

36% Increase Explained by Copper Price, Exchange Rate, and Better Production:

Major Private Miners Accumulate \$2.705 Billion in Taxes by September

Experts Believe the Dipres Projection of Collecting \$3 Billion from Private Mining in 2024 Will Be Surpassed

El Mercurio de Santiago. December 25, 2024

By Catalina Muñoz-Kappes

Major private mining companies in Chile have increased their contributions to the treasury by 36%, according to taxes accumulated by the end of the third quarter. Collectively, Anglo American Sur, Collahuasi, Escondida, and Spence have contributed \$2.705 billion in taxes by September. By comparison, these companies had accumulated \$1.983 billion during the same period last year.

This gap may widen further once Los Pelambres, the flagship mine of Antofagasta Minerals, reports its tax payments for the third quarter. As of September 2023, this mining company contributed \$330 million in taxes. By the end of the first half of this year, Los Pelambres had accumulated \$258 million in contributions.

Revenue

With these figures, private mining is on track to exceed the tax payments projected by the Budget Directorate (Dipres) in the Public Finance Report for the third quarter of 2024. In this document, the government estimated \$3.008 billion in revenue from private mining by year-end. This forecast marked a decrease from the Dipres expectation at the close of the second quarter, which had anticipated \$3.435 billion in revenue.

Experts agree that it is likely the \$3 billion mark will be surpassed. According to Juan Carlos Guajardo, Executive Director of Plusmining, it is probable that the Dipres projection will be exceeded, considering the evolution of private mining contributions to the treasury in recent quarters.

Similarly, Álvaro Merino, Executive Director of Núcleo Minero, explained that of the contributions from private mining to the treasury, just under \$1.6 billion corresponds to income tax, almost \$750 million to the specific mining tax, and over \$300 million to retained additional tax.

"Considering the results as of last September and projecting the final quarter of the year, I estimate that the private mining sector's contribution to fiscal financing will amount to about \$3.5 billion," Merino predicted.

Improved Conditions

The exceeding of Dipres projections is mainly attributed to a better copper price and improved production.

"This potential exceeding of projections gains strength considering that the average copper price throughout the fourth quarter has been practically the same as that of the third quarter, coupled with the fact that copper production has generally been on the rise in recent months," Guajardo stated.

Merino highlighted that copper production has increased by 300,000 tons, while the metal's price has risen from \$3.85 per pound in 2023 to \$4.15 per pound this year, an 8% increase in copper prices.

Impact of the Exchange Rate and New Law

Additionally, Guajardo noted a positive impact from the rising exchange rate. "The sharp depreciation of the Chilean peso against the dollar has had a significant impact, as Dipres expected the exchange rate to average CLP 904 during the fourth quarter, but it has already reached CLP 960 on average for the current quarter. Since copper exports are in dollars, a higher exchange rate directly boosts fiscal revenue in pesos," he said. Merino added that revenue from private mining has also increased because "a higher tax burden has been added due to the new royalty law that came into effect in January of this year."

Since January 1, 2024, mining companies face a new charge, which includes a 1% ad valorem royalty on copper sales and an additional component with a tax rate ranging from 8% to 26%, applied to the mining operational margin.

Major Tax Contributions

The largest tax contributions come from Escondida, operated by BHP, which increased its payments to the treasury by 42%, from \$1.213 billion in 2023 to \$1.724 billion.

Collahuasi follows, with taxes totaling \$773 million by the end of the third quarter. This represents a 31% increase compared to the \$588 million paid in the same period last year.

Specifically, this year Collahuasi disbursed \$302 million in the mining operational margin tax and \$34.5 million for the ad valorem component on sales. Combined, these amounts represent a 108% increase in specific mining taxes, as the company paid \$162 million for this concept last year.

\$3.5 BILLION

is one of the estimates for total tax contributions in 2024.

