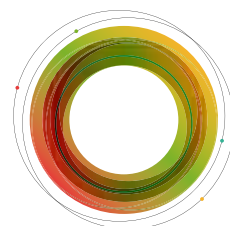


2014

ANNUAL REPORT AND OPERATIONAL STATISTICS



CDEC|SING

CENTRO DE DESPACHO ECONÓMICO DE CARGA
SISTEMA INTERCONECTADO NORTE GRANDE



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Arica

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01

LETTER FROM THE PRESIDENT

The first independent Board of Directors of the CDEC-SING was created on May 8, 2014. It is comprised of independent professionals from electric companies and clients of this organization. This measure established good governance practices to help this organization reach its fundamental objectives as established by the electricity regulations, which promote a safe and economical supply of energy for our country.

It is my pleasure to present you with the CDEC-SING Annual Report and Operational Statistics for the year 2014. This was a special year as it was the year that the organization celebrated its 15 year anniversary. Within you shall find relevant facts and information related to the past decade, as well as a synthesis of the main events of 2014.

I would like to take advantage of this space to highlight the main focus of the Board of Directors during this past year.

Aside from the challenge of setting up a new Board of Directors, this period was particularly active and was marked by the Energy Agenda outlined by the Department of Energy, which called on different Board members to collaborate on various programs and activities. In this context, the Board of Directors is trying to establish its own mark aligned transversally to the pillars established by the regulation: safety, economical operations, and open access. These transversal core functions include all activities that lead to (i) excellent operations aimed at improving practices and processes and (ii) greater transparency and access to information as set forth in the regulations.

The Board of Directors introduced changes to the new version of the Internal Procedures that are aligned with these core functions. This new version has been favorably received by the National Energy Commission and its main focuses are: to strengthen the CDEC-SING system of public information and to improve the practices and processes related to obtaining and verifying information relevant to the SING objectives.

In organizational news, we should highlight the creation of the new Planning and Development Division, which started functioning in January, 2015. In accordance with the Board of Director's vision, this Division will be essential in tackling great challenges in transmission, both in the short and long term, including national-regional interconnectivity and connections to new projects.

As far as the essential CDEC functions, we have placed particular emphasis on service safety. To this end, and stemming from the July 2nd, 2014 blackout, the Board of Directors designed a



strategy which included an extensive analysis of the state of the protective relays on critical infrastructure as well as meetings with owners, which led to a plan to increase the system's safety, particularly in the Crucero-Tocopilla-Chuquicamata ring. There has also been a constant concern with economizing operations. Therefore, the Board of Directors has established clear guidelines to require more information on declared fuels, auditing the minimal technical requirements of certain plants, review maintenance programs, anticipate and support solutions for transmission congestions, among other aspects that could minimize operational costs.

Furthermore, there was recently a public analysis process that led the authority to determine one of the most relevant definitions in the electric sector: the SING-SIC interconnection. The Board of Directors was therefore invited by the CNE to comment on the reach of the studies to evaluate alternatives for said project and to participate in the follow-up. This process was successful thanks to the collaboration of prestigious international consulting firms.

The aforementioned interconnection has instigated an important discussion regarding the model of interconnected operations that the country will have in the future; a debate where this institution has played a very active and proactive role. This has gone hand in hand with the very active and necessary rapprochement of the CDEC-SING with the SIC with the express aim of aligning the procedures and good practices of both organizations.

Finally, I feel it is necessary to highlight the budget increase approved by the National Energy Commission for 2015, which includes a 33% increase and shows its determination to take accountability for the challenges that the CDEC-SING will face and, at the Board of Director's level, also includes the implementation of a code for corporate governance and a code of ethics for the organization.

I hope this report is a positive contribution with relevant information for all those agents that are part of the SING as well as for those who monitor or evaluate its development.

Rodrigo Quinteros
Board President



02

LETTER FROM THE EXECUTIVE DIRECTOR



It is our pleasure to present you with the Annual Report and Operational Statistics for the Center for Economic Load Dispatch for the Norte Grande (Greater North) Interconnected System (CDEC-SING) which comprises the decade from 2005-2014.

As is typical in the SING, the generation base was dominated by coal and natural gas productions with 79.6% and 11.1%, respectively, while the diesel-fuel based production reached 6.4%. We should also highlight the first projects based on alternative renewable energy, which reached a total production of 1.7%.

In 2014 we had to deal with 2 emergencies in the operation of the electrical system. The first one was on April 1st as a result of the 8.2 earthquake, on the Richter scale, which devastated the north of the country, and the second was on July 2nd, and was a result of a failure at the Crucero Substation. Both incidents tested our reaction time and our emergency protocols, and our capacity to inform the public, companies and relevant authorities; while also teaching us important lessons on the need to optimize and strengthen the installations of the transmission system. In this context, in 2014 we completed the audit of the "Tocopilla-Chuquicamata-Crucero Ring" and began auditing the "Crucero Substation Maintenance Plans and Programs and Testing Protocols."

Furthermore, throughout 2014 we worked along two core areas in the Crucero Substation: standardization of the protective systems and identification and recommendation of the transfer of circuits to a new trunk substation, which would enable us to reconfigure the transmission lines that go to and from Crucero.

2014 stands out due to a large drop in the cost of the different fuels used by the SING for power generation. In particular, the international price of diesel (BRENT), whose value in December 2014 had dropped by 43.7% in comparison to the same month in 2013, which, furthermore, was accompanied by a reduction in the price of coal and natural gas. Nonetheless, and in order to move towards a more economical operation, the short-term provision at the end of 2014 had an important improvement, reaching an average deviation of 7.4% lower than the 9.7% reached the previous year.

Still, the average marginal cost, related to the Crucero Substation was 75.6 USD/MWh, which is a 6.0% reduction from the previous year, while the average operational costs—yearly average—closed at 55.9 USD/MWh, which is a reduction of 0.7% compared to the previous year.



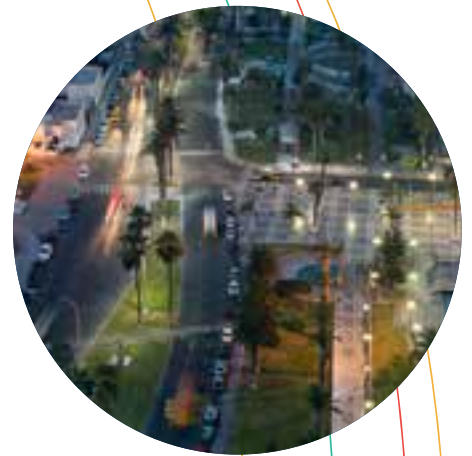
The Centralized Metering System already has over 200 integrated meters that determine the subtransmission transfers of energy and tolling, which cover over 95% of the physical amounts that make up the respective balances.

In 2014 we moved forward with the testing of the interconnected operation between SING and the SADI (Argentinean System). Thus we were able to advance with the technical feasibility of a joint operation between both systems and hence offer a response to the question posited by the relevant authority in 2014.

In other areas, an important benchmark for 2014 was the Cooperation Convention signed by the German Corporation for International Cooperation (GIZ) and the Department of Energy to tackle the challenges related to the operations of the CDEC-SING upon the sustained integration of alternative renewable energy sources and the interconnections projected by the SING; and the Cooperation Convention signed with the University of Chile for future collaboration on developing research projects in areas that are of interest to both institutions.

In 2014 the CDEC-SING celebrated its 15th anniversary as an autonomous organization and under its slogan "Energy Without Frontiers" it has shared with the industry the lessons learned by our organization and been able to analyze the main challenges that the SING may face in the near future: a greater integration of alternative renewable energy sources and their interconnectivity with the SADI and SIC systems.

We invite you to review the information on what each of the CDEC-SING Divisions has achieved and the 2014 accomplishments and the important process of continuous changes and improvements that we are committed to in order to fully achieve the strategic vision that our organization has been tasked with for the electrical sector and for Chile.



Daniel Salazar Jaque
Executive Director, CDEC-SING

03

ABOUT US

- Safety.
- Economical Operations.
- Open Access.
- Efficiency in the processes of achieving harmony and a commitment to the environment.



The Center for Economic Load Redistribution for the Norte Grande Interconnected System (CDEC-SING) is the organization in charge of coordinating the operation of the electric installations in the country's Norte Grande, thus ensuring safety, guaranteeing an economical operation and open access with quality service.

The Chilean government considers the CDEC-SING to be a strategic organization, due to the public nature of its function and the relationship between the supply of electricity, the safety of the population, and the normal functioning of the country's industry and economy.

The CDEC-SING is comprised of a Board of Directors and the Technical Divisions of Operations, Tolling, Planning and Development, and Administration and Budgeting.

The staff is made up of highly competent professionals who strive for greater efficiency in processes to achieve harmony and a commitment to the environment. The CDEC-SING is comprised of 53 companies that operate within the sectors of power generation, transmission, and consumption in the country's Norte Grande (greater north).

The interconnected installations for electrical generation, transmission, and consumption that are part of the SING, encompass the territory that spans the regions of Arica-Parinacota, Tarapaca, and Antofagasta, which is equivalent to 24.5% of the country's continental territory.



