

# 3<sup>rd</sup> quarter 2023 Performance

Webcast  
November 10, 2023



# Disclaimer

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The presentation may contain forward-looking statements about future events that are not based on historical facts and are not assurances of future results. Such forward-looking statements merely reflect the Company's current views and estimates of future economic circumstances, industry conditions, company performance and financial results. Such terms as "anticipate", "believe", "expect", "forecast", "intend", "plan", "project", "seek", "should", along with similar or analogous expressions, are used to identify such forward-looking statements. Readers are cautioned that these statements are only projections and may differ materially from actual future results or events. Readers are referred to the documents filed by the Company with the SEC, specifically the Company's most recent Annual Report on Form 20-F, which identify important risk factors that could cause actual results to differ from those contained in the forward-looking statements, including, among other things, risks relating to general economic and business conditions, including crude oil and other commodity prices, refining margins and prevailing exchange rates, uncertainties inherent in making estimates of our oil and gas reserves including recently discovered oil and gas reserves, international and Brazilian political, economic and social

developments, receipt of governmental approvals and licenses and our ability to obtain financing.

We undertake no obligation to publicly update or revise any forward-looking statements, whether as a result of new information or future events or for any other reason. Figures for 3Q23 on are estimates or targets.

All forward-looking statements are expressly qualified in their entirety by this cautionary statement, and you should not place reliance on any forward-looking statement contained in this presentation.

In addition, this presentation also contains certain financial measures that are not recognized under Brazilian GAAP or IFRS. These measures do not have standardized meanings and may not be comparable to similarly-titled measures provided by other companies. We are providing these measures because we use them as a measure of company performance; they should not be considered in isolation or as a substitute for other financial measures that have been disclosed in accordance with Brazilian GAAP or IFRS.

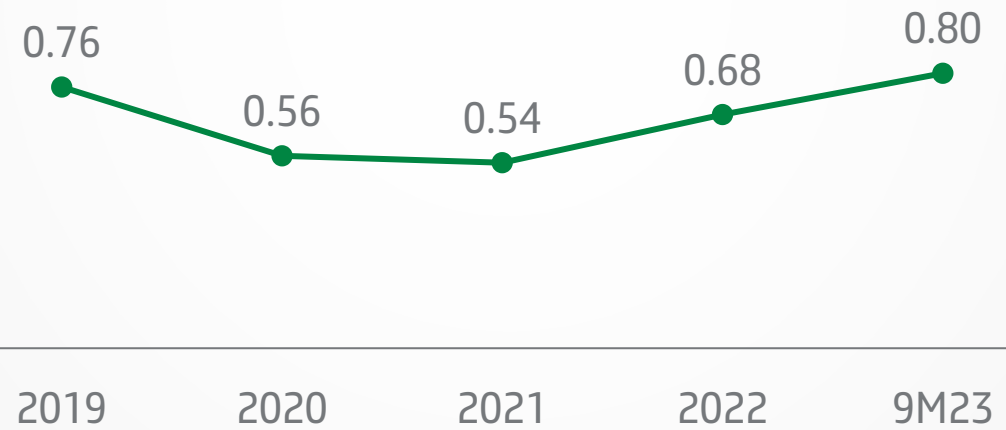
## **NON-SEC COMPLIANT OIL AND GAS RESERVES: CAUTIONARY STATEMENT FOR US INVESTORS**

We present certain data in this presentation, such as oil and gas resources, that we are not permitted to present in documents filed with the United States Securities and Exchange Commission (SEC) under new Subpart 1200 to Regulation S-K because such terms do not qualify as proved, probable or possible reserves under Rule 4-10(a) of Regulation S-X.

# Safety as a value



TIR  
*Total recordable injuries per million  
man-hours*



# Financial Highlights

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# Highlights in 3Q23

*Our financial results*

**Robust  
Adjusted  
EBITDA**

*US\$ 13.6 bi*  
sixth highest  
in history

**Consistent  
Net Income**

*US\$ 5.5 bi*

**Increasing  
OCF**

*US\$ 11.6 bi*  
fourth highest  
in our history

**High FCF**

*US\$ 8.4 bi*  
sixth highest  
in history

**Net debt/  
EBITDA**

**0.83 x**

**ROCE**

**11.5%**

**Return to  
society**

*R\$ 56.5 bi*  
taxes  
*R\$ 9.0 bi*  
dividends

**Approved  
Dividends**

*R\$ 17.5 bi*

*OCF = Operational Cash Flow · FCF = Free Cash Flow*

# Highlights in 3Q23

## Our operational records

Record oil and gas production in the pre-salt

2.25 million boed



Use of the refining park (FUT)

96% in the quarter



Energy Intensity Index in Refining

101.7



10 ppm Diesel: Production and sales records

464 kbpd  
62% of total sales



Pre-salt natural gas processing

28.96 Mm<sup>3</sup>/d



Refining Emissions Index

36.2 kgCO<sub>2</sub>e/cwt



Anita Garibaldi and Búzios 5

1<sup>st</sup> oil from FPSO Anita Garibaldi (Marlim) and achievement of nominal capacity of 150 kbpd at FPSO Almirante Barroso (Búzios), in record time



E&P Emissions Index

13.6 kgCO<sub>2</sub>e/boe



Updated production Guidances\* for 2023:

Oil and gas production: 2.1 to 2.2 kbpd

Commercial production: 2.3 to 2.4 kboed

Total production: 2.6 to 2.8 kboed

\*Guidances SP 23-27 with a variation of +/- 4% and new projections with a variation of +/- 2%

# Highlights in 3Q23

## Our progress

**Diversity, Equity and Inclusion Policy**

We approved the policy that reinforces our positioning and directs our strategies and actions on diversity, equity and inclusion

**Major developer of wind projects in the country**

Partnership with WEG to develop the largest onshore wind turbine and conduct the **largest offshore wind energy mapping campaign**

**Strengthening Governance and Compliance**

The restructuring of the Executive Office will include an area to act as an Internal Affairs Department

**New Employees**

Hiring ~270 new employees between July and September

**Largest public selection of socio-environmental projects**

We finished the **1<sup>st</sup> phase with 31 projects** and launched the **2<sup>nd</sup> phase with 28 opportunities**

**Podium Carbon Neutral gasoline launched**

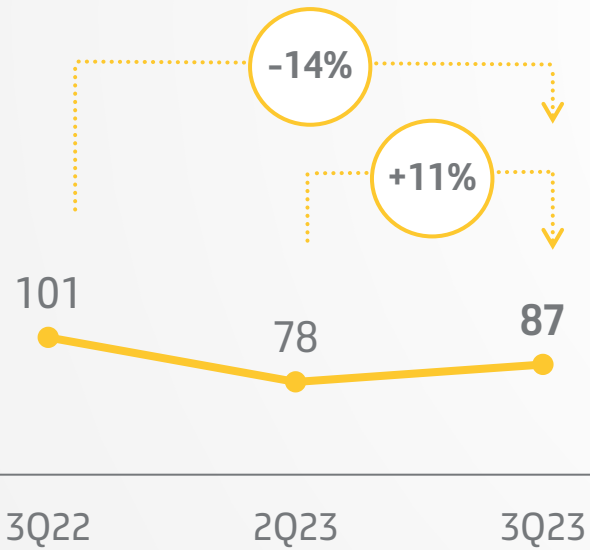
First and only gasoline in Brazil with all carbon intensity previously offset

**Advances in sustainable products and solutions**

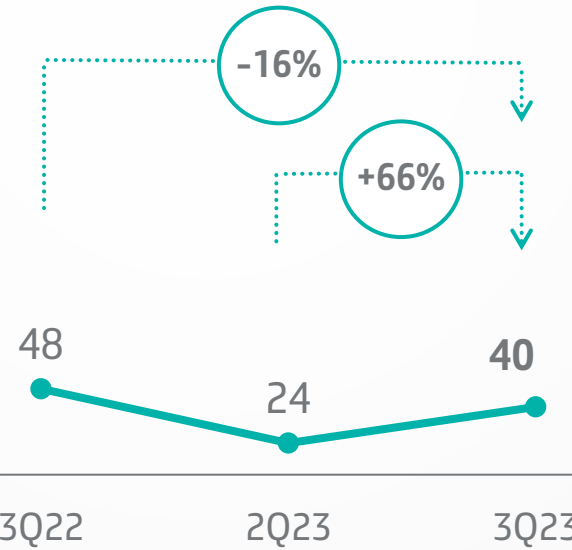
Cap Pro Ap Asphalt  
Sustainable disposal of the P-33  
Renewable content bunker fuel

## External environment

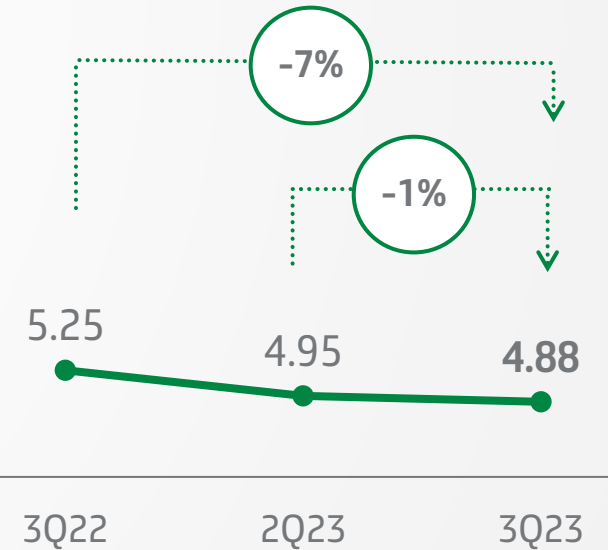
BRENT  
US\$/bbl



CRACKSPREAD DIESEL  
US\$/bbl

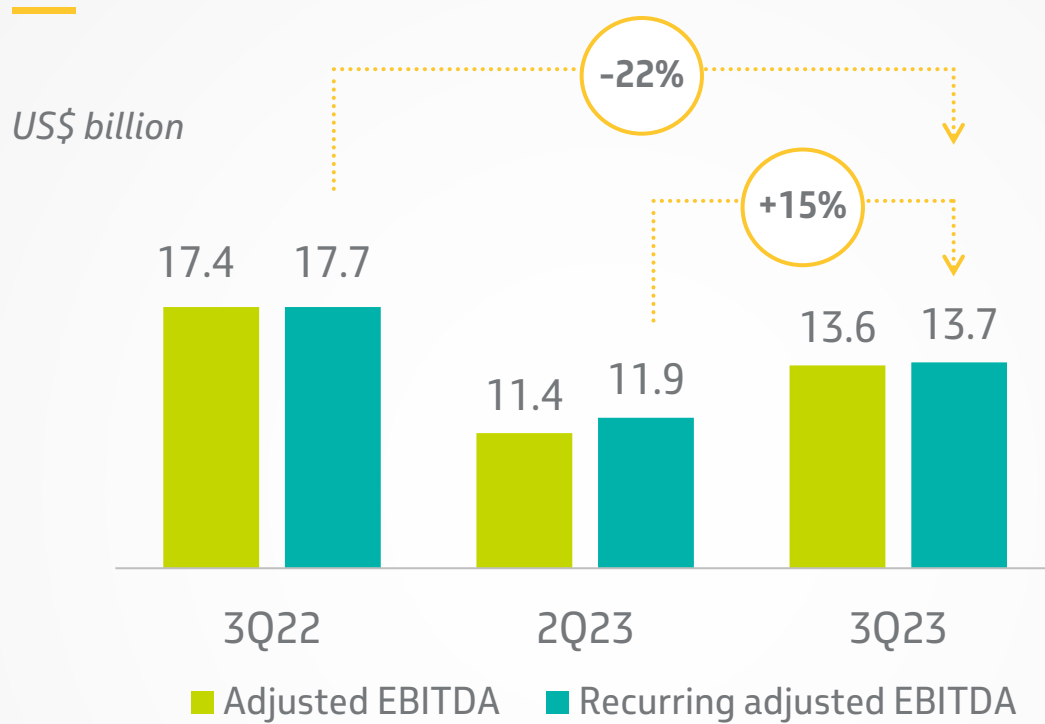


EXCHANGE RATE  
R\$/US\$ - Average exchange rate





# EBITDA



BRENT (US\$/bbl)	101	78	87
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- > Higher EBITDA due to the 11% appreciation of Brent, higher oil exports and sales of oil products on the domestic market and lower imports of LNG

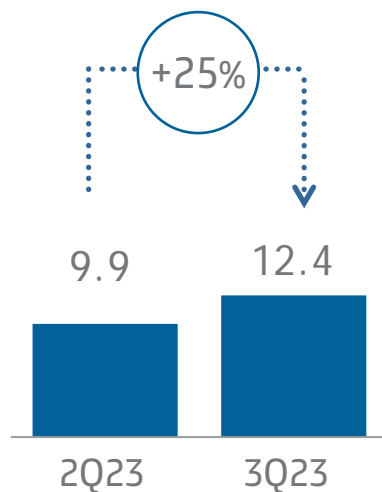


# EBITDA per business segment

Ajusted EBITDA  
US\$ billion



## Exploration & Production

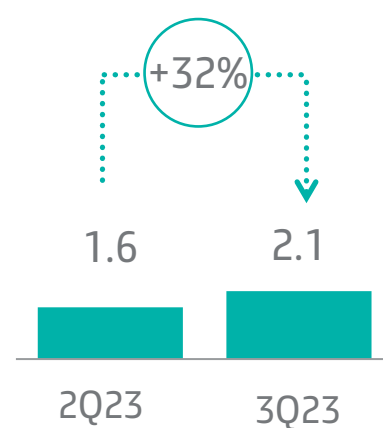


- Brent appreciation reflected in higher prices and increased production due to better operational performance

