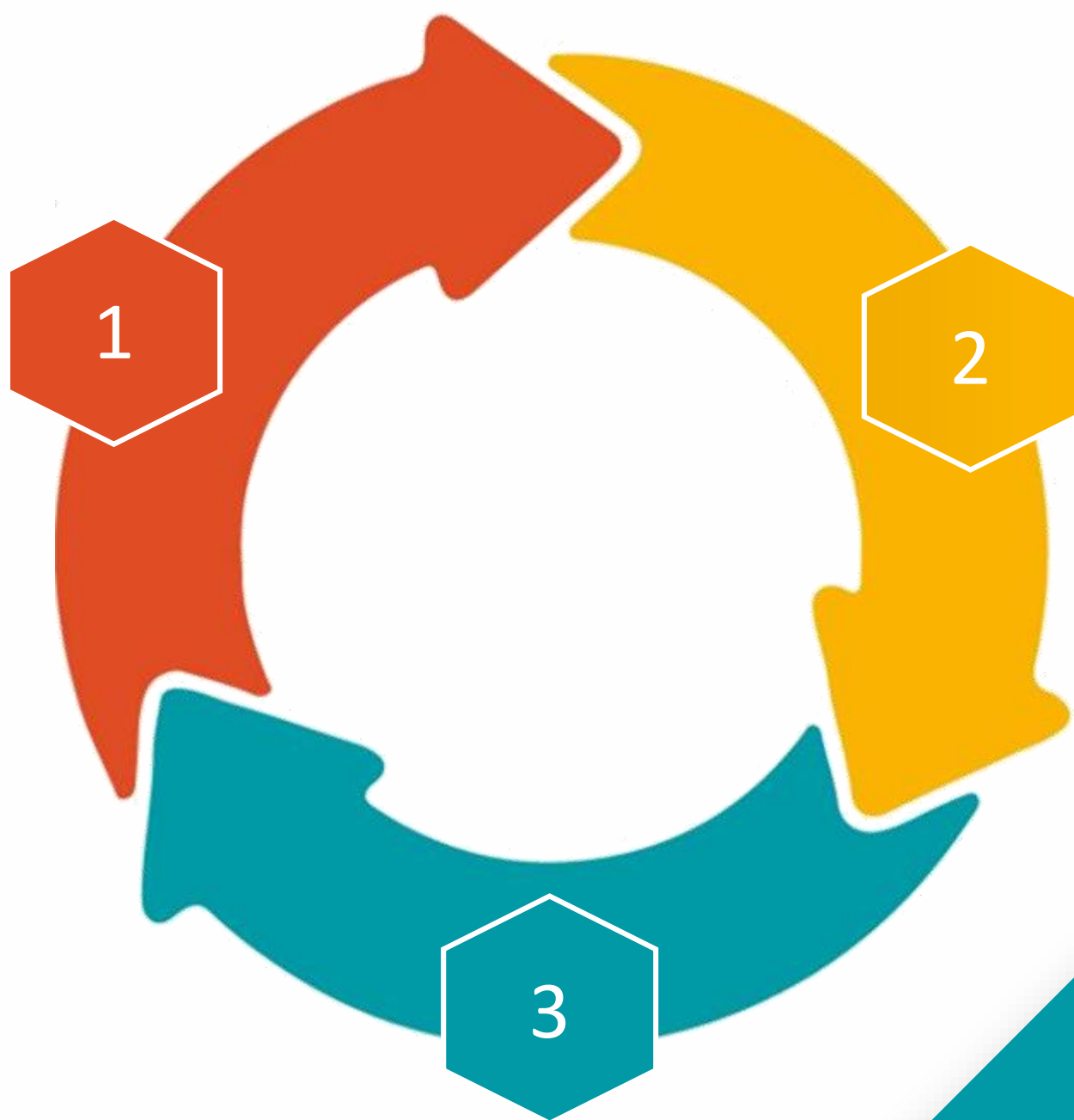
ESG AGENDA

*Leading a fair and inclusive transition
with energy that generates value*



ESG Commitment

3 interdependent components to build a positive social, economic and environmental legacy where we operate



2030 Journey

Progress on efficiency and emission reduction in 2022



2030 Commitments

- **Natural Gas**
Reduce emission intensity to **0.39 tCO₂e/MWh**
- **Coal**
Phase-out coal plants **by 2040** in line with the Powering Past Coal Alliance (PPCA) commitment
- **R\$ 500 Millions**
Investment in **low carbon technology**
- **E&P**
Offset scope 1 and 2 emissions in **E&P**
- **Ambition to achieve Net Zero 2050**
Natural Gas – scopes 1, 2 and 3
E&P – scopes 1 and 2



2022



Jaguatirica II

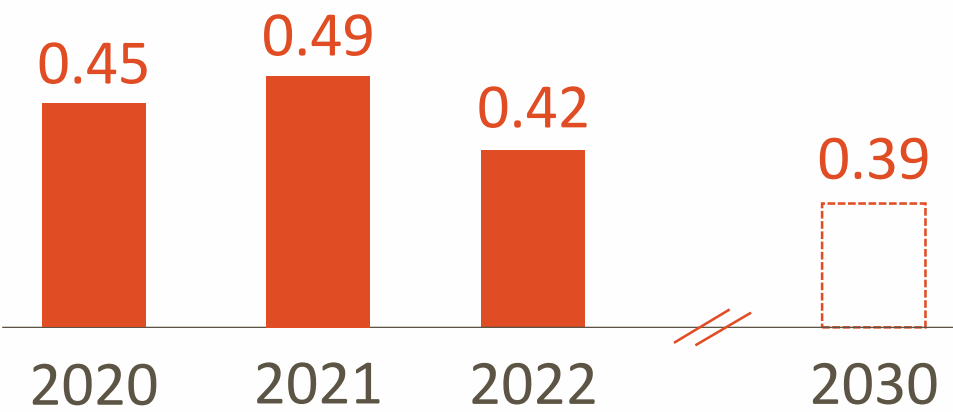
410,000 MWh of energy in 2022 replacing Diesel with Natural Gas in the Isolated System in Roraima
Equivalent to **155,000 tCO₂e** avoided in 2022



Parnaíba V

375,000 MWh of energy in 2022 without additional CO₂e emissions into the atmosphere
Equivalent to **115,000 tCO₂e** avoided in 2022

Emission intensity for natural gas power generation
tCO₂e/MWh



Current portfolio with investments in efficiency and new TPPs* lead to target of 0.39 by 2030 with forecasted dispatch



Futura 1 solar power plant

670 MW of capacity
Construction Completion
Start of testing phase

* TPP – Thermal Power Plant

2030 Journey

Progress on efficiency and emission reduction in 2022



2030 Commitments

- **Natural Gas**
Reduce emission intensity to **0.39 tCO₂e/MWh**
- **Coal**
Phase-out coal plants **by 2040** in line with the Powering Past Coal Alliance (PPCA) commitment
- **R\$ 500 Millions**
Investment in **low carbon technology**
- **E&P**
Offset scope 1 and 2 emissions in **E&P**
- **Ambition to achieve Net Zero 2050**
Natural Gas – scopes 1, 2 and 3
E&P – scopes 1 and 2

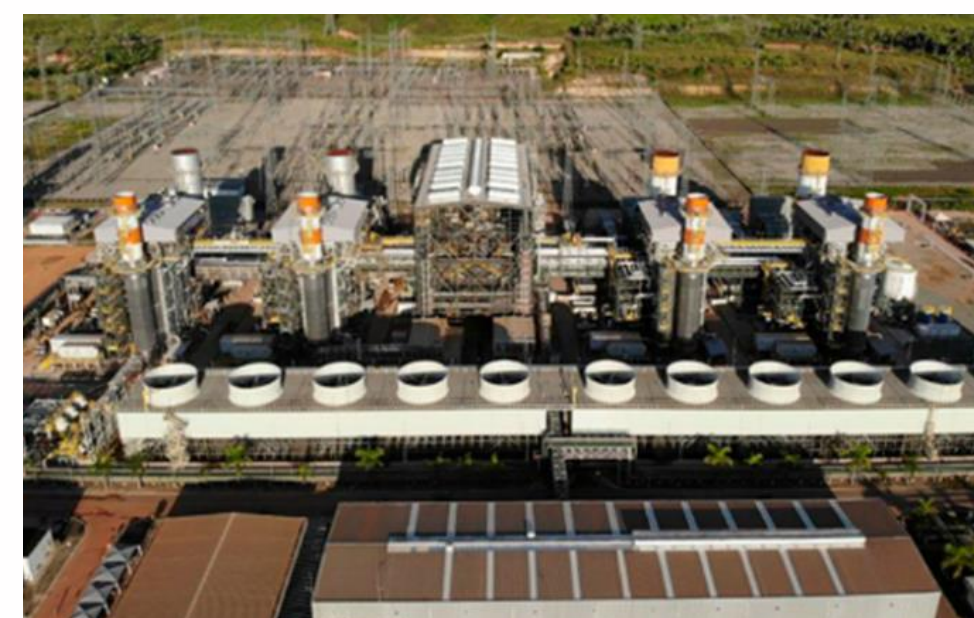


2022



Jaguatirica II

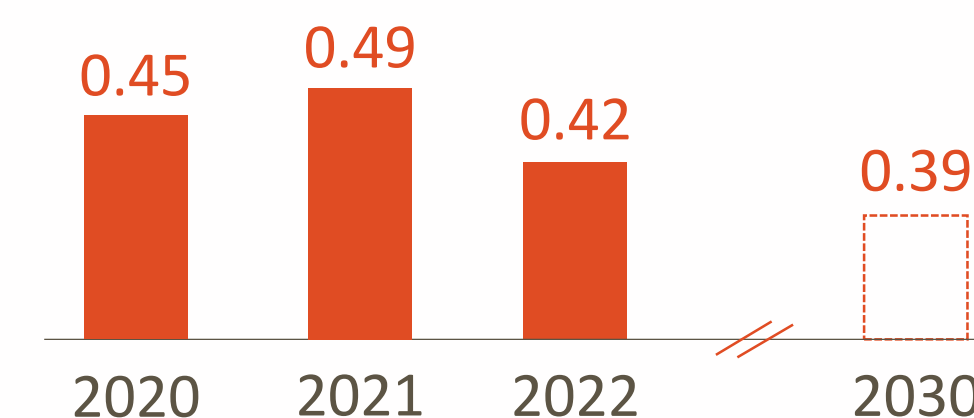
410,000 MWh of energy in 2022 replacing Diesel with Natural Gas in the Isolated System in Roraima
Equivalent to **155,000 tCO₂e** avoided in 2022



Parnaíba V

375,000 MWh of energy in 2022 without additional CO₂e emissions into the atmosphere
Equivalent to **115,000 tCO₂e** avoided in 2022

Emission intensity for natural gas power generation tCO₂e/MWh



Current portfolio with investments in efficiency and new TPPs lead to target of 0.39 by 2030 with forecasted dispatch



Futura 1 solar power plant

670 MW of capacity
Construction Completion
Start of testing phase

2023

- Start Parnaíba VI construction: **Closing cycle of Parnaíba III TPP** (30% emissions avoided)
- Being a pioneer in the energy transition by contributing to a **low-carbon economy** as we begin to execute Vale and Suzano contracts and prospect new contracts
- Execution of the **R\$ 500 millions investment plan in low carbon technologies**

* TPP – Thermal Power Plant

2030 Journey

Social impact generating value for the local community



2030 Commitments

Benefit **50,000 people directly and 100,000 indirectly** through social projects focused on income generation and education by 2030

3 pillars of action:

- 1 Social Responsibility
- 2 Local Workforce
- 3 Local Suppliers



2022



Social Responsibility



Community Forums
from 2 to 4 states (MA, RR, CE and AM)
211 participants

Social Progress Index (AM and MA)
96 government representatives



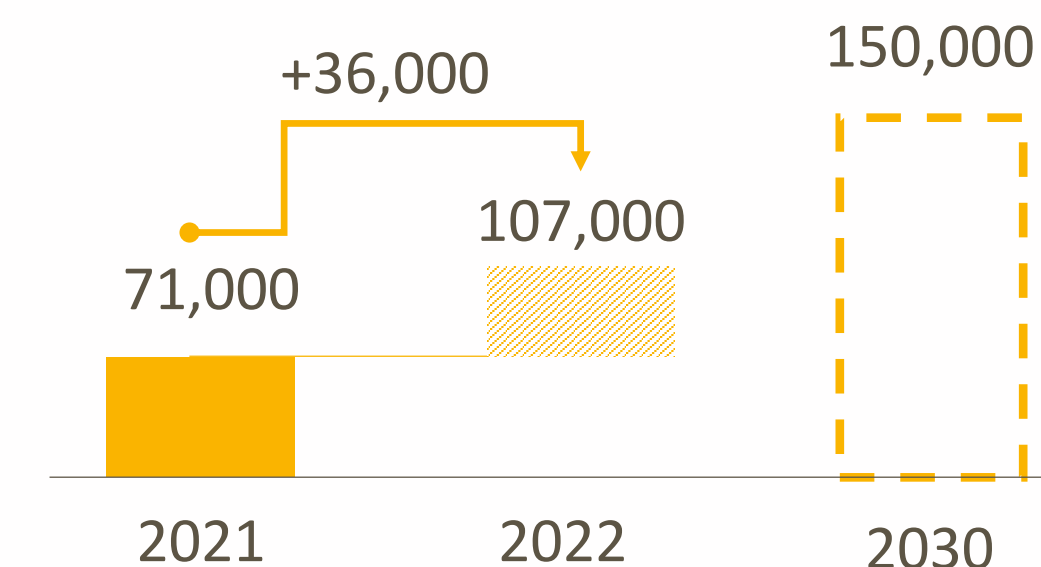
Elas Empreendedoras Project
from 3 to 4 states
210 vulnerable women involved in training projects aimed at income generation



Preschool Education (LabEdu)
State-wide impact through public policy by the Government of the State of Maranhão

+ 24,000	4,867	211
participants in the project	Preschool institutions	municipalities benefited

People from 05 to 68 years old directly and indirectly benefited (Accumulated)



2030 Journey

Social impact generating value for the local community



2030 Commitments

Benefit **50,000 people directly and 100,000 indirectly** through social projects focused on income generation and education by 2030

3 pillars of action:

- 1 Social Responsibility
- 2 Local Workforce
- 3 Local Suppliers



2022



Local workforce



Hiring of local workforce

Northeast

Pecém II 93%

Itaqui 98%

Parnaíba Complex 72%

North

Jaguatirica 75%

Azulão 58%



Total of 1,600 hours
of training for **38 people** in the Qualification Program for New Operators in Itaqui and Pecém and **13 local technical interns** in Parnaíba



Local suppliers



R\$ 678 millions, 3x vs 2021

Contracted in **products and services from local companies:** Amazonas, Ceará, Maranhão and Roraima



2nd consecutive year
as **President** of the Maranhão Supplier Development Program



COP 27 participation – presentation of the Santo Antonio dos Lopes case*

12x increase in GDP

50% increase of companies in the municipality

Evolution **from 2.7X to 4X minimum wage**

* Source: IBGE

2030 Journey

Social impact generating value for the local community



2030 Commitments

Benefit **50,000 people directly and 100,000 indirectly** through social projects focused on income generation and education by 2030

3 pillars of action:

- 1 Social Responsibility
- 2 Local Workforce
- 3 Local Suppliers



2023



Local workforce

New partnerships

with Technical Schools in Maranhão and **creation of a Technical School for local labor in the Amazon State**



Local suppliers

Sustainable Procurement

Launch of the sustainable procurement guideline to **strengthen the value chain**



Social responsibility

Continuity in scale and impact in the municipalities where we operate

Engaging local communities and public entities and carrying out **social projects for training and income generation**

Social Progress Index (IPS, acronym in Portuguese)

Implement and train public management and local leaders on the IPS tool and creation of a territorial plan for Azulão

2nd phase of the Education Program

with Laboratório de Educação for **preschool education** + 1st phase of Ensina Brasil focused on **secondary education**

2030 Journey

We increased our Legal Reserves and started conservation partnerships



2030 Commitments

Contribute to consolidate 500,000 hectares of protected areas in the Legal Amazon

5 lines of action

- 1 Incentive to Bioeconomy and Agroforestry;
- 2 Support for Conservation Units;
- 3 Restoration of degraded areas;
- 4 Territorial monitoring;
- 5 Actions in line with the carbon market



Floresta Viva Program

Matchfunding with BNDES with R\$10 millions for restoration project of 450 hectar in Amazonas



Sustainable Education Project

133 vegetable gardens implemented in public schools (AM, MA, RR and CE) 24 tons of organic production



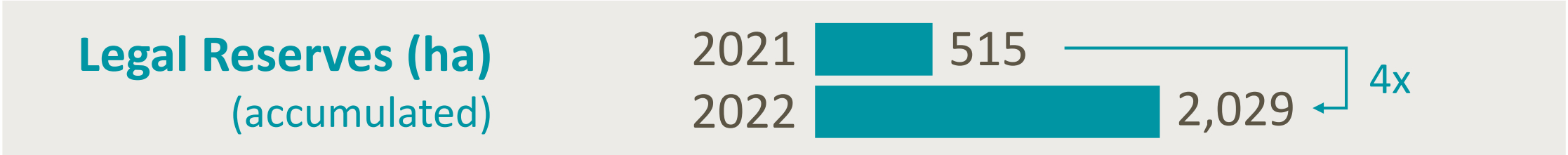
Launch of the 1st agroforestry nursery

In Maranhão with capacity for 20,000 seedlings



Reflorestar Program

Start of consolidation of 60 hectares of reforestation activities in MA



2022

2030 Journey

We increased our Legal Reserves and started conservation partnerships



2030 Commitments

Contribute to consolidate 500,000 hectares of protected areas in the Legal Amazon

5 lines of action

- 1 Incentive to Bioeconomy and Agroforestry;
- 2 Support for Conservation Units;
- 3 Restoration of degraded areas;
- 4 Territorial monitoring;
- 5 Actions in line with the carbon market



Floresta Viva Program

Matchfunding with BNDES with R\$10 millions for restoration project of 450 hectar in Amazonas



