

# *Production & Sales Report 2Q24*

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## DISCLAIMER

This report may contain forward-looking statements about future events. Such forecasts reflect only the expectations of the company's management about future economic conditions, as well as the company's industry, performance and financial results, among others. The terms "anticipates", "believes", "expects", "predicts", "intends", "plans", "projects", "aims", "should", as well as other similar terms, are intended to identify such forecasts, which, of course, involve risks and uncertainties foreseen or not foreseen by the company and, consequently, are not guarantees of the company's future results. Therefore, future results of the company's operations may differ from current expectations, and the reader should not rely solely on the information contained herein. The company undertakes no obligation to update the presentations and forecasts in the light of new information or future developments. The figures reported for 2Q24 onwards are estimates or targets. The operating data contained in this report has not been audited by the independent auditor.



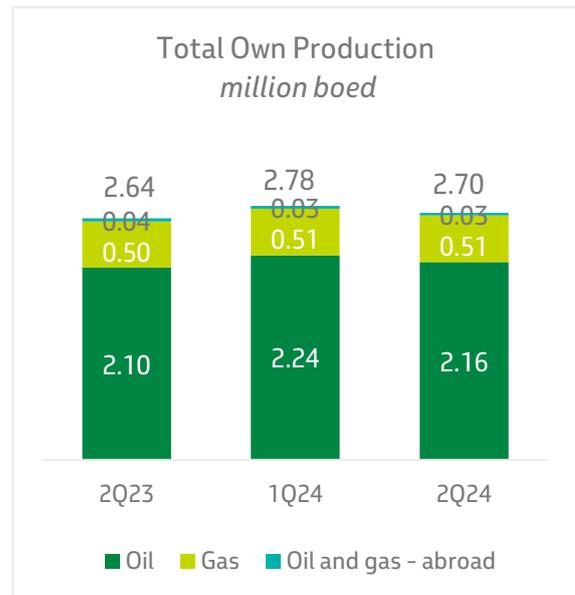
## Highlights - 2Q24

In 2Q24, Petrobras' average production of oil, NGL and natural gas reached 2,699 Mboed. Compared to production in the same period of last year (2Q23), there was an increase of 2.4%. Among the main factors for this variation, we can highlight the ramp-up of FPSOs Almirante Barroso, P-71, Anna Nery, Anita Garibaldi and Sepetiba, as well as the start-up of 12 new wells from complementary projects, 8 in Campos Basin and 4 in Santos Basin.

Compared to 1Q24, production was 2.8% lower, mainly due to the higher volume of losses due to maintenance stoppages, as foreseen in the 2024-2028+ Strategic Plan (2024-2028+ SP), and the natural decline of mature fields. These factors were partially offset by the start-up of new wells from complementary projects in Campos and Santos Basins and the ramp-up of FPSO Sepetiba in the Mero field.

It is worth noting that on June 29, the second producing well of FPSO Sepetiba, in the Mero field, started up production, raising the platform's operated production to 90 Mbpd of oil.

In the Refining, Transportation and Marketing segment, in 2Q24 sales of oil products in the domestic market increased by 3.2% compared to the previous quarter, in line with market seasonality. With regard to the total utilization factor (FUT) of the refining system, the level remained high at 91% in 2Q24, even taking into account the significant scheduled stoppages carried out at the REPLAN, REDUC, RECAP, REVAP and REGAP refineries. These events successfully concluded a large part of the shutdowns planned for 2024 and involved around 5,400 people, all carried out in compliance with safety, environmental and health requirements and within the planned deadlines.



