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InvestChile

Key information

GREEN HYDROGEN IN CHILE

An opportunity for the world

CHile

MAY 2024
GOVERNMENT OF CHILE

InvestChile

CONTENTS

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CONTENTS

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1.

Chile, a green energy country

"I believe that one day water will be fuel, that the hydrogen and oxygen which constitute it, used alone or together, will provide an inexhaustible source of energy and light, with an intensity which coal cannot; since coal reserves will be exhausted, we shall be heated by water. Water will be the coal of the future."

In *The Mysterious Island*, Jules Verne was ahead of his time in predicting the potential of hydrogen. He never suspected that just 150 years later, the world's southernmost country would play a leading role in making "the coal of the future" a reality.

At the June 2022 IV CEO Summit of the Americas in Los Angeles in the USA, the President of Chile, Gabriel Boric, gave a speech before an auditorium of the world's top business leaders articulating the country's current position. "Chile needs the world, and the world needs Chile." The President announced the country's intent to play a critical role in the global energy transition and explicitly stated that Chile would require foreign investment, knowledge and technology to do so.

Today, Chile is auspiciously positioned to offer investment opportunities critical to global challenges like climate change and the digital revolution, and this is not by chance. Rather, a State decision, supported over recent administrations, is now materializing thanks to specific strategies regarding minerals critical to the energy transition (e.g., lithium and copper) and the promotion of green hydrogen production.

Over the last ten years, this sustained policy has resulted in significant clean energy development in Chile. In 2011, Chile had 540 MW of Non-Conventional Renewable Energy (NCRE) installed capacity; the figure is now twenty-five times that. The growth will not stop there, as clean energy projects currently lead the portfolio of InvestChile, the Foreign Investment Promotion Agency. These projects are at different stages of development and together are worth over US$15.9 billion.

BloombergNEF's Climatescope ranking[1] also reflected this boom, consistently ranking Chile at the top of the most attractive emerging economies for investing in green energy.

THE BEST ECONOMY IN LATIN AMERICA

The Chilean economy has been considered the best business climate in Latin America for decades. The World Bank's Doing Business Ranking traditionally places Chile first in the region, while the Institute for Management Development's (IMD) **World Competitiveness Ranking**[2] puts it at No. 1 in Latin America2 (No. 44 worldwide).

Thanks to its international economic openness, a State policy maintained by the country's various administrations since the 1990s, Chile is one of the world's most open, connected economies. Its 33 trade agreements with 65 economies connect the country to 88% of the world's GDP and 63% of the global population, enabling goods produced within its borders to enter leading global markets under advantageous tariff conditions.

Chile boasts Latin America's highest per-capita productivity and it also leads the region in digital talent. A member of the OECD since 2010, it stands out as one of the economies that invests the most in education. As of 2019, Chile allocated 6.5% of its GDP to educational institutions, well above the OECD average (4.9%). Furthermore, between 2008 and 2019, this investment as a percentage of GDP grew by 62%. Every year, more than 1.3 million students enter higher education and over 270,000 graduate.

Chile has consolidated its Latin American leadership in areas like digital connectivity – e.g., pioneering 5G implementation, early adoption of new technologies and it has **one of the world's fastest wireline internet speeds**[3]– making it a digital hub for the region.

Also noteworthy is the ease with which companies can be set up in Chile. From 2013 to 2022, more than 900,000 new companies - over 350 per day - were set up through the Economy Ministry's Your Company in a Day program.

The State's long-term entrepreneurship and venture capital promotion efforts have placed Chile' among the countries with the best conditions for entrepreneurial activity' and since 2007 earned it a top regional ranking in the **Global Innovation Index**[4].

1. https://www.global-climatescope.org/results/

2. https://www.imd.org/centers/wcc/world-competitiveness-center/rankings/world-competitiveness-ranking/

3. https://www.speedtest.net/global-index

4. https://www.wipo.int/global_innovation_index/es/

Chile combines the tradition of solid institutions and macroeconomic strength with future opportunities and a commitment to sustainability, aspiring to play a leading role in the global revolution that green hydrogen production could spark.

This document describes the efforts by InvestChile and the various public institutions committed to developing the green hydrogen industry in Chile.

It provides coordinated information to guide green hydrogen project development and centralizes information of interest, making it available to investors.

Why Chile? We invite you to discover the reasons why in this ebook.

2.

The global energy status quo

"Human-induced climate change is causing dangerous and widespread disruption in nature and affecting the lives of billions of people around the world, despite efforts to reduce the risks. The people and ecosystems least able to cope are being hardest hit." Scientists from the Intergovernmental Panel on Climate Change (IPCC, 2022) made this alarming but concrete statement. The outlook is not good. According to specialists, "The world faces unavoidable multiple climate hazards [over the next two decades] with global warming of 1.5°C (2.7°F). Even temporarily exceeding this warming level will result in additional severe impacts, some of which will be irreversible."

There is consensus that climate change poses a global threat to human wellbeing and health and is today's greatest challenge facing all the world's countries. At some latitudes, the effects are becoming more evident daily in the form of extreme weather and climate phenomena, losses and damage to nature and people.

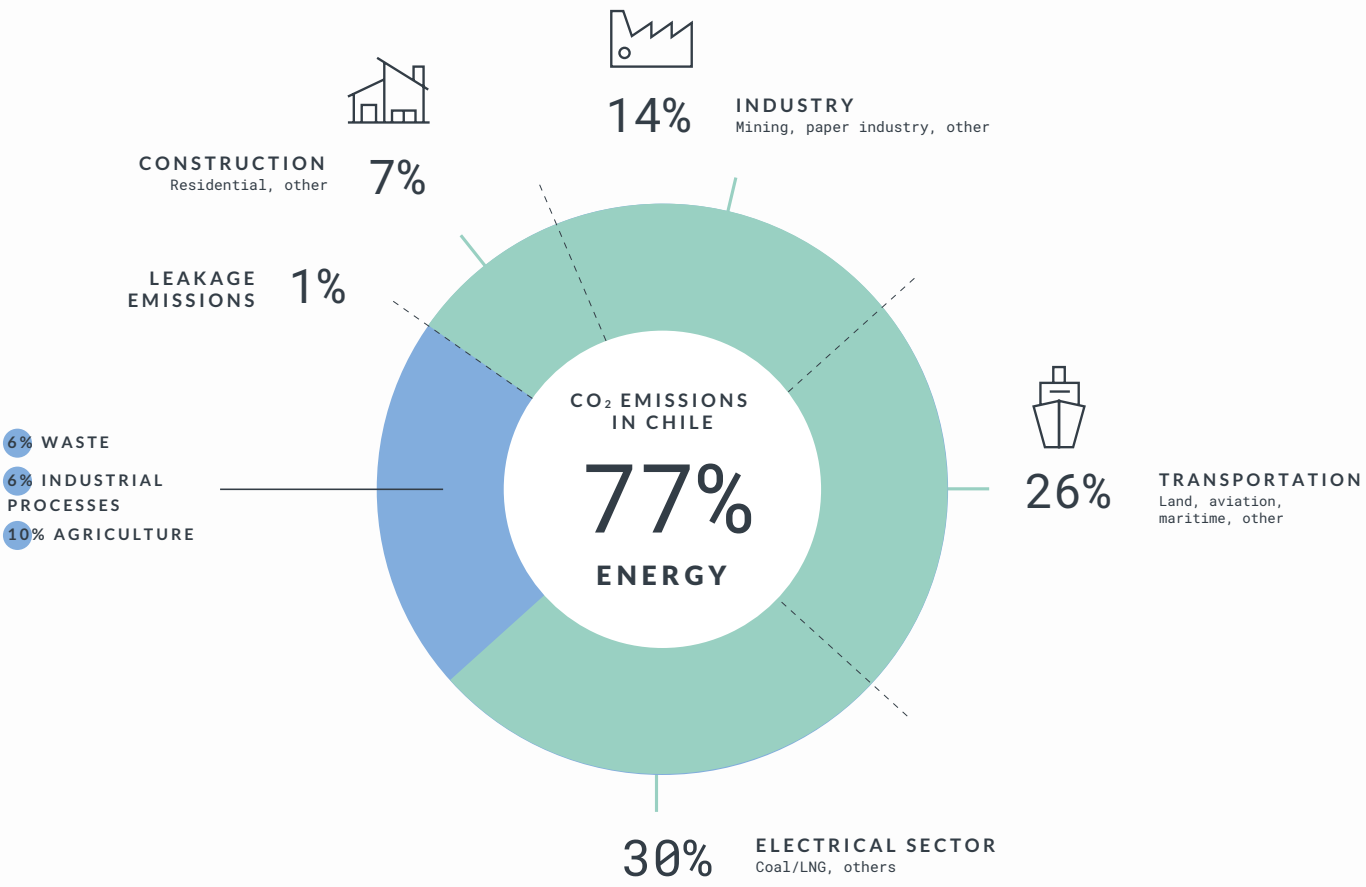
According to the 2023 **IPCC's AR6 Synthesis Report**[5], total net Greenhouse Gas (GHG) emissions continued to rise between 2010 and 2019, and cumulative net CO2 emissions have risen since 1850.

Average annual GHG emissions for 2010-2019 were higher than in any previous decade due primarily to CO2 from fossil fuels and industry.

In this context, it seems logical to exponentially increase efforts toward multi-sectoral transformation in order to achieve sustainable, emissions-minimizing and climate-resilient development. In addressing this challenge, the energy sector is certainly a main focus, as it accounts for more than 60% of CO2 emissions on a global scale and 77% in Chile.

5. https://www.ipcc.ch/report/ar6/syr/downloads/report/IPCC_AR6_SYR_SPM.pdf

DISTRIBUTION OF CHILE'S GHG EMISSIONS



Source: Environment Ministry (2020), National GHG Emissions Inventory, Chile

Therefore, a global and national energy transition is crucial to mitigating the harmful effects of the climate crisis and achieving net zero CO2 emissions. The following are among the actions needed: a substantial reduction in fossil fuel use; a push towards 100% renewable electricity systems and the related enabling infrastructure; the promotion of carbon capture and storage; widespread adoption of electrification and energy efficiency and conservation; and greater integration across all sectors.

In such an energy transition, green hydrogen has enormous potential to help decarbonize many sectors (UGR, 2022), especially energy-intensive sectors that cannot be electrified. For this to happen, it is calculated that production capacity would need to grow by 0.23-3.5 Mt by 2026 (implying 25 GW of cumulative electrolyzer capacity) and by 500-800 Mt (2,630-20,000 GW of cumulative capacity) by 2050.

The unit cost of the various low-emission technologies has fallen steadily since 2010, for instance solar power (-85%), wind power (-55%), and lithium-ion batteries (-85%). Given the significant increase in usage (more than ten-fold for solar) and increased energy efficiency, the International Energy Agency and the International Renewable Energy Agency both forecast that the world will need three times its current renewable energy generation capacity by 2030. This is around 11,000 GW or about 1,000 GW of additional capacity per year through 2030. Energy efficiency efforts will also need to be doubled (from 1.7% to 3.4% annually) to keep warming below the levels scientists have identified.

These challenges certainly also present opportunities to develop the aforementioned sectors, where Chile enjoys competitive advantages for continued growth.

3.

Climate change and Chile's decarbonization commitments

Chile has opted to take an active role in the fight against climate change. The IPCC classifies the country as highly vulnerable due to its low-lying coastline; arid, semi-arid and forest ecosystems; high susceptibility to natural disasters; areas that are susceptible to drought and desertification; urban zones troubled by air pollution; and mountain ecosystems Furthermore, the country's main socioeconomic activities depend heavily on water availability and thus, the climate (IPCC, 2014).

As a State, Chile has expressed its commitment to cutting GHG emissions and contributing to reducing the global impact of climate change. It has produced Latin America's only integrated regulatory and public policy framework to support the climate change and energy transition goal commitments.

The **Framework Law on Climate Change,**[6] the first legislation of its kind on the continent, has been in effect in Chile since June 2022. The law sets a specific carbon neutrality goal and includes a series of tools for its achievement.[7].

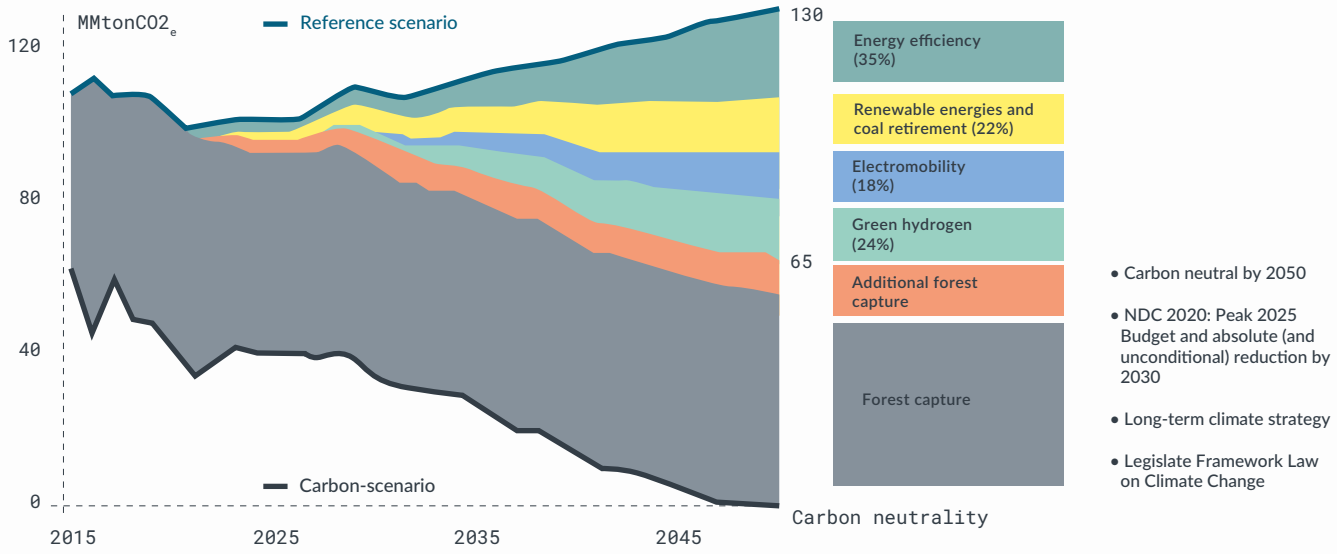
It establishes authority and duties at the central, regional and local levels. Thus, the law involves and obliges 17 ministries, regional governments and all Chilean municipalities to take concrete action to address climate change. Every ministry, institution, and company with binding obligations under this law must report periodically on its progress toward achievement. Economic instruments are available to facilitate the implementation of the measures.

6. https://www.bcn.cl/leychile/navegar?idNorma=1177286

7. Both plans must be ready within two years of publication of the Law (by June 2024). The Energy Ministry has begun the drafting process.

Regarding commitments under the **Paris Agreement**, Chile submitted its updated **Nationally Determined Contribution (NDC)**[8] in 2020, setting ambitious targets for 2030 and committing to carbon neutrality by 2050 at the latest. Green hydrogen is one of the main lines of action for mitigation because it could potentially cut emissions by 24% by 2050.

THE PATH TO CARBON NEUTRALITY



Source: Energy Ministry (2020), National Green Hydrogen Strategy

With an eye to the future, Chile presented its **Long-Term Climate Strategy (LTCS)**[9] to the United Nations in 2021. This strategy establishes the general guidelines the country will follow over the next 30 years with the objective of addressing climate change in a cross-cutting, comprehensive manner that extends beyond any specific political cycle or administration.

8. https://cambioclimatico.mma.gob.cl/wp-content/uploads/2020/08/NDC_2020_Espanol_PDF_web.pdf

9. https://cambioclimatico.mma.gob.cl/wp-content/uploads/2021/11/ECLP-LIVIANO.pdf

DECARBONIZATION IN THE ENERGY SECTOR

The energy sector, responsible for over three-quarters of Chile's total greenhouse gas emissions,[10] is called upon to play a leading role in the mitigation efforts that Chile has committed to in order to become a resilient, carbon-neutral country by 2050.

In order to mitigate carbon emissions in a cost-efficient manner, Chile has identified and is making resolute progress on four energy industry themes:

1. A renewable, clean electricity generation matrix;
2. Electromobility;
3. Energy efficiency; and
4. Green hydrogen

Most of the measures and actions to address these themes progressively increase levels of direct and indirect electrification, thus emphasizing the critical role of electricity transmission and storage systems on the country's path to decarbonization.

The Energy Ministry built consensus and drafted the **National Energy Policy**[11] to create a long-term sectoral vision and emphasize that energy policy instruments are State policy and will endure over time. The initial version, published in 2015, **was updated for the first time in 2022.**[12] The following National Electric System goals stand out in the updated version:

- 100% zero-emission energy used in electricity generation by 2050 and 80% renewable energy by 2030;
- Reduce energy sector emissions by 60% relative to 2018 levels by 2050;
- Reduce GHG emissions from fuel use in the industry and mining sectors by 70% relative to 2018 levels;
- At least 70% zero-emission fuels (e.g., green hydrogen, its derivatives and synthetic fuels) in non-electric end uses by 2050.

10. https://snichile.mma.gob.cl/resultados-principales/

11. https://www.energia.gob.cl/sites/default/files/energia_2050_-_politica_energetica_de_chile.pdf

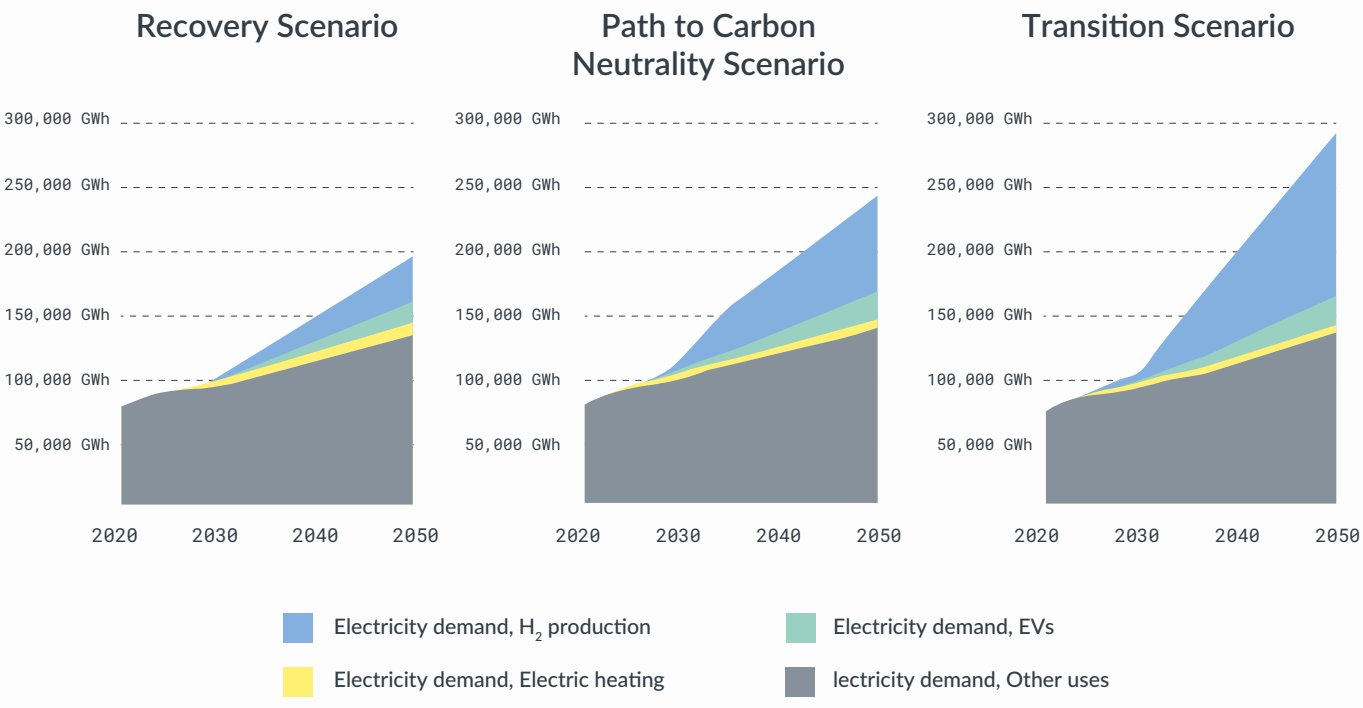
12. https://energia.gob.cl/sites/default/files/documentos/pen_2050_-_actualizado_marzo_2022_0.pdf

Another important tool, Long Term Energy Planning (PELP),[13] primarily aims to project Chile's energy future over a 30-year horizon. The latest version added green hydrogen to the analysis.