PARTICIPATING COMPANIES AND MEMBERS OF THE CDEC-SING

To December 31, 2014

SEGMENT A		Power generating companies with a capacitance below 200 MW
N°	Company name	Capacitance [MW]
1	Cavancha S.A.	2,8
2	Central Termoeléctrica Andina S.A.	168,8
3	Compañía Eléctrica Tarapacá S.A.	181,8
4	Enaex S.A. ⁽¹⁾	2,7
5	Enorchile S.A.	41,1
6	Equipos de Generación S.A.	6,8
7	Generación Solar SPA ⁽²⁾	-
8	Inversiones Hornitos S.A.	170,1
9	Noracid S.A.	17,5
10	On Group S.A.	2,0
11	Parque Eólico Quillagua SPA ⁽³⁾	-
12	Parque Solar Los Puquios SPA ⁽²⁾	-
13	Pozo Almonte Solar 2 S.A.	7,5
14	Pozo Almonte Solar 3 S.A.	16,0
15	SPS La Huayca S.A.	1,4
16	Tecnet S.A.	3,0
17	Valle de los Vientos S.A.	90,0

SEGMENT B		Power generating companies with a capacitance greater than 200 MW
N°	Company name	Capacitance [MW]
1	AES Gener S.A. ⁽⁴⁾	920,1
2	E-CL S.A. ⁽¹⁾	1.764,6
3	Empresa Eléctrica Angamos S.A.	545,0
4	Gasatacama Chile S.A.	780,6

SEGMENT C		Transmission Line Companies
N°	Company name	Kilometers of Line
1	Edelnor Transmisión S.A.	-
2	Transec S.A. ⁽¹⁾	557,1

SEGMENT D		Substation Companies
N°	Company name	Kilometers of Line
1	Codelco Chile ⁽¹⁾	-
2	E-CL S.A. ⁽¹⁾	268,4
3	Empresa de Transmisión Eléctrica Transemel S.A.	74,6
4	Transec S.A. ⁽¹⁾	361,3

SEGMENT E		Standalone Clients
N°	Company name	Connected Power [MW]
1	Aguas de Antofagasta S.A.	14,0
2	Algorta S.A.	8,0
3	Atacama Minerals Chile S.C.M.	15,0
4	Codelco Chile ⁽¹⁾	1.678,9
5	Compañía Minera Cerro Colorado Ltda.	92,0
6	Compañía Minera Doña Inés de Collahuasi SCM.	500,0
7	Compañía Minera Teck Quebrada Blanca S.A.	50,0
8	Compañía Minera Xstrata Lomas Bayas	133,2
9	Compañía Minera Zaldivar S.A.	134,0
10	Enaex S.A. ⁽¹⁾	12,5
11	Grace S.A.	25,0
12	Haldeman Mining Company S.A.	19,3
13	Minera Antucoya	212,5
14	Minera El Tesoro	52,0
15	Minera Escondida Ltda.	2.188,3
16	Minera Esperanza	370,0
17	Minera Meridian Ltda.	20,0
18	Minera Michilla S.A.	31,2
19	Minera Spence S.A.	180,0
20	Moly-Cop Chile S.A.	30,0
21	Sierra Gorda SMC	405,0
22	Sociedad Anglo American Norte S.A.	50,0
23	Sociedad Contractual Minera El Abra	187,5
24	Sociedad GNL Mejillones S.A.	16,0
25	Sociedad Química y Minera de Chile S.A.	210,0
26	Xstrata Copper - Altonorte	104,0

(1) Companies belonging to two or more Segments

(2) Companies interconnected to the SING, but whose installations were still undergoing tests as of December 31, 2014.

(3) Companies that chose to integrate voluntarily to the CDC according to Article 17 of Presidential Decree 291/2007.

(4) As of June 01, 2014, Norgener was absorbed by the AES Gener Company.

2014 - 2017 BOARD OF DIRECTORS

Segment A

Representatives of
Generators above 200 MW

Pablo Benario T.
(Principals)
Alfonso Bahamondes M.
(Substitutes)

Segment B

Representatives of
Generators under 200 MW

Rodrigo Quinteros F.
(Principals)
Jaime de los Hoyos S.
(Substitutes)

Segment C

Representatives for
Trunk Transmission Lines

Francisco Aguirre Leo
(Principals)
Carlos Silva Montes
(Substitutes)

Segment D

Representatives before
Subtransmission

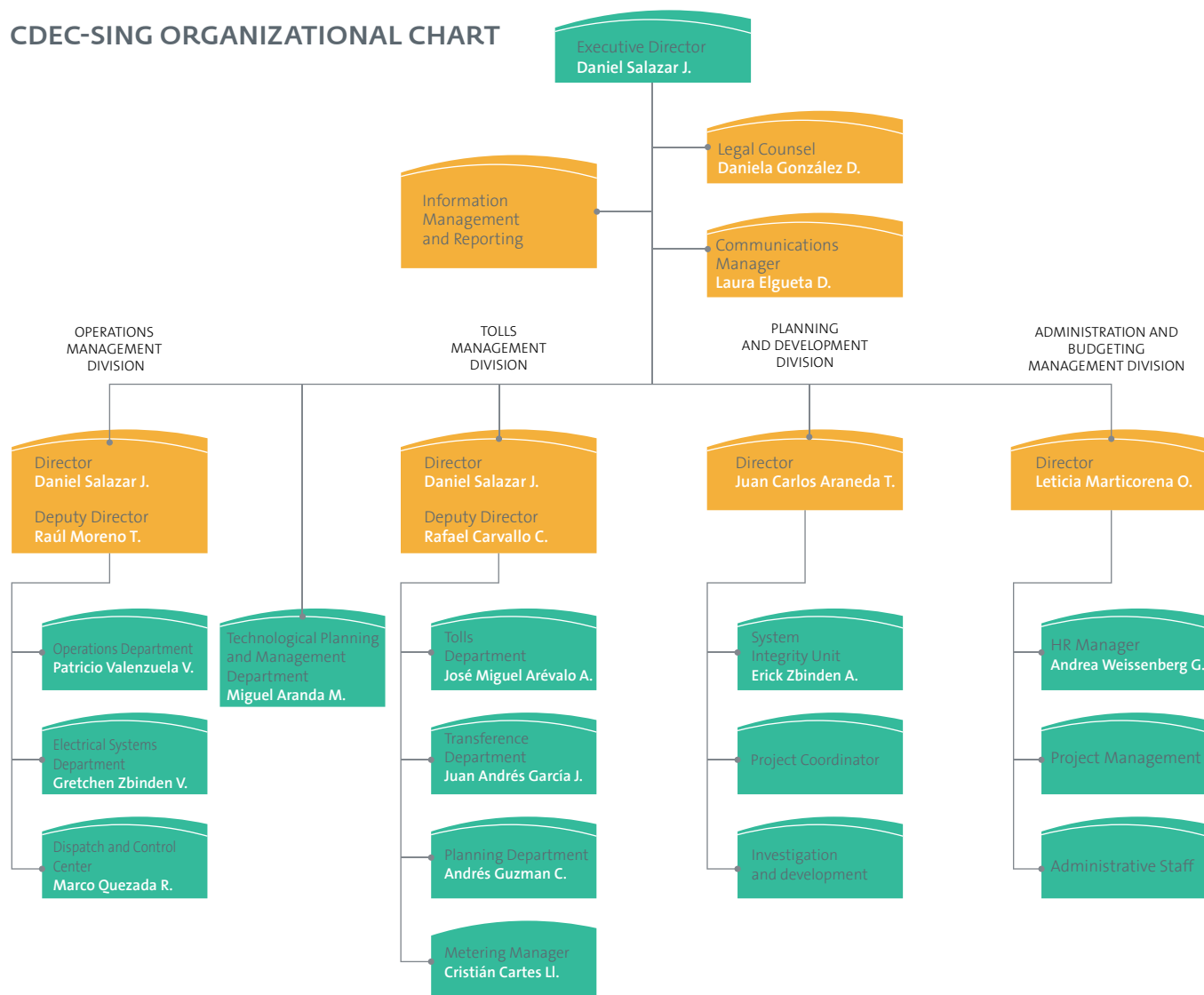
Pilar Bravo R.
(Principals)
Waleska Moyano E.
(Substitutes)

Segment E

Representatives
for Free Clients

Eduardo Escalona V.
(Principals)
Rodrigo Tabja R.
(Substitutes)

CDEC-SING ORGANIZATIONAL CHART



2014 BOARD OF DIRECTORS

During the electoral meeting held on April 23, 2014, the new members of the CDEC-SING Board of Directors were chosen for the period corresponding to 2014-2017.

This is the first Board of Directors that is fully autonomous from the companies that are part of the SING.

The election was conducted in accordance with what is established in Presidential Decree 291, which was modified by Presidential Decree 115 of the Department of Energy, which states that "in regards to the composition and representation of the Board of Directors, the members who are owners of power generating installations, trunk transmissions, subtransmissions, and Free Client terminals, respectively, must choose by mutual agreement the member that shall represent them on the Board from a shortlist of three selected candidates and nominated for the respective segment by a specialized company that has been hired for that purpose" (Article 23).

