

# PRODUCTION & SALES REPORT

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4Q21

*P-70, in Atapu field*

## Highlights on production and sales in 2021

Rio de Janeiro, February, 9<sup>th</sup>, 2022

Petrobras posted an excellent operational performance in 2021, reaching all production targets for the year with the achievement of the following marks:

Production	Accomplished	Target
Oil and NGL (MMbpd)	2.22	2.21 +/- 4%
Oil, NGL and commercial natural gas (MMboed)	2.46	2.43 +/- 4%
Total oil, NGL and natural gas (MMboed)	2.77	2.72 +/- 4%

The highlights for 2021 were:

- FPSO Carioca production start-up, on August 23, the first platform in Sépia field, in Santos Basin pre-salt. Throughout the year, 3 new producing wells were connected and currently the operated production stands above 130 thousand bpd;

*“The start-up of the first Sépia project is a milestone for all of us who work at Petrobras. It is the victory of the determination, persistence and technical capacity of our professionals, in a challenging external scenario due to the pandemic”,* says the Chief Production Development Officer, João Henrique Rittershausen;

- conclusion, on July 18, of P-70’s ramp-up, in Atapu field, in less than 13 months. The FPSO reached, with 4 producing wells, an operated production of 161 thousand bpd, exceeding the project’s nominal capacity;

- record in pre-salt production, with an annual average of 1.95 MMboed, representing 70% of Petrobras’ total production. Our production in the pre-salt has been growing rapidly and this record represents more than twice the production volume of 5 years ago;

- annual record of gas utilization with the mark of 97.2% of gas produced. This record contributes significantly to reduction of emissions and higher carbon efficiency;

- on September 1<sup>st</sup>, the co-participation agreement for the Búzios field came into effect, regulating the coexistence of the Transfer of Rights (ToR) Agreement and the Production Sharing Agreement for the ToR Surplus production for the field. We now hold 90% of the exploration and production rights for the surplus volumes, excluding the PPSA portion, and 92.666% of the volumes in the shared reservoir;

- acquisition, on December 17, of exploration and production rights for the ToR surplus volumes in the Atapu and Sépia fields. Petrobras exercised its preemptive rights to act as operator, with a 30% interest in the winning consortium of Sépia. For Atapu, the winning consortium is integrated by Petrobras as operator, with a 52.5% stake. With the beginning of the Production Sharing Regime in Atapu and Sépia fields scheduled for early May 2022, Petrobras’ interests in the shared reservoir, including the shares of the ToR Agreements and of the Concession Agreements and will be respectively 65.69% for Atapu and 55.30% for Sepia.

*“The achievement of those results demonstrates Petrobras’ commitment to meeting its goals and the focus on assets in deep and ultra-deep waters, which have demonstrated great competitive advantage, producing low-cost, high-quality oil with low greenhouse gases emissions”,* says Exploration and Production Officer, Fernando Assumpção Borges.

In 4Q21, average production of oil, NGL and natural gas reached 2.70 MMboed, 4.5% below 3Q21, due to the beginning of the Búzios Co-participation Agreement and maintenance stoppages in pre-salt platforms with high

production (P-66, P-75, P-76, FPSO Cidade de Ilhabela, FPSO Cidade de Mangaratiba and FPSO Cidade de São Paulo). These factors were partially offset by the ramp-up of FPSO Carioca.

As part of our portfolio management strategy, we highlight the closing of the sale, in 4Q21, of our entire stake in the onshore fields of the clusters (i) Miranga and Remanso, in Bahia and (ii) Cricaré, in Espírito Santo and (iii) of the Rabo Branco concession, in Sergipe. These fields had a combined average production of 5.2 kbpd of oil and 468,000 m<sup>3</sup>/day of gas from January to November 2021.

More recently, we revised the production target disclosed in the 2022-2026 Strategic Plan, following the results of the 2<sup>nd</sup> Bidding Round for the Surplus Volumes of the ToR in Atapu and Sépia, which resulted, for 2022, in a reduction of 70 Mboed for total oil and gas production. For the 2023-2026 horizon, the estimated average production impact is a reduction of 0.1 MMboed.