The document explores several long-term energy scenarios that illustrate alternative paths for energy matrix development in Chile. These scenarios enable better planning of the infrastructure required to achieve the country's goals and commitments, e.g., carbon neutrality and the retirement of coal-fired power plants.

As previously mentioned, hydrogen is important in reducing emissions in industries that are difficult to electrify. Thus, the 2023-2027 version of PELP shows that a significant share of electricity-based demand for hydrogen production is to supply domestic consumption (excluding exports). As shown in the following table, the figure ranges from 19% to 43% depending on the energy scenario:

THE PATH TO CARBON NEUTRALITY - IMAGE 2



13. https://energia.gob.cl/pelp

Source: Energy Ministry (2021), Long-Term Strategic Planning

Chile's hydrogen consumption is mainly concentrated in the Antofagasta (10%-24%) and Metropolitan (15%-22%) regions.

Current regulations – e.g., **Energy Efficiency Law**[14] **Electric Energy Storage and Electromobility Law**[15], their respective plans and strategies, and bills of law like the one on **Promoting Renewable Energies in the Electricity Matrix**[16] and the **Energy Transition**[17] – will directly impact Chile's achievement of carbon neutrality goals.

In April 2023, the Energy Ministry unveiled its **Initial Agenda for the Second Half of the Energy Transition**[18]. The agenda involves implementing the first ten measures in four action areas: promoting storage, mitigating supplier risk, operational flexibility, and urgent policy, regulatory and works actions.

14. https://www.bcn.cl/leychile/navegar?idNorma=1155887

15. https://www.bcn.cl/leychile/navegar?idNorma=1184572

16. https://www.camara.cl/verDoc.aspx?prmID=263054&prmTipo=DOCUMENTO_COMISION

17. https://www.senado.cl/proyecto-de-transicion-energetica-comienza-tramitacion-en-el-senado

18. https://energia.gob.cl/sites/default/files/documentos/agenda_inicial_para_un_segundo_tiempo_de_la_transicion_energetica.pdf

4.

Green hydrogen in Chile: An opportunity for the world

The global path towards decarbonization has pushed companies, governments and technology developers to seek alternatives to fossil fuels in industrial, transportation and other processes. Today's consensus is that electrification is the best way forward when the energy comes from renewable sources. However, the specific requirements of some activities make it impossible for electricity alone to replace hydrocarbons.

Global advances in renewable energy efficiency and the development of water electrolysis technologies are beginning to make hydrogen obtained from water a viable alternative. What some call the "fuel of the future" could replace fossil fuels and even the non-renewable hydrogen or ammonia currently used.

The Hydrogen Council (2017) and Price Waterhouse Coopers consulting firm (PwC, 2020) project an 18% increase in global final energy demand by 2050. Such an increase would represent a potential USD2.5 trillion for the total hydrogen market, with an export market of USD300 billion and an 80% drop in electrolyzer costs.

Fuente: Ministerio de Energía (2020), Estrategia Nacional de Hidrógeno Verde.

IN CHILE

In Chile, green hydrogen (GH2) production-and-use industry has the potential to generate an estimated USD200 billion in investment and 100,000 new jobs over the next 20 years.[19] This is close to Chile's current main source of income, copper mining, which together with related economic activities, accounts for 20% of the country's GDP.[20]

This potential is based mainly on Chile's unparalleled natural energy resources, discussed in detail below, which enable efficient, low-cost production of electricity from non-conventional renewable energy (NCRE) sources.

Chile's natural energy resource potential, international commitments on carbon neutrality and critical minerals, like copper and lithium, position it to lead the global energy transition.

Combined with its existing infrastructure, the country's ease of access and experience in desalination, Chile is well-placed to offer excellent base conditions for GH2 production and export. A network of 33 trade agreements with 65 economies facilitates collaboration and access to favorable trading conditions with countries representing 88% of global GDP.

19. https://www.df.cl/empresas/energia/gobierno-fija-meta-de-producir-el-hidrogeno-verde-mas-barato-del-planeta

20. https://consejominero.cl/mineria-en-chile/mineria-en-numeros/

Chile published its National Green Hydrogen Strategy in November 2020. The document establishes the country's interest in becoming the world's lowest-cost producer of GH2. It reaffirms Chile's commitment to developing the industry, focusing on large-volume exports of GH2 and derivatives (mainly ammonia and synthetic fuels) and replacing fossil fuels within the country to cut current emissions by a projected 25%.

The current administration ratified the strategy, confirming that GH2 is a State policy, and began drafting the 2023-2030 Action Plan, a road map for the industry's sustainable development.

PROJECT DEVELOPMENT

Even before Chile had an GH2 promotion strategy, major Chilean and foreign companies operating in Chile had begun exploration processes to produce GH2 and its derivatives.

As of December 2023, there were already over 50 publicly announced GH2 production projects, all with different scales of production, locations, final products, destinations, stages of development and estimated dates of operation. Some have estimated start dates as close as 2030, while others are expected to begin operating in subsequent years.[21]

In terms of their location, companies have chosen to take advantage of (i) energy resources, (ii) potential demand for the final product and (iii) proximity to enabling infrastructure by locating initiatives in places like Mejillones. Because of these factors, significant development hubs have emerged for this industry:[22]

i. Energy resources:

- Antofagasta, in northern Chile, given its high solar factor.
- Magallanes, in Chile's far south, thanks to its wind factor.

ii. Potential demand:

- Northern Chile, Antofagasta and the mining industry potential.
- Central Chile, including the Valparaíso and Metropolitan regions.
- Bio Bio, with its forestry and steel industries.

iii. Proximity to the enabling infrastructure:

- Northern Zone, Antofagasta, Mejillones.

Some of these projects have already completed major engineering and environmental studies and are ready to enter the Environmental Impact Assessment System (SEIA for the Spanish acronym), Chile's most important permit requirement for investment projects. The system meets major international sustainability and social standards.

21. The list of the announced projects is available in Section 9 of this document.

22. For further details, see Section 8.

COORDINATING THE STAKEHOLDERS

The Green Hydrogen Industry Development Committee was created in early 2022 to accelerate sustainable industry development and coordinate the ministries and public services involved in the GH2 industry (section 6. ii.). The committee is structured to coordinate the different stakeholders (e.g., the government, the citizenry, the private sector and international organizations) and facilitate initiatives required for the industry to move forward properly.

This Industry Development Committee comprises an inter-ministerial committee led by the Energy Minister, a technical group, and a consultative committee that periodically brings together different stakeholders to discuss, coordinate and promote the various initiatives, programs and activities related to developing the GH2 industry.

INTERNATIONAL COOPERATION

Following the launch of the National Green Hydrogen Strategy (ENHV for the Spanish acronym) in late 2020, a plan to promote Chile in the industry's priority markets was also implemented, triggering partnerships, the signing of agreements and Memorandums of Understanding (MoU), the establishment of cooperation funds and research and participation in events.

Consequently, investors, project developers, potential buyers and other relevant players have come to Chile, attracted primarily by the country's potential to become the world's lowest-cost GH2 producer.

To date, Chile has collaboration agreements with the following countries: Singapore, United Kingdom, Japan, Korea, Germany, United States, Netherlands, and France; as well as the following ports: Port of Rotterdam, Antwerp and Zeerbrugge, Port of Hamburg; and key institutions: Maersk Mc-Kinney Moller Center for Zero Carbon Shipping, Team Europe, European Investment Bank and Japan Bank for International Cooperation.

5.

Enabling conditions for the production of GH2 in Chile

Chile is not starting from zero when it comes to generating green hydrogen. Foreign companies interested in developing the GH2 industry find in Chile an economy that is open to foreign investment with a solid financial sector and a robust track record as a recipient of foreign capital. In addition, the country has the main enabling conditions required for GH2 production.

It has privileged characteristics that have garnered the interest of foreign companies and facilitated the development of their projects in some regions. These include: (a) the potential for low-cost NCRE production; (b) access to land; (c) experience in desalination and water reuse; and (d) existing enabling infrastructure. The characteristics that make the country attractive are described below.

a. Chile's potential for renewable energy production

In June 2023, Universidad de Santiago measured the highest solar radiation on record in the Atacama Desert in northern Chile. It was 2.7 MWh/m2.[23] The new record is a testament to the area's unrivaled solar potential and is equivalent to the radiation received by Venus, a planet 43 million kilometers closer to the sun.

The region's skies are clear 90% of the time in an average year, positioning it as an area with unparalleled conditions for renewable energy, with solar plant factors exceeding 30% thanks to the intensity and availability of sunlight. This is much higher than the 2020 global average of 11%.[24]. The installed capacity of solar PV projects is currently 7.8 GW.

Similarly, the southernmost part of the country - specifically the Magallanes Region - is the best place in the world for wind energy production. This is due to the plant factors "on shore" winds. In this case, measurements show plant factors exceeding

23. https://www.latercera.com/que-pasa/noticia/mas-que-en-el-everest-y-similar-a-venus-detectan-en-chile-la-mayor-radiacion-solar-de-la-historia/QDQPVSR5URGY3A-2M7WMLVGDOFU/

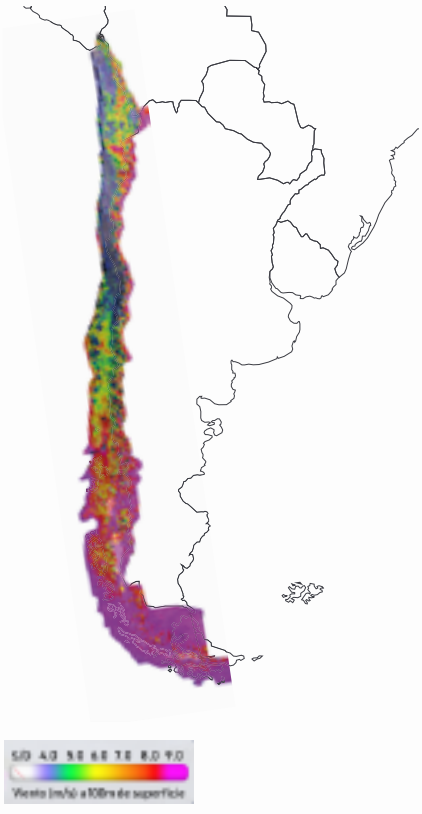
24. Environment Ministry (2020). National Green Hydrogen Strategy, Chile

60% in some parts of the region. This is three times the global average (20%)[25]. This activity has been boosted by the production of green hydrogen and its derivatives. Chile's total installed wind power capacity is 4.3 GW.

To explore the quality and behavior of energy resources throughout Chile, the Energy Ministry created the open access platform **"Energy Explorers."**[26]. It offers online tools that make it possible to graphically show a preliminary assessment of the energy potential of any site defined by the user, although they are not a substitute for field measurements. The "Hydrogen Explorer," which will also address this sector, is currently under development.

AGGREGATE POWER GENERATION NUMBERS

WIND EXPLORER



Source: Energy Ministry, Wind Explorer.

SOLAR EXPLORER

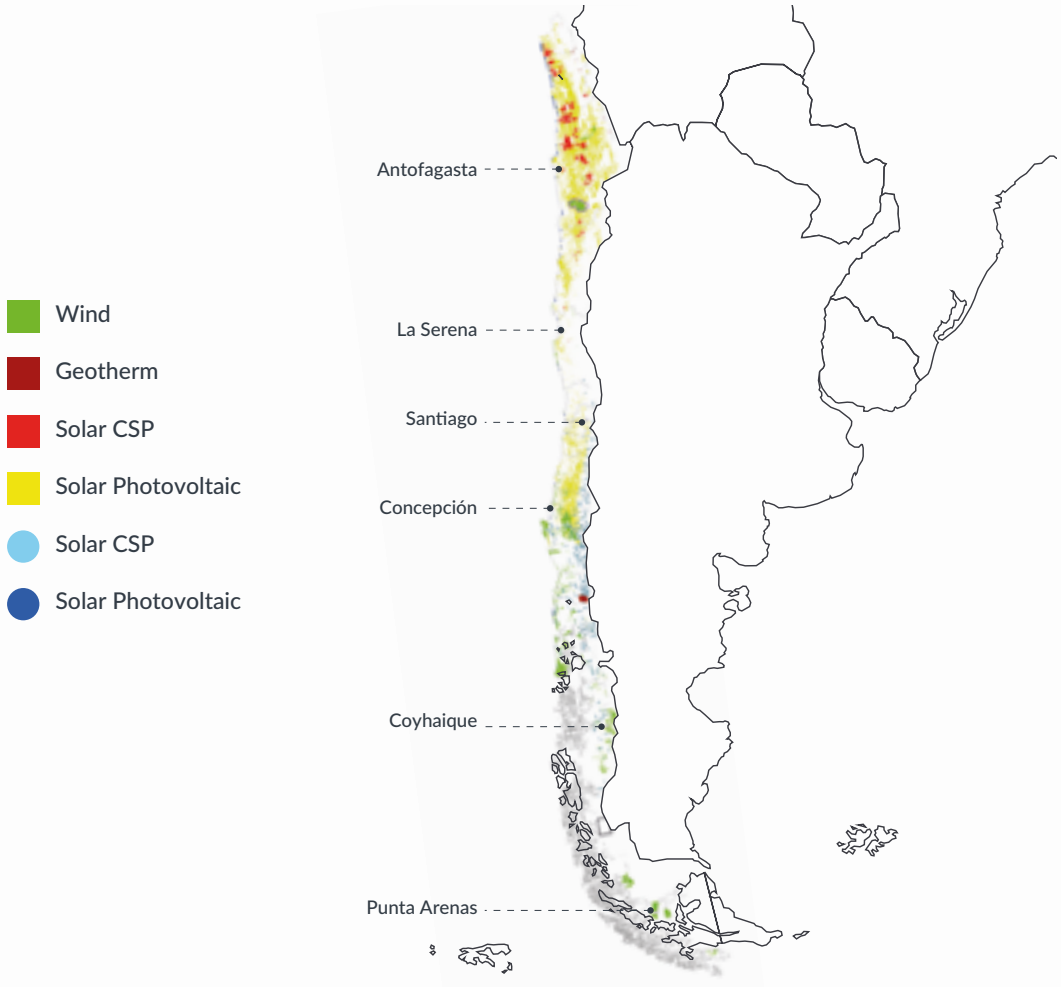
Source: Energy Ministry, Solar Explorer.

25. Idem.

26. https://eolico.minenergia.cl/inicio

As of December 2022, Chille's gross installed power generation capacity was 33.4 GW, 62% of it from renewable sources and with an additional 6.2 GW of capacity due to come onstream from projects still under construction (see Figure 1). Projections indicate that Chile has the potential to take advantage of renewable sources that exceeds 80 times the country's current domestic energy demand (see map).

MAP OF CHILE'S ENERGY POTENTIAL

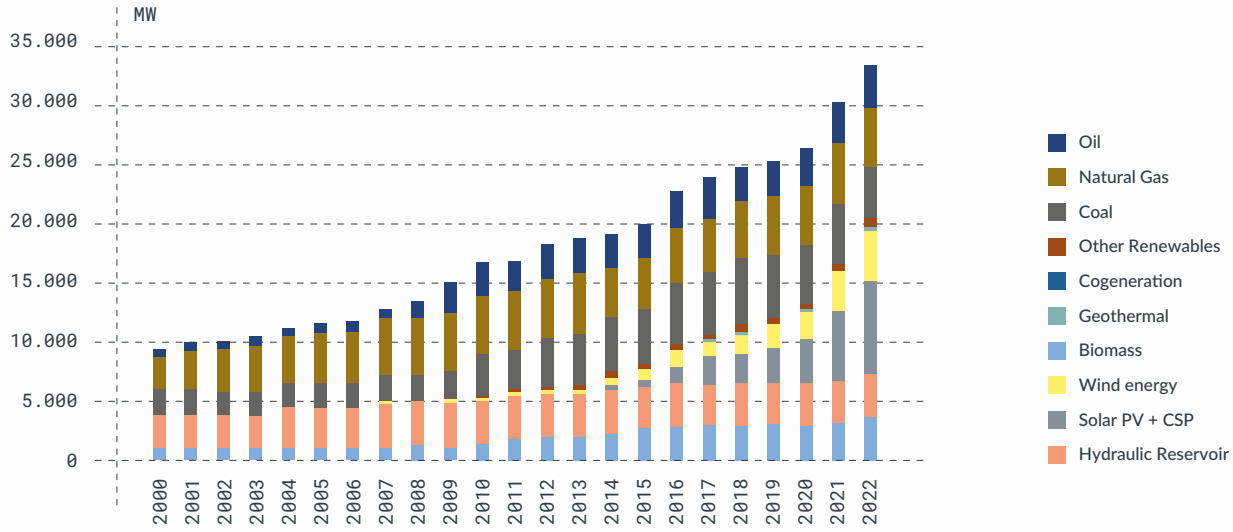


Source: Energy Ministry

It is also important to consider that Chile's has made a commitment to close and convert coal-fired power plants, which must stop operating by 2040 according to the terms of the Decarbonization Plan. Their capacity must be replaced by NCRE and storage systems. Returning to the figures, that same year (2022), 55% of all energy in Chile was generated using renewable sources, which marks a local record, out-pacing coal for the first time in 15 years.