The five Principals on the Board of Directors: Pablo Benario Troncoso, Rodrigo Quinteros Fernández, Francisco Aguirre Leo, Pilar Bravo Rivera, and Eduardo

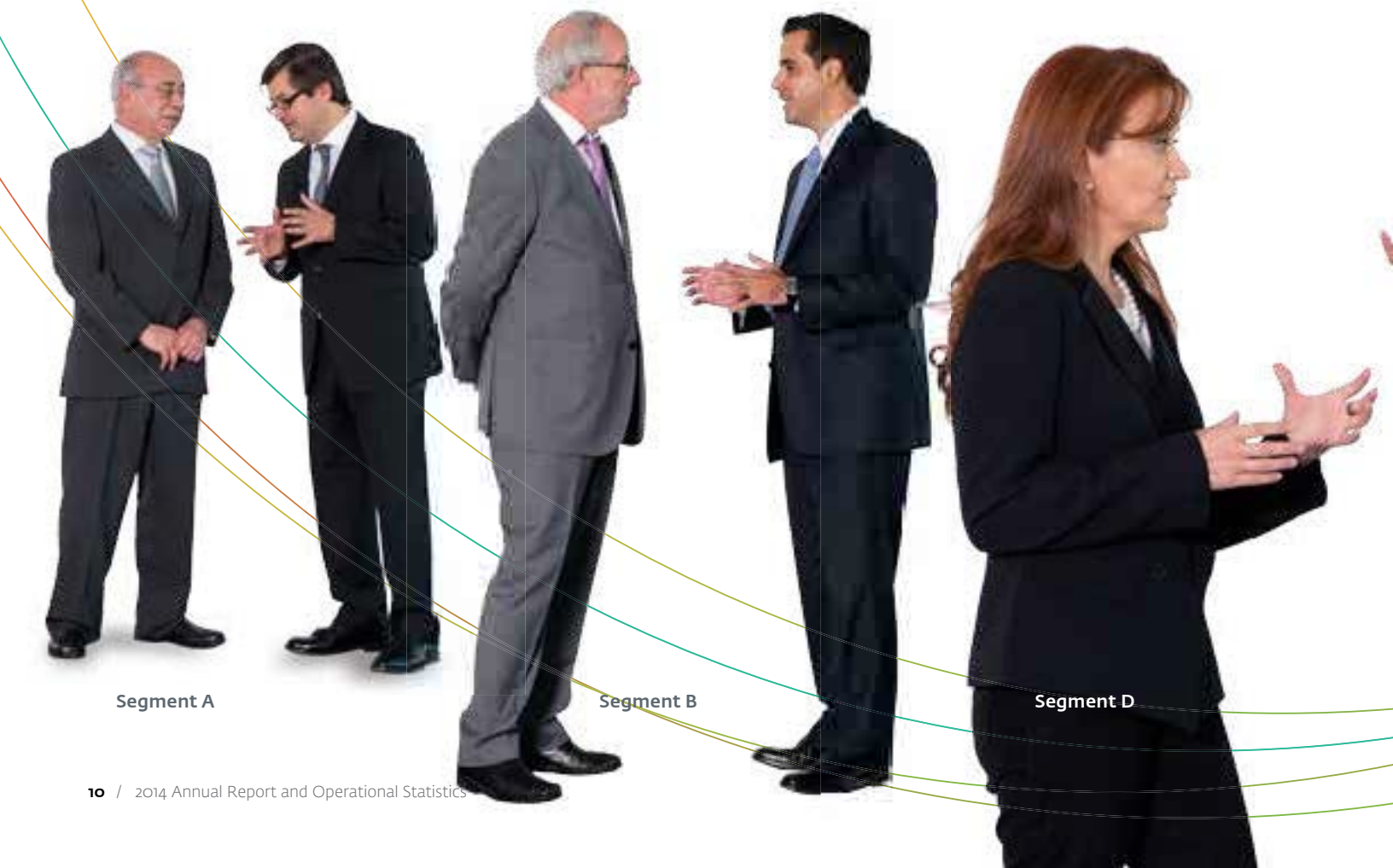
Escalona, unanimously agreed that the President of the organization for the coming year would be held by the engineer Rodrigo Quinteros Fernández as principal and attorney Pilar Bravo Rivera as substitute.

The five Principal Board Members are supported by the engineers: Alfonso Bahamondes, Jaime de los Hoyos, Carlos Silva, Waleska Moyano, and Rodrigo Tabja.

It is the role of the Board of Directors to, among other tasks: ensure the fulfillment of the functions which are dictated by law, current regulations, and the Internal Procedures, such as: vouch for a safe and economical operation of the electric system, establishing general criteria for the fulfillment of said objective; keep the CDEC information system up to date; approve the yearly CDEC budget as prepared by the DAP and ensure that all members of the organization are aware of it as well as ensure that said budget allows the CDEC to fulfill the objectives and functions established for it by the current legislation.

2014 Board of Directors Core Functions

Considering the current normalization of the supply system and the stable levels of supply costs in the Norte Grande Interconnected System, the Board of Directors began operating with a clear mandate to improve issues of safety,



Segment A

Segment B

Segment D

economical operations, and open access. These core functions include all activities intended to achieve excellence in operations, to improve practices and processes, achieve greater transparency and accessibility to information.

Hence, the Board of Directors introduced changes to the new version of the Internal Procedures that are aligned with these core functions whose main focus is: to strengthen the CDEC-SING system of public information and improve the practices and processes related to obtaining and verifying information relevant to the organization's objectives.

In accordance with article 78 of the CDEC-SING Internal Procedure Manual, the Board of Directors appointed the necessary Committees to manage and fulfill its stated functions. The current Committees established for 2014 are:

- Audit and Budget Committee
- Internal Procedures and Corporate Governance Committee
- Committee for the Economical Operation of the System
- Committee for Safety in System Installations
- Committee for Open Access and Interconnectivity

- Greater Transparency and Access to Information
- Best Practices and Processes for obtaining and verifying relevant information.
- First Autonomous Board of Directors, comprised of professionals who are independent of the SING Member Companies.



Segment C

Segment E

04

MISSION, VISION AND VALUES CDEC-SING

OUR MISSION

"To excellently coordinate SING operations and lead its development, while ensuring Safety and Efficiency, guaranteeing Accessibility to the System."

OUR VALUES

Responsibility

Loyalty



OUR VISION

"Be a technical leader in the Chilean electrical sector, offering services for coordinating operations and development of the Norte Grande Interconnected System, offering our clients reliability and efficiency; along with a polyfunctional team whose aim is to achieve excellence in their work and who implements all processes with a high degree of quality and uses technology and cutting edge tools to the fullest degree."

Moon Valley

Trust

Proactivity

Professionalism

05

ENVIRONMENT
2014



2014 was not just another year for the national electrical sector in general, nor for the organizations that coordinate electrical systems in particular.

The Energy Agenda presented by the President in May and the implementation of the new governance that regulates the CDEC, is a clear indication of this fact and has strongly influenced the duties of all those involved.

As indicated by the authorities and as recognized by industry, the Energy Agenda is the roadmap that must be followed to strengthen what has already been achieved, to move closer towards a decision regarding the construction of the energy matrix Chile needs.

The country has reached certain agreements on this issue and this is reflected in the core points of the Energy Agenda, many of which have and will have a direct relation to the role and activities of the organizations that coordinate the systems.

The CDEC-SING mission of coordinating operations, ensuring safety and efficiency, and guaranteeing accessibility is reflected

in the reduction of energy pricing through greater competition, efficiency, and diversity; the incorporation of different types of resources; and the development and planning of connectivity, among others.

The steps taken towards the unification of the national electrical systems, SING and SIC, and the exporting of energy to neighboring countries, is a firm indication that this organization is poised to tackle challenges on both the national and international level.

On the occasion of its 15th Anniversary it was clearly stated that: the Norte Grande Interconnected System is the gateway to the Chilean electrical market if we consider its geography, as a neighbor to the electrical system of Peru in the North (SINAC) and to the Argentine electrical system (SADI) in the East. And at a national level, it is the northern arm of the country.

The CDEC-SING has tackled these challenges with great competency and thus established itself as an organization with cutting-edge operations that supports and provides value to the development of the Norte Grande and to the national sector as a whole.



An aerial night photograph of a city coastline, likely Chicago, showing a dense urban area with numerous lit-up buildings and streets. The city is situated along a body of water, with a sandy beach visible in the foreground. The sky is dark with some clouds. Overlaid on the image is a large orange circle containing the text 'OUR RELATIONSHIP WITH OUR ENVIRONMENT'. To the left of the circle, the number '06' is displayed in a large, orange, sans-serif font. Three thin, curved lines in orange, teal, and yellow extend from the top left towards the right side of the image.

06

OUR
RELATIONSHIP
WITH OUR
ENVIRONMENT



In keeping with their strategy of continuous improvement and in accordance with the demands of the industry and the country itself, CDEC-SING strives for a healthy relationship with its environment and in particular with those interest groups that are related to its work.

Due to our public function, our role as a strategic organization for the government requires and encourages us to promote the work the organization does, to foster and contribute to discussions and to shape the issues related to the development of the markets and the citizenry.

Much has already been accomplished as is evidenced by some of the activities listed below, in particular those undertaken within the framework of our 15th Anniversary.





WE CELEBRATED 15 YEARS OF EXISTENCE!

The Center for Economic Load Dispatch for the Norte Grande Interconnected System (CDEC-SING) of Chile, celebrated its 15th Anniversary in August, 2014.

We recalled 1999, the year that the SING was put into operation as the first Center for Economic Load Dispatch as an autonomous organization.

The 15th Anniversary was not just another benchmark. Rather, the organization considered it an opportunity to reflect upon its 15 years of history and look forward to another 15 years. Thus sharing its future vision on connectivity and development, considering the incorporation into the system of alternative renewable energy sources and their national and international interconnectivity.

We commemorated our 15th Anniversary with two important events.

On the 26th of August we held a panel discussion called "Energy Without Frontiers. Connecting Chile to the Region."

We were honored to have former Chilean President, Eduardo Frei Ruiz Tagle, participate in the discussion. Top executives from operational organizations from Peru, Ecuador, Colombia, and Argentina shared processes, advances, techniques, and challenges faced by each country in regards to interconnectivity as well as the local expectations that have arisen from an integrated electrical market.

Over 100 guests attended this important event in Santiago. Minister of Energy, Maximo Pacheco, could not be present but sent a congratulatory message where he congratulated the CDEC-SING on their initiative of convening regional organizations, and evoking the words of Chile's President, stressed that "Latin America requires collective solutions to face current and future challenges to the region."

On September 4th, we held a conference in the city of Antofagasta on "Energy Without Frontiers: Expanding Energy Limits."





