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PROVIDES FOR THE OPENING OF THE CALL FOR THE SELECTION OF RECIPIENT ENTITIES OF THE R&D CONTRIBUTION FOR GREEN HYDROGEN PROJECTS "MANUFACTURING AND/OR ASSEMBLY OF ELECTROLYZERS AND THEIR COMPONENTS IN CHILE"; AND DETERMINES TARGETING ELEMENTS.

WHEREAS :

The provisions of Law No. 6,640, which created the Economic Development Agency; Decree with Force of Law No. 211 of 1960 of the Ministry of Finance, establishing rules governing the Economic Development Agency; the General Regulations of Corfo, approved by Supreme Decree No. 360 of 1945 of the Ministry of Economy and Commerce; Decree with Force of Law No. 1 of 2000 of the Ministry General Secretariat of the Presidency, establishing the consolidated, coordinated and systematized text of Law No. 18.575, Organic Constitutional Law of General Bases of the State Administration; Law No. 19,880, establishing the Bases of the Administrative Procedures that govern the Acts of the Organs of the State Administration; Exempt Electronic Resolution No. 407, of 2024 of Corfo, approving the Bidding Rules for the Selection of Recipient Entities of the R&D Contribution for Green Hydrogen Projects arising from Section Two of the Fifteenth Clause of the "Contract for the Salar de Atacama Project", and its annexes; Supreme Decree No. 28 of 2022 of the Ministry of Economy, Development and Tourism, which appoints the position of Executive Vice President of Corfo; and Resolution No. 7 of 2019 of the Comptroller General of the Republic, establishing rules on exemption from the process of acknowledgment of receipt.

CONSIDERING :

1. The Chilean Economic Development Agency is the owner of the mining properties, called "OMA", located in the Atacama Slat Flat ("Salar de Atacama"), part of which are currently exploited by SQM Salar S.A. (under a contract signed with Corfo in 1993 - called "Contract for Project in the Salar de Atacama").
2. That, the Bidding Rules for the Selection of Recipient Entities the R&D Contribution for Green Hydrogen Projects from Section Two of Clause Fifteenth of the "Contract for the Salar de Atacama Project", approved by Exempt Electronic Resolution No. 407 of 2024 of Corfo, published in the Official Gazette on May 16, 2024, establishes in number 2, "Target of the Calls for the Selection of Recipient Entities of the R&D Contribution for Green Hydrogen Projects", of its Section I "Technical Bidding Rules", that the determination of the subject or subjects to be addressed by the applications, along with the opening of each call, will be carried out through an targeting administrative act of Corfo or "targeting resolution"; likewise, the bidding rules indicate different elements to be considered in the targeting resolution that will be applied in the respective call.
3. That the call for bids, the opening of which is provided for in this act, will focus on the subject: "Manufacturing and/or assembly of electrolyzers and their components in Chile".

RESOLVES :

- 1°. **PROVIDES** the opening of a call for the Selection of Recipient Entities of the R&D Contribution for Green Hydrogen Projects, originating from **SQM Salar S.A.**, under the "Contract for the Salar de Atacama Project".

2° DETERMINES that the subject to be addressed and on the focus of this call is: “**Manufacturing and/or assembly of electrolyzers and their components in Chile**”, which falls within the scope of productive development, capacity building, technology transfer, and other enabling processes for green hydrogen and its derivatives; and whose background context is:

a. Introduction.

The development of the green hydrogen industry presents a significant opportunity to contribute to the mitigation and adaptation of the effects of climate change, by reducing greenhouse gas emissions in sectors of the economy that are difficult to decarbonize. Taking into account the existing conditions and the high potential for renewable energy generation that Chile has, the National Green Hydrogen Strategy was published in 2020, which sets ambitious development goals; the main objectives it determines are: (i) to have 5 GW of electrolysis capacity built and under development by 2025; (ii) to be the world’s most competitive producer of green hydrogen by 2030; and, (iii) to be among the three largest exporters of green hydrogen and its derivatives by 2040, while contributing to the sustainable growth of the national economy. Subsequently, the Government established the objective of promoting the sustainable development of the green hydrogen industry in a decentralized manner, for use in domestic industries and subsequent export, thus giving continuity to the National Green Hydrogen Strategy.

In order to achieve the objectives established in the National Green Hydrogen Strategy, in 2023 a Green Hydrogen Action Plan¹ began to be developed for the period between 2023 and 2030, which aims to define a roadmap for the sustainable deployment of the green hydrogen industry and its derivatives, through coordinated actions among different government ministries and related agencies, in accordance with regional and local initiatives, focusing on increasing the production capacity of green hydrogen and promoting its use in various sectors, thereby driving the country’s energy transition.

