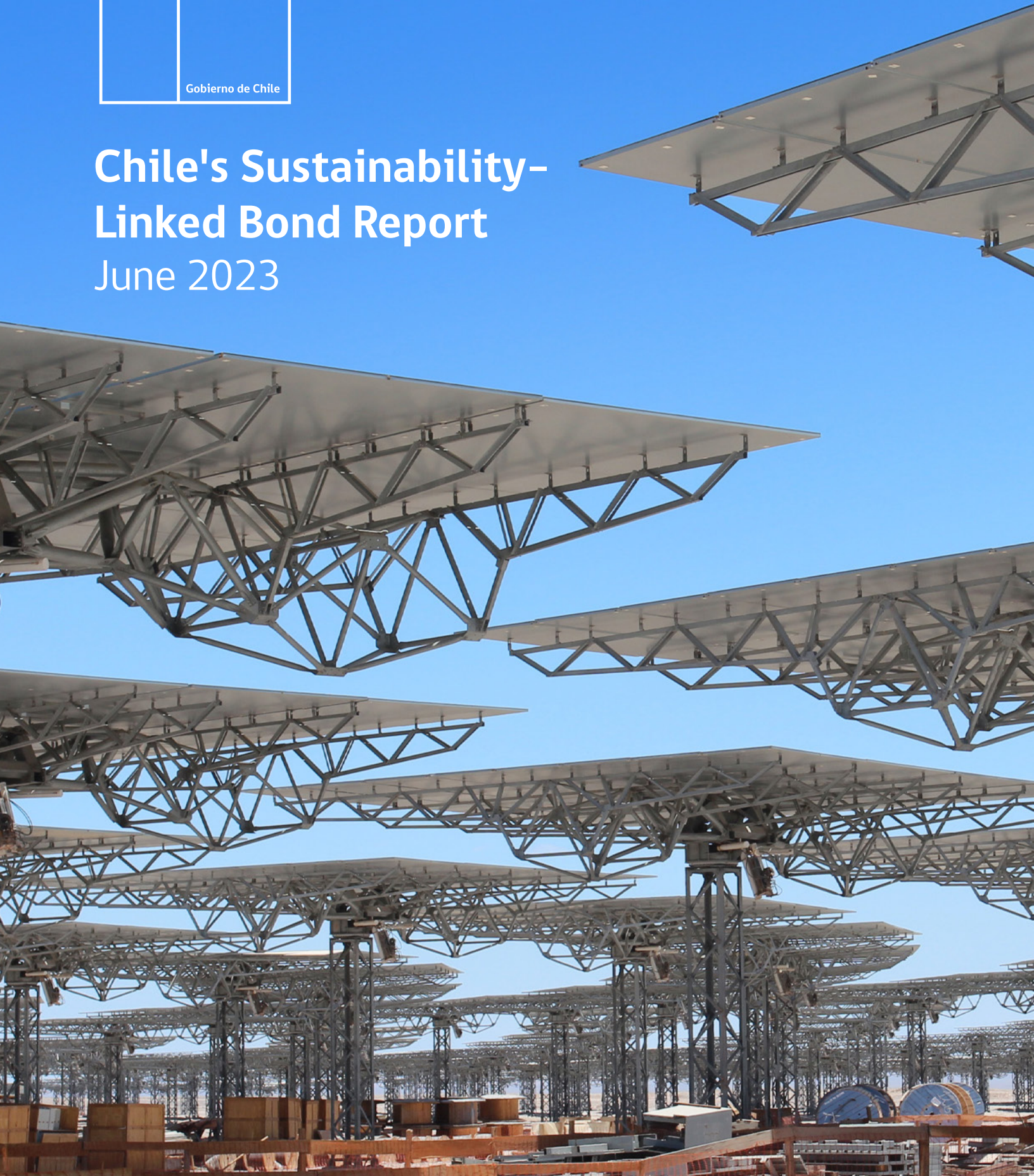




Chile's Sustainability- Linked Bond Report

June 2023





This Report is in accordance with the Chile's Sustainability-Linked Bond Framework.

This document is available on the Ministry of Finance's website: <https://www.hacienda.cl/english/work-areas/international-finance/public-debt-office/esg-bonds/sustainability-linked-bonds>

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01

Foreword by the Minister of Finance

Over the years, Chile has strengthened its commitment to climate change mitigation and environmental protection through both national and international initiatives. Heeding the imminent need to transition toward a net zero-carbon economy by 2050, various ministries, including the Ministry of Finance (MoF), have created specialized areas to address climate change and promote public-private cooperation.

Various Ministries, including the Ministry of Finance (MoF), have taken on a key role in supporting this national development strategy through the consideration of all three of these components as part of the general ministerial mandate. The MoF, responsible for the country's fiscal policy, has assumed a pivotal role in steering public and private capital flows to support and uphold environmental commitments, as demonstrated by a diverse set of initiatives, including being responsible for the Country's Climate Change Financial Strategy.

Chile's Green, Social, Sustainability and Sustainability-Linked Bond issuances, structured and executed by the Public Debt Office of the MoF, have been the cornerstone of this strategy. In May 2019, Chile published a Green Bond Framework to support the nation's inaugural Green Bond issuance and drive investment into climate focused projects. In November 2020, given the importance of social investments for the nation's sustainable development agenda, Chile updated its Framework to incorporate social categories, expanding the nation's toolkit to include Social and Sustainability Bonds, which were first issued in January 2021.