**We achieved a quarterly record in the pre-salt crude oil as percentage of total processed feedstock, at 69%, 2 p.p. higher than in 1Q24, favoring the production of higher value-added oil products and reducing emissions.**



**Sales of S-10 diesel in 2Q24 accounted for 63.9% of Petrobras' total diesel sales, setting a new quarterly record. S-10 diesel is becoming increasingly important in the company's product portfolio, with its low sulphur content and better environmental results.**



# Our Operating Results

## Exploration & Production

	2Q24	1Q24	2Q23	1H24	1H23	Variation (%)		
						2Q24 X 1Q24	2Q24 X 2Q23	1H24 X 1H23
<b>Crude oil, NGL and natural gas production - Brazil (Mboed)</b>	2,664	2,742	2,603	2,703	2,621	(2.8)	2.3	3.1
Crude oil and NGLs (Mbpd)	2,156	2,236	2,102	2,196	2,121	(3.6)	2.6	3.5
Onshore and Shallow water	35	35	48	35	52	-	(27.1)	(32.7)
Post-salt - deep and ultra deep	306	343	346	325	364	(10.8)	(11.6)	(10.7)
Pre-salt	1,815	1,857	1,708	1,836	1,705	(2.3)	6.3	7.7
Natural gas (Mboed)	508	507	501	507	500	0.2	1.4	1.4
<b>Crude oil, NGL and natural gas production - Abroad (Mboed)</b>	34	33	35	34	35	3.0	(2.9)	(2.9)
<b>Total production (Mboed)</b>	2,699	2,776	2,637	2,737	2,657	(2.8)	2.4	3.0
<b>Total commercial production (Mboed)</b>	2,356	2,428	2,312	2,392	2,332	(3.0)	1.9	2.6
<b>Total operated production (Mboed)</b>	3,737	3,855	3,693	3,796	3,719	(3.1)	1.2	2.1

In 1H24, Petrobras delivered the planned production of 2,737 Mboed, in accordance with 2024-2028+ SP.

Oil production in the pre-salt was 1,815 Mbpd, down 2.3% on 1Q24, mainly due to the higher volume of losses due to scheduled stoppages and maintenance, unplanned interventions in large machines on the Búzios platforms (such as gas compression systems and turbogenerators), effects partially offset by the ramp-up of FPSO Sepetiba.

Post-salt production was 306 Mbpd, down 10.8% on 1Q24, mainly due to unplanned interventions to meet operational safety requirements, higher losses from scheduled stoppages and maintenance, as well as the natural decline in production. These factors were partially offset by the start-up of two new wells from complementary projects in the Campos Basin.

Onshore and shallow water production was 35 Mbpd, in line with the previous quarter. Production abroad was 34 Mboed, from fields in Bolivia, Argentina and the United States, in line with 1Q24.

In May 2024, the FPSO Marechal Duque de Caxias arrived in Brazil and, in June, it was anchored in the Mero field, in pre-salt Santos Basin. The platform, which will be the field's third definitive production system, is scheduled to start operating in the second half of this year and has the capacity to produce up to 180 Mbpd of oil and 12 MMm<sup>3</sup>/d of natural gas.



In addition, FPSO Maria Quitéria left the shipyard in May 2024. This platform will operate in the Jubarte field, located in Campos Basin pre-salt on the coast of Espírito Santo, and has advanced carbonization technologies, such as the combined cycle in power generation and the Gas Recovery Unit - FGRU (closed flare). Its production capacity is 100 Mbpd of oil and 5 million m<sup>3</sup>/d of natural gas.

***FPSO Maria Quitéria is sailing to Brazil and should arrive on location in the next few weeks. The unit is scheduled to start operating in the last quarter of 2024, thus bringing forward the 2024-2028+ SP schedule, which forecasted operations starting up in 2025. Integrated Parque das Baleias is a 100% Petrobras project, which is part of the Campos Basin Renewal Program, and will contribute to increasing production, reducing lifting costs and emissions."***