On the other hand, within the framework of the Sustainable Productive Development process, Corfo is working through the Green Hydrogen Industry Development Committee, to accelerate the sustainable development of this industry and its derivatives in Chile, in order to advance towards the decarbonization of the national economy, promote a fair energy transformation, and create new economic activities that contribute to sustainable productive development and the reduction of greenhouse gases.

In this way, synergistic collaboration between public and private institutions is essential to catalyze the advancement of the green hydrogen industry. This collaborative approach also aims to foster the creation of productive linkages between different sectors, which is essential for the consolidation of sustainable and resilient economic development. By promoting the green hydrogen industry and its derivatives, it is expected to foster a diversified industrial development, from energy generation and storage to its use in sectors such as transportation, mining, among others. This strategic approach not only reinforces Chile’s domestic economic growth, but also seeks to position the country as a key player in the international energy transition landscape.

b. General Background.

In order to meet the goals set by the Paris Agreement, it is necessary to transform the global energy system over the next few decades; according to the scenario proposed in IRENA’s World Energy Transitions Outlook 2023: 1.5°C Pathway², more than two-thirds of the reduction of carbon dioxide emission needed to achieve a “net-zero” energy system can be achieved through increased renewable energy supply, the electrification of energy systems currently powered by fossil fuels, and improved energy efficiency. In this context, hydrogen emerges as an attractive alternative for the decarbonization of sectors and applications that are difficult to electrify. In recent years, there has been a significant increase in the announcement of green hydrogen production and derivatives projects worldwide. Studies published the end of 2023 by the World Bank³ and the Hydrogen Council⁴ estimate that by 2030 an increase in global supply of 40 to 45 million tons (Mton) of low-emission hydrogen could be expected, driven primarily by projects announced in emerging markets and

¹ <https://www.planhidrogenoverde.cl/>

² World Energy Transitions Outlook 2023, IRENA.

³ Scaling Hydrogen Financing for Development, The World Bank.

⁴ Hydrogen Insights 2023, Hydrogen Council.

developing countries with significant renewable energy resource potential. However, to achieve such levels of low-emission hydrogen production, it will be necessary to increase the global manufacturing and assembly capacity of electrolyzers.

Electrolyzers are a key technology for the production of low-emission hydrogen; since electrolyzers currently account for between 30% and 40% of the cost of hydrogen production, it will be essential to develop improvements in their performance and achieve economies of scale in their manufacturing and assembly. According to studies conducted by IRENA⁵ and Rystad Energy⁶ the world's manufacturing capacity of electrolyzers is currently around 19 GW per year, with approximately 40% located in China; however, several economies, such as India, the European Union, the United States of America, and Australia, have implemented policies aimed at increasing the manufacturing capacity of electrolyzers.

According to estimates by the International Energy Agency (IEA)⁷, if company announcements are taken into account, **global manufacturing capacity of electrolyzers could reach between 130 and 155 GW per year by 2030**, with a quarter of the capacity located in China, a fifth in the United States of America and Europe, and 6% in India. **However, around 25% of the announced expansion plans for 2030 do not indicate the specific location of the plants**, which means that the geographical distribution could vary depending, for example, on support policies to stimulate local demand and manufacturing of electrolyzers, progress in the development of large-scale projects, strategic positioning in emerging markets, among other factors.

Regarding the demand for electrolyzers, while they are currently used mostly in the chlor-alkali industry, the installed capacity of electrolyzers dedicated to hydrogen production reached nearly 3 GW at the end of 2023⁸. Likewise, according to the IEA's Global Hydrogen Review 2023 report, if the announced hydrogen production projects are considered, **the global installed capacity of electrolyzers could reach 175 GW by 2030**, increasing to 420 GW when including projects in early development stages. According to the same IEA studies, **projects located in Latin America could account for between 10 and 20% of this capacity**; however, recent developments in China and the United States of America could change this outlook, positioning these two countries with a larger share of the total installed capacity than currently seen in the announced projects.

Considering the current geographical distribution of electrolyzer plants and the potential demand in Latin America, reflected in the projects announced and targets defined by different countries, there is a strategic opportunity for electrolyzer manufacturing companies to establish a strong presence in the region. This strategy would not only facilitate access to the Latin American market, but also improve logistical efficiency related to the supply, maintenance and provision of spare parts for operating projects. Projections for the installed electrolysis capacity by 2030 in the region vary depending on the assumptions considered. The IEA estimates between 10 and 20% of the global capacity, while a report by the Inter-American Development Bank (IDB) published in 2023⁹ indicates that the combined targets of the countries analyzed amount to at least 34 GW. Considering that many countries, even without having established targets related to electrolysis capacity, have projects in different stages of development, it is likely that **the installed capacity of electrolyzers in the region will exceed 20 GW by 2030**, as shown in the following figure:

⁵ International trade and green hydrogen: Supporting the global transition to a low-carbon economy, IRENA.