Launch of the 1st agroforestry nursery

In Maranhão with capacity for 20,000 seedlings



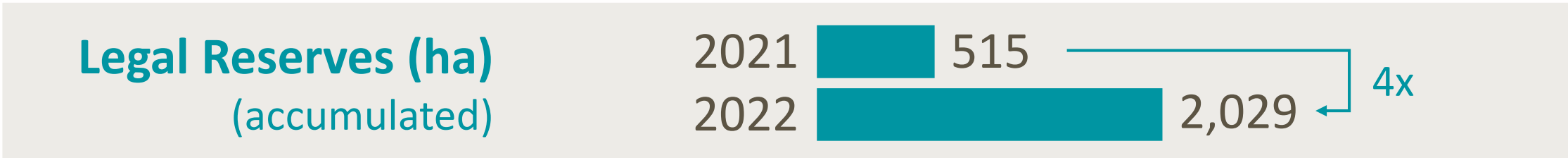
Sustainable Education Project

133 vegetable gardens implemented in public schools (AM, MA, RR and CE) 24 tons of organic production



Reflorestar Program

Start of consolidation of 60 hectares of reforestation activities in MA



- Satellite monitoring of Eneva’s Legal Reserves
- Launch of Floresta Viva’s public notice with BNDES and FUNBIO in Amazonas State
- Progress with the Agroforestry Project with 450 families in Amazonas
- Implement partnership with a Conservation Unit

Commitment to transparency results in improvements in sustainability indexes

Rating and Agency	Measurement	Eneva Dec 2021	Eneva Dec 2022	Industry Average
	0-100	NA	75.62	79.82
	0-100	13	52	50
	D-A	C	B	*81/283
	F-A	C	B	B
	F-A	B	B	B
	CCC-AAA	BB	BB	A
	Bronze-Gold	Gold	Gold	Gold

**40th position**
Of 83 eligible companies, in the 1st year of participation

1st year of participation
With a grade above the industry average

3 positions improvement

2 positions improvement

* Position among Electric Utilities companies



ri@eneva.com.br



tel: (21) 3721-3030



ri.eneva.com.br/

eneva day
— 2023 —

Low Carbon Technologies

Flavia Heller, Frederico Miranda, Rafael Coitinho

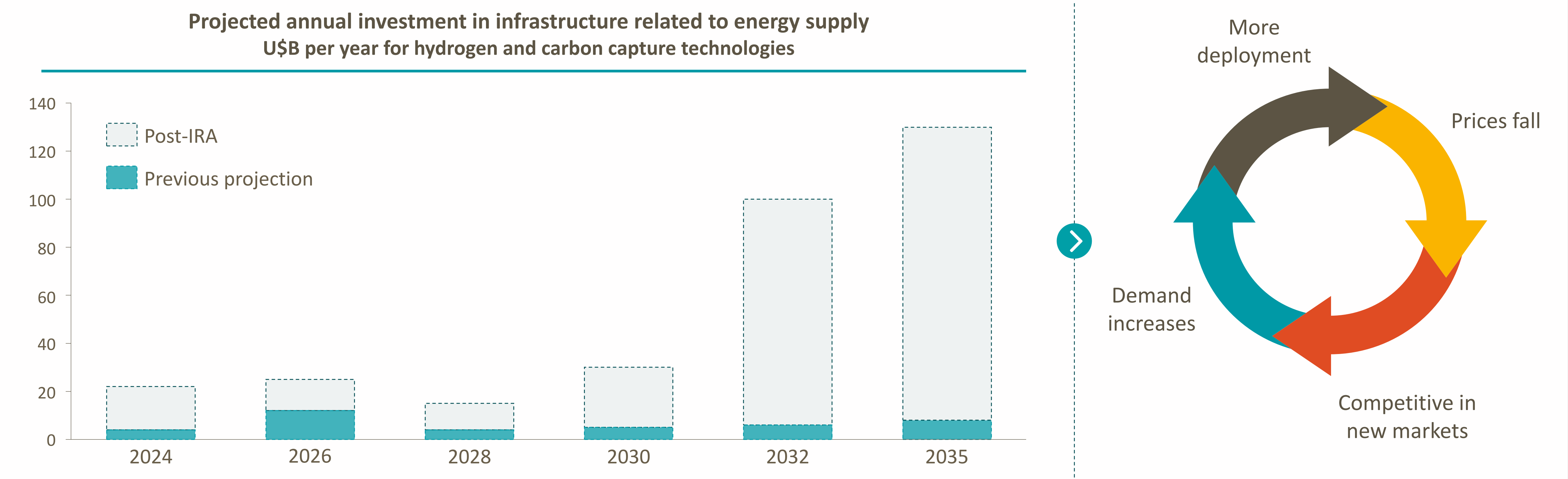
March 8, 2023



Low carbon technologies

Adoption of low-carbon technologies is expected to advance significantly over the course of this decade

Inflation Reduction Act (USA - 2022), will enable the allocation of hundreds of billions to clean energy and climate change mitigation initiatives



IRA could generate > US\$ 30 billion/year in investments in hydrogen-related technologies and CO2 management by 2030 and > US\$ 90 billion by 2035

Source: REPEAT Project:
https://repeatproject.org/docs/REPEAT_IRA_Preliminary_Report_2022-08-12.pdf

Low carbon technologies

These technologies are critical for the decarbonization of Eneva's operations and could enable new business models

ADAPTATION OF CURRENT ASSETS

Reduce current emissions through new technologies



APPLICATION IN NEW ASSETS

Build new plants already considering low carbon technologies



NEW VALUE CHAINS

Seize business opportunities to help enabling energy transition



Low carbon technologies

Plan's goal is to leverage these technologies to, at first, decarbonize current operations...

New technology implementation

First wave

Decarbonization of current operations



CO2 capture and storage

- ✓ Adaptation of plants to reduce or stop emissions
- ✓ Storage using Eneva's reservoirs or other structures



Hydrogen production and power generation

- ✓ Turbine adaptation and infrastructure development for hydrogen to support large-scale power generation

Second wave

New business models



CCS Hubs

- ✓ CO2 capture and storage services for third parties
- ✓ Commercialization of pure CO2 for industrial customers
- ✓ Storage of Eneva's own CO2 emission



Green Hydrogen Hubs

- ✓ Hydrogen production and transportation
- ✓ Commercialization of green hydrogen for industrial customers

Low carbon technologies

... and, secondly, to develop new business models

New technology implementation

First wave

Decarbonization of current operations



CO2 capture and storage

- ✓ Adaptation of plants to reduce or stop emissions
- ✓ Storage using Eneva's reservoirs or other structures



Hydrogen production and power generation

- ✓ Turbine adaptation and infrastructure development for hydrogen to support large-scale power generation

Second wave

New business models



CCS Hubs

- ✓ CO2 capture and storage services for third parties
- ✓ Commercialization of pure CO2 for industrial customers
- ✓ Storage of Eneva's own CO2 emission



Green Hydrogen Hubs

- ✓ Hydrogen production and transportation
- ✓ Commercialization of green hydrogen for industrial customers

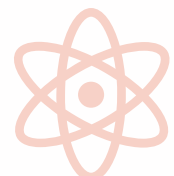
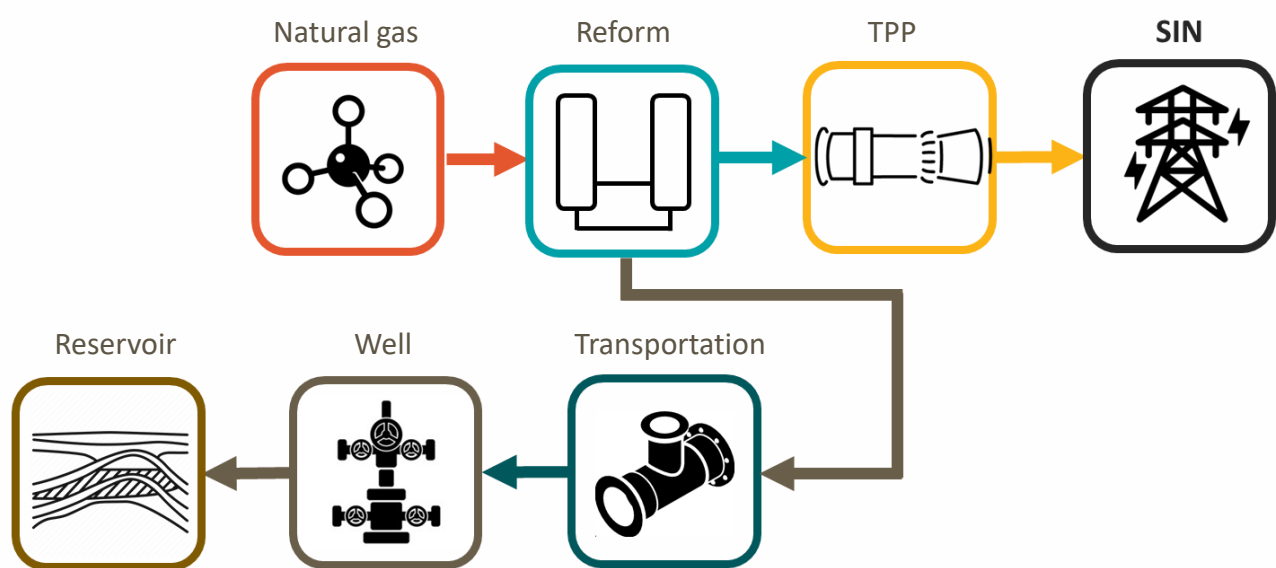
Low carbon technologies

There are three main ways to reduce emissions in power generation – which can also open up new value chains for Eneva



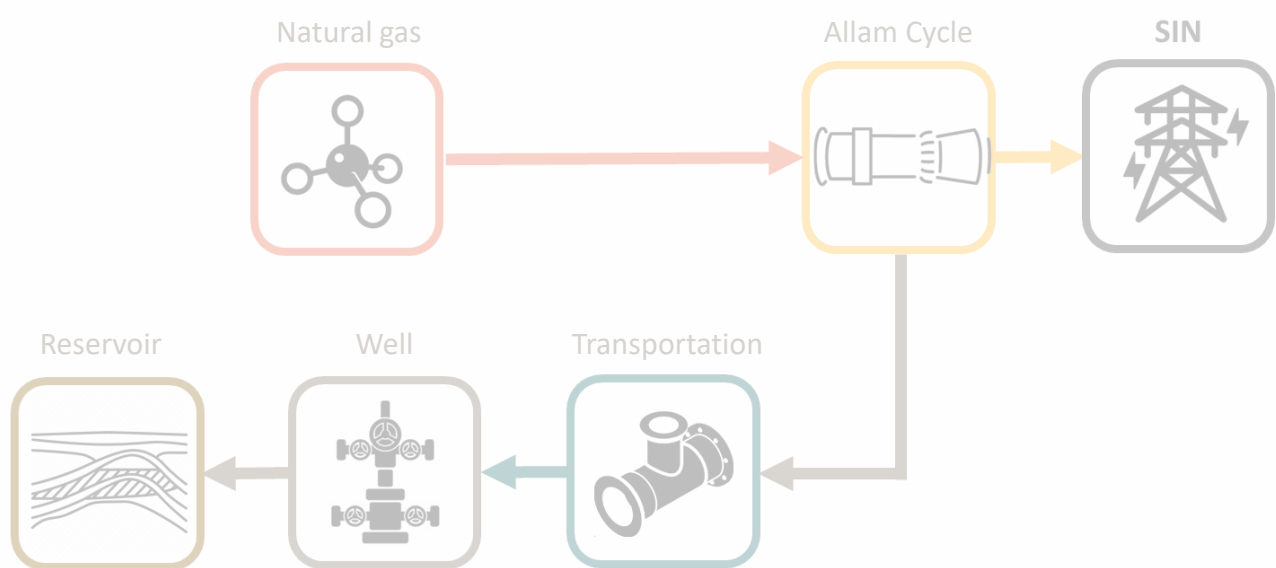
Pre-combustion

Use of carbon-neutral fuels such as hydrogen



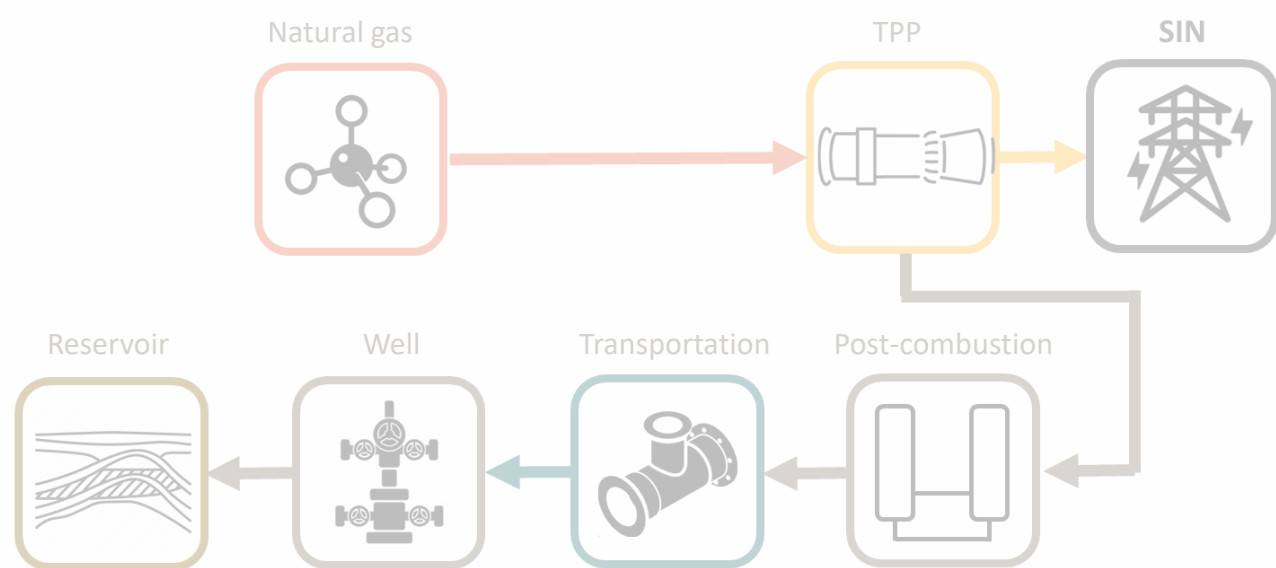
Oxi-combustion

Exhaust gas composed of steam and CO2, which can be easily separated for CO2 capture



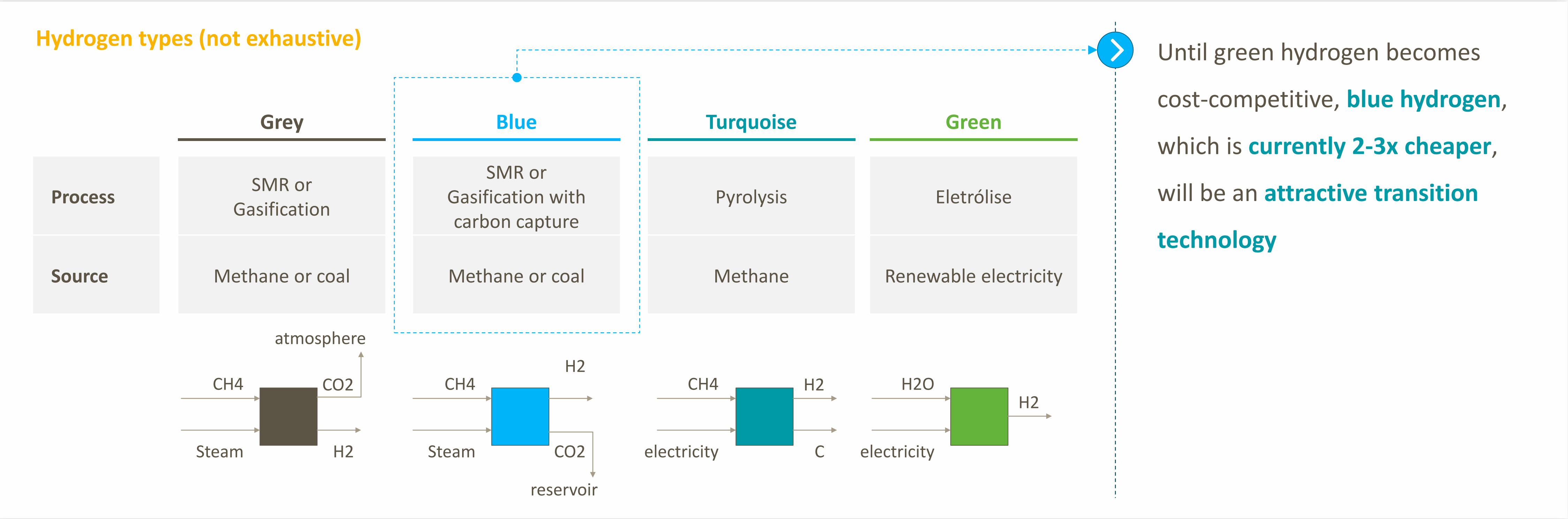
Post-combustion

CO2 separated from the exhaust gas, captured and stored



Low carbon technologies

Natural gas will play a key role in scaling hydrogen production in the short term and developing infrastructure and technologies along the value chain



Opportunity for Eneva – which has a competitive advantage not only due to its natural gas concessions, but also due to the availability and proximity of reservoirs to store CO2

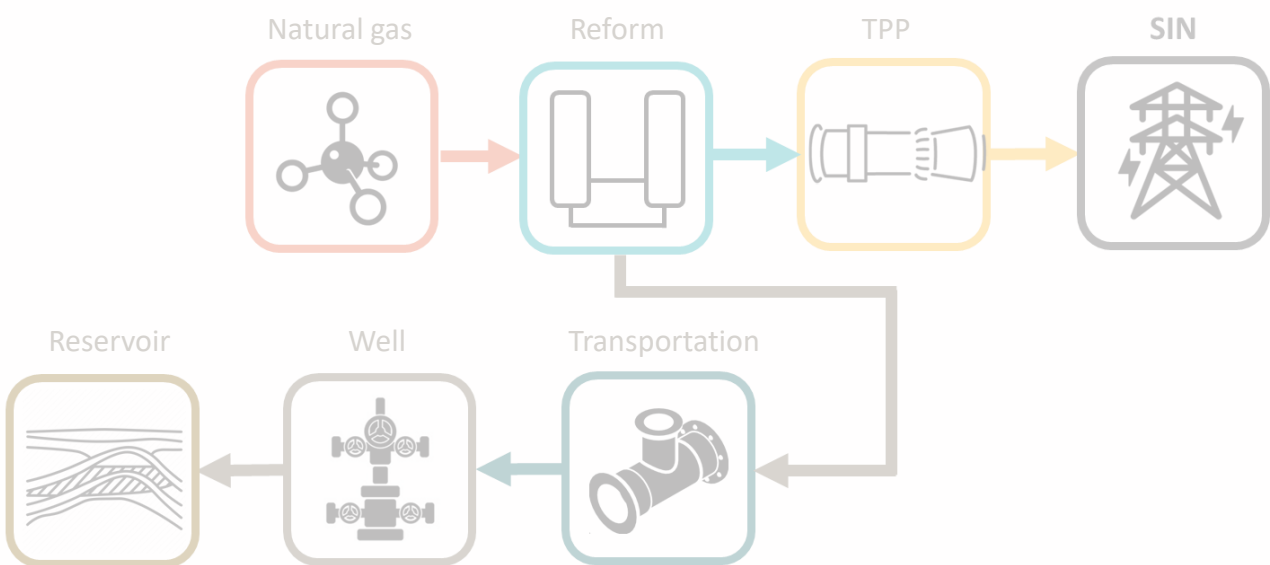
Low carbon technologies

There are three main ways to reduce emissions in power generation – which can also open up new value chains for Eneva