*Magda Chambriard, President of Petrobras*



## Refining, Transportation & Marketing

	2Q24	1Q24	2Q23	1H24	1H23	Variation (%)		
						2Q24 X 1Q24	2Q24 X 2Q23	1H24 X 1H23
<b>Total sales volume in the domestic market (Mbpd)</b>	<b>1,700</b>	<b>1,648</b>	<b>1,723</b>	<b>1,674</b>	<b>1,709</b>	<b>3.2</b>	<b>(1.3)</b>	<b>(2.0)</b>
Diesel	717	691	721	704	718	3.8	(0.6)	(1.9)
Gasoline	392	386	434	389	424	1.6	(9.7)	(8.3)
Jet Fuel	106	107	98	106	102	(0.9)	8.2	3.9
Naphtha	70	65	61	68	65	7.7	14.8	4.6
Fuel Oil	25	37	32	31	32	(32.4)	(21.9)	(3.1)
Liquefied Petroleum Gas (LPG)	219	199	212	209	203	10.1	3.3	3.0
Others	171	163	165	167	165	4.9	3.6	1.2
<b>Total production volume (Mbpd)</b>	<b>1,744</b>	<b>1,753</b>	<b>1,808</b>	<b>1,748</b>	<b>1,730</b>	<b>(0.5)</b>	<b>(3.5)</b>	<b>1.0</b>
Diesel	702	699	721	701	689	0.4	(2.6)	1.7
Gasoline	417	391	399	404	385	6.6	4.5	4.9
Jet Fuel	83	92	82	87	84	(9.8)	1.2	3.6
Naphtha	67	77	74	72	69	(13.0)	(9.5)	4.3
Fuel Oil	180	205	240	193	220	(12.2)	(25.0)	(12.3)
Liquefied Petroleum Gas (LPG)	118	120	125	119	119	(1.7)	(5.6)	-
Others	177	169	167	173	164	4.7	6.0	5.5

## Other operating information

Mbpd	2Q24	1Q24	2Q23	1H24	1H23	Variation (%)		
						2Q24 X 1Q24	2Q24 X 2Q23	1H24 X 1H23
Reference feedstock	1,813	1,813	1,842	1,813	1,846	-	(1.6)	(1.8)
Total distillation feedstock	1,642	1,670	1,708	1,656	1,637	(1.7)	(3.9)	1.2
Total refining plants utilization factor (*)	91%	92%	93%	91%	89%	(1.0)	(2.0)	2.0
Fresh processed feedstock	1,616	1,628	1,677	1,622	1,602	(0.7)	(3.6)	1.2
NGL processed feedstock	47	48	48	48	47	(2.1)	(2.1)	2.1
Domestic crude oil as % of total processed feedstock (*)	91%	91%	91%	91%	90%	-	-	1.0
Pre-salt crude oil as % of total processed feedstock (*)	69%	67%	67%	68%	65%	2.0	2.0	3.0

(\*) Variations in percentage points.



## Sales

Sales volume of oil products in 2Q24 increased by 3.2% compared to 1Q24, mainly due to the increase in sales of diesel and LPG.

Diesel sales on the domestic market rose by 3.8% between 2Q24 and 1Q24, even with the increase in the minimum mandatory biodiesel blend, which went up from 12% to 14% in March 2024. The main factor behind the increase in sales of this oil product was consumption, which is typically higher in the second quarter of each year compared to the first, reflecting higher economic activity.

The volume of LPG sales in 2Q24 was 10.1% higher than in the previous quarter due to lower average temperatures recorded in Brazil's main consumer centers in the second quarter and the lower seasonal demand for the product in the first quarter, the vacation period and lower activity in the manufacturing industry.

Sales of gasoline in 2Q24 grew by 1.6% compared to 1Q24, mainly due to the increased competitiveness of gasoline compared to hydrated ethanol in the supply of flex-fuel vehicles.

## Production

Production of oil products in 2Q24 fell slightly by 0.5% compared to 1Q24, with an increase in production of higher value-added oil products (diesel and gasoline) compared to lower value-added products (LPG, naphtha and fuel oil).

The production of diesel, gasoline and jet fuel in 2Q24 reached a 69% share of the total volume produced, 2 p.p. up on 1Q24, demonstrating the refining system's ongoing efforts to increase efficiency and versatility in the process plants.