⁶ Rystad Energy (2023), "The global markets for Hydrogen and CCUS - where are the challenges and opportunities?", Whitepaper, 20 September 2023.

⁷ Global Hydrogen Review 2023, IEA.

⁸ <https://www.iea.org/energy-system/low-emission-fuels/electrolysers#programmes>

⁹ Unlocking Green and Just Hydrogen in Latin America and the Caribbean, 2023, IDB.

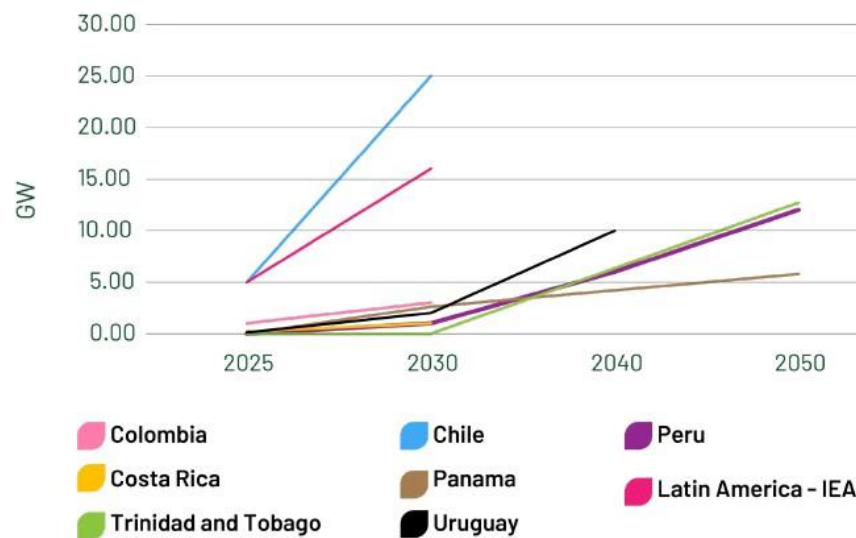


Figure 1: Projected electrolysis capacity in Latin America between 2025-2050. Source: Unlocking Green and Just Hydrogen in Latin America and the Caribbean, 2023, IDB.

Among Latin American countries, Chile stands out as one of the leaders in the development of renewable energies. According to the National Electricity Coordinator, the Chilean electricity system reduced its emissions by 21% during 2023, reaching an average of 63% of energy generated from renewable sources¹⁰. This favorable outlook presents an enormous opportunity for the green hydrogen industry, with an estimated potential for the development of renewable energies of 2,315 GW¹¹, that is, 70 times the current installed electricity capacity, and with regulatory conditions that favor foreign investment. However, in order to realize a green hydrogen market in Chile and drive its development, an ecosystem is required to achieve economies of scale in its production. This ecosystem must include actors demanding green hydrogen and its derivatives, investors, technology and service providers, electricity producers, hydrogen producers, and regulators, all of them coordinated and aligned to drive this effort. One of the key factors for developing this ecosystem will be the implementation of green hydrogen and derivatives projects, which is expected to leverage the involvement of additional actors, such as, for example, manufacturers of electrolyzers for the hydrogen industry.

There are various estimates regarding the potential of installed electrolysis capacity in Chile for 2030; on one hand, the IEA has a database of green hydrogen projects worldwide, which estimates a potential of around 45 GW of electrolysis for Chile by 2030, considering the projects announced up to October 2023, both in early stages and in more advanced stages of development¹². On the other hand, a study published in 2022 by the Ministry of Energy of Chile and the IDB¹³ estimates that, only considering the two main “hydrogen valleys” in Chile, and **assuming a conservative scenario, approximately 12.8 GW of electrolyzer capacity will be installed by 2030 between the Antofagasta and Magallanes and Chilean Antarctic Regions.**

Taking into account the above, even considering a conservative scenario, it can be observed that there is a potential giga-scale market for installed electrolysis in Chile by the end of this decade, which creates the opportunity for the country to take an active role in promoting initiatives for the manufacturing, assembly, commercialization, and, especially, the generation of added value and productive linkage around electrolyzers and enabling components for the green hydrogen industry, to supply both domestic and regional level demand.

