Government Prepares to Declare Sierra Gorda a "Saturated Zone," Mining Companies Raise Concerns

■ The regional environmental minister of Antofagasta, Gustavo Riveros, confirmed to DF that the respective supreme decree has already been enacted. "Mining is the main responsible party," he stated.

Diario Financiero – February 17, 2025
By Patricia Marchetti

The government is on the verge of declaring part of the iconic mining municipality of Sierra Gorda as a saturated zone due to breathable particulate matter, a measure that has mining companies in the area on high alert due to the potential impact on their operations.

According to Gustavo Riveros, the regional environmental minister (Seremi) of Antofagasta, Supreme Decree No. 39/2024 from the Ministry of the Environment (MMA), which "Declares a saturated zone for daily and annual standards, both for breathable particulate matter MP10, in the locality of Sierra Gorda and its surrounding area," has already been enacted.

The decree is now awaiting signatures from the Ministry of Health and President Gabriel Boric before being submitted for approval by the Office of the Comptroller General. "Once it is approved, it will be published in the Official Gazette, making the saturated zone declaration effective," Riveros explained.

If the MP10 air quality standard sets a daily average maximum of 130 micrograms per cubic meter, the monitoring station in Sierra Gorda recorded days exceeding 260, according to data from the National Air Quality Information System. For the annual average, the saturation threshold is 50 micrograms per cubic meter, but in recent years, levels have surpassed 80.

As a result, a technical report from the Superintendency of the Environment concluded that the MP10 standard for both its daily and annual limits was exceeded in 2021, 2022, and 2023 across all evaluated stations.

The municipality is home to some of the country's most important copper operations, including Gabriela Mistral (Codelco), Lomas Bayas (Glencore), Minera Centinela (Antofagasta Minerals), Spence (BHP), Sierra Gorda (KGHM Polska Miedź), and South32. However, only the last three are located within the polygon designated to be declared saturated.

These three companies are aware of the process and have met with the Ministry of the Environment to discuss the matter.

"Declaring a saturated zone is an opportunity to protect people," says Riveros. "We believe it is possible to balance economic development, public health, and environmental care."

- Is mining responsible for the saturation?
- "For the locality of Sierra Gorda, air quality data shows that mining is the main cause of the saturation condition. This means that in the future, regulations will be imposed on mining companies, as well as any other activity generating emissions in the area."

- What will the declaration mean for mining companies?
- "Once the declaration is made, the MMA will develop a Decontamination Plan (PDA). This process will identify the responsible sources, which will be regulated through measures aimed at reducing their emissions. During this phase, the specific implications for mining companies will be determined."

- What measures are usually included in PDAs in such cases?
- "They regulate existing sources, establish emission limits, and promote dust control and particulate matter emission systems. These measures may require investments from mining and other companies operating in the saturated zone. PDAs are not designed to shut down operations but rather to regulate pollutant emissions to protect the health of local populations, residents, and workers in the area."

In parallel with the development of the PDA, which could take years, the law grants the MMA the authority to implement provisional measures to reduce emissions while the plan is being finalized. "As a region, we have experience applying provisional measures," Riveros noted, referring to similar cases in other localities, such as Calama.

Both the PDA and the provisional measures aim to remove the area from its saturated condition. However, Riveros emphasized that achieving this goal requires "a clear downward trend in pollutant concentrations over several years to ensure that the improvement is sustained."

Mining Companies "On Alert"

Two of the three mining companies that would be affected by the decree—Sierra Gorda, Spence, and Centinela—told DF that there is a sense of "concern" among the firms, and they have already held meetings to discuss the issue.

"We are on alert because we believe this could directly impact our production at a time when Chile is fighting to maintain its position as the world's leading copper producer amid rising global demand," said a senior executive.

Another source noted that some mining companies suspect that the construction of the highway between Carmen Alto and Sierra Gorda may have influenced the air quality measurements.