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SEIA Reform: New Amendments Delay Debate, But Government Confident Proceedings Will Begin in the Chamber of Deputies by March

■ After nearly a year of congressional debate, new amendments were recently added to the discussion. The reform is expected to be dispatched from the Senate's Environmental Committee in January.

Diario Financiero, December 26, 2024
By Karen Peña

Less than a month remains before the Environmental Impact Assessment System (SEIA) reform marks one year in Congress. Although the expectation was for the bill to be dispatched this December from the Senate's Environmental Committee, this task has been postponed to January 2025. In that month, additional amendments recently introduced by both the Executive branch and senators will also need to be discussed.

In May, the Senate's Environmental Committee approved the SEIA reform in general terms, marking a milestone after two failed attempts by previous administrations. This led to the approval of the bill by the Senate floor. The text then returned to the committee for detailed discussions, where it was decided to convene an Expert Committee to propose alternatives for replacing the current Environmental Assessment Commissions (Coeva). Sergio Gahona, President of the Senate's Environmental Committee, acknowledged that the Budget Law debate reduced the committee's sessions in November, and the additional time required for the Expert Committee's work slowed the process.

However, the recently introduced amendments further delayed the debate. The lack of consensus within the Expert Committee resulted in three proposals being submitted, leaving the Government and senators to decide which aspects to adopt before drafting and debating the final text to emerge from the committee.

The Government presented three key amendments. Firstly, it proposed that "the Regional Director of the Service or the Executive Director, as applicable, must approve or reject a project or activity submitted to the SEIA solely based on the evidence contained in the Consolidated Evaluation Report." This report must include well-founded and "relevant" environmental statements from the competent environmental agencies involved in the evaluation process.

Following the Expert Committee's recommendation, the Government also proposed making administrative claims optional. The third amendment addresses disaster prevention and response, aiming to allow immediate or reactive State actions that might require entry into the SEIA under certain circumstances.

"As the Executive, we have introduced amendments to provide greater certainty and make project approval or rejection decisions under the SEIA more technical. We have also proposed making administrative claims optional, allowing parties to go directly to environmental courts, thus saving time in the appeal process," highlighted Minister of the Environment Maisa Rojas.

From the opposition, senators Francisco Chahuán, Sergio Gahona, and Rafael Prohens emphasized one of the Expert Committee's recommendations: enabling any party to approach a mediation center for conciliation before filing judicial or administrative claims.

Regarding other adjustments, Gahona explained that they aim to "strengthen our position on greater autonomy for the Environmental Assessment Service (SEA). The Government seeks less autonomy. We hope it will have technical autonomy and operate independently from political pressures, including political cycles." He also expressed openness to the Government's proposal to consolidate administrative claims into a single optional instance.

However, differences persist between the parties. Regarding the Coeva replacement mechanism, no new proposals were introduced in the adjustments, and the existing proposals will be voted on. For Gahona, the critical debate and a "significant hurdle" remain the extent of the SEA's autonomy in separating technical matters from political influence.

Timeline

Despite delays, the Government remains optimistic. Regarding the new adjustments, Minister Rojas sought to calm concerns, explaining that "these are a limited number of amendments designed to address the project's final sticking points, based on the consensus formed during its legislative process."

Outlining her expectations for the bill's progress, Rojas stated: "With these amendments, we believe we are well-positioned to complete voting in the Environmental Committee by January, subsequently vote in the Senate floor, and begin the second constitutional stage in the Chamber of Deputies by March."

Gahona emphasized efforts to seek broad consensus and stated that the Senate would aim to dispatch the bill in January: "At least in this constitutional stage, I see no further room for discussion or modifications. The Government has already taken positions on some issues, and so have we. Therefore, the next step is to vote."

MAISA ROJAS, MINISTER OF THE ENVIRONMENT

"We are well-positioned to complete voting in the Environmental Committee by January (...) and begin the second constitutional stage in the Chamber of Deputies by March."