We achieved record production of S-10 diesel at the Presidente Bernardes Refinery (RPBC) in May with production of 70.6 Mbpd. We would also highlight the record half-year jet fuel production in 1H24 of 37 Mbpd at the Henrique Lage Refinery (REVAP), despite the stoppage of one of the hydrotreating units in 2Q24. REVAP also recorded 44,500 tons of asphalt in June, the highest production since February 2014.

***"Petrobras has been working to increase the supply of diesel to the Brazilian market... We are meeting the requirements in a competitive, safe way and with less environmental impact."***

*William França, Director of Industrial Processes and Products*



The projects and initiatives of the RefTOP Program (World Class Refining) contribute to the continuous progress in reducing the Energy Intensity of the refineries, with a result of 104.1 points in the first half of 2024, 1.0 point below the result for the first half of 2023.

For information on Greenhouse Gas Emission Intensity, see the "Atmospheric Emissions" section.

We obtained authorization from the National Petroleum, Natural Gas and Biofuels Agency (ANP) to sell marine fuel with renewable content. We are the first company in Brazil to receive authorization to deliver bunker with 24% biodiesel to the market.

*"The development of technologies and products produced by the company. The authorization from the ANP for the commercialization of B241 is yet another proof of the correctness of our strategy, demonstrating an economically viable solution that meets society's demands for sustainable energy."*

*Claudio Schlosser, Logistics and Commercialization and Marketing*



<sup>1</sup> The VLS (Very Low Sulfur) B24 produced by Petrobras is the result of mixing mineral bunker with 24% biodiesel.



## Gas & Low Carbon Energies

	2Q24	1Q24	2Q23	1H24	1H23	Variation (%)		
						2Q24 X 1Q24	2Q24 X 2Q23	1H24 X 1H23
<b>Natural Gas (MM m<sup>3</sup>/day)</b>								
Sales volume of natural gas	44	47	50	46	50	(6.4)	(12.0)	(8.0)
<b>Natural Gas Supply</b>								
National gas delivery	29	30	33	30	33	(3.3)	(12.1)	(9.1)
Regasification of liquefied natural gas	3	3	3	3	1	-	-	200.0
Import of natural gas from Bolivia	13	15	15	14	17	(13.3)	(13.3)	(17.6)
<b>Power (average MW)</b>								
Sale of Thermal Availability at Auction	1,186	1,186	1,655	1,186	1,655	0.0	(28.3)	(28.3)
Sale of electricity	418	442	550	430	556	(5.5)	(24.0)	(22.7)

In 2Q24, Petrobras' sales of natural gas fell by around 3 million m<sup>3</sup>/day compared to 1Q24, due to the increased participation of other agents as a result of the market opening process. On the supply side, there was a reduction of 2 million m<sup>3</sup>/day in natural gas imports from Bolivia by Petrobras, in line with the contractual flexibilities negotiated.

In 2Q24, the sale of thermal availability at auction remained constant in relation to 1Q24, but showed a reduction of 28% compared to 2Q23, due to the termination of auction contracts for the Seropédica, Três Lagoas and Termoeará thermoelectric plants.

The sale of electricity generated in 2Q24 remained above 400 average MW, despite the favorable hydrological conditions, confirming the new trend in the electricity sector of generating energy at peak consumption times to compensate for the intermittency of renewable sources.



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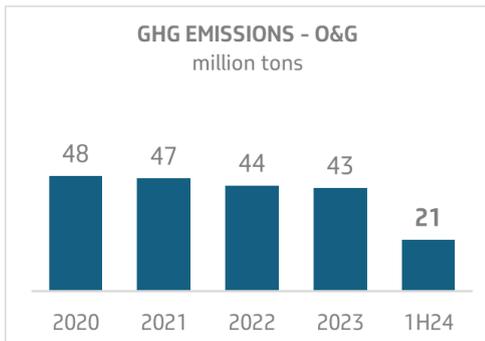
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## Atmospheric Emissions

The monitoring of greenhouse gas (GHG) emissions indicators encourages the adoption of practices and the development of projects aimed at reducing the company's emissions of these gases, in line with the climate commitments disclosed in Petrobras' 2024-2028+ SP, in order to maximize the generation of value in the face of the risks and opportunities linked to the just transition to a low carbon economy.