In February 2022, Chile becomes the world's first country to use sovereign debt to fund its long-term climate initiatives and accelerate its energy transition, with a landmark transaction that aligned economic incentives with the achievement of ambitious sustainability targets. The original SLB Framework focused on the first pil-

lar: environmental sustainability. Specifically, the KPIs encouraged the implementation of necessary actions to fulfill the greenhouse gas (GHG) reduction commitments agreed in Chile's updated Nationally Determined Contribution (NDC) and implement an ambitious national clean energy agenda.

In fact, Chile reaffirms its commitment to the development of the green and sustainable financing through ESG Bonds, becoming one of the major issuers in the world with one of the largest stock of its debt in labelled instruments.

Recently, the Ministry of Finance presents its updated SLB Framework to account for the third and very important pillar for accomplishing the nation's inclusive and sustainable development strategy: social sustainability. The new social KPI focuses specifically on increasing the percentage of Women Board Members. Through the issuance of Sustainability-Linked Bonds tied to achieving this Gender Equality KPI, Chile will reinforce the importance of gender diversity in the highest levels of management, both in the public and private sector, while formally committing to a goal that has a relevant impact for the labor force and governance structures of the Chilean companies that will have impacts towards an inclusive and sustainable development of the country. Achieving this target requires material efforts by both the private and public sector. We hope these efforts encourage other sovereign and private issuers to incorporate social KPIs in other SLB transactions brought to the market.



Mario Marcel Cullell
Minister of Finance



02

2022 SLB Bond Issuance and SLB Framework

During the last 5 years, the Republic of Chile ("Chile" or "the Republic") has demonstrated a strong effort related to ESG topics, including different sectorial initiatives that finally resulted in the financial integration of these categories in its debt plan. Thus, in 2019 Chile issued its Green Bonds, in 2021 its Social and Sustainable bonds, and its first SLB bond in 2022.

In effect, on March 2, 2022 and after presenting its new Sustainability-Linked Bond framework to investors, document that integrates sustainable commitments to the financial structure of the debt, the Republic of Chile took advantage of a market window to announce a new 20-year benchmark, obtaining an outstanding result, in terms of investor participation and rates, which demonstrates the continued support of the investor community and the credibility of the Chilean commitment to its sustainable efforts. The bond reached USD 2.0 bn and was successfully priced.

This landmark transaction marks not only the first Sustainability-Linked Bond for Chile, but also the first SLB ever issued by a sovereign nation, reinforcing the Republic's long standing commitment to sustainability and its status as the leading sovereign in the ESG space.

2.1 Context

The aforementioned issuance was made under the SLB Framework published by the Republic. In this Report, Chile establishes 2 KPIs, with their correlative Sustainability Performance Targets (SPTs). The KPIs are two:

- ▶ KPI 1. Greenhouse Gas (GHG) emissions per year, measured in MtCO₂eq.
- ▶ KPI 2. Non-Conventional Renewable Energy (NCRE) Generation, as the percentage generated in the National Electric System, measured in megawatt hours (MWh).

As established in the Framework:

- Each SLB may have one or more SPT Events, each with an associated event observation date and financial implication; and
- If any KPI has two or more different event observation dates, the financial implications may be cumulative. The amount, timing, and mechanism for payment of the financial implications are set forth in the relevant legal documentation for each specific SLB issuance.

The SPTs included in the SLB Framework were the following, for each KPI:

KPI	SPT Event	Observation Date
KPI 1	a) Achieve GHG emissions of 95 MtCO ₂ e by 2030	December 31, 2030
	b) Achieve a maximum of 1,100 MtCO ₂ e between 2020 and 2030	December 31, 2030
KPI 2	a) Achieve 50% electric generation derived from NCRE sources by 2028	December 31, 2028
	b) Achieve 60% electric generation derived from NCRE sources by 2032	December 31, 2032

In June 2023, in order to broaden the scope of the SLB Framework, including its social objectives, Chile included a KPI related to gender equality. This KPI was the "Percentage of women in Board Member positions at companies that report to the CMF (local regulator)". This new KPI was considered by Sustainalytics, entity that provided the Second Party Opinion to the Framework, as "Very Strong". The Sustainability Performance Target set by Chile was 40%, which was considered as "Highly Ambitious" by Sustainalytics. In 2022, this percentage reached 14.0%.

2.2 Financial and SLB Characteristics

As mentioned, the first SLB Bond of the Republic obtained successful conditions. Its financial characteristics are presented in Table 1.

Table 1 | Financial characteristics of the 2022 SLB Bond Issuance.

Item	:	USD
Amount	:	USD2 billion (<i>New Money</i>)
Pricing Date (T)	:	March 2, 2022
Settlement Date	:	March 7, 2022 (T+3)
Maturity	:	March 7, 2042
Coupon / Yield	:	4.340% / 4.346%
Price	:	99.920%
Spread¹	:	T + 200 bps

In addition, this Bond included, as mentioned, certain financial implications derived from SPT Events, as defined in the SLB Framework. In specific, it includes the possibility to an increase in the coupon payment in case Chile does not comply with the SPT committed (step-up). The key aspects regarding the step-up selected were:

- ▶ The bond contained two step ups, each one by 12.5 bps in case of not complying with the target.
- ▶ Both step-ups occur on March 7, 2034 associated with the following targets:
 - ▷ Step up 1: KPI 1, a) Achieve GHG emissions of 95 MtCO₂e by 2030.
 - ▷ Step up 2: KPI 2, b) Achieve 60% electric generation derived from NCRE sources by 2032.