SERGIO GAHONA, PRESIDENT OF THE SENATE'S ENVIRONMENTAL COMMITTEE

"At least in this constitutional stage, I see no further room for discussion or modifications (...) The next step is to vote."

Deadline Set for December 31, According to Environmental Ministry

Tension Rises Over Dominga: Environmental Court Denies Suspension and Orders Ministers' Committee to Decide Within Days

Former Deputy Minister of the Environment Rodrigo Benítez stated that the court's resolution aligns with the consistent approach of not suspending the effects of rulings.

MERCURIO DE SANTIAGO
By César Sottovia Jara

A new chapter unfolds in the 11-year saga of environmental permitting for the Dominga mining and port project. This time, the tension shifts more toward the government. The First Environmental Court of Antofagasta (1TA) has denied the Environmental Assessment Service (SEA) the suspension of its recent ruling. One of the ruling's effects mandates that the Committee of Ministers vote on the project by Tuesday, December 31, adding suspense to the fate of the US\$2.5 billion initiative located in La Higuera, Coquimbo Region. This deadline is critical as several ministers who rejected the project on January 18, 2023, including its chair, Environment Minister Maisa Rojas, have recused themselves from this new decision, given their prior involvement. Meanwhile, the Comptroller General's Office is yet to determine the new composition of the committee.

Additionally, the Executive has filed a cassation appeal with the Supreme Court to overturn the 1TA's decision to revoke the Committee of Ministers' rejection of the project in January 2023.

The Ministry of the Environment (MMA), when consulted about the court's refusal to suspend the ruling, stated that the deadline to file cassation appeals is Friday, December 27. "We must wait to see what happens on that front," they said. They also confirmed that they had consulted the Comptroller General's Office to determine the composition and chairmanship of the Committee of Ministers required to rule on the project. They emphasized that knowing who should chair the committee is crucial, as no debate can be convened, closed, or brought to a vote without an authorized chairperson.

Sources close to the process indicated that "the 1TA indeed rejected suspending the effects of its ruling. This means that the project is technically approved and that the Committee of Ministers must meet within the stipulated timeframe. The complexity for the government is that the ruling leaves very few options—one being that it is impossible to reject the initiative."

Rodrigo Benítez, former Deputy Minister of the Environment and partner at Schultz Carrasco Benítez Abogados, remarked that the tribunal's ruling obligates the committee to make a decision within the set timeframe. "This resolution reflects the consistent approach of the courts in not suspending the effects of rulings, so it was expected."

He added, "To comply with the ruling, the committee should be composed of the legal substitutes for the ministers, who are generally the respective undersecretaries." He also explained that there is always a designated substitute minister, which must be defined in advance. "Typically, a decree outlines the order of substitution, with two or three alternatives provided. This is used during vacations, trips, and cases of recusal," Benítez concluded.

An attorney specializing in the matter, who requested anonymity, noted that the effects are "not extensive. The cassation process before the Supreme Court continues, averaging about 12 months until a ruling is issued. Meanwhile, the Committee of Ministers must act in accordance with the 1TA ruling."

However, "the project remains in a precarious position. If the Committee of Ministers rules in favor of the project, those who raised objections can still appeal to the 1TA and later to the Supreme Court regarding that decision. So, the issue remains far from fully resolved."

Environment Minister Maisa Rojas, who chairs the Committee of Ministers, has recused herself from this new vote due to her previous ruling on the US\$2.5 billion project last year.

Alberto Kresse, Head of Acades, Assesses Impacts of 'Water Insecurity':

Desalination Guild: Drought Halts Urban Growth and Industrial Development

The organization conducted a study on the economic impact of water scarcity in Arica, with effects likely applicable to other regions. It calls for urgent progress in desalination plants for the northern city and the Coquimbo and Valparaíso regions."

**MERCURIO DE SANTIAGO
MARCO GUTIÉRREZ V.**

Water insecurity, or the uncertainty of having sufficient water for human consumption and productive activities, is affecting the economic growth of the regions hardest hit by Chile's prolonged drought.