FPSO Anchieta, located in the Jubarte field, in Campos Basin, has been shut down since January 22 after oil was detected close to the vessel. Adequate anti-pollution measures were immediately deployed and were proven to be effective. The situation is under control and the FPSO will resume operations when an action plan is approved by the authorities.

On January 28, 2022, FPSO Guanabara arrived in Mero field. This will be the first definitive production system to be installed in this field, with start-up scheduled for the first half of 2022.

Sales volumes of oil products grew 8.5% in 2021 compared to the previous year, and the highlight was the increase in the sales of gasoline, diesel and jet fuel, mainly due to the strong impact on sales caused by the COVID-19 pandemic in 2020, in addition to lower imports of gasoline and diesel by third parties between the periods, resulting in an increase in the company's market share. In the case of gasoline, the gain in market share over ethanol was also relevant, mainly due to lower pump prices for final consumers, and in the case of diesel, the growth of the economy in 2021, especially the industrial sector. Another oil product that contributed to total sales growth was fuel oil, whose sales grew in 2021 compared to the previous year, due to greater demand from thermopower plants.

We achieved an annual record for S-10 diesel sales and production in 2021, with a 34.7% increase in sales and a 10% increase in production. The growth in S-10 diesel consumption happens alongside the modernization of the national fleet, ensuring better environmental and economic benefits for users.

Oil products output in 2021 also exceeded 2020 volumes, despite the concentration of scheduled maintenance stoppages, postponed from 2020, the initial and most critical phase of the pandemic.

Even with several maintenance stoppages, we reached an average total utilization factor (FUT) of 83% in our refineries in 2021, the highest mark in the last five years, which demonstrates the efficiency gains in the units' management.

With the beginning of the RefTOP program in May 2021, we also achieved improvements in environmental and energy performance metrics. The Greenhouse Gas Emissions Index (IGEE) for the refining segment was 39.7 gCO<sub>2</sub>e/CWT in 2021, exceeding the target. In total, emissions of around 280k tons of CO<sub>2</sub> equivalent were avoided when comparing the actual emissions with the ones that would be generated if the refineries had operated in 2021 with 2020 metrics. This is equivalent to approximately 60% of the emission of the urban bus fleet in the city of São Paulo in 2021, according to data from the Energy and Environment Institute (IEMA).

In 2021, we reached an annual record of pre-salt throughput in our refining park, reaching 59% of the processed feedstock, 9% above 2020. Our pre-salt oil processing capacity has been increasing continuously and there was strong progress in 4Q21 in line with the company's strategy of leveraging the processing of pre-salt oil, which has a low sulfur content, bringing competitive advantages and opportunities to increase refining margins, favoring the production of S-10 and bunker diesel.

In 4Q21, we highlight the conclusion of the sale of the RLAM refinery, on November 30, whose capacity corresponded to around 13% of our total refining system. This divestment, along with seasonal factors, contributed to lower sales in the domestic market in 4Q21, compared to 3Q21, totaling 1.848 MMbpd, and to the drop of 1.1% in oil products output in the same period.

Net exports were 40.2% lower in 2021 due to the combination of lower export volume and higher import volume in the year. Oil exports were lower in 2021 due to lower oil production and higher domestic demand. These factors, together with the greater number of scheduled stoppages at the refineries, resulted in an increase in imports, to enable the fulfillment of sales contracts with customers.

We achieved a record of oil transshipment (ship-to-ship) operations for monthly oil exports in May 2021, carrying out 24 transshipment operations. The previous record consisted of 21 operations, which also took place in 2021, in March.

In 2021, Búzios was the main stream in our export basket. In 4Q21, Búzios continued to be the highlight, but we increased Atapu's share by including two new clients for this stream in our portfolio, reflecting the results of our marketing and sales strategy. In addition, we carried out the first export of the Sepia stream with a cargo exported in the period.

The development of new markets for the pre-salt oil streams has been a relevant factor for the increase in value generation in oil exports, since it enables us to explore arbitrage at any given time, always seeking markets where Petrobras' oils fetch higher prices. In 2021, approximately 45% of exports were destined for refiners in China, 20% for Europe, 20% for the Americas, and 15% for other destinations in Asia.

