

CHILE

ENERGY EFFICIENCY GOALS

1. GOVERNMENT POLICY ON ENERGY EFFICIENCY

Energy efficiency is among Chile's priorities as it works towards achieving its key goal of enhancing its energy security. These efforts also encompass the stabilisation of demand growth through energy efficiency measures. The government promotes energy efficiency measures through the Energy Agenda and Energy Policy.

2. ENERGY EFFICIENCY STRATEGY

The government promotes energy efficiency measures through the Energy Agenda and Energy Policy. The Energy Policy defines long-term goals by 2035 and 2050 in energy efficiency. These goals are organised in eleven principles:

- Forming a robust market of consultants and enterprises of energy services.
- Applying progressively energy management tools validated by competent entities.
- Using local available resources and exploit the potential energy in the productive process.
- Building efficiently incorporating EE standards in the design, construction, and conditioning of buildings.
- Promoting smart control systems and own energy production in way to move along to buildings with efficient solutions.
- Strengthening the efficient edification market, moving along to more productive and efficient local markets.
- Improving energy efficiency of vehicles.
- Promoting more efficient transportation alternatives.
- Ensuring the availability of massive and clear information regarding rights and duties of consumers, including alternative energies and methods.
- Designing, implementing, and tracking of an energy education strategy, which joins the different initiatives developed by the Ministry of Energy and related institutions.
- Developing professional and technical human capital for the production.

Since 2016 the Ministry of Energy has carried out the "Mi Hogar Eficiente" capacity-building programme, which is a training on energy efficiency in the home along with an efficiency kit that enables the most vulnerable households in the country to diminish their energy consumption. For the year 2017, the Programme's goal is to train 100,000 families with efficiency kits.

FUNDING

No information provided.

LINKS

Chile's Energy Policy: <http://www.energia2050.cl/wp-content/uploads/2016/08/Energy-2050-Chile-s-Energy-Policy.pdf>

3. ENERGY EFFICIENCY ACTION PLAN

Street Lighting Programme: the massive replacement of public lighting in different municipalities of the country, by more efficient technologies (LED).

Energy Efficiency Programme in Public Buildings: Implement measures to improve Energy Efficiency in Public Buildings, by including measures of technology change or optimisation of processes.

Comprehensive Education Programme in Energy Efficiency: Promote the incorporation of Energy Efficiency in schools curriculum, developing capacities in the different actors of the educational community for the incorporation of EE from education.

Efficient Cogeneration Programme: Programme, which seeks to plan and prepare cogeneration projects and generate national capacities for the development and promotion of this technology.

FUNDING

No information provided.

LINKS

Energy Efficiency Agency projects: <http://www.acee.cl/proyectos-emblematicos/>

4. ENERGY EFFICIENCY, INTENSITY OR EMISSIONS REDUCTION TARGETS

The current goal is to foster the efficient use of energy as an energy resource. The government has established a 20% savings goal by the year 2025 after considering the expected growth in energy consumption for the economy. The implementation of different plans, campaigns and programmes, as well as the future Energy Efficiency Law aims to achieve a total savings of 20,000 GWh per year by 2025, equivalent to an installed capacity of 2,000 MW.

LINKS

Energy Policy Targets: <http://www.energia2050.cl/wp-content/uploads/2016/08/PRINCIPAL-GOALS.pdf>

Energy Efficiency Information from Ministry of Energy - <http://www.energia.gob.cl/eficiencia-energetica>

5. SECTORAL ENERGY EFFICIENCY TARGETS

Goals for 2035:

- Mining and Industrial Sector: 100% of the large consumers of energy (industrial, mining and transportation sectors) make efficient use of energy, with proactive energy management systems and the implementation of energy efficiency measures.
- Residential, Public and Commercial Sector: 100% of new public and residential buildings meet OECD standards for efficient construction. All residential buildings being sold in Chile report their energy consumption.
- Appliances: 70% of the main categories of appliances and equipment sold in the market are energy efficient.
- Transport Sector: Chile has energy efficiency standards for the largest consumers of energy for road transport. All new tenders for public passenger transport include energy efficiency criteria in their evaluation. Energy efficiency standards are introduced for new lightweight vehicles.

Goals for 2050:

- Growth in energy consumption is decoupled from GDP growth.
- Residential, Public and Commercial Sector: 100% of new buildings meet OECD standards for efficient construction, and are fitted with intelligent energy control and management systems.
- Appliances: 100% of the main categories of appliances and equipment sold in the market are energy efficient.
- Transport Sector: Chile has adopted the highest international standards of energy efficiency for road, air, rail, and maritime transport.