This issue is not only evident in the challenges faced by agriculture in the hardest-hit areas—such as Coquimbo—but also in the economic stagnation of certain cities and their residential, tourism, commercial, and industrial projects.

This was highlighted by Alberto Kresse, the new president of the Chilean Association of Desalination and Reuse (Acades), in an interview with "El Mercurio."

The civil engineer and professor at Federico Santa María University—who is also the planning manager at Aguas Nuevas Group—stated that Acades conducted a study on Arica's situation to assess the economic impact of water insecurity, described as "the cost of not knowing if there will be water," he said.

Kresse pointed out that residential, tourism, industrial, and commercial projects are not being developed in the city, "leading to slower growth than what could be achieved with water security."

He explained that the reduced growth of the northern city was evaluated—using various econometric analyses—at 0.72 percentage points below the trend growth rate. He added that over the next decade, Arica could experience a GDP loss of approximately USD 400 million compared to what it could achieve with water security.

"We are trying to replicate this type of study in other localities, but water insecurity indeed comes at a cost. When water restrictions occur, the impact can be even greater. The same study on Arica estimates that if water services were to be cut for a third of the population on a rotating basis—as happened in Copiapó at one point due to water shortages—the cost could reach USD 60 million per year."

Kresse stressed that water scarcity hampers the economic development of cities.

Desalination Plants

Acades, which comprises 80 companies, emphasizes that desalination is key to achieving water security.

According to guild data, Chile has 24 industrial-sized desalination plants, each with a capacity exceeding 20 liters per second, with a total water production capacity of more than 9,500 liters per second.

Additionally, six new desalination plants are under construction—for mining, multipurpose uses, and sanitation purposes, such as the expansion in Antofagasta—adding another 4,500 liters per second of capacity.

Kresse stressed the importance of implementing desalination projects in Arica, Coquimbo (where the Ministry of Public Works is promoting an initiative), and the Valparaíso Region (where Aguas Pacífico is developing one in Puchuncaví). "If we don't start now, it's likely that by the time we have the project finalized and operational, it will already be too late. We must convey this urgency."

Cost and Regulatory Hurdles

Alberto Kresse expressed concern over the long timelines required to develop a desalination project, which can take between eight and ten years due to various permits and approvals. "This creates uncertainty that limits the development of this type of infrastructure, ultimately impacting supply," he said.

Regarding the proposed legislation to transfer the administration of the coastal edge and maritime concessions from the Subsecretariat of the Armed Forces to the Ministry of National Assets, Kresse refrained from taking a definitive stance on its benefits.

Addressing the cost of desalination for users, Kresse explained, "Desalinating seawater costs between one and two dollars per cubic meter. We're talking about one to two pesos per liter of water. That doesn't seem excessive. Often, transporting water to consumption centers is more expensive."

He added, "We can do this in an orderly way, favoring projects that supply areas closer to the coast. This would free up continental waters for other activities or to preserve ecosystems."

He warned that a higher cost comes with "having no water at all. The most expensive water is the water you don't have."

Dominga Project

Kresse also commented on the controversial Dominga mining and port project in La Higuera, Coquimbo Region, which includes a desalination plant.

"We are convinced that today we have the technology, techniques, and experience to build desalination plants with no environmental impact," he said.

He added, "We believe it is entirely feasible to have a desalination plant in that area for this project."

"We urgently need this infrastructure (desalination plants) to avoid water restrictions that could affect various regions of Chile."

—Alberto Kresse, President of Acades

Projections for 2025 Investment Downward, Raising Doubts About Next Year's GDP

If in June the Central Bank expected a 5.4% increase, it adjusted this to 5.1% in September, and now, in its December report, has projected 3.6%. Economists believe there is no favorable investment environment and anticipate the final figure could be even lower.