Asked about this, Riveros acknowledged that "these construction works led to temporary increases in MP10 concentrations. However, when evaluating the overall air quality data, the saturation condition persists even without the highway construction. In other words, the declaration of a saturated zone would have been necessary regardless of that factor."

He also emphasized that the entire decontamination plan process will be participatory, involving mining companies, local communities, academic institutions, and public services.

The technical air quality report from the Superintendency of the Environment concluded that the MP10 standard for both the 24-hour and annual thresholds was exceeded in 2021, 2022, and 2023 at all monitoring stations in the Sierra Gorda network.

Since 2020, an upward trend has been observed:

Mining Costs for Copper Production in Chile Have Increased More Than in the Rest of the World

■ Experts point to older copper deposits, labor, and environmental requirements as key factors driving higher costs.

El Mercurio – February 17, 2025
By Catalina Muñoz-Kappes

Since 2020, copper mining production costs in Chile have risen more than in any other country. That year, producing the metal in Chile was aligned with the international standard, at approximately 239 cents per pound (cUS$ 239). However, data from the first half of last year already showed a significant increase to cUS$ 340 per pound in Chile. In contrast, the same operation elsewhere in the world had an average cost of cUS$ 306, according to data from the Mining Council and consultancy firm Plusmining.
Experts attribute the rise in production costs in recent years to the aging of Chilean mines.
"Most of Chile's large mines are over 20 years old and have aged. There have not been many greenfield projects in recent years to increase net production and offset the rising costs generated by aging mines," explains Juan Carlos Guajardo, executive director of Plusmining.
By contrast, copper deposits in other countries are newer and have fewer associated costs. "Over the past two decades, production has increased in Peru, the Congo, and other countries through new projects—meaning lower-cost operations—so Chile's cost trend compared to the global average has put us at a disadvantage," he adds.

Other Cost Factors
Beyond the declining ore grades due to aging deposits, other associated costs impact production.
"Energy costs, particularly in transmission and distribution, water shortages, and the inclusion of desalination as a water supply alternative, lead to higher transport and energy costs," states Cristián Cifuentes, senior analyst at the Center for Copper and Mining Studies (Cesco).
The expert also highlights high wages and regulatory hurdles as key factors. "In Chile, the workforce is highly skilled compared to other emerging mining districts. Moreover, environmental regulations often result in delays and additional costs," he notes.
Regarding regulatory costs, Guajardo believes that "the increase in requirements is happening worldwide, although there are signs that the trend toward overregulation could be reversing. In Chile's case, regulations have lost a holistic perspective, leading to unnecessary redundancies and complexities, as well as opportunities for various actors to interfere in the permitting process, undermining the certainty that a project requires."

Cost Reduction in 2024
Despite a steady increase in copper mining production costs between 2020 and 2023, both in Chile and globally, costs declined in the first half of 2024.
According to a Cochilco report comparing copper mining costs between the first half of 2023 and 2024, the cost reduction was driven by favorable market conditions, including lower material, energy, and fuel prices. The agency also noted that the decrease was more pronounced in smaller operations and that the 17% increase in the exchange rate had a positive impact.
However, Cochilco warns that costs remain above the average levels recorded between 2015 and 2021.

"Most of Chile's large mines are over 20 years old and have aged. There have not been many greenfield projects."
— Juan Carlos Guajardo, Plusmining

"Environmental regulations often result in delays and additional costs."
— Cristián Cifuentes, Cesco

- Chile’s production cost is about 30 cents per pound higher than the global average.

- Copper production costs in Chile decreased in the first half of last year, but remain above the 2015-2021 average.

The Southern Cone Gas Network: Brazil, Argentina, and Bolivia Redefine Their Energy Strategies

■ With the reversal of the Northern Gas Pipeline and agreements with Chile and Brazil, the country led by Javier Milei seeks to maximize its potential, marking a strategic shift in the regional supply balance.