In this context, having local manufacturing of electrolyzers would allow, in principle, for increased investment, accelerate the development of green hydrogen production plants and derivatives by reducing the delivery times of electrolyzers, create jobs, and add economic and social value in the territories. Additionally, establishing an electrolyzer manufacturing and/or assembly plant in Chile would not only boost the domestic market, but would also open doors to a an expanding Latin American market Latin American. This would represent a significant competitive advantage for international companies interested in strategically positioning themselves in the region; by operating from Chile, these companies could benefit from favorable trade agreements, a privileged geographic location for exports, among others.

¹⁰ <https://www.coordinador.cl/novedades/sistema-electrico-redujo-21-sus-emisiones-en-2023-y-se-espera-que-siga-creciendo-participacion-de-energia-renovable-variable/>

¹¹ Identification and Quantification of Renewable Energy Potentials 2021, Ministry of Energy.

¹² Hydrogen Production and Infrastructure Projects Database, IEA.

¹³ Development Pathways for Hydrogen Hubs in Chile, Ministerio de Energía.

In this context, through Exempt Resolution No. 1 of 2023 of the Green Hydrogen Industry Development Committee, the RFI (Request for Information) Procedure for Electrolyzer Production Projects, Components and their Auxiliary Systems in Chile was approved, which was carried out between March and June 2023. The purpose of this procedure was to identify companies interested in manufacturing and/or assembling electrolyzers, their components, and auxiliary systems in Chile, and under what conditions they would be installed to supply the domestic and regional market. In this call, nine expressions of interest were received to develop various projects for the manufacturing and assembly of electrolyzers in the national territory, three of which are from local suppliers in Chile and six from international companies. In addition, six of the expressions of interest contemplated the installation of electrolyzer manufacturing plants with capacity ranging from 500 to 1000 MW per year, with estimated investments between USD 50 and 100 million, considering alkaline electrolyzers (ALK), proton exchange membrane (PEM) electrolyzers, and solid oxide electrolyzer (SOEC) technologies.

In light of the above, this call will focus on the manufacturing and/or assembly of electrolyzers and their components in Chile, with the objective of contributing to sustainable productive development and enabling the green hydrogen industry in the country, facilitating the creation of industrial and commercial partnerships between domestic and foreign companies along the green hydrogen value chain, and contributing to the local and international supply of electrolyzers, in order to reduce delivery times in Chile and the region, ensure qualified personnel for electrolyzers maintenance services within the national territory, while also contributing to the economic development of the country.

Likewise, with the development and operation of one or more manufacturing and/or assembly plant(s) of electrolyzers and their components in Chile, it is expected to promote the productive development of the country, the development of capacities, technology transfer, and enabling processes for the green hydrogen industry and its derivatives.

3° DETERMINES the following targeting elements for the call for proposals:

a. The **specific objectives** to be addressed by the projects in this call for proposals are:

- i. Contribute to the implementation of the first manufacturing and/or assembly plant(s) of electrolyzers and their components in Chile.
- ii. Facilitate the creation of industrial and commercial partnerships between domestic and foreign companies along the green hydrogen value chain, linking supply and demand for electrolyzers, their components, and auxiliary systems.
- iii. Contribute to the local supply of electrolyzers, in order to reduce delivery times and costs in Chile, as well as to ensure qualified personnel for electrolyzer maintenance services within the national territory.
- iv. Accelerate the implementation of green hydrogen production initiatives from electrolysis that contribute to the energy transition towards carbon neutrality, through the supply of electrolyzers manufactured and/or assembled in Chile.

b. The **expected result** to be addressed by the projects selected in this call is the development, construction, and commissioning of a manufacturing and/or assembly plant of electrolyzers and their components in Chile. For this, the selected project/s must incorporate in its/their proposal/s initiatives that promote research, productive development, capacity building, technology transfer, innovation, and/or other enabling processes for green hydrogen and its derivatives.

Likewise, for each year of execution, and depending on the specific characteristics of the selected project(s), the following results are expected to be obtained:

1. By the end of the first year of execution:

- i. Feasibility and other relevant studies.
- ii. Identification of and negotiations with strategic partners, including suppliers of raw materials, equipment, parts and services, potential customers and collaborators in research and development that can contribute to the efficiency, innovation and sustainability of the project.
- iii. Site selection and preliminary studies (if applicable): evaluation of potential locations, logistics, supply chain, and legal restrictions and/or requirements.

2. By the end of the second year of execution:

- i. Initiation of procedures and application for project permits with the competent

- authorities.
- ii. Agreements for the commercialization of electrolyzers: formalize agreements with strategic partners and customers to secure distribution channels, supply agreements, and commercial partnerships.
- iii. Plant engineering studies and design.