The greatest growth in renewables has been seen in solar and wind generation, activities that went from representing 0.5% of energy produced in 2011 to 28% in 2022.[27]. The National Electric Coordinator (*Coordinador Eléctrico Nacional*, CEN) has published the locations of the system's electricity facilities: **https://infotecnica.coordinador.cl.**

INCREASE IN INSTALLED CAPACITY



Source: Own development based on Coordinator data.

27. https://generadoras.cl/generacion-electrica-en-chile#:~:text=El%20aumento%20de%20la%20generaci%C3%B3n,28%2C0%25%20en%202022.

This significant growth, together with Chile's potential, have forced the electricity system and market to modernize and expand their transmission and storage capacity. This is something that the Energy Ministry and its services have addressed. The authorities have begun to make the changes required to move towards a more renewable energy matrix using regulations like the **Initial Agenda for the Second Phase of the Energy Transition**[28] and the **Storage and Electromobility Law.**[29]

One factor that is worth noting is the progress made on the traceability of energy sources and their emissions. This is a key element for certifying that energy supply contracts come from renewable sources. In this regard, the National Electric Coordinator created a platform called **RENOVA: the National Renewable Energy Registry.**[30]

For more information on Chile's electricity system and elements related to the generation, transmission and distribution subsectors as well as public policies and the overall situation of the electricity market (prices, supply and demand, tenders, etc.), we recommend the ebook "**Energy: Projection and Opportunities**"[31] published by InvestChile.

b. Access to public land

The promotion of NCRE in Chile led to the 2010 signing of a Framework Collaboration Agreement between the National Assets Ministry (*Ministerio de Bienes Nacionales*, MBN) and the Energy Ministry. It outlines the country's commitment to implementing joint activities to promote opportunities focused on the development of NCRE projects on public lands. This agreement has been renewed successively from that year to date.

The latest version of the document specifically incorporated projects involving green hydrogen and/or its derivatives, the associated infrastructure and storage systems, complementing and updating its scope of action.

It is worth highlighting that the northern part of the country, which is home to the best solar resources in the world, offers a great opportunity to develop renewable energy and hydrogen projects including the necessary infrastructure on public lands. Fifty-two percent of public land (54% of Chile's total land area) is located in the Arica and Parinacota, Tarapacá, Antofagasta and Atacama Regions.

28. https://energia.gob.cl/noticias/nacional/ministerio-de-energia-lanza-agenda-inicial-para-un-segundo-tiempo-de-la-transicion-energetica

29. https://www.bcn.cl/leychile/navegar?idNorma=1184572

30. https://www.coordinador.cl/renova/

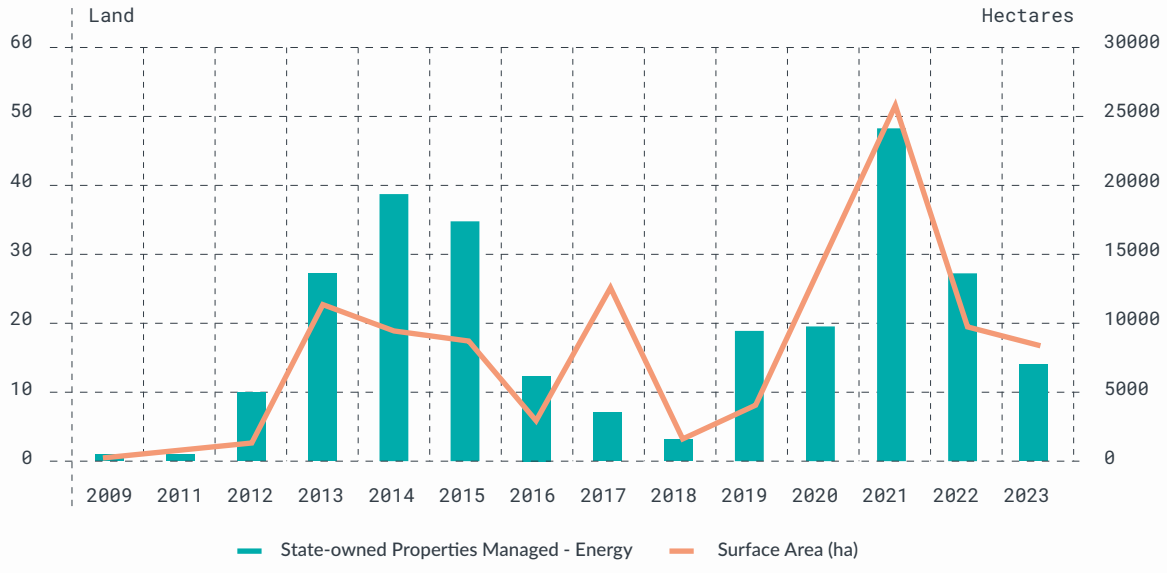
31. https://tools.investchile.gob.cl/ebook-energia-en-chile

The MBN currently has 266 land concessions in force, where renewable energy projects are developed on public lands, dating back to 2009. These lands are managed through long-term (30 to 40 years) land concession contracts (*concesiones de uso oneroso*, CUO) signed between the MBN and the private party, who is required, among other things, to pay annual rent of 6% of the commercial value of the land.

State-owned Properties Managed - Energy	Surface Area (Ha)	Committed Concessionary Income (UF)
266	110.998,645	1.797.742

The figure below presents the progress that has been made on allocations of State-owned land for the development of NCRE projects.

PROVISION OF GOVERNMENT LAND FOR USE IN RENEWABLE ENERGY PROJECTS



Source: Own development with data from the Assets Division of the National Assets Ministry.

These statistics show that the provision of State-owned land for the development of renewable energy projects has been a cross-cutting policy supported by each administration during this period in order to strengthen public-private collaboration to promote productive economic development in Chile. These activities also activate related value chains and generate employment in the regions where the respective projects are located.

In November 2021, the MBN launched the **National Plan to Promote Green Hydrogen Production on State-Owned Land**, also known as "**Window to the Future**" (*Ventana al Futuro*, VaF): a unique window of time dedicated to accelerating and encouraging the development of GH2 production projects. During that window, individuals could submit requests for public land concessions for the development of their production projects and for the generation of renewable energy and related infrastructure, with certain favorable conditions for these projects.

Sixteen GH2 projects from the Tarapacá, Antofagasta (source of 80% of the applications), Atacama and Magallanes and Chilean Antarctica Regions were accepted for processing in the context of that initiative. These applications focused on both small and large-scale projects.

The properties involved in the 16 projects are currently at different administrative stages (such as preparation of ministerial plans, appraisal, value determination, etc.), and some of them have already been transferred. All of the projects to due to have been awarded during 2024.

To support this incipient industry, the National Plan included a payment scheme for this concessionary rent that increases gradually based on the stage of the project:

Stage	Amount due annually
Environmental Studies and Assessment	Will pay 30% of the annual concession rent
Construction	Will pay 50% of the annual concession rent
Operations	Will pay 100% of the annual concession rent

NEW APPLICATIONS FOR GREEN HYDROGEN PROJECTS

The MBN is currently working to identify the best mechanism for developing new processes for promoting this type of industry on State-owned land. These will align with the timing and projection obtained during the last quarter of 2023 with the launch of the Energy Ministry 2023-2030 Action Plan. (For more details, see Section 7.1 of this ebook.)

Finally, it is important to mention that 65% of the annual concession-based income committed to by a State-owned property is distributed directly to the National Regional Development Fund (Fondo Nacional de Desarrollo Regional, FNDR) to promote actions in the various areas of social, economic and cultural development of each region.

1. Experience with water desalination and reuse

The use of desalination technologies in Chile dates back to 1872, when the first pioneering experiences with the use of the thermal seawater distillation process to produce desalinated water in the Antofagasta Region were recorded. Beginning in 1990, and closely linked to the growth of Chile's mining industry, there has been an increase in the number of facilities used to produce and reuse water. To date, this has led to 92 seawater desalination projects and projects for reusing wastewater in different stages of development and operation.[32] The projects that are currently operational (38) represent 8,558 l/s of capacity. That capacity is expected to quadruple to 38,766 l/s. Most of this is concentrated in the Antofagasta and Atacama regions thanks to the expansion of the mining industry and other types of multipurpose projects designed to provide water for hydrogen production in the future.

An analysis of the **expectations for demand of the mining industry in Chil**e[33] published by the Chilean Copper Commission (*Comisión Chilena del Cobre*, Cochilco) suggests that the annual increase is expected to total 2% by 2033. If this number is disaggregated into use of continental water and seawater, the former decreased by 45% while the use of seawater increased by 167% with respect to real 2021 consumption. This represents 71% of the total water needed. There are currently 11 desalination plants operating for the mining industry, and another seven are being developed.

32. https://estudiosurbanos.uc.cl/wp-content/uploads/2022/12/2022_Com-Cambio-Climatico_Informe-Desalinizacion_vfinal_compressed.pdf

33. https://www.cochilco.cl/Paginas/Estudios/Listado%20Tem%C3%A1tico/Agua.aspx

Chile is currently experiencing a period of water scarcity, particularly in the central-north and central-south parts of the country. Despite this, seawater desalination by reverse osmosis using membranes has been identified as the most viable and widely used technology for meeting Chile's needs for industry and human consumption.

In this regard, the Chilean Desalination Association (Asociación Chilena de Desalación y Reúso, ACADES) published the first **survey of desalination projects in Chile in March 2023.**[34]

The Northern Desalination Plant (formerly known as La Chimba) has played a key role in supplying desalinated water for human use and sanitation in the city of Antofagasta since 2003. This facility currently supplies 83% of the potable water used in the city and 100% of the water used in the municipality of Mejillones, with total daily production of 91.24 ML/day. The plant is already in the process of expansion. Its next goal is to supply all of the water for Antofagasta, the regional capital, which has a population of some 400,000 inhabitants. (See Annex 2: Desalination projects).

The Atacama Region is home to the Nueva Atacama desalination plant. It was built by Econssa, a public company owned by the Chilean government, and is currently operated by Aguas Nuevas, a facility with a drinking water production capacity of 450 l/s (liters per second), which could be expanded to 1,200 l/s. Aguas Nuevas won the top award for the most important technical or ecologically sustainable achievement in the water resource management industry at the **2022 Global Water Awards**.[35]

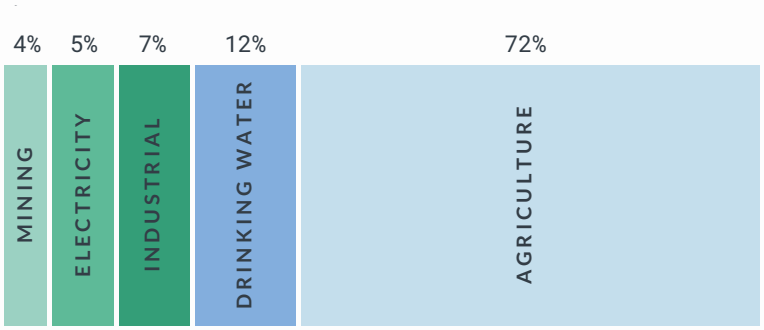
One advantage of linking the growth of the desalination industry to the mining industry is that the projects comply with the highest construction, operation and impact minimization standards despite the fact that there is still no comprehensive regulation specific to the sector.

However, considering Chile's water use profile, there is great potential for new desalination plants to cover needs beyond the mining industry, including hydrogen production, lithium production and high value-added agricultural activities.

34. https://www.acades.cl/proyectos/

35. https://globalwaterawards.com/2022-desalination-plant-of-the-year/

WATER CONSUMPTION BY ECONOMIC SECTOR



Source: https://consejominero.cl/mineria-en-chile/mineria-en-numeros/

Likewise, the authorities recognize the importance of finding new sources of water for different uses and have mandated the implementation of the plans necessary to accelerate the development of this industry. The Public Works Ministry is already working on several initiatives in its concessions area.

2. Existing enabling infrastructure

The production and use of GH2 and its derivatives requires an extensive infrastructure network, including ports, roads and logistical support areas. This is why it is important to identify existing infrastructure that can be adapted to the hydrogen industry and used to implement the projects. This infrastructure and some of its governance are outlined below:

Ports

Maritime transportation plays an essential role in Chile's trade activities and ability to source the supplies that it requires. Given the country's unique geography, the Chilean port system not only serves as the country's main gateway to the world, but also reflects the diversity and richness of international and domestic trade.

According to 2022 data from the National Customs System, maritime transport led the country's trade operations, moving 91% of Chilean foreign trade (in tons). This means that the system handled more than 118 million tons per year in foreign trade alone.[36]

36. Port Information and Statistics System

In regard to infrastructure, Chile has 72 active port facilities. Thirteen of them are public ports managed by the ten State-run port companies (Image 1). In addition, there are 15 private ports that provide services for public use and 44 for exclusively private use (Figure 2).[37] We note that there is currently one private port terminal, located in the Mejillones Bay, which receives ammonia.

The green hydrogen industry poses a major challenge in terms of logistics given its need for infrastructure suitable for the shipment of hydrogen production and its derivatives and the unloading of the equipment necessary for its development. For this reason, the Transportation Ministry promotes comprehensive planning in coordination with other ministries and public institutions. It also advances a shared-use approach to the development of infrastructure projects that ensures non-discrimination in the provision of services so as to ensure that the industry advances according to a principle of real sustainability in the use of land, environmental impact and engagement with local communities.

The State-owned petroleum corporation Empresa Nacional del Petróleo (ENAP) is a key player in the Magallanes and Chilean Antarctica Region because its ports could be adapted and expanded to contribute to the development of the GH2 industry around the Strait of Magellan. ENAP has signed two agreements with companies with projects in the region for the development of two of its ports: **Laredo**[38] and **San Gregorio**[39]. Given the high demand for port infrastructure for both loading and unloading, a complementary "port system" should be designed that would allow for the optimal installation of this and other industries in the region.

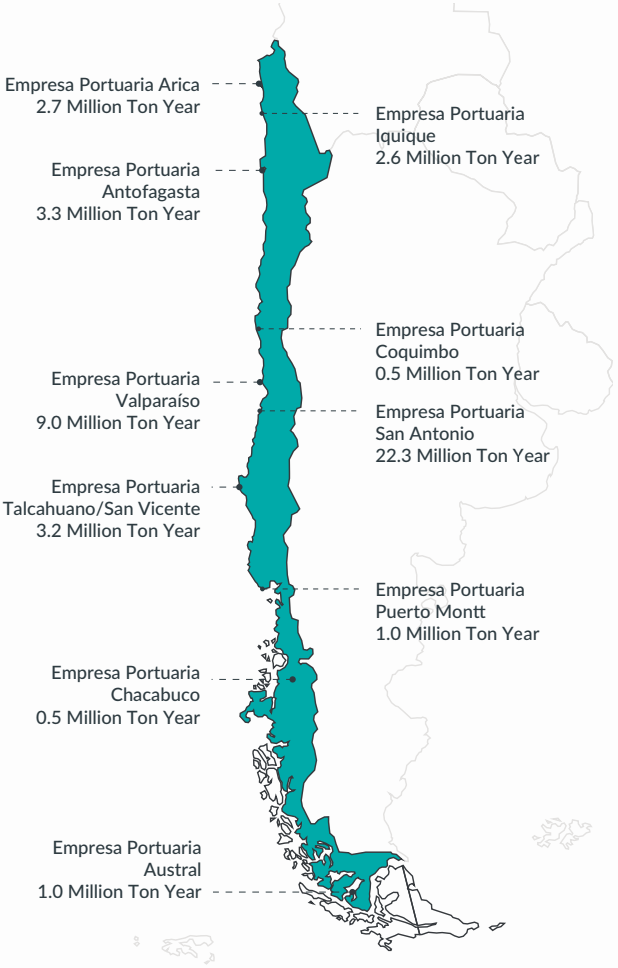
Together with ENAP, the Empresa Portuaria Austral has offered to make part of its present infrastructure (Puerto Mardones) available, mainly to facilitate the unloading of components for the installation of projects in this sector.

37. "Consolidated National Port Logistics Policy of Diagnostics and Proposals" -Transportation and Telecommunications Ministry, April 2023.

38. https://www.df.cl/empresas/energia/enap-firma-primer-acuerdo-con-privados-para-desarrollar-infraestructura

39. https://www.reporteminero.cl/noticia/noticias/2023/07/terminal-maritimo-gregorio-hidrogeno-verde

MAP OF STATE-RUN PORT COMPANIES



Source: MTT, Developed by the authors.

Source: MTT, Developed by the authors.

Airports

The national airport network is structured around and divided into four groups of air terminals:

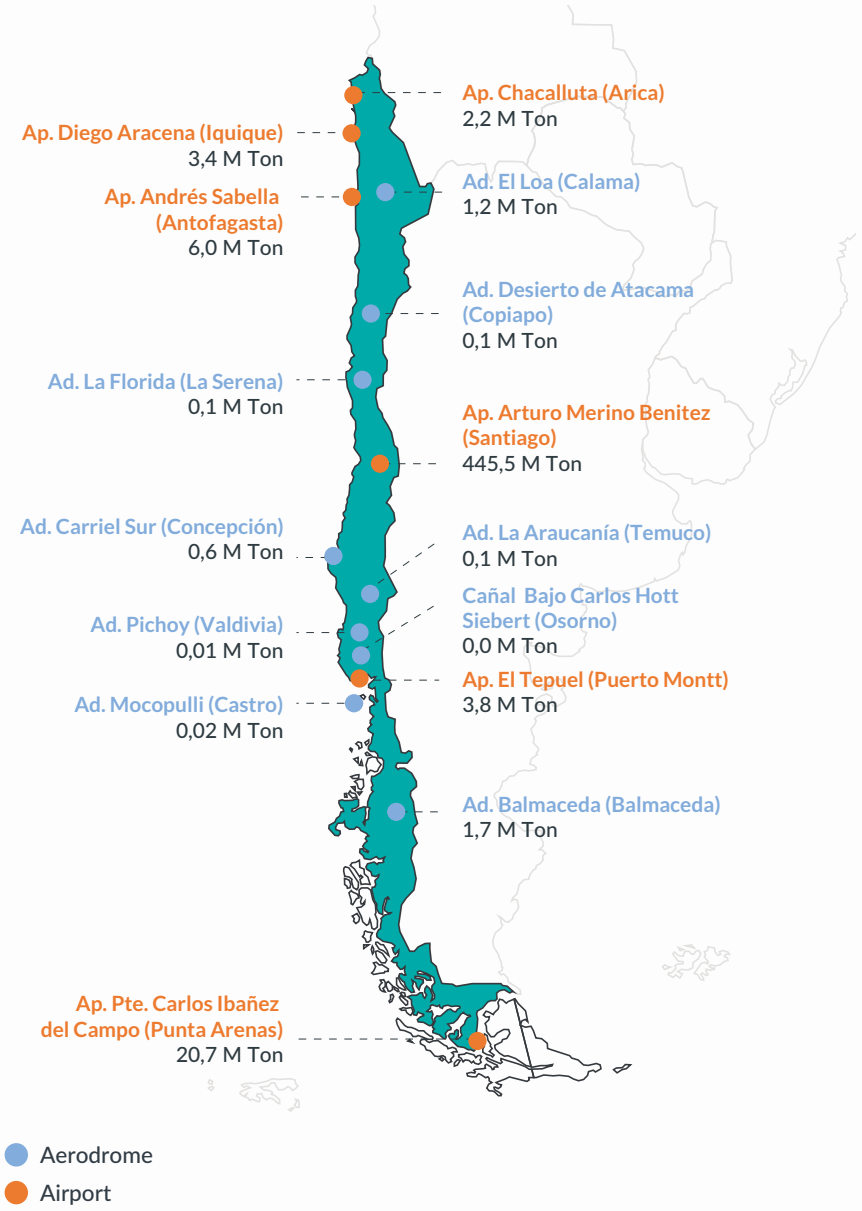
- Primary Network (see image below): This group is comprised of seven main airports and nine aerodromes. It serves as the backbone of national air connectivity, handling most passenger and cargo traffic.
- Secondary Network: This group is comprised of 14 airfields. These facilities ensure connectivity in regions and areas not covered by the main airports.
- Military Airfield Network. The third group consists of 11 facilities dedicated exclusively to military operations.
- Small Airfields Network:[40] This group provides local and regional connectivity in specific areas.