In 2021, power generation reached 3,419 average MW, an increase of 94.7% compared to 2020, due to hydrological conditions throughout 2021 and the effects of the economic recovery after the peak of the COVID-19 pandemic. We highlight the contracting of 1,284 MW of power in December 2021 in the country's first reserve capacity auction (A-5), an important opportunity to re-contract our plants, especially in the context in which thermoelectric plants have played a fundamental role in providing extra energy to the National Interconnected System.

Natural gas sales volumes increased 25% in 2021, compared to the previous year. This increase can be explained by both the higher thermoelectric dispatch and by the recovery in consumption by the industrial segment, impacted by the effects of the COVID-19 pandemic in 2020.

On the supply side, the volume of regasified LNG reached 23 million m<sup>3</sup>/day in 2021 (an increase of 188% compared to 2020), contributing to a total supply of natural gas of approximately 85 million m<sup>3</sup>/day. This greater volume of LNG delivered to the market was made possible by the expansion of regasification capacity at the Guanabara Bay terminal (RJ), which grew from 20 MM m<sup>3</sup>/day to up to 30 MM m<sup>3</sup>/day. This fact evidences the efforts made by Petrobras to ensure compliance with the commitments made to our customers.

## 1 - Exploration & Production

Thousand barrels of oil equivalent per day (kboed)	4Q21	3Q21	4Q20	2021	2020	Variação (%)		
						4Q21 X 3Q21	4Q21 X 4Q20	2021 X 2020
Crude oil, NGL and natural gas - Brazil	2,663	2,790	2,637	2,732	2,788	(4.6)	1.0	(2.0)
Crude oil and NGLs (Kbpd)	2,151	2,269	2,135	2,211	2,266	(5.2)	0.7	(2.4)
Onshore and Shallow water	92	95	114	99	137	(3.2)	(19.3)	(27.7)
Post-salt - deep and ultra deep	458	501	556	496	582	(8.6)	(17.6)	(14.8)
Pre-salt	1,601	1,673	1,465	1,616	1,546	(4.3)	9.3	4.5
Natural gas (Kboed)	513	520	502	521	522	(1.3)	2.2	(0.2)
Crude oil, NGL and natural gas -Abroad	41	41	45	42	48	-	(8.9)	(12.5)
<b>Total (Kboed)</b>	<b>2,704</b>	<b>2,830</b>	<b>2,682</b>	<b>2,774</b>	<b>2,836</b>	<b>(4.5)</b>	<b>0.8</b>	<b>(2.2)</b>
<b>Total - comercial (Kboed)</b>	<b>2,404</b>	<b>2,501</b>	<b>2,383</b>	<b>2,460</b>	<b>2,531</b>	<b>(3.9)</b>	<b>0.9</b>	<b>(2.8)</b>

The average production of oil, LGN and natural gas in 4Q21 was 2,704 kboed, a reduction of 4.5% compared to 3Q21, mainly due to scheduled stoppages on high production platforms and the start-up of the Búzios Coparticipation Agreement, factors that were partially offset by the ramp-up of FPSO Carioca.

These factors also explained the variation in production in the pre-salt fields, which reached 1,601 kbpd in the quarter, 4.3% lower than in 3Q21. Total production in the pre-salt was 1,930 kboed in the quarter, representing 71% of Petrobras' total production.

Post-salt production in 4Q21 was 458 kbpd, 8.6% lower than the previous quarter, due to higher losses from maintenance stoppages and the natural decline of reservoirs.

Onshore and shallow water production, in turn, was 92 kbpd, 3 kbpd lower than the previous quarter, due to onshore field divestments and the natural decline in production.

Production abroad was 41 kbpd, relative to fields in Bolivia, Argentina and the United States, in line with 3Q21.