Thus, the maximum annual step-up could amount 25 bps. Considering the maturity of the bonds, it implies a potential total penalty (maximum) of 200 bps.

2.3 Reporting commitments

Chile committed to “publish a report (SLB Report) annually, containing a qualitative or quantitative explanation of the main factors behind the evolution of the KPIs, as well as (when available) the progress of the KPIs established in this SLB Framework”.

Through this report, Chile complies with that commitment, disclosing:

- ▶ Information regarding KPI 1, in accordance with its current NDC protocol.
- ▶ Information regarding KPI 2, informing the participation of NCRE in the total production of the year, in accordance with data from the National Electricity Coordinator, a technical body of public law.
- ▶ Information on the mitigation policies efforts, as well as actions and policies to comply with the targets.

1 The spread is calculated against the reference yield. In the case of USD issuances (T), the reference is the US Treasury Bond with the closest maturity to the issued bond.



03

Evolution of KPIs



a. KPI 1: Greenhouse Gas (GHG) emissions per year, measured in ktCO₂e^q

National Greenhouse Gases trend

In 2020, national net emissions² and by GHG type were as follows: CO₂ emissions accounted for 29,543 kt; CH₄ emissions accounted for 610 kt; and N₂O emissions accounted for 22 kt. In the case of fluorinated gases, HFC emissions accounted for 4,390 ktCO₂e; PFC emissions were 0.5 ktCO₂e; and SF₆ emissions were 191 ktCO₂e. Regarding precursor gases, in 2020 emissions nationwide were as follows: NO_x accounted for 263 kt; CO accounted for 1,051 kt; non-methane volatile organic compounds (NMVOCs) accounted for 352 kt; and finally, SO₂ accounted for 318 kt.

In 2020, Chile's GHG³ balance accounted for 55,825 ktCO₂e, increasing by 429% since 1990 and decreasing by 4% since 2018. The main drivers of the GHG balance trend are CO₂ emissions generated by fossil fuel burning (accounted for in the Energy sector) and CO₂ removals from forest land (accounted for in the LULUCF sector). The decrease in the 2020 balance compared to recent years is due to effects of health measures related to the COVID-19 pandemic and its effects on the economy and mobility restrictions across the country, as evidenced by the drop in emissions from the Energy

sector which decreases by 5% since 2018, emissions associated with transportation.

The observed values that escape the GHG balance trend (in 1998, 2002, 2007, 2012, 2015 and especially in 2017) are mainly consequences of GHG emissions generated by forest fires (accounted for in the LULUCF sector) and changes in the share of the main energy consumed in the country (diesel, gasoline, natural gas and coal). The large forest fires of 2017 impacted the central and southern part of the country, affecting about 570,000 ha of forest land, crops, and pastures mainly. Only forest land fires in 2017 accounted for 68,223 ktCO₂e, which is equivalent to more than what was emitted in sum by land transport, electricity generation and industries during the same year.

Regarding the country's total GHG emissions⁴ in 2020, they accounted for 105,552 ktCO₂e, increasing by 116% since 1990 and decreasing by 4% since 2018. Regarding the share of each sector in the 2020 GHG balance in absolute terms, the Energy sector accounted for 51%, followed by the LULUCF sector (-32%), the agriculture sector (7%), the Waste sector (5%), and finally the IPPU sector (4%). This shows that, both in the GHG balance and in total emissions, the Energy sector is the most relevant.

Table 2 | Chile's NGHGI: balance of GHG emissions (ktCO₂e^q) by sector, 1990-2020⁵