PULSO

By Daniela del Solar and Carlos Alonso

Investment is one of the most important macroeconomic variables, as it enables more sustainable long-term activity growth. However, as noted by various economists and even the Central Bank itself, it is also one of the most difficult to project.

For this reason, after Gross Domestic Product (GDP), it is one of the projections economists monitor most closely. For this year, the Central Bank forecasts a 1.3% decline, while the latest Consensus Forecasts predicts -1.5%.

For the next year, while growth is expected, projections have been revised downward. An example of this trend is the adjustments made by the Central Bank in its Monetary Policy Report (Ipom). In June, it anticipated a 5.4% increase; in September, this was adjusted to 5.1%; and now, in December, the forecast stands at 3.6%.

Looking at market projections reflected in the Economic Expectations Survey, a 3% increase is expected, while the Consensus Forecasts projection dropped from 4.3% in November to 3.9% in December's survey.

Lower investment forecasts have direct implications for the country's economic growth. Current projections place GDP growth at 2% for 2025, but if this variable continues its downward adjustment, GDP expectations could fall below 2%.

Economists' Arguments

Economists consulted by Pulso agree that the investment environment has been unfavorable in 2024 due to various factors, including delays in permitting processes, and political and economic uncertainty. Experts see no signs of significant changes in this scenario for 2025.

A reflection of this is the trend growth rate, which hovers around 2%—the same figure expected for effective GDP growth over the next decade.

Sergio Lehmann, chief economist at Bci, states that "the drop in investment this year will be deeper than anticipated," adding that "the recovery or marginal improvement expected in 2025 appears extremely weak, reflecting persistent central issues that limit investment or the appetite for initiating new projects."

Lehmann pointed to permitting as a significant factor in the adjustment. "Many projects are still in preliminary stages and must undergo a series of approval processes. This creates a heavy burden." Consequently, he suggests the final investment figure could be even lower than current projections.

A similar perspective is held by Alejandro Fernández, an economist at Gemines, who argues that "conditions have not been favorable except in mining. Expectations for economic growth are low, interest rates are high, and investment costs are elevated due to bureaucracy, regulation, and labor costs."

Fernández emphasizes that "construction, in particular, has been severely affected by interest rates and rising costs." He elaborates, stating that "investment returns are low, and there is idle capacity in many sectors, so investing in an environment of margin constraints is not justifiable."

Patricio Rojas, an economist at Rojas y Asociados, notes that "investment in 2024 is below expectations, and much of the investment observed this year is tied to mining projects. Investment in non-mining sectors is essentially flat, and this trend is likely to continue into 2025."

Rojas explains that 2025 "is a year where institutional changes are minimal. Tax discussions will continue, and being an election year, much investment that could materialize is likely to be postponed in anticipation of a new government."

The economist predicts that "part of the expected increase in 2025 is fundamentally a response to the low comparison base, leading to some rebound. However, this mainly involves mining projects. In the rest of the economy, investment behavior remains very weak, and we do not anticipate significant changes."

For Tomás Flores, an economist at LyD, the low investment projection is explained by "the difficulty in obtaining permits, both due to lengthy timelines and the arbitrariness of some public services. These factors have

generated a more moderate investment flow compared to a decade ago." Flores expects investment to grow by just 2% next year.

Pavel Castillo, an economist at Corpa, agrees with Flores, pointing to the problems of "permitting that complicates large projects with excessive bureaucracy." Castillo warns that "it is possible the economy will grow below 2% due to a lack of investment and internal demand."

Clean Tech Lithium "Very Optimistic" About Securing CEOL and Aiming for Production by Late 2027

■ The company's CEO stated, "Our entire financial capacity and technical team are focused on the Laguna Verde project."

