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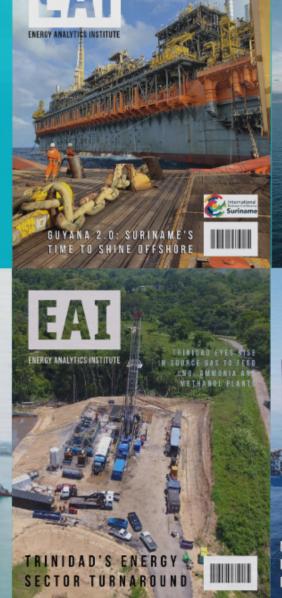
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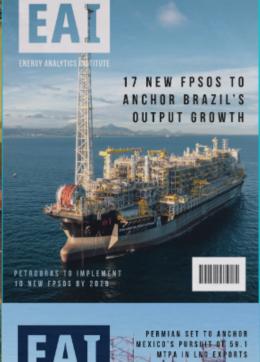
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Argentina's new investment incentive regime for large investments, known as RIGI by its Spanish acronym, will play a key role in the development of the country's infrastructure necessary for the Vaca Muerta shale play to reach its potential by the end of this decade.

The Vaca Muerta alone has technically recoverable shale resources ranking among the world's largest — 308 trillion cubic feet (Tcf) of natural gas and 16.2 Bn bbls of crude oil.

These resources could easily anchor Argentina's efforts to mature into a regional, if not, global energy exporting powerhouse.

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"Vaca Muerta is better than any shale in the US," according to **YPF Sociedad Anónima** CEO Horacio Marín.

Reason enough why Buenos Aires-based YPF is on a mission under the leadership of Marín to become a Vaca Muerta pure play.

But, to get there, the company will first need to shed its mature conventional oil assets while also opening new real-time intelligence centers (RTIC), reducing oil-field services costs, and only issue lower cost debt, among other initiatives announced by Marin and his team in 2024 and continuously taking form in early-2025.

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Argentina's state-owned **YPF SA** aims to add value in the Argentine upstream space through optimization of capital deployed to achieve certain levels of operational excellence.

The company believes such actions could open new development opportunities to boost incorporation of unconventional projects where well construction efficiency is key.

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Argentina's plans to significantly boost Vaca Muerta crude oil and natural gas production to support a massive 300% increase in energy exports from now until the end of the decade will depend in great part on the ability of state-owned **YPF SA** and the energy industry as a whole to solidify takeaway capacity.

(2)

Combined energy exports are expected to reach around \$40bn by 2030 compared to just around \$10bn in 2024. Of this amount, net energy exports to YPF are expected to amount to around \$10bn compared to just over \$2bn, respectively.

3 REFINERIES ... 21-25

Argentina's **YPF SA** owns 3 refineries — La Plata (Buenos Aires), Luján de Cuyo (Mendoza) and Plaza Huincul (Neuquén) — with a combined capacity to refine 337.9 thousand barrels per day

Together, these 3 refineries, strategically located along YPF's crude oil and refined product pipeline distribution systems, hold over 50% of the South American country's total refining capacity.

(Mb/d) across the country.

ARGENTINA LNG ... 26-27

The Río Negro-based 26-30 million tonnes per annum (MTPA) Argentina LNG project, which will consist of Argentina LNG 1, Argentina LNG 2 and Argentina LNG 3, boasts potential offtake of around 50 MTPA.

This, based on initial preliminary discussions under negotiation, according to YPF SA CEO Horacio Marín.

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Piero Stewart, Aaron Simonsky, Chad Archey, Ofelia Paredes, Steve Stewart, Fidencio Casillas, Ian Silverman and Pietro D. Pitts (Editor-in-Chief).

On the cover: Drilling site in Argentina (Source: YPF). Other photo: YPF CEO Horacio Marín (Source: IAPG),

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FROM THE EDITOR-IN-CHIEF

Argentina's new investment incentive regime for large investments, known as RIGI by its Spanish acronym, will play a key role in the development of the country's infrastructure necessary for the Vaca Muerta shale play to reach its potential by the end of this decade.

The Vaca Muerta alone has technically recoverable shale resources ranking among the world's largest — 308 trillion cubic feet (Tcf) of natural gas and 16.2 Bn bbls of crude oil. These resources could easily anchor Argentina's efforts to mature into a regional, if not, global energy exporting powerhouse.

Importantly, Vaca Muerta could produce around 1 million barrels per day by 2030, up drastically from around 400,000 b/d, many Argentine energy pundits have told **Energy Analytics Institute (EAI)**. This will anchor rising hydrocarbon exports: piped-gas exports in the Southern Cone region (to Chile and Brazil via Bolivia), oil exports, and liquefied natural gas (LNG) exports starting in 2027.

No surprise, future Vaca Muerta production projections will depend on execution of the essential infrastructure works, particularly pipelines and now the planned investments in floating LNG (FLNG) plants for the export of LNG.

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- Argentina's Vaca
 Muerta shale formation: a game-changer in the making
- Dissecting Y-P-F: \$45/
 bbl resilience, portfolio
 management and
 upstream snapshot
- Vista says research on seismic activity in Vaca Muerta inconclusive
- Argentina's VacaMuerta anchors record production

Enter RIGI, a key component for Vaca Muerta to reach its full potential.

RIGI's regulatory framework aims to attract investments through tax incentives that facilitate strategic infrastructure projects to optimize their productive and export capacity. RIGI offers benefits such as lower tax rates, accelerated depreciation, and regulatory stability for 30 years.

But, despite Vaca Muerta's great production potential, a lot will rely on infrastructure investments, given that the current lack of evacuation capacity represents a concrete limit to productive growth.

And, for the Vaca Muerta vision to materialize, Argentina or better stated, investors must navigate challenges ranging from the infrastructure bottlenecks and rig shortages to political uncertainties and financial hurdles. In regards to the latter headwind, many inroads have been made such as reeling in inflation and stabilizing the Argentine peso.

But, the linger question is whether Argentina under president Javier Milei will be able to continue with the positive economic and financial moments? Well, only time will tell. **EAI**



4X4 CHALLENGE



THE 4X4 CHALLENGE AND FOCUS ON VACA MUERTA PROFITABLE

"Vaca Muerta is better than any shale in the US," according to **YPF Sociedad Anónima** CEO Horacio Marín.

Reason enough why Buenos Aires-based YPF is on a mission under the leadership of Marín to become a Vaca Muerta pure play.

But, to get there, the company will first need to shed its mature conventional oil assets while also opening new real-time intelligence centers (RTIC), reducing oil-field services costs, and only issue lower cost debt, among other initiatives announced by Marin and his

team in 2024 and continuously taking form in early-2025.

"The long-term [price outlook] is normal, which is around \$70/bbl. Since we can develop all of the Vaca Muerta oil at a long-term price of \$45/bbl, I am worried about the future. The YPF 4x4 challenge is

the way YPF will reach a big company in 2030," Marín told investors on 11 Apr. 2025 during the company's Investor Relations or IR Day in New York City. "And, we are focused on profitability and value creation."

This, as YPF seeks its long-term objective to export conventional and non-conventional oil and gas, which is a part of Argentina's objective, and achieve oil and gas exports of \$40bn around the 2030 timeframe, contributing to macro stabilization.

"What we care about is that YPF exports," Marin said. "YPF is resilient at \$45/bbl ... We have to be serious and invest where you make money."

As part of the push, and in line with this strategy, YPF will need to mature into an important player in the crude oil and natural gas exporting spaces and not only as it relates to piped-gas.

As a result, the company is eying the export of liquefied natural gas (LNG) starting in 2027. For many pundits, this has long been seen as the only true option to maximize monetization of Argentina's

massive Vaca Muerta shale resources.