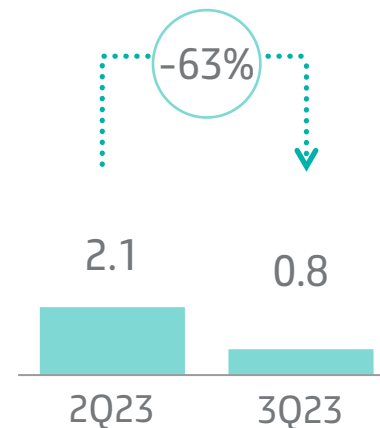


## Refining, Transportation & Marketing

■ EBITDA with inventory turnover ■ EBITDA at replacement cost



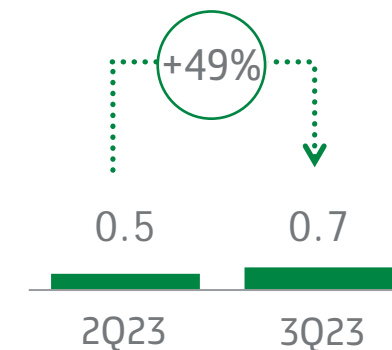
- Higher EBITDA due to higher sales volumes and the positive effect of inventory turnover due to the Brent variation



- Margins impacted by the rise in Brent



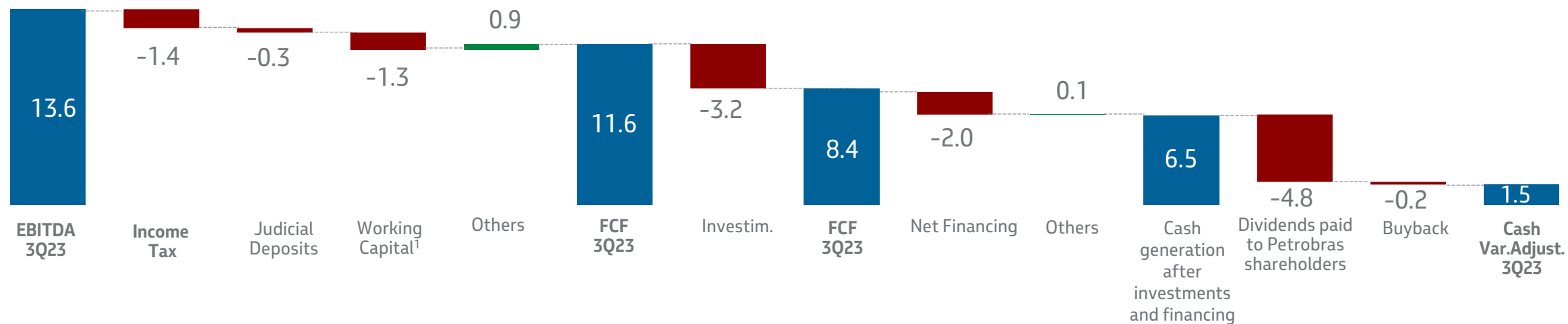
## Gas and Power



- Higher EBITDA results from the lower volume of LNG regasified in line with the lower import price.

# Strong operational generation sufficient to support investments, financing and dividend payments

EBITDA x OCF x FCF CONCILIATION  
US\$ billion



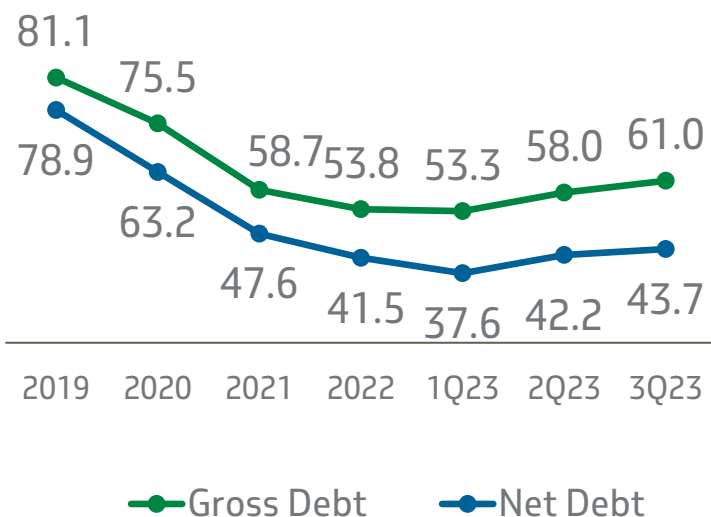
Capex totaled US\$ 9.1 billion in 9M23, 31% higher than in 9M22. We plan to end the year at a level of US\$ 13 billion, without compromising the production target planned for 2023

<sup>1</sup> Accounts receivable, inventory and suppliers  
OCF = Operational Cash Flow · FCF = Free Cash Flow

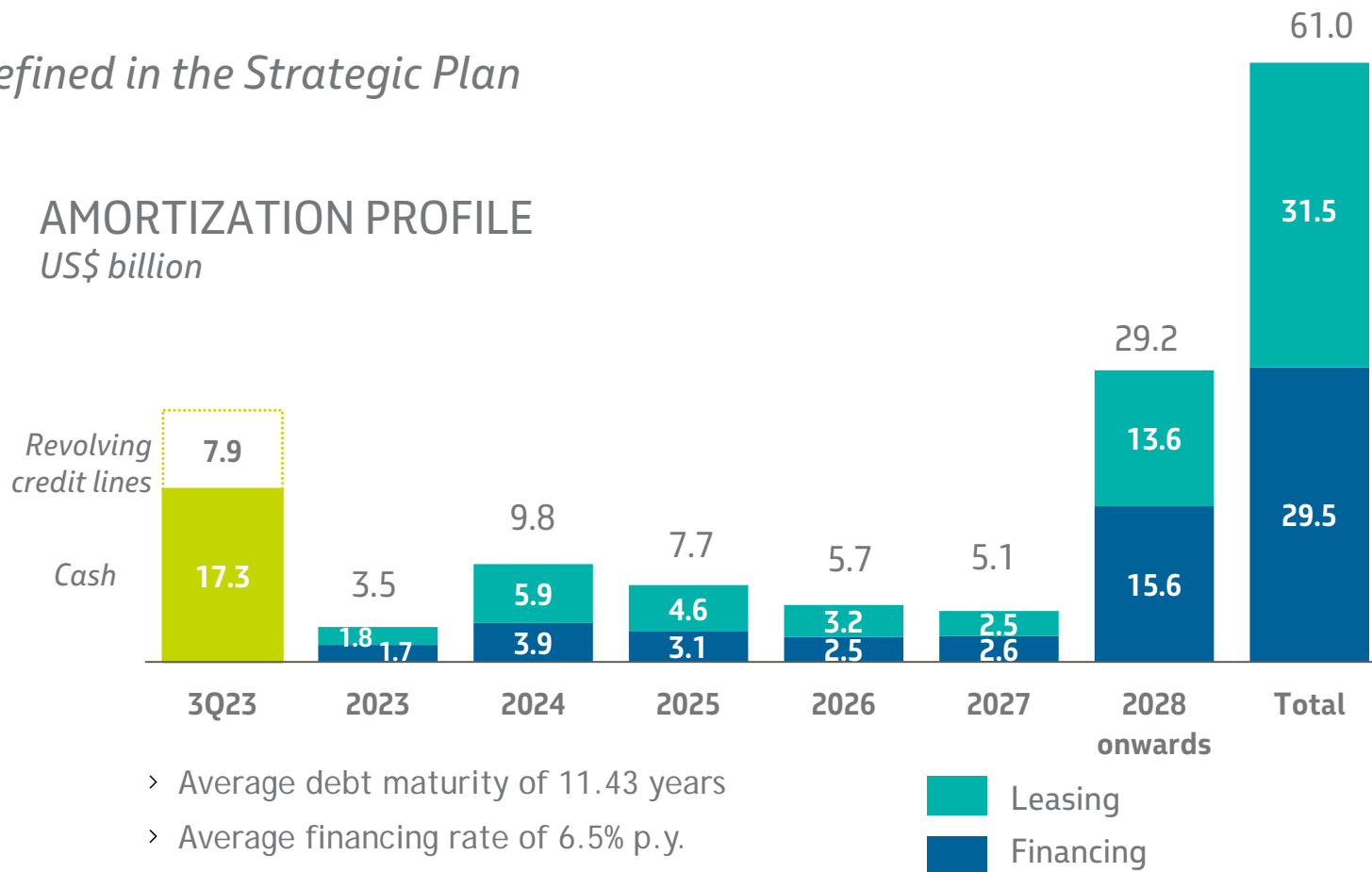
# Debt trajectory

Gross debt remains within the range defined in the Strategic Plan

**INDEBTNESS**  
US\$ billion



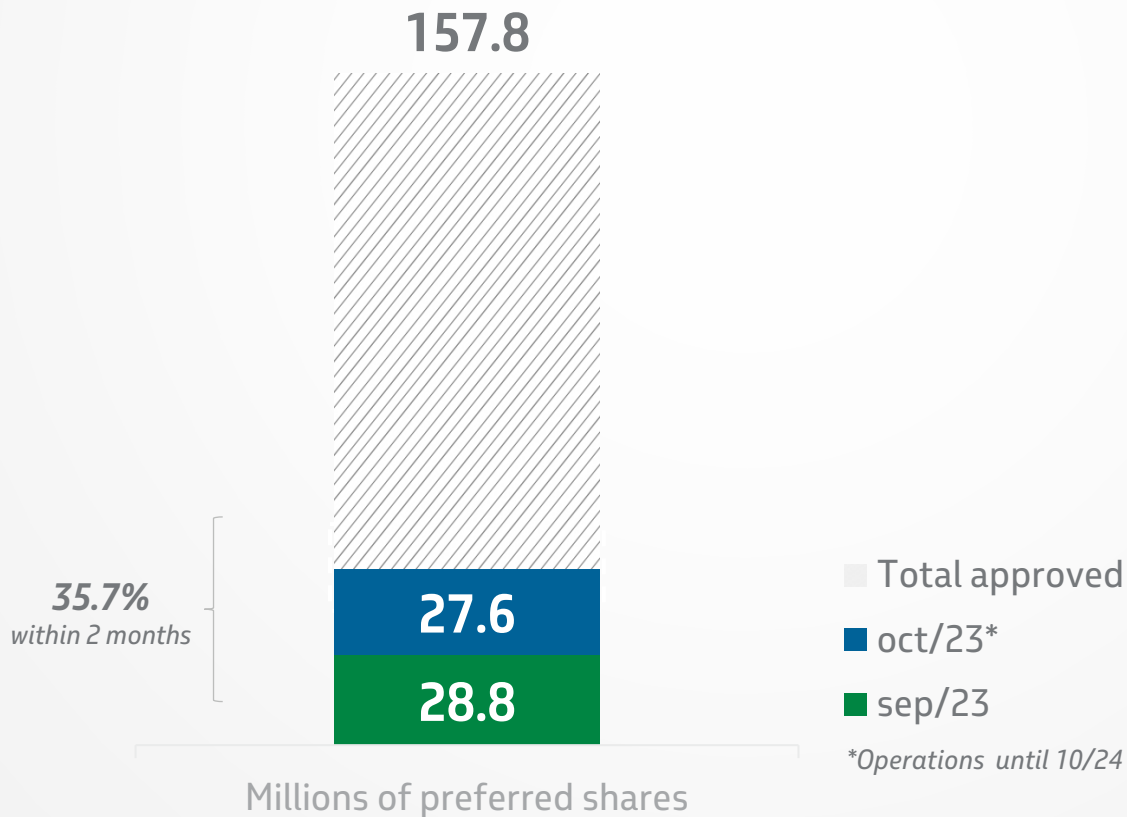
**AMORTIZATION PROFILE**  
US\$ billion



- > Gross debt at US\$ 61 billion due to the increase in leases as a result of the start-up of FPSO Anita Garibaldi.
- > Financial debt remained stable compared to 06/30/2023, reaching US\$ 29.5 billion on 09/30/2023.
- > Debt amortization totaled US\$ 8.5 million in 2023.