### Operational GHG emissions from oil and gas activities

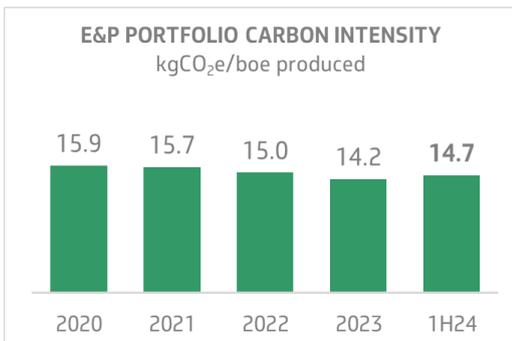


Among the emission indicators monitored by Petrobras, the GHG emissions - O&G indicator measures operational emissions from oil and gas activities in isolation, i.e. without including emissions from operations in the thermoelectricity market, which is heavily impacted by thermoelectric dispatches requested by the ONS (National Electric System Operator).

GHG emissions - O&G in 1H24 were 21.4 million tons, a level similar to 1H23, when they reached 20.7 million tons. This result is due to initiatives in both E&P and Refining. E&P emissions in 1H24 mainly reflect the unscheduled stoppages of post-salt units, operational optimizations (improvement in the Associated Gas Utilization Index - IUGA) in pre-salt units and the postponement of the start-up of drilling and subsea support resources. In Refining, we highlight energy efficiency measures and equipment maintenance aimed at increasing operational efficiency.

### Greenhouse Gas Emissions Intensity (GHGI)

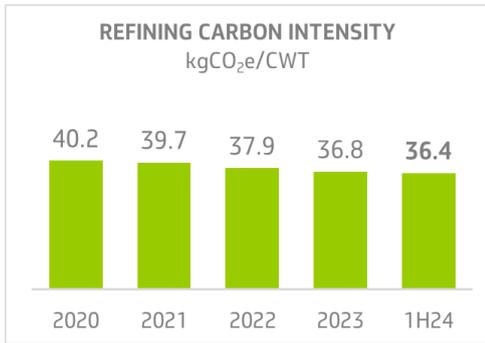
#### E&P



The 1H24 result represents an increase of 0.5 kgCO<sub>2</sub>e/boe produced compared to 2023. It is worth noting that this result was expected and is mainly associated with the commissioning of FPSO Sepetiba. The result observed in 1H24 was impacted by the unscheduled stoppages of post-salt units, the optimized IUGA in pre-salt units and the postponement of the start-up of drilling and subsea support resources. Also noteworthy was the optimization of the operation of turbogenerators in the post-salt assets.



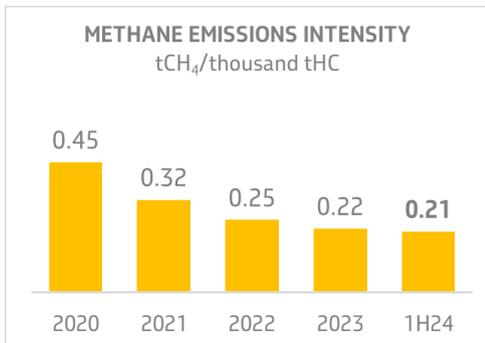
### Refining



The result in 1H24 was 0.4 kgCO<sub>2</sub>e/CWT lower than in 2023, reinforcing the downward trend observed since 2020, due to energy efficiency measures and equipment maintenance aimed at increasing operational efficiency.

### Greenhouse Gas Emissions Intensity – Methane

The carbon intensity targets for Petrobras' segments include all greenhouse gases, including methane, which has a specific metric because it has a very high warming potential in the short term.