In the last 10 years or so, YPF has invested heavily in the Vaca Muerta with its local and international partners. These experiences have allowed YPF to incorporate technology and adapt its processes to become a competitive global player.

The company also boasted achievements in efficiency as well as capital and operating expenditures. But, within the context of the energy transition from coal and oil to low-carbon alternatives like gas, the company's new management has decided the time has come to focus on Argentina's shale resources.

As such, Marín continues to say the focus is on profitability and the most profitable business, which is the Vaca Muerta.

"Focus, focus, focus," has been Marín's main message to all the YPF workers, and especially los flacos.

Along those lines, Marín said YPF would continue to actively manage its portfolio with a capital allocation discipline, reallocating resources from other less profitable businesses with a focus on becoming a non-conventional company by 2026. This, through an aggressive push to reduce its exposure to conventional mature fields.

Achievement of the goals will not be easy given the uncertainties that come to be a part of Argentina's DNA in the political, financial and economic spaces. Amid such an environment there are no guarantees other Argentine players will always have the cash, stock or debt to absorb YPF's divestitures.

Additionally, a swift change in commodity prices or the external markets for Vaca Muerta oil and piped-gas over the short-term could change. Likewise, so could supply and demand scenarios towards the end of this decade as the US and Qatar ramp up liquefaction capacity and as gas-rich Russia remains an important player in the gas space even amid restrictions imposed after it invaded Ukraine in early-2022.

The 4x4 challenge

Key to achievement of YPF's and Argentina's long-term export strategy is the so-called 4x4 challenge, which was implemented in early Jan. 2024. Importantly, under the plan YPF will focus efforts over the short to middle-term on 4 strategic pillars as summarized.

1 — A focus on the most profitable business: Vaca Muerta

YPF will focus first and foremost on development of its

BUSINESS STRUCTURE AS FROM 2025	UPSTREAM	DOWNSTREAM MIDSTREAM & DOWNSTREAM	GAS & POWER LNG & INTEGRATED GAS	NEW ENERGIES NEW	CORP & OTHERS
MAIN YPF S.A.		R&M NON OIL CHEMICALS MIDSTREAM OIL MIDSTREAM GAS	GAS COMMERCIALIZATION LNG MIDSTREAM-GAS		
MAIN SUBSIDIARIES (CONSOLIDATE LINE BY LINE)	SIERRA CHATA NEW	OPESSA YPF-BRASIL (divested 31-Jan-2025)	METROGAS ARGENTINA LNG SUR INV. ENERGÉTICAS (1) YPF-LITIO	METROGAS YPF LITIO Y-TEC	AESA Y-TEC
MAIN JV & AFFILIATES (EQUITY INCOME)		OLDELVAL OILTANKING VMOS OTA-OTC OIL PIPELINES REFINOR	MEGA YPF EE (YPF LUZ) PROFERTIL CT BARRAGÁN CENTRAL DOCK SUD (CDS)	YPF EE (YPF LUZ) PROFERTIL CT BARRAGÁN CENTRAL DOCK SUD (CDS)	

unconventional hydrocarbon acreage with competitive advantages. This also includes efforts to construct necessary pipelines to remove transport bottlenecks that currently limit the evacuation of oil production from the Vaca Muerta.

Vaca Muerta boasts technically recoverable shale resources that rank among the world's largest with 308 trillion cubic feet (Tcf) of gas and 16.2 Bn bbls of oil. These resources are sufficient for Argentina to become a regional and global energy exporting powerhouse.

"Our development cost in the Vaca Muerta core oil hub was \$19.70/bbl in 2016 and it is now \$11.60/ bbl and lifting cost was \$10.60/bbl and is now

\$4.20/bbl," Marín said. "The learning curve in Vaca Muerta is wonderful."

Other infrastructure projects will continue to advance as part of the plan to debottle gas production and open the export valve, which will enable growth in both oil and gas exports in the future.

"Focus is the first because the first part of YPF, the profitability of YPF, is the Vaca Muerta today," according to Marín.

2 — A focus on active portfolio management

YPF will focus on the rationalization of its conventional asset portfolio, prioritizing profitability, and

growth of its resource base through acquisitions, as well as through exploration.

"We are exiting any company where we make very little money or no money at all," Marín said. "Our goal is to exit the mature fields and be a \$5/ bbl lifting cost company. We are going to be a pure shale company with refining."

YPF continues to move forward plans to divest mature assets in the following provinces: Mendoza, Neuquén, Santa Cruz, Río Negro, Chubut, and Tierra del Fuego.

Active portfolio management includes exiting mature fields and revisions to operations abroad. To this end, YPF has already exited Brazil and Chile and plans to sell down its



PROGRESS IN # BLOCKS BY PROVINCE	COMPLETED	FINAL STAGE	IN PROGRESS
TOTAL	11 BLOCKS 22%	23 BLOCKS 46%	16 BLOCKS 32%
MENDOZA	8	6	
RÍO NEGRO	1		1
NEUQUÉN	-	7	2
CHUBUT	2		4
TIERRA DEL FUEGO	-		9
SANTA CRUZ	-	10	

PROGRESS IN EXIT PROGRAM FROM MATURE FIELDS

- SANTA CRUZ PROVINCE
 SIGNED MOU WITH THE PROVINCE (10 BLOCKS)
- NEUQUÉN PROVINCE
 OBTAINED PROVINCIAL APPROVAL FOR 2 CLUSTERS
 NEUQUÉN NORTH (4 BLOCKS) & NEUQUÉN SOUTH (3 BLOCKS)
- CHUBUT PROVINCE
 POTENTIAL SPA TO BE SIGNED FOR CHUBUT
 NON-OPERATED (3 BLOCKS)

EXIT PROGRAM MATURE FIELDS

interest offshore Uruguay to partner with companies that have the know-how that YPF doesn't have.

In terms of the exit program for mature fields, YPF has completed its exit from 11 blocks, and is in the final stages to divest 23 blocks while 16 blocks are in progress.

While YPF sees an opportunity to divest in **Metrogas**, that will probably not occur before 2028, according to Marín.

"Active portfolio management means buying and selling," Marín said.

3 — A focus on maximizing upstream and downstream efficiency

YPF will focus on efficiency in costs and processes in all of its business segments, and particularly in the Vaca Muerta. The aim of this push is to ensure resilience even in low price scenarios. This also includes modifying the company's 3 refineries to facilitate greater shale oil processing, and to reach the expected quality of fuels demanded by its customers.

YPF's 3 refineries — La Plata (Buenos Aires), Luján de Cuyo (Mendoza) and Plaza Huincul (Neuquén) — have a combined capacity to refine 337.9 thousand barrels per day (Mb/d) across the country. And, they reported a combined utilization rate of 89% in 2024.

The plan is to "optimize everything in YPF ... and that includes the sale of *alfajores*," according to Marín.

$\mathbf{4} - \mathbf{A}$ focus on the Argentine LNG project

Finally, YPF will focus on the monetization of Vaca Muerta's world-class gas resources beyond local and regional demand, that is for pipe-gas deliveries, which points to development of long talked about plans to develop permanent and year-round LNG export capacity.

The current vision for Argentina LNG (ARG LNG) is split into ARG LNG 1, ARG LNG 2 and ARG LNG 3. Combined, Argentina LNG will have an export capacity of between 26-30 million tonnes per annum (MTPA), equivalent to 125 million cubic meters per day (MMcm/d) of gas in the latter case. And, YPF is targeting its share of the total capacity to be between 25%-30%,

While YPF's 4x4 challenge is ongoing, the company still looks to maximize the value creation for its stakeholders in a sustainable way. To this end in 2024, the company continued to focus on implementing its corporate sustainability policy while advancing its commitment to climate and energy-related actions, the reduction in the intensity of the company's carbon dioxide or CO2 emissions (focused on upstream operations) as well as the development of renewable energies through its participation in YPF Energía Eléctrica S.A. (YPF EE).