## 2 - Refining, Transportation and Marketing

Operational (kbpd)	4Q21	3Q21	4Q20	2021	2020	Variação (%)		
						4Q21 X 3Q21	4Q21 X 4Q20	2021 X 2020
Total production volume	1,910	1,932	1,898	1,852	1,828	(1.1)	0.6	1.3
Total sales volume in the domestic market	1,848	1,946	1,765	1,806	1,664	(5.0)	4.7	8.5
Reference feedstock	2,082	2,176	2,176	2,153	2,176	(4.3)	(4.3)	(1.1)
Processed feedstock	1,798	1,819	1,782	1,740	1,709	(1.2)	0.9	1.8
Processed feedstock utilization factor (%)*	86%	84%	82%	81%	79%	2.0	4.0	2.0
Total distillation feedstock	1,824	1,850	1,827	1,775	1,745	(1.4)	(0.2)	1.7
Total refining plants utilization factor (%)*	88%	85%	84%	83%	80%	3.0	4.0	3.0
Processed feedstock	1,846	1,851	1,823	1,780	1,754	(0.3)	1.3	1.5
Domestic crude oil as % of total processed feedstock	92%	93%	95%	92%	94%	(1.0)	(3.0)	(2.0)

Sales of oil products in the domestic market in 4Q21 were 5% lower than in 3Q21, mainly due to lower sales of diesel and LPG, because of the seasonality of these products, and of fuel oil, due to lower thermoelectric dispatch in the last period. In the opposite direction, sales of gasoline increased in 4Q21, due to higher seasonal demand, and of jet fuel due to the recovery of the aviation market.

Oil products production fell 1.1% in 4Q21 compared to 3Q21 due to the drop in domestic demand and the divestment of RLAM. On the other hand, the utilization factor of the refineries rose in 4Q21 to 88% from 85% in 3Q21, due to the return of relevant units that were in scheduled stoppages in 3Q21 and higher production at other refineries.

Pre-salt oil represented 62.5% of total throughput in 4Q21, slightly below 3Q21 when we have reached a record by processing 63% of this group of oils. In 2021, we reached an annual record of pre-salt processing in our refining park with 59% of processed feedstock, 9% above 2020.

### 2.1 - Diesel

thousand barrels per day (kbpd)	4Q21	3Q21	4Q20	2021	2020	Variação (%)		
						4Q21 X 3Q21	4Q21 X 4Q20	2021 X 2020
Production volume	732	740	752	726	716	(1.0)	(2.6)	1.4
Sales volume for the Brazilian market	790	867	754	801	687	(8.9)	4.7	16.7

Diesel sales decreased 8.9% in 4Q21 compared to 3Q21, mainly due to the seasonality of consumption, higher in the third quarter because of the planting of the summer grain crop and industrial activity. In addition, the divestment of RLAM also impacted sales between quarters. These effects were partially mitigated by Petrobras' greater competitiveness in the domestic market and the consequent reduction in third-party imports.

Petrobras' diesel sales in October 2021 were the highest since October 2015, with the sale of 894 Kbpd.

S-10 diesel sales followed a similar logic and dropped 6.4% in 4Q21 compared to the previous quarter. In 4Q21, the share of S-10 diesel in total sales reached a quarterly record of 57.5%, with a monthly record of 58.9% reached in December 2021.

In 4Q21, diesel production was 1% lower when compared to 3Q21 due, mainly, to the divestment of RLAM, partially offset by the increase in production at other refineries, allowing for a reduction in diesel imports in the quarter.

\* Processed feedstock utilization factor is calculated only with oil and C5+. Total refining plants utilization factor considers the entire load in the distillation units, consisting of oil, C5+, waste, reprocessing, including terminals. Processed feedstock consists of oil and NGL.

The highlights were the monthly production records of S-10 diesel, at REPLAN and REGAP in October, at REFAP in November and at REVAP in December, as well as the record production of total S-10 diesel in the year, surpassing the previous record of 2020 by 10%.

## 2.2 - Gasoline

thousand barrels per day (kbpd)	4Q21	3Q21	4Q20	2021	2020	Variation (%)		
						4Q21 X 3Q21	4Q21 X 4Q20	2021 X 2020
Production volume	430	440	388	409	356	(2.3)	10.9	14.7
Sales volume for the Brazilian market	463	441	386	409	343	4.9	20.1	19.1

Gasoline sales reached 463 Kbpd in 4Q21, up 4.9% from 3Q21. Highlights include December 2021 sales (471.7 Kbpd), the highest on a daily basis since April 2017, even with the sale of RLAM concluded on November 30. The growth follows the typical seasonality of the last quarter. There was also a gain in the share of gasoline over ethanol in the consumption of flex-fuel vehicles, mainly due to pump prices that favored the consumer's choice of gasoline in all Brazilian states.