The 1H24 result in E&P was 0.1 tCH<sub>4</sub>/thousand tHC lower than in 2023. In addition to the decarbonization projects, the various operational improvement actions and the work fronts to meet the requirements of the Oil and Gas and Methane Partnership (OGMP), which aim to achieve the ambition of "near zero methane" by 2030, an initiative joined by Petrobras in conjunction with the Oil and Gas Climate Initiative (OGCI), contributed to this result.



# Exhibits

## EXHIBIT I - CONSOLIDATED SALES VOLUME

Sales volume (Mbpd)	2Q24	1Q24	2Q23	1H24	1H23	Variation (%)		
						2Q24 X 1Q24	2Q24 X 2Q23	1H24 X 1H23
Diesel	717	691	721	704	717	3.8	(0.6)	(1.8)
Gasoline	392	386	434	389	424	1.6	(9.7)	(8.3)
Jet Fuel	106	107	98	106	102	(0.9)	8.2	3.9
Naphtha	70	65	61	68	65	7.7	14.8	4.6
Fuel oil	25	37	32	31	32	(32.4)	(21.9)	(3.1)
LPG	219	199	212	209	203	10.1	3.3	3.0
Others	171	163	165	167	165	4.9	3.6	1.2
<b>Oil products</b>	<b>1,700</b>	<b>1,648</b>	<b>1,723</b>	<b>1,674</b>	<b>1,708</b>	<b>3.2</b>	<b>(1.3)</b>	<b>(2.0)</b>
Renewable, nitrogenous and others	6	5	4	6	4	20.0	50.0	50.0
Petroleum	141	164	188	152	191	(14.0)	(25.0)	(20.4)
Natural gas	195	214	221	204	226	(8.9)	(11.8)	(9.7)
<b>Total domestic market</b>	<b>2,042</b>	<b>2,031</b>	<b>2,136</b>	<b>2,036</b>	<b>2,129</b>	<b>0.5</b>	<b>(4.4)</b>	<b>(4.4)</b>
Exports of petroleum, oil products and others	851	848	628	849	757	0.4	35.5	12.2
Sales abroad	44	38	60	41	53	15.8	(26.7)	(22.6)
<b>Total external market</b>	<b>895</b>	<b>886</b>	<b>688</b>	<b>890</b>	<b>810</b>	<b>1.0</b>	<b>30.1</b>	<b>9.9</b>
<b>Grand total</b>	<b>2,937</b>	<b>2,917</b>	<b>2,824</b>	<b>2,926</b>	<b>2,939</b>	<b>0.7</b>	<b>4.0</b>	<b>(0.4)</b>

## EXHIBIT II - NET IMPORTS AND EXPORTS

Thousand barrels per day (Mbpd)	2Q24	1Q24	2Q23	1H24	1H23	Variation (%)		
						2Q24 X 1Q24	2Q24 X 2Q23	1H24 X 1H23
<b>Net export (import)</b>	<b>547</b>	<b>504</b>	<b>268</b>	<b>525</b>	<b>394</b>	<b>8.5</b>	<b>104.1</b>	<b>33.2</b>
<b>Import</b>	<b>304</b>	<b>344</b>	<b>358</b>	<b>324</b>	<b>362</b>	<b>(11.6)</b>	<b>(15.1)</b>	<b>(10.5)</b>
Petroleum	168	164	129	166	166	2.4	30.2	-
Diesel	37	87	93	62	81	(57.5)	(60.2)	(23.5)
Gasoline	11	25	52	18	46	(56.0)	(78.8)	(60.9)
Naphtha	-	-	-	-	-	-	-	-
GLP	70	53	66	62	50	32.1	6.1	24.0
Other oil products	18	15	18	16	19	20.0	-	(15.8)
<b>Export</b>	<b>851</b>	<b>848</b>	<b>626</b>	<b>849</b>	<b>756</b>	<b>0.4</b>	<b>35.9</b>	<b>12.3</b>
Petroleum	651	650	411	650	571	0.2	58.4	13.8
Fuel oil	137	165	177	151	155	(17.0)	(22.6)	(2.6)
Other oil products	63	33	38	48	30	90.9	65.8	60.0



In 2Q24, oil exports were in line with 1Q24.