"By 2030+, YPF will be a top 10 shale player worldwide, world-class in downstream, the number 1 exporter in Argentina and long-term sustainable positive free cash flow generator, according to Marín. "Vaca Muerta is the best shale in the world," according to Marín.

Headwinds confronting the 4x4 challenge

Argentina is no stranger to volatility. Although Argentina's president Javier Milei has done wonders to tame inflation and reel in the exchange rate, among other initiatives, headwinds still persist. Some of the headwinds to YPF's 4x4 challenge include but are not limited to the following:

YPF as the state-owned company will continue to come under pressure since the Argentine government owns 51% of the company's shares. This controlling position gives the government control in deciding matters requiring approval by the majority of the shareholders including the election of the majority of the members of YPF's board of directors.

Ongoing changes regarding the Argentine economy as well as political and regulatory conditions and measures taken by Milei's government could significantly impact YPF.

Additionally, Argentina continues to lack a solid and transparent institutional framework for contracts. Exchange and capital control risk still remain as well as issues around YPF's ability to secure debt when it needs it and more importantly at a low rate. **EAI**

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- YPF pivots away from onshore liquefaction plants to 100% FLNG for Argentina LNG 3
- YPF rides shale boom, sets sights on export infrastructure
- Golar inks 2 deals
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 Southern Energy LNG
 offshore Argentina
- Vista Energy says research on seismic activity in Vaca Muerta inconclusive
- Vista Energy says \$3bn
 VMOS project to
 commence commercial
 operations in 2H:27
- Blue Sky expands drill plan to advance Ivana uranium-vanadium project in Argentina

\$45 RESILIENCE

\$45/BBL RESILIENCE, PORTFOLIO MANAGEMENT AND UPSTREAM SNAPSHOT

Argentina's state-owned YPF SA aims to add value in the Argentine upstream space through optimization of capital deployed to achieve certain levels of operational excellence. The company believes such actions could open new development opportunities to boost incorporation of unconventional projects where well construction efficiency is key.

YPF under its new talisman, CEO Horacio Marín, is on a mission to become a Vaca Muerta pure play by the end of 2026. This, as the company looks to shed the weight of its mature conventional fields with double-digit lifting cost in exchange for a \$5/bbl unconventional Vaca Muerta lifting cost.

The prolific Vaca Muerta shale play is resilient down to a \$45/bbl Brent price, according to Marín.

"We are going to make a good company a very resilient company and a very competitive company all around the world. If YPF suffers, the world suffers, and it will not be because we were not efficient,"
Marín.

However, oil field services costs in Argentina are still high despite claims by Marín that Vaca Muerta is better than any US shale basin.

"[There are] very few companies, very few tools in Argentina. [That's] the reason why oil field services costs are higher in Argentina. Our unit costs must be close to Midland but they are not. The difference today is the unit cost," Marín told investors on 11 Apr. 2025 during the recent YPF Investor Relations or IR Day in New York.

YPF's renewed focus is anchored by reforms announced by Argentina's president Javier Milei and especially RIGI — a new incentive regime for large investments — which provides a favorable environment for investment. RIGI offers benefits such as lower tax rates,

accelerated depreciation, and regulatory stability for 30 years. This affords investors an ability to protect their projects and investments from future policy changes, as well as enhanced investor protections.

But, before Milei's rapid rise to popularity, YPF was really only leaning on Argentina's Plan GasAr. Specifically, in Nov. 2020, Plan GasAr 2020-2024 was launched. The plan promoted natural gas production opportunities and incentivized YPF to monetize its gas reservoirs. This, in an effort to boost gas supply in Argentina for 4 years and importantly at a price that allowed for development of projects in certain basins.

Then, in Nov. 2022, Plan GasAr 2023-2028 was launched, affording YPF additional time to extend opportunities to boost gas supply in Argentina.

Today, YPF's hydrocarbon production in Argentina is concentrated in the Neuquina, Golfo San Jorge, Cuyana, Noroeste and Austral basins.

YPF's mature field exit plan over the short-to-medium term will allow the company to reallocate capital expenditures (Capex) in the future to the Vaca Muerta.



By 2030, around 88% of YPF's Capex will be destined to the Vaca Muerta compared to 64% in 2024 and 48% in 2023.

As of 31 Dec. 2024, YPF held interests in 111 oil and gas fields in Argentina. And, in 2024, according to data from the **Instituto Argentino del Petróleo y del Gas (IAPG)**, these assets accounted for 36.1% of Argentina's total oil production and 28.7% of the total gas production.

YPF is the largest operator in the Vaca Muerta, producing 55% of the formation's oil and 23% of its gas.

In 2024, YPF's total hydrocarbon production rose 4.4% compared to 2023. On a daily basis, oil production rose 6%, NGLs rose 0.4%, and gas rose 3.4% compared to 2023.

Of note, 53% of YPF's total hydrocarbon production in 2024 was classified as unconventional. On a daily basis, oil production rose 25.9%, NGLs rose 4.9%, and gas rose 18.6% compared to 2023.

"We plan Capex of \$5bn-\$5.2bn in 2025, of which 66% will be destined for shale operations, compared to \$5bn in 2025. In terms of production, we are targeting 165,000 barrels per day (b/d) in 2025 compared to 122,000 b/d in 2024 and a Dec. 2025 exit rate of around 190,000 b/d," Marín told investors in the Big Apple.

Portfolio management

Argentina's libertarian president Milei is leaning on Buenos Airesbased YPF to transform his country into a major oil and LNG exporter, primarily thanks to shale development in the heartland Neuquén Basin, **Enverus** said on 5 Mar. 2025 in a research note. Shortly after his election win in 2023, Milei tapped veteran Marín to lead YPF.

The NOC's Andes project saw it kick off a divestment plan of aging, low-margin assets. The program has built up local support for Milei's ambitious plan among smaller outfits and provinces eager for new investments.

In 2024, YPF continued to actively manage its portfolio. This, as part of efforts to focus on its most profitable business: the Vaca Muerta, and for a number of operationally and financial reasons. This disposal of assets related to YPF's mature fields is consistent with management plans amid a view that YPF's unconventional upstream portfolio should be the focus of future activities and investments.

The mature fields divestment plan is aligned with the second strategic pillar of YPF's "4x4 challenge" plan, launched in Jan. 2024. Importantly, under the plan, YPF will focus efforts over the short to middle-term on 4 strategic pillars as summarized: 1) a focus on the most profitable business: Vaca Muerta, 2) a focus on active portfolio management, 3) a focus on maximizing upstream and downstream efficiency, and 4) a focus on the Argentine LNG project.

Marín added that portfolio management wasn't just about divesting high-cost conventional assets.

On 29 Feb. 2024, YPF's board of directors resolved the disposal of certain mature fields in the Golfo San Jorge, Neuquina, Cuyana and Austral basins.

In this regard, during 2024, YPF signed different assignment agreements for 8 groups of assets (24 areas), subject to the fulfillment of agreed closing conditions.

As of 31 Dec. 2024, the agreed closing conditions of the assignment agreements of the "Escalante - El Trébol" and "Llancanelo and Llancanelo R" exploitation concessions were met. In addition, after 31 Dec. 2024, the agreed closing conditions of the assignment agreements of the "Estación Fernández Oro," "Campamento

Central - Cañadón Perdido,"
"Barrancas," "Vizcacheras," "La
Ventana," "Ceferino," "Mesa
Verde" and "Río Tunuyán"
exploitation concessions were
met; while the remaining 3
assignment agreements are
subject to the fulfillment of
agreed closing conditions for
which YPF is taking the
necessary steps to close them.