Diario Financiero – February 17, 2025
By Déborah Donoso Moya

Brazil, Argentina, and Bolivia are the main countries in the Southern Cone in terms of natural gas reserves, although their production and export capacity vary significantly. In recent decades, gas demand in Latin America has driven infrastructure development and trade agreements to ensure a stable supply across the region.
In 2024, Brazil produced over 154 million cubic meters (m³) of gas per day, an amount insufficient to meet its domestic demand. Argentina, on the other hand, reached 140 million m³, with the potential to increase production as investments in Vaca Muerta—home to the world's second-largest unconventional gas reserve—continue to advance.
In contrast, Bolivia has seen its production fall to 31.9 million m³ per day, losing its position as one of the region's leading producers.
Regarding this shift, Gabriel Horacio Sueldo, Director of Foreign Trade at the University of Belgrano, told DFSUD that "the region's greatest potential lies in Argentina because Bolivia's production has significantly decreased from previous levels."
He pointed out that Bolivia "is currently only sending 7 million m³ per day to Brazil through a pipeline with a capacity of 30 million," the same infrastructure Argentina plans to use for its exports to the South American giant until it develops an alternative route.

Strategic Agreements
Despite its vast potential, Argentina has historically depended on gas imports, particularly from Chile, even paying premiums. "If they don't inject gas into the market and commercialize it, they won't be able to optimize oil production, as in Vaca Muerta, the production ratio between gas and oil is 70/30," explained Sueldo.
Revenue from gas sales will be crucial for strengthening the infrastructure needed to extract oil from the Vaca Muerta basin, boosting both sectors and the productive region in southern Buenos Aires.
Argentina is experiencing what could be its best energy moment, as Vaca Muerta has achieved record crude oil production. This has attracted industry investments, supporting the goal of producing 1 million barrels per day.
The energy sector's boom in Argentina opens new opportunities to strengthen trade relations with neighboring countries such as Chile, Uruguay, and Brazil.
With Chile, in particular, there is an energy exchange agreement: the Andean nation sells about 1 million m³ daily to Argentina during the summer to meet high demand caused by extreme temperatures, while in winter, Chile purchases gas from Argentina. In 2023, the two countries agreed to a supply of up to 5 million m³ per day, increasing to 9 million from October to December 2024.
That same year, Argentina halted imports from Bolivia, a key supplier for over two decades. At its peak in 2017, Argentina imported 27.7 million m³ per day from Bolivia, but with the strengthening of Vaca Muerta, the government of Javier Milei decided to terminate the agreement.
Additionally, the reversal of the Northern Gas Pipeline—which previously transported Bolivian gas to Argentina—will now enable Argentina to send gas to Brazil. Although infrastructure work is still required to reach exports of 15 million m³ per day, the initial plan is to use Gasbol, a pipeline built in the 1990s, which will allow the shipment of up to 3 million m³ per day.

Regional Interconnection
Argentina currently has an extensive network of gas pipelines connecting the Neuquén, Northwest, and Bolivian basins, linking the country with Chile, Bolivia, Brazil, and Uruguay.
The Nor-Andino and Gas Andes pipelines connect Argentina with Chile. Additionally, the TGN system, which previously transported gas from Bolivia, will now be used to send the commodity to Brazil. The Entrerriano pipeline connects with Uruguay, and the GNEA pipeline is expected to be expanded to connect with Paraguay and then Brazil.
Developing new infrastructure to connect with Brazil will require an investment of over USD 1.5 billion.

Sueldo explained that "the missing piece is the second section of the Néstor Kirchner pipeline (now called the Perito Moreno pipeline), and once that is completed, we will no longer need to import gas."

27.7 million m³ per day

At its peak, Argentina imported this volume of gas from Bolivia.

Foreign Trade Logistics Barometer: 73% of Operators Reported Price Increases

96% of importing/exporting companies indicated that the market had a "medium or high" capacity to meet logistics service demands.

PULSO
By Olivia Hernández D.