Gasoline production decreased 2.3% in 4Q21 compared to 3Q21, mainly due to the divestment of RLAM.

## 2.3 - Fuel Oil

thousand barrels per day (kbpd)	4Q21	3Q21	4Q20	2021	2020	Variation (%)		
						4Q21 X 3Q21	4Q21 X 4Q20	2021 X 2020
Production volume	292	288	299	280	293	1.3	(2.4)	(4.6)
Sales volume for the Brazilian market	61	71	51	61	40	(14.9)	18.4	51.0

Fuel oil sales in 4Q21 fell 14.9% from 3Q21 due to lower demand for thermoelectric generation.

In 4Q21, fuel oil production increased 1.3% compared to 3Q21, aligned to the production capacity, with the focus on higher exports in the quarter.

## 2.4 - Naphtha

thousand barrels per day (kbpd)	4Q21	3Q21	4Q20	2021	2020	Variation (%)		
						4Q21 X 3Q21	4Q21 X 4Q20	2021 X 2020
Production volume	77	79	90	76	106	(2.1)	(14.0)	(28.5)
Sales volume for the Brazilian market	67	79	83	69	116	(16.1)	(20.3)	(41.0)

Naphtha sales fell 16.1% in 4Q21 compared to 3Q21, mainly due to the divestment of RLAM, with a reduction in deliveries to Braskem in Bahia.

Production continues to follow the sales performance, being 2.1% lower compared to 3Q21.

## 2.5 - Liquefied Petroleum Gas (LPG)

thousand barrels per day (kbpd)	4Q21	3Q21	4Q20	2021	2020	Variation (%)		
						4Q21 X 3Q21	4Q21 X 4Q20	2021 X 2020
Production volume	126	134	119	122	125	(5.7)	5.9	(2.0)
Sales volume for the Brazilian market	214	239	232	228	235	(10.7)	(7.9)	(3.0)

The reduction in sales in 4Q21 compared to the previous quarter is mainly due to seasonal factors, higher average temperatures in 4Q21, lower industrial consumption and the divestment of RLAM. Also contributed to the reduction the greater participation of other players in the market and the higher comparison base in 3Q21 due to greater

social distance due to COVID-19, contributing to the increase in LPG consumption for cooking. LPG production fell 5.7% compared to 3Q21, following the market reduction.

## 2.6 - Jet Fuel

thousand barrels per day (kbpd)	4Q21	3Q21	4Q20	2021	2020	Variation (%)		
						4Q21 X 3Q21	4Q21 X 4Q20	2021 X 2020
Production volume	88	78	62	70	57	12.5	42.3	22.4
Sales volume for the Brazilian market	92	80	68	74	60	14.7	34.5	24.4

The increase in jet fuel sales in 4Q21 compared to 3Q21 was mainly due to the market recovery from the negative impact of COVID-19 on the airline sector. The divestment of RLAM partly reduced this growth.

Jet fuel production was in line with market behavior and showed an increase of 12.5% over 3Q21.

### 3 - Gas & Power

Operational	4Q21	3Q21	4Q20	2021	2020	Variation (%)		
						4Q21 X 3Q21	4Q21 X 4Q20	2021 X 2020
Sale of Thermal Availability at Auction-Average MW	2,383	2,455	2,404	2,439	2,404	(2.9)	(0.9)	1.5
Generation of electricity - average MW	3,526	3,977	3,435	3,419	1,756	(11.3)	2.6	94.7
National gas delivery (MM m <sup>3</sup> /day)	44	40	41	43	44	10.0	7.3	(2.3)
Regasification of liquefied natural gas (MM m <sup>3</sup> /day)	24	30	22	23	8	(20.0)	9.1	187.5
Import of natural gas from Bolivia (MM m <sup>3</sup> /day)	20	20	21	20	18	-	(4.8)	11.1
Sales volume of natural gas - MM m <sup>3</sup> /day	87	88	82	85	68	(1.1)	6.1	25.0

In 4Q21, electricity generation was 3,526 MW on average, a reduction of 11.3% when compared to 3Q21 due to the improvement of hydrological conditions and, consequently, in the level of hydroelectric reservoirs in the country. There was also a 2.9% reduction in sales volumes of thermal availability at auctions due to the divestment of oil-fired thermoelectric plants in the Northeast (Arembepe, Bahia 1 and Muricy) in December 2021.