"YPF used to produce from 5 basins and in the future it will be 1 and that will create a big infrastructure bottleneck," according to Marín.

What follows is an upstream update, as per YPF.

Argentina: exploration activities

YPF's onshore exploration portfolio is mainly focused on high-impact projects since Palermo Aike in the Austral basin is seen as Argentina's second shale formation in terms of potential. Obviously, trailing the Vaca Muerta.

Palermo Aike exploration activities started in 2023 and continued in 2024 and are being carried out jointly with **Compañía General de Combustibles S.A (CGC)**. In 2024, the first horizontal well was drilled, completed and tested. The well featured a 753m stimulated lateral

extension with 12 frac stages. Although well productivity was low, the flowback test produced gas and condensate, confirming the well is situated in the gas/condensate maturity window.

In the Vaca Muerta, 2 horizontal wells drilled during 2023 were completed and tested in 2024 with 12 and 13 stimulation stages. The first was in the Paso de las Bardas Norte block where YPF has an exploitation concession, while the second was in the CN VII block where YPF has an exploration permit. Each well featured over 1,000m of horizontal extension, navigating 2 different levels within the Vaca Muerta formation. Flowback tests of both wells confirmed producing black oil.

Owing to the positive results, in Aug. 2024 YPF entered into a second exploratory period in the CN VII block. This, through permission granted from the Mendoza province through administrative decision no. 30/2024. As a result, YPF has a commitment to drill 2 additional horizontal exploratory wells with 2,500m of horizontal extension each.

In 2024, in Las Tacanasblock, 2 wells drilled in 2023 were completed, and, as of early-Apr. 2025, are producing according to the type-well expectations.

In the western area of the Neuquina basin, 2 horizontal

wells that started drilling in 2023 (1 in Cerro Las Minas block and 1 in Loma del Molle block) concluded drilling in 2024. YPF doesn't plan further actions since the wells were uneconomical.

In the offshore space, YPF's offshore portfolio continues to grow. This, owing to the acquisition in Nov. 2024 of the 35% non-operated working interest in the AUS 105 and AUS 106 blocks located in the Austral basin from **Equinor**. Equinor operates the 2 blocks, with a non-operated joint participation of YPF and **CGC**.

In the CAN 100 block, between Apr. 2024-Jun. 2024, the first deepwater well in Argentina the Argerich well — was drilled without environmental or safety incidents. The well, located 300km away from the Mar del Plata city's port in the Buenos Aires province, was drilled in a water depth of 1,527m and reached the planned total depth of 4,050m. While the well proved the geological model, the oil system could not be tested, resulting in a dry well. As of early-Apr. 2025, a detailed post-drill analysis is being carried out to assess the remaining exploration potential of the block, according to YPF.

In terms of seismic in 2024, YPF carried out 4 3D campaigns in blocks offshore Argentina. 2 3D surveys were acquired for the North Argentina basin: 1 covering 1,500km2 in the CAN

102 block and 1 covering 2,800km2 in the CAN 114 block. Moreover, 13D survey was acquired for the Austral basin, a 900km2 survey in the AUS 105 block and a 1,500km2 survey in the AUS 106 block, and a 3,000km2 3D seismic survey in the MLO 123 block located in the Malvinas basin. As of 31 Dec. 2024, the 3D surveys showed a 40% advance in the MLO 123 block, 93% advance in the CAN 102 block, while in CAN 114, AUS 105 and AUS 106 blocks, the surveys were fully completed. Argentina: development activities

Unconventional (shale) activities

In 2024, YPF's hydrocarbon production from unconventional activities represented 39% of its total production. In 2024, YPF, jointly with its partners, continued with growth plans with more than \$2,392mn invested (YPF net, from operated areas), 195 wells were put into production and over 8,000 frac stages were carried out in blocks operated by YPF. In 2024, YPF was highly active in its drilling operations at the core hub blocks — Loma Campana, La Amarga Chica, Bandurria Sur and Aguada del Chañar with 11 rigs.

Operational efficiencies continued to break records, with the drilling of the longest horizontal well in the Vaca Muerta formation with a total length of 8,264m (27,113ft) and a lateral length of 4,948m (16,234ft) in 27 days, using real time data for decision making on drilling and completion activities. The average lateral length drilled in the core hub blocks was 2,950m (9,678ft), according to YPF.

Drilling activities in the Vaca Muerta have been gradually increasing and showing favorable productivity results, such as the productivity of the wells executed at the "medium organic" level in Loma Campana and Bandurria Sur blocks, and confirming the expectation to increase the drilling activities in coming years.

"Loma Campana is the best area in Vaca Muerta," according to Marín.

These results have allowed YPF to confirm the current inventory of wells expected to be drilled and to incorporate new drilling positions.

In the Vaca Muerta, YPF's development activities are focused on the lower levels of the formation (known as "Cocina" and "Orgánico") with proven and profitable results with the application of the high-density completion (HDC) stimulation design. Different strategies are being applied to mitigate parent/child effects from the drilling of nearby wells

as development progresses at these lower levels such as well spacing adjustments and stimulation design adjustments, according to YPF.

Throughout 2024, 3 new facilities were put into production in the core hub blocks: 1) the 3N Battery, with a processing capacity of 6,000 m3/d; (2) a second oil treatment plant (PTC), with a production capacity of 12,000 m3/d, both in La Amarga Chica block; and 3) the Battery 4 in Bandurria Sur block with a processing capacity of 6,000 m3/d.

During 2024, a milestone in the development of the Vaca Muerta formation was the acceleration of the south hub blocks — La Angostura Sur I and La Angostura Sur II in Aguada Toledo - Sierra Barrosa exploitation concession — with the drilling of 9 PADs (groups of between 4 and 6 wells each). As of 31 Dec. 2024, 2 PADs were producing according to the type-well expectations, while the remaining 7 PADs are expected to start production during 2025. Also, in Dec. 2024, a production treatment module, with a capacity of 2,500 m3/d, was put into production.

Regarding the north hub blocks — Bajo del Toro Norte and Narambuena during 2024, activities were focused on Bajo del Toro Norte block with the drilling of 3 PADs on which the delineation stage was completed, and the development stage began.

On 7 Mar. 2025, the Neuquén province granted YPF unconventional hydrocarbon exploitation concessions (CENCH, by its acronym in Spanish) in Aguada de la Arena, La Angostura Sur I, La Angostura Sur II and Narambuena blocks.

In the gas hub blocks — Aguada de la Arena, Rincón del Mangrullo, La Ribera and El Orejano — the main milestone of 2024 was the startup of the primary separation unit (USP, by its acronym in Spanish) in Aguada de la Arena block, which expanded the capacity by 4 Mm3/d, reaching a total capacity of 7 Mm3/d.

Conventional activities

Sur region

In 2024, YPF's hydrocarbon production in the Sur region represented 16% of its total production.

During 2024, activity in the Sur region involved a total investment (YPF net, from operated areas) of \$469mn, of which \$272mn were related to investments associated with the mature field divestments (\$248mn of which were investments in the Santa Cruz province). With regards the mature field investments,

\$68mn were mainly to continue operational sustainability, taking care of the safety of operations and employees, as well as the environment. The remaining \$204mn were investments associated with development projects.

The average development cost associated with drilling activity was approximately 4 times the cost of developing unconventional oil wells, according to YPF.

In 2024, under a scenario with 50% of the fields being conventional and 50% being shale, YPF's lifting cost averaged \$16\$/bbl with mature conventional fields and shale fields. Specifically, the conventional lifting cost was \$28/bbl and the shale lifting cost was \$5/bbl, according to Marín. In 2024, under a scenario with 30% of the fields being conventional and 70% shale, YPF's lifting cost averaged \$9/ bbl with mature conventional fields and shale fields. Specifically, the conventional lifting cost was \$17/bbl and the shale lifting cost was \$5/bbl.