# Share Buyback Program

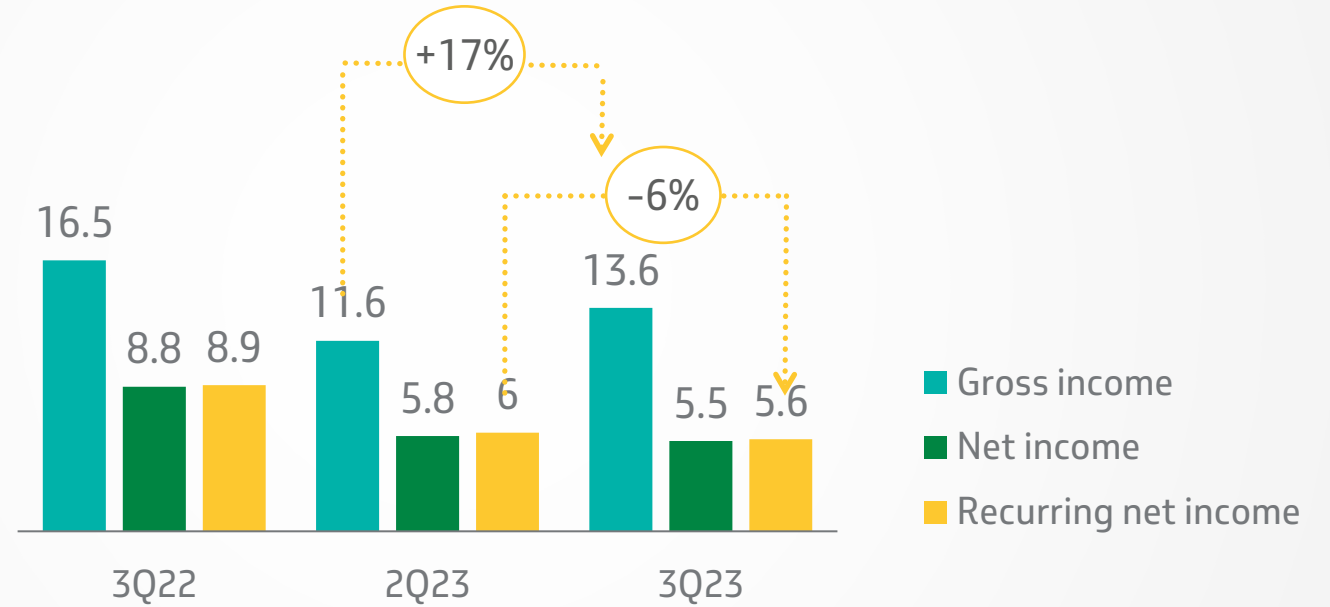
The program includes the acquisition of up to **157.8** million preferred shares (PETR4) until 08/04/2024, representing around **3.5%** of the Free Float of this class of shares.





## Net Debt

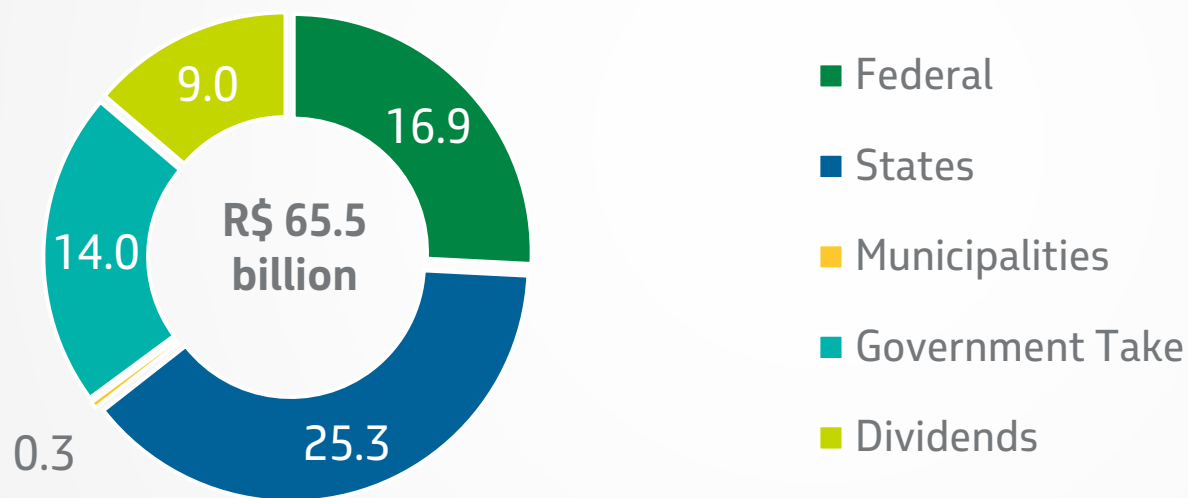
3Q23 x 2Q23  
US\$ billion



The 3Q23 result reflects the 17% increase in gross income due to the appreciation of Brent and higher sales as a result of good operating performance. Despite this good result, net income was impacted mainly by the loss from the devaluation of the real against the dollar.

# Return to society: R\$ 65.5 billion in taxes and dividends in the 3<sup>rd</sup> quarter

58%<sup>1</sup> of cash generation returned to society



<sup>1</sup> Taxes and government take paid to the Federal Government, States and Municipalities and dividends paid to the controlling group divided by cash flow from operations + taxes + government take paid.

Note: values presented on a cash basis



# Remuneration to Shareholders 3Q23 - Dividends and interest on capital approved

*Commitment to the distribution of the generated results and financial sustainability*

## DIVIDENDS + IOC



R\$ 1.34 per share\*

Base Date: 11/21/2023

## PAYMENT



**1<sup>st</sup> installment on 02/20/24**

- IOC: R\$ 0.43/share\*
- Dividend: R\$ 0.24/share\*

**2<sup>nd</sup> installment on 03/20/24**

- Dividend: R\$ 0.67/share\*

## PREMISES



- Company's financial Sustainability
- Capital discipline, optimization of cash allocation and liability management

**REMUNERATION TO SHAREHOLDERS**  
45% x FCF

**R\$ 18.4 billion**

=

**BUYBACK**

**R\$ 974 million**

+

**DIVIDENDS + IOC**

**R\$ 17.5 billion**

*\* The amounts of dividends and interest on capital per share are preliminary and may change up to the cut-off date as a result of the share buyback program.*





## Corporate Highlights

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## Highlights in 3Q23

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Diversity and total attention to people

### **Approval of the Diversity, Equity and Inclusion Policy.**

- Reinforces Petrobras' position on diversity, equity and inclusion
- Revises the procedures for preventing, receiving and handling reports of sexual violence → Petrobras Program Against Sexual Violence
- Contributes to improving the company's score on the Dow Jones Sustainability Index
- Directs diversity, equity and inclusion strategies and actions

**Chat Petrobras:** Artificial Intelligence at the click of a button - We have made Chat Petrobras available to the entire workforce, a new online artificial intelligence tool to help with the production of texts, translations and various other daily functions, safely and privately.

**Approximately 270 new employees were hired between July and September.**

**We surpassed the mark of 1.7 million hours/year in productivity gains** in the business and corporate areas with the optimization, digitalization and automation of processes.



## Largest public selection of socio-environmental projects in Petrobras' history

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### 1<sup>st</sup> phase:

31 projects already selected

12 states + DF served: Amapá, Amazonas, Bahia, Ceará, Goiás, Maranhão, Pará, Paraná, Pernambuco, Rio Grande do Norte, Rio Grande do Sul e Sergipe + DF  
**R\$ 212 million**

### 2<sup>nd</sup> phase:

28 opportunities

Southeast Region

**R\$ 220 million** in investments expected

## Partnership with the Ministry of Human Rights and Citizenship to improve governance policies

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- Technical cooperation agreement to promote management that defends and respects democracy, justice and human rights
- Expected duration of 2 years
- Could benefit around 38,000 employees and 105,000 outsourced workers
- The Ministry will draw up a technical report with recommendations on human rights, which Petrobras will implement
- The company will promote human rights in its value chain
- The partnership foresees activities to improve practices for the promotion, defense, guarantee and non-violation of fundamental rights in line with national and international frameworks linked to the issue.



# Governance and Compliance

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Balance between efficiency and control



**94 % adherence** to the practices recommended by the Brazilian Corporate Governance Code, **above the average for companies in the market**



The Governance and Compliance area was strengthened with the creation of the executive management of **Disciplinary Responsibility**; general management of **Strategic Information and Monitoring of Integrity Systems** and management specialized in **investigating complaints of violence at work\***.



In line with the strategic commitment to promote a benchmark environment for ethics, integrity and transparency at Petrobras, we have **launched distance learning on Preventing and Combating Discrimination, Moral Harassment and Sexual Violence.**

*\*This includes, for example, reports of moral and sexual harassment and cases of discrimination.*



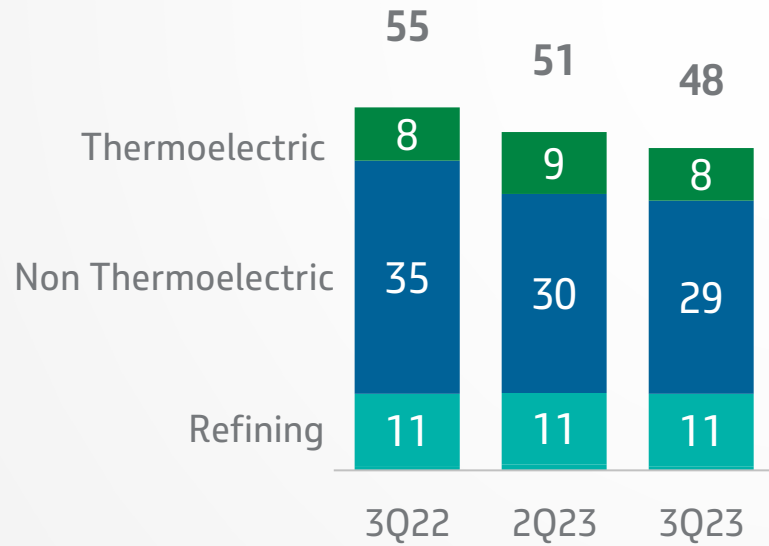
The background features a series of offshore wind turbines rendered in a white wireframe style, set against a teal ocean and a gradient sky. The turbines are arranged in a line, receding into the distance. A large, white, angular shape with a yellow border is positioned on the left side of the image, partially overlapping the turbines.

# Highlights in Energy Transition and Sustainability

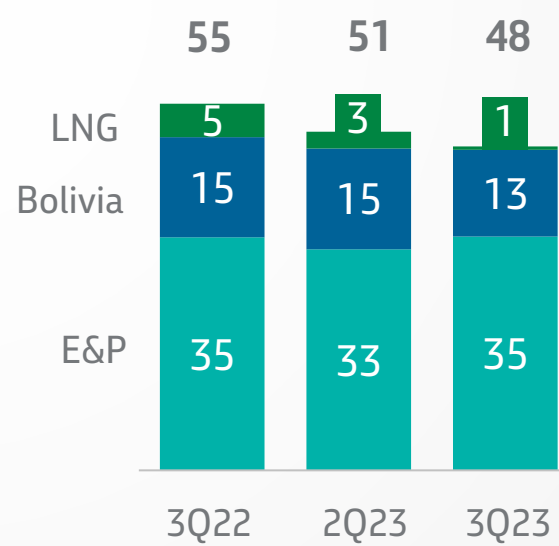
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# Higher processing of natural gas from the pre-salt leads to lower imports