3. By the end of the third year of execution:

- i. Negotiation and closing of contracts with suppliers for the construction of the plant.
- ii. Definition of necessary job profiles: identify and define the job profiles required for the operation of the plant.

4. By the end of the fourth year of execution:

- i. Start of construction of the plant under the direction of the contracted EPC (Engineering, Procurement and Construction) company, ensuring compliance with all applicable environmental mitigation measures and regulations.
- ii. Develop training programs for personnel in accordance with the defined profiles, in collaboration with educational institutions, specialized companies, and potentially the EPC company, if applicable.

5. By the end of the fifth year of execution:

- i. Completion of plant construction.
- ii. Testing of equipment and systems to ensure efficient and safe operation of the plant.
- iii. Commencement of plant operation.

In the case of projects with a proposed execution period of less than 5 (five) years, they must consider and specify in their formulation that the expected results indicated above will be achieved in a shorter period than those established in this section, specifying in each case the year in which they are expected to be obtained.

- c. The **term of execution** of each project will be **up to 5 (five) years**, which may be extended upon Corfo's ex officio decision or upon a well-reasoned request from the Recipient Entity, in the latter case, submitted before the expiration of execution period. The total duration of each project, including its extensions, may not exceed **6 (six) years**.
- d. **Amount of R&D Contribution: up to 60.00%** of the total cost of each selected project will be co-financed, with a cap of **US\$10,000,000 (ten million United States dollars)**, to be provided by SQM Salar S.A. in installments to be determined by Corfo in the Agreement to be concluded with the Recipient Entity, as an advance.
- e. **Co-financing:** participants must provide the remaining co-financing of at least **40.00%** of the total cost of the project, through "monetary" and/or "in-kind" contributions.
- f. **Application modality:** the method of application will be through **contest**.
- g. **Expenses for the acquisition of capital goods or other fixed assets:** expenses for the acquisition of capital goods or other fixed assets intended for the execution of activities necessary to achieve the project's objectives may be budgeted in full.
- h. **Evaluation criteria:** the proposals submitted and declared admissible will be evaluated according to the criteria and weightings indicated in the following table:

N°	Evaluation Criteria	Weighting
C2	Coherence and consistency	20%
C5	Capabilities and experience of the Recipient Entity and Co-Executor(s), if applicable	30%
C6	Strategic alliances	15%
C8	Work plan	20%
C9	Local content	10%
C11	Budget and financing structure	5%

The final score for each proposal will correspond to the weighted sum of the scores obtained in each of the criteria, according to the table above, as follows:

$$\text{Final grade} = 0,2 * C2 + 0,3 * C5 + 0,15 * C6 + 0,2 * C8 + 0,1 * C9 + 0,05 * C11$$

In the event of a tie in the final score between two or more proposals, preference and a better ranking position in the final ranking will be given to the project that has obtained the highest final score in the following criteria, according to the following order of precedence:

1. Capabilities and experience of the Recipient Entity and Co-Executor(s), if applicable.
2. Coherence and consistency.
3. Work plan.
4. Strategic alliances.
5. Local content.
6. Budget and financing structure.

4° **ESTABLISHES** the following additional targeting elements for the call:

- a. **Limits on applications:** there will be no limit on the number of projects that may be submitted to this call as a Recipient Entity or Transitional Applicant. Notwithstanding the foregoing, only one project may be selected per legal entity applying as a Recipient or Temporary Applicant.
- b. **Panel of Experts:** during the evaluation, the opinion of a “Panel of Experts” will be considered, whose report will serve as input for the evaluation and proposal made by the Management of Technological Capabilities to Corfo’s Board, and whose composition will be as follows:
 - i. A representative of Corfo or its Committees, appointed by the Executive Vice President of Corfo.
 - ii. A representative of the Ministry of Economy, Development and Tourism, appointed by the Minister of Economy, Development and Tourism, upon request of Corfo.
 - iii. A representative of the Ministry of Energy, appointed by the Minister, upon request of Corfo.

5° **PUBLISH** a notice in a newspaper of national circulation, informing potential interested parties of the opening of the call.

6° **PUBLISH** this Exempt Electronic Resolution in the “Transparent Government” banner of the website www.corfo.cl, in accordance with the provisions of Article 7(g) of Law No. 20,285, on Access to Public Information and Exempt Resolution No. 500, of 2022, which approves the new text of the General Instruction of the Council for Transparency, on Active Transparency.

Annotated and filed.

Resolution signed by advanced electronic signature by JOSÉ MIGUEL BENAVENTE HORMAZÁBAL, Executive Vice President and NAYA FLORES ARAYA, Legal Affairs General Counsel.

Deputy General Counsel
LFMF/JMF