Related to the mature fields divestments, in Nov. 2024, after the fulfillment of all the closing conditions by YPF and **PECOM Servicios Energía S.A.U.**, the transfer of 100% of the rights and obligations of YPF in Escalante - El Trébol exploitation concession in favor of PECOM was formalized. Additionally, in Jan.

2025, after the fulfillment of all the closing conditions by YPF and PECOM, the transfer of 100% of the rights and obligations of YPF in Campamento Central - Cañadón Perdido exploitation concession in favor of PECOM was formalized.

In Jun. 2024, the Chubut and Santa Cruz provinces were affected by a severe snowstorm, affecting the operation of facilities and wells. On average, the production of Jun. 2024 and Jul. 2024 suffered a reduction of 13,800 b/d and 7,100 b/d in the Chubut and Santa Cruz provinces, respectively, when compared to average daily production of the first-quarter 2024. By year-end 2024, production had normalized.

During 2024, activity in the Sur region was mainly focused on development of polymer injection projects in Manantiales Behr block, in the Chubut province. In the Grimbeek Norte Il project, a secondary polymer injection pilot, accounting for the 33% of the Sur region tertiary production in 2024 with 2,500 b/d on average (without previous conventional waterflooding) has continued to boost oil production since 2022. Encouraged by the results obtained, YPF plans to begin the massification towards 2 additional zones in 2025. With the intention to expand the results of the Grimbeek Norte II block, a new polymer injection project started in the 4Q:24



in Grimbeek Central block, whose initial results are expected to start from Dec. 2025, according to YPF.

In the El Alba Valle field in the Manantiales Behr block, since 2023, a polymer injection project continues to boost the production with results exceeding expectations. This polymer injection pilot was carried out on the Complejo III formation that had remained untested until now, and emboldened on these results, YPF is pondering expanding the project towards 2 additional zones of the El Alba Valle field.

Oeste region

In 2024, YPF's hydrocarbon production in the oeste region represented 24% of its total production.

During 2024, activities in the oeste region involved a total investment (YPF net, from operated areas) of \$160mn, of which \$80mn were related to investments associated with the mature fields divestments. These investments in mature fields focused mainly on continuing operational sustainability, taking care of the safety of operations and employees, as well as the environment.

Related to the mature fields divestments, in Dec. 2024, after the fulfillment of all the closing conditions by YPF and **Petroquímica Comodoro Rivadavia S.A. (PCR)**, the transfer of 100% of the rights and obligations of YPF in Llancanelo and Llancanelo R exploitation concessions in favor of PCR was formalized.

Additionally, in Feb. 2025, after the fulfillment of all the closing conditions by YPF and Quintana E&P Argentina S.R.L., Quintana Energy Investments S.A., and Gas Storage and Midstream Services S.A. (collectively the Quintana consortium), the transfer of 100% of the rights and obligations of YPF in Estación Fernández Oro exploitation concession in favor of Quintana consortium was formalized.

Activity in the oeste region is focused on Río Neuguén block where the only YPF's operated conventional gas production project takes place. During 2024, 1 service well was completed, 8 tight gas wells were drilled, and 10 wells were put into production, which as of early-Apr. 2025, are under evaluation. In 2024, polymer flooding operations in Chachahuen Sur block proceeded as scheduled. Additionally, developments were made on this block in relation to investments in facilities. In 2024, the 16km oil pipeline and Skimmer Battery 1 were started up.

Non-operated activities

In 2024, YPF's hydrocarbon production from its non-operated areas represented 21% of its total production.

During 2024, the conventional activities in the non-operated areas involved a total investment (YPF net, from nonoperated areas) of \$29mn in drilling and completion and \$20mn in production facilities and other capital expenditures (Capex), of which \$10mn were related to investments associated with the mature fields divestments. These investments in mature fields were focused mainly on continuing operational sustainability, taking care of the safety of operations and employees, as well as the environment.

During 2024, the unconventional activities in the non-operated areas in the Neuquina basin involved a total investment (YPF net, from non-operated areas) of \$409mn in drilling and completion and \$367mn in production facilities and other Capex. Shale oil main investments were concentrated in Lindero Atravesado and Bajada de Añelo blocks, while shale gas investments were focused on La Calera and Aguada Pichana oeste blocks.

During 2024, in La Calera block, the construction of the central production facility I (CPF I)



project finished its first stage in Apr. 2024, and in Oct. 2024, the start-up was completed allowing a gas treatment capacity of 10 Mm3/d and 4,800 m3/d of condensate. In addition, once the first phase of the construction of the central production facility II (CPF II) project finishes, the gas capacity treatment will increase by 4.5 Mm3/d (totaling 14.5 Mm3/d). With the CPF II, La Calera block will have a total treatment capacity of 17 Mm3/d and 9,600 m3/d of gas and condensate, respectively, by 2027.

International exploration activities

Throughout 2024 geological studies were carried out to assess the potential of the OFF 5 block, an offshore area in Uruguay, which, as of 31 Dec. 2024, represents 16,836km2 of YPF's acreage, according to the company.

In Oct. 2024, YPF initiated the drilling of the well committed in the Charagua Block, in Bolivia (in which YPF holds a 60% interest), which, as of 31 Dec. 2024, is being drilled, with drilling progress of 27%.

The COR 12 and COR 33 blocks located in the Cordillera Oriental basin in Colombia, are operated pursuant to the authorization by the **ANH**. YPF's working interest is 60% in the COR 12 block and 55% in the

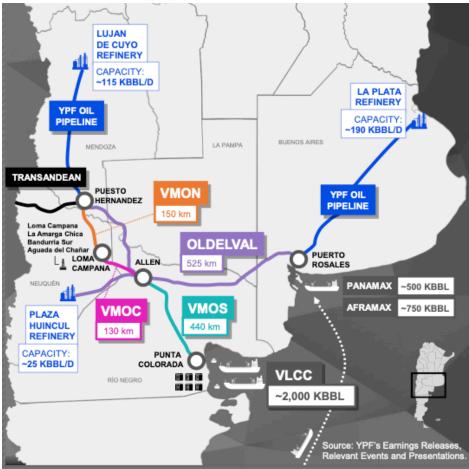
COR 33 block. The combined net area of these blocks is 700km2.

In 2016, together with its partners, YPF informed the ANH of its decision to relinquish both blocks.

In Jul. 2022, the ANH began an administrative proceeding claiming the exploration commitments were not performed or paid.

As of early-Apr. 2025, YPF presented its defenses in the administrative process and the ANH is considering the evidence offered. **EAI**

PIPELINES



PIPELINES TO HELP REDUCE VACA MUERTA BOTTLENECKS

Argentina's plans to significantly boost Vaca Muerta crude oil and natural gas production to support a massive 300% increase in energy exports from now until the end of the decade will depend in great part on the ability of state-owned YPF SA

and the energy industry as a whole to solidify takeaway capacity.

Combined energy exports are expected to reach around \$40bn by 2030 compared to just around \$10bn in 2024. Of this amount, net energy exports to YPF are expected to amount to around \$10bn compared to just over \$2bn, respectively.

This will be achieved as part of YPF's push to be a pure shale player. The company expects to boost gross production to around 2,085 thousand barrels of oil equivalent per day (Mboe/d) in 2030 compared to 890 Mboe/d in 2024. Net to YPF, production is expected to reach 1,000 Mboe/d compared to 536 Mboe/d respectively.

"Argentina is expected to reach its 1 MMbo/d goal by the close of the decade. In Enverus Intelligence Research's NOCAR model, the country should break that barrier by 2028. Inroads have been made. Already a dominant player, YPF consolidated its position in the Vaca Muerta shale via its \$327 million acquisition of **ExxonMobil** and **QatarEnergy**'s muchcoveted 54.45% stake in the Pampa Energíaoperated 867 km2 Sierra Chata contract in the Neuguén Basin. YPF has sold aging fields to help it invest more cash in the



profitable shale play," **Enverus** said on 5 Mar.
2025 in a research note.