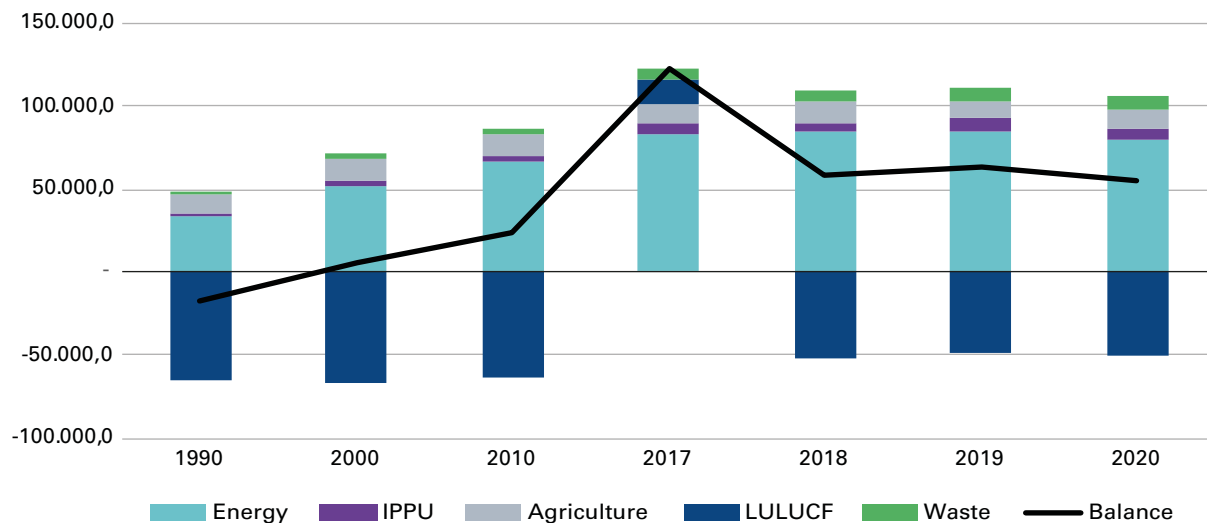
Sector	1990	2000	2010	2017	2018	2019	2020
Energy	33,336.11	51,803.96	65,751.02	83,547.34	84,202.93	84,860.69	79,724.33
IPPU	1,890.02	3,150.85	3,765.10	5,904.60	6,221.19	7,382.82	6,930.22
Agriculture	12,008.06	13,798.57	13,090.53	11,732.03	11,651.84	11,333.74	11,237.74
LULUCF	(65,811.55)	(66,219.65)	(63,615.52)	14,874.29	(51,579.16)	(48,537.68)	(49,727.38)
Waste	1,584.47	2,745.35	4,363	6,840.64	7,384.85	7,449.34	7,659.63
Balance	(16,992.89)	5,279.08	23,354.13	122,898.90	57,881.65	62,488.91	55,824.54
Total	48,818.66	71,498.73	86,969.65	108,024.61	109,460.81	111,026.59	105,551.92

2 "Net emissions" refers to the sum of GHG emissions and removals, also referred to as "GHG balance"

3 "GHG balance" or "net emissions" refers to the sum of GHG emissions and removals expressed in carbon dioxide equivalent (CO₂e). This term includes the LULUCF sector

4 "total GHG emissions" refers only to the sum of national GHG emissions expressed in carbon dioxide

5 Numbers may vary slightly from previous reports due to methodology, refer to <https://snichile.mma.gob.cl/metodologia/>

Figure 1 | Chile's NGHGI: balance of GHG emissions (ktCO₂eq) by sector, 1990–2020

Source: Ministry of the Environment, Sistema Nacional de Inventarios de Gases de Efecto Invernadero, published March 2023.

b. KPI 2: Non-Conventional Renewable Energy (NCRE) Generation, as the percentage generated in the National Electric System, measured in megawatt hours (MWh)

The percentage of NCRE is measured as the energy produced by NCRE sources in 2022, and transmitted to the Chilean matrix, divided by the total energy produced in the Chilean matrix during the same year. For these purposes, it is considered as NCRE the energy coming from the following sources: wind, small run-of-river hydro (plants up to 20 MW of installed capacity), biomass⁶, biogas,

geothermal, solar⁷ and ocean energy, and green hydrogen.

Thus, in 2022, the NCRE participation reached 33.4% of the total energy produced, compared to the 27.2% observed in 2021.

The information published by the [National Electric Coordinator](#) contains information by technology, as well as a separated file with NCRE produced by year. The KPI is calculated using this information.

⁶ It is considered as NCRE only those produced with projects operating after 2007.

⁷ It includes thermosolar.

Figure 2 | Energy production by type

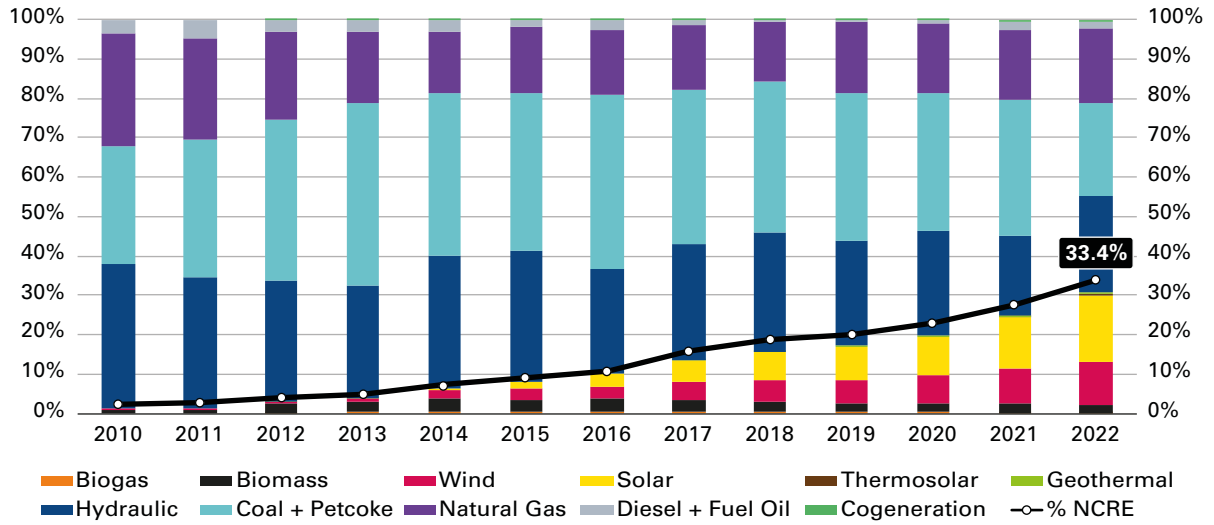


Table 3 | Summary of KPIs evolution

Year	2018	2019	2020	2021	2022
GHG Emissions (ktCO2eq)	109,461	111,027	105,552	n.a.	n.a.
NCRE Participation (% total)	18.3%	19.5%	22.2%	27.2%	33.4%