NATURAL GAS DEMAND  
million m<sup>3</sup>/day



NATURAL GAS SUPPLY  
million m<sup>3</sup>/day





## Petrobras' competitiveness with distributors' natural gas contracts



**16 new contracts** with  
**10 Distributors** in 2Q23 and 3Q23  
14MM m<sup>3</sup>/d as of 2024

COMGÁS  
COPERGAS  
SCGÁS  
SPSUL  
MSGÁS

COMPAGÁS  
SULGÁS  
NECTA  
CEGÁS  
PBGÁS

Products offered with flexible quantities, terms, indexing and start dates



# Our thermoelectric portfolio means security in Energy Transition



**Capacity of 5.3 GW**  
(about 90% flexible)  
(to serve ~20 million inhabitants)



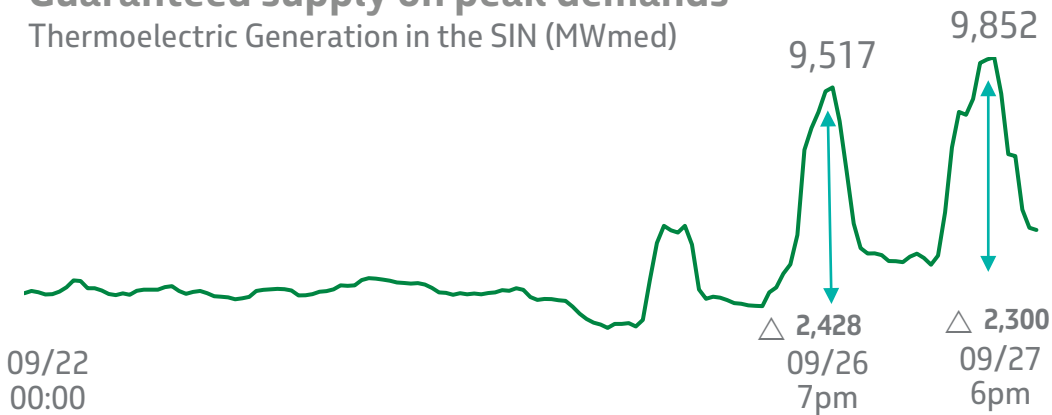
**High efficiency**



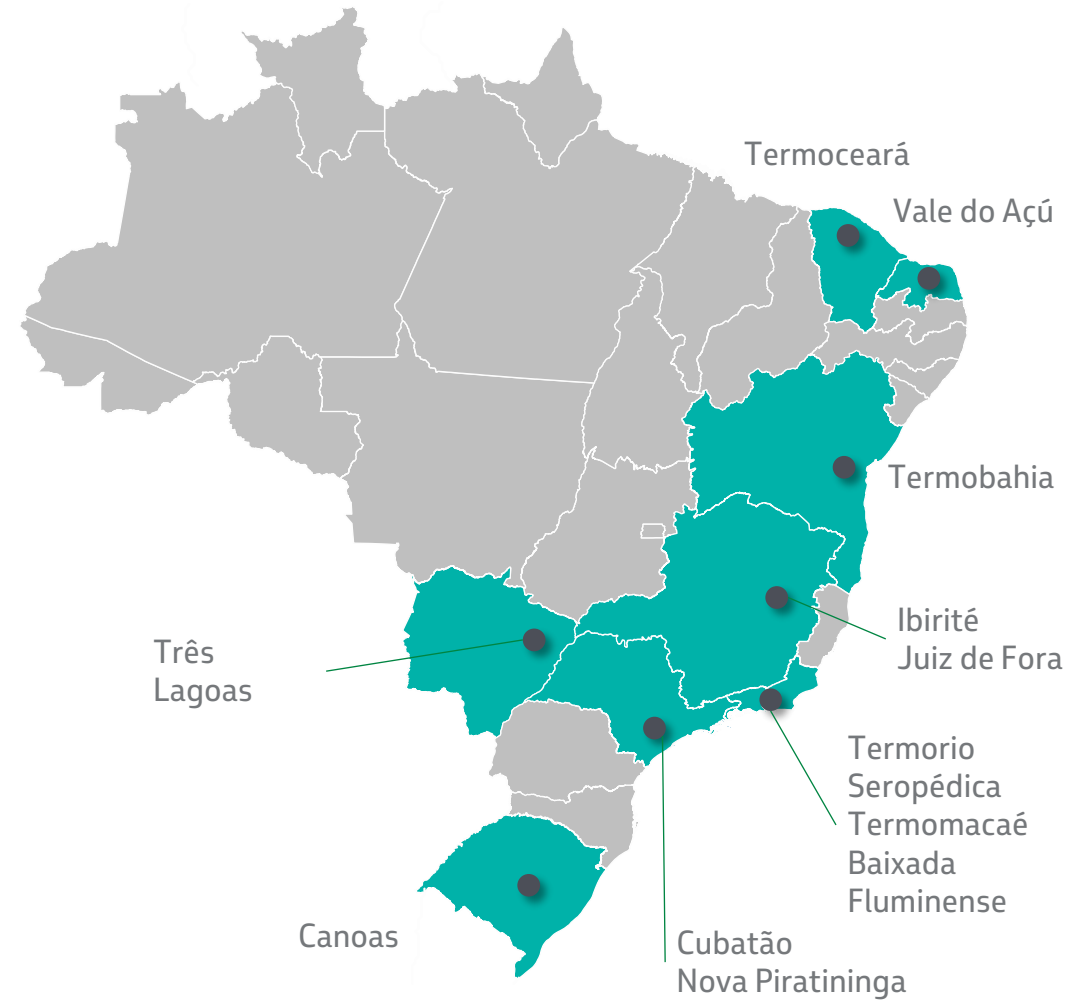
**Energy security for the system,  
complementing renewables**

## Guaranteed supply on peak demands

Thermoelectric Generation in the SIN (MWmed)



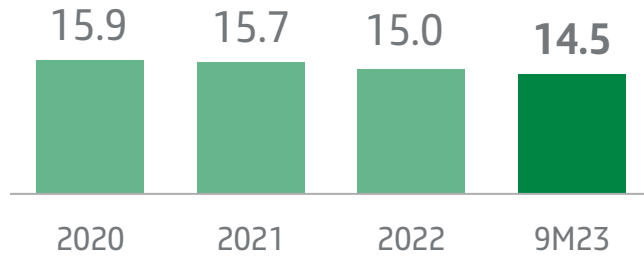
Source: ons.org.br



# Emission indicators

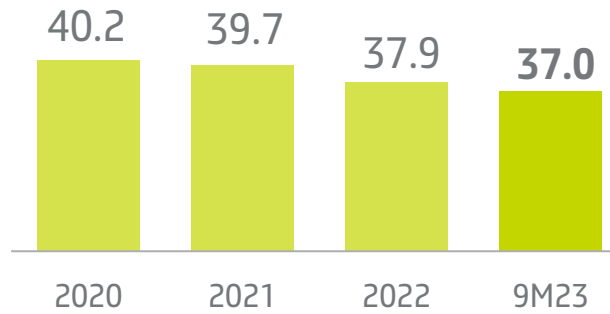
We remain on track to improve efficiency

E&P CARBON INTENSITY  
E&P\* PORTFOLIO  
kgCO<sub>2</sub>e/boe produced



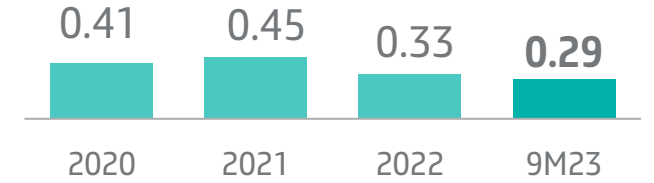
> The rates in the Tupi and Búzios fields are 10.0 and 10.4 kgCO<sub>2</sub>e/boe, respectively

REFINING CARBON INTENSITY  
kgCO<sub>2</sub>e/CWT\*\*



> The rates for our largest refinery, REPLAN, is 31.3 kgCO<sub>2</sub>e/CWT

CARBON INTENSITY THERMOELECTRIC  
tCO<sub>2</sub>e/MWh



CARBON INTENSITY

2025  
↓  
2030

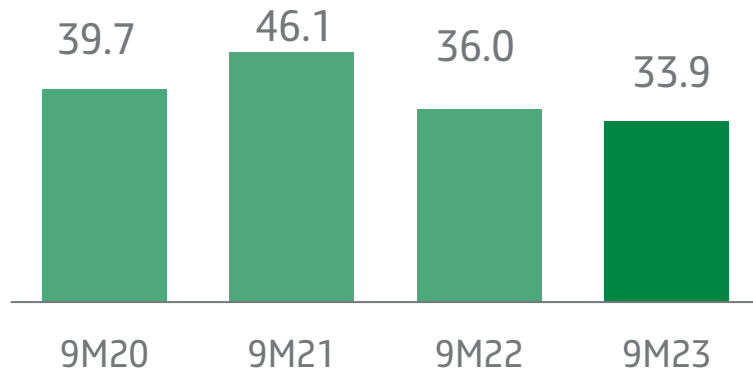
E&P 15 kgCO<sub>2</sub>e/boe  
REFINING 36 kgCO<sub>2</sub>e/CWT  
E&P 15 kgCO<sub>2</sub>e/boe  
REFINING 30 kgCO<sub>2</sub>e/CWT

\* From 2023 onwards, we started to monitor the performance of the E&P segment using 3 metrics: The IGEE-E&P of units implemented is the top metric, with a target in 2023 of 15.04 kgCO<sub>2</sub>e/boe and an accumulated result of 13.9 in 3Q23. The IGEE-E&P of New Units under implementation is presented as a target in the scorecard of selected executives. The IGEE-E&P Portfolio is the combination of both indicators and is related to our history and commitment to sustainability.

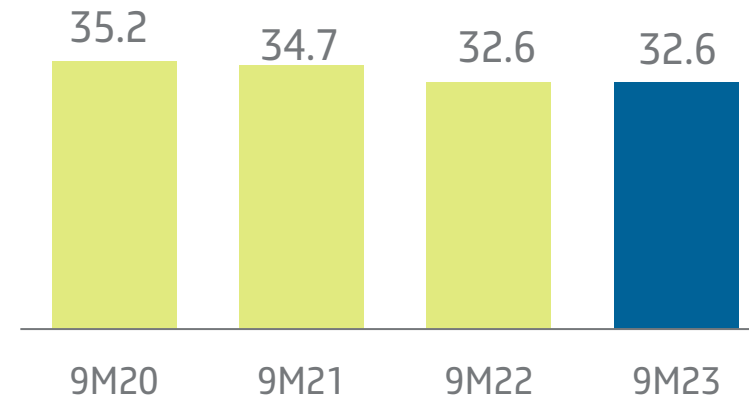
\*\* The CWT (Complexity Weighted Tonne) of a refinery considers the potential for CO<sub>2</sub> emissions, equivalent to distillation, for each process unit. The target for 2023 is 37.8 kgCO<sub>2</sub>e/CWT.

# Absolute Emissions

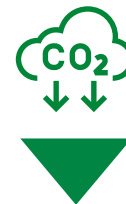
TOTAL OPERATIONAL EMISSIONS\*  
MM tCO<sub>2</sub>e



O&G OPERATIONAL EMISSIONS\*  
(excludes electricity dispatches)  
MM tCO<sub>2</sub>e



*The low thermoelectric dispatch and implementation of efficiency and loss reduction actions in the operating segments were vectors for lower GHG emissions.*



*Absolute operational O&G emissions are on a trajectory consistent with our ambition of long-term emissions neutrality.*

\*Consider emissions related to Scopes 1 and 2, and include all operated assets

## Highlights in Climate and decarbonization of operations (scopes 1 and 2)



### We achieved the lowest GHG intensity in the upstream

In September, the upstream segment achieved the best monthly result in terms of greenhouse gas emissions (13.6 kgCO<sub>2</sub>e/boe).

The implemented emission mitigation actions and record production contributed to this result.



### For the 6<sup>th</sup> consecutive year, our emissions inventory has been awarded the Gold Seal

The Gold Seal of the Brazilian GHG Protocol Program recognizes our corporate inventory, duly verified by a third party, with the highest level of qualification.



### Higher efficiency in energy consumption and a reduction in the intensity of greenhouse gas emissions in refining

In 3Q23 we obtained the best quarterly results in history in Energy Intensity (101.7) and Emissions Intensity (36.2 kgCO<sub>2</sub>e/CWT), demonstrating our constant operational focus on energy performance.



### 15 new projects approved for use of the Decarbonization Fund

The Board of Directors approved the inclusion of 15 new carbon mitigation opportunities for use by the Decarbonization Fund, in addition to the 13 opportunities already approved. The decarbonization fund is a budget reserve for implementing decarbonization projects with additionality.

## Products with a lower carbon footprint (scope 3)



### Carbon Credits

We entered the voluntary market by acquiring forest conservation credits equivalent to 175,000 tons of greenhouse gases (GHG).

The operation corresponds to the preservation of an area of 570 hectares of the Amazon rainforest, the equivalent of 800 soccer fields.



### We obtained authorization from the ANP to market a new sustainable asphalt

We have started field tests with CAP PRO AP asphalt, which enables the production and application of asphalt concrete at lower temperatures, with an estimated reduction in greenhouse gases of up to 65%.



### Petrobras Podium gasoline launched

The first and only carbon neutral gasoline in Brazil with all GHG emissions fully offset.

To do this, we guarantee the neutralization of emissions, from the extraction and production of raw materials, transport, processing, distribution and final use by the consumer.



### We have become the major developer of wind projects in the country

Partnership with WEG to develop the largest onshore wind turbine in Brazil, with a potential of 7MW. At the same time, among Brazilian companies, we have the largest offshore wind energy potential in terms of capacity registered with IBAMA, with a total potential of 23GW.