This regional event was attended by Andres Romero, Executive Secretary of the National Energy Commission (CNE), who played a central role at the event. The panel included the Senator for the XV Region, Jaime Orpis; the mayor of Mejillones, Marcelino Carvajal; the President of the Mining Council, Joaquin Villarino; the Executive Vice-president of the Power Generating Association, Rene Muga; and the Executive Director of ACERA, Carlos Finat. Around 100 guests were present to hear the different perspectives on the impact of the integration of alternative renewable energy systems into the Norte Grande matrix.



The organization's Board of Directors and the Executive Teams of the Technical Divisions headed up the 15th Anniversary celebrations.

Rodrigo Quinteros, President of the Board of Directors, welcomed the guests to these celebratory events and stressed that the organization's goal within the framework of its 15th Anniversary, was to "expand the visions and limits imposed by daily and local discussions to push boundaries and imagine energy challenges from an outlook of innovation, collaboration and creativity" towards "Energy Without Frontiers."





CDEC-SING SIGNS AN AGREEMENT WITH THE UNIVERSITY OF CHILE.

The CDEC-SING signed a Cooperation Agreement with the University of Chile's Faculty of Physical Sciences and Mathematics to collaborate on developing research programs in areas of interest to the two institutions. This agreement finally formalized a long relationship of joint initiatives primarily dealing with energy-related research.

At the moment of signing, the Dean of the faculty, Patricio Aceituno, indicated that "[...] this agreement is a clear indication that the CDEC-SING recognizes us as a prestigious university that has, and will continue to, produce excellent engineers."

CDEC-SING 2014 TECHNICAL WORKSHOPS

For the third year in a row, in 2014 we held a new cycle of the "CDEC-SING Technical Workshops" in the city of Antofagasta. Over 300 people participated in these workshops where we addressed over 20 issues related to the sector, to the Norte Grande System, and to the CDEC-SING.

The content and organization of the workshops has been highly valued by all those who attended, who recognize that this is a solid platform for dialogue between the integrated companies and the CDEC-SING.

In 2014, the Technical Workshops had several invited speakers. Among those were regulatory and oversight organisms: The



National Energy Commission and the Superintendence of Electricity and Fuels, respectively. The Regional Undersecretary for Energy, Mr. Arturo Molina, was present for the inauguration of the workshops, along with other regional authorities.

CDEC-SING, GIZ AND THE DEPARTMENT OF ENERGY SIGNED A COOPERATION AGREEMENT.

With the express aim of encouraging future collaboration, the CDEC-SING, GIZ, and the Department of Energy, through their project "Propelling Solar Energy in Chile," signed an agreement in December, 2014, which will implement multiple initiatives to tackle the challenges that the CDEC-SING will face at an operational level to sustain the integration of alternative renewable energies.

The agreement was signed by Energy Undersecretary, Mrs. Jimena Jara; Mr. Rainer Schroer, Director of the Energy Program for GIZ; and Mr. Daniel Salazar, Executive Director of the CDEC-SING.





The Cooperation Agreement covers three priority areas:

Phase 1: A system for prognosis and management of variable renewable energy sources.

Phase 2: Interconnectivity with other interconnected systems, be these national and/or international, in order to increase the system's flexibility.

Phase 3: New technologies and other related items in order to increase the use of renewable energies.

OUR CHILDREN AT THE CDEC-SING

As in former years, in July the CDEC-SING welcomed its workers' children to their facilities.

Children between the ages of 4 and 15 were invited to experience and explore alongside their parents and other CDEC-SING personnel. Hence, on that busy and entertaining day, our offices were full of color, enthusiasm and joy.

BILATERAL AGENDA

In 2014 the CDEC-SING participated in various exchange and cooperation initiatives with other operating companies and international organizations. This enabled it to learn the vision,

current status, and ways of tackling the challenges currently faced by the electrical industry worldwide.

Of the various initiatives where it could learn directly from the sources the state of events and discuss solutions and concerns related to the operations of electrical systems, one of the most important was its participation in the CIER meeting. Said meeting oversaw Reference Project CIER 18 and was an opportunity to share knowledge and experience.

During the second semester of 2014, the CDEC-SING participated in the "Conference on Integrating Variable Renewable Energy Into Power Grids," organized by the World Bank in Copenhagen, Denmark. This meeting addressed the various realities and challenges faced by diverse countries and offered an opportunity to visit Energinet, a Danish electric company.

Furthermore, and within the context of the Cooperation Agreement signed with the GIZ and the Department of Energy, we visited the German TSO 50 Hz and Gridlab, in order to learn of their experiences and explore possibilities for mutual cooperation.

In November 2014, the CDEC-SING participated in a round table discussion called "20% Non Conventional Renewable Energy: Sharing the California Experience." This was an opportunity to share experiences, knowledge, and established practices in the USA, particularly in California, in relation to the integration of Non Conventional Renewable Energy.

In 2014 we undertook multiple technical exchanges with the Argentine Interconnected System (SADI), anticipating an interconnected system in the future. Likewise, together with the Peruvian COES, we analyzed the conclusions of the study undertaken within the SINEA (Andean Electrical Interconnectivity System) framework on the feasibility and benefits of a joint operation.

All of these initiatives have enabled the CDEC-SING to gain knowledge from world class operators and create ties that will enable us to find opportunities for improvement and continue on the path we have laid out before us.

07

QUALITY



In 2014 our Quality Control System was re-certified under the ISO 9001:2008 standard.

There are three CDEC-SING processes that have been ISO certified: "Energy Balance," "Project Coordination," and "Service to Coordinate the Work of the SING Integrated Companies."

The hard work that led to initial certification some years back and our re-certification in 2014 clearly shows the strong commitment that the CDEC-SING has towards achieving its mission with excellence and under the highest international standards.

CDEC-SING QUALITY POLICY

The CDEC-SING Management Divisions are committed to deliver quality services in the coordination of the operation and to support the Norte Grande Interconnected System, with a level of professionalism and responsibility that places the organization at a higher level of excellence.

The services are delivered strictly within the framework of the current norms and incorporate lessons learned as well as industry best practices, which are undertaken through the Quality Control System that the organization has established as its base.

In regards to the quality of its processes and services, the Management Divisions of the CDEC-SING have set down the following global objectives:

- 1) Safeguard the safety and efficiency of service in the operation of the SING and continually improve the quality of its processes and services.

- 2) Perform with excellence the economic transfers between the SING electrical companies.
- 3) Undertake the integration of new installations to the SING, ensuring that the high levels of service quality and safety are maintained as established in the current regulations.
- 4) Perform its functions at all times with competent personnel that is responsible, motivated, and focused on its clients.
- 5) Deliver the services covered within the reach of the Quality Control System, in a timely manner, within the high levels of trust and quality required by our customers.
- 6) Develop and maintain permanent high quality communication channels with its clients and principals.

To reach these objectives, the Directors of the CDEC-SING are committed to provide the resources needed to ensure continuity in terms of quality, professionalism, and efficiency in the services provided.

08

THE CDEC-SING
DIVISIONS
AND THEIR
ACCOMPLISHMENTS
IN 2014





The CDEC-SING fulfilled its activities thanks to the three Technical Management Divisions operating at the time: Operations (DO), Tolling (DP), and Administration and Budgeting (DAP); all of which are coordinated by the Executive Director.

As of January, 2015, a new division was officially added, the Division of Planning and Development (DPD). The head of this new Division is Juan Carlos Araneda Tapia, who was elected by the Board of Directors by unanimous vote, as is established in Presidential Decree 291.





Control Room, CDEC-SING

OPERATIONS DIVISION (DO)

Its goal is to coordinate the operation of the installations that are part of the Norte Grande Interconnected System with safety and economic efficiency. It encompasses three departments: the Center for Dispatch and Control (CDC), the Operations Department, and the Electrical System Department. Plus the IT and Communications Unit, which provides support to the whole organization.

2014 ACCOMPLISHMENTS

As far as operations, this division had at least three relevant milestones that should be mentioned. Tests of interconnectivity with the Argentine electrical system, the implementation of the initial phase of the integration of alternative renewable energy sources, and the coordination and management of two major events that affected the system during the year: the 8.2 (on the Richter scale) earthquake in the north of the country on April 1st and the blackout on July 2nd.

The earthquake that took place on Tuesday, April 1, 2014, caused a reduction of approximately 30% of the power supply of the Norte Grande Interconnected System (SING). This was due to an inability to generate power, due to the preventive evacuation decreed for the country's coastal areas. Although the system did not suffer major damage to the infrastructure of its power generation and transmission facilities, there were damages to the distribution network, which caused partial reductions to regulated and free clients in the more affected areas (Tarapaca Region).





On July 2nd at 11:45, a failure at the Crucero substation caused a massive disruption in the system's electrical supply, affecting close to 90% of the energy demand.

Both situations implied important challenges for the DO and demanded actions and improvement processes for the operation of the system.

It is within this framework that we must evaluate the actions undertaken in 2014, following the July 2nd blackout, where the DO undertook a technical audit of the Maintenance Plans and the Protocols for Control Tests and Substation Crucero Protective Relays, as well as the development of testing for the protective systems of various SING installations. These actions, which were undertaken with the support of technical experts, resulted in adjustments to the protective systems and the replacement of certain equipment, thus strengthening the system's safety.

In 2014 we made a great leap forward in interconnectivity as we advanced with studies and effective testing of synchronized operations between the Argentine Interconnected System (SADI) and SING, which considered energy transfer between the two systems.

- Technical Audits drive adjustments and replacements to ensure greater safety.
- Successful initial phase of the incorporation of alternative renewable energy sources.
- Important steps taken towards interconnectivity with the Argentine system.

Therefore, from a technical standpoint, we initiated the first tests of electrical interconnectivity for the country.

In 2014, the DO also headed up a process to evaluate the performance of alternative renewable energy sources in operation, which enabled us to successfully complete the initial phase of their incorporation into the SING.