LINKS

Chile's Energy Policy: <http://www.energia2050.cl/wp-content/uploads/2016/08/Energy-2050-Chile-s-Energy-Policy.pdf>

6. LEAD ENERGY EFFICIENCY INSTITUTIONS

Chilean Energy Efficiency Agency 2011 under the supervision of the Ministry of Energy.

INSTITUTIONAL SETTINGS AND RESPONSIBILITIES

In terms of energy efficiency, the Ministry of Energy is responsible for the development of policies and guidelines, including the promotion and enhancement of economy-wide efficient energy use as a means of contributing to the achievement of this goal. Furthermore, in pursuing these objectives, the Ministry of Energy entrusts the Chilean Energy Efficiency Agency, which is responsible for implementing many of these policies by promoting, disseminating and implementing dedicated programmes, opening new markets and exploring opportunities in the field of energy efficiency, and developing energy efficiency markets to recognise and reward leading energy efficiency companies.

STAFF AND BUDGET

ACHEE includes approximately 30 staff members, with more involved through various projects. The budget for 2017 is around USD 580,000 (CHP 358 million).

BUDGET USE

No information available.

LINKS

Energy Efficiency Agency - <http://www.acee.cl/>

Ministry of Energy Budget Analysis - <http://lyd.org/wp-content/uploads/2016/10/Ppto-Energ%C3%ADa-2017.pdf>

7. OTHER ENERGY EFFICIENCY AGENCIES

No other agencies responsible for energy efficiency.

LINKS

Not Applicable.

8. ENERGY EFFICIENCY INFORMATION DISSEMINATION

ACHEE has responsibility for energy efficiency information dissemination. They do this through a number of portals, publications, and campaigns. More information can be found on the website. The Ministry of energy also supports these activities with information of their own.

LINKS

Top-ten energy efficiency information site: <https://top-ten.cl/>

ACHEE: <https://www.acee.cl/>

9. ENERGY EFFICIENCY AWARENESS RAISING

ACHEE carries out awareness campaigns including publications, websites, and information provision about energy efficiency opportunities available.

LINKS

ACHEE: <https://www.acee.cl/>

10. GOVERNMENT SUPPORTED ENERGY EFFICIENCY TRAINING

The government, through the Ministry of Public Works, supports training in energy efficiency in public buildings, training of public sector drivers, and the on-line training carried out by "Gestiona Energía" for administrators of public building.

Courses:

- Santiago | Internal Audit and Maintenance of Energy Management Systems Based on ISO 50001 | 2017.
- Santiago | Efficient Driving Techniques and Teaching Methodology for Professional Drivers School Instructors | 2017.
- Santiago | Incorporation of Energy Efficiency in the Design of Processes and Projects | 2017.

LINKS

Energy efficiency training courses - <http://www.acee.cl/cursos/>

11. PRIVATELY OPERATED TRAINING

There are numerous opportunities for energy efficiency training for professionals. This includes courses offered at approximately 20 universities along with two engineering associations that offer subgroups focused on energy.

LINKS

No information provided.

12. GOVERNMENT SUPPORTED RESEARCH & DEVELOPMENT

The Energy Efficiency Division has conducted a series of studies to evaluate the potential savings and benefits of energy efficiency. Research highlights include the following:

- Study of basis for the elaboration of an Action Plan for Energy Efficiency.
- Study of energy end uses in the residential sector.
- Study of energy end uses in the hospitals.
- Study of energy end uses in the industry and mining sector.
- Study of energy end uses in the schools.
- The government is currently developing policies on energy efficiency research, development and demonstration.
- Although research is done mostly in universities, there are energy efficiency research projects and programmes in the government.

LINKS

Government supported R&D information – <http://www.acee.cl/linea-apoyo/>

ENERGY EFFICIENCY MEASURES

13. COLLECTION AND MONITORING OF ENERGY EFFICIENCY OUTCOMES

The Chilean Energy Efficiency Agency carries out energy efficiency monitoring and reporting. The methodologies used to measure and verify are defined by IPMVP (International Performance Measurement and Verification Protocol).

LEGAL POWER

No information provided.

LINKS

Energy efficiency reports - <http://www.acee.cl/papeleria/guias-agencia/reportes/Reporte-2015.pdf>

14. EVALUATION OF ENERGY EFFICIENCY PROGRESS OR POTENTIAL

No comprehensive assessments of potential have been reported, although the AChEE makes annual reports of progress.

15. SELF-EVALUATION OF ENERGY EFFICIENCY PROGRAMMES

No information provided.