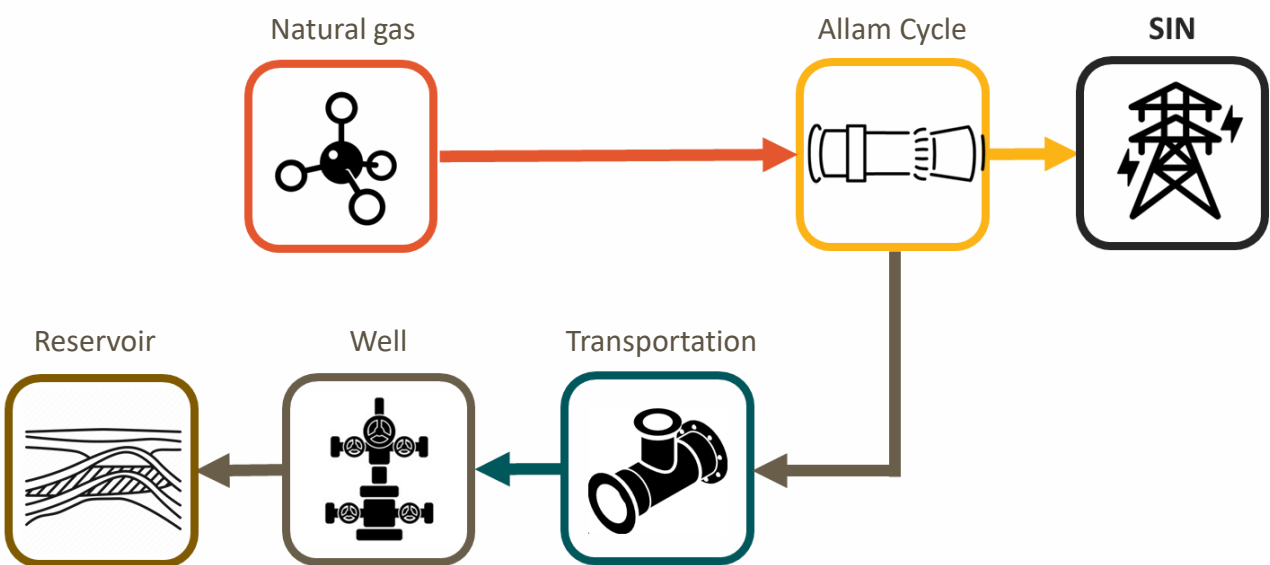
Pre-combustion

Use of carbon-neutral fuels such as hydrogen



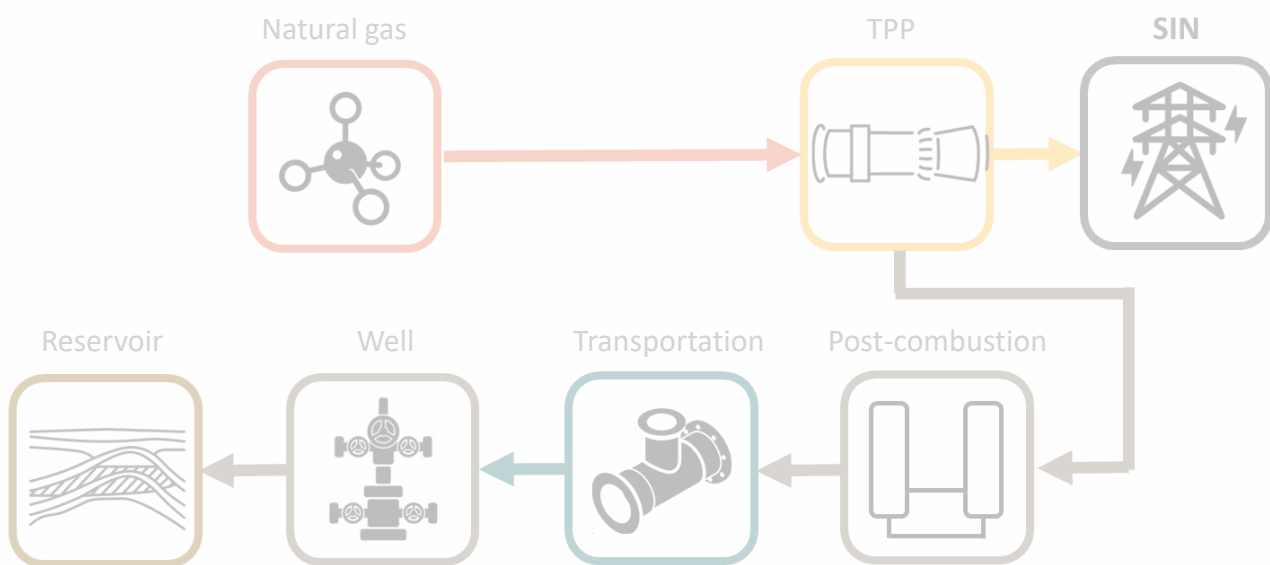
Oxi-combustion

Exhaust gas composed of steam and CO2, which can be easily separated for CO2 capture



Post-combustion

CO2 separated from the exhaust gas, captured and stored



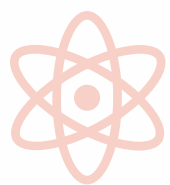
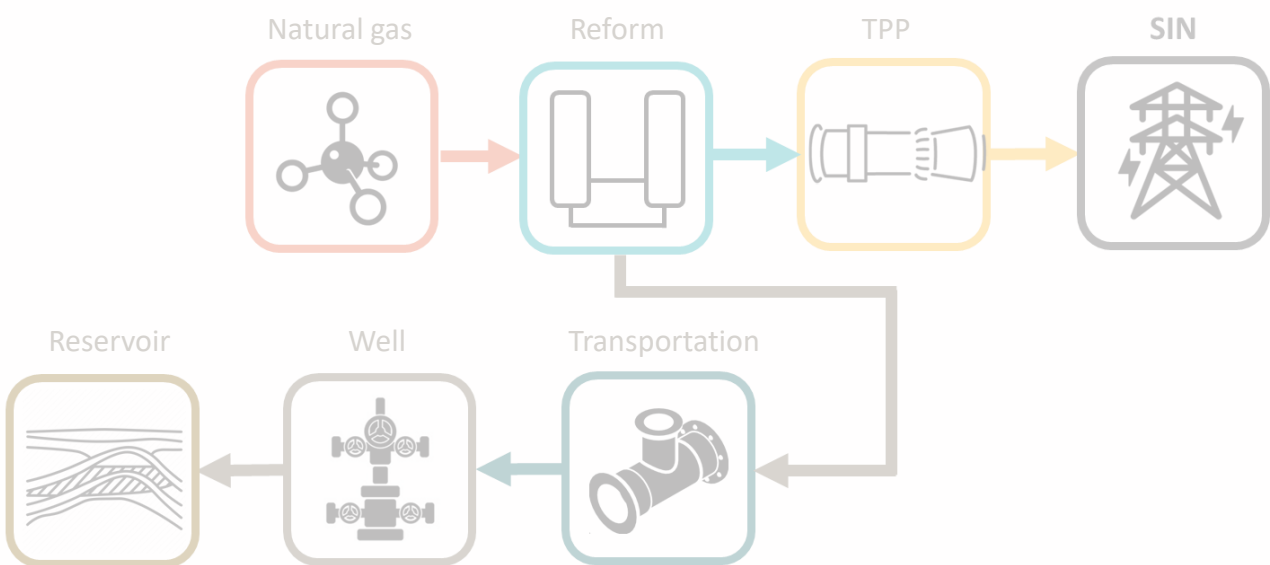
Low carbon technologies

There are three main ways to reduce emissions in power generation – which can also open up new value chains for Eneva



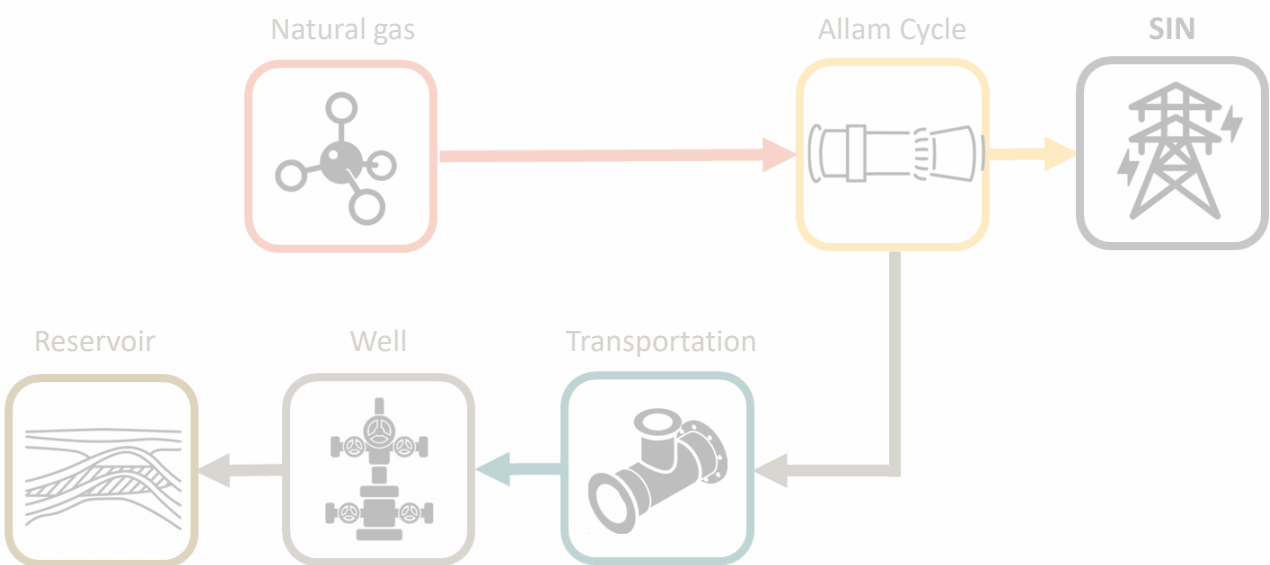
Pre-combustion

Use of carbon-neutral fuels such as hydrogen



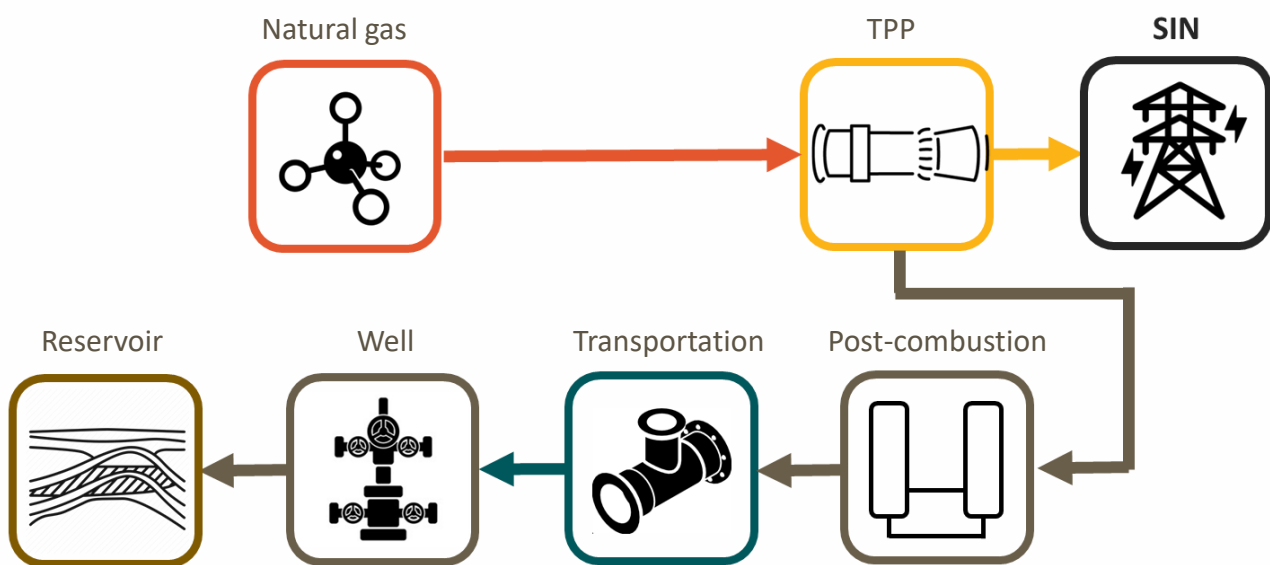
Oxi-combustion

Exhaust gas composed of steam and CO2, which can be easily separated for CO2 capture



Post-combustion

CO2 separated from the exhaust gas, captured and stored



Low carbon technologies

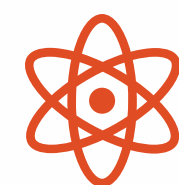
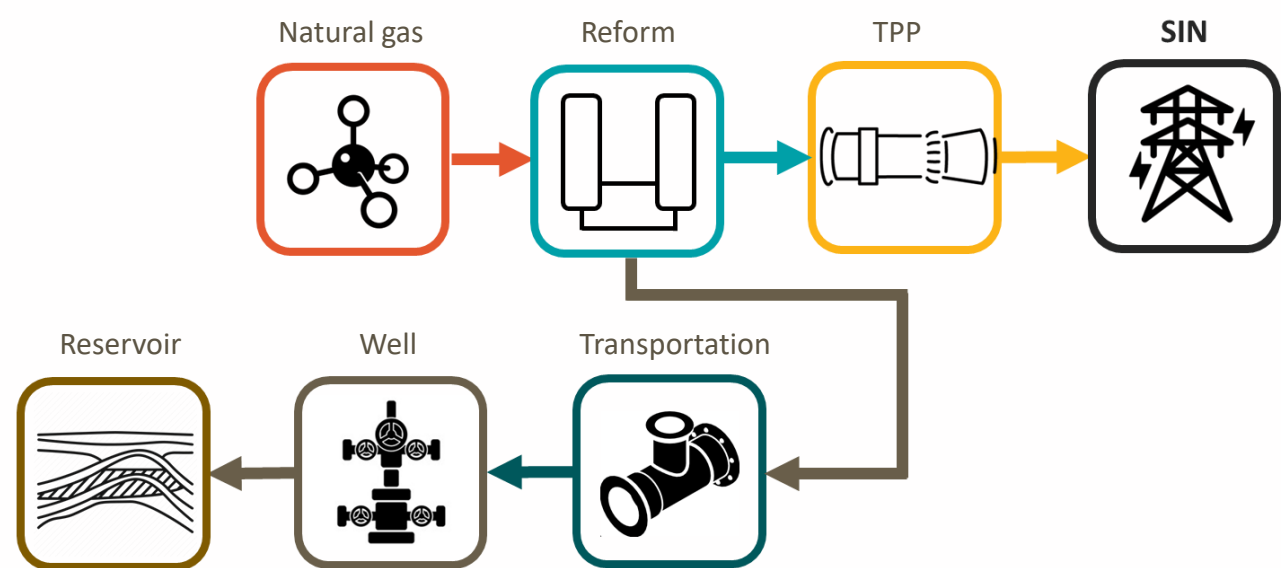
There are three main ways to reduce emissions in power generation – which can also open up new value chains for Eneva

Carbon capture and storage technologies



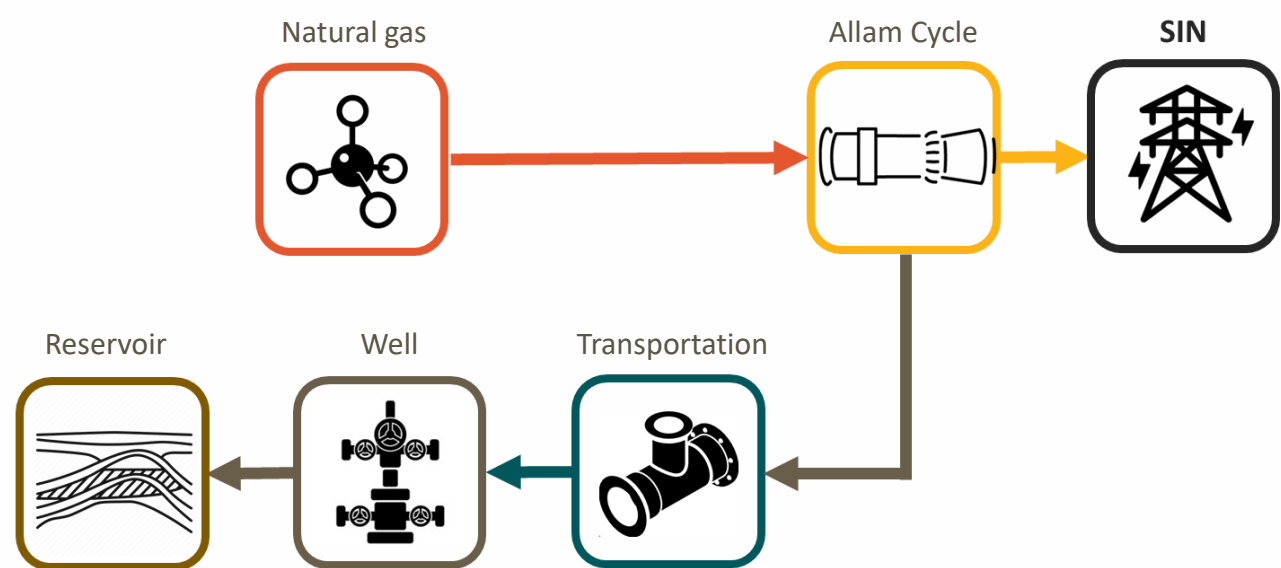
Pre-combustion

Use of carbon-neutral fuels such as hydrogen



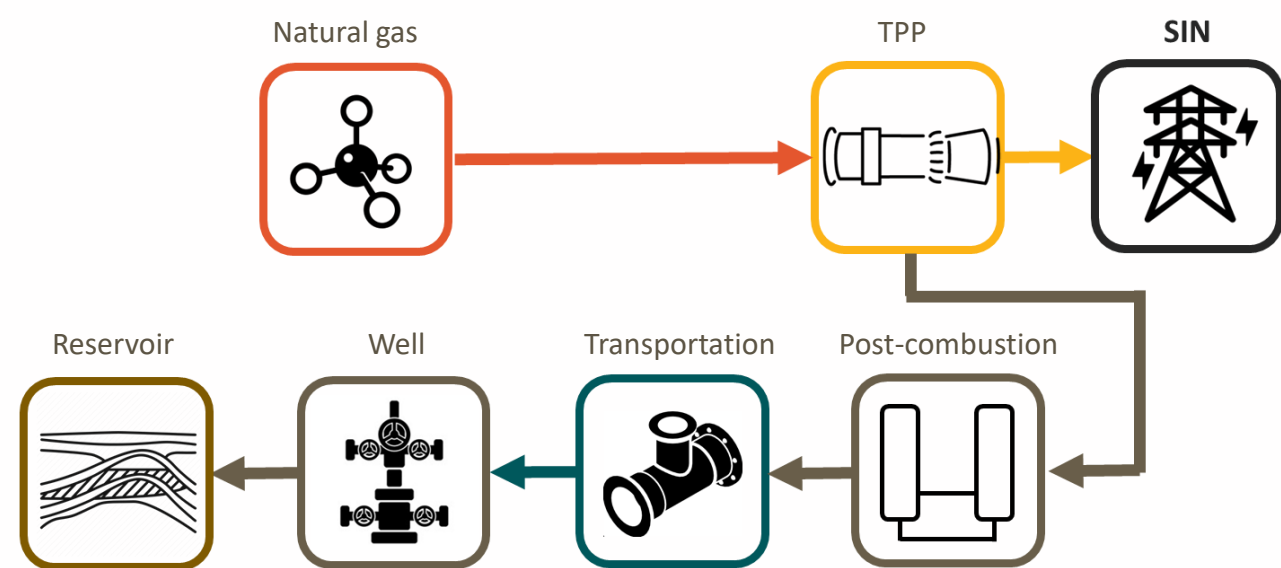
Oxi-combustion

Exhaust gas composed of steam and CO2, which can be easily separated for CO2 capture