04

Mitigation measures, actions and policies



a. GHG Mitigation measures

In this opportunity, two groups of public institutions that report their mitigation policies and actions have been defined:

- I. Sectorial mitigation ministries that must comply with defined emissions budgets and mitigation efforts, according to the LMCC and the ECLP (Ministry of Energy, Ministry of Transport and Communications, Ministry of Mining, Ministry of Health, Ministry of Agriculture, Ministry of Public Works, Ministry of Housing and Urban Planning);

Public institutions that, although they do not have compliance obligations in terms of emission budgets or mitigation efforts, the work they carry out is relevant for the achievement of mitigation goals at the country level, which is why they have been invited to report their progress in the implementation of measures (Office of Legislative Implementation and Circular Economy and the Ozone Department of the Climate Change Division, both of the Ministry of the Environment; Production Development Corporation; Ministry of Social Development and Family; Ministry of National Assets; Undersecretariat of Regional and Administrative Development of the Ministry of the Interior and Public Security; Chilean Navy). The set of mitigation measures implemented by the public sector has an impact on GHG emissions, where a large part of the mitigation efforts is expected to come from the ministries or sectorial authorities. This would represent the largest GHG emissions in the country and correspond to the ministries of Energy, Transportation and Communications, Mining, Health, Agriculture, Public Works and Housing and Urban Planning.

The Ministry of Energy has the largest participation in the design and implementation of mitigation measures to achieve carbon neutrality in the country. The integration and articulation of these measures is carried out through the establish-

ment of long-term public policy instruments led by the Ministry of Energy, such as the National Energy Policy and the regulatory mechanisms of Long-Term Energy Planning (PELP).

In parallel to the updating of the National Energy Policy to 2050 and the construction of the Energy Agenda 2022-2026, the Ministry of Energy has carried out other processes that complement the Policy and pursue the same sustainability objectives, such as planning for carbon neutrality; the Fair and Sustainable Transition Strategy in the energy sector, which seeks to make the energy transition compatible with the social, labor and environmental spheres associated with it and which will initially address the challenge of retiring coal-fired plants, but will later serve as a basis for other necessary transformations in the sector; the Renewable Energy Strategy in the Heating and Cooling sector; the National Green Hydrogen Strategy; the National Energy Efficiency Plan; the National Electro-mobility Strategy; the Strategy of Economic Instruments for the Energy Transition, among others.

► Ministry of Transportation and Communications

Based on the sectorial vision of sustainable mobility, expressed in the National Strategy for Sustainable Mobility, different actions have been activated to improve the institutional organization in environmental aspects, highlighting the reconfiguration of the Environment and Climate Change Committee. The purpose of the strategy is to incorporate environmental objectives in the various areas of action of the Ministry of Transportation and Communications in order to advance in the goals established in the Long-Term Climate Strategy and in the National Strategy for Sustainable Mobility and to support the future construction of the National Program for Sustainable Urban Mobility and the Sectorial Plan for Mitigation of the Transportation Sector.

In addition, inter-institutional coordination has been strengthened in various aspects such as: promoting the preparation of Metropolitan Urban Transportation Master Plans in future metropolitan areas, strengthening Public Transportation Planning instruments (PMITP), advancing in coordination with the Ministry of Housing and Urban Planning in the generation of urban integration mechanisms (social integration polygons), incorporating the notion of sustainable mobility in Strategic Environmental Assessment, as well as promoting integrated urban planning and the generation of balanced density patterns. Efforts have also been made to include sustainable mobility criteria in land use planning and rural development.

► **Ministry of Mining**

To reduce this consumption and reduce GHG emissions in the mining sector, certain initiatives such as the incorporation of renewable energies have been encouraged. Chilean mining is making significant progress in the use of Non-Conventional Renewable Energies (NCRE). Already in 2021, 44% of mining electricity consumption is from clean sources and in 2025 it is expected that 62% of the industry's electricity demand will come from this type of energy.

The National Mining Policy 2050 (PNM 2050) is a reference point for the industry and the State. This policy sets goals for the industry and the State, in the short (2025), medium (2030) and long-term (2050) to meet the objective of developing a sustainable mining industry that provides the minerals that the world will require to face the climate crisis, promotes employment, investment and progress in the regions.

The PNM 2050 is based on the pillars of economic, social, and environmental sustainability; however, this policy must be adapted to new scenarios and challenges. To this end, we are work-

ing on its revision, especially with the inclusion of weakly considered actors and due coherence with the Government Program.

State-owned companies have also made progress in mitigating their GHG emissions. The National Copper Corporation (CODELCO) launched its Sustainability Policy and the National Mining Company (ENAMI), on the other hand, is making progress in training its professionals in energy management and is also in the process of reviewing electricity supply contracts to supply its operations with renewable sources. The Mining Council is a trade association that brings together the largest mining companies that produce in Chile, and as part of this council, the associated large mining companies have set corporate-level goals for reducing emissions.