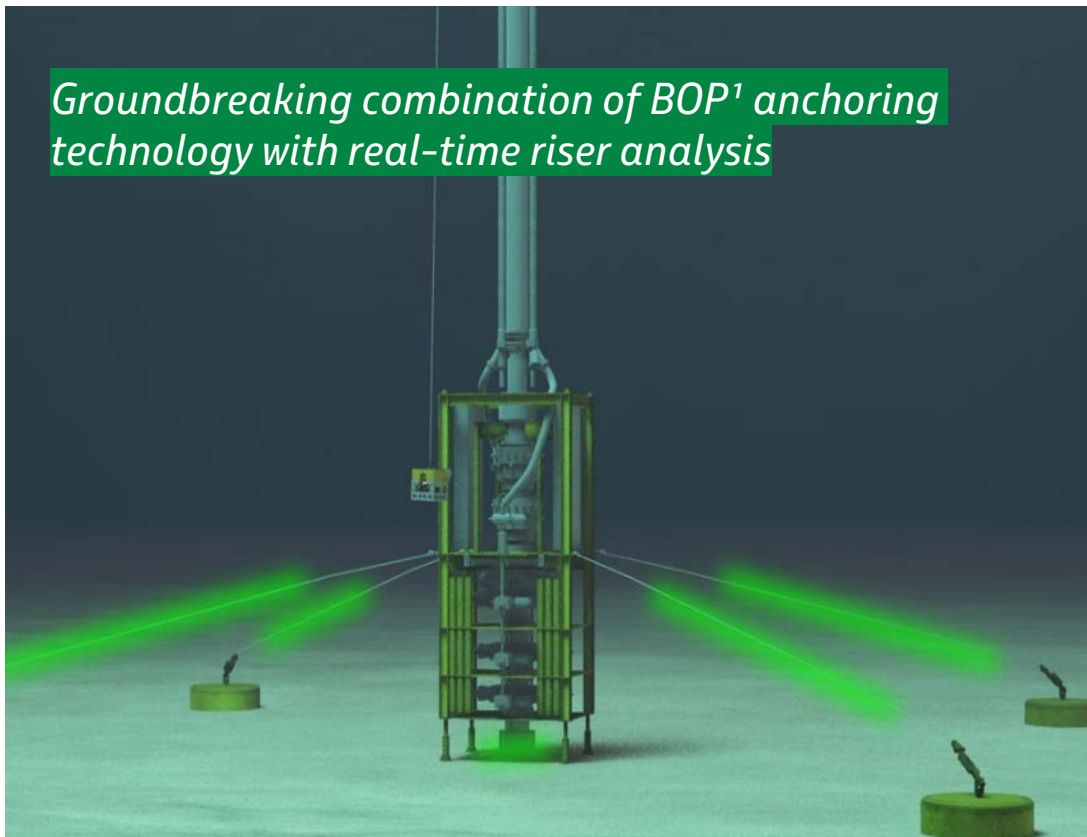
# Highlights in Engineering, Technology and Innovation

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*FPSO Anita Garibaldi –  
start of production in the  
Marlim and Voador fields*

# We received another OTC Brasil award, this time for innovative technology in Wells

*Innovation brings greater efficiency and operational safety, and less environmental impact*



Groundbreaking combination of BOP<sup>1</sup> anchoring technology with real-time riser analysis

## MAIN GAIN

Possibility of using more modern dynamic positioning rigs in shallow waters

Reduction in the duration of interventions in shallow water wells, providing cost savings and an average reduction of 10% in greenhouse gas emissions

99% reduction in the impact of anchoring on the seabed

<sup>1</sup> Blowout Preventer – safety equipment that controls well pressure

Bravo buoy



## Research and Development in renewable energies

### OFFSHORE ENERGY POTENTIAL STUDY

We are conducting the largest wind energy mapping campaign in Brazil

Installation of measuring devices (LiDAR) on six shallow water platforms.

Technological development of the BRAVO buoy - floating system to measure the offshore wind resource with LiDAR.

### PARTNERSHIP

We signed a partnership with WEG<sup>1</sup> to develop a 7 Megawatts onshore wind turbine set

Milestone represents increased knowledge of technology, in addition to contributing to the energy transition.

### PETROBRAS TECHNOLOGY IN BIOREFINING

We concluded first tests at the Riograndense Refinery

Historical tests took place at FCC<sup>2</sup> with 100% for the production of Petrochemicals and Renewable Fuels



Riograndense Refinery tests

<sup>1</sup> WEG: Company specializing in the manufacture of electric motors, transformers and generators

<sup>2</sup> Fluid catalytic cracking



# Marlim and Voador Revitalization Project moves forward with 1st oil from FPSO Anita Garibaldi

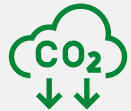


## FPSO ANITA GARIBALDI

- Start of production on August 16th
- 2 production wells in operation
- Current production<sup>1</sup>: 15 kbpd

## FPSO ANNA NERY

- Start of production on May 7th
- 6 production wells in operation
- Current production<sup>1</sup>: 33 kbpd



**Last generation technologies for reducing greenhouse gas emissions, combining efficiency and decarbonization**

## MARLIM AND VOADOR FIELDS' REVITALIZATION PROJECT

Joint production capacity of the platforms is up to 150 kbpd

Replacement of nine platforms that will be decommissioned

250 km of flexible pipelines and umbilicals already decommissioned + 950 km to be decommissioned

22 abandoned wells + 68 wells to be abandoned



Credit: Modec

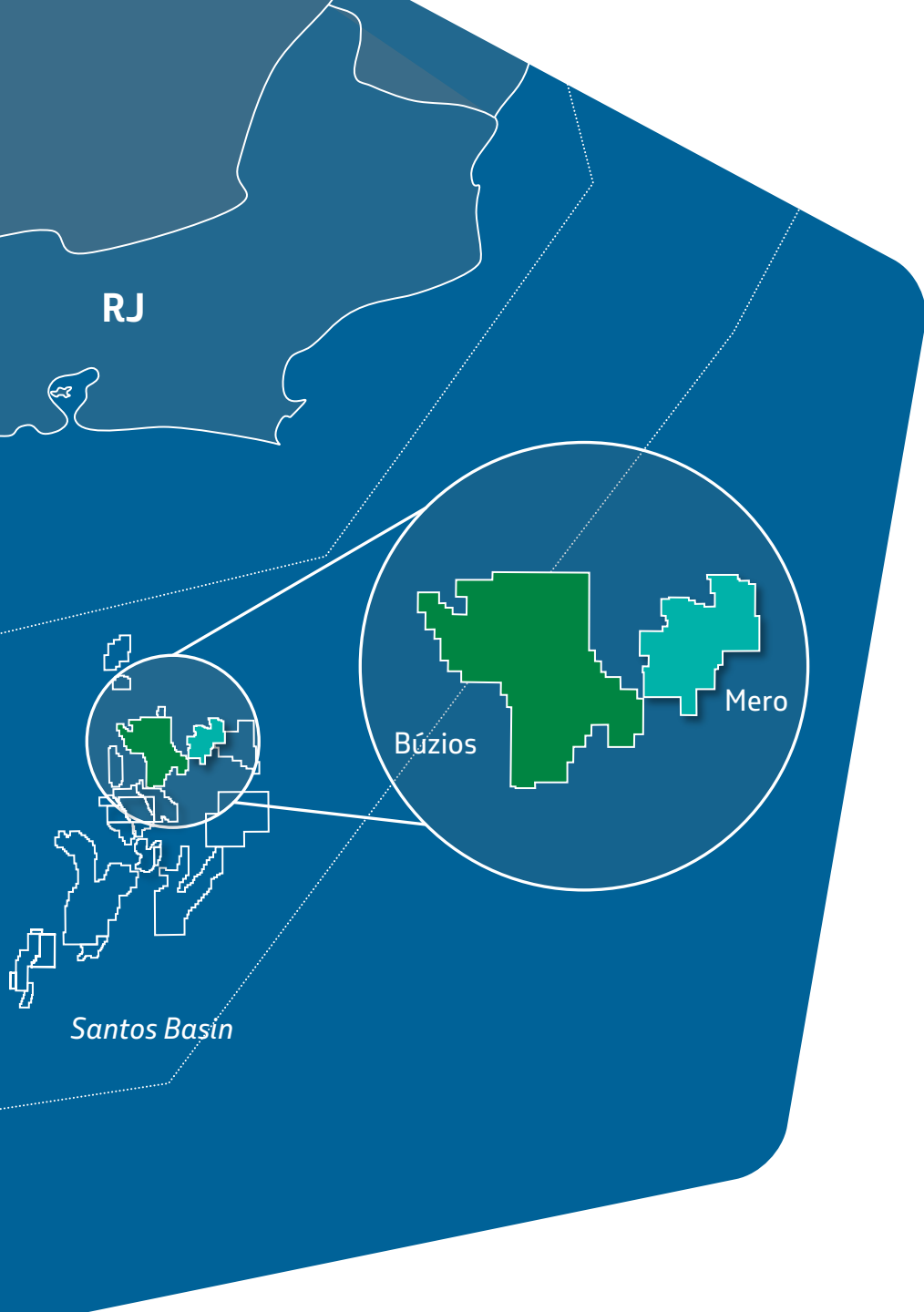
*FPSO Anita Garibaldi – 1st oil in Marlim and Voador fields*



*FPSO Anna Nery – in production ramp-up in Marlim field*

Credit: Yinson

<sup>1</sup> Average production in October 2023



## FPSO Almirante Barroso reaches the project's capacity in record time in the Pre-salt and FPSO Sepetiba arrives at location in the Mero field

### BÚZIOS – FPSO Almirante Barroso



Production top reached in **less than 5 months** with 3 producing wells

The project's first wave of well construction was completed with a **15% reduction in costs**<sup>1</sup>.



150kbpd

### MERO – FPSO Sepetiba

Mooring concluded. Preparatory activities to start-up in progress.

1st oil scheduled for December 2023.

The project's first wave of well construction was completed with a **33% reduction in costs**<sup>1</sup>.



180kbpd

<sup>1</sup> In relation to planned

# Highlights in Refining and Logistics Projects

Refinaria Abreu e Lima  
RNEST trains 1 and 2

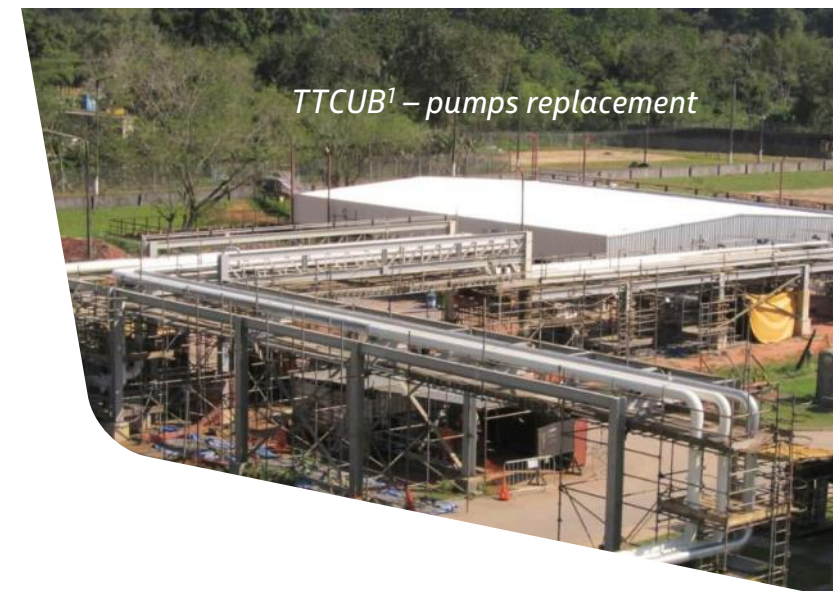
## RNEST

- In August 2023, we started contracting for the resumption of RNEST train 2.
- The work resumption is planned for 2024.

## BOMBAS DE CUBATÃO

- Start of operation in August 2023, with the implementation of new pumps in TTCUB<sup>1</sup>.
- The project aims to ensure higher reliability of the electrical system and oil supply for RECAP.