Diario Financiero, December 26, 2024
By Patricia Marchetti

Clean Tech Lithium (CTL) has concentrated all its efforts on its Laguna Verde project, located in the saline lagoon of the same name, which is among the six prioritized salt flats for private investment by the Government. The \$450 million initiative is currently in the pre-feasibility study phase. Preliminary results from its pilot plant testing Direct Lithium Extraction (DLE) technology have made the company "very optimistic" about obtaining Special Lithium Operation Contracts (CEOL).

"We have been working on this project for almost three years, and we are now at the most critical stage: our application for the CEOL," said Steve Kesler, CEO of the London-listed company, in an interview with *Diario Financiero*.

The Government initially set a deadline of December 31, but Kesler noted an extension until late January. Following that, 50 working days are allocated to assess whether companies meet the criteria, then negotiations on the contract begin. By June or July, "CTL may secure a CEOL for Laguna Verde," Kesler stated.

Describing it as "a significant project in Chile," Kesler highlighted its compelling data: drilling has revealed a resource of 1.8 million tons of lithium carbonate. The DLE technology used, developed by China's Lanshen Advanced Materials, achieves a lithium recovery rate of 95% in its adsorbent, compared to 45% for SQM and Albemarle's evaporation systems in the Salar de Atacama.

Two weeks ago, the project reached a new milestone: it produced its first batch of lithium carbonate from Laguna Verde's brine. The concentrated lithium carbonate was produced at the company's industrial-scale pilot plant near Copiapó and sent to Conductive Energy in the U.S. for conversion to battery-grade lithium carbonate, pending confirmation.

The pre-feasibility study, led by Australian firm Worley—experienced in Chile through projects with SQM and Albemarle—also includes plans for a future carbonation plant in Copiapó. Results from the study are expected by late March 2025.

Kesler also emphasized the company's strong relationships with indigenous communities in the area. Last year, CTL signed agreements with three communities to jointly develop the Environmental Impact Assessment for the project. Additionally, the company operates a laboratory-scale pilot plant at the University of Atacama, where students are being trained on the direct extraction process with a view to their future involvement in operations. When could lithium carbonate production begin if everything goes as planned? "Our goal is by late 2027. If the Government accelerates environmental permitting, production in 2027 is feasible," Kesler stated. The project's production rate is set at 20,000 tons of lithium carbonate annually.

Financing

Regarding financing for Laguna Verde, Kesler explained that the company is inspired by models used by Escondida and Collahuasi—where he worked in the past—with their strategic partners Mitsubishi and Mitsui, respectively. These models involve equity stakes and capital raised independently or through associated banks. "There are companies in need of lithium carbonate, and we will offer contracts—but only if they help finance the project's construction costs. Securing the CEOL is critical to beginning these negotiations," emphasized Kesler. The German bank KfW has indicated that if CTL secures an eight-year contract for 8,000 tons of lithium carbonate annually with an OEM (original equipment manufacturer) or battery producer, they could provide 25% of the project's funding.

In January, CTL will list on the Australian Stock Exchange. "We will highlight the benefits of our project, which uses sustainable technology and renewable energy, in a highly stable country like Chile, with free trade agreements with the U.S.," Kesler added.

Other Projects

Regarding other plans in Chile, Kesler commented, "Viento Andino, Arenas Blancas, and Yamara are practically on hold, as all our financial and technical resources are focused on Laguna Verde."

Nonetheless, Viento Andino (\$450 million) is the company's second priority, where they will also seek a CEO. The goal is to replicate the engineering and DLE technology from Laguna Verde, located about 100 kilometers away.

When asked about initiatives in South America, Kesler responded, "Probably in the future, but for now, our focus is on developing successful projects in Chile."

The company is also preparing for the arrival of its new CEO, Tony Esplin, in January, following the controversial departure of Aldo Boitano. Kesler remarked, "We've turned the page."

\$450 million

Laguna Verde's projected cost

Australia also aims to invest in initiatives that make the production chain more profitable

Green Hydrogen: Australia shifts focus from exports to local uses

The government believes it is more "sensible" to export minerals, such as iron or copper, with a lower carbon footprint than to ship green hydrogen or ammonia.