Post-combustion

CO2 separated from the exhaust gas, captured and stored



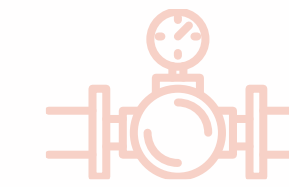
Low carbon technologies

Mix of competences and assets places Eneva in privileged position to play a leading role in the new energy market



CAPTURE

Technological options already established and others in rapid development



TRANSPORTATION

Know-how in pipelines, gas liquefaction and compression



STORAGE

Largest onshore operator, with extensive knowledge of Brazilian basins



MONITORING

Excellence in O&M – already proved in our operations – will be leveraged

+ Regulatory Framework, currently under discussion in Brazil

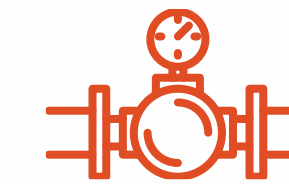
Low carbon technologies

Mix of competences and assets places Eneva in privileged position to play a leading role in the new energy market



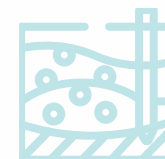
CAPTURE

Technological options already established and others in rapid development



TRANSPORTATION

Know-how in pipelines, gas liquefaction and compression



STORAGE

Largest onshore operator, with extensive knowledge of Brazilian basins



MONITORING

Excellence in O&M – already proved in our operations – will be leveraged

+ Regulatory Framework, currently under discussion in Brazil

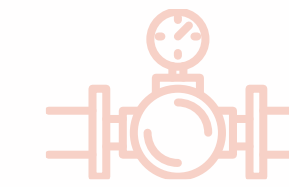
Low carbon technologies

Mix of competences and assets places Eneva in privileged position to play a leading role in the new energy market



CAPTURE

Technological options already established and others in rapid development



TRANSPORTATION

Know-how in pipelines, gas liquefaction and compression



STORAGE

Largest onshore operator, with extensive knowledge of Brazilian basins



MONITORING

Excellence in O&M – already proved in our operations – will be leveraged

+ Regulatory Framework, currently under discussion in Brazil

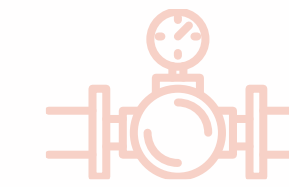
Low carbon technologies

Mix of competences and assets places Eneva in privileged position to play a leading role in the new energy market



CAPTURE

Technological options already established and others in rapid development



TRANSPORTATION

Know-how in pipelines, gas liquefaction and compression



STORAGE

Largest onshore operator, with extensive knowledge of Brazilian basins



MONITORING

Excellence in O&M – already proved in our operations – will be leveraged

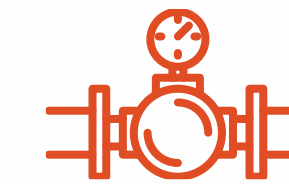
+ Regulatory Framework, currently under discussion in Brazil

Mix of competences and assets places Eneva in privileged position to play a leading role in the new energy market



CAPTURE

Technological options already established and others in rapid development



TRANSPORTATION

Know-how in pipelines, gas liquefaction and compression



STORAGE

Largest onshore operator, with extensive knowledge of Brazilian basins



MONITORING

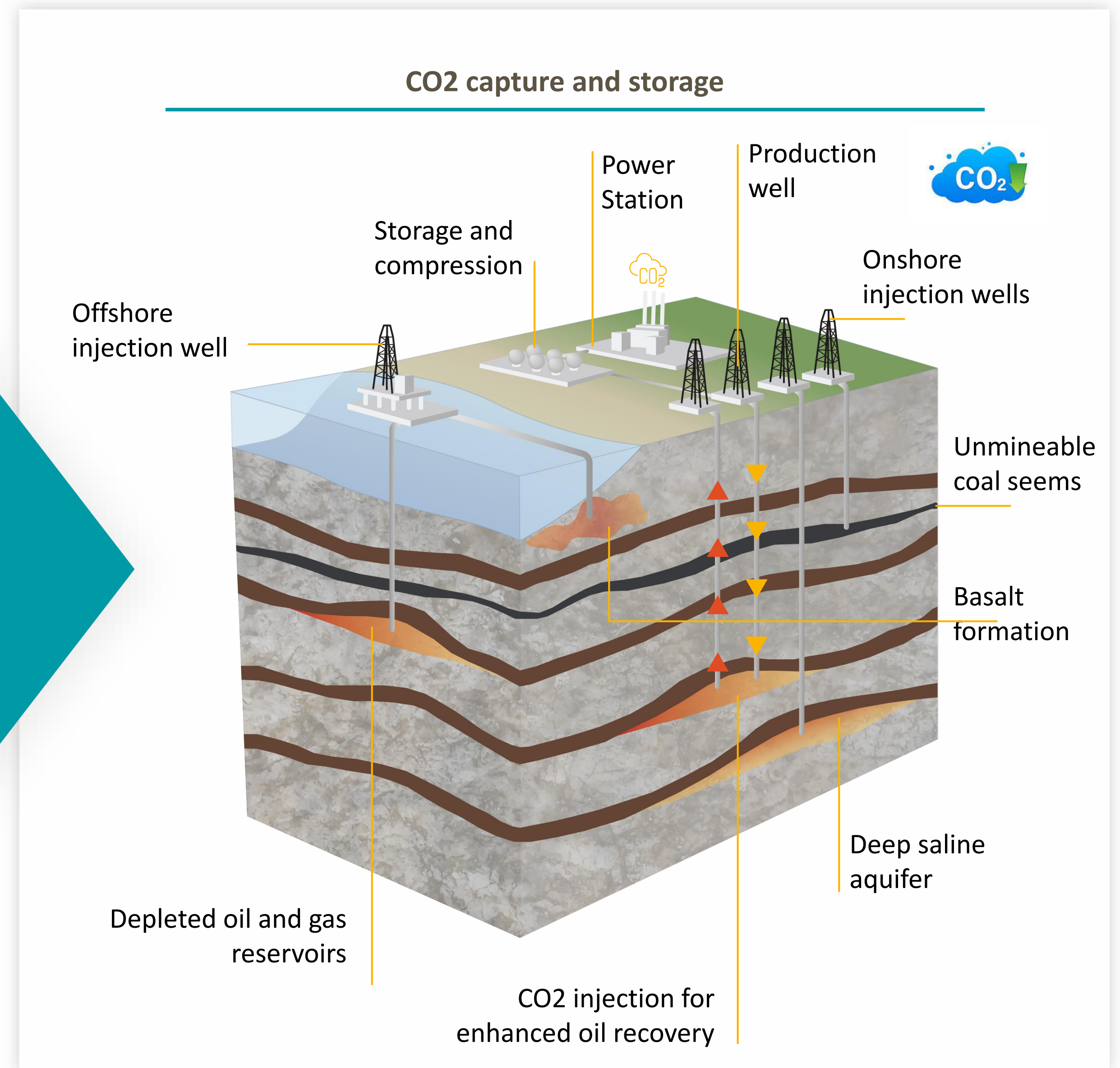
Excellence in O&M – already proved in our operations – will be leveraged

+ Regulatory Framework, currently under discussion in Brazil

Low carbon technologies

CO₂ can be stored in subsurfaces, depleted reservoirs, saline aquifers and other formations

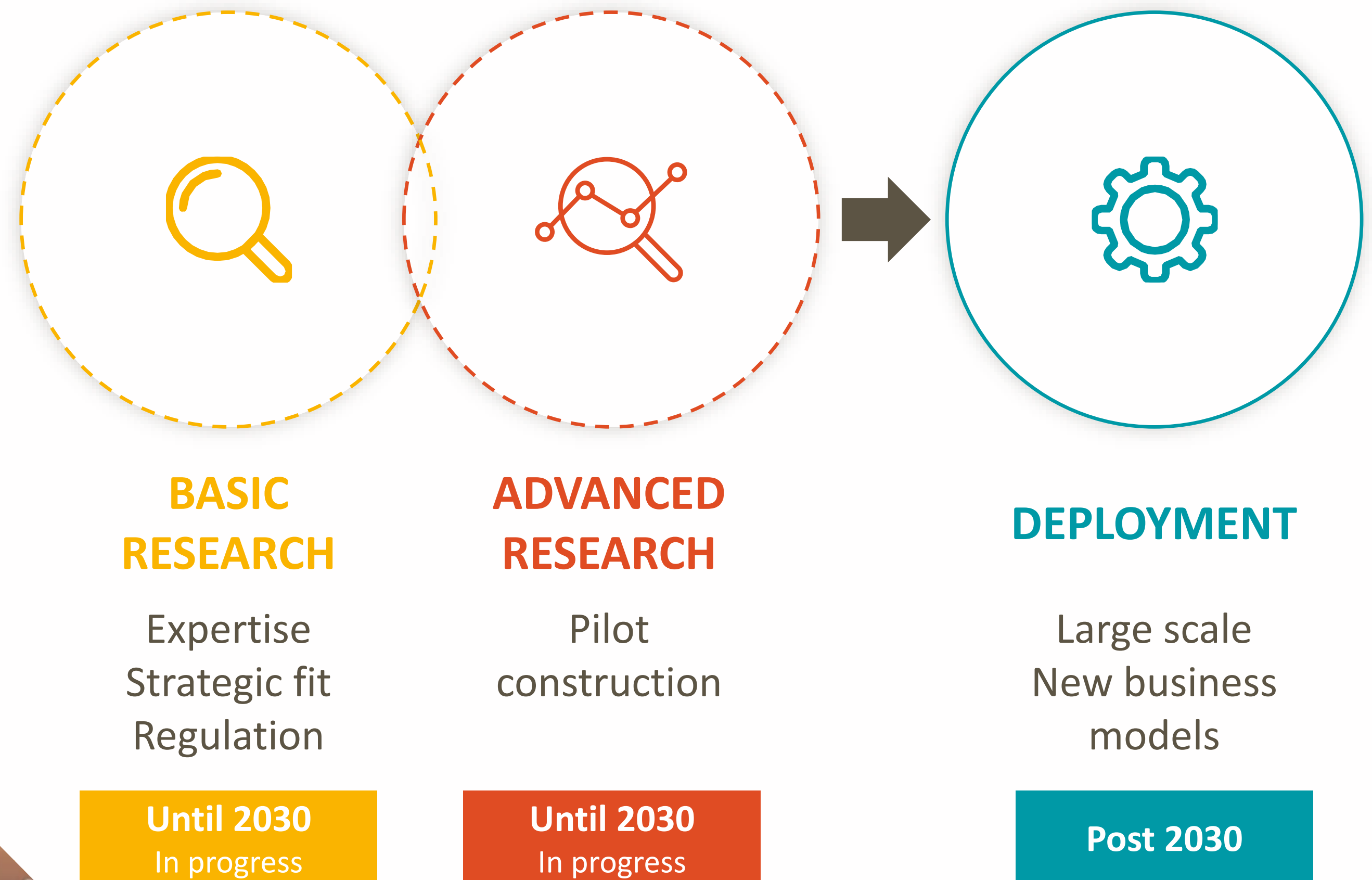
O&G industry already uses the technical knowledge of geology, geophysics and engineering in its E&P processes, replicated for CO₂ storage



Source: paper "Recent advances in carbon dioxide geological storage, experimental procedures, influencing parameters, and future outlook"

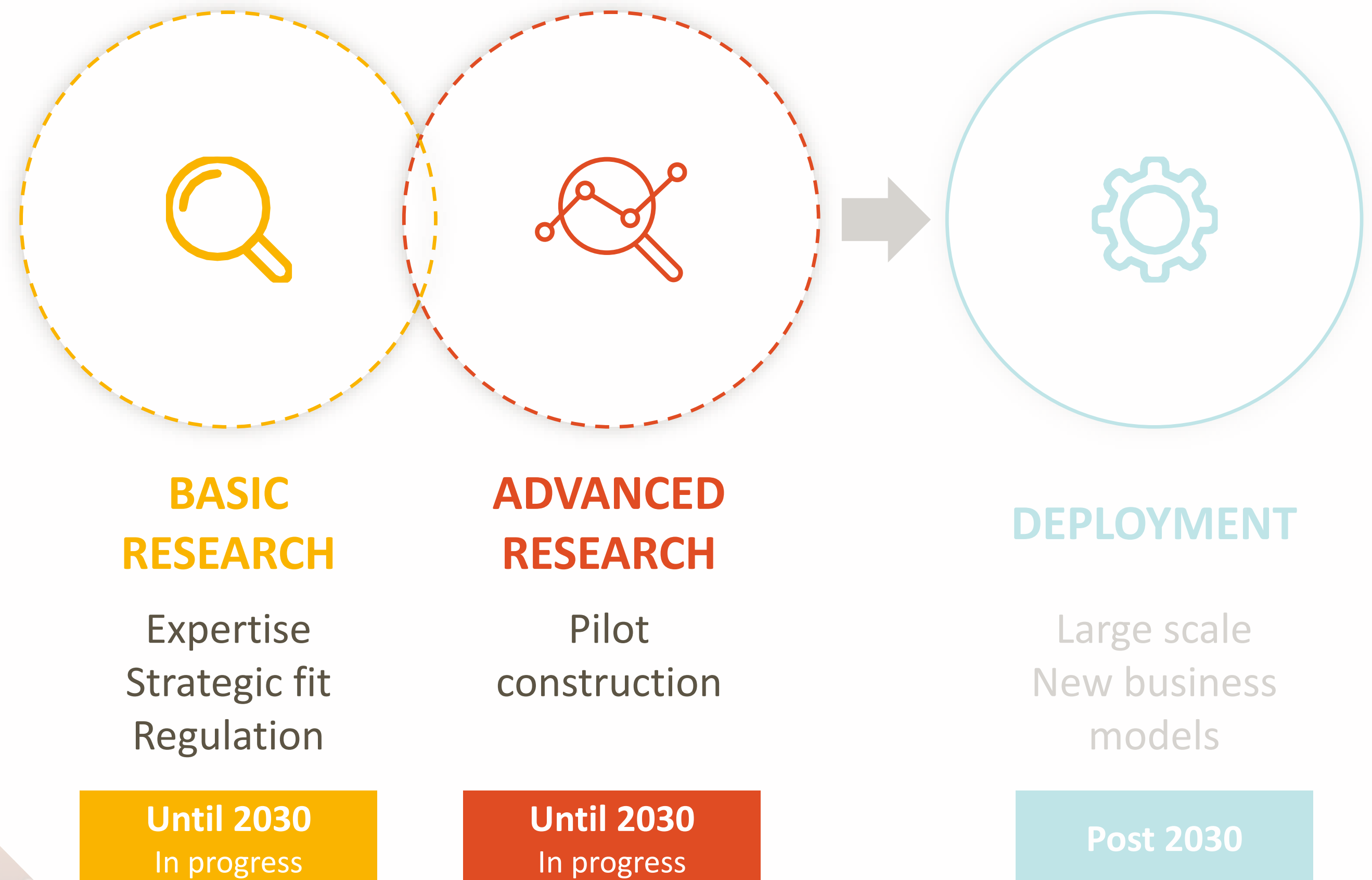
Low carbon technologies

The decarbonization plan is divided into three phases



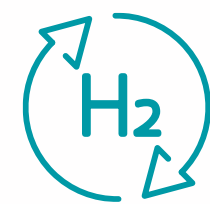
Low carbon technologies

The decarbonization plan is divided into three phases



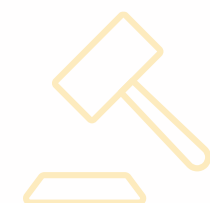
Low carbon technologies

For the basic research phase, the Engineering, E&P, Regulation and Strategy teams are working together on 3 fronts



Hydrogen

- ✓ Low-carbon hydrogen production using natural gas
- ✓ Green Hydrogen production
- ✓ Hydrogen transport infrastructure (e.g., transformation into ammonia)



Regulation

- ✓ Study of best practices in the international market and applicability to our business model
- ✓ Active involvement in the regulation design
- ✓ Initiatives to promote adoption of low carbon technologies



Carbon Capture & Storage (CCS)