<sup>1</sup> Cubatão Terrestrial Terminal



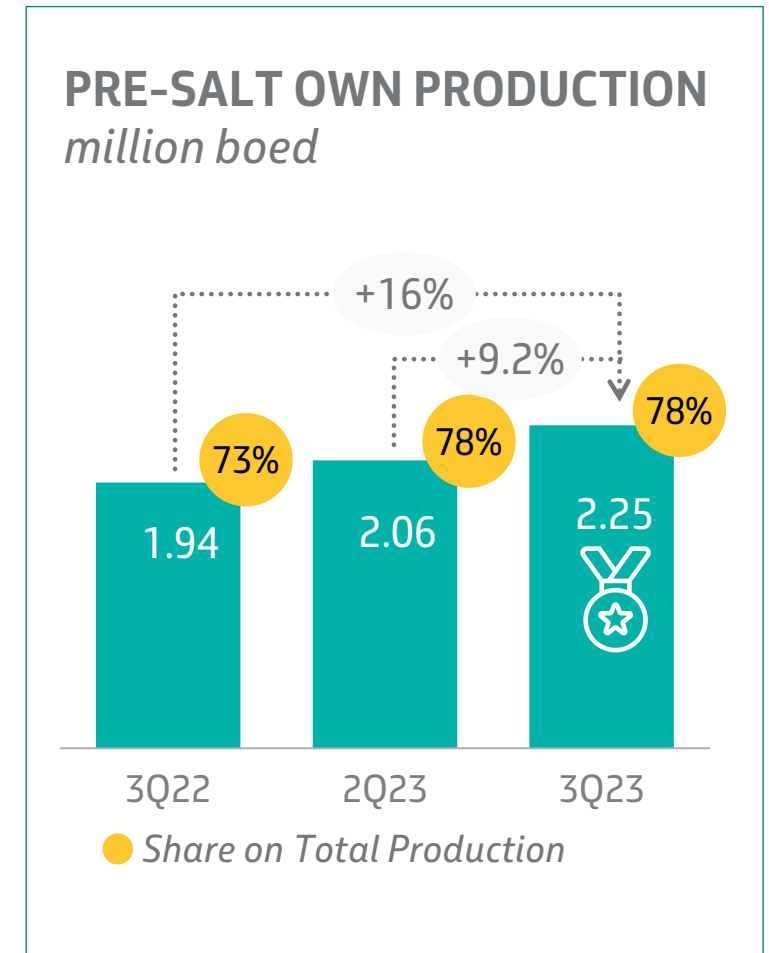
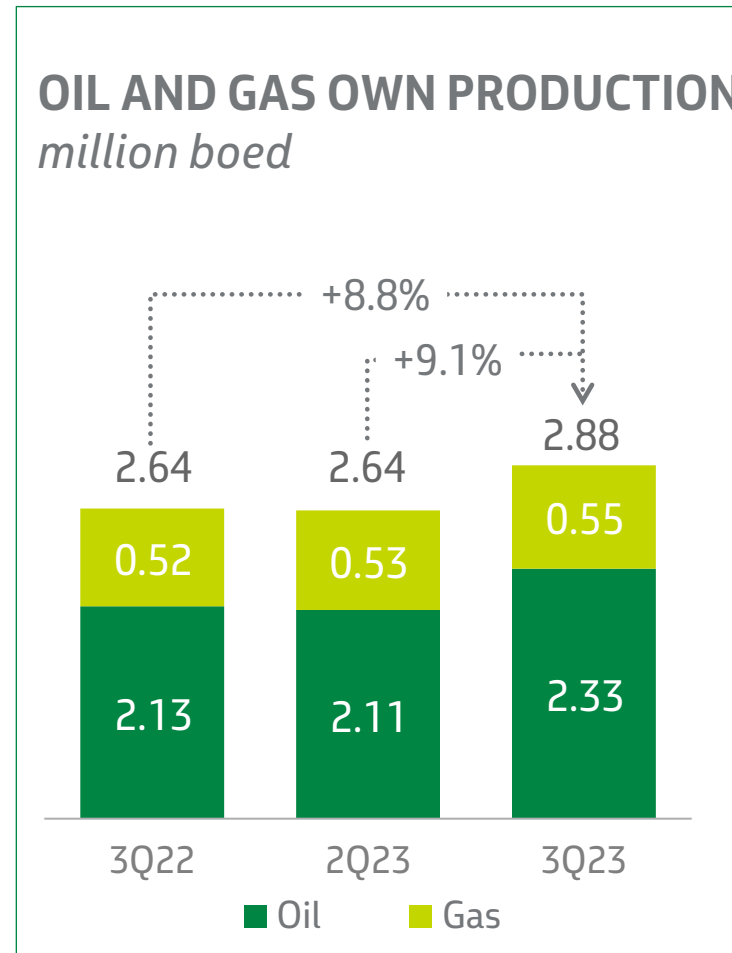
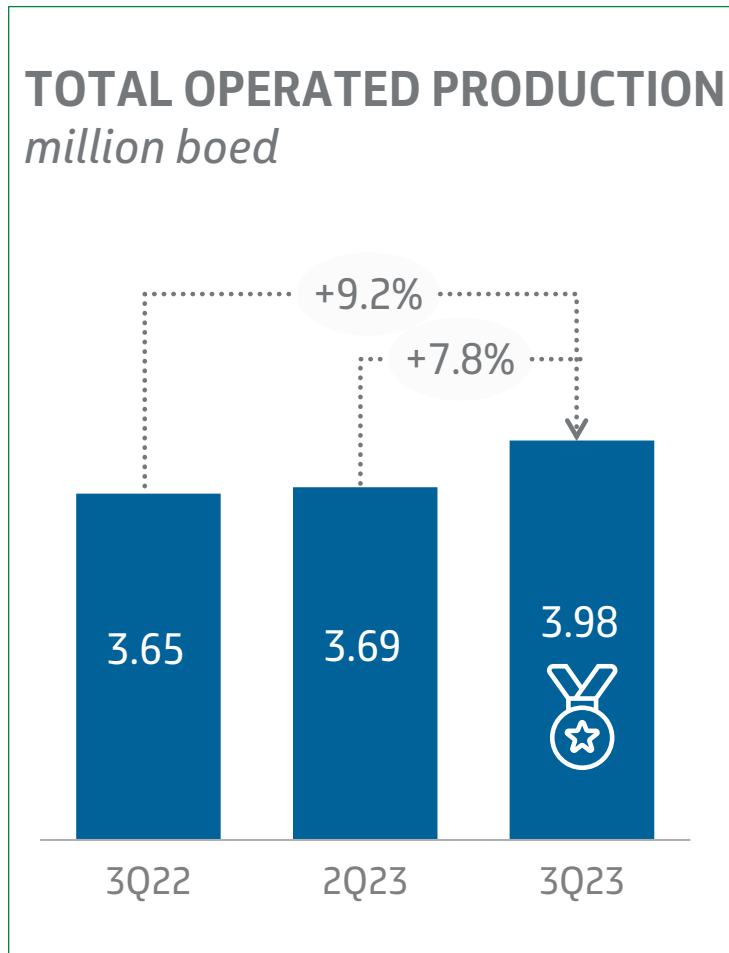
TTCUB<sup>1</sup> – pumps replacement

An aerial view of an offshore oil rig at sunset. The rig is a complex of steel structures with a tall derrick on the left. The sea is dark blue with golden reflections from the setting sun. The sky is a gradient of orange and yellow. A white graphic element with green and yellow borders is in the bottom left corner.

# Exploration & Production Highlights

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# Growth of 9% of own production, and new records of Pre-salt and operated production



# Quarterly Production Records - 3Q23



## PRODUCTION

### OPERATED

OIL: 3.20 kbpd  
BOE: 3.98 kboed



## PRE-SALT PRODUCTION

### OPERATED

OIL: 2.69 kbpd  
BOE: 3.25 kboed

### OWN

OIL: 1.87 kbpd  
BOE: 2.25 kboed



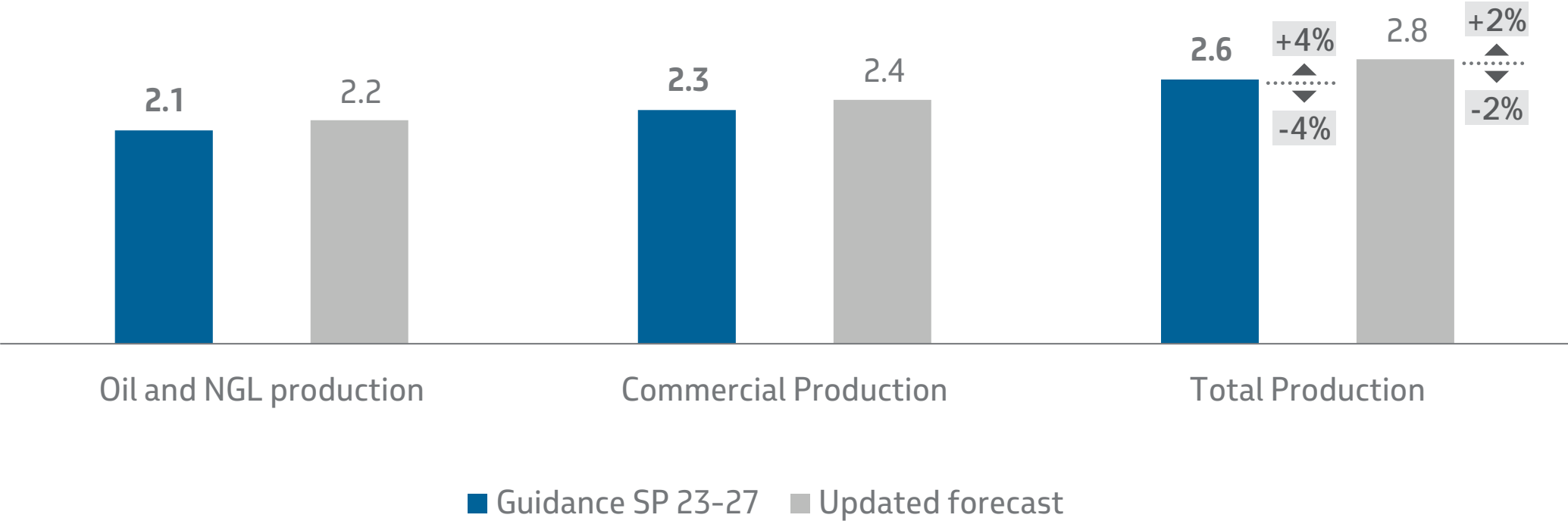
## IUGA\*

98.1%  
(SEP/23)

\* Acronym for Associated Gas Utilization Index

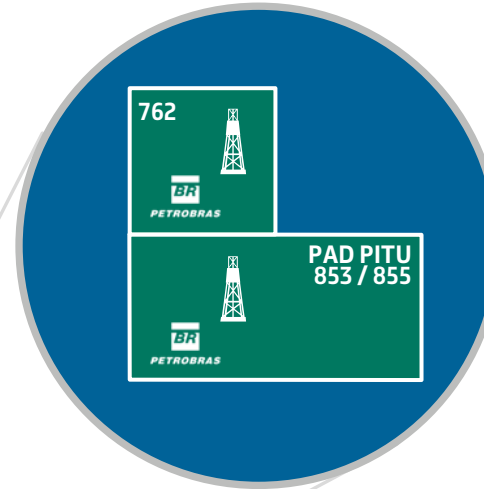
# Good performance in the quarter with ramp-ups and new wells scheduled for 4Q23 allow us to update our forecasts for 2023

Strategic Plan 23-27 guidance and 2023 updated forecasts\*



\* Strategic Plan 23-27 guidance with variation of +/- 4%, new forecasts with variation of +/- 2%

# We have obtained the Environmental License for drilling 2 wells in the Potiguar Basin, in the Equatorial Margin



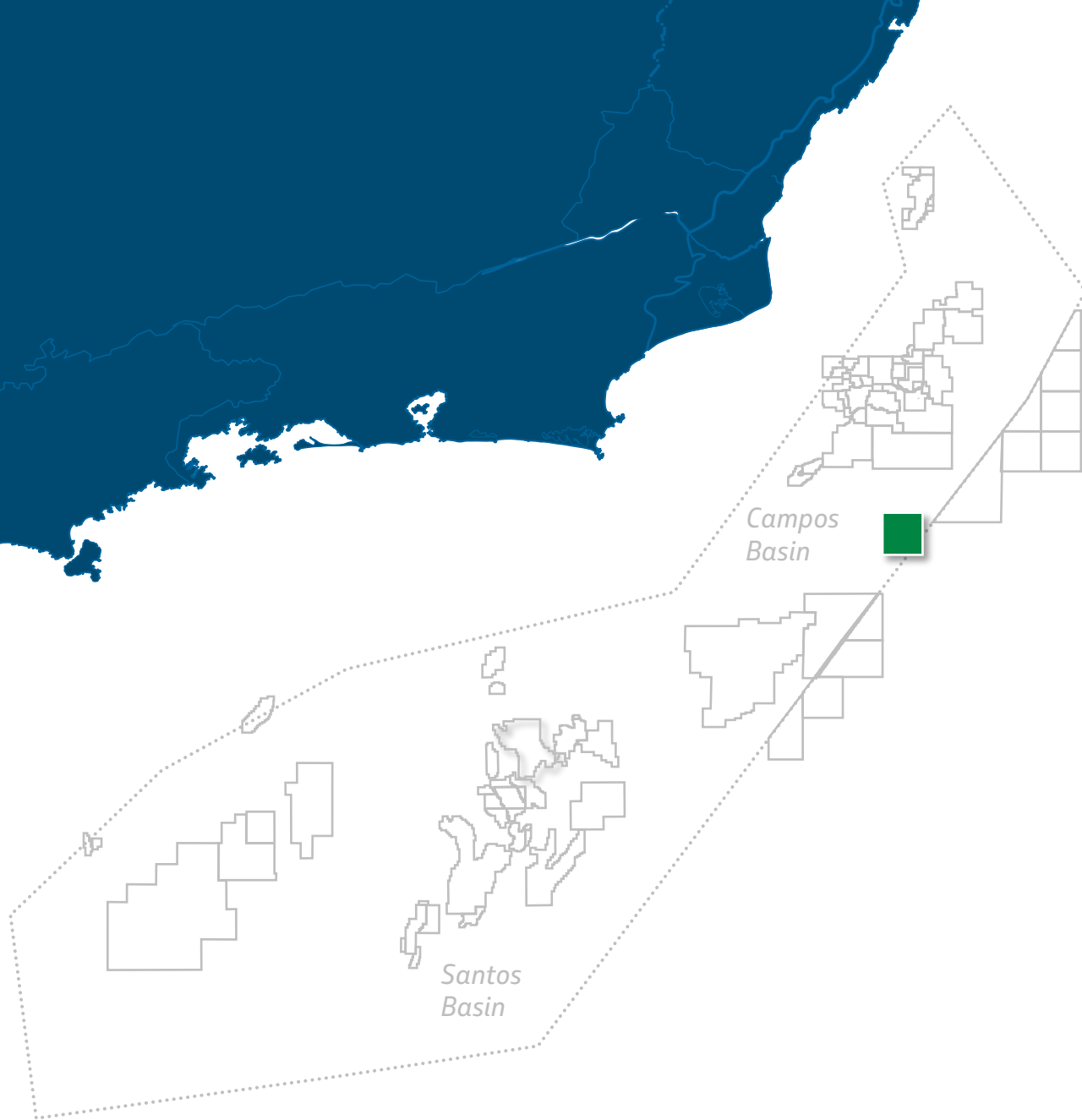
## Pre-Operational Assessment concluded

Simulation of the Fauna Emergency and Protection Plan carried out in September 2023