From a cargo transport perspective, the air sector moves approximately 449.4 thousand tons annually including both cargo and mail (Civil Aeronautical Board, 2022).[41]

40. General Directorate of Civil Aviation (DGAC)

41. "Statistical Summary of Air Transport in Chile" - Civil Aeronautic Board

PRIMARY AERIAL NETWORK MAP



Source: Own development based on the National Airport Network, DGAC.

Border Crossings[42]

National border crossings facilitate the movements of goods, services and people between neighboring nations, promoting trade opportunities and regional cohesion.

Chile has 36 authorized border crossings. Six are located on the border with Bolivia; 29 are on border that Chile shares with Argentina; and one connects by land with Peru, in the north, in the province of Arica.

A total of 16.6 million tons of cargo moves through these facilities each year.[43]

MAIN BORDER CROSSINGS BY INCOMING AND OUTGOING CARGO

Border Crossing Name	Region	Incoming (million tons)	Outgoing (million tons)
Cristo Redentor (Los Libertadores)	Valparaíso	5,18	1,28
Chungará	Arica and Parinacota	1,39	1,20
Integración Austral (Monte Aymond)	Magallanes and Chilean Antarctic	0,81	0,84
San Sebastián	Magallanes and Chilean Antarctic	0,61	0,96
Colchane	Tarapacá	0,32	0,95
Concordia (Chacalluta)	Arica and Parinacota	0,58	0,40
Pino Hachado (Liucura)	La Araucanía	0,52	0,11
Cardenal Samoré (Puyehue)	Los Lagos	0,16	0,28
Ollagüe	Antofagasta	0,26	0,16
Jama	Antofagasta	0,25	0,14

Source: Own development based on the 2022 land transportation database of the National Customs Administration (*Dirección Nacional de Aduanas*).

42. Civil Aeronautic Authority (*Dirección General de Aeronáutica Civil*, DGAC)

43. "Statistical Summary of Air Transport in Chile" - Civil Aeronautics Board.

Roadway Connectivity

Chile's road infrastructure is supervised and managed by the Public Works Ministry directly or under concession. It covers a total of 8,815,000 kilometers,[44] giving the population nationwide access and mobility. The central axis of this network is Route 5, an artery that serves as the country's main transportation corridor, connecting the Arica Region in the far north to the Los Lagos Region in the south.

The Public Works Ministry makes available an **online platform**[45] that provides detailed information on the road infrastructure in the different regions of the country:

Rail Connectivity

Stretching a total of 5,223 km, Chile's rail network is essential to the country's transportation and logistics. It has two main zones:

- The Northern Zone, which stretches from La Calera to Iquique, is managed by private companies such as FCAB (Ferrocarril de Antofagasta a Bolivia), Ferronor (Empresa de Transporte Ferroviario S.A.) and CMP (Compañía Minera del Pacífico); and
- The Central and Southern Zones and the section between Arica and Visviri, which are under the control of the State-owned company EFE (Empresa de los Ferrocarriles del Estado). EFE manages the infrastructure under an open access regime for the circulation of cargo carriers that have a contract.[46]

This network moved a total of 24.7 million tons of cargo[47] in 2022, mostly in northern Chile. These data are important because there are plans to build one of the country's hydrogen valleys there according to information from the Energy Ministry's National Green Hydrogen Strategy. The railroad is an important mode of transportation in the logistics network of the macro-zone and the industries that develop in it.

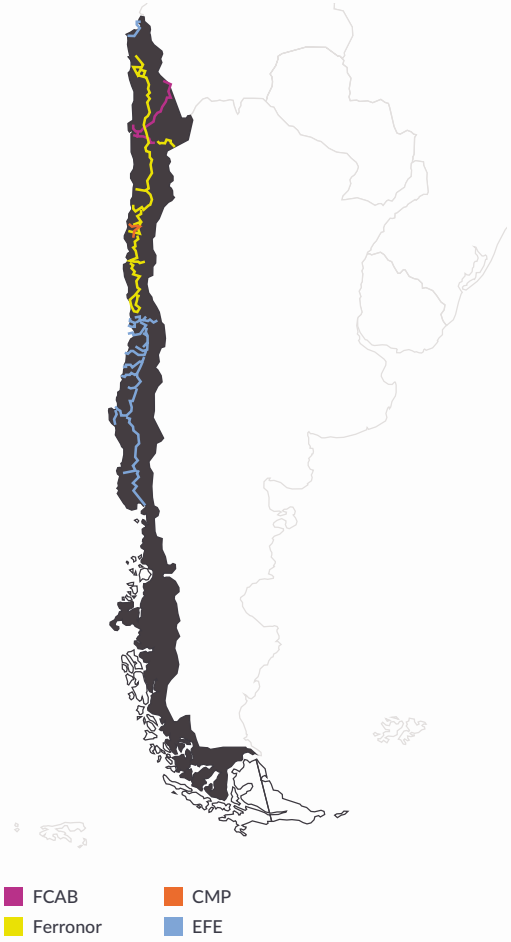
44. Source: National Road Network- Logistics Observatory

45. https://sitministerial.maps.arcgis.com/apps/webappviewer/index.html?id=ccc8ce73d80d4b48a4cbce97ff89d74c

46. National Railway Network - Logistics Observatory

47. Railway Information and Statistics System 2022 (SIELF)

NATIONAL RAILWAY NETWORK MAP



Source: National Railway Network - Logistics Observatory

Maritime Connectivity

Chile currently has various maritime routes that establish connections with the main global markets: the Southern Cone, Europe, the United States, Asia and Central America. In addition to this international focus, maritime cabotage connectivity is particularly important because it is key for the transit of goods and people throughout Chile, particularly in more isolated regions, where land access alternatives are limited or inexistent.

With a total of 18 maritime routes, Chile has strong commercial connections with direct landfalls in 53 ports, covering both domestic and international connections. This maritime route plays a crucial role in facilitating trade and domestic and international logistics.[48] Given the planned demand characteristics of GH2 and its derivatives, maritime connections will be a key factor in the exportation and cabotage of said products from the valleys that produce them to domestic and international consumers.

MAP OF CHILEAN MARITIME ROUTES 2023

Source: MTT; Own development

48. Fuente: Departamento Transporte Marítimo, Fluvial y Lacustre - Programa de Desarrollo Logístico - Ministerio de Trasportes y Telecomunicaciones.

6.

The institutional structure and governance of hydrogen

The complexity of each green hydrogen production project in terms of the inputs and tasks involved (energy source, water source, industrial plant, storage, distribution, etc.), as well as the infrastructure required for an GH2 project, need ongoing coordination between stakeholders and other actors in order to ensure the sustainability of the industry's development in matters such as regulation, land, environmental impact, ancillary industries and financing, among others.

Given this, the Chilean public sector has created various coordination entities to advance the notion that the development of this industry involves a long-term perspective and the incorporation of the different points of view, challenges and opportunities derived from the country's high GH2 production potential.

In the following section, we will discuss the three main levels of the institutional structure of GH2 and their implementation mechanisms (governance and the role of the different public actors will be described in detail in the next section):

a. National Green Hydrogen Strategy and Action Plan
b. CORFO Committee for Green Hydrogen and its initiatives
c. Strategic Committee

a. National Green Hydrogen Strategy (Estrategia Nacional de Hidrógeno Verde, ENHV)

In partnership with industry players such as consulting firms, development agencies and various teams of specialists including CORFO's Solar Committee, the Energy Ministry led the drafting and publication of the National Green Hydrogen Strategy (hereinafter "ENHV"), the first of its kind in Latin America. The process, which culminated in November 2020, included technical roundtable discussions, public workshops, work with other ministries, as well as other spaces designed to encourage the participation and coordination of interest groups in an effort to ensure the incorporation of the different stakeholders involved in this new industry.

Main elements of the ENHV:

The objective of this Strategy is to transition from a country historically based on non-renewable resources to a nation that adds green value to its exports and produces the clean energy the world needs to decarbonize.

The strategy has three main objectives: Produce the least expensive green hydrogen on the planet by 2030, be among the top three exporters by 2040 and have 5 GW of electrolysis capacity under development by 2025.

To this end, a concrete action plan has been drawn up to accelerate the deployment of green hydrogen in key domestic applications by 2025 and enter the export market by 2030.

The strategy's text states:

1. Chile's commitment to climate action as a producer and exporter of critical products for decarbonization (green minerals and synthetic fuels), contributing to the global energy transition.
2. The opportunity that green hydrogen represents, both because of global environmental urgency and because of the country's high availability of what have come to be called the "energies of the future."
3. The country's exceptional green hydrogen production conditions, the development of the industry and the subsequent international opening, while maintaining the country's attributes, such as clear investment rules, institutional framework, etc.

4. A participatory policy and roadmap with clear signals for private initiatives.
5. Balanced use of resources and territory, incorporating best practices and dialogue with communities.

Productive goals proposed in the ENHV

By 2025

- 5 BUSD: Top country for green hydrogen investments in Latin America
- 5 GW: Electrolysis capacity built and in development
- 200kton/year: Green hydrogen production in at least two hubs in Chile

By 2030

- 2.5 BUSD/year: Leading global exporter of green hydrogen and its derivatives.
- < US$1.50/kg: The least expensive green hydrogen on the planet
- 25 GW: Leading global producer of green hydrogen by electrolysis.

Strategy for the promotion of the industry in three chronological stages

To achieve these goals, a three-phase plan was drawn up that is focused on accelerating the deployment of green hydrogen in key applications by 2025 and entering the export market by 2030.

Phase I: 2020-2025: Activating domestic industry and developing exports

A local industry will be developed using concrete actions, including efforts and regulations that encourage production and foster demand for this clean fuel and its derivatives.

The focus will be six applications that are closest to the market and/or have established, concentrated and large-scale demand:

1. use in refineries,
2. domestic ammonia,
3. mining extraction trucks (CAEX),

4. heavy road trucks,
5. High autonomy buses and
6. injection into gas networks (up to 20%).

To identify these sectors, transition projections were generated for each application based on annual sales using McKinsey & Company's analysis.

Phase II: 2025-2030: Scaling up to conquer global markets

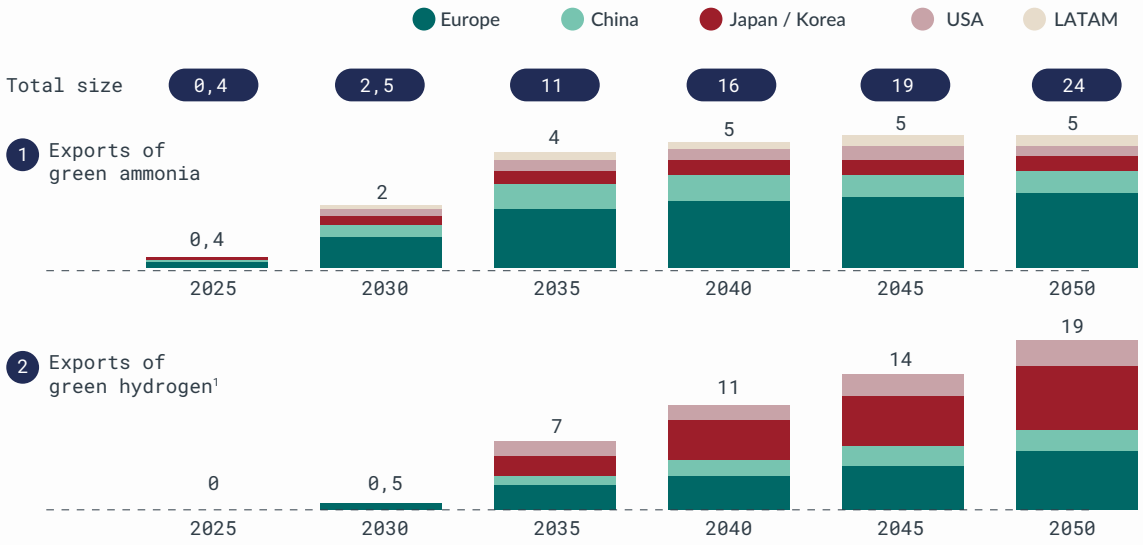
An ammonia production and export industry will be promoted through the attraction and promotion of GW scale consortia. In addition, agreements will be established to accelerate the development of hydrogen exports.

Phase III: 2030+: Advancing as a global clean energy supplier

As other countries strengthen their decarbonization initiatives and develop new technologies, the export market will scale and diversify. New applications will include the use of green ammonia in maritime shipping and synthetic aviation fuels (SAF).

This presents a series of regulatory challenges, especially with regard to the export of ammonia. These challenges are already being addressed to meet the objectives set out, with a focus on projections of the estimated market size for potential Chilean exports in green ammonia and green hydrogen, according to McKinsey & Company.

ESTIMATED MARKET SIZE FOR CHILEAN EXPORTS (BUSD)



1: Includes exports of green methanol and synthetic fuels.

Source: Energy Ministry (2020), National Green Hydrogen Strategy.

2023- 2030 ACTION PLAN[49]

Launched for **Public Consultation**[50] between December 2023 and February 2024, the document seeks to focus and prioritize initial actions and measures for the fulfillment of the goals established in the ENHV, creating a roadmap between 2023 and 2030 that will allow for the deployment of a sustainable green hydrogen industry and its derivatives. These actions or initiatives are implemented by different government entities and related agencies in accordance with regional and local initiatives.

The Action Plan, which contemplated a nationwide participatory implementation process, was designed to allow the country to meet the targets of decarbonizing the national economy, opening up international trade opportunities and promoting Chile's growth around a new sustainable industry for the following decades.

49. https://energia.gob.cl/sites/default/files/documentos/documento-h2v_0.pdf

50. https://energia.gob.cl/consultas-publicas/plan-de-accion-de-hidrogeno-verde-2023-2030

The Action Plan has five main lines:

1. Institutional Strengthening: This line is designed to strengthen the resources and knowledge of the institutions involved in the development of H2 projects.
2. Regulation: This line involves developing a matrix of hydrogen-related regulations to provide certainty and security to the industry. It includes the development of certification mechanisms.
3. Agreements: Whether public-private or public-public, agreements will be drafted to accelerate the development of the industry as regulations or standards are being developed.
4. Gender approach: Public, private and mixed initiatives will be deployed in an effort to improve gender equity.
5. Standards: The focus of this line is the sustainable development of the industry in the territories where it has a presence.

A list of more than 100 actions and policy measures already under development in 20 public institutions was included in the drafting of this plan. That list was supplemented with other initiatives that would be necessary to move this industry forward. Ten of the most important measures included in the Action Plan are presented below:

1. **GH2 Facility:** Coordinated by the Chilean Economic Development Agency (CORFO), this initiative provides a series of tools to facilitate the financing of GH2-related projects, mitigating risks, reducing costs and helping to bring projects to fruition. (The list is presented in Section 2.2).
2. **Development of a GH2 Regulatory Map:** The regulatory map will be developed as part of an effort to draft specific regulations and standards for the entire industry value chain in order to generate legal certainty for project developers. Work will be carried out on the study **Proposed Hydrogen Regulatory Strategy for Chile**,[51] which was developed by the German Society for International Cooperation (GIZ) in 2020.
3. **Strengthen the services that provide critical permits** for the development of the industry.

51. https://energia.gob.cl/sites/default/files/proposicion_de_estrategia_regulatoria_del_hidrogeno_para_chile.pdf

4. **Public baselines:** Gathering of environmental information from public services to compare to that of project developers and ensure a correct environmental assessment.
5. **Tax credit fund**, attributable to the first category tax for investments with a high multiplier effect, including the sustainability dimension.
6. **Development tax for investment**, tax reduction to incentivize investments that increase business productivity.
7. **Creation and/or incorporation of training modules in technological centers**, such as the Magallanes Green Hydrogen Innovation Technical Center.
8. **GH2 production skills development and training program:** A program will be designed in 2024 to develop training associated with the operation of GH2 production technologies, with funds to strengthen the infrastructure available in education centers.
9. **Shared enabling infrastructure: role of public companies.** Coordination of infrastructure demand for shared use and utilizing existing public and/or private infrastructure.
10. **Use of State-owned land for the development of the hydrogen industry**, including the entire value chain and shared infrastructure.

This **Action Plan**[52] incorporates the recommendations made by the Strategic Committee, which is composed of representatives from different industries, government agencies, academia and regions outside of the capital city.