Capture

- ✓ Carbon capture processes (e.g., use of amines)
- ✓ Viability of oxy-combustion (e.g., Allam Cycle)

Storage and transportation

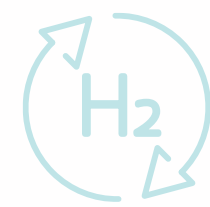
- ✓ Mapping of storage potential in Eneva's concessions and certification of storage capacity
- ✓ Adequacy of Existing Infrastructure & new projects

Monitoring

- ✓ Reservoir monitoring technologies for CO2 storage

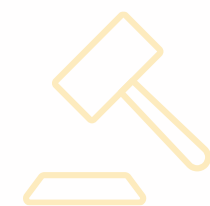
Low carbon technologies

For the basic research phase, the Engineering, E&P, Regulation and Strategy teams are working together on 3 fronts



Hydrogen

- ✓ Low-carbon hydrogen production using natural gas
- ✓ Green Hydrogen production
- ✓ Hydrogen transport infrastructure (e.g., transformation into ammonia)



Regulation

- ✓ Study of best practices in the international market and applicability to our business model
- ✓ Active involvement in the regulation design
- ✓ Initiatives to promote adoption of low carbon technologies



Carbon Capture & Storage (CCS)

Capture

- ✓ Carbon capture processes (e.g., use of amines)
- ✓ Viability of oxy-combustion (e.g., Allam Cycle)

Storage and transportation

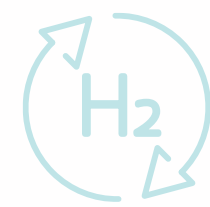
- ✓ Mapping of storage potential in Eneva's concessions and certification of storage capacity
- ✓ Adequacy of Existing Infrastructure & new projects

Monitoring

- ✓ Reservoir monitoring technologies for CO2 storage

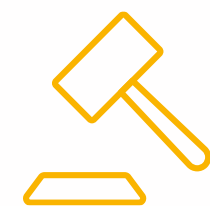
Low carbon technologies

For the basic research phase, the Engineering, E&P, Regulation and Strategy teams are working together on 3 fronts



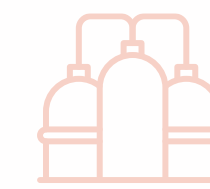
Hydrogen

- ✓ Low-carbon hydrogen production using natural gas
- ✓ Green Hydrogen production
- ✓ Hydrogen transport infrastructure (e.g., transformation into ammonia)



Regulation

- ✓ Study of best practices in the international market and applicability to our business model
- ✓ Active involvement in the regulation design
- ✓ Initiatives to promote adoption of low carbon technologies



Carbon Capture & Storage (CCS)

Capture

- ✓ Carbon capture processes (e.g., use of amines)
- ✓ Viability of oxy-combustion (e.g., Allam Cycle)

Storage and transportation

- ✓ Mapping of storage potential in Eneva's concessions and certification of storage capacity
- ✓ Adequacy of Existing Infrastructure & new projects

Monitoring

- ✓ Reservoir monitoring technologies for CO2 storage

Low carbon technologies

Applied research phase has, initially, three pilots – that aim to test all the technologies studied

Blue hydrogen production



Allam Cycle



Green hydrogen production

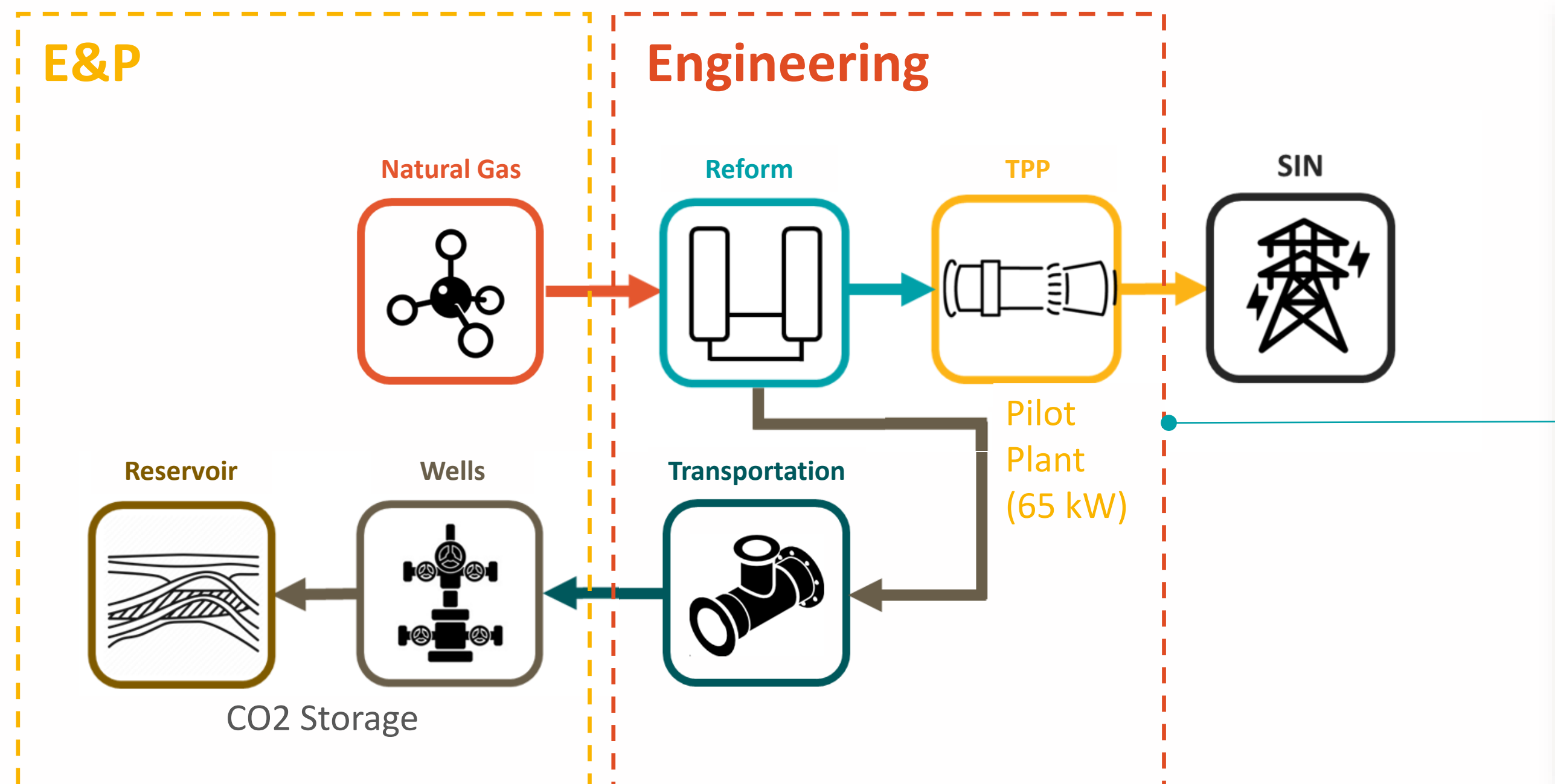


Pilots seek to use the concepts developed during the basic research phase and test technologies that can be applied on a larger scale in the deployment phase

Low carbon technologies

Blue hydrogen production pilot consolidates different technologies in a single project and can be useful for adapting the existing infrastructure

Project makes it possible to test (i) the **production of H₂** through the thermal methane reforming, (ii) the **power generation through hydrogen** and (iii) the **CO₂ capture and storage**, leveraging the company's capabilities



Pilot plant will be able to leverage 65 kW Capstone micro-turbine – for which there are advanced talks with the supplier

Project is being structured; company is already in contact with possible partners – including advanced conversations with Capstone for turbine supply

Low carbon technologies

Applied research phase has, initially, three pilots – that aim to test all the technologies studied

Blue hydrogen production



Allam Cycle



Green hydrogen production



Pilots seek to use the concepts developed during the basic research phase and test technologies that can be applied on a larger scale in the deployment phase

Low carbon technologies

Allam Cycle, on the other hand, is an alternative for expansion, leveraging inputs from an existing pilot in the USA



La Porte Pilot Plant - Texas

- ~25 MW
- Tests started in 2018
- Over 1500 accumulated test hours
- Successfully connected to the Texas grid in 2021



First Utility Scale Plant

- ~300 MW
- Capturing ~860,000 tons of CO₂ per year
- Construction is expected to start in 2024
- Operation scheduled for 2026 (worst scenario: 2032)



Net Power pilot plant in La Porte, Texas

Eneva signed a contract with NetPower to conduct a feasibility study for the project installation in Parnaíba; the start of the study will take place in March 2023, when there will also be a visit to the pilot plant in La Porte

Low carbon technologies

Applied research phase has, initially, three pilots – that aim to test all the technologies studied

Blue hydrogen production



Allam Cycle



Green hydrogen production

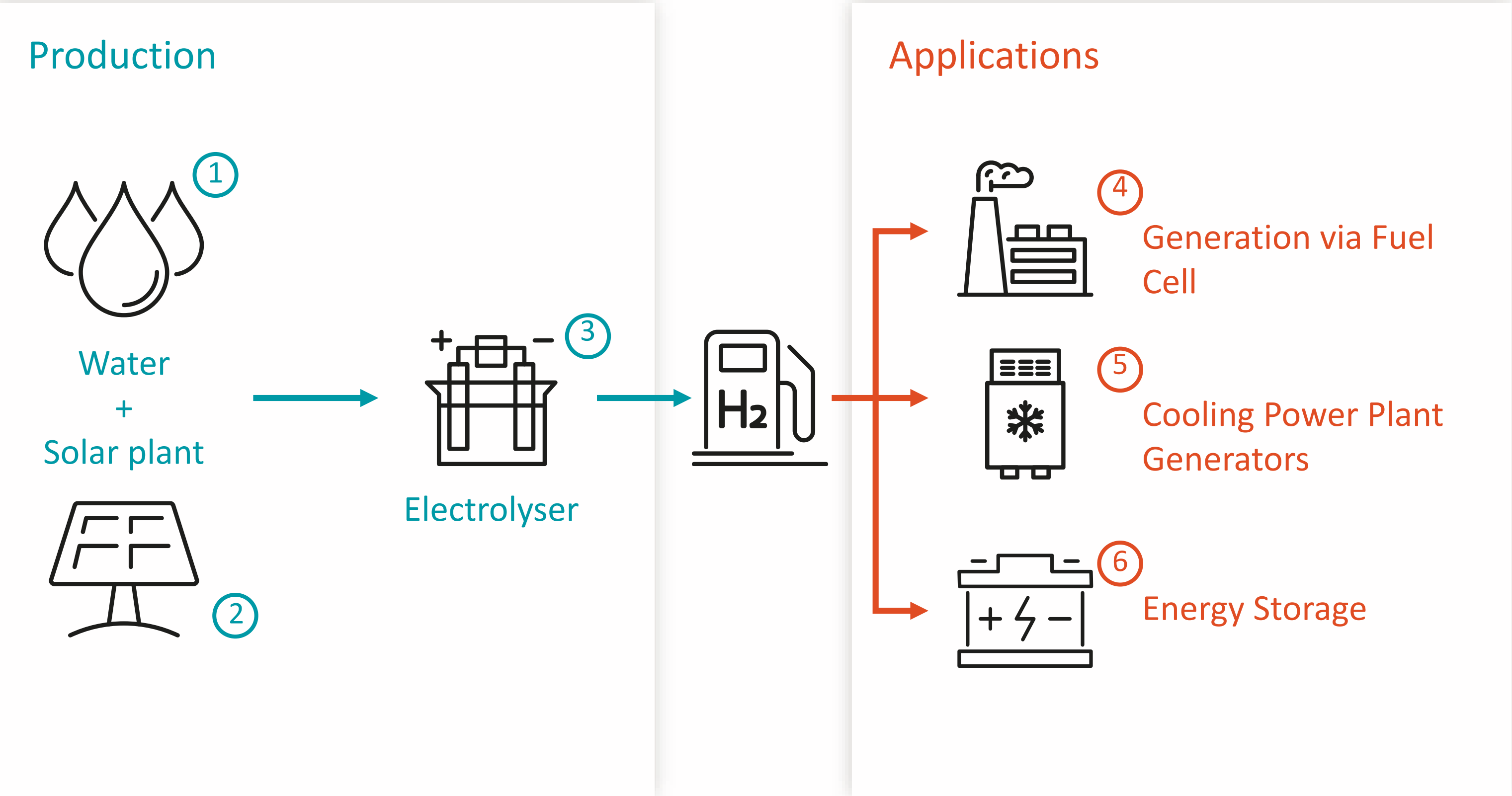


Pilots seek to use the concepts developed during the basic research phase and test technologies that can be applied on a larger scale in the deployment phase

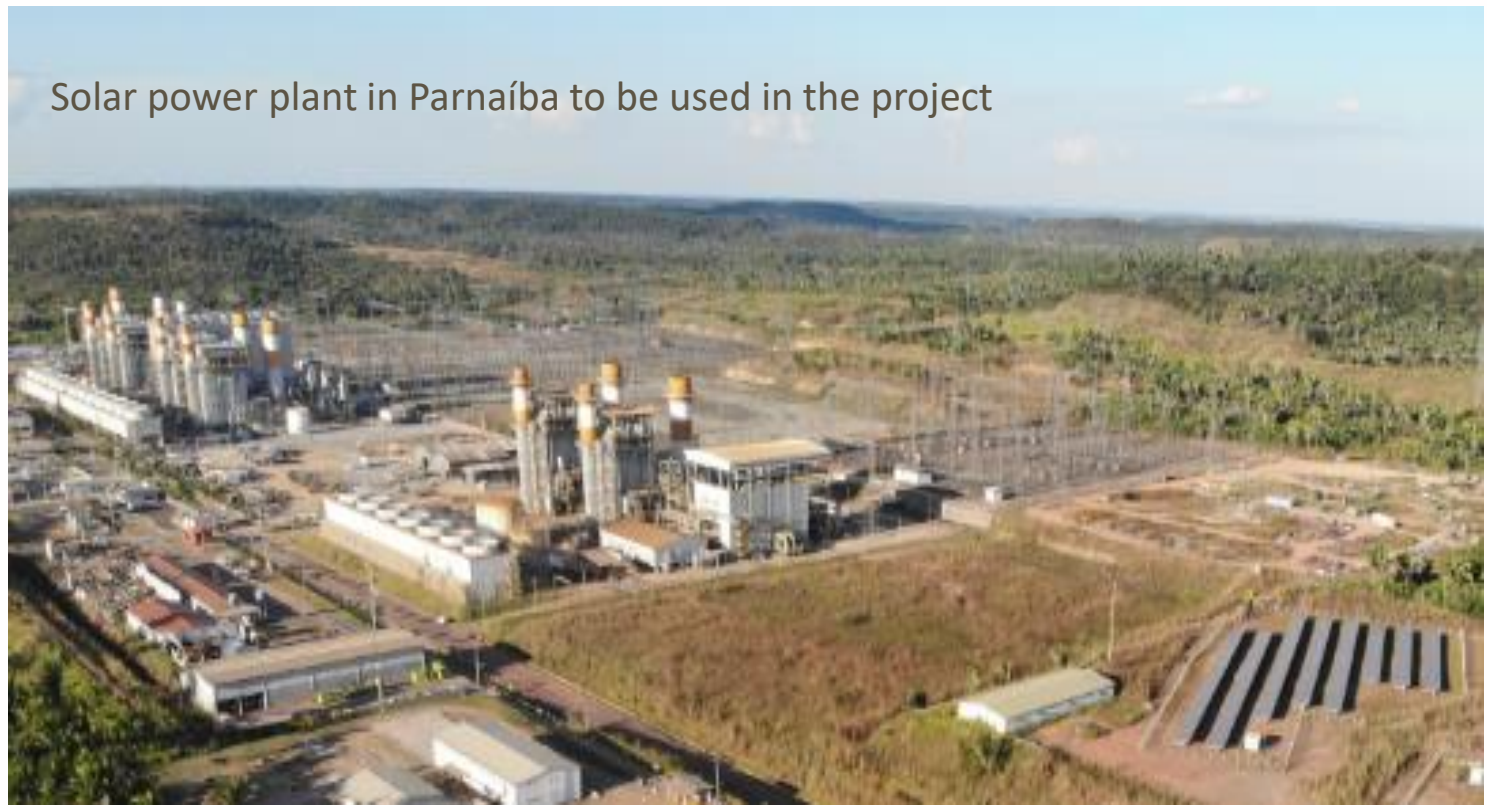
Low carbon technologies

The green hydrogen production pilot project in Parnaíba is already underway, with commissioning expected in 2024

Pilot: Feasibility analysis of green hydrogen production and its utilization in a micro-grid generation pilot and other applications