► **Ministry of Health**

In 2020, total emissions allocated to this ministry reached 6.3 MtCO₂e, increasing by 13.6% compared to 2018 and representing 6.0% of national emissions excluding the LULUCF sector. The increase in emissions is mainly due to emissions generated by waste disposal, in line with the increase in the country's population. With respect to emissions by 2020, 92% are the result of the disposal of municipal and industrial solid waste.

Thus, among the mitigation measures identified by the sector, it should be noted that in waste management matters, the Ministry of Health is responsible for establishing and monitoring the sanitary conditions to be met by waste disposal facilities, including greenhouse gas emissions associated with this activity, as well as improving the practices used in the management of waste from health care facilities, as is the case of the rationalization of interregional transportation of waste for treatment, which will result in the reduction of CO₂ emissions.

► **Ministry of Agriculture**

Although mitigation measures in the sector have historically focused on the forestry component, since the publication of the ECLP and the LMCC, the agricultural component has acquired greater relevance as the object of mitigation instruments and actions. Regarding specific instruments, in 2021 the Ministry of Agriculture presented the Agri-food Sustainability Strategy, a sectorial policy whose vision is to position the national agri-food sector as a supplier of food produced in a sustainable manner for Chile and the world, committed to people, communities, the environment and the development of local economies. Additionally, the PLACA initiative (Platform for Climate Action for Agriculture in Latin America and the Caribbean) launched in 2019 and supported by the Ministry of Agriculture is being implemented. This platform is a regional mechanism for collaboration between Latin American and Caribbean countries on agriculture and climate change, aimed at productive agricultural development, adapted to the effects of climate change, resilient and low in GHG emissions.

With respect to the relevant instruments and policies related to the forestry component, one of the instruments developed to meet the goal contained in the NDC is the National REDD+ Strategy (Reducing Emissions from Deforestation and Forest Degradation - REDD), which in the case of Chile is called the National Strategy for Climate Change and Vegetation Resources (ENC-CRV), which is led by CONAF as the focal point.

► **Ministry of Public Works**

In 2020, the total emissions allocated to this ministry reached 4.5 MtCO_{2e}, decreasing by 4.0% compared to 2018 and representing 4.2% of national emissions excluding the LULUCF sector. The main cause for the decrease in emissions allocated to the Ministry of Public Works is the

decrease in emissions produced by sludge generation in most of the country. However, cement production and electricity demand offset the decrease with their respective increases. Regarding the participation of the categories in 2020, 37% corresponds to domestic and industrial water treatment, 25% corresponds to emissions generated by electricity demand for public use and water treatment, and 20% corresponds to emissions from cement production.

► **Ministry of Housing and Urban Planning**

In the area of climate change, this ministry works in a comprehensive and coordinated manner with other entities in the territories, at various scales such as housing, neighborhoods, and cities. The National Urban Development Policy (PNDU) states that it is key to move towards sustainable urban development, which considers both the sustainable construction of the city and the efficient management of energy and the management of natural resources and waste, which will lead to a reduction in the generation of GHG emissions. Within the framework of the Circular Economy, the Ministry of Housing and Urban Planning is developing a series of actions to collaborate in GHG mitigation. Additionally, at the national level, the National Urban Parks Policy was developed to protect and strengthen the vital role that urban parks play in the sustainability and resilience of our cities, in the wellbeing and quality of life of their inhabitants, and in the future development of the country.

In the construction sector, two instances are mentioned at the national level, the first is the updating of the National Sustainable Construction Strategy (ENCS) and the second is the completion of the development of the National Strategy for Carbon Footprint in Construction. In the area of neighborhoods, the aim is to reduce greenhouse gas emissions associated with urban planning, by means of two plans that are incorporated into

each master plan that the program intervenes in selected neighborhoods starting in 2020 with 100 neighborhoods that begin the process and should complete the intervention five years later (year 2025). At the housing level, the Thermal Conditioning Subsidies, and the Subsidy for new thermal standards in areas with an Atmospheric Decontamination Plan (PDA) will continue. Other measures planned are the Energy Rating System and the Sustainable Housing Certification.

Regional mitigation efforts

The Regional Climate Change Action Plans (PARCC) are the first climate management instruments focused on the subnational level, which are defined in the LMCC. In addition, the law establishes minimum contents that must be incorporated in the PARCC.

In terms of elaboration, four PARCC have been presented: Atacama, O'Higgins, Los Ríos, and Los Lagos.

Local mitigation efforts

In Chile, climate action will be formally and permanently integrated into the management of regional and local governments through the development and updating of current strategic development and territorial planning instruments and the climate change management and planning instruments proposed in the LMCC. Integrated coordination and cooperation among the country's regions and municipalities will be key to achieving these goals while maintaining coherence with national policies; specific strategies and actions may differ among different territories, depending on their contexts and realities.

The formation of the CORECC, the development of the first four PARCC, and the notable efforts of some municipalities to develop Communal Action Plans on Climate Change (PACCC), are evidence of

the beginning of a multilevel coordination process between the main objectives established in national public policies and in management instruments at the regional and communal levels.

Regarding the communal efforts on climate change, Chapter 6 of the ECLP, for Climate Change Management at Regional and Local Level, integrates goals linked to the new Recognition System for Local Governments of the HuellaChile Program, at the level of reporting and declaration of GHG inventories, and mitigation actions at the communal level. This is in addition to the elaboration of PACCC included in the LMCC, which must be prepared by the municipalities within three years (by 2025).