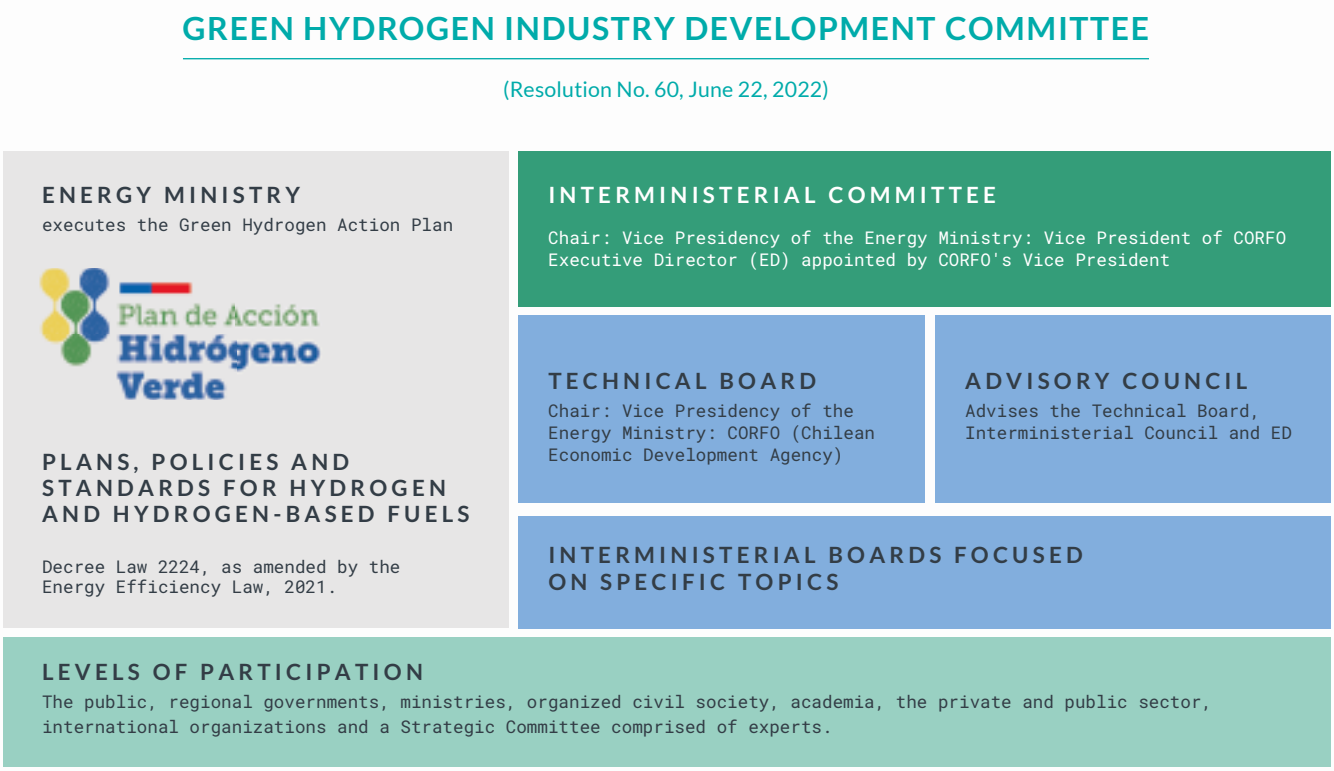
The 30 most important measures prioritized by the Energy Ministry are available online.

52. https://energia.gob.cl/sites/default/files/proposicion_de_estrategia_regulatoria_del_hidrogeno_para_chile.pdf

Interministerial Committee for the Development of the Green Hydrogen Industry

Together with the National Green Hydrogen Strategy (ENHV), the Green Hydrogen Industry Development Committee is one of the key agencies involved in the coordination of the public sector. Created in 2022 by the Board of CORFO (Chile's Economic Development Agency) with the goal of accelerating the sustainable development of the green hydrogen industry and its derivatives in Chile.

This committee's structure is designed to coordinate the different interest groups, including government, citizens, the private sector and international organizations in order to facilitate the development of the initiatives required for this industry to move forward correctly. The figure below presents its structure:



Source: Own development based on Law No. 1,224, which includes hydrogen in the list of matters that fall under the jurisdiction of the Energy Ministry; Resolution No. 60 that creates the Committee, May 31, 2022; and the Agreement of Session No. 5 of the Interministerial Committee.

GREEN HYDROGEN INDUSTRY DEVELOPMENT COMMITTEE INITIATIVES

In addition to serving as the coordinating body, the CORFO Committee for GH2 has developed initiatives related to the provision of facilities for project financing, information gathering and technical support for the development of the industry. These include the following initiatives, which have been led and/or coordinated jointly by the Committee and other CORFO departments:

Initiatives available or soon to be available:

CORFO GH2 Facility: The CORFO H2V Financing Program creates a fund of USD1 billion for the creation of instruments aimed at mitigating risks, reducing costs and providing positive signals to accelerate the materialization of investments for the development of the GH2 industry in Chile. The instrument will be launched in 2024. (See Annex: Facility.)

Financial instruments considered to date:

a. Concessional loans:

i. These loans would be available through participating financial intermediaries in order to:

ii Transfer the concession of loans from development banks that finance the CORFO GH2 Facility with low interest rates;

iii. Minimize the financial burden of projects by granting long-term loans;

iv. Grant "patient capital" with high levels of flexibility in its original structures and conditions, and with mechanisms that allow for renegotiations and/or rescheduling in cases where necessary.

b. Risk mitigation instruments such as:

i. Partial credit guarantees to mitigate the overall financial risk of GH2 projects;

ii. Lines of credit for debt repayment reserve accounts to mitigate the risk of repayment of private debt mobilized for GH2 projects;

iii. Credit lines for liquidity accounts to mitigate the risk associated with the technical performance of GH2 subprojects;

Strategic coordination with CORFO regional offices and Transforma programs: The Transforma Programs are public-private partnerships focused on engaging in action for the competitive improvement of sectors and territories where there is a high potential for value generation or growth. This is achieved by addressing competitiveness gaps and/or coordination failures between public and/or private agents.

Other programs and initiatives related to financing, competitiveness enhancement support and human capital development applicable to the green hydrogen industry are detailed below:

Innova Alta Tecnología: Supports R&D-intensive innovations that face high technological uncertainty and are aimed at scaling up with a high potential for domestic or global sale, strengthening the R&D&I capabilities of companies.

- CORFO (Chilean Economic Development Agency)
- 2023 Amounts: USD678,000[53] (CLP600 million), per project
- Instrument available year 2024.
- 2023 reference data are available **here**.[54]

Crea y Valida: Supports the development of new or improved products (goods or services) and/or processes that require R&D, from the prototype phase to the technical validation phase on a productive scale and/or commercial validation.

- 2023 Amounts: USD204,000-USD249,000[55] (CLP180-220 million) per project
- Instrument available year 2024.
- 2023 reference data are available **here**.[56]

53. Approximate figures according to a CLP:USD exchange rate of $884.39 (4 January 2024).

54. https://www.corfo.cl/sites/cpp/convocatorias/innova_alta_tecnologia

55. Approximate figures according to a CLP:USD exchange rate of $884.39 (4 January 2024).

56. https://www.corfo.cl/sites/cpp/convocatorias/crea_valida_hidrogeno_verde

R+D Law Offers a tax credit of up to 35% against first category taxes on the amount invested in R+D and the 65% remaining investment can be deemed a necessary expense for producing revenue, regardless of the company's line of business.

- 2023 Amounts: USD1,000/year[57] (CLP970,000/year or 15,000 UTM/year), per project.
- Instrument open every day of the year.
- 2023 reference data are available **here**.[58]

Human Capital Expert: This initiative seeks to contribute to the strengthening of R&D&I capabilities in Chilean companies by allowing highly qualified professionals and technicians to participate in the development of R&D&I challenges in order to increase the productivity and competitiveness of these companies.

- Amounts 2023 approx.: USD45,000[59] (CLP40 million).
- Instrument available year 2024.
- 2023 reference data are available **here**.[60]

Viraliza: Seeks to convene entities that carry out programs for the transfer of knowledge, skills, tools, and a culture of entrepreneurship and innovation.

- 2023 Amounts (approx.): USD34,000[61] (CLP30 million).
- Instrument available year 2024.
- 2023 reference data are available **here**.[62]

Green Loans: This funding program partners with financial institutions to promote the development and execution of projects that mitigate the effects of climate change and/or improve sustainability.

- Maximum 2023 amount: USD20 million.
- Instrument available year 2024.
- 2023 reference data are available **here**.[63]

57. Approximate figures according to a CLP:USD exchange rate of $884.39 (4 January 2024).

58. https://www.corfo.cl/sites/cpp/incentivo_tributario

59. Approximate figures according to a CLP:USD exchange rate of $884.39 (4 January 2024).

60. https://www.corfo.cl/sites/cpp/convocatorias/capital_humano_innovacion_sostenibilidad

61. Approximate figures according to a CLP:USD exchange rate of $884.39 (4 January 2024).

62. https://www.corfo.cl/sites/cpp/convocatorias/viraliza_formacion_sostenibilidad

63. https://www.corfo.cl/sites/cpp/convocatorias/credito_verde

Public Goods in Antofagasta, Valparaíso and Biobío: The regions of Antofagasta, Valparaíso and Biobío seek to support the development of projects designed to generate enabling conditions in knowledge, infrastructure and human capital to reduce gaps and allow the installation of the new green hydrogen industry in Chile, considering an adequate integration in the territory and taking into account the interests, activities, groups, collective imaginaries, needs, desires, strengths and environmental values present locally.

- Amounts 2023 approx.: USD136,000[64] (CLP120 million), max per project
- Open instruments (except Antofagasta).
- 2023 reference data available online at: **Biobío**[65], **Valparaíso**[66], **Antofagasta**[67].

Technological Program for the Use and Adoption of GH2 (PTEC):[68] This instrument is designed to increase the rate of technological innovation in products and processes of companies in the GH2 industry through the coordinated execution of portfolios of technological development projects and the coordination of consortia. The deadline for the call for proposals was in August 2023. Technological Skills Management.

- 2023 Amounts: USD4,000 maximum per project.
- Instrument available year 2024.
- 2023 Reference data are available **here**.[69]

64. Approximate figures according to a CLP:USD exchange rate of $884.39 (4 January 2024).

65. https://www.corfo.cl/sites/cpp/convocatorias/bbpp_biobio_hidrogeno_verde_2da

66. https://www.corfo.cl/sites/cpp/convocatorias/bbpp_valparaiso_hidrogeno_verde_2da

67. https://www.corfo.cl/sites/cpp/convocatorias/bienes_publicos_antofagasta_hidrogeno_verde

68. https://www.corfo.cl/sites/cpp/convocatorias/ptec_hidrogeno_en_la_industria_chilena

69. https://www.corfo.cl/sites/cpp/convocatorias/ptec_hidrogeno_en_la_industria_chilena

Previous initiatives:

Request for Information (RFI) process for electrolyzers:[70] CORFO's Committee for Green Hydrogen Industry Development created a Request for Information (RFI) process for electrolyzers. Its purpose is to identify companies interested in manufacturing and/or assembling electrolyzers, their components and auxiliary systems in Chile and to determine the conditions under which they would be installed in order to meet the needs of the domestic and regional markets. (Go to "Electrolyzers RFI" section.)

Economic support instrument for the development of GH2 projects:[71] CORFO developed the first economic support instrument for the development of GH2 projects. Drawing on a US$50 million fund, five projects were awarded and are currently under development. (See Section 9, project description).

(*) Applications associated with the value chain of green hydrogen and its derivatives also can be submitted to other grant competitions.

For additional information, visit www.corfo.cl.

70. https://www.corfo.cl/sites/cpp/rfi-electrolizadores-h2v

71. https://www.corfo.cl/sites/cpp/hidrogeno-verde-chile

STRATEGIC COMMITTEE

The objective of this entity is to provide guidance to participants in regard to reaching consensus and guidelines for the country on matters related to hydrogen, providing high-level support for the GH2 Action Plan and for the development of the industry in Chile.

This committee is composed of current and former Chilean government authorities, scholars and representatives of Chilean industry.

MINISTERIAL GOVERNANCE

Several different public institutions participate in different parts of the GH2 value chain, ensuring that the industry develops correctly in Chile. These include:

Institution	Roles and participation in the green hydrogen value chain.
Energy Ministry[72]	This institution is responsible for preparing and coordinating plans, policies and regulations for the development of the country's energy sector. Its main role in the development of the GH2 industry is to lead the National GH2 Strategy, the Strategic Committee, regulatory development and the effort to draft the action plan in order to bring into being the strategy, its goals and the necessary initiatives. It also chairs the Interministerial Council of the CORFO Committee for GH2 and coordinates the ENHV Action Plan.
Economy Ministry[73]	This is the institution responsible for promoting a new model of sustainable productive development based on Chile's economic, social and environmental trajectories. In the development of the hydrogen industry, it supports interministerial and interregional coordination bodies and leads industrial development policy bodies.
Treasury Ministry[74]	This is the institution responsible for efficiently managing public resources, generating stability, transparency and competitiveness. It supports the creation of enabling conditions for the development of the GH2 industry and generates incentives to encourage private investment.
National Assets Ministry[75]	This institution manages and safeguards public assets and places them at the service of the country's social, environmental, cultural and economic needs for the benefit of all its inhabitants. As part of the development of the GH2 industry, it is responsible for making State-owned land available so that projects and associated infrastructure can be carried out.
Transportation and Telecommunications Ministry[76]	This institution proposes national transport and telecommunications policies and directs and oversees their implementation. Within the framework of the development of the GH2 industry, it is responsible for enabling and regulating its use in various means of transportation and for coordinating plans for the necessary infrastructure within its scope of action.

72. https://energia.gob.cl/h2/Estrategia

73. Source: Technology Surveillance Report "GREEN HYDROGEN: PRODUCTION AND DISTRIBUTION TECHNOLOGIES AND USES"

74. https://www.hacienda.cl/noticias-y-eventos/noticias/gobierno-presenta-comite-estrategico-para-plan-de-accion-de-hidrogeno-verde-y

75. https://energia.gob.cl/noticias/nacional/gobierno-presenta-comite-estrategico-para-plan-de-accion-de-hidrogeno-verde-y-medidas-para-impulsar-el-desarrollo-de-esta-industria

76. https://logistica.mtt.cl/2023/01/06/transportes-y-energia-inician-consulta-al-mercado-sobre-futuras-operaciones-de-camiones-con-hidrogeno-verde/

Ministry of the Environment (MMA)[77]	This agency is responsible for the protection and conservation of the environment and natural resources, as well as the promotion of sustainable development in Chile. Law 19,300 (the Environmental Framework Law) regulates the SEIA, a preventive procedure carried out by the Environmental Evaluation Service (Servicio de Evaluación Ambiental, SEA), which determines whether the environmental impact of an activity or project complies with current regulations. The main role of the MMA in the development of Chile's GH2 industry is to ensure its sustainability, structuring environmental guidelines[78] for projects and supporting the gathering of environmental information for them.
Public Works Ministry[79]	This institution manages the development of Chile's physical infrastructure, including the provision and care of water resources. The MOP is in charge of the provision and management of enabling infrastructure for the development of the GH2 industry. This includes: 1. Port and air infrastructure 2. Development of basic services in the territory: roads, water, etc.
Foreign Affairs Ministry	This institution is responsible for formulating and executing Chile's foreign policy. It has helped publicize Chile's GH2 industry abroad and position the country in international markets in order to support the development of the GH2 industry. As part of its export promotion role and through its network of intra-national offices, ProChile helps publicize public initiatives related to GH2 with a focus on exports in international fora, trade missions and high-level and high-impact events related to GH2.
InvestChile	InvestChile is the public agency that promotes foreign investment in Chile. For the development of the GH2 industry, InvestChile will promote Chile as an investment destination and attract foreign investors interested in developing projects in the country. The entity also will coordinate with the different public institutions to collaborate on foreign investment projects. It also actively supports investors, providing guidance and delivering services such as "investor visas", coordination of missions and sectorial and legal information on the development of the industry.
CORFO[80]	CORFO is the institution in charge of promoting investment, innovation and entrepreneurship, strengthening Chile's human capital and technological development to improve productivity and achieve world leadership positions in terms of competitiveness. It plays an enabling and productive development role in the development of the GH2 industry. It forms the CORFO Committee for GH2 and manages competitive funding programs designed to support the development of investment projects, R&D, suppliers, and support for financing infrastructure and capabilities required for its operation.
Mining Ministry[81]	The Mining Ministry designs, executes and evaluates public mining policies aimed at increasing and disseminating the mining sector's contribution to national development. It plays a central role in the decarbonization of mining for the development of the GH2 industry, i.e. boosting domestic demand for energy from GH2, mainly in the generation of electricity for mining and mobility. It launched the "**Guide for the Approval of Pilot Projects in Mining**,"[82] which seeks to guide the implementation of GH2 in the mining industry.

77. https://mma.gob.cl/ministra-de-medio-ambiente-y-gobernador-flies-anuncian-inicio-del-trabajo-para-contar-con-una-linea-de-base-ambiental-publica-para-magallanes/

78. https://www.sea.gob.cl/noticias/sea-publica-nuevo-criterio-de-evaluacion-ambiental-sobre-descripcion-integrada-de

79. https://dialogosur.cl/mop-sobre-hidrogeno-las-expectativas-que-se-estan-generando-en-la-poblacion-deberian-controlarse/

80. https://www.df.cl/empresas/energia/hidrogeno-verde-corfo-recibe-propuestas-de-interes-para-fabricar

81. https://educacionprofesional.ing.uc.cl/gobierno-prepara-guias-para-implementar-uso-del-hidrogeno-verde-en-la-industria-minera/

82. https://www.sernageomin.cl/wp-content/uploads/2021/10/Gui%CC%81a-de-Hidro%CC%81geno_web.pdf

7.

Development of enabling conditions for the GH2 industry in Chile:

This section presents some examples of public sector initiatives that are being developed or have been planned for the GH2 industry. They are all part of the 2023-2030 Action Plan described previously.

They include studies in various stages, gathering information for specific industries (electrolyzers and hydrogen-powered trucks), initiatives for developing the infrastructure needed for H2 projects and the ongoing structuring of a tax benefit for this type of project.

a. Gathering and structuring of available data:

i. Completed studies:

Alongside the identification of the initiatives that various ministries and public services are undertaking to develop the GH2 industry, the Energy Ministry has a repository[83] of valuable documentation for the development of hydrogen generation or consumption projects in Chile. The studies listed there include:

- **Recommendations for a Green Hydrogen Certification Scheme in Chile that is compatible with national and international carbon markets[84] - April 2021.**
- **Development pathways for "hydrogen hubs" in Chile[85]** - Abril 2022.
- **Pre-feasibility study for a synthetic fuel project in the Magallanes region based on green hydrogen[86]** - March 2022

83. https://energia.gob.cl/h2/M%C3%A1s%20Informaci%C3%B3n

84. https://energia.gob.cl/sites/default/files/documentos/green_hydrogen_certification_-_presentation.pdf

85. https://energia.gob.cl/sites/default/files/final_report_v1-1_2022-04-14.pdf

86. https://energia.gob.cl/sites/default/files/ch-t1235-p003_final_report_28-03-2022_vf.pdf

- **Technical-Economic Evaluation of Hydrogen Bus Implementation in the Metropolitan Transport System**[87] - (Spanish).
- **Identification of Environmental, Sectoral, and Territorial Aspects for the Development of Green Hydrogen Projects Throughout its Value Chain**[88] **-** (Spanish and English) – October 2020.

There is also an extensive list of studies at various stages of development led by the respective public services for the gathering of information that can be used to make decisions about this industry in Chile. For more information, contact InvestChile.

ii. Electrolyzers RFI:

In addition to the studies listed above, CORFO's Committee for Green Hydrogen Development created a Request for Information (RFI) process for electrolyzers. Its purpose is to identify companies interested in manufacturing and/or assembling electrolyzers, their components and auxiliary systems in Chile and to determine the conditions under which they would be installed in order to meet the needs of the national and regional markets.