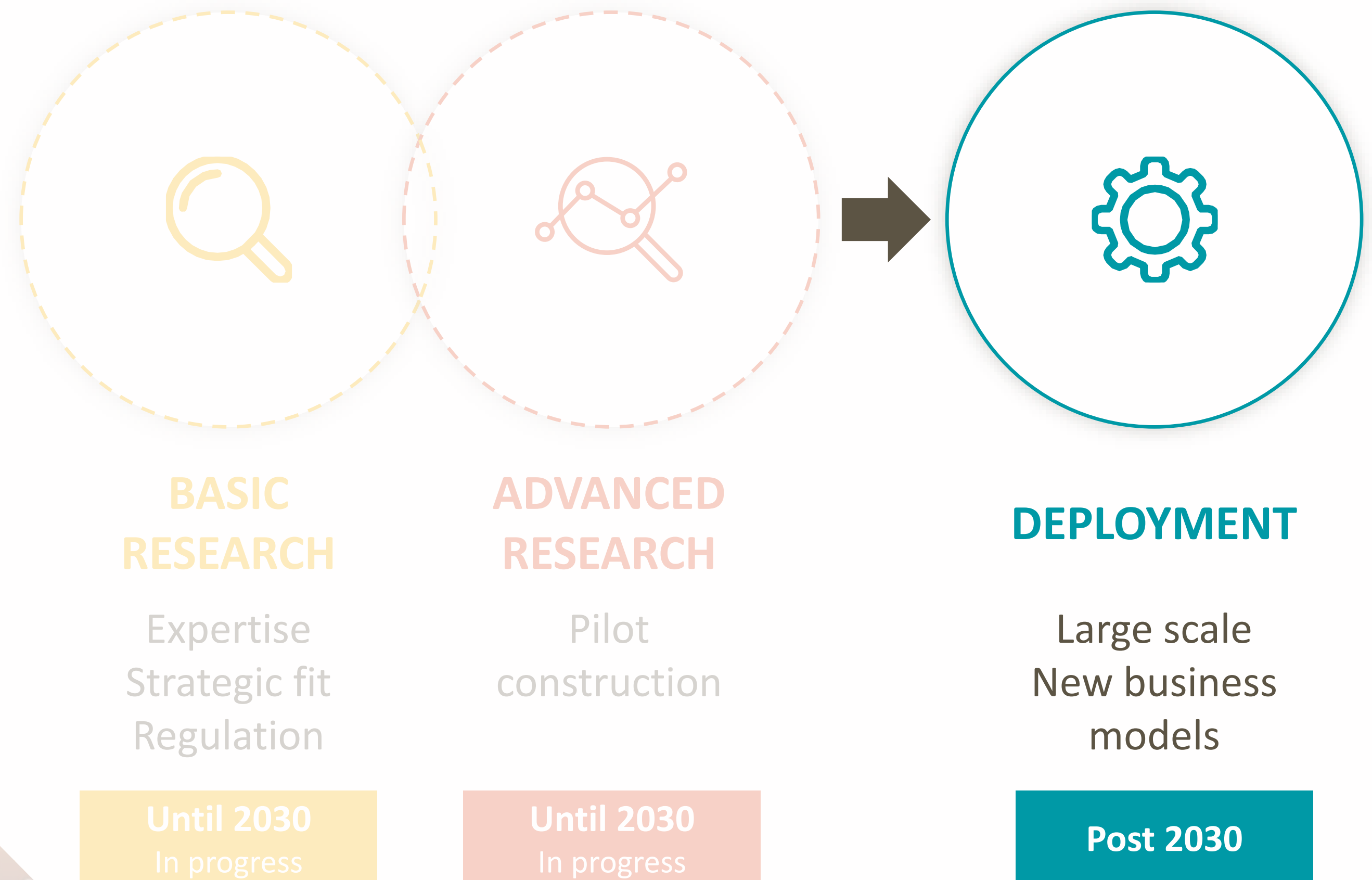


- ✓ Solar plant installed and necessary equipment acquired
- ✓ Basic project finalization in 2023; operational project in 2024
- ✓ Project executed in partnership with UFPE and Brazilian company Hytron



Low carbon technologies

The decarbonization plan is divided into three phases



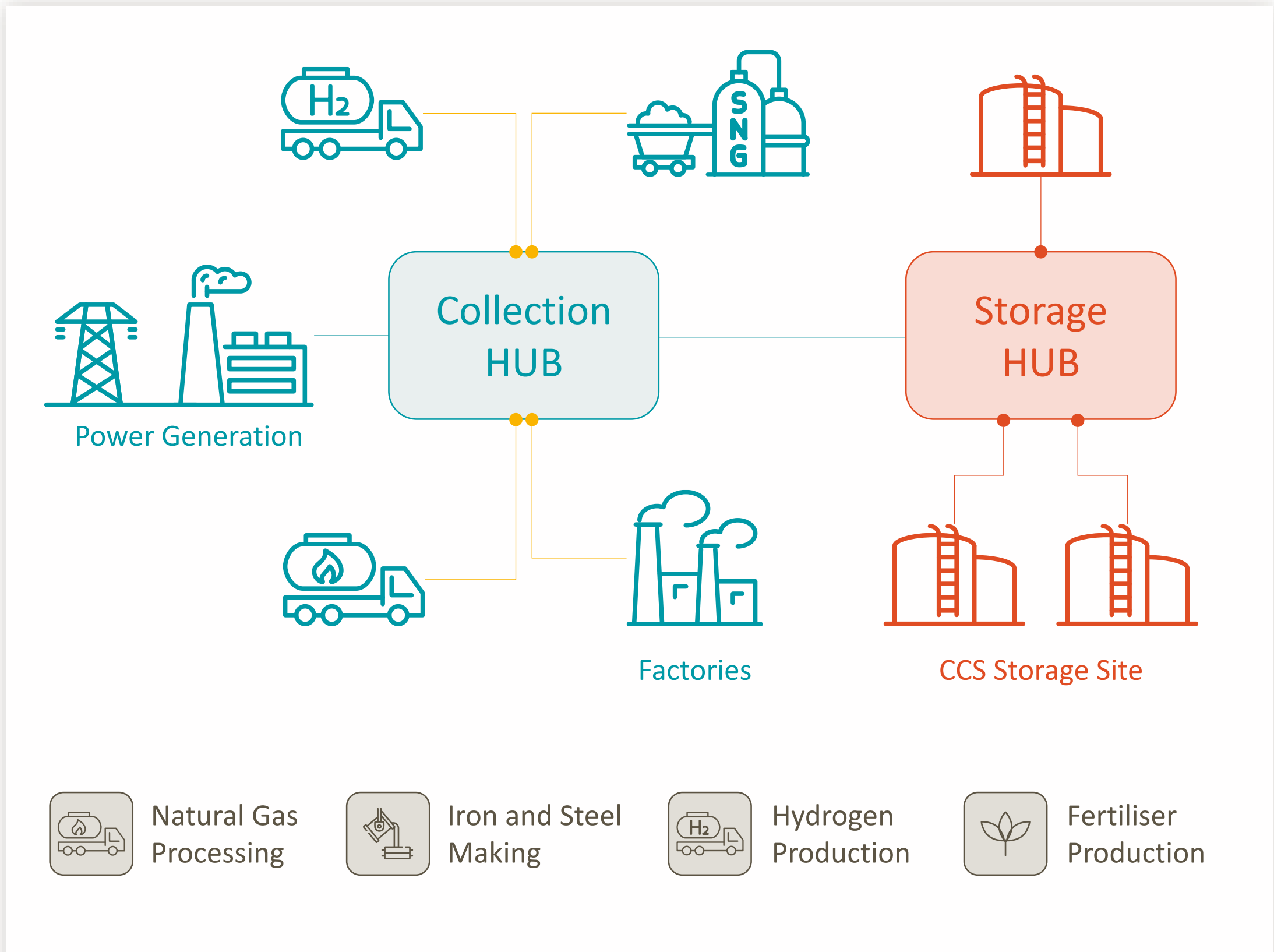
Low carbon technologies

CCS hubs are already being developed around the world and can open new growth avenues for Eneva

There are already CCS projects in different stages of maturity, from planning to commercial operation...



						Total
Number of Facilities	30	11	78	75	2	196
Capture Capacity (Mtpa)	42.5	9.6	97.6	91.8	2.3	243.9



...and hubs, which provide capture and transportation infrastructure for CO2 storage as a service for different clients

Low carbon technologies

Eneva has the opportunity to set up these hubs in locations where it has reservoirs, according to the company's clusters



Cluster Amazonas/Solimões

- Could supply states such as AM, RR, and PA
- Eneva has power plants, that could be clients of the hub



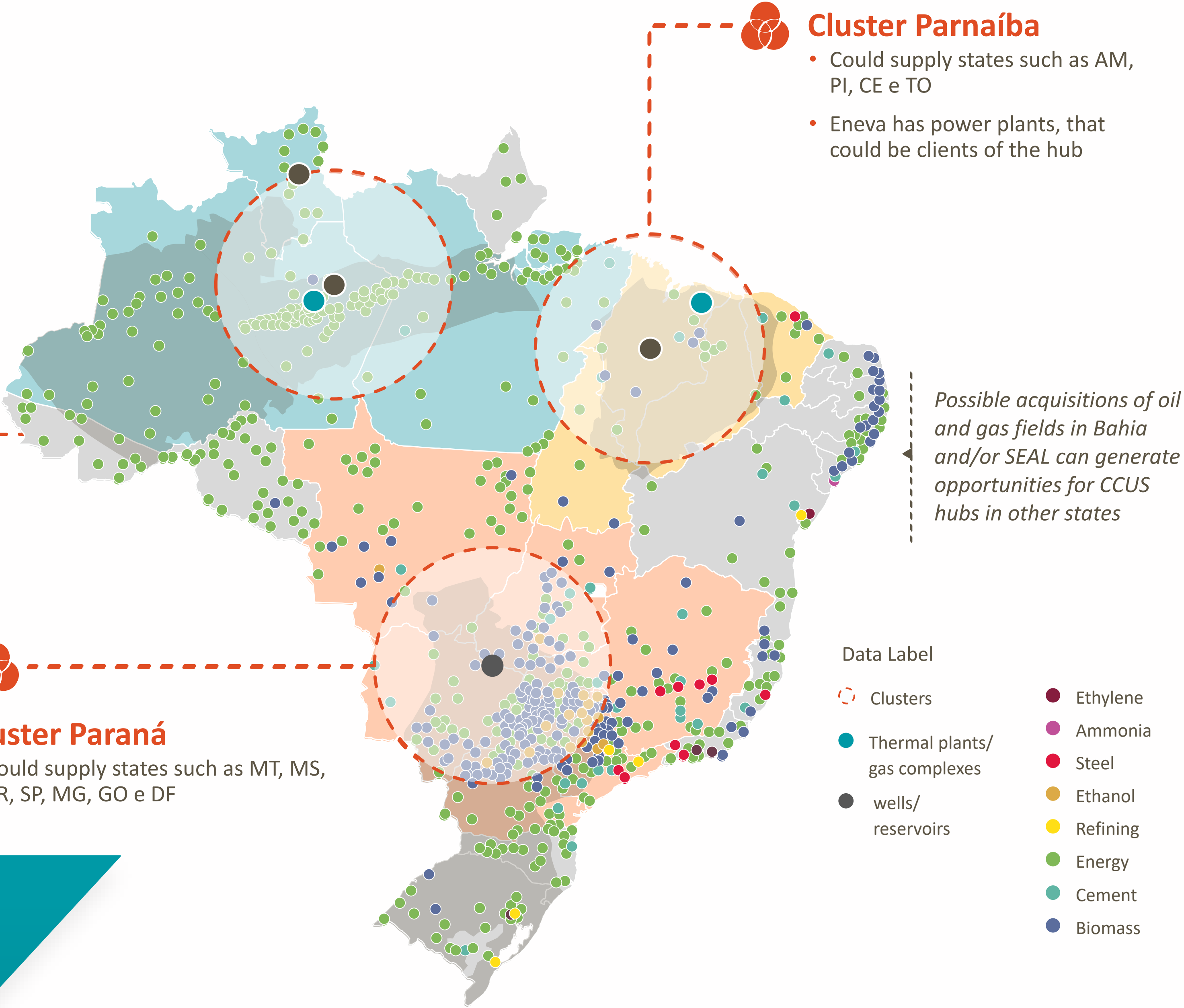
Cluster Paraná

- Could supply states such as MT, MS, PR, SP, MG, GO e DF



Cluster Parnaíba

- Could supply states such as AM, PI, CE e TO
- Eneva has power plants, that could be clients of the hub



The Paraná Basin could represent a great opportunity due to its proximity to hubs such as SP and MG - where there are higher emissions volumes

Source: Brazilian Atlas of CO2 Capture and Geological Storage; Eneva analysis

Low carbon technologies

Therefore, by combining location, expertise, infrastructure and access to clients, Eneva has a unique position to develop CCS hubs

Main company advantages



COMPLEMENTARY EXPERTISE

Know-how in geology
(for storage) and
engineering (capture
and transportation)



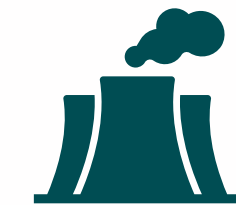
COMMERCIAL EXPERTISE

Customer portfolio,
commercial team with
expertise and access to
new potential
customers



ONSHORE PRESENCE

Onshore presence can
make the service viable
at lower costs than
offshore players



OWN OPERATIONS

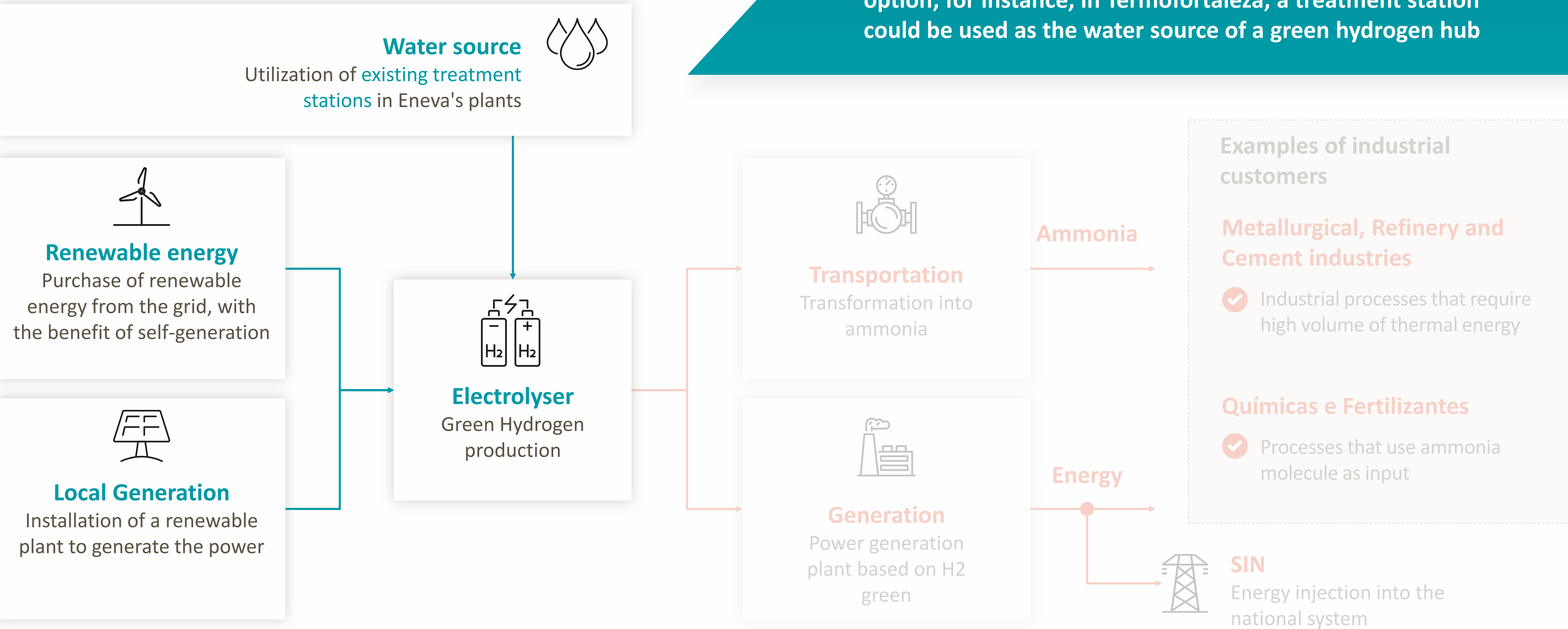
Eneva's gas plants
could act as anchors
for hubs due to their
existing emissions

Low carbon technologies

Another potential action could be the development of green hydrogen hubs, leveraging the company's assets for production and distribution

Schematic model of a green hydrogen hub

Assets to be leveraged

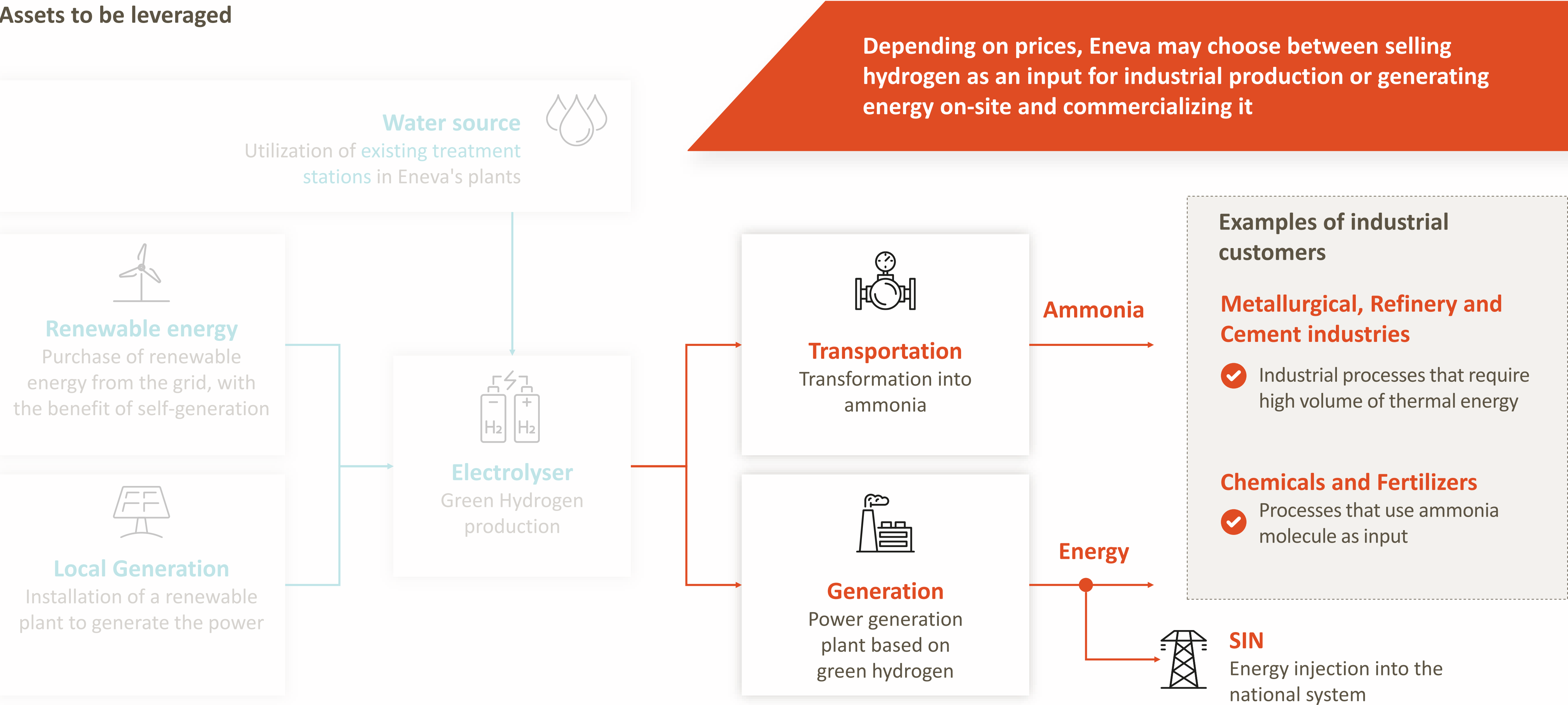


Low carbon technologies

Another potential model option could be the development of green hydrogen hubs, leveraging the company's assets for production and distribution