Fuel oil exports were lower due to lower production of this oil product, sustained by the high availability and efficiency of the refineries' conversion and treatment units in this quarter, as well as the destination of fuel oil streams for the production of Petroleum Asphalt Cement (CAP), in line with the warming of the market. On the other hand, there was an increase in gasoline exports due to higher production.

There was a reduction in imports, mainly of diesel, due to higher imports in the previous quarter to rebuild inventories as a result of maintenance stoppages.

#### EXHIBIT III - OIL EXPORTS\*

Country	2Q24	1Q24	2Q23
China	50%	46%	28%
Europe	30%	31%	20%
Latam	5%	6%	26%
USA	5%	7%	14%
Asia (Ex China)	9%	10%	11%
Caribbean	1%	0%	0%

#### EXHIBIT IV - OIL PRODUCTS EXPORTS\*

Country	2Q24	1Q24	2Q23
Singapore	40%	51%	50%
USA	50%	34%	37%
Others	10%	15%	13%

(1) Restatement of the figures already published for 1Q24, due to divergences in the conversion of volumes.

In the second quarter of 2024, oil exports were in line with the previous quarter both in terms of volume and the main destination markets, with China and Europe accounting for around 80% of sales. Búzios oil remains the main stream in the export basket, accounting for almost half of the volume exported.

\* Refers to exports according to the criteria of physical shipment from Brazilian coast.



# Glossary

## A

**Associated Gas Utilization Index (IUGA):** percentage of the volume of associated gas used in relation to the total volume of associated gas produced.

## E

**Exploration & Production (E&P):** The segment covers the exploration, development and production of crude oil, NGL and natural gas in Brazil and abroad, with the main aim of supplying our domestic refineries. This segment also operates through partnerships with other companies, including interests in foreign companies in this segment.

**E&P Carbon Intensity:** GHG emissions, in terms of CO<sub>2e</sub>, from E&P activities in relation to the total operated oil and gas production (wellhead) recorded in the same period. Scope 1 and 2 GHG emissions are considered. This indicator represents the rate of greenhouse gas emissions per unit of barrel of oil equivalent produced and is used to analyze the carbon performance of the assets in our current and future portfolio.

## F

**Fresh processed feedstock:** the volume of oil processed in the distillation units, consisting of oil and C5+.

**FGRU:** Flare Gas Recovery Unit (FGRU). It allows this gas to be returned for processing in the unit, avoiding its burning and the consequent emission of greenhouse gases.

## G

**Gas & Low Carbon Energy (G&LCE):** The segment covers the logistics and commercialization of natural gas and electricity, the transportation and commercialization of LNG, the generation of electricity through thermoelectric plants, as well as the processing of natural gas. It also includes renewable energy businesses, low carbon services (carbon capture, utilization and storage) and the production of biodiesel and its products.

**GHG Emissions Intensity in E&P:** GHG emissions, in terms of CO<sub>2e</sub>, from E&P activities in relation to total operated oil and gas production (wellhead) recorded in the same period. Scope 1 and 2 GHG emissions are taken into account. This indicator represents the rate of GHG emissions per barrel of oil equivalent produced. It covers oil and gas exploration and production activities under operational control and is used to analyze the carbon performance of the assets in our current and future portfolio.

**GHG Emissions Intensity in Refining:** GHG Emissions Intensity in the Refinery. GHG emissions, in terms of CO<sub>2e</sub>, from refining activities in relation to the unit of activity called Complexity Weighted Tonne ("CWT"). CWT represents a measure of activity, similar to UEDC (Utilized Equivalent Distillation Capacity), which considers the potential for GHG emissions, equivalent to distillation, per process unit, allowing for better comparability between refineries of different complexities. This indicator covers refining activities with operational control and makes up the analysis of the carbon performance of the assets in our current and future portfolio.