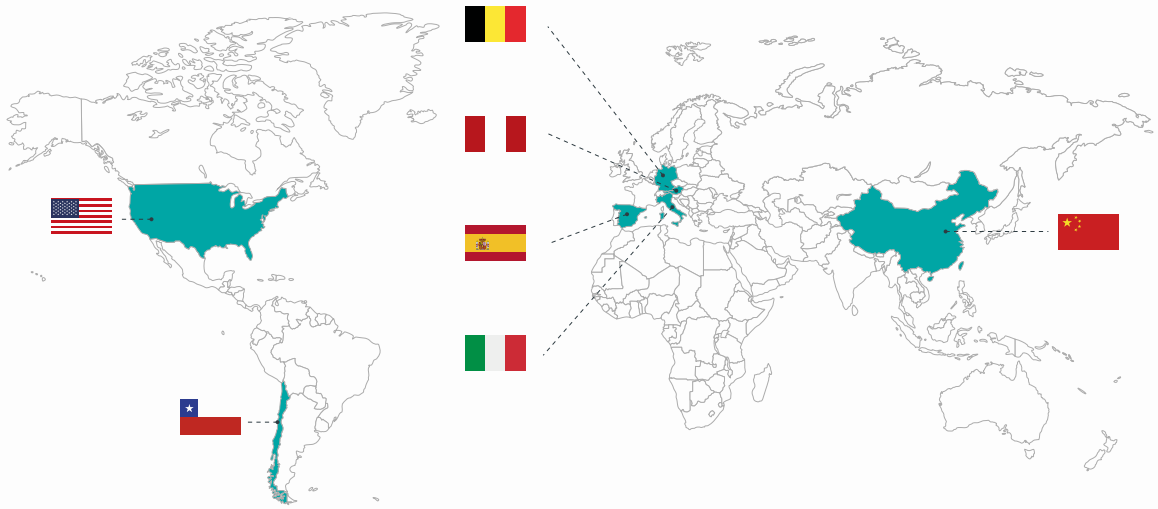
The Committee worked with InvestChile and various Chilean and international public and private entities to build a robust process that is of interest to the entire industry.

Nine expressions of interest were received for the development of electrolyzer manufacturing projects in Chile. Three were from local Chilean suppliers and six were from international firms.

87. https://energia.gob.cl/sites/default/files/20211230_informe_ext_mtt_men.pdf

88. https://4echile.cl/publicaciones/estudio-identificacion-de-aspectos-ambientales-sectoriales-y-territoriales-para-el-desarrollo-de-proyectos-de-hidrogeno-verde-en-toda-su-cade

IMAGE: GEOGRAPHIC DISTRIBUTION OF THE NINE EXPRESSIONS OF INTEREST



Source: Energy Ministry (2020), National Green Hydrogen Strategy

Six of the expressions of interest involve installing manufacturing plants of 0.5-1 GW of electrolyzers of capacity per year. These projects involve estimated investments of US$50-100 million, and the technologies vary between alkaline electrolyzers (ALK), polymer electrolyte membrane (PEM) electrolyzers and solid oxide electrolyzer cell (SOEC) electrolyzers.

iii. Hydrogen truck operation RFIs

As with the electrolyzers RFI, a market consultation or Request for Information (RFI) was published between December 2022 and March 2023 with the purpose of promoting the circulation of cargo vehicles that use this technology. The main goal was to gather information that would help measure market interest in aspects such as the sale, transformation and operation of trucks with hydrogen technology as well as related services and training activities. During a second stage, this data would allow for the implementation of pilot projects, establishment of relevant legislation and development of initiatives.

The 18 expressions of interest submitted cover stages that range from hydrogen generation to consumption, with proposals for importing new

vehicles and adapting existing fleets. These initiatives focus on Chile's main logistical areas reflecting the growing interest in this sector. The information gathered highlights the need for the State to provide certainties to the industry, review regulations and promote policies that facilitate the adoption of hydrogen vehicles and the development of essential infrastructure.

iv. Roadmap for the adoption of GH2 in the mining industry

Published in March 2023, the document **Roadmap for the Implementation of Green Hydrogen in Mining in Chile and Peru**[89] sets forth a strategy for the implementation of solutions based on hydrogen use for the mining industry in both Chile and Peru.

Specifically, three Grounding Areas[90] are mentioned in which the use of hydrogen could play an important role:

- Mobility and transportation
- Mining process applications
- Reduction of Scope 3 emissions among suppliers

b. Enabling infrastructure

Infrastructure is a key element of the work described in this section on the development of enabling conditions for this industry. Plans and policies for developing the infrastructure required for GH2 production and use in Chile and its export are outlined below:

i. National Port Logistics Policy

In the regulatory and institutional area, the Transport and Telecommunications Ministry (MTT) is looking to build a National Port Logistics Policy.

The policy seeks to cover:

- The institutional structure of the port sector.
- The regulatory framework that governs each of the country's ports and the activities developed in them.

89. https://www.corporacionaltaley.cl/roadmap-h2v

90. The nuclei that contribute to generating traction are strategic nuclei or axes linked to the chain of production of the mining industry and its suppliers, in which opportunities to incorporate technologies associated with GH2 are considered for the decarbonization of different mining processes.

- The competitiveness of port logistics services and the structure of the public-private partnership efforts that are indispensable to their provision.
- The sustainability of the country's ports, understanding both the environmental aspects of port activities and their relationships with the cities in which they are located.
- The structure and conditions of port work are key to port operations.

ii. Development of the Logistics Network in the Central Macrozone

Projections of demand for Chile's Central Macrozone show the need for new port logistics infrastructure in the next decade. The Logistics Network covers the set of projects that respond to this need. They include the Puerto Exterior project in San Antonio, which is developing key infrastructure to enhance capacity and promote competition and port competitiveness in this area, and the cargo railway corridor between San Antonio and Santiago. This port is currently undergoing environmental assessment and its operations are expected to be launched in 2035-2036.

iii. Macrozone Logistics Master Plans

The main purpose of these plans is to ensure the development of efficient logistics that facilitate and promote foreign and domestic trade in order to contribute to the economic development of the macrozone with environmental and social sustainability.

Each of these plans is designed to create a portfolio of initiatives aligned with the various components of the logistics system (infrastructure and connectivity, information and coordination systems, sustainability and territory and governance and regulation) and imply monitoring and regular reviews of their progress and relevance in the macrozone context.

iv. Land Access to Ports

As part of the Transportation Ministry's Logistics Development Program, the National Port Land Accessibility Plan (PNATP) is being developed to guide investments in this type of project, plan their stages and report on their progress.

The portfolio of initiatives that includes the plan is updated annually and features the improvement of Route 1 and access to the port of Antofagasta, the improvement of the southern access route to the port of San Antonio, the Santiago-San Antonio Railway Corridor and the connection between the port of San Vicente and the Interport Route.

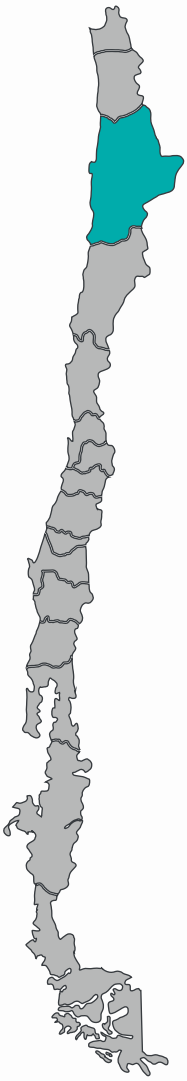
v. Port Company Master Plans

Each state-run port company is responsible for developing a master plan for each port and terminal that it manages. These plans serve as road maps for the port infrastructure required by each port over a period of at least 20 years.

The investments for the first five years are also outlined in the Investment Reference Calendar for each existing port. This related instrument is designed to provide greater certainty to the private sector with respect to the expectations for the development of port activity.

8.

Focus areas for developing green hydrogen projects in Chile



a. Antofagasta

The main economic activity of the Antofagasta Region is mining. The area is the mining district that leads the world in the production of lithium chloride, molybdenum and copper. Its production is equivalent to 12% of Chile's Gross Domestic Product (GDP).

The intensity of energy use and greenhouse gas (GHG) emissions by this industry presents a significant opportunity for introducing more efficient and less polluting technologies (58% of all GHG emissions in 2021). It is important to mention that fossil fuels are the main source of GHG emissions in mining.

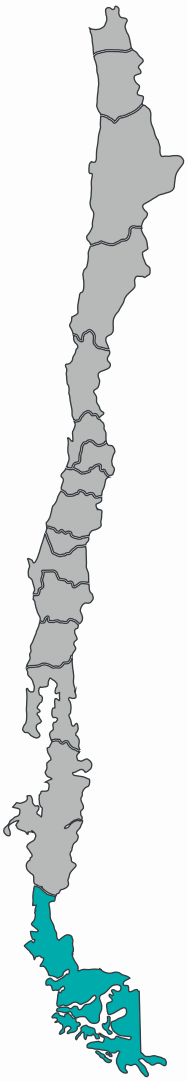
This represents a particularly important opportunity due to the possibility of making better use of the world's best solar radiation on land that is mostly owned by the State (which may be a potential strategic partner) and because of the volume of the mining industry's demand for energy. Over the past few years, the sector has been key in promoting the use of renewable energies in Chile by integrating them into their electricity supply. This led to a reduction of 4,455 KtCO2 eq in GHG emissions in this sector in 2021 (Chilean Copper Commission, 2022).

Furthermore, the industrial development of the region has created infrastructure with the potential to be reused for the H2 industry, including ports, highways and roadways. In addition, the process of closing coal-powered plants will place new infrastructure into a state of disuse (coal unloading ports, water capture, etc.) that could also be used.

The ports of Antofagasta and Mejillones are currently equipped to receive supplies for different industries, including oversized items like wind turbines.

In regard to water access, the region's extreme aridity has driven the development of desalination, mainly for human and mining consumption. Currently, two large desalination plants serve the mining industry, processing a total of 5,000L/s. There are desalination plants for water for human consumption in Antofagasta and Tocopilla. The latter is the first city in the whole of Latin America to rely solely on this technology.

In 2019, the region imported a total of 347 ktons of ammonia. This activity was mainly focused on the operations of the company Enaex for the production of explosives and ammonium nitrate for the mining industry.



b. Magallanes

This region's main industry is livestock farming and the exploitation and processing of hydrocarbons. It currently accounts for 1% of GDP. The GH2 industry could increase this number to 10% over the course of a decade.

It has port infrastructure, most of which is located in the municipality of Punta Arenas (the José de los Santos Mardones and Arturo Prat terminals). New terminal ports have been announced for potential H2 producer municipalities by Empresa Portuaria Austral (EPA) and Empresa Nacional del Petróleo (ENAP) in partnership with private firms that develop GH2 projects in the region. The strategic location of the **San Gregorio** and **Laredo** ports allows for access to both the Pacific and the Atlantic.

In regard to port system expansion plans for the Strait of Magellan, both ENAP and EPA have planned to expand their current facilities:

1. ENAP:
a) Laredo: focus on unloading
b) Cabo Negro: focus on exportation
c) San Gregorio: focus on exportation

2. EPA:
a) Mardones Port: focus on unloading

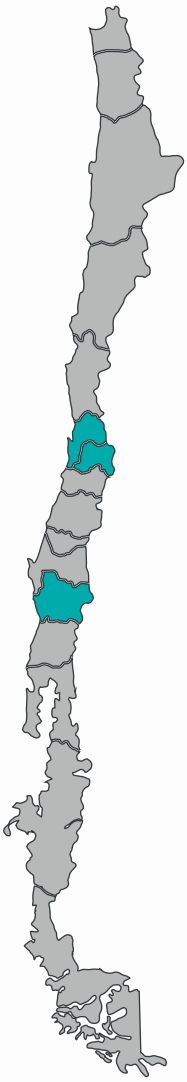
In regard to roadway connectivity, the route linking Punta Arenas to the Monte Aymond Border Crossing (Paso Integración Austral) that connects with Argentina is key. The route will be expanded starting in 2024 based on the needs of the H2 industry.

The Regional Development Strategy (Estrategia Regional de Desarrollo, ERD) for 2023-2030[91] includes the main regional guidelines with regard to energy development and other issues of regional interest with a medium- to long-term perspective taking account of the different citizen participation events organized to arrive at this regional vision.

91. Source: http://www.coremagallanes.cl/acuerdo/pronunciamiento-favorable-propuesta-estrategia-regional-de-desarrollo-de-magallanes-y-de-la-antartica-chilena-222-2030-erd-2022-2030

Specific economic incentives in the region:

Specific benefits are being used to encourage investment in the Magallanes and the Chilean Antarctic Region. These come in addition to nationwide benefits like the Navarino Law, Tierra del Fuego Law and the Free Trade Zones system (Annex: Incentives; Magallanes Region Incentives).



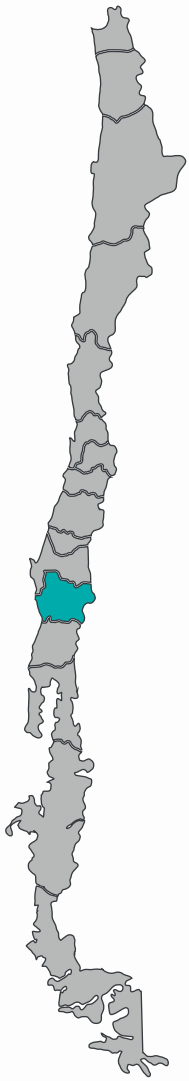
c. Central Valley

Central Chile is of great interest because it is home to green hydrogen development focus areas. While the Antofagasta and Magallanes Regions have the most production potential, the Valparaíso, Metropolitan and Biobío Regions are also important for the production and final consumption of hydrogen and its derivatives. This allows productive reconversion to be driven by the transformation of industrial areas from polluting to non-polluting industries with the reuse of existing infrastructure.

The Metropolitan Region (RM) has the largest share of regional distribution of final hydrogen demand, representing 15%-22% of the domestic demand projected through 2050 according to the 2023-2027 PELP. Furthermore, the Metropolitan and Valparaíso Regions are responsible for more than 30% of Chile's greenhouse gas emissions. As such, promoting hydrogen consumption would reduce emissions, thus contributing to the country's ability to meet the carbon neutrality targets set forth in the Climate Change Law.

There are currently two operational hydrogen production initiatives in the region. The Anglo American mining project, which has been operational since 2021, can generate 2 kg/day for vehicle consumption at the Las Tórtolas Plant. The US-based company Walmart launched a project in August that seeks to replace the batteries of 200 forklifts with hydrogen-fueled cells.

Various projects have also been announced for the Metropolitan and Valparaíso Regions. They have different scales of development, as outlined in the following section.



d. Biobío Region

The Biobío Region is privileged in regard to the deployment of the industrial ecosystem, with seven industrial ports that move forestry, fishing and industrial cargo from the central-south macrozone. They are also involved in oil refining, steel working, chemical, cellulose and paper activities. There are also two closed coal-powered plants and one active one in the transition area in Coron. Turning this industrial area into a hub for promoting green hydrogen use presents an excellent opportunity to drive domestic demand for hydrogen in the short-term and to contribute to decarbonization.

It is worth noting that the region has close to 5,500 MW of wind potential for the production of renewable energy with an average plant factor of 33% and significant electricity transmission infrastructure for project connection purposes. These conditions would lay the groundwork for the creation of a hydrogen hub in the region, which is already being driven by initiatives like the Strategic Green Hydrogen Partnership for the Biobío Region. This initiative is designed to identify and promote partnerships designed to facilitate investment in the region's GH2 value chain. For its part, the Green Hydrogen Regional Strategic Program (Programa Estratégico Regional, PER) will generate a roadmap for the use of GH2 and decarbonization of the region's industrial sector.

Various projects and companies have shown interest in operating in the region. These initiatives are at various stages of development. One notable project is a pilot program for a green hydrogen plant run by Universidad Católica de la Santísima Concepción. This initiative has funding from the Regional Government of Biobío Development Fund. Its purpose is to promote and develop the green hydrogen economy as a scalable alternative for the industry and the needs of the region's public sector and to encourage the formation of human capital and training for technicians and professionals. It will be able to generate 0.8 tons per year using a 25 kW electrolyzer. The project is currently in the construction phase.

Other projects under study include GH2 production for mobility applications and use in the forestry industry.

9.

Description of GH2 production and use projects

Even before the National Green Hydrogen Strategy was published, important companies, mainly from the electricity and oil and gas sectors with experience of developing projects in Chile, were already making progress with exploration for the development of GH2 production projects. Along the same lines, technologies have emerged that, through the use of hydrogen and other derivatives, not only "clean" industrial and transportation processes, but also make them more efficient.

More than 50 GH2-related initiatives have been publicly announced. These initiatives differ widely in their scale, level of integration and development stage: conceptual; feasibility; permit processing; construction; and operation.

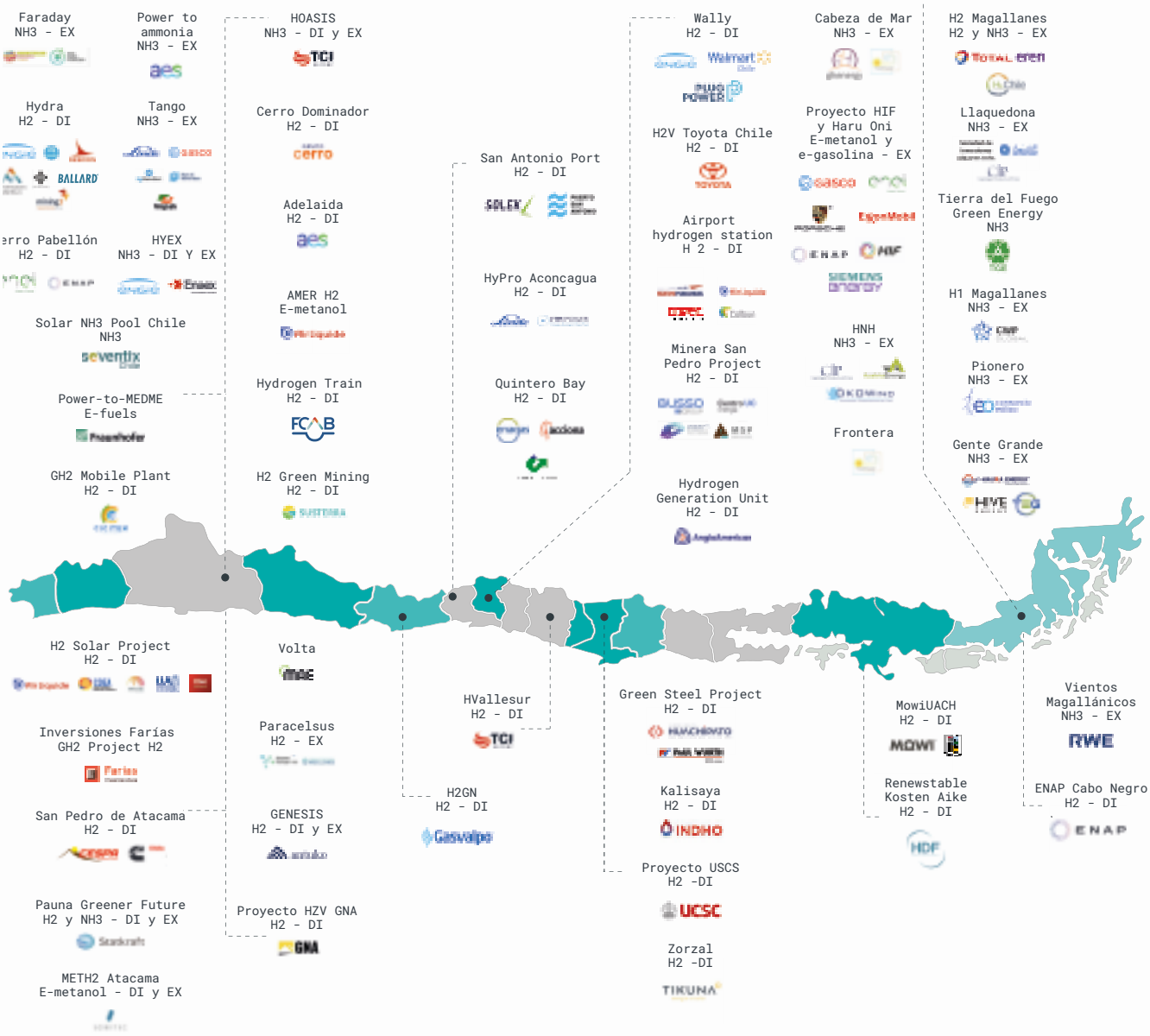
As explained in the previous section, the Antofagasta Region in northern Chile and Magallanes in the south have attracted not only the largest number of projects, but also the largest ones and those with the greatest GH2 production capacity.