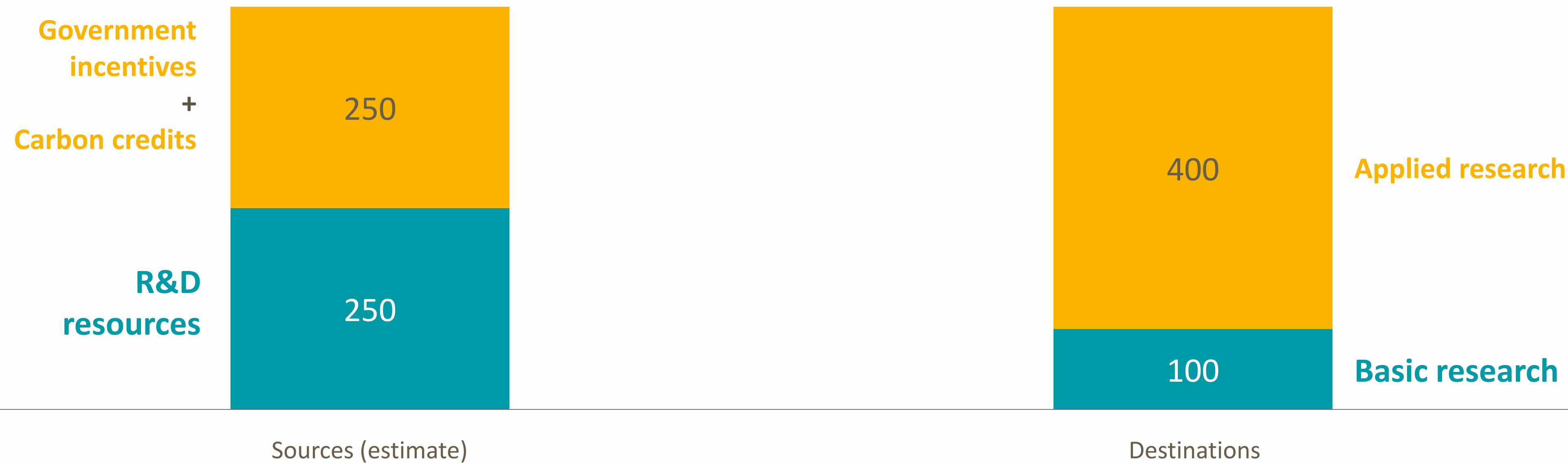
Schematic model of a green hydrogen hub

Assets to be leveraged



Financing | The investment commitment of R\$ 500 million by 2030 could be financed through R&D resources, carbon credits sales and potentially government incentives

Sources and destinations
R\$ M



Low carbon technologies

Programs involving tax credits can make the use of new technologies financially viable – given what has been happening in the US

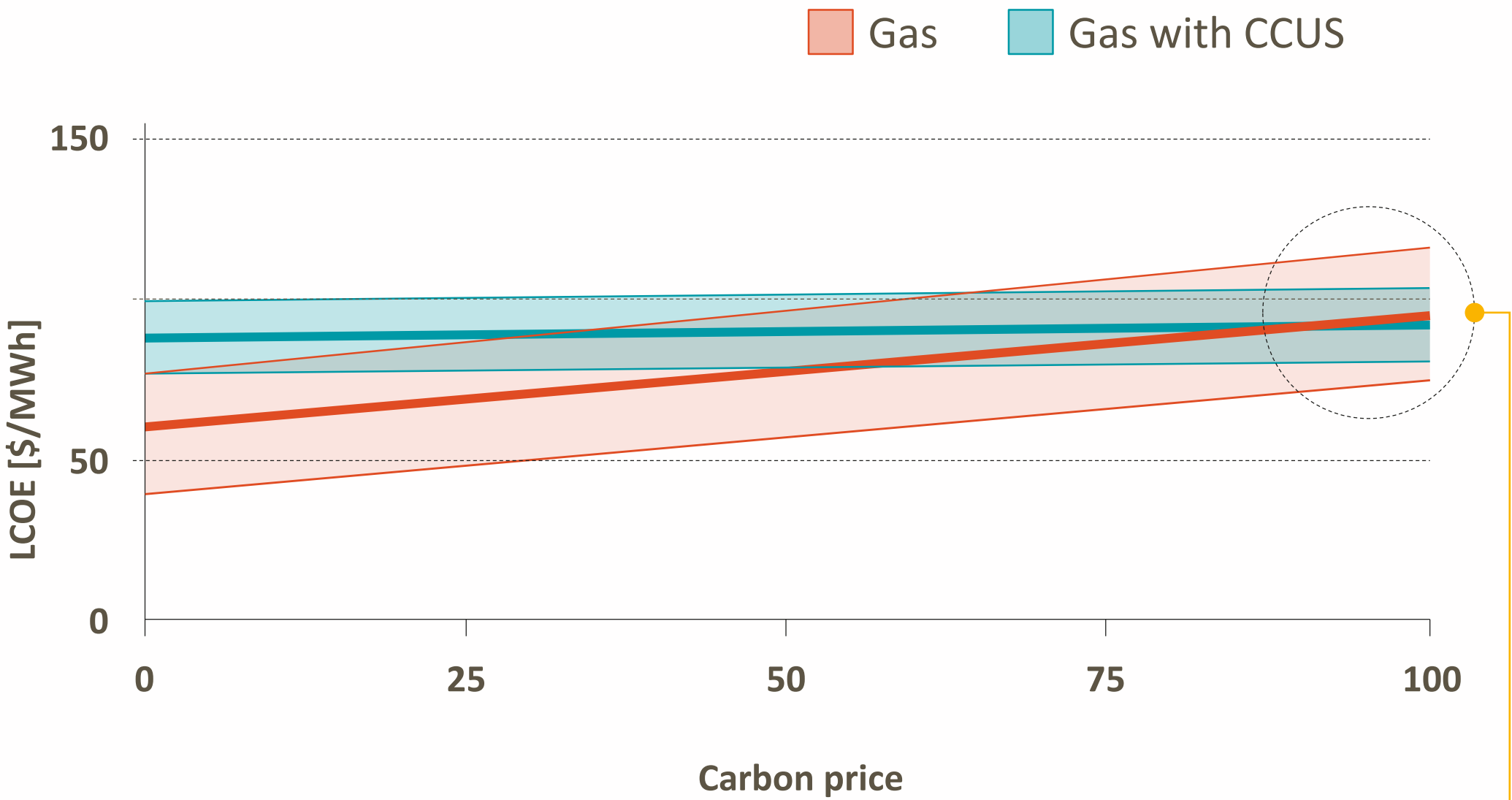
Example of the tax credits impact on generation price with CCS

IRA
Section 45Q

- Enacted in 2018, it provides a tax credit for the capture and permanent geological storage of CO2 emissions
- IRA significantly increased the credit value per ton and extended the start of construction period until 2032

	US\$/ton	Previous	IRA
Capture and storage		US\$ 50	US\$ 85
Enhanced oil recovery		US\$ 35	US\$ 60
Direct capture		US\$ 50	US\$ 180

LCOE* for gas with and without CCUS
with carbon price variation

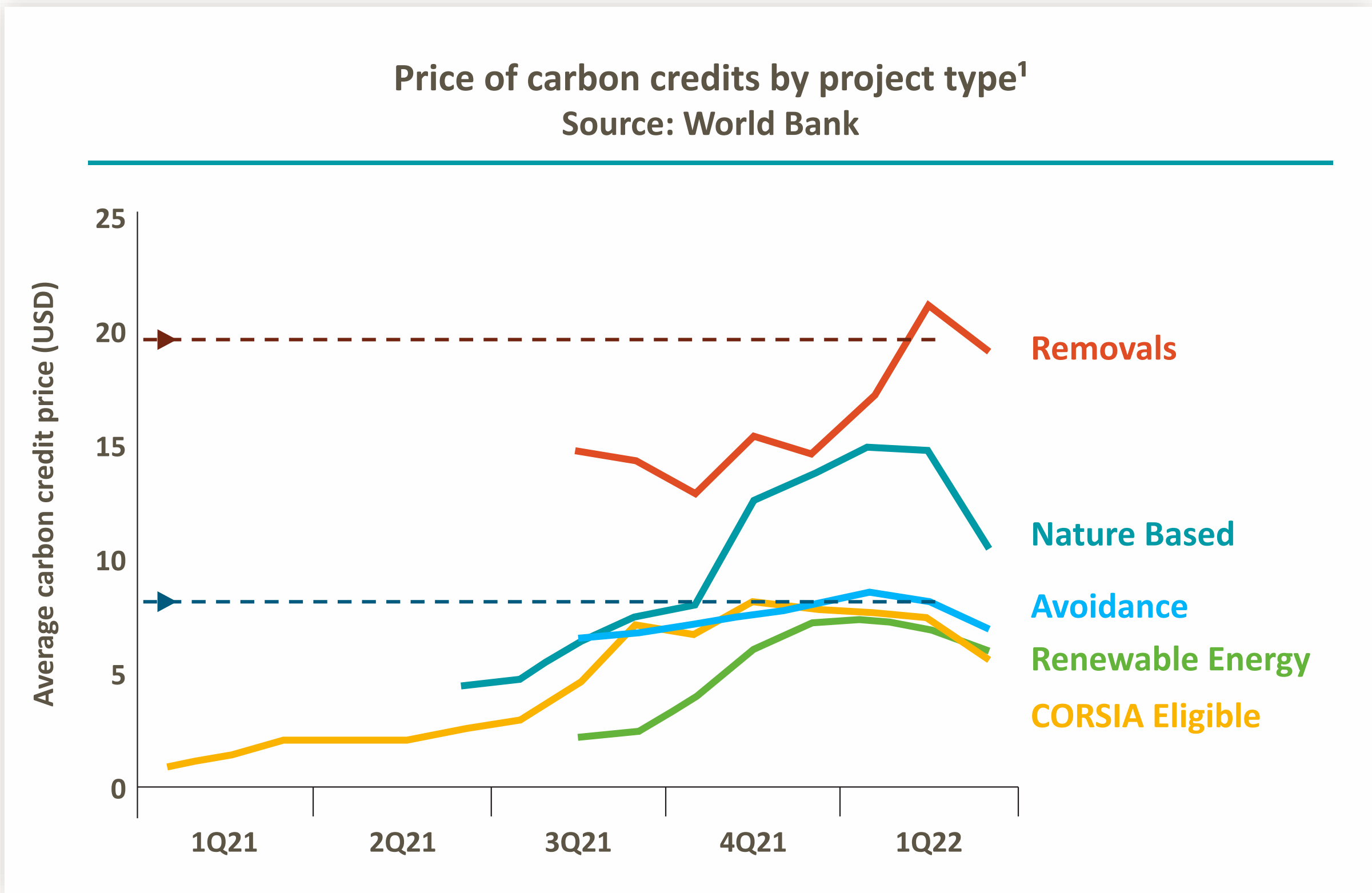


Notes:

- 1. Considering a discount rate of 7%; considers full operation of the plants – in a scenario of low utilization, cost can be reduced, due to lower impact of the cost of fuel in the calculation
- 2. Source: United States Department of Energy; Intenational Energy Agency - Projected Costs of Generating Electricity 2020 ; Eneva analysis

Low carbon technologies

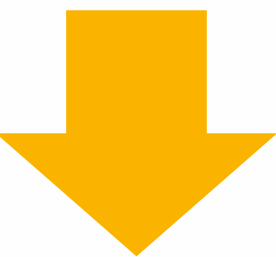
And, by using clean technologies, Eneva can also raise funds through the sale of carbon credits



Note: “Removal” and “Nature Based” projects aim to remove CO2 already present in the atmosphere, through technology or natural solutions (eg reforestation), respectively; “Avoidance” projects aim to avoid emissions, through, for example, on-site carbon capture

Emission Reductions Payment Agreements (ERPAs)

Long-term contract for purchase and sale of carbon credits used to finance emission reduction initiatives



Implicit financial commitment attracts more funders to the project



Mechanism used by the World Bank, potentially replicable by the BNDES to encourage the development of new technologies

Low carbon technologies

By executing the plan, Eneva will play a prominent role in the country’s decarbonization and ensure greater resilience to the strategy

Main decarbonization pillar, according to IEA

- ✓ Electrification
- ✓ Renewables
- ✓ Energy efficiency
- ✓ CCUS
- ✓ Hydrogen
- Bioenergy
- Other clean fuels
- Behavior changes

Eneva post-2030

Business lines after plan deployment (post-2030)

Current Lines

- ✓ Thermal power generation
- ✓ E&P
- ✓ Gas commercialization
- ✓ Energy commercialization and trading
- Renewable generation

New Lines

- ✓ Thermoelectric generation with CCUS
- ✓ CO2 storage for third parties
- ✓ CO2 commercialization
- ✓ Hydrogen thermoelectric generation
- ✓ Commercialization of hydrogen/ammonia

After 2030, Eneva will be a company with reduced emissions, playing a leading role in low-carbon business models and prepared to handle increasingly restrictive emissions regulations