## L

**LNG regasification:** operational volume of LNG that has been regasified and made available by Petrobras to the market at the exit of the LNG terminals, converted to the reference PCS of 9400 kcal/m<sup>3</sup>. Volumes that have been transferred from methane ships to regasification ships but have not yet been regasified are not included in this measure.

## M

**Mboed:** Thousand barrels of oil equivalent per day

**Mbpd:** Thousand barrels per day

**Methane Emissions Intensity:** The indicator uses the IOGP metric, which represents the ratio between methane emissions and total operated hydrocarbon production.

## N

**National gas delivery:** operational volume of processed natural gas (dry), of national origin (onshore or offshore), made available by Petrobras to the market at the exit of the natural gas processing units, converted to the reference PCS of 9400 kcal/m<sup>3</sup>. It includes both gas from Petrobras' own production and gas purchased from partners. It does not include the volumes of gas belonging to agents who directly contract the processing service at the units.

**NGL:** Natural Gas Liquids, the liquid resulting from the processing of natural gas and containing the heaviest gaseous hydrocarbons.

**NGL processed feedstock:** the volume of NGL processed in refining units.

## R

**Reference feedstock:** maximum sustainable feedstock of oil reached in the distillation units at the end of the period, respecting the design limits of the equipment and the requirements of safety, the environment and product quality. It is less than the capacity authorized by the ANP (including temporary authorizations) and environmental agencies.

**Refining Carbon Intensity:** GHG emissions, in terms of CO<sub>2e</sub>, from Refining activities in relation to the unit of activity called CWT (Complexity Weighted Tonne). The CWT represents a measure of activity, which takes into account both the effect of the load processed and the complexity of each refinery, allowing the potential for GHG emissions to be compared between refineries with different profiles and sizes. This indicator makes up the analysis of the carbon performance of the assets in our current and future portfolio.

**Refining, Transportation and Marketing (RTM):** The segment covers refining, logistics, transportation, acquisition and export of crude oil, as well as trading in oil products in Brazil and abroad. This segment also includes petrochemical operations (involving interests in petrochemical companies in Brazil) and fertilizer production.

## S

**Sale of Thermal Availability at Auction (average MW):** the volume that the thermoelectric generating agent undertakes to make available to the electricity system to meet the plant's eventual needs, i.e. regardless of its effective generation. In contracts for the Commercialization of Energy in the Regulated Environment by Availability, the generating agent receives a fixed portion, associated with the capacity made available to the electrical system, and a variable portion, associated with the effective generation of energy from the plant.



## T

**Thermal Carbon Intensity:** GHG emissions, in terms of CO<sub>2</sub>e, from the processes of Thermal Power Plants in relation to the electricity generated. Scope 1 and 2 GHG emissions are considered. This indicator makes up the analysis of the carbon performance of the assets in our current and future portfolio.

**Total commercial production:** Production of oil, NGL and commercial natural gas (excluding the volume of natural gas reinjected and not marketed).

**Total distillation feedstock:** the feedstock of distillation units, consisting of oil, C5+, residues and reprocessing, including terminals.

**Total operated production:** Production from a gas or oil field, including Petrobras' interest and the interest of partners.

**Total production:** Production of oil, NGL and natural gas (takes into account the volume of natural gas reinjected and not sold).

**Total utilization factor of the refining park:** percentage utilization of the refining park in relation to its reference feedstock. It takes into account all the cargo in the distillation units, consisting of oil, C5+, residues, reprocessing, including terminals.

## V

**VLS B24:** VLS (Very Low Sulfur) B24 is a marine fuel with renewable content (bunker with 24 % biodiesel), the result of mixing bunker of mineral origin with biodiesel certified by ISCC EU RED, one of the most traditional certifications on the market, applicable for traceability and calculation of greenhouse gas emissions from sustainable raw materials and bioproducts.



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