### 2 obligatory wells:

- PAD Pitu (Pitu Oeste)
- POT-M-762 (Anhangá)





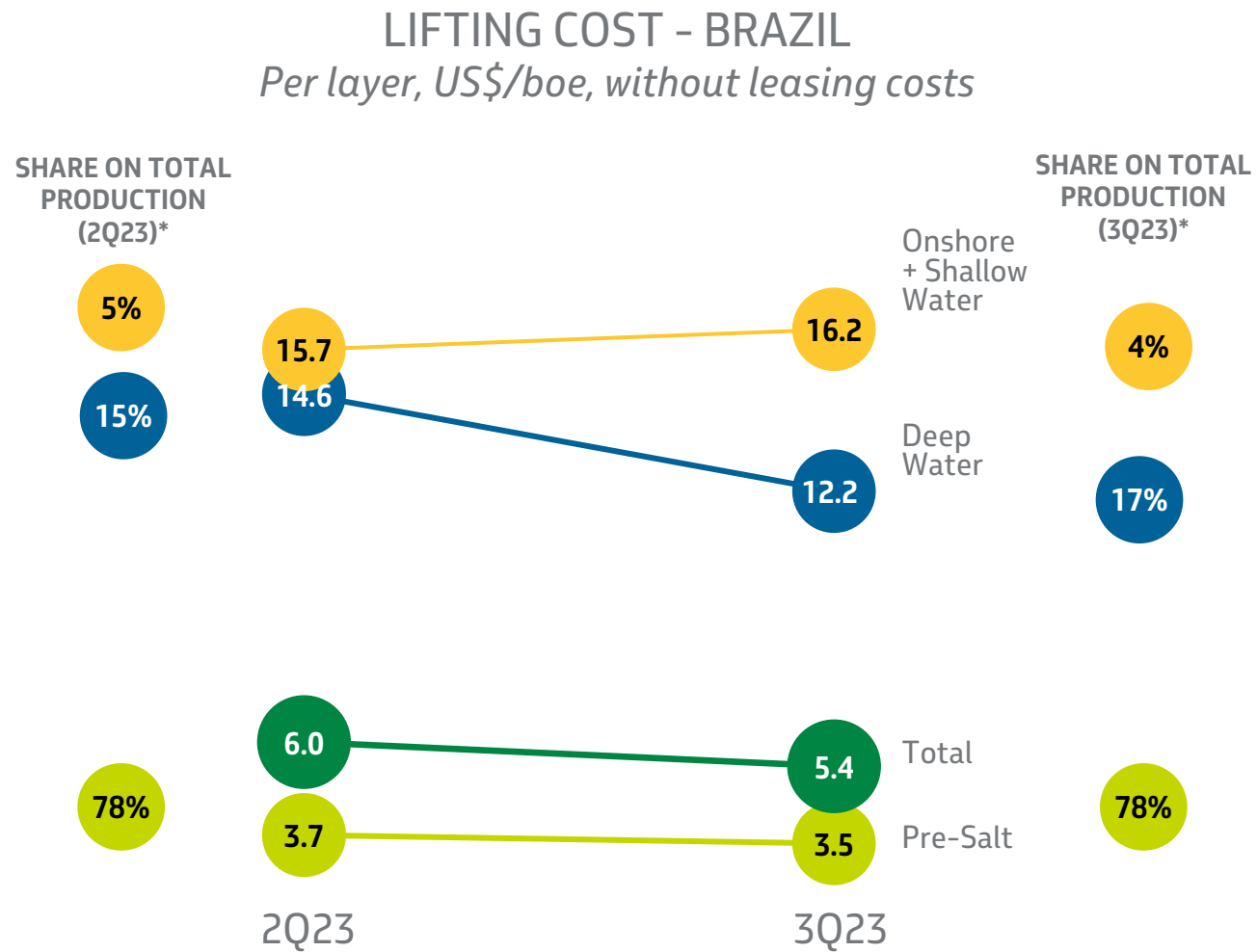
## We have declared commerciality of oil and gas accumulations on the fields *Raia Manta* and *Raia Pintada*

### BM-C-33 (PRE-SALT – CAMPOS BASIN)

Equinor (OP) 35%, Repsol Sinopec 35% and Petrobras 30%

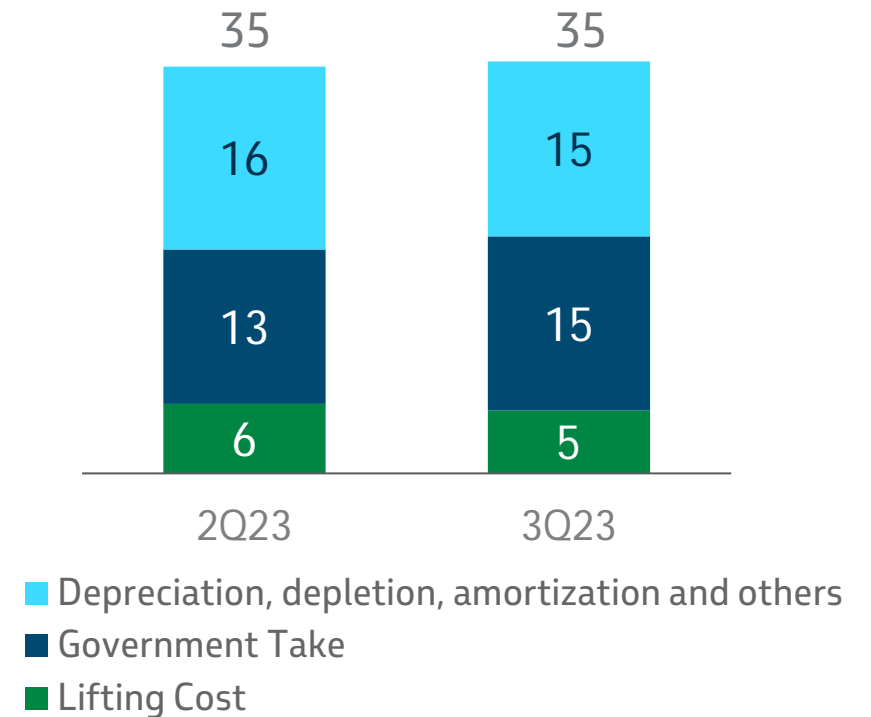
- ✓ Declarations of Commerciality sent to ANP. The names suggested for the new fields are *Raia Manta* and *Raia Pintada*
- ✓ FPSO with combined cycle technology, contributing to the reduction of CO<sub>2</sub> emissions
- ✓ The capacity of the pipeline for treated gas export is 16 MM m<sup>3</sup>/d, one of the main natural gas projects under development in Brazil
- ✓ Oil and gas recoverable volumes expected to exceed one billion boe
- ✓ Expected production start-up: 2028

# Reduction of the lifting cost in 10% on 3Q23 due to, mainly, the increase in production of the Santos and Campos Basins



### TOTAL COST OF OIL PRODUCED

US\$/boe



\* Additionally, 1.2% of our total production comes from fields outside Brazil

A wide-angle photograph of a large industrial refinery or petrochemical plant. The scene is captured during the "golden hour" of sunset, with the sun low on the horizon to the right, casting a warm, golden glow over the entire facility. The sky transitions from a deep blue at the top to a bright orange near the sun. The refinery itself is a complex of numerous tall distillation columns, intricate piping networks, and large storage tanks. In the foreground, there are several long, elevated walkways or platforms supported by metal columns, with yellow safety railings. The overall atmosphere is one of industrial scale and activity.

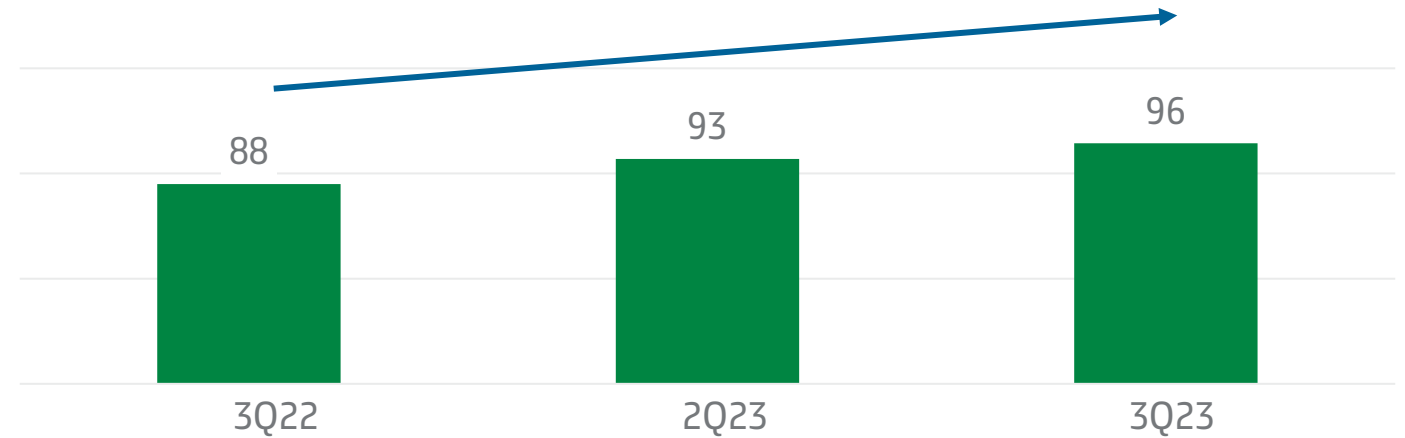
# Industrial Processes and Products Highlights

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## We achieved Operational Utilization Factor of 96%, the highest level since 2014

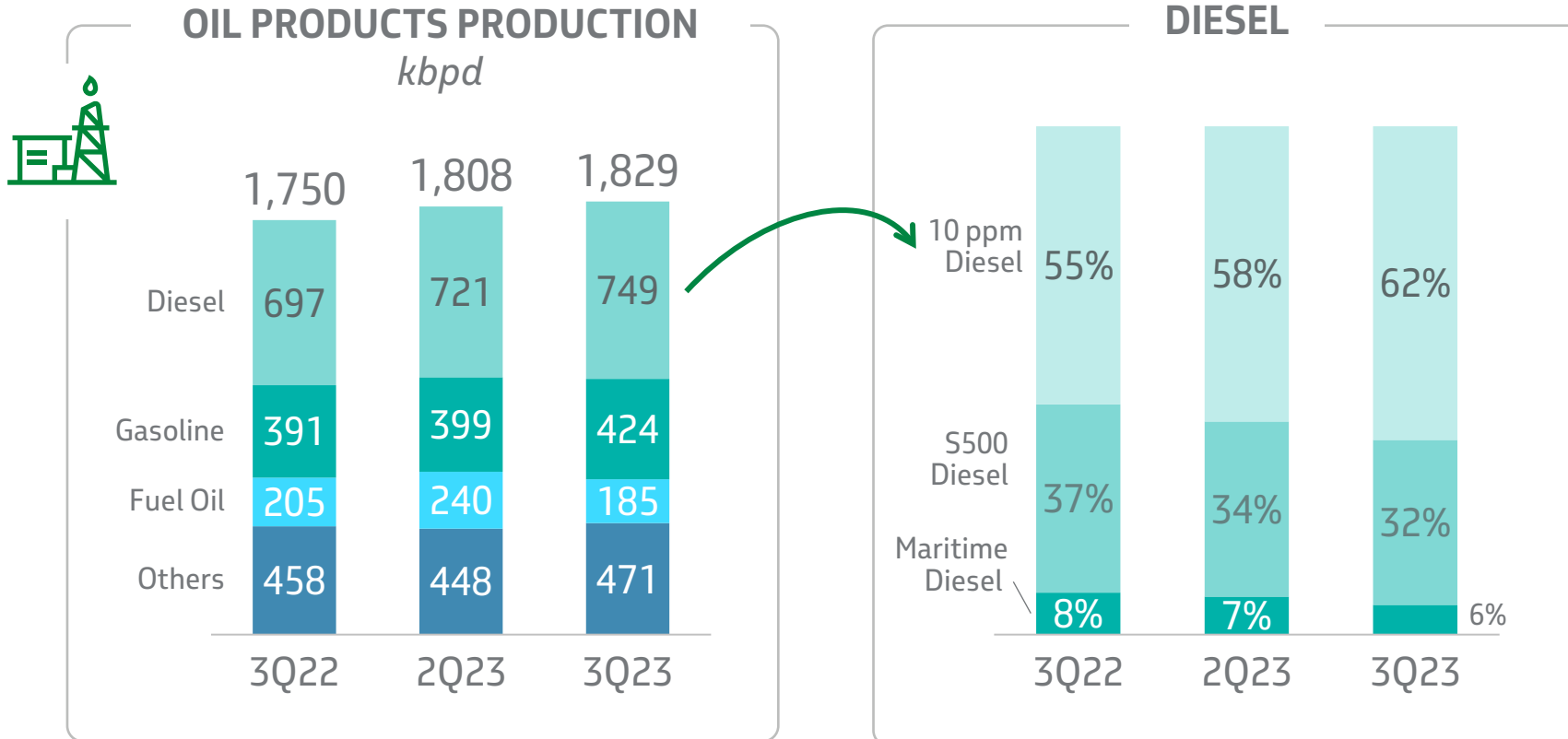
UTILIZATION FACTOR  
%



- Operational Safety: Total Recordable Injuries remains below alert threshold.
- High availability, reliability and operational performance of the facilities.
- Diesel, Gasoline and Jet Fuel represented 69% of total production in 3Q23, favoring profitability.
- Highest asphalt production since 4Q14: 741 thousand tons.



