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INTERVIEW: Ecopetrol plans large low-emission spending, but not quitting hydrocarbons

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HIGHLIGHTS

Major capex commitments to low-carbon businesses through 2040

Colombian major maintains oil and gas exposure to fund transition

Government's anti-hydrocarbon stance could complicate strategy

Colombia's **Ecopetrol** has planned large investments in low-carbon businesses for the long run but will stay active in hydrocarbon exploration and production, according to its top executive, even as the country's new government vocally opposes new oil and gas developments.

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In 2022, the state-controlled company promised annual capital expenditures of \$5.2 billion-\$6 billion through 2040 in its long-term strategy, targeting to achieve competitive returns on its way to net-zero operational carbon emissions by mid-century.

In a recent interview with S&P Global Commodity Insights, **Ecopetrol** CEO Felipe Bayon said 25%–30% of the spending would be routed to decarbonization activities like clean hydrogen, renewables and carbon capture.

Some of the world's largest oil and gas companies could have allocated just 5% of their capex last year to decarbonization activities, the International Energy Agency estimated.

"We're actually increasing ... [committed] not only to the traditional businesses but also to the transitional businesses," Bayon said.

For the near run, **Ecopetrol** has stated it would spend 5.9 trillion–6.8 trillion Colombian pesos (\$1.26 billion–\$1.45 billion) on energy transition businesses in 2023, approximately 23% of its total investment.

Bayon said the company aims to sanction two 9,000-mt/year green hydrogen plants by the end of the third quarter of 2023, of which one is in the Cartagena oil refinery and the other in the Barrancabermeja refinery.

When the two projects come onstream in 2025–2026, 60% of their output would be used by the refineries, while 40% would be offered to hard-to-decarbonize sectors like steelmaking, Bayon said.

"We're teaming up with international companies to create some consortiums" for the facilities, said Bayon, without naming them.

Ecopetrol had previously operated a 50-kW PEM electrolyzer linked to solar panels in Cartagena for three months in a pilot project. It currently produces 130,000 mt/year of hydrogen, 20% of which is blue hydrogen and 80% is gray, according to Bayon.

Analysts said clean hydrogen, which can be blue or green, needs to emerge as a major energy source for the world to avoid climate disasters. S&P Global estimates global green and blue hydrogen demand could grow to 51.8 million mt in 2030 from 900,000 mt in 2022.

Renewables expansion

Green hydrogen can be produced by electrolyzers powered by renewable energy. Having acquired transmission firm Interconexion Electrica, **Ecopetrol** is aiming to expand its renewable generation capacity from 200 MW currently to 400 MW by year-end before a further hike to 1,000 MW by 2025, Bayon said.

However, the company has a target of producing 1 million mt/year of clean hydrogen by 2040. Bayon estimated 3,000–4,000 MW renewable capacity would be required if the full amount was to be green hydrogen.

Ecopetrol would seek to tap into wind, solar and hydro resources in Columbia to obtain renewable electricity, potentially seeking equity partners in such projects while offering power purchase agreements, the CEO said. "We're confident there's enough potential in terms of renewables."

Bayon added the company is also looking to develop carbon capture, utilization and storage projects, which would facilitate blue hydrogen production and reduce operational emissions, but there are no firm plans.

"We will continue to assess ... It's something that we're advancing," he said.

Hydrocarbon money

Ecopetrol plans to maintain a large spending program for oil and gas production. Organic investments are expected to reach

\$17 billion–\$20 billion in 2022–2024, of which 69% would be for upstream projects, according to the company.

"A lot of opportunities in transition [businesses] have lower returns than traditional oil and gas projects," Bayon said. "You need to be able to fund them, and the best way to do that is to have a healthy business."

The company's EBITDA jumped to pesos 59.2 billion in January–September 2022 from nearly pesos 28 billion in the same period of 2021, riding on higher oil prices.

The average price of Colombia's Castilla Blend crude on an FOB basis reached \$86.5/b in 2022, compared with \$64.3/b in 2021, according to the Platts assessments.

Ecopetrol's hydrocarbon output grew from 692,100 boe/d in Q1 2022 to 720,400 boe/d in Q3. It expects to produce 720,000–725,000 boe/d in 2023.

However, Gustavo Petro, who was elected as the president of the country in June 2022, has been vocal against oil and gas production. The country's Minister of Mines and Energy Irene Velez in January in Davos said that no new exploration contracts would be awarded, according to media reports, although there have been conflicting messages from government officials in recent months.

Existing licenses would still allow Ecopetrol to carry out exploration activities for another 10 years, said Bayon, who will step down March 31. The government could also retain some flexibility in its policy as oil and gas revenue are "fundamental" to Colombia's public finance, he suggested.

"There will be more opportunities going forward," Bayon said. "We don't rule out that there may be some additional licenses."

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