16. CROSS-SECTOR ENERGY EFFICIENCY INITIATIVES

Carbon Tax

OBJECTIVE

A carbon tax will be implemented from 2017 to promote the reduction of carbon emissions through efficiency and renewable energy.

OUTLINE

The carbon tax is applied to carbon emissions produced by fixed sources (boilers or turbines) that individually or together add up to 50 MWt (thermal megawatts) or more. The tax is equivalent to US\$ 5.0 per tonne of carbon emitted and will not apply to fixed sources whose primary energy source is biomass.

LINKS

Carbon tax page: <http://www.retc.cl/ley-20-780-articulo-8-impuestos-verdes-a-las-fuentes-fijas/>

Energy Efficiency Seal

OBJECTIVE

To stimulate companies to implement energy efficiency by providing a recognition seal that can then be used for branding and marketing purposes.

OUTLINE

The Energy Efficiency Seal (EE Seal) is a recognition for companies that have established an energy efficiency policy through the implementation of initiatives, goals, and energy efficiency indicators. The EE Seal is an acknowledgment by the Ministry of Energy, administered by the Chilean Energy Efficiency Agency to leading companies in country's different productive sectors, such as transportation, industry, mining, commerce, among others. The SEAL EE demonstrates a high commitment of the board and management. The EE Seal has three categories, Gold, Silver, and Bronze, which differ according to the level of progress and effort of the companies in this matter.

LINKS

Energy efficiency seal: <http://www.selloee.cl/>

Verificatee (Verify you)

OBJECTIVE

Information support for development of verification and energy measurement professionals, as well as guide potential users of the service.

OUTLINE

It is a platform to facilitate capacity development and formal qualification of energy professionals.

LINKS

Verification and measurement information: <http://www.verificatee.cl>

ISO 50001 Implementation

OBJECTIVE

To promote the implementation of the ISO 50001 environmental standards, and stimulate an increase in qualified professionals capable of implementing it.

OUTLINE

The ISO 50001 standard facilitates organisations regardless of their sector of activity or their size for the improvement of energy performance. This standard allows:

- Know the amount of energy consumed in each process, which will enable users to take the appropriate corrective measures.
- Improve the energy efficiency of operations, systematically.
- Increase the use of renewables or surplus energies of own or third parties.

- Ensure their conformity with their energy policy and demonstrate this compliance to others.

LINKS

ISO 50001 guide: <http://guiaiso50001.cl/>

Energy manager training

OBJECTIVE

The programme aims to strengthen human skills in the buildings sector for the inclusion of the concept of Energy Efficiency.

OUTLINE

The initiative initially identified three types of energy managers to train: EE Manager for the Public Sector, EE Manager for the Commercial Sector, and EE Manager for the Residential Sector. Then the programme developed training courses of a modular nature. The sectors covered by the Energy Manager projects are Commercial, Public, Residential, Hotels, Hospitals and, Construction.

LINKS

Energy manager training: <http://www.gestorenergetico.cl/>

17. INDUSTRY ENERGY EFFICIENCY INITIATIVES

Energy efficient cogeneration

OBJECTIVE

Improve existing cogeneration, and increase deployment of efficient cogeneration.

OUTLINE

Support platform for the development of efficient cogeneration in the country that promotes and provides expertise to cogeneration projects.

LINKS

Efficient cogeneration page: <http://www.cogeneracioneficiente.cl/>

18. TRANSPORT ENERGY EFFICIENCY INITIATIVES

OBJECTIVE

The objective of the energy consumption label is to provide official and reliable information about fuel efficiency to enable consumers to search and compare different vehicles under the same consumption parameters.

OUTLINE

The car labelling scheme started operating in 2013 in light-duty oil fuelled vehicles and was later expanded to new technology vehicles, such as electric or hybrid vehicles. From June 2017 car labelling will be applied over

sedans, SUVs, hatchbacks, and vans using gasoline, diesel or electricity. The fuel consumption label applies to all motor vehicle models that:

- Weigh less than 3,860 kg.
- Use diesel, gasoline, or electricity.
- For passenger or freight transport.
- Have been presented for their first sale after the entry into force of the Regulation of labelling of energy consumption for motor vehicles light and medium.

LINKS

Car labelling scheme: <http://www.consumovehicular.cl/#/>

Green tax on motor vehicles

OBJECTIVE

A tax that aims to encourage efficient vehicles that pollute less to enter the fleet.