The following map shows the approximate location of some of the announced projects, where their geographical concentration can be seen.

IMAGE 18

Source: H2Chile

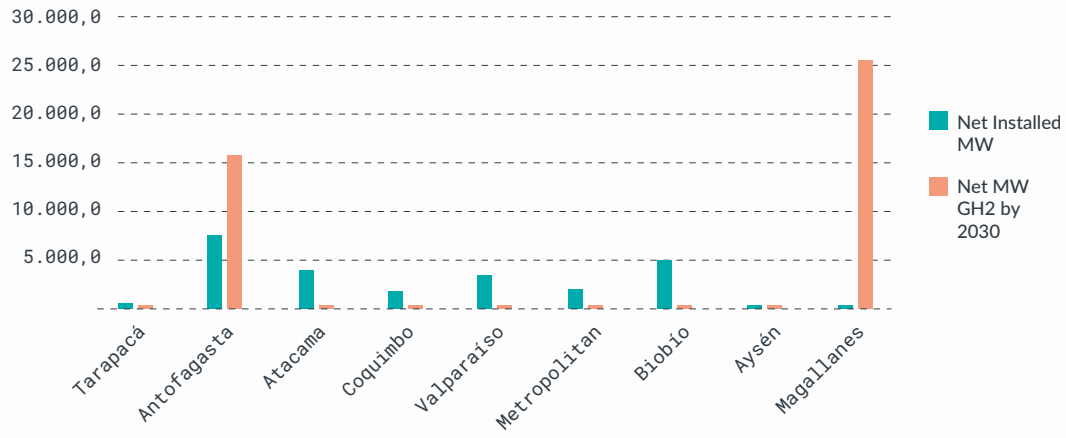
58 PROJECTS IN DEVELOPMENT - SEPTEMBER 2023



Source: H2Chile

Despite the accelerated growth of the installed capacity of NCRE projects, mainly solar and wind, which had reached almost 14 GW by 2022, the size of the announced GH2 production projects almost triples its potential to 40 GW. These will be concentrated mainly in the Magallanes Region, with 25 GW, and Antofagasta, with 15 GW.

COMPARATIVE MAP OF NCRE CAPACITY CURRENTLY INSTALLED AND AS ANNOUNCED FOR GH2



Source: Energy Ministry

With regard to the final product, most projects focus on ammonia, mainly because it requires less complex handling, storage and transportation than H2. Developers recognize that there remains a lack of technology to make the transportation of H2 efficient and economically viable, whether in liquid or gaseous form. However, there are already synthetic fuel pilot projects in operation, such as Haru Oni, which is described below.

If we refer to the final market for the production of GH2 and its derivatives, the “big numbers” are found in exports, where Europe and Asia (mainly Japan, Korea and Singapore) have made explicit their interest in purchasing this Chilean energy supply, with the intention of diversifying their energy sources and moving towards meeting their decarbonization goals.

This notwithstanding, domestic demand is recognized as fundamental to making the industry viable. In these cases, projects try to model infrastructure that would allow them to connect production with consumption via direct H2 gas pipelines.

In this sense, projects already in operation in Chile, such as GasValpo's blending project and Walmart's forklift project, are a good example of the possibilities that exist.

Furthermore, there are at least three projects that already have environmental permits, in addition to a fourth that was under evaluation at the time of writing. It is expected that during the first half of 2024, seven projects will be submitted to the Environmental Assessment Service, showing that the industry is increasingly taking shape in Chile.

SUCCESS STORIES:

Some Green Hydrogen projects in Chile have made significant progress, demonstrating the potential and viability of this technology in the country. Below, we present some of the projects that have made the most progress:

1. Haru Oni:

The first operational eFuels installation in the world, and the first to obtain a favorable environmental qualification resolution (RCA) in Chile. The plant uses renewable energy from wind and an electrolysis process to produce green hydrogen. The project captures CO2 from a biogenic source and, through a synthesis process, combines CO2 and hydrogen to produce eFuels, including carbon-neutral gasoline (eGasoline) and carbon-neutral liquefied gas (eLG).

Companies: HIF, Enel, Siemens Energy, Gasco, ENAP, Porsche, Exxon Mobil.

2. GasValpo:

Led by GasValpo via its Energas brand, the company is producing and injecting Green Hydrogen - with a current concentration of 3.5% and the potential to reach up to 20% - into its natural gas distribution networks in Coquimbo and La Serena, so that more than 2,000 homes and businesses can benefit from a reduction in CO2 emissions and thus contribute to reducing global warming. The entire project is being monitored by the Universidad de La Serena.

Company: GasValpo.

3. UCSC Concepción:

The Universidad Católica de la Santísima Concepción (UCSC) has developed a Green Hydrogen project that is currently under construction. It will be located in the UCSC Energy sector and linked to the USCS MicroGrid and a photovoltaic panel enclosure. With an installed power of 44 kW, it will supply energy to the UCSC unit and its electric vehicles, with which applied research in fuel cells for electromobility applications will be carried out.

Company: Universidad Católica de la Santísima Concepción.

4. Cerro Pabellón:

The joint project between ENEL and ENAP in Cerro Pabellón, Ollagüe, Antofagasta Region, is a geothermal energy generation plant, which has incorporated Green Hydrogen production as part of its operations. This project covers the energy requirements for the water treatment plant and the main building of the generation facility's workers' camp. It has reduced diesel consumption by 90% on the site. This integration demonstrates the versatility of hydrogen in the field of energy.

Companies: ENEL, ENAP.

5. Wally distribution center:

Walmart Chile has implemented an internal Green Hydrogen generation, storage and distribution system in its distribution center, as part of a pilot plan to evaluate its efficiency and capacity to reduce carbon emissions. It is associated with the logistics operations of its forklifts in this first stage.

Companies: Engie, Walmart, Plug Power.

6. Pilot Plant – Minera San Pedro and National Pilotage Center.

A GH2 platform intended to provide clean energy to the mining camp and allow the piloting of new technologies throughout the hydrogen value chain for mining operations. The project won first place in the "Green Hydrogen Accelerator" competition of the Energy Sustainability Agency. It will have a production capacity of 1 kg per day, and operational tests were underway in August 2023.

Companies: Minera San Pedro, National Pilotage Center, Busso Group, Centro Uc Energía.

CORFO subsidy projects

Among the 50 publicly announced projects, five were awarded Chile's first GH2 industry subsidy.

The Chilean Economic Development Agency, CORFO, developed this first economic support instrument with a total fund of US$50 million, intended to support the co-financing of projects for the installation of electrolyzers. Among the 12 proposals received, CORFO selected six, five of which are in advanced stages of development and must be in operation by the end of 2025 to receive the reimbursement awarded.

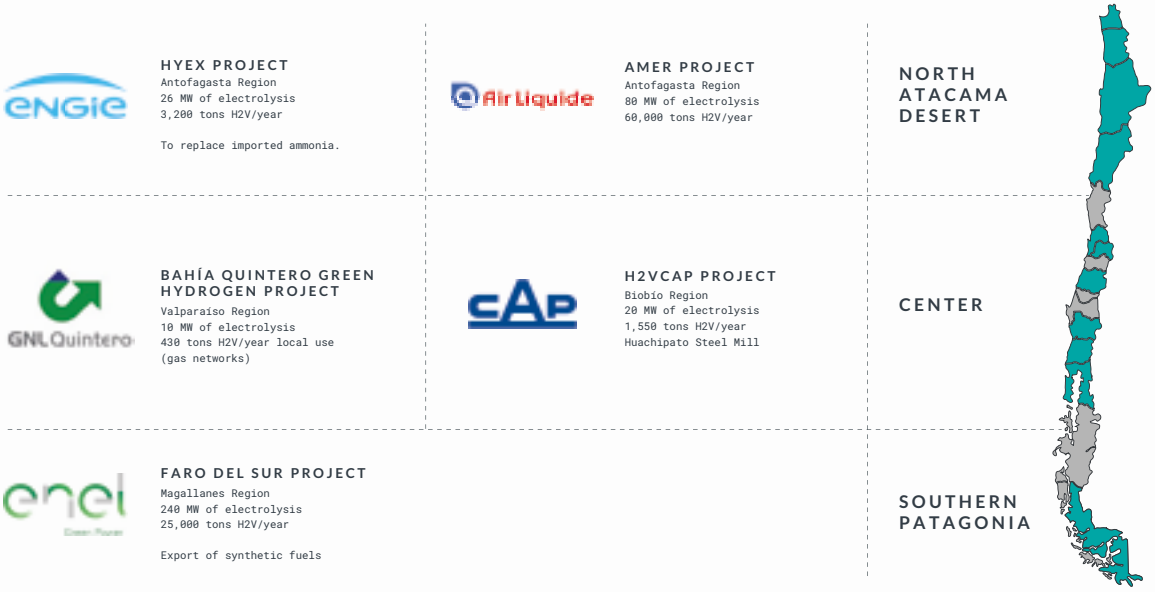
These are initiatives led by **Enel Green Power, Engie, Air Liquide, GNL Quintero, and CAP, which will be installed in the Antofagasta, Valparaíso, Biobío and Magallanes regions**.

The selected projects are detailed below:

- **"Faro del Sur Project"**, presented by Enel Green Power Chile S.A. The project will produce 25,000 tons of green hydrogen per year in the Magallanes Region, thanks to the installation of 240 MW of electrolyzers and the energy supply from a wind farm in the region. The company expects to sell the GH2 produced to HIF Chile, who will produce e-methanol and e-gasoline for export to Europe. The pilot project, or "phase zero", called Haru Oni is already operating and producing e-fuel. Co-financing assigned: US$16.9 million
- **"HyEx – Green Hydrogen Production"**, led by Engie S.A. The project aims to create an industrial pilot-scale plant to generate 3,200 tons of green hydrogen per year from an electrolysis capacity of 26 MW in the Antofagasta Region. This green hydrogen will then be supplied to the Enaex (Empresa Nacional de Explosivos) for the production of green ammonia, in order to reduce more than 30,000 tons of CO2 per year. Co-financing assigned: US$9.5 million

- **“Antofagasta Mining Energy Renewable (AMER)”**, an initiative led by Air Liquide S.A. The project is expected to produce 60,000 tons of e-methanol per year from renewable energy, green hydrogen and CO2 captured from a fixed source. With an electrolysis power of 80 MW, it will be installed in the Antofagasta Region. Co-financing assigned: US$11.8 million.
- **“Bahía Quintero Green Hydrogen”**, led by GNL Quintero S.A. The project involves the development, construction and operation of a green hydrogen plant, located in Chile’s central zone, in the Valparaíso Region. The project will have an installed electrolyzation capacity of 10 MW, with which it is expected to produce 430 tons of green hydrogen per year. Co-financing assigned: US$5.7 million.
- **“H2VCAP”**, from CAP S.A. The project aims to implement a green hydrogen plant in the Biobío Region with an electrolyzer power of 20 MW, in order to produce 1,550 tons of green hydrogen and reduce more than 161,000 tons of CO2 per year. Co-financing assigned: US$3.6 million.

IMAGE 21



Source: Energy Ministry

10.
Planning, regulations and permits for the development of GH2 projects

a) Main regulations for the development of GH2 projects

The International Energy Agency (IEA) continues to recognize the creation of a regulatory framework as one of the main challenges and enabling conditions for the development of the GH2 industry.[92] In this sense, it should be highlighted that the National Green Hydrogen Strategy commits to the development of regulations and standards to protect safety aspects and provide certainty to investment projects.

As an initial step, in 2021 two legal bodies of Chile's Mining Ministry were modified through Law 21.305, with the aim of transferring the powers surrounding hydrogen and its derivatives to the Energy Ministry in order to regulate it as another fuel.

ENABLING REGULATIONS FOR GH2 IN CHILE

There are now three sets of guidelines in Chile that provide GH2 projects with an adequate level of certainty about the requirements that they must meet to operate. They are complemented by the existing environmental and sectoral regulations for the development of investment projects:

1. Application as a special project based on the Superintendency of Electricity and Fuels (SEC) "Support guide for requesting authorization for special hydrogen projects"[93]

92. IEA (2023), Global Hydrogen Review 2023, IEA, Paris https://www.iea.org/reports/global-hydrogen-review-2023.

93. https://www.sec.cl/sitio-web/wp-content/uploads/2021/05/final_Guia-Proyectos-Especiales-Hidrogeno.pdf

This category applies to all projects that involve any installation related to the production, conditioning, transportation, distribution, storage or consumption of hydrogen. Special projects are a category that allows the SEC to authorize projects associated with technologies other than those considered in Supreme Decree No. 66 of 2007, published by the Economy Ministry and currently under the jurisdiction of the Energy Ministry. While the regulations associated with hydrogen production processes remain unenacted, this category provides approval regarding the aspects for which the SEC is responsible.

This guide provides advice regarding the process, time, and technical and safety documentation required for special hydrogen fuel projects.

In addition, the SEC verifies that the project does not constitute a danger to people or the environment and provides authorization to implement and operate special projects. Authorization from the SEC will subsequently allow the interested party to register the project facilities prior to the start of operations, thus complying with current regulations.

2. "Guide for pilot project implementation and the validation of technologies that use hydrogen as a fuel in mining"[94] of the National Geology and Mining Service (SERNAGEOMIN).

This guide provides support for the processing of hydrogen projects in mining operations supervised by SERNAGEOMIN. The document describes standards, establishes domains and evaluation criteria for the authorization of permits, and facilitates the submission of permit applications by proponents to validate from a security point of view, a process that will subsequently be carried out permanently.

3. "Decree 67: Establishes the technical and administrative requirements for the authorization of experimental projects from the Transportation and Telecommunications Ministry."

In the case of hydrogen projects that involve mobility applications on public roads, this decree guides the processing of approvals for their execution. It comes under the purview of the Transportation and Telecommunications Ministry, and evaluates new technologies for the transportation sector, applied to non-motorized vehicles, motorized vehicles, trailers or semitrailers and their context.

94. https://www.sernageomin.cl/wp-content/uploads/2021/10/Gui%CC%81a-de-Hidro%CC%81geno_web.pdf

Finally, the website of the **Energy Ministry**[95] and the Chilean hydrogen association, **H2Chile**,[96] publish a repository of other enabling standards for different uses and forms of hydrogen production.

DEPLOYMENT AND TERRITORIAL PLANNING

a) Territorial Planning for H2

In November 2022, **DDU MINVU Circular No. 470**[97] was published. It interprets the current regulations that refer specifically to hydrogen and is applicable to the location of projects in urban and rural areas regulated by Territorial Planning Instruments or Article 55 of the General Law on Urban Planning and Construction.

It establishes that "projects whose purpose is the generation of hydrogen, regardless of the process used to obtain that energy, correspond to the '**Energy Infrastructure**' land use type (article 2.1.29. General Ordinance on Urban Planning and Construction)." Consequently, from this definition it follows that the location of networks or routes intended for the transportation of hydrogen in the regulated rural area of a PRI/PRM (Interregional Regulatory Plan and Metropolitan Regulatory Plan), its facilities or buildings, is always permitted.

b) General Territorial Regulations in Chile

Chile has a broad and long-standing system of territorial regulations, planning and management, which has evolved to address a diversity of issues. It is based on three main legal bodies that structure the system, without prejudice to other complementary and/or specific laws and regulations:

1. Decree Law No. 1-19.175 of 2005 regulates regional territorial planning and its instruments, such as the National Territorial Planning Policy and the Regional Territorial Planning Plan.

- **National Territorial Planning Policy (PNOT)**, defines and guides the occupation of the territory and the definition of a set of rules and guidelines to make the relationship between economic, social and environmental development compatible for all projects whose influence or operation exceed the regional territory (interregional projects).

95. https://energia.gob.cl/h2/M%C3%A1s Informaci%-C3%B3n

96. https://h2chile.cl/regulacion

97. Circular DDU MINVU N°470, "Uso de suelo aplicable a edificaciones, instalaciones y redes asociadas a la generación de Hidrógeno".

Furthermore, the PNOT helps to promote an articulation between policies, plans and programs from which national urban development policies (PNDU) and rural development policies (PNDR) emerge hierarchically.

- **Regional Territorial Planning Plan (PROT)** is an instrument that guides the use of a region's territory and establishes binding conditions for the location of infrastructure and productive activities, along with the identification of areas for their preferred location.

2. **Decree Law No. 458 of 1976 General Law on Urban Planning and Construction (LGUC), which regulates urban planning, urbanization and construction.**

- **Territorial planning instruments (IPT):** Instruments that organize and define the use of land and other urban planning regulations, ensuring that the land is occupied efficiently and combines uses in a safe, healthy, universally accessible and social integrated urban context. Associated with these instruments are the PAS160 (Permission to subdivide and urbanize rural land or for construction outside urban limits)[98], the Favorable Report for Construction (IFC)36 and the building permit.[99]

  Four IPTs are identified within this framework, which, according to their scope of action, are:

  i) Intermunicipal Regulatory Plan (or Metropolitan when it exceeds 500,000 inhabitants) that regulates urban and rural areas;
  ii) Municipal Regulatory Plan that regulates urban areas;
  iii) Sectional Plan (within a municipality); and
  iv) Urban Limit (within a municipality).