In order to stay ahead of the production curve, YPF's midstream division will play a crucial strategic role in optimizing the development of the Vaca Muerta formation's unconventional oil. The division is responsible for ensuring the efficient evacuation of the ramped-up oil production in Argentina, to achieve the required capacity in the shortest time possible, as well as the development of alternative evacuation routes. all aimed at consolidating and supporting YPF's strategic and business plans.

YPF is making progress on a number of midstream oil expansion projects, which will support this aforementioned production growth. The most important pipelines include the:

1) Trans-Andean oil pipeline, 2) Vaca Muerta Norte oil pipeline (VMON), 3) Vaca Muerta Sur oil pipeline (VMOS), and 4) Vaca Muerta Centro oil pipeline (VMOC).

The evolution of the Neuquina basin's oil midstream infrastructure could see takeaway capacity reach around 1,500 Mb/d by 2028 compared to around 750 Mb/d in Apr. 2025 and 540 Mb/d in Dec. 2024, according to YPF and as summarized.

Trans-Andean

YPF holds a 36% interest in both parts of the Trans-Andean oil pipeline (**Oleoducto Trasandino Argentina S.A.** and **Oleoducto Trasandino Chile S.A.**). This pipeline transports Argentine oil across the Andes mountain range to Chile.

During 2024, YPF was responsible for shipping over 5,156 m3/d of oil through this pipeline, which represents 45.7% of the total oil transported.

VMON

YPF holds a 75.2% interest in the transportation concession of the VMON, a 151km pipeline with a capacity of 25,000 m3/d, aimed at guaranteeing the supply of the 113.9 Mb/d nominal capacity Luján de Cuyo refinery in the western part of the Mendoza province and the export of oil to Chile.

During 2024, VMON transported 10,258 m3/d of oil, of which 5,895 m3/d corresponded to YPF.

In the third-quarter 2024 (3Q:24), operations commenced at the VMON storage and pumping station, also known as CABO NOC, which has over 60,000 m3 of storage capacity. CABO NOC represents the first project oriented to ensure storage

capacity for the hub core, according to YPF.

VMOS

Progress continues at the game-changing VMOS, which aims to export the production of unconventional oil from the Neuquina basin to the Atlantic coast. This will be achieved through the construction of a \$3bn pipeline that will span 437km and connect the towns of Allen and Punta Colorada in the Río Negro province. The VMOS will potentially have a maximum design transport capacity of 700 Mb/d, as well as an onshore terminal with a storage capacity of 3,774 Mbbl and an offshore terminal.

"Vaca Muerta Oil Pipeline South (VMOS). This is the biggest investment in infrastructure in Argentina. We are working on building the pipeline," YPF CEO Horacio Marín said on 11 Apr. 2025 in New York City during YPF's annual Investor Relations or IR Day.

VMOS is expected to start initial operations in the 4Q:26 when it will have capacity to transport around 180 Mb/d. This capacity will increase to around 550 Mb/d in the 3Q:27 before it reaches its maximum capacity of 700+ Mb/d sometime in 2028, according to the YPF CEO.

Creation of VMOS S.A.

In the 4Q:24, YPF together with Pan American Sur S.A. (PAS), Vista Energy Argentina S.A.U. and Pampa Energía S.A. signed a shareholders' agreement to create a new company called VMOS S.A. The main purpose of VMOS SA is the construction of the \$3bn VMOS pipeline.

The VMOS is under construction and expected to be completed during 2027, alongside the onshore and offshore terminals.

In Dec. 2024, Initial Shipper Transportation Agreements (ISTA) were signed between VMOS S.A., Shell Western Supply and Trading Limited, and the aforementioned shareholders or their affiliates. YPF's total shipping commitment is for 120 Mb/d out of a total of 450 Mb/d committed by all the initial shippers.

Additionally, VMOS S.A. granted stock options to other companies. As of 5 Apr. 2025, Pluspetrol S.A., Chevron Argentina S.R.L., Shell Compañía Argentina de Petroleo S.A. and Gas y Petroleo del Neuquén S.A. (GyP) had all exercised their respective option to become a shareholder of VMOS S.A., signing their respective ISTA. YPF's shareholding in VMOS S.A. is 26.67%.

On 20 Mar. 2025, Resolution No. 302/2025, published in the Official Gazette on 21 Mar. 2025 approved VMOS S.A.'s application to the RIGI. The VMOS is classified as a long-term strategic export project in the oil and gas sector. As such, it will be developed in Río Negro with a base capacity of 377.4 Mb/d. The project's RIGI adherence date was set as 6 Mar. 2025, under the Bases Law.

VMOC

In Jan. 2024, the construction of the VMOC began. The VMOC will connect the hub core with the town of Allen in the Río Negro, and is expect to be finished in the 2Q:25. VMOC will enable evacuation capacity for the Oldelval and VMOS oil pipelines.

YPF marketing

YPF owns 3 refineries — La Plata (Buenos Aires), Luján de Cuyo (Mendoza) and Plaza Huincul (Neuquén) — with a combined capacity to refine 337.9 Mb/d. The refineries are strategically located along YPF's oil and refined product pipeline distribution systems, and hold over 50% of the South American country's total refining capacity. Importantly, the refineries reported a combined utilization rate of 89% in 2024, according to YPF data.

As a result, YPF is able to market a wide range of refined petroleum and petrochemical products across Argentina through an extensive network of sales personnel, YPF-owned and independent distributors, and a broad retail distribution system. At the fuel level, YPF sells 2 types of gasoline and 2 types of diesel.

The gasolines are: (1) Infinia gasoline, a premium 98 octane gasoline; and (2) super gasoline, a regular 95 octane gasoline. The premium gasoline represented 24.8% of the produced mix in 2024, down 4.2 percentage points compared to 29% in 2023.

The diesels are: (1) 500 and 800 parts per million (ppm) of sulphur diesel (low-sulphur diesels); and (2) 10 ppm of sulphur diesel (Infinia diesel).

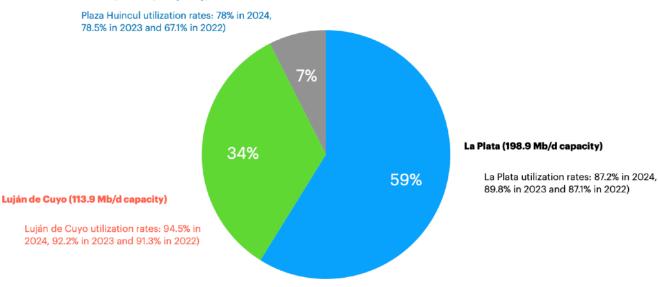
YPF maintained its leading position in the sale of liquid fuels in Argentina, with a market share of 56.2% in 2024. As of 32 Dec. 2024, YPF's market share of Infinia and super gasolines was 58.7% and 55.3% respectively, compared to 58.8% and 53.7%, respectively, as of 31 Dec. 2023; while its market share of low-sulphur diesels and Infinia diesel was 53.8% and 62.6%, respectively, compared to 56.5% and 62.1%, respectively. **EAI**



3 REFINERIES

YPF's 3 Argentine Refineries (% of total nominal capacity of 338 Mb/d)

Plaza Huincul (25.2 Mb/d capacity)



Source: YPF. Data compiled by Energy Analytics Institute (EAI)

3 REFINERIES BOAST COMBINED 89% UTILIZATION RATE

Argentina's **YPF SA** owns 3 refineries — La Plata (Buenos Aires), Luján de Cuyo (Mendoza) and Plaza Huincul (Neuquén) — with a combined capacity to refine 337.9 thousand barrels per day (Mb/d) across the country.