OUTLINE

This is a one-time tax applied to new, light and medium-sized automobiles, depending on their urban performance. The tax is calculated according to urban driving fuel economy, nitrogen oxide emissions, and vehicle sale price.

LINKS

Car green tax - http://www.sii.cl/portales/reforma_tributaria/impuestoverde.html

19. BUILDING ENERGY EFFICIENCY INITIATIVES

Sustainable Construction

OBJECTIVE

Sustainable Construction seeks to optimise resources and building systems, to minimise the impact on the environment and human health.

OUTLINE

Sustainable Construction (SC) will be understood as "a way of conceiving the architectural and urban design, which refers to the incorporation of the concept of sustainability in the process of planning, design, construction, and operation of buildings and their environment." SC seeks to optimise resources and building systems, to minimise the impact on the environment and human health.

The scope of the SC Strategy is the construction of buildings and infrastructures. It considers all stages of the building process and has as a goal of 100% of new buildings and new infrastructure meet sustainability conditions by 2020.

Stage 1: Definition of Strategy. The Intra-ministerial agreement seeks to promote, disseminate and promote sustainable construction in the country. Also, the agreement establishes the criteria for the definition of the national sustainable construction strategy.

Stage 2 (2014): Establishment of the Baseline and the publication of the Code of Sustainable Construction. Start the dissemination and education process on Sustainable Construction. Creation of the CS Seal (Sustainable Construction).

Stage 3 (2015): Development of Building and Infrastructure Projects. Pilot programmes for sustainable housing construction.

Stage 4 (2016): Incorporation of Sustainable Construction in the programmes of the Ministry of Housing and its regulations.

LINKS

Sustainable construction website - <http://csustentable.minvu.cl/>

Appliance labelling scheme

OBJECTIVE

Increase appliance energy efficiency by improving energy consumption information in the market. Leading to consumers choosing higher efficiency models where possible.

OUTLINE

Chile's product labelling programme leverages the European appliance labelling scheme, which breaks-down all similar models of a product into one of seven efficiency categories: A (most efficient) through G (least efficient). This labelling is currently applied to following products:

- Appliances: fridges, refrigerator-freezer, freezers, microwave oven (standby), TV (stand By), TV decoder (standby), home theatres (Standby), air conditioner, washing machine (under review), clothes dryer, dishwasher, TV (active).
- Lighting: Incandescent lamps, single and double socket fluorescent lamp, halogen lamps, tungsten halogen lamp with dichroic reflector.
- Home entertainment: Musical instruments (standby), DVD (standby), Blu-ray (standby).
- Others: Three-phase induction motor type squirrel cage, gas cookers, water heaters, wood burners, printers (standby).

LINKS

Labelling scheme: <https://top-ten.cl/>

20. ENERGY EFFICIENCY COOPERATION

COOPERATION AGREEMENTS WITH OTHER ECONOMIES OR ORGANISATIONS

The Ministry of Energy works with several NGOs and international organisations in energy efficiency projects including: the United Nations Development Programme (UNDP) with a public lighting replacement programme; and the United Nations Environment Programme (UNEP) with the “Enlighten” initiative to develop a strategy for the transition to efficient lighting.

The “Enlighten” project went into a second stage thanks to the Green Environmental Facility in partnership with the Ministry of Energy, the Ministry of the Environment, the United Nations Environment Programme (UNEP) and the Fundación Chile participate, among others, with the goal of putting the definitions and strategies elaborated during a previous stage into practice.

BILATERAL, REGIONAL OR MULTILATERAL COOPERATION AGREEMENTS

Chile participates in the Pan American Standards Commission (COPANT in Spanish) for the harmonisation of energy efficiency standards, and participated in the design discussions of the ISO 50 001 standard. Chile also actively participates in the APEC Energy Working Group (EWG).

On a regional level, Chile participates in MERCOSUR’s efforts to promote energy efficiency in the region, and collaborates with the Economic Commission for Latin America and Caribbean (ECLAC) in this area.

Chile has several non-binding cooperation agreements that involve energy efficiency with institutions from different economies, including New Zealand, Korea, and the US State of Massachusetts, among others.

Another area of cooperation is the collaboration agreement with the Japan International Cooperation Agency (JICA). JICA is funding part of a two-week visit to Japan for professionals related to energy efficiency. The agreement considers funding of three visits over a period of three years. It is hoped that at the end of these three years, at least 45 Chilean professionals will have learned about the energy efficiency policies being implemented by Japan and will bring this knowledge to their companies. The agreement will conclude next year.

LINKS

No information provided.

21. OTHER ENERGY EFFICIENCY EFFORTS

LINKS

No information provided.