The cost of logistics services increased in 2024 compared to the previous year, according to 73% of importers/exporters. These figures are part of the preliminary data from the latest Foreign Trade Logistics Barometer, a report published by Conecta Logística in collaboration with the Ministry of Transport and Telecommunications at the end of 2024.

"This barometer, applied by Conecta Logística, is a crucial tool for analyzing the logistics industry. By combining information from various sources, it provides an overview of how logistics operators involved in foreign trade processes and importing/exporting companies are performing. This is a vast and complex industry, considering that in 2024 alone, the total volume of exports and imports exceeded 124 million tons. In this context, this measurement is highly relevant and timely, as it allows us to identify existing gaps—whether in technology, infrastructure, gender, training, or sustainability. The goal is to take action to close these gaps and turn them into opportunities, thereby increasing the competitiveness and efficiency of our logistics processes," explained Transport and Telecommunications Minister Juan Carlos Muñoz.

According to the report, 40% of importing/exporting companies saw an increase in demand for logistics services in 2024. Additionally, 31% of operators confirmed that demand actually increased compared to the previous year—consistent with the 28% of operators who, in 2023, had anticipated growth.

Regarding revenue, in 2023, 31% of operators expected their income to rise in the following year. This projection materialized, as 35% reported an increase in revenue in 2024. Looking ahead to 2025, 42% of operators expect continued revenue growth.

In terms of service capacity, 96% of importing/exporting companies indicated that the market had a "medium or high" ability to meet logistics service demand. Furthermore, 99% of logistics operators reported having a "medium or high" capacity to fulfill the demand they received.

Additionally, in 2024, 83% of cargo arrived "on time and as expected," a 6% drop compared to 2023. The primary causes of delays were maritime transshipment (73%), physical cargo inspections (38%), and documentary inspections (29%).

The report also evaluated logistics infrastructure, which maintained a similar satisfaction level to 2023. Port infrastructure received an average score of 3.5 on a scale of 1 to 5, identical to the previous year. Airport and land infrastructure scored 3.7, making them the highest-rated categories. However, rail access to ports received the lowest rating, at 2.9.

Sustainability was another key area covered in the study. The adoption of clean energy received a score of 4 or 5 from 34% of companies, an increase compared to 2023. The same percentage and rating were given to companies' environmental responsibility efforts. Moreover, 20% of logistics operators measured their carbon footprint in 2024, marking a 10% increase from the previous year. However, the proportion of companies with environmental certifications remained unchanged from 2023: 13% of operators and 9% of users.

In terms of technology and innovation, 58% of companies rated their level of digitalization as 4 or 5, an increase of 9% compared to 2023. Additionally, 90% of logistics operators reported having at least one digitalized process.

The study also assessed route traceability. In 2024, 45% of importing/exporting companies had access to this system. Although access decreased by 2% compared to the previous year, the system received higher ratings, with the percentage of companies rating it 4 or 5 increasing from 80% in 2023 to 88% in 2024.

WPD Germany’s General Manager for Renewable Energies: “The level of cannibalization within the regulated market should be reduced”

Lutz Kindermann, CEO of the firm present in Chile for 15 years, is convinced that different scales of power generation “must coexist” but in a more level playing field.

PULSO
By Víctor Guillou

WPD, the German company specializing in renewable energy, has been operating in Chile for 15 years and globally since 1996. As it approaches its 30th anniversary, WPD has expanded to 31 countries, with an installed capacity of 6,670 MW, primarily in wind power but also in photovoltaic plants. In Chile, the company operates three wind farms: Lomas de Duqueco (58.8 MW) and Negrete (36 MW) in the Biobío Region, and Malleco (273 MW) in the Araucanía Region. However, its ambitions extend far beyond its current 368 MW capacity.

"Having and operating these projects is already a mission accomplished," says Lutz Kindermann, who arrived in Chile in 2011 to lead WPD’s local operations as general manager. The company’s next step involves a portfolio of projects totaling 1,000 MW, requiring investments of approximately US$1 billion, as well as a green hydrogen project in Magallanes, ranging from 500 MW to 1,000 MW.

