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Steps towards carbon neutrality in 2050

Santiago, August 18 2021. In this newsletter we inform on the main plans developed to achieve the goal of carbon neutrality by 2050, committed by the government of Chile in the context of the Paris Agreements, in June 2019.

In Chile's update of its Nationally Determined Contribution (NDC) published in April 2020, the mitigation goal was updated, reaching an emission level of 95MtCo₂eq by 2030 and a GHG emissions budget that will not exceed 1,100 MtCO₂eq for the period 2020-2030, with 2025 as the peak year.

In Chile, energy use produces 77% of CO₂eq emissions, which explains why mitigation plans have focused on the energy sector. Among the main mitigation plans that have been developed, the following are highlighted here below:

1. Closure and/or Conversion Plan of Thermoelectric Power Plants

In electricity generation, coal-fired power is the main contributor of greenhouse gases, which explains why this closure and / or reconversion plan in this sector was developed. This plan, which has a voluntary origin and binding nature, contemplates a schedule for the withdrawal of 28 coal-fired thermoelectric plants by 2040, with a first phase of withdrawal of 11 power plants by 2024, and the reconversion to gas or biomass of 3 plants by 2025, corresponding to 50% of the installed capacity of coal-fired power plants.

The mid-term stage consists of the commitment to define dates flexibly in new worktables to be carried out every five years, which will allow to establish specific closure schedules, accounting for the impacts. During 2025 the second phase calendar (2025-2030) will be presented.

When the plan was announced it was divided into two phases: the first one that contemplated the closure of 8 plants by 2024, and the other 20 by 2040. Today that plan is much more ambitious and has advanced the first phase in 3 years: in December 2021, 8 plants will have been closed, and by 2025 18 will have been closed.

For more information please visit:

https://energia.gob.cl/sites/default/files/plan_de_retiro_y_o_reconversion_centrales_carbon.pdf

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2. National Electromobility Strategy

This strategy developed by the Ministry of Energy aims to outline actions to ensure that 40% of private vehicles and 100% of public transport vehicles are electric by 2050. For more information on this plan, visit:

https://www.energia.gob.cl/sites/default/files/estrategia_electromovilidad-8dic-web.pdf

Among the advances, it is highlighted that we currently have 776 electric buses in operation in the capital's public transport, the largest fleet after the cities of China. In the Metropolitan Region there are 10 electrical terminals, which are delivering energy to the electric buses that transport 600 thousand people from 17 communes.

Currently, the efforts of the Government of Chile in the field of Electromobility have been reflected in the Energy Efficiency Law recently enacted in February 2021. Also, the Ministry of Energy is updating the National Electromobility Strategy because before to achieve our carbon neutrality goal it is necessary to strengthen the electromobility goals, accelerating them to 2040.

3. Energy Efficiency Law

This law is a key step to articulate efforts and achieve carbon neutrality by 2050. By applying the measures contemplated in the law, by 2030 the Ministry of Energy estimates a reduction in energy intensity of 10%, an accumulated saving of US \$ 15.2 billion and a reduction of 28.6 million tons of CO₂eq. This is equivalent to avoiding the annual journey of 15.8 million light vehicles or the annual absorption of 1.8 million hectares of native forest.

In the Transport sector, this law:

- Determines energy efficiency standards for vehicles.
- Regulates interoperability for electric vehicles.
- Establishes incentives such as accelerated depreciation for electric vehicles.
- Declares green hydrogen as fuel.

In the housing sector, this law establishes that homes, buildings for public use and commercial and office buildings must have an energy rating to obtain permits for their construction.

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In the energy sector, this law requires large consumers to actively manage their energy consumption. Thus, it will be determined as Consumers with Energy Management Capacity who must implement an energy management system. In addition, they must report annually the consumption and other indicators established in a public report.

4. National Green Hydrogen Strategy

The Green Hydrogen development plan developed by the Ministry of Energy in collaboration with a council of experts, proposes a 3-stage plan to achieve global leadership in the production of green hydrogen by electrolysis by 2030.

- Stage I: 2020-2025. Activate the domestic industry and develop the export. For this, progress will be made in 6 priority applications in Chile to build a local market. These are: use in refineries, domestic ammonia, mining trucks, heavy road trucks, long-range buses and injection into gas networks.
- Stage II: 2025-2030. Scale to reach global markets. In this stage, local experience will be harnessed to enter with force in international markets.
- Stage III: 2030+. Exploit synergies and economies of scale to advance as a global provider of clean energy.

For more information, visit:

https://energia.gob.cl/sites/default/files/estrategia_nacional_de_hidrogeno_verde_-_chile.pdf

5. Next progress on the carbon neutrality agenda

Energy Policy 2050: In accordance with the provisions of Decree 148/2015 article 3, the energy policy must be updated every 5 years. The update that is planned to be presented during the second semester of 2021, in line with carbon neutrality

Long-Term Energy Planning (PELP, by its acronym in Spanish): These are the scenarios under which future energy development is planned. The PELP also needs to be updated every 5 years and is in advanced stages of the process. For more information, visit: <https://energia.gob.cl/panel/planificacion-energetica-de-largo-plazo-0>

Strategy of Financial Instruments for the Energy Transition: Strategy mandated by the National Green Hydrogen Strategy that aims to match opportunities with clean energies and thus give economic signals to the market to begin their energy transition.