Within the national initiatives with local impact, there are: Municipal Environmental Certification System (SCAM); HuellaChile Program; Energy Community; Other initiatives (Chilean Network of Municipalities facing Climate Change, Association of Municipalities for Environmental Sustainability).

Private mitigation efforts

The public-private actions reported in this document have been managed by the Sustainability and Climate Change Agency (ASCC) and the HuellaChile Program.

The ASCC is a CORFO committee whose mission is to promote the inclusion of the climate change dimension and sustainable development in the private sector and in the territories. This, through voluntary agreements, coordination with other public institutions, promotion initiatives and the implementation of programs and projects that contribute to the construction of a sustainable, resilient, and low-carbon economy. One of the agency's main instruments consists of Clean Production Agreements (APL), which are agreements entered into between a business sector and State

administration bodies whose objective is to apply clean production through specific goals and actions and thus contribute to the sustainable development of companies. From 2012 to 2020, 115 APL have been signed with a reduction of 1,114,894 tCO₂e.

The HuellaChile Program was created by the MMA with the objective of promoting the quantification, reporting and management of GHG emissions at the organizational level in the public and private sectors. As of July 2022, 1,706 organizations from different economic sectors in Chile's public and private sectors have participated. During the operation phase, the HuellaChile Program has delivered a total of 952 seals of recognition, consisting of: 863 seals of

quantification, 63 reduction seals, 10 neutralization seals and 16 seals for excellence in GHG management. By July 2022, more than 100 face-to-face and virtual workshops on the calculation and management of GHG emissions have been held, with more than 3,000 participants in different cities of the country.

b. Measures to increase the non-conventional renewable energies participation

During the last years, Chile has made strong efforts to increase the participation of NCRE. In 2008, the NCRE Law (Law No. 20,257) established the mandatory requirement for electric companies (with a capacity higher than 200 MW, that also provided energy to the SIC and SING system) to ensure that at least 5% of the energy provided comes from NCRE sources, with a target of 10% by 2024. Then, in 2013, Law No. 20,698 increased the target to 20% by 2025.

Another important milestone in the efforts to transition to clean energies is the plan to phase out carbon plants, announced in 2019, and through

which Chile committed to abandon carbon plants by 2040. Since then, this plan has been continued accelerated. By 2025, 50% of the total carbon plants will be withdrawn, which will be partially replaced by NCRE sources, including new sources under development and which are in the core of the Chilean strategy, such as the green hydrogen.

In 2022, it was approved the Law of Energy Storage (Law No. 21,505) which favor the storage of NCRE energies, avoiding its waste. This law establishes that the storage system not connected to the National Electric System, can participate of this, and should be paid for the electricity given to the National Electric System. At the same time, in connection with the electromobility, this Law includes a transitory reduction of certain regulatory payments that electric and hybrid cars make.

Another bill under discussion in Congress will provide better conditions for the improvement of NCRE. In effect, the Bill Which Promotes the Renewable Energies (Proyecto de Ley de Impulso a las Energías Renovables), establishes minimum quotas of renewable energy to energy providers, establishing an annual quota of 60% by 2030. Additionally, it includes a quota of 40% in certain time blocks, in order to promote the storage of renewable energies.

Finally, in April 2023 the Bill of Energetic Transition (Proyecto de Transición Energética: Transmisión eléctrica como sector habilitante) was publicly announced, which takes into account the national target to reach the carbon neutrality by 2050. This bill considered the feedback provided by the industry and contains three pillars: i) the efficient development of transmission lines, ii) the electric sector and climate change, and iii) the competence and fostering of storage systems.

On the regulatory side, in September 2020 was published the [Flexibility Strategy](#). Flexibility is understood as the capacity of an electric system to respond to the variability and uncertainty of

the demand and generation, in a safe and efficient way. Thus, this strategy established as objective several actions to develop market signals and processes that allow and promote the flexibility required by the National Electric System. In this moment, some of the regulatory changes derived from the strategy are in process or pending to be approved.

In December 2022, the Identification and Quantification of Renewables Energies was published, estimating the potential for electric and thermal use of these sources. Importantly, this report defines specific areas with a high potential for solar and wind energies (more detail here: https://exploradores.minenergia.cl/portal-ernc/websites/ICPER_2021_v2.pdf)

One of the main tools and process in order to plan the future of the country's energy is the Long-Term Energy Planification. This is a process led by the Ministry of Energy, and its objective is to Project the energetic future in a 30-year horizon. For these purposes, it defines different long-term energy scenarios, showing different alternatives for the development of the energy matrix. In this moment, it is available the draft for the 2023-2027 Long-Term Energy Planification⁸.

Green Hydrogen

On November 3, 2020, the Ministry of Energy published the National Green Hydrogen Strategy in Chile, which, among other aspects, seeks to take advantage of the opportunity to produce and export green hydrogen and its derivatives, which include ammonia, methanol, and synthetic fuels.

The National Green Hydrogen Strategy takes into consideration the benefit that this technology could have in the context of the current climate

crisis, as well as the favorable growth projections of the global demand for energy supplied with hydrogen in different sectors of the economy.