This initiative has begun wind measurements, but due to the lengthy approval processes in Chile’s southern region, the company remains cautious in setting a timeline for its environmental evaluation submission.

“That has yet to be defined. I believe the timeline for projects in Magallanes is significantly longer than what we see elsewhere,” says the German executive, adding that WPD will monitor how other large-scale projects navigate environmental permitting before proceeding.

WPD’s portfolio includes hybrid projects—both photovoltaic and wind—integrated with storage systems. “Storage is an excellent complement to adjust the generation curve, minimizing intermittency and ensuring energy availability at specific times,” Kindermann emphasizes. He adds that storage plays a crucial role in the decarbonization process when integrated into complementary service markets.

"We design hybrid plants that include storage from the outset, and we are also evaluating expanding our existing plants to incorporate storage," he states.

However, Kindermann is blunt about Chile’s energy market: "Chile’s electricity market is in crisis," he recently told BNamericas. Expanding on this statement with Pulso, he explains: "Chile’s electricity market has gone through different stages. In 2015, when supply tenders first reflected the competitiveness of non-conventional renewable energies, the sector was underdeveloped. Then came a major boom, and we are a product of that initiative spearheaded by Minister Máximo Pacheco at the time."

Following that surge, renewables gained significant market penetration, leading to well-known issues such as energy curtailment, prolonged periods of zero marginal costs, transmission constraints, and high lateral cost payments due to various factors.

"These effects were not foreseen when investments were initially announced," Kindermann notes. However, he believes solutions exist through ongoing legislative initiatives aimed at improving market efficiency.

"This is my favorite topic," Kindermann remarks. "I believe different scales of power generation must coexist—Net Billing, PMGD projects, utility-scale projects, and those supplying regulated or free industrial clients. We need to coexist across different technologies as well. The level of cannibalization within the regulated market should be reduced or optimized to ensure healthy competition and better market performance."

Nonetheless, he acknowledges that competition must be fair. While he does not believe that requiring PMGD projects to share curtailment burdens fully resolves the issue, he does think it makes the industry landscape more equitable.

“Small-scale generation should also bear both the positive and negative impacts of the grid. If there is congestion or oversupply, why should certain players be in privileged positions?” he asks. In his view, "coexistence should not mean one segment subsidizing another."

According to Kindermann, the biggest problem remains market disconnections. "This is unfortunate because it means we do not have a transparent market," he says, noting that additional issues arise, such as lateral cost payments and unilateral financial transfers benefiting PMGD operators.

The Crisis Within Acera

Kindermann is part of Acera, Chile's main renewable energy association, which faced an internal crisis in 2024 that led to the departure of four member companies. The inability to form a unified stance on Chile's electricity market challenges was at the heart of this division.

"Acera is an association that seeks to bring together different industry players—generation, transmission, suppliers, and companies of different scales. The common denominator of Acera is a renewable Chile," he explains. However, he acknowledges that aligning the interests of various members remains an ongoing challenge.

"I don't see it as a crisis; I see it as a transformation," he insists. "There are members leaving, new members joining, some initiatives moving forward, and others stalling. Acera is currently in a phase of redefining its core objectives and balancing diverse interests."

A few weeks ago, Kindermann signed a joint letter alongside Atlas Renewable, Hidromaule, the Chilean Mining Council, and the Renewable Generation Association—a new trade group founded by Acera's former members. Asked about this, he revealed that an extraordinary meeting was held on February 4 to assess the concerns raised in the letter, with a strategic plan set for March to address PMGD price stabilization.

"Acera still needs to go through a process of defining what an ideal renewable energy market looks like and whether different scales of generation can coexist effectively. This is a permanent challenge, both in politics and within industry associations. Until we reach a consensus, industry and regulatory efforts will remain imbalanced," he concludes.