In 2014 the Valle de los Vientos Wind Farm (90MW) and the Pozo Almonte Solar Photovoltaic Power Stations 2 and 3 (23.5 MW) were put into operation. Furthermore, we ran interconnectivity tests of the Maria Elena Photovoltaic Power Station (68 MW) and the extension of the La Huayca Power Station (7.7 MW).



TOLLS DIVISION (DP)

Its goal is to administer the economic transfers and guarantee open access to trunk transmission lines, subtransmission and ancillary systems that make up the Norte Grande Interconnected system.

It is divided into three Departments: Department of Transfers, Tolling Department, and Planning Department.

2014 ACCOMPLISHMENTS

The Tolling Division expended great effort in 2014 on issues related to developing the transmission system and modernizing the processes for economical transfers.

As regards the development of the transmission system, the DP provided support for the expansion of the trunk system, for the Study of Trunk Transmissions (ETT), and for the safe power supply of the SING cities.

As far as expansions, the DP performed studies to determine the need for expansion to the SING transmission system, recommending that the CNE undertake various projects, in particular the "Relocation of the Connective Installations of the

- Analysis and Safety Alternatives for the supply of the SING cities.
- Recommendation of projects towards a better safety standard for the SING.
- Modernization of the processes of economical transfers.

Crucero Substation at Nueva Crucero-Encuentro Substation" Project" which will offer a higher standard of safety for the SING. Likewise, an international request for bids was launched for a new trunk project called Nueva Crucero-Encuentro Substation.

As to the Trunk Transmission Study, in 2014 the DP was actively involved in the Committee for the Request for Bids, Adjudication, and Supervision of the ETT; as well as analyzing and proposing improvements to each of the reports developed by the Consultant that performed said study; always with the aim of improving the safety and economical operations of the SING.

In the area of transmission development, the DP prepared the study "Safely Supplying Power to the SING Cities," which



Sub Station

analyzes the safety of the supply of energy to the main cities and towns of the SING, and proposes alternatives for its long-term development under different supply and demand constraints.

In regards to the modernization of economical energy transfers, we continued with the Centralized Metering System Project, initiated in 2013, and whose objective is to define and implement a remote reading of electricity meters which would enable the opportunity and quality of the meters that participate in the processes developed by the CDEC-SING.

Related to this, we developed and delivered to the CNE, for their Favorable Report, the DP Procedure "Valuing Economical Energy Transfers." A procedure that modernizes different economical processes related to SING operations, and whose implementation would replace Ministerial Resolution 39 from the year 2000, thus establishing the aforementioned Centralized Metering System as the official means of tracking energy for economical transfers.





ADMINISTRATION AND BUDGET DIVISION (DAP)

The Administration and Budget Division, is responsible for elaborating, coordinating, implementing and administering the CDEC annual budget. Furthermore, it is responsible for managing the contracting, acquisitions, and purchasing systems and provide technical support to the other Divisions and to the CDEC Board of Directors. The DAP is also responsible for overseeing Human Resources and Strategic Planning.

2014 ACCOMPLISHMENTS

In 2014, the DAP focused on its human resources, particularly reviewing and redesigning the organizational structure so as to properly integrate the new Board of Directors and the new Division of Planning and Development and to establish the internal dynamics that would enable proper coordination of functions and processes.

In 2014 the CDEC-SING had 71 people on its staff. The organization has an ongoing policy of training and development and in 2014 it provided training in different areas for 84.8% of its employees.

- 93.9% of the 2014 CDEC-SING global strategy was fulfilled.
- 84.8% of CDEC-SING workers took at least one training course in 2014.
- 99.1% of the budget was implemented in 2014.

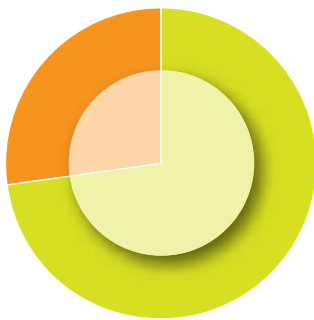
In regards to Strategic Planning, the focus was on improving, monitoring, and controlling the institutional strategy. A Strategic Map was developed by gathering information through internal participation, reaching 93.9% completion in 2014.

To support the organizational growth process, a strategic monitoring program was implemented to strengthen and develop work groups. In regards to Resource Management, in 2014 the budget was implemented to 99.1% and the member companies considerably shortened their financing terms, lowering bill payments from 45 to 27 days on average.



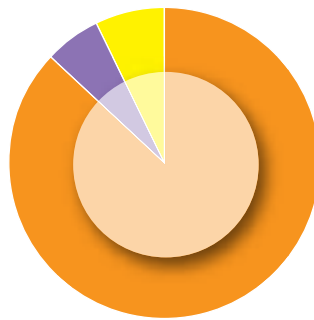
Iquique

CDEC SING STAFF
BY GENDER



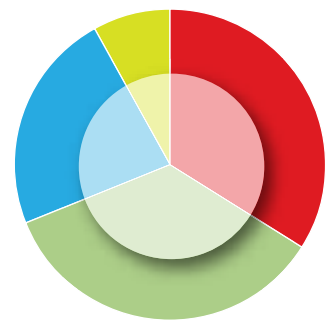
MALE	73%
FEMALE	27%

CDEC SING STAFF
BY PROFESSION



ENGINEERING PROFESSIONALS	87%
OTHER PROFESSIONALS	6%
TECHNICIANS AND OTHERS	7%

CDEC SING STAFF
BY AGE



30 AND YOUNGER	34%
31 TO 40 YEARS OLD	35%
41 TO 50 YEARS OLD	23%
OVER 50 YEARS OLD	8%



2014 SYSTEM INTEGRITY UNIT

In 2013 a work group was established to support the back-up and integrity of the system and its expansion under safe conditions. In 2014 said work group was responsible for completing the implementation of the WAM Project, heading up the Technical Audit of the maintenance and testing plans for the Control and Protective Systems, and completing the first global diagnosis of the state of the transmission system's primary equipment via the SING Installations Integrity Study.

The WAM Project, completed its evaluation phase. Among the positive issues we can highlight its ability to monitor the behavior and dynamic response of the SING, particularly when faced with the two key events that the system suffered in 2014: the earthquake on April 1st and the July 2nd blackout. Although the WAM project was in its preliminary pilot phase, it was kept in operation at all times, thus enabling us to obtain relevant information on the aforementioned emergencies.

Furthermore, the Integrity Study provided us with a full diagnosis of the 220 kV transmission system's primary equipment for existing installations and how these will hold up in future SING developments, supporting the conclusions arrived at by the SING Transmission System Expansion Study, and highlighting the points that would be vulnerable upon future interconnectivity with the central system.

REGULATORY AND TECHNICAL MANAGEMENT AREA.

2014 Accomplishments

In 2014 the Regulatory and Technical Management Area (AGTR) focused on managing the Procedures of the CDEC-SING Divisions, the monitoring and control of the implementation of the Safety and Quality Service Technical Standard, on developing the system operations reports, and in particular, on managing the process of connecting new projects to the system.

The projects that begun operations with the SING in 2014 are the following:

PROJECTS IN OPERATION 2014

Project	Company	Type	Date
Valle de los Vientos Wind Farm	Valle de los Vientos Wind Farm SA	Gx	March 2014
110 kV Line, Valle de los Vientos - Calama	Valle de los Vientos Wind Farm SA	Tx	March 2014
Pozo Almonte Solar 2	Pozo Almonte Solar 2 S.A.	Gx	March 2014
Sierra Gorda Substation ⁽¹⁾	Sierra Gorda SCM	Cx	April 2014
220 kV Line, Encuentro -Sierra Gorda, Circuit #2	Mejillones Transmitter	Tx	April 2014
Antucoya Mine Phase I	Antucoya Mine	Cx	May 2014
110 kV Line, Antucoya - Antucoya Tap Off Connection	Antucoya Mine	Tx	May 2014
Pozo Almonte Solar 3	Pozo Almonte Solar 3 S.A.	Gx	June 2014
Sierra Gorda #1 and #2 Pumping Substation	Baquadano Transmitter	Tx-Cx	August 2014
220 kV Line, Angamos - Sierra Gorda #1 Pumping Substation	Baquadano Transmitter	Tx	August 2014
110 kV Sierra Gorda #1 Pumping Substation - Sierra Gorda #2 Pumping Substation	Baquadano Transmitter	Tx	August 2014
La Portada PMG	TECNET S.A.	Gx	August 2014
Sierra Gorda Substation	Sierra Gorda SCM	Cx	October 2014
220 kV Line, Encuentro -Sierra Gorda, Circuit #1	Mejillones Transmitter	Tx	October 2014