Through three stages, it is intended to accelerate the use of green hydrogen in key national applications by 2025, enter the export market by 2030 and be the leading global exporter of green hydrogen at a cheap production cost.

In December 2022, Chile announced its 2023-2030 Green Hydrogen Action Plan, that will define the roadmap for the deployment of this industry, harmonizing economic development with the respect for the environment, territory and communities. This plan seeks to promote sustainable investments, the development of regulations and institutions, and the decarbonization and development of the local industry.

Although the participation of this technology in the current matrix is low, it is expected it will increase in the future.

c. Other measures

In addition to the measures to meet the established goals, Chile is working on other measures to comprehensively meet its environmental objectives. In this way, some initiatives stand out, such as the Development of a Taxonomy, and on the other hand, the creation of a "Biodiversity and Protected Areas Service".

Taxonomy

Economic sectors lack systematic planning for a changing climate. Therefore, it is increasingly necessary to promote and implement measures to stop global warming. A fundamental initiative is to ensure that economic activities and invest-

8 <https://energia.gob.cl/pelp/repositorio>

ments are consistent, throughout their economic life, with the paths of reducing emissions, adaptation to climate change and environmentally sustainable development.

In this context, and in order to support the alignment of investments towards environmentally sustainable activities, the need to have classification systems or “taxonomies” that make it possible to determine, in an objective and credible manner, which activities, projects and investments can be considered environmentally sustainable.

Currently, the Ministry of Finance is preparing documents and inputs that will set the basis to progress towards the elaboration of a local Taxonomy that standardizes those economic activities that can be considered environmentally sustainable at the national level, promoting greater transparency in the markets, allowing the comparability of activities around its environmental sustainability, strengthening and aligning investment towards economically sustainable activities and mitigating “greenwashing”.

Biodiversity and Protected Areas Service

During the last governments, Chile has showed a broad commitment to the creation of a National Service for Biodiversity and Protected Areas (Servicio de Biodiversidad y Áreas Protegidas). Thus, in June 2023 was approved by Congress the Law that creates it. During the preparation process, it was heard the opinion of different NGOs, members of the academy, as well as private and public entities.

The pillars are the following:

1. To integrate the conservation responsibilities in a single entity, coordinating the different players.
2. To create a public service in charge of protecting biodiversity.
3. To provide the country management tools for the conservation of biodiversity
4. To strengthen regulation and provide robust and efficient financing for conservation.



05

Governance and Calculation

a. GHG emissions: Methodology and main sources of information

GHG and precursor gas estimates for Chile's National GHG Inventory, 1990–2020 series, were made in line with the 2006 IPCC Guidelines for National Greenhouse Gas Inventories⁹ and own calculation books for estimation based on the same guidelines: including key category analysis, uncertainty assessment, completeness assessment and recalculations.

In addition, Chile's National GHG Inventory has been prepared in compliance with the reporting requirements of the Convention's Guidelines for Biennial Update Reports from Parties not included in Annex I to the Convention¹⁰ and the Guidelines for the Preparation of National Communications from Parties not included in Annex I to the Convention¹¹. In an additional effort, the country reviewed and considered, during the update process, the provisions included in the Modalities, procedures, and guidelines for the transparency framework for actions and support referred to in Article 13 of the Paris Agreement¹² (MPG). Particularly the provisions in paragraphs 17–58 were reviewed, trying to comply with these to establish possible needs in view of the delivery of the first Biennial Transparency Report.

b. Governance and Calculation of NCRE Participation

The data on NCRE and total participation in the energy matrix (energy effectively produced) is publicly available, at the website of the [National Electric Coordinator](#) (the Coordinator).

These numbers are produced with the coordination of the Coordinator, with the participation of third parties, which ensures the transparency of the number. As mentioned, the internal information review process includes internal actors of the electricity market, i.e. the Electric Coordinator, the generating companies and an external panel of experts. Each generating company reviews the information on electricity generation on a monthly basis due to the fact that the Coordinator prepares the economic balances of energy where the remuneration of each company is calculated.

In case of divergencies between companies and the Coordinator, there is an independent body known as the Panel of Experts, which resolves any conflicts that may arise between actors in the sector. The Panel of Experts of the General Electricity Services Law is an autonomous collegiate body created in 2004 by Law No. 19,940, with strict and regulated jurisdiction. Its function is to resolve, through opinions with binding effect, discrepancies and conflicts that, pursuant to law, arise due to the application of the electricity and gas services legislation and that the electricity, gas services and other authorized companies submit to the panel. To assure transparency, the Panel of Experts is made up of seven professionals, five of whom must be engineers or economists, and two must be lawyers, in each case, with extensive professional experience.

These professionals are appointed by the Court for the Defense of Free Competition, through a public competition process. Finally, their appointment is made by resolution of the Ministry of Energy.

9 Retrieved from www.ipcc-nggip.iges.or.jp/public/2006gl/spanish/index.html

10 Annex to Decision 17/COP.8. Retrieved from <http://unfccc.int/resource/docs/spanish/cop8/cp807a02s.pdf>

11 Annex III of Decision 2/COP.17. Retrieved from <http://unfccc.int/resource/docs/2011/cop17/spa/09a01s.pdf>

12 Decision 18/CMA.1. Retrieved from https://unfccc.int/sites/default/files/resource/CMA2018_3a02S.pdf