ri@eneva.com.br



tel: (21) 3721-3030



ri.eneva.com.br/

eneva day

— 2023 —

Closing

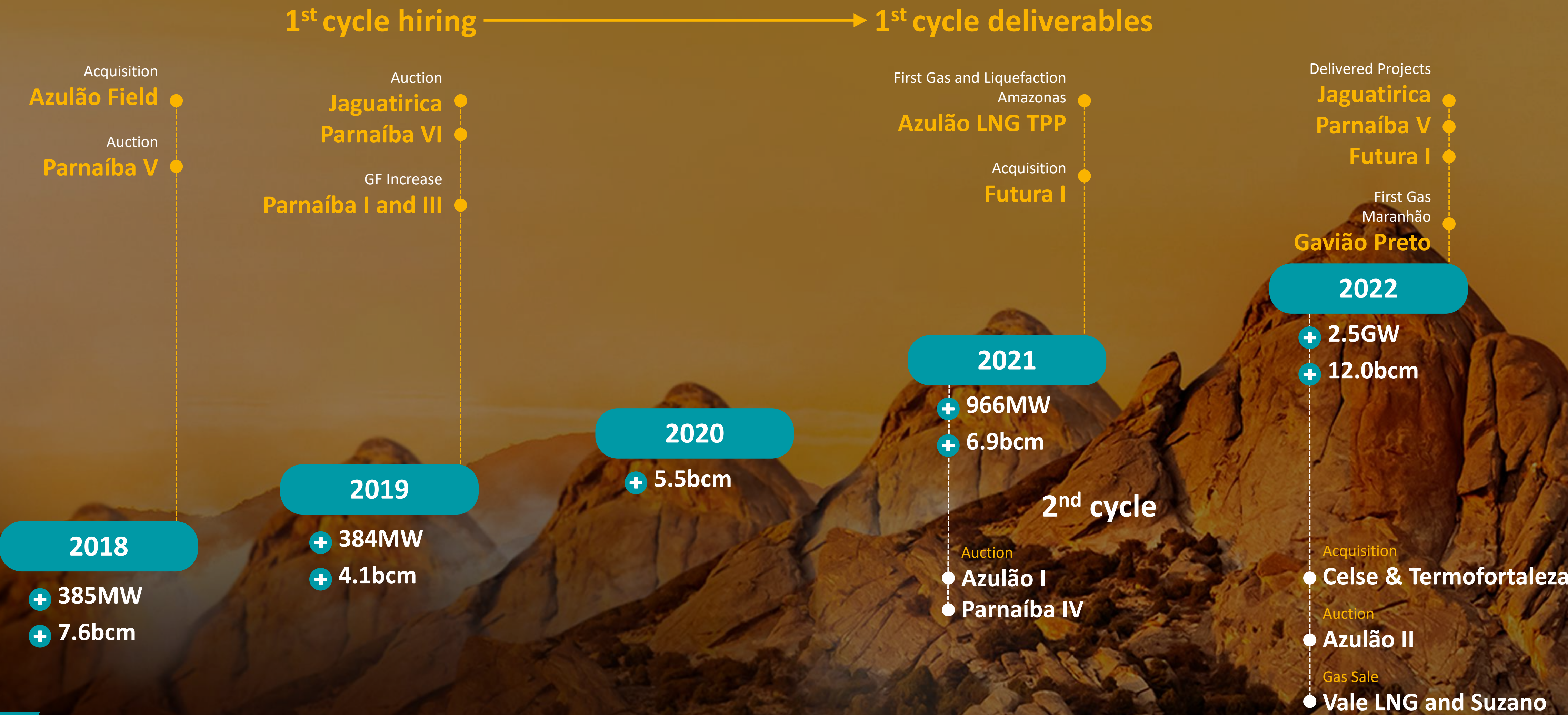
Lino Cançado

March 8, 2023

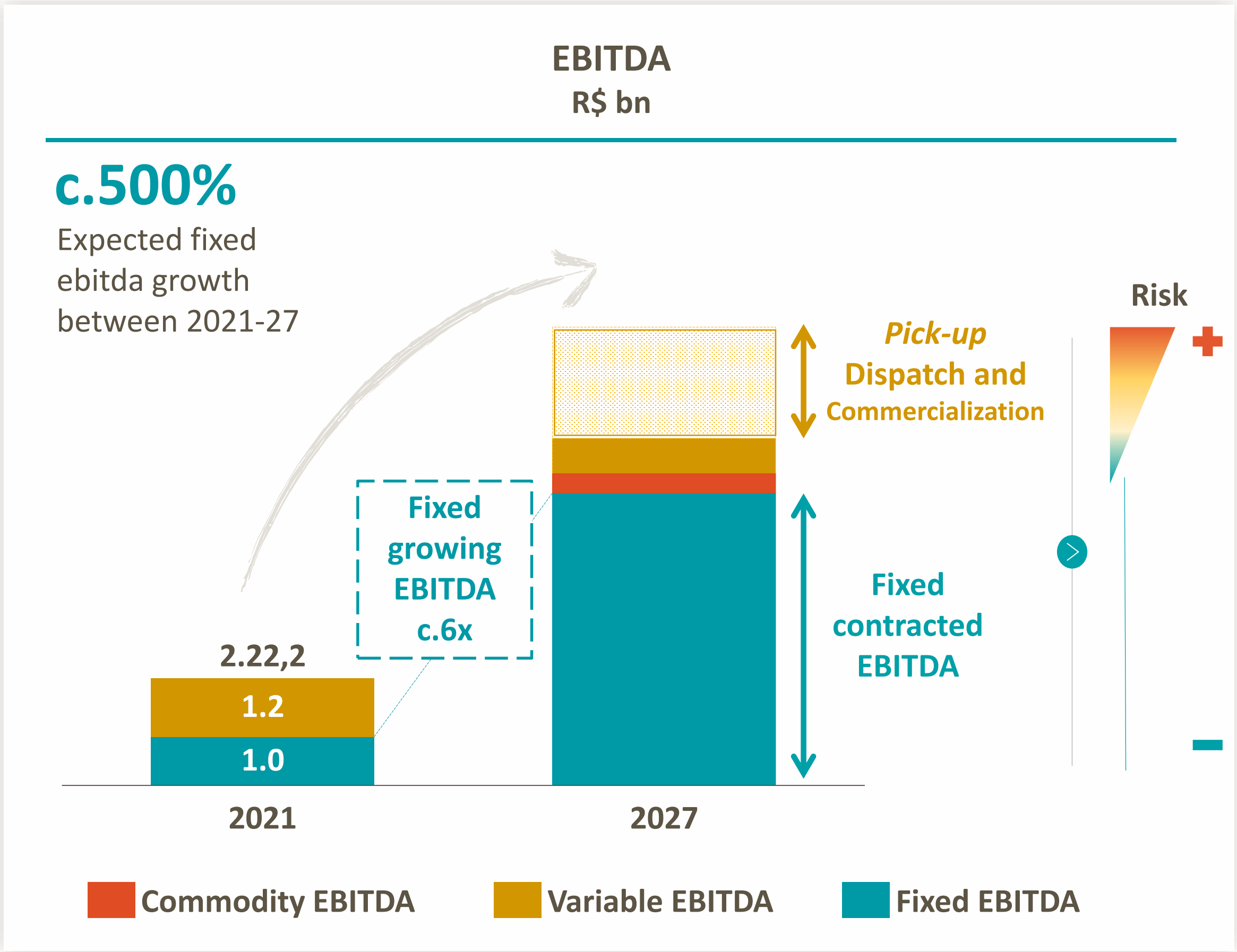
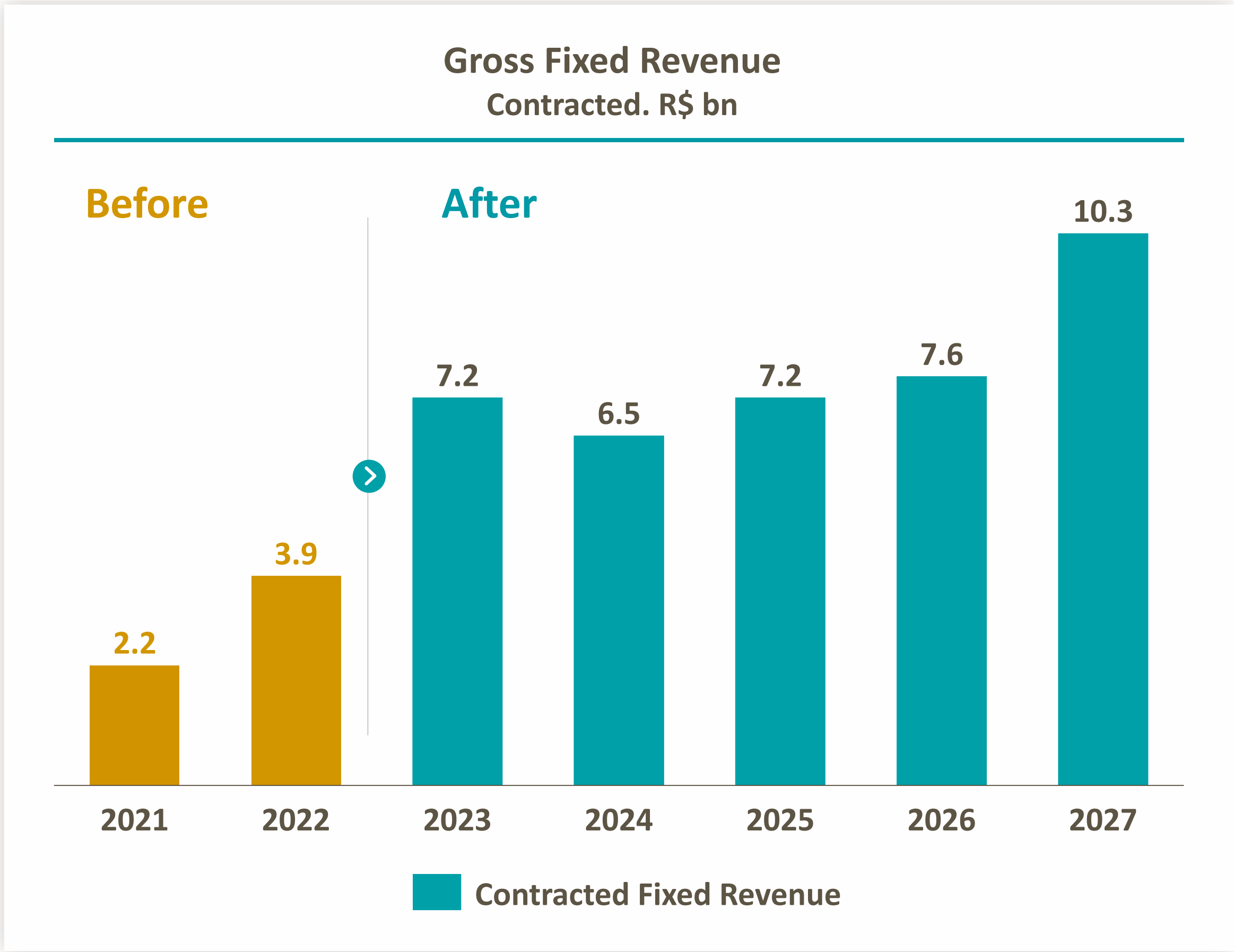


Closing

We have delivered our business plan over the last few years in a consistent manner and accelerated our growth trajectory in 2022



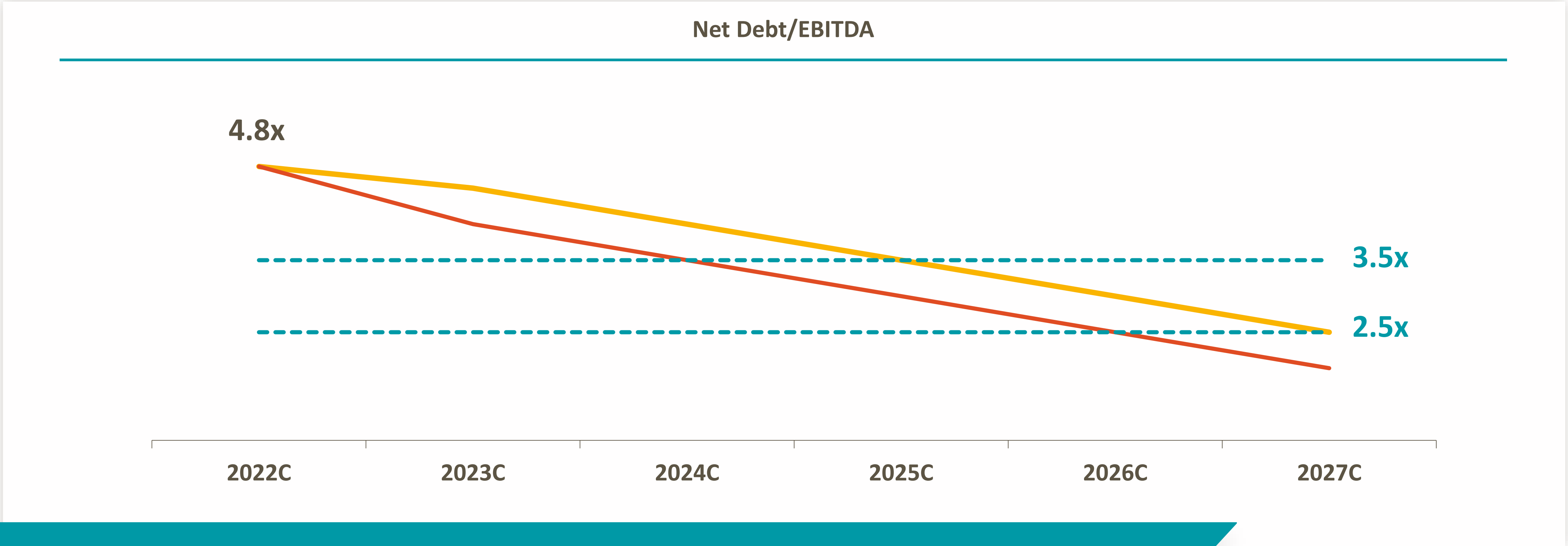
Currently, we have a solid base of contracted assets with assured cash flow.
low risk and relevant upsides



That ensure us both **stability and opportunity**

Closing

With a wide range of initiatives to reduce our debt, in order to invest in new opportunities



SELL THE STAKE
On our Renewable platform

EXPORT TO ARGENTINA
Guiven the conjuncture of the gas market

GSUB
For power plants with a higher gas opportunity cost

Basic Scenario
Scenario considering Initiatives

Note:
1. Consensus

Closing

We will advance in our strategic challenges with the initiatives already identified in our portfolio and continue our **growth**



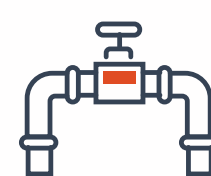
Extend current assets lifecycles and replicate R2W to other geographies

- ✓ Exploratory campaign in the Parnaíba, Amazonas and Paraná
- ✓ Re-contracting of Parnaíba I and III
- ✓ Access to unconventional gas reserves



Maximize reserves and develop integrated solutions in the North Region

- ✓ Conversion to LNG in logistics and industrial chains
- ✓ Conversion of isolated systems through LPI
- ✓ Monetization of Juruá
- ✓ Exploration in the Amazon Basin



Develop infrastructure Gas Hubs

- ✓ Monetization of idle capacity at the Sergipe Hub
- ✓ Access to the SEAP gas
- ✓ Projects for new terminals in São Luís and Macaé (TEPOR)



Commercialize energy resources and develop new business models

- ✓ Expand the SSLNG sale
- Increased energy and gas trading activity
- ✓ Structuring the customer centricity model in the commercial area



Develop renewable energy portfolio and foster low carbon technologies

- ✓ 2.8GW Renewable Pipeline with Guaranteed Wire Discount
- Contractual optimization with self-production model
- ✓ Business partner to develop the portfolio
- ✓ Pilot projects in new value chains associated with decarbonization

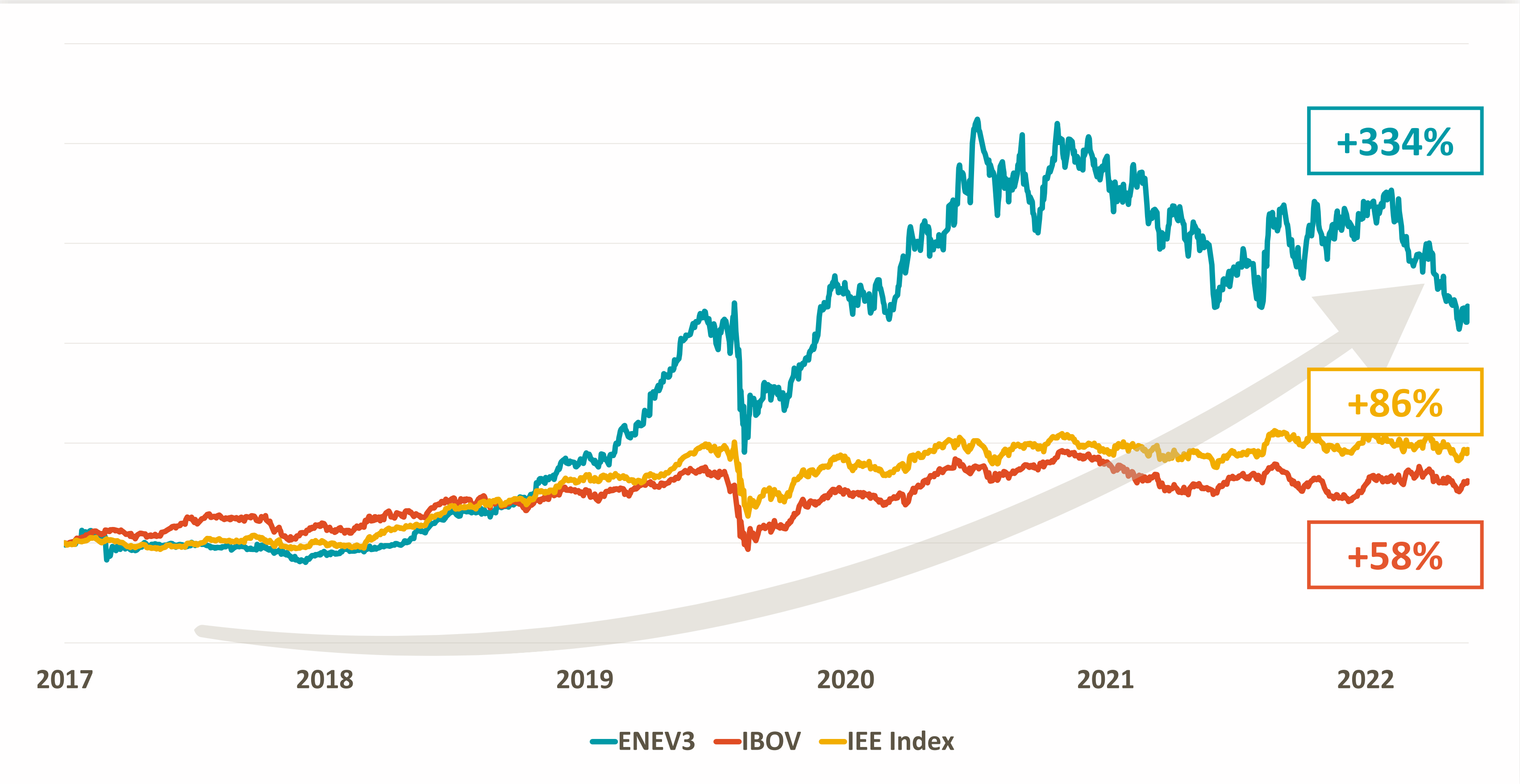


Build an agile and fit for purpose organization

- ✓ Recruitment, training and development of leaders
- ✓ Digital transformation
- ✓ Initiatives to deleveraging

Closing

Our track record shows an outstanding **generation of value in the last 5 years**, which makes us protagonists in the energy transition, ensuring security and reliability to the system



2022
vs 2017

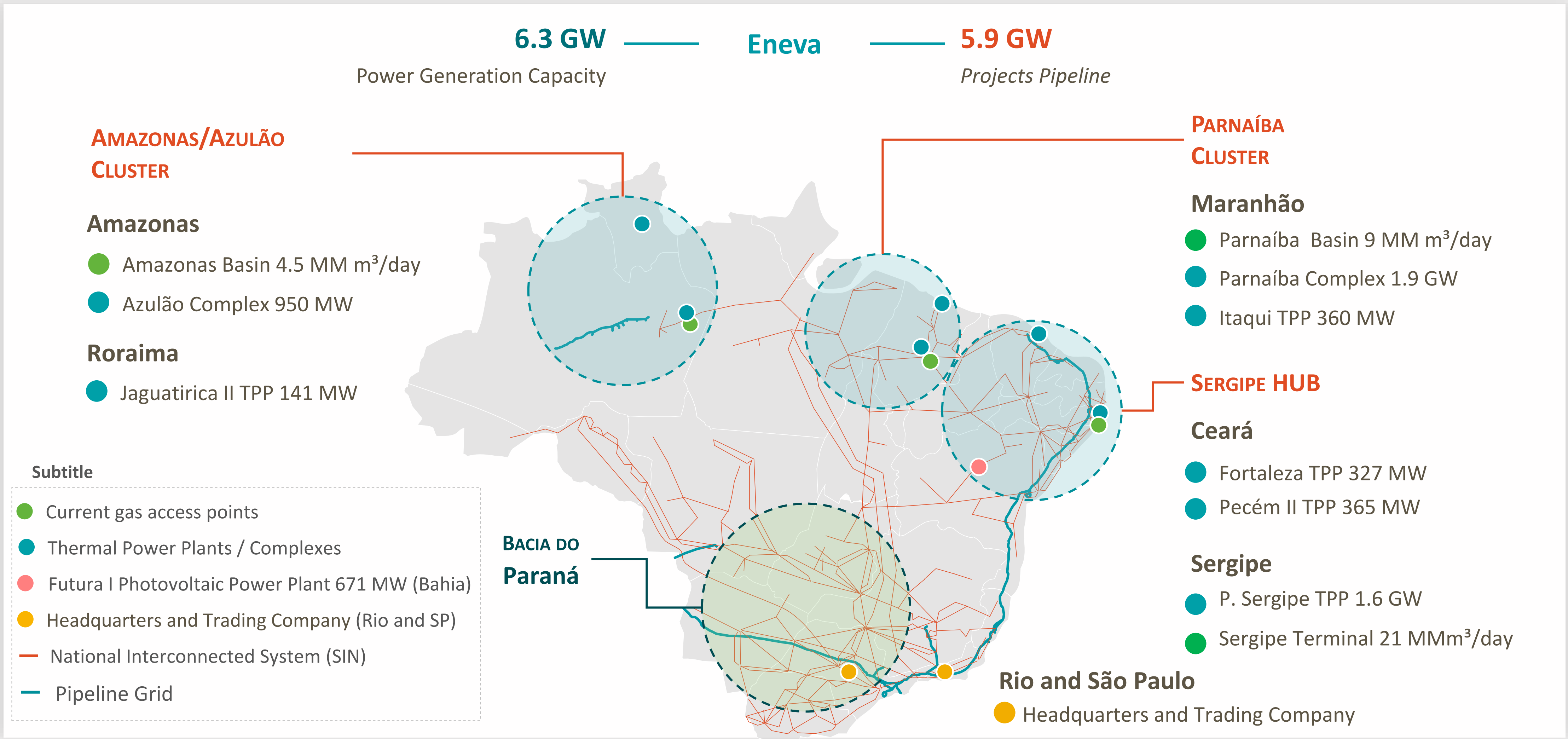
+ R\$ 14.5 bi
Market Cap

+ R\$ 1.1 bi
EBITDA

+ R\$ 129.6 mi/d
ADTV

+ 4.1 GW
Installed Capacity

Our expertise and diversified portfolio put us in an advantageous position to expand our unique business model in the gas and power markets





ri@eneva.com.br



tel: (21) 3721-3030



ri.eneva.com.br/