Natural gas demand remained in line with 3Q21. As for supply, with the end of the Mexilhão field scheduled stoppage, in September, it was possible to increase the volume of domestic gas delivered to the market in 4Q21 and reduce LNG regasification volume by 20% compared to the previous quarter.

## Exhibit I: Consolidated Sales Volume

Sales volume (kbpd)	4Q21	3Q21	4Q20	2021	2020	Variação (%)		
						4Q21 X 3Q21	4Q21 X 4Q20	2021 X 2020
Diesel	790	867	754	801	687	(8,9)	4,8	16,6
Gasoline	463	441	386	409	343	5,0	19,9	19,2
Fuel oil	61	71	51	61	40	(14,1)	19,6	52,5
Naphtha	67	79	83	69	116	(15,2)	(19,3)	(40,5)
LPG	214	239	234	228	235	(10,5)	(8,5)	(3,0)
Jet Fuel	92	80	68	74	60	15,0	35,3	23,3
Others	163	169	189	164	182	(3,6)	(13,8)	(9,9)
Total oil products	1.850	1.946	1.765	1.806	1.663	(4,9)	4,8	8,6
Alcohols, nitrogenous, renewable and	3	4	5	4	5	(25,0)	(40,0)	(20,0)
Petroleum	83	4	4	24	3	1975,0	1975,0	700,0
Natural gas	364	365	335	352	292	(0,3)	8,7	20,5
Total domestic market	2.300	2.319	2.109	2.186	1.963	(0,8)	9,1	11,4
Exports of petroleum, oil products and	701	813	852	811	957	(13,8)	(17,7)	(15,3)
Sales of international units	53	32	51	46	85	65,6	3,9	(45,9)
Total external market	754	845	903	857	1.042	(10,8)	(16,5)	(17,8)
Grand total	3.054	3.164	3.012	3.043	3.005	(3,5)	1,4	1,3

Since the divestment of RLAM, concluded on November 30, 2021, we started to have relevant oil sales in the domestic market.

## Exhibit II: Net imports and exports

Thousand barrels per day (kbpd)	4Q21	3Q21	4Q20	2021	2020	Variation (%)		
						4Q21 X 3Q21	4Q21 X 4Q20	2021 X 2020
Net export (import)	374	398	611	444	743	(6.0)	(38.8)	(40.2)
Import	327	415	241	367	214	(21.2)	35.7	71.5
Petroleum	138	130	112	154	97	6.2	23.2	58.8
Diesel	106	175	37	118	18	(39.4)	186.5	555.6
Gasoline	27	42	5	20	10	(35.7)	440.0	100.0
Naphtha	-	-	2	-	14	-	-	-
GLP	40	61	76	65	70	(34.4)	(47.4)	(7.1)
Other oil products	16	7	9	10	5	128.6	77.8	100.0
Export	701	813	852	811	957	(13.8)	(17.7)	(15.3)
Petroleum	440	604	618	575	713	(27.2)	(28.8)	(19.4)
Fuel oil	233	165	204	197	194	41.2	14.2	1.5
Other oil products	28	44	30	39	50	(36.4)	(6.7)	(22.0)

Net exports in 4Q21 fell 6% compared to 3Q21 mainly because of the reduction in oil exports, due the decrease in production.

Fuel oil exports increased in 4Q21 due to ongoing exports in 3Q21.

The reduction in oil product imports in 4Q21 partially offset the drop in net exports mainly due to the lower volume of imported diesel, but also with a contribution from LPG, both following the seasonality of the domestic market.

## Disclaimer

This release includes forward-looking that are subject to risks and uncertainties. The forward-looking statements, which address the Company's expected business and financial performance, among other matters, contain words such as "believe," "expect," "estimate," "anticipate," "optimistic," "intend," "plan," "aim," "will," "may," "should," "could," "would," "likely," and similar expressions. Readers are cautioned not to place undue reliance on these forward-looking statements, which speak only as of the date on which they are made. There is no

assurance that the expected events, trends or results will actually occur. 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. The amounts informed for 4Q21 on are estimates. The operational data contained in this release is not audited by the independent auditor.