**MERCURIO DE SANTIAGO
CATALINA MUÑOZ-KAPPES FROM AUSTRALIA**

Australia has undergone a major shift in its green hydrogen strategy. While the country is committed to developing this industry in the coming years as part of its decarbonization strategy, unlike other countries, Australia's focus is no longer on exporting green hydrogen.

Western Australia, the nation's mining hub with Perth as its capital, recently updated its green hydrogen strategy, shifting from an export-driven goal to a focus on utilizing the fuel within Australian industries, a move deemed far more realistic. In contrast, proposed projects aimed at exporting green hydrogen to other nations seem distant and at risk of never materializing.

"If we were here three or four years ago, we would have been talking about how we're going to export green hydrogen to Germany or the Netherlands. Now it's about how we can leverage our comparative advantage in minerals and use renewable energy to make those minerals greener, so when they leave our shores, they have a smaller carbon footprint. That seems like a more sensible way to approach it," said Anthony Sutton, executive director of the Department of Jobs, Tourism, Science, and Innovation in the Western Australia government.

The Chain

As a federation, each Australian state has its own strategies regarding issues such as green hydrogen. Western Australia's Renewable Hydrogen Strategy for 2024–2030 focuses on supporting "strategically important projects in green ammonia, green metals, and mineral processing, including critical minerals, in Kwinana and the Pilbara, Midwest, and Southwest regions" and "investing in infrastructure and activating hydrogen hubs and strategic industrial areas in Kwinana, Pilbara, and the Midwest regions."

Some initiatives to use green hydrogen in the mining industry are already operational. For instance, mining company Fortescue has installed a 60 MW solar plant at its Pilbara iron mine to produce green hydrogen for buses transporting workers. This solar plant was partly funded by federal Australian funds. The mining camp is located about two hours by plane from Perth.

The government's strategy goes beyond using green hydrogen in the mining industry in Western Australia. For example, Hysata, a startup producing more efficient electrolyzers for hydrogen-oxygen separation, has received government funding.

"Hysata also received funding from the Australian government through the Australian Renewable Energy Agency (ARENA) to help demonstrate our electrolyzer at a commercial scale, as well as a small grant from the New South Wales state government," said Paul Barrett, CEO of Hysata.

The goal of more efficient electrolyzers is to require fewer solar panels or wind turbines in renewable energy systems. "Direct reduced iron using green hydrogen is the only commercially viable, large-scale way to decarbonize the steel industry. Green iron will also bring significant value to the economies of iron ore-exporting countries like Chile and Australia," Barrett noted.

Australia is also focused on attracting investors to develop renewable energy projects. For example, New South Wales, whose capital is Sydney, aims to support the private sector to achieve at least 12 gigawatts of new renewable electricity generation—such as wind and solar—by 2030, according to the state's Department of Climate Change, Energy, Environment, and Water.

Connection with First Nation

Australia's mining and decarbonization strategies place significant emphasis on relations with the country's First Nations peoples. In government meetings, officials customarily begin by acknowledging the traditional owners of the land.

Madeleine King, Minister for Resources—equivalent to Chile's Minister of Mining—highlighted the importance of collaboration between mining companies and Indigenous communities.

"In the terrestrial resource sector, particularly in Western Australia, these are large-scale operations.

Relationships with First Nations peoples are crucial because mining companies know that without working together, nothing can be achieved," she said.

Since the 1990s, Australia has recognized the land ownership of Indigenous peoples. "The resource sector has an extraordinary relationship with Indigenous communities. They must establish land-use agreements. They are the largest employers of Indigenous Australians nationwide. Through royalty payments and land-use agreements, they provide funding for First Nations communities to use as they see fit," King explained.

One of the hydrogen-powered buses at Fortescue's Pilbara mine in Western Australia, fueled by green hydrogen produced at the mining camp.