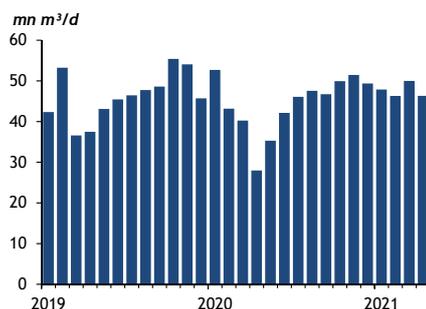


## BOLIVIA ENERGY TRANSITION

**La Paz aims to phase out thermal power generation and replace it with renewables capacity, writes Lucien Chauvin**

### Bolivia gas output



### Arce pushes energy transition strategy

Energy transition lies at the heart of Bolivia's latest efforts to attract private-sector investment, with electric vehicles (EVs), renewables and lithium production the focus of its plans.

President Luis Arce's government is implementing new legislation that seeks to encourage investment as the economy begins to expand again, and as the Covid-19 pandemic and a recent period of [political turbulence](#) recede, hydrocarbons and energy minister Franklin Molina tells *Argus*.

A first step was the approval in early July of a decree covering EVs and distributed generation to encourage renewables expansion. The decree eliminates import duties on EVs and provides tax incentives to build or assemble them in the country. Emphasising the need for EVs for industry and agriculture, it forms part of a much wider strategy of developing lithium reserves to eventually produce batteries for EVs, boost renewable power generation, and build a hydrotreated vegetable oil (HVO), or green diesel, plant to replace imported diesel.

"We have modified taxes and tariffs for EVs as part of our energy and environmental strategy. It will also contribute to foreign direct investment," Molina says. One company set to benefit from the changes is Bolivian privately owned firm Quantum Motors, which makes electric cars, scooters and bikes. The vehicles are assembled in Bolivia, with about 60pc of the parts produced locally.

The latest decree will help Bolivia fulfil its long-term ambition to produce lithium hydroxide, cathodes and batteries, Molina says. Bolivia has the world's largest resources of lithium at 21mn t, according to the US Geological Survey, centred around the Uyuni salt flats in the southwest Potosi department as well as salt flats in neighbouring Oruro. State-owned lithium firm YLB is seeking bids to help it design direct lithium extraction technology for its brine lithium reserves, with more than 20 firms expressing an interest in taking part.

### Backing up

Arce's government, which won a clear victory in elections held in October last year, also wants to replace gas-fired generation with renewables. Its goal is to meet demand with renewable energy by 2025, leaving existing thermal plants to back up the system, Molina says.

Bolivia has just under 3.5GW of installed capacity, with demand of almost 1.4GW in May, according to energy dispatch committee CNDC. Thermal output was responsible for 2.5GW, with hydroelectric generation at 735MW, and wind and solar a combined 192MW. Bolivia is building two hydroelectric plants – Ivirizu in Cochabamba department and Miguillas in La Paz – adding a total of almost 500MW. More than 100MW of wind capacity should also be completed this year.

Power generation accounts for 40pc of the country's natural gas consumption, according to national statistics agency Ine. Bolivia has been experiencing a marked decline in domestic gas production – a major source of export revenue for the country. Output is forecast to average 47mn m<sup>3</sup>/d this year, with 13mn m<sup>3</sup>/d earmarked for the domestic market and the rest transported by pipeline to Argentina and Brazil.

The government is also advancing plans to develop its [first HVO plant](#) in the eastern Santa Cruz region – to be built next to state-owned YPFB's 24,000 b/d refinery – at an estimated cost of \$250mn. The facility should be operational by 2024. "This is an important project on many fronts, lowering our dependence on imported diesel and creating jobs," Molina says. Bolivia imported nearly 160,000t of fuel in January-May, down by around 13pc from the same period in 2019, prior to the pandemic.