(1) Partial Commercial Operation

Gx: generation- Tx: transmission- Cx: consumption



09

SING CLIENTS AND INSTALLATIONS

GENERATING UNITS TO DECEMBER 2014

Owner	Station Name	Unit	Nº Components	Gross Total Power [MW]	Injection Bar	Type of Unit	System's Start-up year
Celta	Termoeléctrica Tarapacá	TGTAR ⁽¹⁾	1	23,8	Tarapacá 220 kV	Turbogas Diesel	1999
		CTTAR	1	158,0	Tarapacá 220 kV	Steam-Coal	1999
E-CL	Chapiquiña	CHAP	2	10,2	Arica 66 kV	Hydroelectric	1967
	Diesel Arica	M1AR	3	3,0	Arica 66 kV	Diesel engine	1953
		M2AR	2	2,9	Arica 66 kV	Diesel engine	1964
		GMAR	4	8,4	Arica 66 kV	Diesel engine	1973
	Diesel Iquique	SUIQ	3	4,2	Iquique 66 kV	Diesel engine	1957
		MIQ	2	2,9	Iquique 66 kV	Diesel engine	1963
		MAIQ	1	5,9	Iquique 66 kV	Motor FO 6	1972
		TG1Q	1	23,8	Iquique 66 kV	Turbogas Diesel	1978
		MSIQ	1	6,2	Iquique 66 kV	Motor FO 6	1985
	Termoeléctrica Mejillones	CTM1	1	165,9	Chacaya 220 kV	Steam-Coal	1995
		CTM2	1	175,0	Chacaya 220 kV	Steam-Coal	1998
		CTM3	2	250,8	Chacaya 220 kV	Natural Gas Combined Cycle	2000
	Diesel Enaex ⁽⁴⁾	DEUTZ	3	2,0	Enaex 110 kV	Diesel engine	1996
		CUMMINS	1	0,7	Enaex 110 kV	Diesel engine	1996
	Termoeléctrica Tocopilla ⁽⁵⁾	U10	1	37,5	Central Tocopilla 110 kV	Vapor-FO 6	1960
		U11	1	37,5	Central Tocopilla 110 kV	Vapor-FO 6	1960
		U12	1	85,3	Central Tocopilla 110 kV	Steam-Coal	1983
		U13	1	85,5	Central Tocopilla 110 kV	Steam-Coal	1985
		U14	1	136,4	Central Tocopilla 220 kV	Steam-Coal	1987
		U15	1	132,4	Central Tocopilla 220 kV	Steam-Coal	1987
		U16	2	400,0	Central Tocopilla 220 kV	Natural Gas Combined Cycle	2001
		TG1	1	24,7	Central Tocopilla 110 kV	Turbogas Diesel	1975
		TG2	1	24,9	Central Tocopilla 110 kV	Turbogas Diesel	1975
		TG3 ⁽³⁾	1	37,5	Central Tocopilla 220 kV	Turbogas Gas Natural - Diesel	1993
		SUTA	10	103,7	Central Tamaya 110 kV	Motor FO 6	2009
	Diesel Tamaya ⁽⁵⁾	NT01	1	136,3	Norgener 220 kV	Steam-Coal	1995
		NT02	1	141,0	Norgener 220 kV	Steam-Coal	1997
AES Gener ^{(7) (8)}	Termoeléctrica Norgener	CC1	3	395,9	Central Atacama 220 kV	Natural Gas Combined Cycle	1999
Gasatamarca Chile	Atacama	CC2	3	384,7	Central Atacama 220 kV	Natural Gas Combined Cycle	1999
Enorchile	Zofri	ZOFRI 1-6	2	0,9	Iquique 13,8 kV	Diesel engine	2007
		ZOFRI 2-5	4	5,2	Iquique 13,8 kV	Diesel engine	2007
	Diesel Estandartes	ZOFRI 7-12	6	4,8	Iquique 13,8 kV	Diesel engine	2009
		ZOFRI 13	1	1,6	Iquique 13,8 kV	Diesel engine	2013
	Diesel Mantos Blancos ⁽²⁾	MIMB	10	28,6	Mantos Blancos 23 kV	Motor FO 6	1995
Equipos de Generación	Diesel Inacal	INACAL	4	6,8	La Negra 23 kV	Motor FO 6	2009
Termoeléctrica Andina	Termoeléctrica Andina	CTA	1	168,8	Chacaya 220 kV	Steam-Coal	2011
Inversiones Hornitos	Termoeléctrica Hornitos	CTH	1	170,1	Chacaya 220 kV	Steam-Coal	2011
Eléctrica Angamos	Termoeléctrica Angamos	ANG1	1	272,4	Angamos 220 kV	Steam-Coal	2011
		ANG2	1	272,6	Angamos 220 kV	Steam-Coal	2011
Noracid ⁽⁶⁾	Planta de Ácido Sulfúrico Mejillones	PAM	1	17,5	Mejillones 110 kV	Cogeneration	2012
Engenova	Diesel Aguas Blancas	AGB	1	2,0	Aguas Blancas 13,2 kV	Diesel engine	2013
Pozo Almonte Solar 2	Pozo Almonte Solar 2	PAS2	1	7,5	Central Solar PAS2	Solar	2014
Pozo Almonte Solar 3	Pozo Almonte Solar 3	PAS3	1	16,0	Central Solar PAS3	Solar	2014
TECNET	Diesel La Portada	TECNET_1_6	3	3,0	La Portada 23 kV	Diesel engine	2014
Valle de los Vientos	Eólica Valle de los Vientos	CE V VIENTOS	1	90,0	Valle de los Vientos	Wind	2014

TOTAL TO DECEMBER 31 ST OF 2014

4.074,8

Owner	Station Name	Unit	Nº Components	Gross Total Power [MW]	Injection Bar	Type of Unit	System's Start-up year
Cavancha	Cavancha	CAVA	1	2,8	Cerro Dragón 13,8 kV	Hydroelectric	2010
Enernuevas	Minihidro Alto Hospicio	MHAH	1	1,1	Alto Hospicio 13,8 kV	Hydroelectric	2010
Enernuevas	Minihidro El Toro N° 2	MHT2	1	1,1	Alto Hospicio 13,8 kV	Hydroelectric	2010
SPS La Huayca	La Huayca	HUAYCA1	1	1,4	Tamarugal 23 kV	Solar	2012

TOTAL PMGD TO DECEMBER 31 ST 2014

6,4

TOTAL SING TO DECEMBER 31 ST 2014

4.081,118

Notes:

- (1) During the January-November 1999 period the TGTAR Unit belonged to Endesa. As of May 12, 1999, it was transferred to the SIC and on November 29, 1999 it was reintegrated into the SING as property of Celta.
- (2) The Mantos Blancos Diesel Plant is represented in the CDEC-SING by ENORCHILE.
- (3) The TG3 unit is available to operate with natural gas as of September 2000.
- (4) The Enaex Diesel Plant was represented in the CDEC-SING by Gasatamarca through May 2007. As of June, 2007, it has been represented by the E-CL.
- (5) The Electroandina power generating units were transferred to the E-CL as of December 1, 2011.
- (6) Co-generation Plant, the power corresponds to the maximum surplus to be pumped into the system.
- (7) As of June 1, 2014, Norgener was absorbed by the AES Gener company.
- (8) As of 2014, the Salta Plant, property of the AES Gener Company, is no longer considered in the Installed Capacity of the SING.

SING TRANSMISSION LINES

Owner	Transmission line	Voltage [kV]	N° Circuits	Approximate length [km]	Capacity ⁽⁷⁾ [MVA]	System type	Start-up year
AES GENER	Andes - Tap Off Oeste	220	1	38	277	Additional	1998
	Andes - Nueva Zaldívar	220	2	63,3x2	363,9x2	Additional	1999
	Laberinto - Mantos Blancos	220	1	70	272,07	Additional	1999
	Nueva Zaldívar - Zaldívar	220	1	0,2	308,65	Additional	1994
ANGAMOS	Central Salta - Andes	345	1	408	777	Additional	1999
	Angamos - Laberinto	220	2	142x2	700x2	Additional	2010
CODELCO	Chuquicamata - 10	100	1	6,5	111,06	Additional	1988
	Chuquicamata - 10A	100	1	7,5	111,06	Additional	1988
	Chuquicamata - A	100	2	0,8x2	198,15x2	Additional	1988
	Chuquicamata - Chamy	100	1	12	111,06	Additional	1990
	Chuquicamata - K1	100	1	5,9	111,06	Additional	1988
	Chuquicamata - KM6	100	1	11	111,06	Additional	1988
	K1 - 10	100	1	1,3	111,06	Additional	1985
	KM6 - 10A	100	1	5,5	111,06	Additional	1988
	KM6 - Sopladores	100	1	2,0	447,5	Additional	1993
	Salar - km6	100	2	2,2x2	111,06x2	Additional	2005
	Encuentro - MMH	220	1	74	273,98	Additional	2013
	10A - 10	100	1	0	198,15	Additional	N/I
E-CL	Central Chapiquiña - Arica	66	1	84	48,01	Additional	1967
	Central Diesel Arica - Arica ⁽⁵⁾	66	1	6,8	41,15	Sub-transmission / Additional	1964
	Central Diesel Iquique - Iquique	66	1	1,6	48,01	Additional	1970
	Iquique - Pozo Almonte.Circuito N°1	66	1	44	41,15	Additional	1964
	Iquique - Pozo Almonte.Circuito N°2	66	1	40	56,01	Additional	1987
	Pozo Almonte - Tamarugal	66	1	21	41,15	Sub-transmission	1968
	Tap Off Llanos - Aguas Blancas	66	1	28,2	N/I	Additional	N/I
	Arica - Pozo Almonte	110	1	216	68,59	Sub-transmission	1987
	Capricornio - Alto Norte	110	1	44	137,18	Additional	2000
	Capricornio - Antofagasta	110	1	28	137,18	Additional	2000
	Capricornio - Sierra Miranda	110	1	25	121,94	Additional	2007
	Chacaya - GNL Mejillones	110	1	11	122	Additional	2010
	Mejillones - Enaex	110	1	1,4	182,9	Additional	N/I
	Mejillones - Antofagasta	110	1	63	121,94	Additional	1987
	Central Diesel Tamaya - A	110	1	127	144,8	Additional	2009
	Central Diesel Tamaya - Salar	110	1	138	144,8	Additional	2009
	Central Tocopilla - A. Circuito N°1	110	1	143	79,35	Additional	1910
	Central Tocopilla - A. Circuito N°2	110	1	141	93,36	Additional	1910
	Central Tocopilla - Central Diesel Tamaya N°3	110	1	14	93,36	Additional	2009
	Central Tocopilla - Central Diesel Tamaya N°4	110	1	14	79,35	Additional	2009
	Chacaya - El Cobre	220	2	144x2	350,57x2	Additional	2011
	Laberinto - El Cobre	220	1	2,7	360,86	Additional	2012
	Chacaya - Crucero	220	1	153	327,7	Additional	1987
	Chacaya - Mantos Blancos	220	1	66	377,24	Additional	1996
	Chacaya - Mejillones	220	1	1,4	377,24	Additional	1987
	Lagunas - Pozo Almonte	220	1	70	327,7	Additional	1987
	El Cobre - Gabby	220	1	57	327,7	Additional	2010
	Central Tocopilla - Crucero	220	2	71,4x2	419x2	Additional	1986
	Crucero - Chuquicamata	220	1	70	442,02	Additional	1986
	Crucero - El Abra	220	1	101	457,26	Additional	1995
	Crucero - Radomiro Tomic	220	1	82	457,26	Additional	1996
	Crucero - Salar ⁽¹⁾	220	1	75	442,0	Additional	2005
	Salar - Chuquicamata ⁽²⁾	220	1	13	442,0	Additional	2005
	Tap Off El Loa - El Loa	220	1	8,4	327,7	Additional	2000
	Tap Off Desalant - Desalant	110	1	1,9	33,91	Additional	2003
	KM6 - ACL	100	1	6,1	N/I	Additional	N/I
	Tap Off Vitor - Tap Off Vitor N°2 móvil	110	1	0,1	34,58	Sub-transmission	2014
EMELARI	Parinacota - Quiani ⁽⁴⁾	66	1	7,1	25,33	Sub-transmission	2002
	Tap Off Quiani - Quiani	66	1	0,5	39,18	Sub-transmission	2002
GRACE	Tap Off Barriles - Mantos de la Luna	110	1	27	70,69	Additional	2006
HALDEMAN	Pozo Almonte - Sagasca	66	1	55	12	Additional	1971
MINERA CERRO COLORADO	Pozo Almonte - Cerro Colorado	110	1	61	164,04	Additional	1993
MINERA COLLAHUASI	Encuentro - Collahuasi. Circuito N°1	220	1	201	170,71	Additional	2004
	Encuentro - Collahuasi. Circuito N°2	220	1	201	170,71	Additional	2012
MINERA EL TESORO	Lagunas - Collahuasi	220	2	118x2	109x2	Additional	1998
	Encuentro - El Tesoro	220	1	90	327,7	Additional	2000
MINERA ESCONDIDA	Atacama - Domeyko	220	2	205x2	245,8x2	Additional	1999
	Crucero - Laberinto. Circuito N°1	220	1	133	293	Additional	2010
	Domeyko - Escondida	220	1	7,0	245,8	Additional	1999
	Domeyko - Laguna Seca	220	1	13	245,8	Additional	2001
	Domeyko - Planta Óxidos	220	1	1,0	245,8	Additional	1998
	Domeyko - Sulfuros	220	1	1,0	293	Additional	2005
	Laberinto - Nueva Zaldívar. Circuito N°1	220	1	95	293	Additional	2010
	Mejillones - O'Higgins	220	1	74	260,64	Additional	2006
	Nueva Zaldívar - Escondida	220	1	14	293	Additional	2010
	Nueva Zaldívar - Sulfuros	220	1	13	293	Additional	2006
	O'Higgins - Coloso	220	1	32	245,78	Additional	1993
	O'Higgins - Domeyko	220	1	128	245,78	Additional	1993
	Zaldívar - Escondida ⁽³⁾	220	1	14	293	Additional	1996