# We surpassed 60% share of S10 Diesel in total Diesel production



## 10 PPM DIESEL PRODUCTION RECORDS:

July/23  
Refining (482 kbpd)

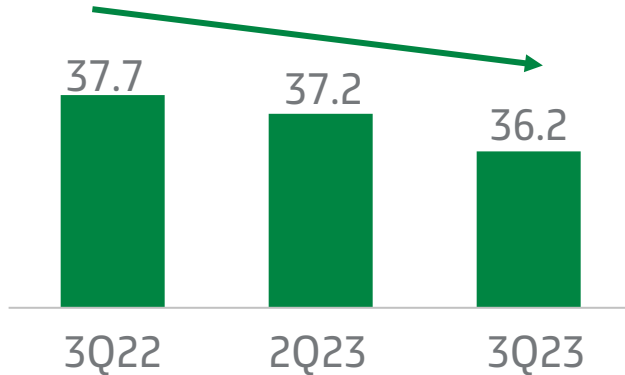
August/23  
REFAP (52 kbpd)  
RPBC (67 kbpd)  
REPLAN (124 kbpd)

3Q23  
Refining (464 kbpd)

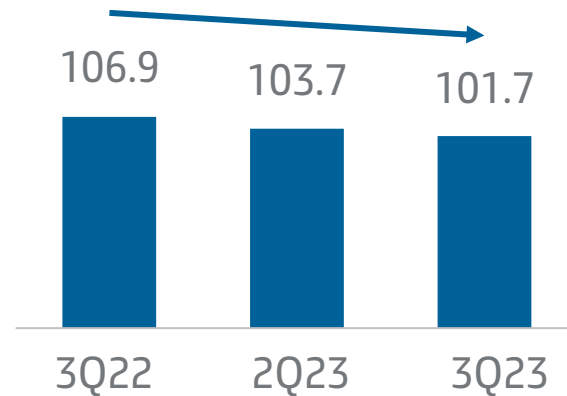
\* Disregarding REMAN's production in 3Q22: 1,719 kbpd

# RefTOP: Historical results in GHG emission rates and Energy Intensity

## EMISSIONS INTENSITY kg CO<sub>2</sub>e/CWT



## ENERGY INTENSITY



- Best monthly energy intensity result in September, 101.
- A 25% reduction in natural gas consumption compared to 2020, avoiding greenhouse gas emissions equivalent to more than 75 thousand urban buses running five days a week.
- This result is supported by the management processes, technological innovations and modernization projects within the RefTOP program, as well as the high level of use of the facilities.

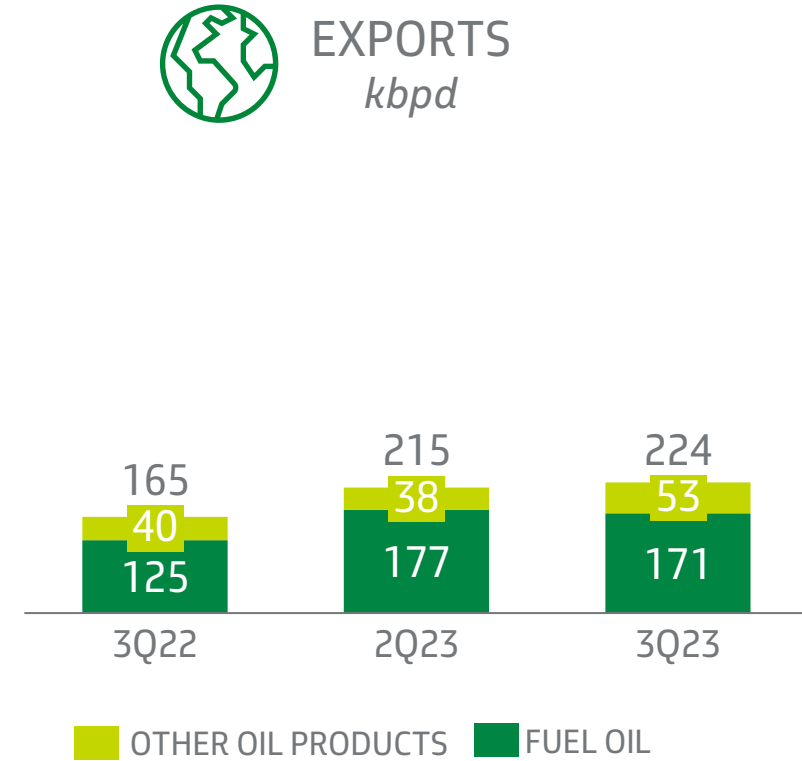
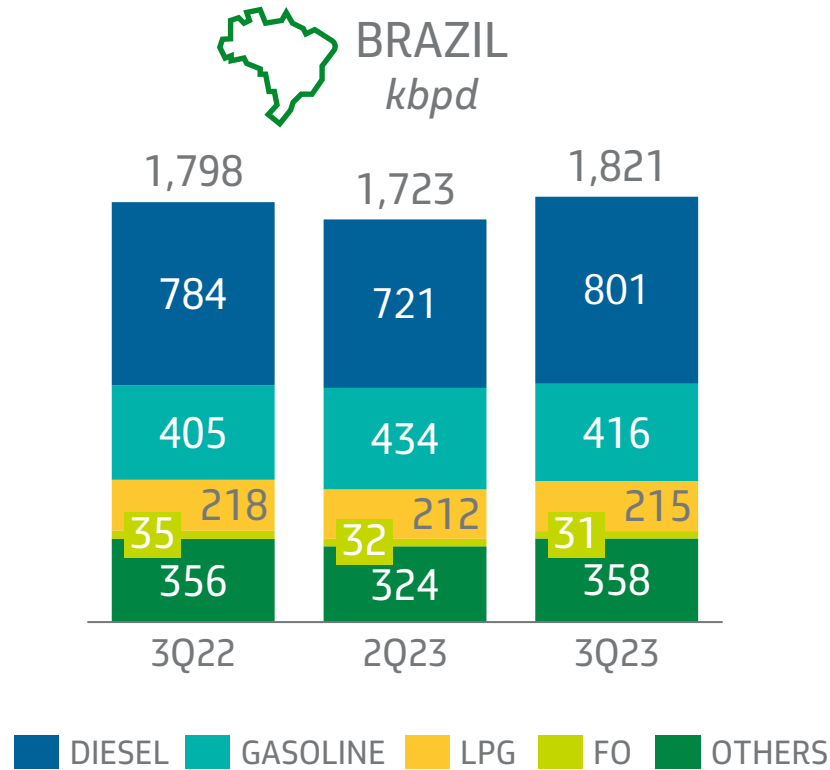




# Logistics, Commercialization and Markets Highlights

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# Oil products sales

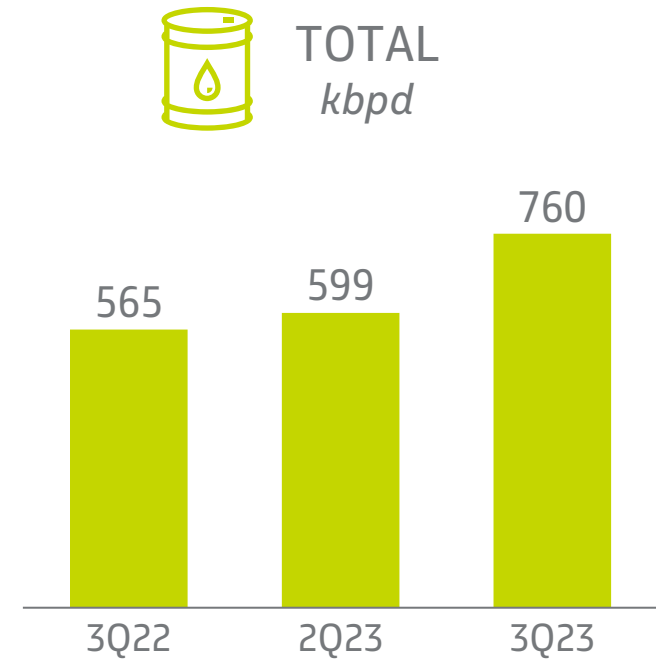
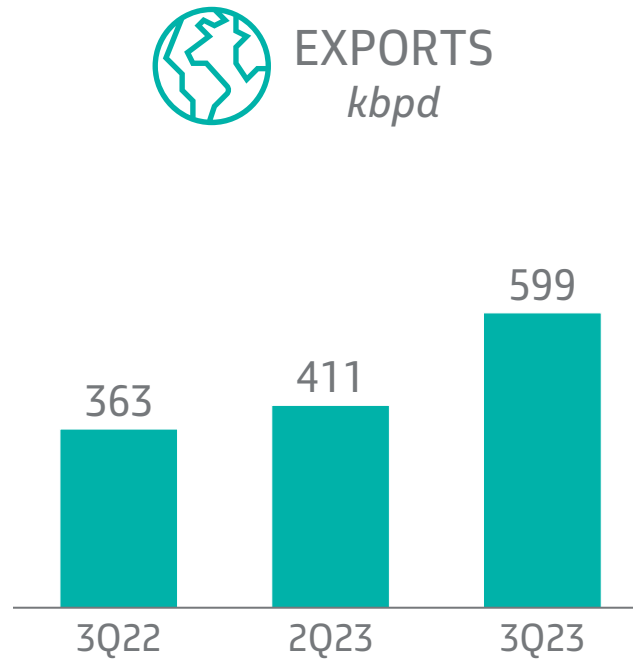
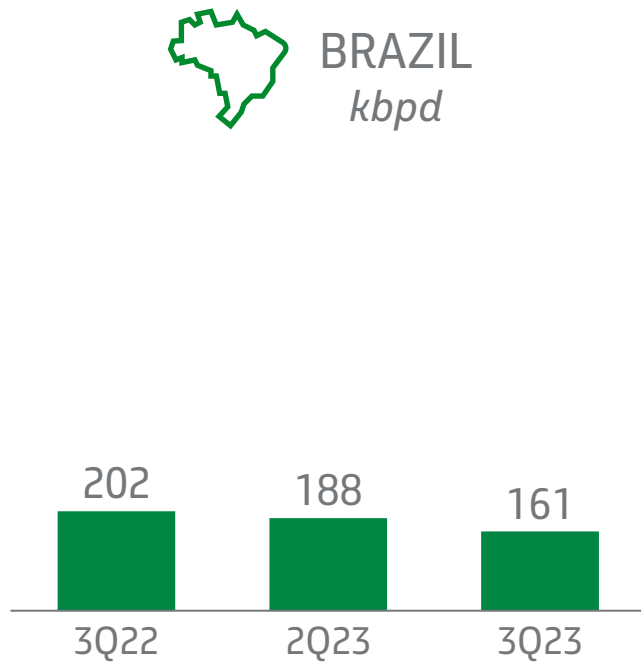


- › Diesel sales 11% higher than in 2Q23 due to the seasonality of consumption as a result of the planting of the summer grain crop and increased industrial activity.
- › Highlights include the record quarterly sales of 10 ppm Diesel, up 8% on 3Q22, and the progress of the R Diesel sales plan, with sales of 8.3 million liters, avoiding the emission of approximately 820 tons of CO<sub>2</sub> equivalent.



# Oil sales

Higher oil exports in 3Q23 due to increased production and lower domestic sales.



# New Podium Carbon Neutral Gasoline

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*Brazil's first carbon neutral fuel*

## ***Performance and Technology***

Highest factory octane rating and lowest sulfur content on the Brazilian market

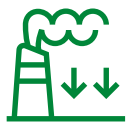
## ***Offsetting GHG emissions throughout the life cycle***

Neutralizing emissions "from cradle to wheel"

Preservation of an area of 570 hectares of the Amazon rainforest - equivalent to the length of 800 soccer fields



# Advances in sustainable products and solutions



## BUNKER OF RENEWABLE CONTENT

*Successful completion of the Second Field Test of Bunker with Renewable Content. Bunker formulated with 24% Biodiesel reduces greenhouse gas emissions by around 17% by volume.*



## CAP PRO AP ASPHALT

*Sales began of the new **CAP Pro High Penetration Asphalt**, the first member of the company's new Pro line of more sustainable asphalt products and the best result in asphalt sales for the period since 2014, with 738,605 tons.*



## SUSTAINABLE DISPOSAL OF P-33

*We have started the auction for the sustainable disposal of P-33, continuing our commitment to the best global ESG practices and strengthening the national industry.*

# Performance in the 3<sup>rd</sup> quarter of 2023

[www.petrobras.com.br/ir](http://www.petrobras.com.br/ir)