Together, these 3 refineries, strategically located along YPF's crude oil and refined product pipeline distribution systems, hold over 50% of the South American country's total refining capacity. Impressively, the 3 refineries boasted a combined utilization rate of 89% in 2024. Something out of the ordinary for national oil companies (NOCs) such as Petróleos Mexicanos (Pemex) in Mexico and Petróleos de Venezuela (PDVSA) in Venezuela.

For what it's worth, the oil processed at YPF's 3 refineries in 2024 achieved its highest processing level since 2016

while the production of finished gasoline and middle distillates (such as diesel and jet fuel) achieved the highest level since 2007.

Additionally, YPF's oil and condensate production in 2024 (94 Mbbls) represented around 76% of the total oil processed by its 3 refineries (123.3 Mbbls). The remaining oil processed at YPF's refineries was procured from third parties, according to details released in early-Apr. 2025 in the Buenos Aires-based company's annual 2024 filing



with the US Securities and Exchange Commission (SEC).

It should be noted that in 2024, the renewable energy produced by the Manantiales Behr wind farm in the Chubut province, the Los Teros I and II wind farms in the Buenos Aires province, and the Cañadón León wind farm in the Santa Cruz province, represented 36.4% of the electricity consumption of the Luján refinery and 0.2% of the La Plata refinery, according to YPF.

Notably advances in 2024

Beyond the high utilization rates, YPF continues to boast a highly complex refining system. Said complexity gives YPF greater flexibility to transfer part of its production resources to products with higher added value.

YPF is enrolled in the Clean Development Mechanism, which allows the company to reduce emissions in the different stages and processes of oil refining by recovering flared gases in the La Plata and Luján industrial complexes.

At the 2 complexes, waste gases are compressed and injected into the fuel system to feed furnaces and boilers. This process avoids the need to use gas and fuel oil for heating, according to YPF.

In 2024, between the projects at La Plata and Luján, approximately 270,000 tons of carbon dioxide (CO2) were reduced.

Additionally in 2024, YPF completed the installation of a flared gas recovery compressor at the Plaza Huincul Industrial Complex. This compressor recovers gases from the topping unit and reinjects them into the fuel gas ring.

In the second-quarter 2024, YPF also completed the revamping of the FCC naphtha hydrotreatment unit and the magnaforming unit at La Plata with an investment of \$352mn.

Progress is ongoing in the adaptation of the Luján, which includes the revamping of the hydrotreatment diesel unit, a new diesel desulphurization unit and a new steam reformer unit, with an estimated investment of \$647mn.

YPF plans to continue advancing in the engineering design to fully adapt diesel production to 10 ppm, incorporating new diesel hydrotreating units at La Plata and Plaza.

YPF CEO Horacio Marín said on 11 Apr. 2025 in New York City during YPF's annual Investor Relations or IR Day that in the downstream, the goal was to reduce costs through efficiencies by around \$800mn during 2024-2029.

"This will be achieved by improving the competitiveness and margins, reducing Opex, and maximizing asset availability and reliability, real-time optimization and through an evolution in diesel quality," Marín said. "Our goal is to be in the first-quartile of the world."

Details specific to each of YPF's 3 refineries follows:

La Plata refinery

Name: La Plata

Location: At the port in the La Plata city, in the Buenos Aires province, 60km from the Autonomous City of Buenos Aires (CABA)

Nominal capacity: 198.9 Mb/d

Solomon Complexity Index: 8.1

General: La Plata is a complex refinery with 3 distillation units, 2 vacuum distillation units, 2 fluid catalytic cracking units, 2 coking units, a coke naphtha hydrotreater unit, a platforming unit, 2 diesel hydro finishing units, a gasoline hydrotreater, an isomerization unit, a fluid cracking catalyst (FCC) naphtha

splitter and desulfuration unit, a lubricants complex, and a petrochemical complex that generates methyl tert-butyl ether (MTBE), tert-amyl methyl ether (TAME) and aromatics compounds used for blending gasoline and other chemical products.

At La Plata, YPF operates a manufacturing facility and produces lubricants for the domestic and export markets. YPF's line of automotive lubricants, including mineral and synthetic oils, has been approved by automotive and engine manufacturers including: Ford, GM, Porsche, Scania, Mercedes Benz, Volkswagen, Renault, PSA, Audi, Deutz, Cummins, Volvo, Toyota, MAN Truck, Subaru, Suzuki, Metalfor, Detroit Diesel, ZF, Allison and MTU.

Feedstock: In 2024, the oil processed at La Plata was produced mainly from the Neuquina and Golfo San Jorge basins. In 2024, 67.8% of the oil processed was produced by YPF.

La Plata oil supplies come from the Neuquina basin by pipeline and from the Golfo San Jorge basin by vessel, in both cases to Puerto Rosales in the Buenos Aires province, and then by pipeline from Puerto Rosales.

<u>Products:</u> It has capacity to process all oil types produced in Argentina. It includes a

facility for the production of base lubricants, paraffin, aromatics, asphalt and petrochemical products.

Updates: In 2024, the revamped topping D unit was fully operative, allowing the processing of greater volumes of shale oil production.

Maintenance stoppages were carried out at the FCC and platforming units. Additionally, the revamping of the magnaforming unit and the new coke naphtha hydrotreatment plant (HTNCB) were fully accomplished, increasing the volume of aromatics allowed for blending.

Luján de Cuyo refinery

Name: Luján de Cuyo

<u>Location:</u> In the western part of the Mendoza province

Nominal capacity: 113.9 Mb/d

Solomon Complexity Index: 10.8

General: Luján includes 2 distillation units, a vacuum distillation unit, 2 coking units, a fluid catalytic cracking unit, a platforming unit, an ethyl tertiary-butyl ether (ETBE) unit, an isomerization unit, an alkylation unit, a FCC naphtha splitter, a hydrocracking unit, a FCC naphtha hydrotreater unit and 2 gasoil hydrotreating units.

Due to its location and proximity to significant YPF distribution terminals, Luján has become the primary facility responsible for refining petroleum products to supply the domestic market of the central and northwest provinces of Argentina.

Additionally, YPF holds an interest of 75.2% in the transportation concession of the **Vaca Muerta Norte oil pipeline (VMON)**, a 151km pipeline with a capacity of 25,000 cubic meters per day (m3/d), aimed at guaranteeing the supply of the Luján and the export of oil to Chile.

Feedstock: Luján receives oil supplies from the Neuquina and Cuyana basins by pipeline directly into the facility. In 2024, 85.6% of the oil processed was produced by YPF.

Products: It produces practically all the products marketed by YPF in Argentina including: diesel (premium, standard, mining and agricultural), naphtha, propane, butane and propylene, among others.

<u>Updates:</u> During 2024, the processing operations of the Luján were affected by the maintenance stoppages of the topping IV, the vacuum distillation, the coke II and the platforming units. In addition, the revamping of the topping III unit continued, which will allow

higher volumes of shale oil to be processed by 2025.

Regarding investments related to new specifications for sulphur content in fuels during 2024, YPF continues work at Luján to improve the quality of diesel fuel in: a new hydro desulfurization unit II (HDS), a new hydrogen generator unit II (Hydrogen II), and the revamping of the HDS I unit, according to the company.

Plaza Huincul refinery

Name: Plaza Huincul

<u>Location:</u> In the Neuquén Province

Nominal capacity: 25.2 Mb/d

Solomon Complexity Index: 1.95

General: It is a low-complexity refinery equipped with an atmospheric crude fractionation unit and a naphtha reforming unit. It has a facility that produces methanol, a key input in the production of biofuels and petrochemical byproducts, from natural gas.