98. Permiso Ambiental Sectorial Mixto que corresponderá a la autorización e informes favorables que se establecen respectivamente en los incisos 3° y 4° del artículo 55 la LGUC (Artículo 160° del Reglamento del Sistema de Evaluación de Impacto Ambiental).

99. Permiso para construir, reconstruir, reparar, alterar, ampliar o demoler un edificio, o ejecutar obras menores (Artículo 5.1.1. OGUC).

3. National Policy for the Use of the Coastal Edge ("PNUBC"-Supreme Decree No. 475), which creates the instrument for Zoning for Use of the Coastal Edge ("ZUBC") and establishes preliminary zoning for the country.

- Zoning for Use of the Coastal Edge (ZUBD) is a guiding instrument for preferential or exclusive uses of the coastal edge, according to compatibility criteria. This instrument affects the granting of maritime concessions.[100]

A Strategic Environmental Assessment has been applied during the development of territorial policies and plans since 2010, with the aim of moving towards sustainable use of the territory over time. This is an example of the early incorporation of the environmental considerations of sustainable development (ESG).

100. Administrative act through which the National Defense Ministry or Director, as appropriate, grants a person rights of use and enjoyment of national assets for public use or fiscal assets whose control, oversight and supervision correspond to the Ministry, for the development of a specific project or activity. Decree No. 9/2018 of the National Defense Ministry.

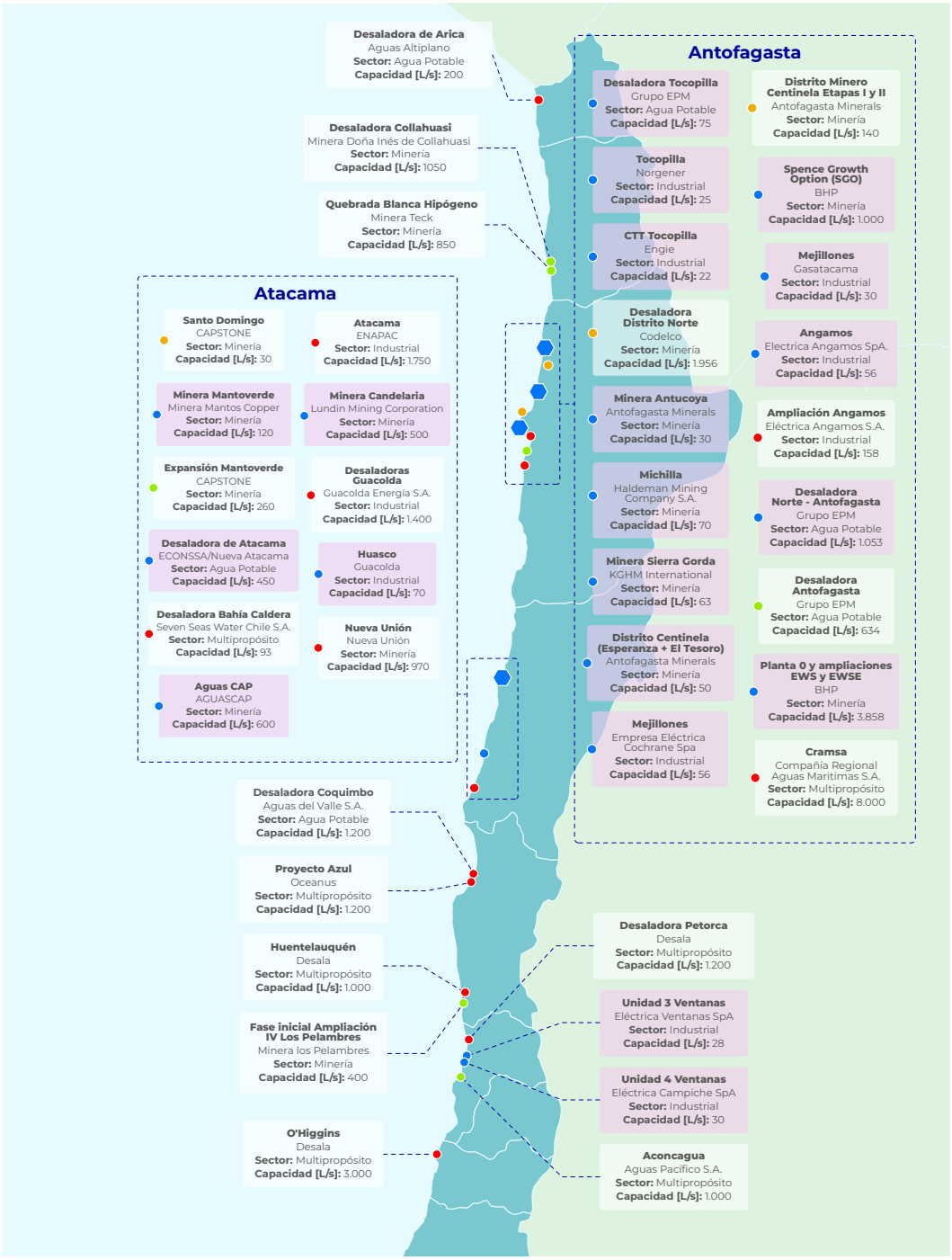
ANNEXES

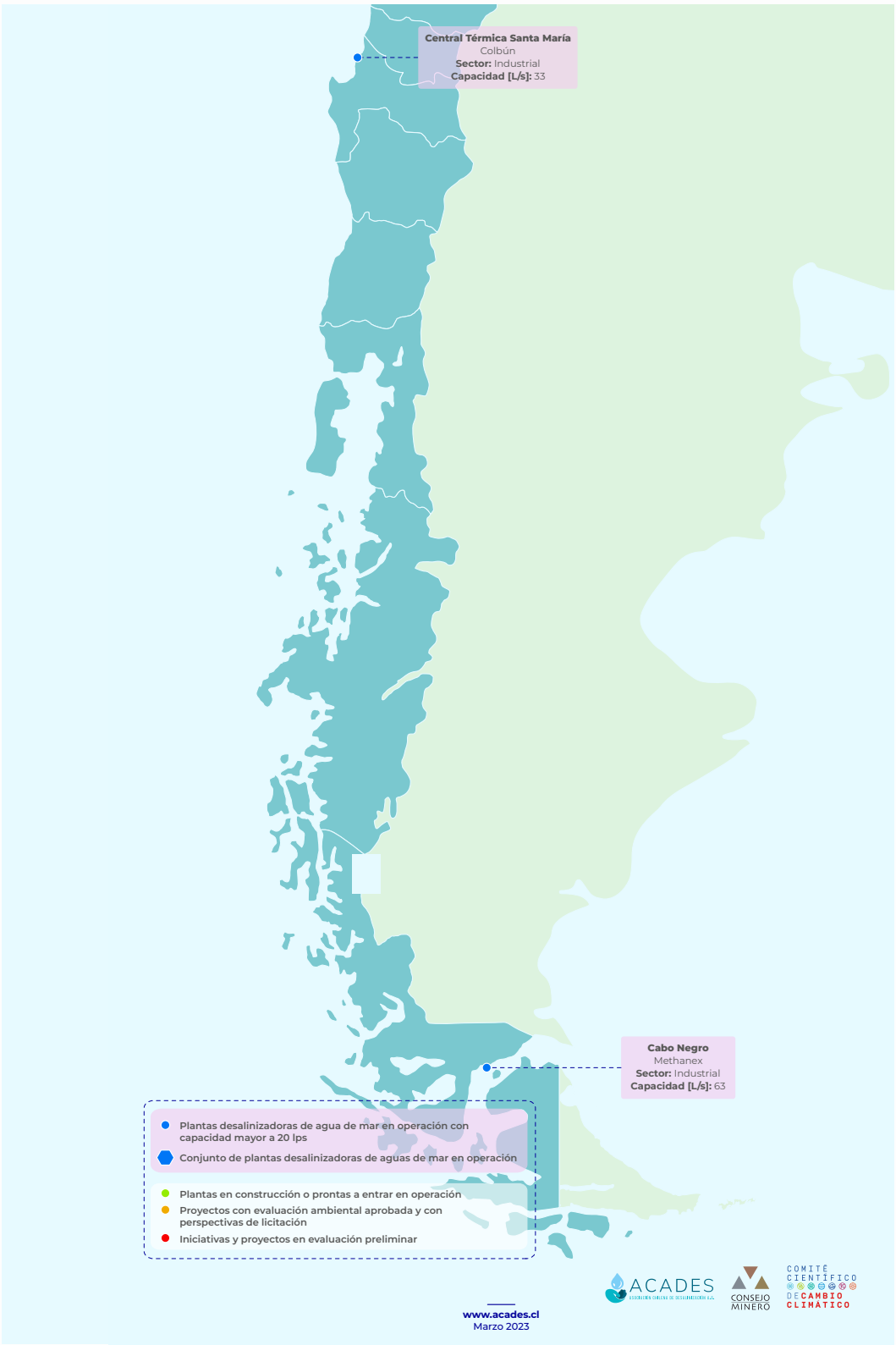
1. COMPANY ASSOCIATIONS

Name	Description	Number of partners
H2 Chile	The Asociación Chilena de Hidrógeno (H2 Chile) is a non-profit trade association that promotes zero-emissions development, accelerating the adoption of renewable hydrogen (RH2) and its derivatives in our society, and promoting collaboration between public, private and academic entities interested in promoting the implementation of this new industry in Chile. The trade association has become a platform for driving the energy transition and contributing towards positioning Chile as a leader in the production of this item and its use in industrial, commercial, residential and mobility applications. H2 Chile currently has around 140 partners (40 professionals and 100 companies) from the public, private and academic sectors, with which it covers the entire RH2 value chain in the country. Strategic focuses of H2 Chile: - To collaborate in the creation of public policies - To facilitate the availability of financing - To stimulate the implementation of projects - To create national and international collaboration networks - To promote knowledge and the formation of human capital	138
H2 Antofagasta	H2 Antofagasta is the association of companies active in the development of green hydrogen projects, their derivatives and their value chain in northern Chile. It currently has 12 member companies from various industries, such as power generation, desalination, mining logistics, ports and others. It identifies challenges and opportunities for the development of GH2 in northern Chile by connecting these diverse industry stakeholders. In this way, it facilitates their relationship with the ecosystem of stakeholders at the regional level, including authorities, educational centers and civil society, thus achieving the development of an industry in tune with local needs, which adds real value to the inhabitants of northern Chile.	12
H2 Magallanes	The Asociación de Productores de Hidrógeno Verde y sus Derivados en Magallanes (H2V Magallanes) brings together project development companies in Magallanes, promoting business activity in the sector with a view to inclusive and sustainable economic growth. H2V Magallanes brings together the region's principle developers of projects focused on green hydrogen and its derivatives. They created a trade association based on the need to seek joint solutions to common challenges in order to achieve coordinated and harmonious regional development. H2V Magallanes currently integrates projects that could reach an installed capacity of 30 GW, with an approximate investment of USD60,000. Among its objectives are: • To represent the common interests of partners in the public-private discussion at the regional and central level. • To participate in regional planning and coordination. • To give the industry visibility. • To generate greater and better knowledge regarding the benefits of green hydrogen and its derivatives in industrial, commercial and residential applications.	6

2. DESALINATION PROJECTS

Map of the first registry of seawater desalination projects and plants




Central Térmica Santa María
Colbún
Sector: Industrial
Capacidad [L/s]: 33
Cabo Negro
Methanex
Sector: Industrial
Capacidad [L/s]: 63
Plantas desalinizadoras de agua de mar en operación con capacidad mayor a 20 lps
Conjunto de plantas desalinizadoras de aguas de mar en operación
Plantas en construcción o prontas a entrar en operación
Proyectos con evaluación ambiental aprobada y con perspectivas de licitación
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3. GENERAL BENEFITS

a. Installation

i. **Investment and working capital guarantees:** This program is intended to improve access and financing conditions for companies that develop an investment project or require working capital. The Chilean Economic Development Agency (CORFO) provides guarantees to financial institutions.

ii. **VAT exemption:** Projects that involve an investment of at least US$5 million can apply for a tax credit related to the import of capital goods.

iii. **Remote areas:** Tax credit and initiatives for projects in extreme northern regions such as Arica and Parinacota and Tarapacá, as well as in the extreme southern areas of Palena Province (Los Lagos Region), Aysén and Magallanes (Chilean Patagonia).

b. Innovation

i. **R+D tax incentive:** Tax credit of 35% (of investment in R+D) in corporate income taxes (max. US$1 million); 65% (of investment in R+D) can be deducted as necessary expenses from corporate income tax.

ii. **Business technological innovation programs:** Subsidy for developments linked to innovation in products and processes (prototypes), as well as the validation and packaging of innovations, for amounts ranging between US$90,000 and US$500,000.

c. Talent

i. **Tax incentive for training:** This is an initiative for those companies that invest in training their human capital, which is deducted from the amount they pay in taxes. The maximum annual cost is 1% of the taxable salaries paid by the company in the same period.

ii. **Scholarships:** There are different initiatives available in scholarships and/or co-financing in the form of public-private partnerships, which focus on information technologies, global services, creative industries, language training and others.

4. MAGALLANES TAX BENEFITS

Several preferential tax and customs statutes are administered in the Magallanes and Chilean Antarctica Region, whose access and supervision falls on the regional government. These special statutes grant exemptions from VAT, import tariffs and first category income tax:

1. The special regime of Law No. 18.392 or Navarino Law.
2. The special regime of Law No. 19.149 or Tierra del Fuego Law.
3. Free-trade zone regime, contained in Decree Law No. 2 of 2001 from the Treasury Ministry.

There are further benefits, which are of lesser scale, but equally relevant to evaluating the arrival of investments in the Magallanes and Chilean Antarctica Region, composed of:

1. The investment bonus for small taxpayers established in Decree Law No. 15 of 1981 from the Treasury Ministry.
2. The bonus for hiring labor regulated by Law No. 19.853.
3. The tax credit against first category income tax for investments in fixed assets established by Law No. 19.606 or Austral Law.

5. INTERNATIONAL COOPERATION

To date, Chile has collaboration agreements (Memorandum of Understanding, Collaboration and/or Joint Declaration) with the following key countries and ports.

1. Memorandum of Understanding between Chile's Energy Ministry and Singapore's Ministry of Trade and Industry to promote bilateral and multilateral collaboration in initiatives to develop low-carbon hydrogen, signed on February 15, 2021.
2. Memorandum of Understanding between Chile's Energy Ministry and the Port of Rotterdam in the Netherlands to advance the establishment of an international hydrogen supply chain from Chile to Rotterdam, signed on March 23, 2021.
3. Joint Declaration with the United Kingdom's Department for Business, Energy and Industrial Strategy, BEIS, signed on June 24, 2021.
4. Memorandum of Understanding between Chile's Energy Ministry and Korea's Ministry of Trade, Industry and Energy on collaboration in low-carbon hydrogen, signed on November 9, 2021.
5. Joint Declaration between Chile's Energy Ministry and Germany's Ministry for Economic Affairs and Climate Action for the creation of a ministerial taskforce on GH2 within the Energy Partnership to strengthen cooperation in green hydrogen, signed on June 29, 2021.
6. Joint Declaration with France's Ministry of Ecological Transition on low-carbon hydrogen, an essential energy vector for climate neutrality, signed on June 30, 2021.
7. Joint Declaration with the Netherlands' Ministry of Economic Affairs and Climate Policy, signed on July 1, 2021.
8. Memorandum of Understanding between Chile's Energy Ministry and the Ports of Antwerp and Zeebrugge (which are in a unification process) in Belgium to advance the establishment of an international hydrogen supply chain from Chile to Antwerp and Zeebrugge, signed on November 4, 2021.

9. Memorandum of Understanding between Chile's Energy Ministry, Hamburg's Authority for Economy and Innovation and the Port of Hamburg to explore the creation of corridors between Chile and Germany to transport green hydrogen or its derivatives, signed on August 24, 2022.
10. Memorandum of Cooperation on Energy Transition between Chile's Energy Ministry and Japan's Ministry of Economy, Trade and Industry (METI), signed on April 28, 2022.
11. Letter of Cooperation between France's Ministry of the Economy, Finance and the Recovery and Chile's Energy Ministry to hire an international technical expert (ITE) in the field of new-fuels-based transport, signed on August 1, 2022.
12. Memorandum of Understanding extension agreement between Chile's Energy Ministry and the Port of Rotterdam, signed on March 23, 2023.
13. Joint Declaration from Chile's Energy Ministry and the Netherlands' Ministry of Climate and Energy Policy, signed on March 27, 2023.
14. Memorandum of Understanding between Chile's Energy Ministry and the Mærsk Mc-Kinney Møller Center for Zero Carbon Shipping, signed on May 23, 2023.
15. Joint Declaration for the creation of a working group on green and/or low-carbon hydrogen, signed on June 9, 2023.
16. Joint Declaration of intention to formally collaborate and initiate the Team Europe project for the Development of Renewable Hydrogen in Chile, signed on June 14, 2023.
17. Joint Declaration of intent between Chile's Energy Ministry and the European Investment Bank on a fair energy transition in Chile, with a focus on hydrogen and other green technologies, signed on July 17, 2023.
18. Memorandum of Understanding of strategic cooperation between Chile's Energy Ministry and the Japan Bank for International Cooperation, signed on August 4, 2023.

19. Memorandum of Cooperation signed between Chile's Energy Ministry and the United States Department of Energy to cooperate in the energy transition and develop the energy sector, signed on August 16, 2023.
20. Extension of Memorandum of Understanding between Chile's Energy Ministry and the Port of Antwerp – Bruges, signed on November 15, 2023.

InvestChile

InvestChile
Foreign Investment Promotion Agency

InvestChile, the Foreign Investment Promotion Agency, promotes the country as a destination for foreign direct investment (FDI) and a Latin American hub for global business, serving as a bridge between the interests of overseas investors and the business opportunities available by providing free, tailor-made services to facilitate and grow investment in Chile.

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International Business Magazine Award Winner

2019

WEBAWARDS 2017

Government Standard of Excellence

Government Standard of Excellence WEB AWARDS

2017

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Knowledge and Information

- FDI statistics and business opportunities
- Market highlights
- Legal and tax advice
- Information on set-up costs
- Portfolios of public projects and tenders

PRE INVESTMENT

Promotion and Advice

- Meetings with public and private stakeholders
- Agendas for investor delegations
- Investment roadshows, conferences and workshops
- Investment incentives and special programs

LANDING

Guidance and Access

- Expert sector advice in different languages
- Legal advice on setting up
- Contact with key stakeholders and site visits
- Assistance in applying for incentives & government programs
- Incorporation into the Support Network for projects outside the Santiago Metropolitan Region

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REINVESTMENT IN COMPANIES

Ongoing Support

- Help with project development for established businesses
- Investment environment and climate management (Policy Advocacy)
- Free e-Consuting to resolve your concerns
- Support for obtaining an Investor Visa
- Follow-up with unexpected events and management with public agencies
- Media management
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