Products: Plaza produces gasoline, diesel and jet fuel, which are sold primarily in nearby areas and in the southern regions of Argentina (Patagonian and Alto Valle regions). Heavier products are transported by pipeline from

Plaza to the La Plata for further processing.

Feedstock: Plaza receives its oil supplies from the Neuquina basin by pipeline. During 2024, YPF continued work on a new gasoline stabilization plant and a furnace with completion expected by the first-quarter 2025, which will allow a greater flow of shale oil production, according to the company.

YPF's logistics unit

YPF's 3 refineries are connected to markets through an extensive and efficient logistics network.

YPF can use a network of 5 major oil pipelines, 3 of which are wholly-owned by the company. The oil transportation network includes 2,141km of oil pipelines. YPF has a total oil tankage of 2 Mbbl and maintains terminal facilities at 5 ports in Argentina. YPF also own 3 tanks in the Berisso City, in the Buenos Aires province, with 90,000 m3 of capacity.

The Loma Campana — Lago Pellegrini pipeline allows for the evacuation of conventional and unconventional oil from the Vaca Muerta formation. This pipeline is owned by **OLCLP**, a company owned by YPF (85% WI) and **Tecpetrol** (15% WI), and is operated by a third company, **Oldelval**.

YPF also owns a 33.15% interest in **Terminales Marítimas Patagónicas S.A.**, operator of 2 storage and port facilities: 1)

Caleta Córdova in the Chubut province, which has a capacity of 314,000 m3; and 2) Caleta Olivia in the Santa Cruz province, which has a capacity of 246,000 m3.

YPF also owns a 30% interest in Oldelval and **Oiltanking Ebytem S.A. (OTE)**, operator of the maritime terminal in Puerto Rosales, which has a capacity of 480,000 m3.

YPF also operates a network of multiple pipelines in Argentina for the transportation of refined products with a total length of 1,801km. The company owns 17 storage terminals for distribution of refined products and 7 LPG storage terminals with an aggregate capacity of 1,620,000 m3.

3 of YPF's storage terminals for distribution are annexed to Luján, La Plata and Plaza, while 10 have maritime or river connections, according to the company.

YPF also operates 49 airplane refueling facilities, 40 of which are wholly-owned with a capacity of 22,500km3, 141 manual fuel dispensers and 13 automatic fuel dispensers. These facilities provide a flexible countrywide distribution system and allow YPF to facilitate exports.

Products are delivered by an exclusive third party tanker truck fleet of 2,400 units.

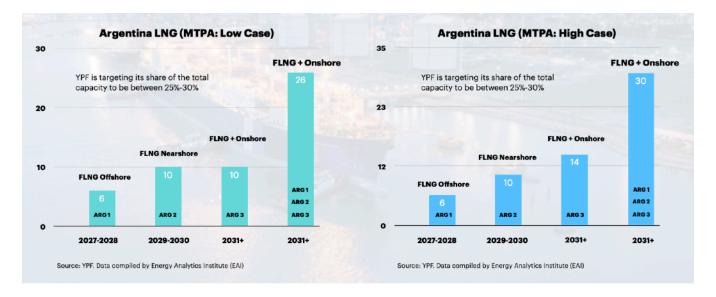
YPF CEO Horacio Marín said the company goes to the "moon and back" everyday delivering products to the citizens of Argentina.

In regards to YPF's refining sector and its refined products, the company said it does have headwinds related to the obvious: prices.

"If prices for our refined products do not match cost increases (including, but not limited to, local crude oil prices) or if the Argentine government establishes general price controls (including price freezes) in products that we commercialize such as fuels, it could have a negative effect on our business, financial condition and results of operations," YPF said in its annual filing. EAI



ARGENTINA LNG



ARGENTINA LNG BOASTS POTENTIAL OFFTAKE OF 50 MTPA

The Río Negro-based 28 million tonnes per annum (MTPA)
Argentina LNG project, which will consist of Argentina LNG 1,
Argentina LNG 2 and Argentina LNG 3, boasts potential offtake of around 50 MTPA.

This, based on initial preliminary discussions under negotiation, according to **YPF SA** CEO Horacio Marín.

Argentina LNG will consist of a tolling system scheme for ARG LNG 1 and new build schemes for ARG 2 and ARG 3, Marín said on 11 Apr. 2025 in New York City during YPF's annual Investor Relations or IR Day.

"The first stage [or ARG LNG 1] is a tolling fee [agreement]. We don't need investment outside of upstream," Marín said.

Regarding Argentina ARG LNG 2 and ARG LNG 3, Marín said financing was needed. "LNG is financial driven, and we are going to invest in Argentina LNG and make Argentina LNG happen if there is project finance," he said.

Notably, the 28 MTPA figure is the mid-point of the 26-30 MTPA range recently floated by Marín and other YPF officials during CERAWeek by S&P Global in Houston.

"There are 5 fundamentals in LNG. The first is the law. RIGI. Without RIGI there is no LNG. Now we have RIGI, which is very important for stability, for investment, for everything. There are also incentives for income taxes, there is legal stability. We have super major partners and first class off-takers while we have quality acres in the Vaca Muerta, competitiveness and materiality. The [latter 2] LNG1 projects will count on 70% of project finance," Marín said.

ARG LNG 1

ARG LNG 1 will have a capacity of around 6 MTPA between 2027-2028. The project will include 2 floating units and a new dedicated natural gas pipeline.

The commercial operation date (COD) is slated for 2027, according to Marín.

ARG LNG 2

ARG LNG 2 will have a capacity of around 10 MTPA between 2029-2030. The project will include Shell plc as a strategic partner and 2 super majors as potential off-takers. Of which, 2 own floating liquefied natural gas or FLNGs, while 1 owns a dedicated 580km gas export pipeline.

The 2 FLNGs will be near-shore and have a capacity of 5 MTPA each. There will be no tolling, the executive said.

The expected capital expenditures are between \$10bn-\$12bn, excluding upstream facilities and wells. The Capex will be covered through project financing, according to Marín.

A final investment decision (FID) for ARG LNG 2 is expected in mid-2026 and YPF looks to have a 30%-35% interest in the project.

ARG LNG 3

ARG LNG 3 will have a capacity of around 12 MTPA between 2028-2029. The project will include 1 super major as its strategic partner and 3 super majors, among others, as potential off-takers.

The project was originally envisioned to be a combination of onshore and FLNG. However, YPF announced recently that there will be at least 2 FLNGs that will be owned and 1 dedicated gas pipeline, the same 1 mentioned in ARG LNG 2.

YPF looks to have a 25% interest in the project.

"Financing could be an issue. I can't guarantee that you will give us money," Marín said responding to a question on headwinds related to moving forward Argentina LNG 2 and Argentina LNG 3.

FACT SHEET: SOUTHERN ENERGY S.A. (SESA)

Southern Energy S.A. (SESA)

was founded in 2024 with the sole purpose of sourcing natural gas from Argentina's Vaca Muerta shale formation as a feedgas to anchor future liquefied natural gas (LNG) exports from the Southern Cone country, home to the Vaca Muerta, the 2nd largest unconventional gas resource in the world, and the 4th largest unconventional oil resource in the world.

The shareholding companies that comprise SESA include: **Pan American Energy** (30% WI), state-owned **YPF SA** (25% WI), **Pampa Energia** (20% WI), **Harbour Energy** (15% WI) and **Golar LNG Ltd.** (10% WI).

SESA is responsible for the procurement of shale gas from the prolific Vaca Muerta formation as well as the facilitation of the necessary infrastructure to transport the gas to the floating (LNG) or FLNG vessels to be anchored in the Gulf of San Matias, offshore Argentina in the Río Negro province.

SESA will also be responsible for the operations of the FLNGs with support from Golar, and for the marketing and sale of the LNG produced, according to Golar. **EAI**