Owner	Transmission line	Voltage [kV]	N° Circuits	Approximate length [km]	Capacity ⁽⁷⁾ [MVA]	System type	Start-up year
MINERA ESCONDIDA	Escondida - Monturaqui	69	1	80	54,98	Additional	2008
	Laguna Seca - Tap Off 418	69	1	13	19,12	Additional	2002
	Escondida - 940	69	1	30	50,55	Additional	2002
	Escondida - Escondida Norte	69	1	13	94,41	Additional	2004
	Escondida - Neurara	69	1	65	54,98	Additional	2008
	Laguna Seca - 640	69	1	12	70,51	Additional	2002
	Lixiviación - Booster	69	2	2,5x2	64,54x2	Additional	2013
	Lixiviación - Sulfuros	69	2	14x2	77,08x2	Additional	2006
	Neurara - Monturaqui	69	1	15	54,98	Additional	2008
MINERA ESPERANZA	Chacaya - Muelle	110	1	55	97,55	Additional	2010
	Muelle - Guayaques	110	1	50	93,36	Additional	2010
	El Cobre - Esperanza	220	2	81,3x2	179x2	Additional	2010
	El Tesoro - Esperanza	220	1	13	293,41	Additional	2010
MINERA LOMAS BAYAS	Lomas Bayas - Fortuna	220	1	6,3	187,93	Additional	2012
MINERA MERIDIAN	Tap Off Palestina - El Peñón	66	1	66	36,01	Additional	1999
MINERA MICHILLA	Mejillones - El Lince	110	1	74	28,58	Additional	1991
MINERA QUEBRADA BLANCA	Collahuasi - Quebrada Blanca	220	1	18	197,38	Additional	2002
MINERA RAYROCK	Tap Off Pampa - Iván Zar	69	1	17	8,01	Additional	1994
MINERA SPENCE	Encuentro - Spence	220	1	67	318,18	Additional	2005
MINERA ZALDIVAR	Crucero - Laberinto. Circuito N°2	220	1	133	377,24	Additional	1994
	Laberinto - Nueva Zaldivar. Circuito N°2	220	1	73	377,24	Additional	1994
MOLY-COP	Chacaya - Molycop	220	1	0,8	327,7	Additional	2004
NORGENER	Tap Off Oeste - Minsal	110	1	33	41,15	Additional	1997
	Laberinto - Lomas Bayas	220	1	10	272,07	Additional	1997
	Tap Off Oeste - Laberinto	220	1	85	272,07	Additional	1998
	Norgener - Crucero	220	2	72x2	426,78x2	Additional	1997
SIERRA GORDA SCM	Tap Off Pampa Lina - Sierra Gorda	220	1	14	115,08	Additional	2012
TRANSELEC NORTE	Atacama - Encuentro	220	2	153x2	386x2	Troncal	1999
	Atacama - Esmeralda	220	1	69	197,4	Sub-transmission	2001
	Crucero - Encuentro	220	2	1x2	384,86x2	Troncal	1999
	Crucero - Lagunas 1 ⁽⁶⁾	220	1	174	182,9	Troncal	1987
	Crucero - Lagunas 2 ⁽⁷⁾	220	1	173	182,9	Troncal	1998
	Cóndores - Parinacota	220	1	222	197,38	Sub-transmission	2001
	Tarapacá - Cóndores	220	1	70	197,38	Sub-transmission	2002
	Tarapacá - Lagunas	220	2	56x2	254x2	Troncal	1996
	Cóndores - Cerro Dragón	110	1	4,9	104,41	Sub-transmission	2001
TRANSEMEL	Cóndores - Pacífico	110	1	11	104,4	Sub-transmission	2001
	Cóndores - Palafitos	110	1	8,6	104,41	Sub-transmission	2001
	Esmeralda - Centro	110	1	0,6	104,41	Sub-transmission	2001
	Esmeralda - La Portada	110	1	17	104,41	Sub-transmission	2001
	Esmeralda - Sur	110	1	6,7	104,41	Sub-transmission	2001
	Esmeralda - Uribe	110	1	16	104,41	Additional	2001
	Salar - Calama	100	1	17	150,17	Sub-transmission	2011
	Tap Off Alto Hospicio - Alto Hospicio	110	1	0,1	104,41	Sub-transmission	2001
	Parinacota - Chinchorro	66	1	3,5	62,64	Sub-transmission	2002
	Parinacota - Pukará	66	1	2,4	61,84	Sub-transmission	2003
	XSTRATA COPPER - Antofagasta - Tap Off La Negra	110	1	19	121,94	Additional	1993
	ALTONORTE - Tap Off La Negra - Alto Norte	110	1	4,8	121,94	Additional	1993
SQM	Tap Off Nueva Victoria - Llamara	66	1	22,9	42,41	Additional	2006
	Tap Off Nueva Victoria - Sur Viejo	66	1	16,4	42,41	Additional	2006
TRANSMISORA BAQUEDANO	Est. Bombeo SG 1 - Est. Bombeo SG 2 ⁽¹⁰⁾	110	1	42,7	63,718	Additional	2014
	Angamos - Est. de Bombeo SG N°1 ⁽¹¹⁾	110	1	10,96	86,6891	Additional	2014
MINERA ANTUCOYA	Tap Off Enlace Antucoya - Antucoya	110	1	14,0	86,689	Additional	2014
VALLE DE LOS VIENTOS	Valle de los vientos - Calama N°1	110	1	13,6	137,941	Additional	2014
TRANSMISORA MEJILLONES	Encuentro - Sierra Gorda ⁽¹²⁾	220	1	77,8	225,201	Additional	2014
Total Lines 66 kV		66		398	597		
Total Lines 69 kV		69		261	683		
Total Lines 100 kV		100		80	2.192		
Total Lines 110 kV		110		1.427	3.545		
Total Lines 220 kV		220		5.316	21.274		
Total Lines 345 kV		345		408	777		
TOTAL SING TO DECEMBER 31 ST (2014 (9))				7.890	29.068		

Notes:

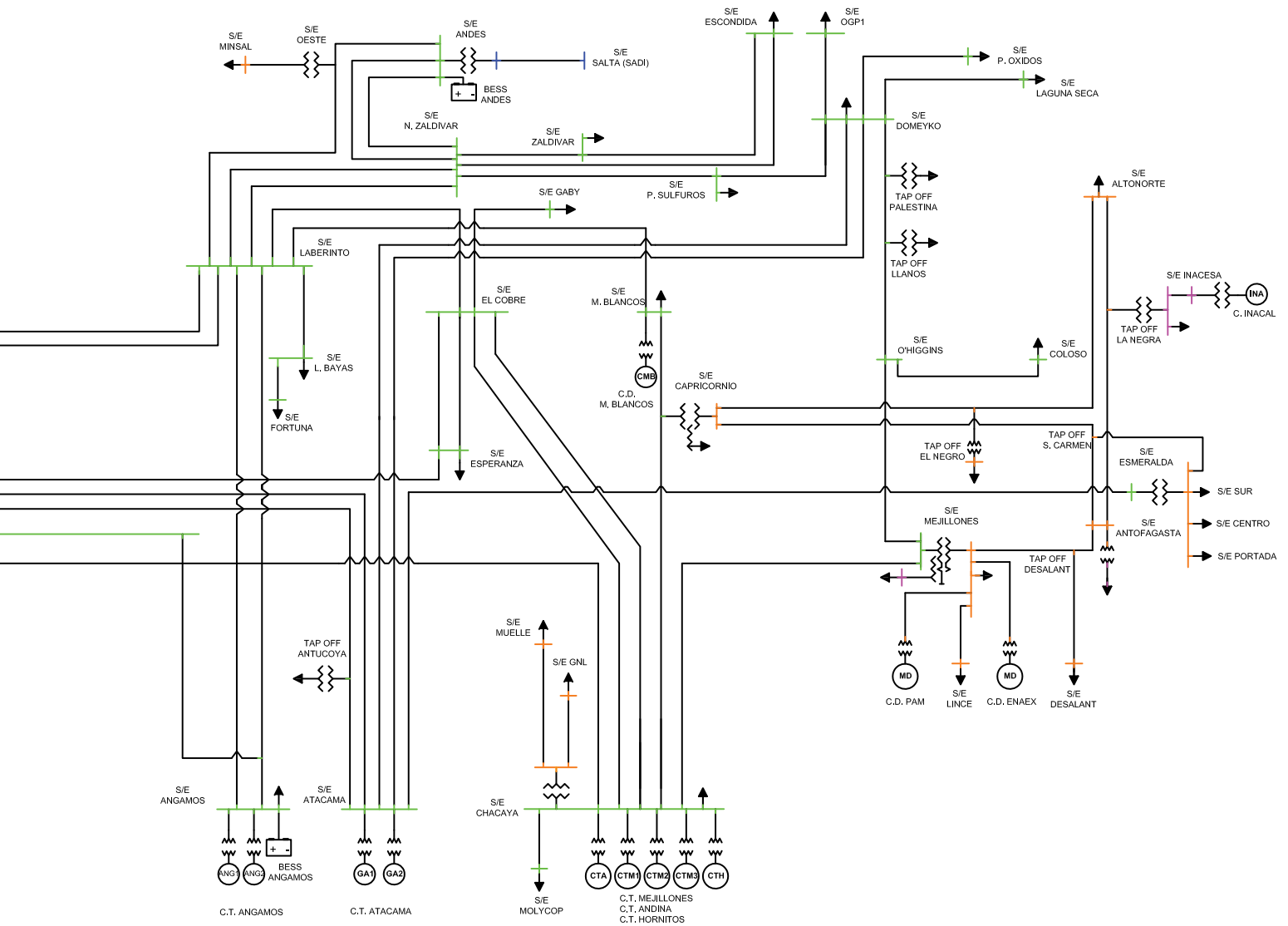
- (1) The line is shared property as indicated here: 340 Crucero-Torre Stretch is the property of E-CL, 340 Torre-Salar Stretch is the property of Codelco.
- (2) The line is shared property as indicated here: 340 Salar-Torre Stretch is the property of Codelco, 340 Torre-Chuquicamata Stretch is the property of E-CL
- (3) The line is shared property between Minera Escondida and Minera Zaldivar.
- (4) The line is shared property between EMELARI and TRANSEMEL.
- (5) Arica - Tap Arica Stretch is for Subtransmission; Tap Arica - Diesel Arica Plant is Additional.
- (6) Line belonging to Transelec S. A., comprised of two stretches: Crucero-Nueva Victoria and Nueva Victoria-Lagunas.
- (7) Line belonging to Transelec S. A., comprised of two stretches: Crucero-Maria Elena PV and Maria Elena PV-Lagunas.
- (8) The capacity of the reported lines corresponds to the thermal capacity of the conductor.
- (9) Total SING longitudes by circuit.
- (10) Line belonging to Transmisora Baquedano, comprised of two stretches: Station Yard Service Heads SG 1 Pump - Station SG 1 Pump and Station SG 1 Pump - Station SG 2 Pump
- (11) Line belonging to Transmisora Baquedano, comprised of three stretches: Angamos - Angamos Yard Service Heads, Angamos Yard Service Heads - SG 1 Pump Station Yard Service Heads and SG 1 Pump Station Yard Service Heads - SG 1 Pump Station
- (12) Line belonging to Transmisora Mejillones, comprised of two stretches: Encuentro - Encuentro Yard Service Heads and Encuentro Yard Service Heads - Sierra Gorda.

SING MAIN CLIENTS TO DECEMBER 2014

Client	Category	Connected Power [MVA]	Maximum Demand [MW]	Annual Consumption [GWh]	Supplier	Supply Bar	Type
ACF Minera	Mining	2,61	2,90	19,3	CELTA	Lagunas 220 kV	Free
Algorta Norte	Mining	8,00	5,40	23,5	E-CL, NORACID	Chacaya 110 kV	Free
Alto Norte	Industrial	104,00	43,17	318,3	E-CL	Alto Norte 110 kV	Free
Antucoya	Mining	212,50	3,49	4,5	E-CL	Chacaya 110 kV, Tap Off Enlace 220 kV	Free
Atacama Agua y Tecnología	Industrial	14,00	10,42	84,0	E-CL	Desalant 110 kV	Free
Atacama Minerals	Mining	15,00	2,52	16,6	ON GROUP	Aguas Blancas 13 kV	Free
Camíña	Distribution	0,00	0,17	0,6	E-CL	Dolores 110 kV	Regulated
Cerro Colorado	Mining	92,00	40,92	262,8	E-CL	Pozo Almonte 220 kV	Free
Cerro Dominador	Mining	13,52	3,89	12,5	E-CL	Calama 110 kV, Encuentro 220 kV	Free
Cientes Chapiquiña	-	0,37	0,62	1,8	E-CL	Chapiquiña 66 kV	Free
Cientes menores	-	0,04	0,08	0,6	E-CL	Arica 110 kV	Free
Codelco	Mining	1.678,86	481,06	3.444,2	ANDINA, E-CL, AES GENER	Chuquicamata 220 kV, Crucero 220 kV, El Cobre 220 kV, Encuentro 220 kV, Salar 110 kV,	Free
Collahuasi	Mining	500,00	188,05	1.340,7	CELTA, ENORCHILE, GASATACAMA, POZO ALMONTE 2, POZO ALMONTE 3	Collahuasi 220 kV	Free
Cosayach	Mining	37,80	4,72	32,5	ENORCHILE	Dolores 110 kV, Pozo Almonte 23 kV, Tamarugal 66 kV	Free
Ecometales	Mining	-	1,27	8,1	AES GENER	KM6 100 kV	Free
El Abra	Mining	187,50	108,27	845,4	E-CL	Crucero 220 kV	Free
El Tesoro	Mining	52,00	51,08	268,2	HORNITOS, NORACID	El Cobre 220 kV, Encuentro 220 kV	Free
Eledda	Distribution	0,00	200,58	991,1	E-CL	Antofagasta 110 kV, C. Atacama 220 kV, Calama 110 kV, El Cobre 220 kV, Encuentro 220 kV, La Negra 23 kV, Mantos Blancos 220 kV, Mejillones 110 kV, Mejillones 23 kV, Tocopilla 5 kV, Uribe 110 kV	Regulated
Eliqsa	Distribution	0,00	19,46	845,9	E-CL	Alto Hospicio 110 kV, CD Iquique 13.8 kV, Cerro Dragón 110 kV, Dolores 110 kV, Iquique 13.8 kV, Lagunas 220 kV, Pozo Almonte 23 kV, Tamarugal 66 kV, Tarapacá 220 kV	Regulated
Emelari	Distribution	0,00	2,89	1,2	E-CL	Arica 110 kV, Arica 13.8 kV, CD Arica 13.8 kV, Tap Off Quiani 66 kV	Regulated
Enaex	Industrial	12,50	6,62	38,6	E-CL	Mejillones 110 kV	Free
GNL Mejillones	Industrial	16,00	5,45	15,7	E-CL	Chacaya 110 kV, Mejillones 23 kV	Free
Grace	Mining	25,00	11,96	75,5	AES GENER	Barriles 220 kV	Free
Haldeman	Mining	19,30	6,58	40,2	E-CL	Pozo Almonte 66 kV	Free
Inacesa	Industrial	18,95	8,73	47,7	ENORCHILE	Inacesa 23 kV	Free
Lomas Bayas	Mining	133,20	39,85	293,5	E-CL	Laberinto 220 kV	Free
Mall Antofagasta	Industrial	5,66	5,36	25,3	E-CL	Antofagasta 110 kV	Free
Mamiña	Mining	0,00	0,19	0,8	E-CL	Pozo Almonte 220 kV	Free
Mantos Blancos	Mining	50,00	30,99	217,8	ENORCHILE	Mantos Blancos 23 kV	Free
Megapuerto	Industrial	0,78	1,98	5,2	E-CL	Mejillones 23 kV	Free
Michilla	Mining	31,20	21,14	146,3	E-CL	Mejillones 110 kV	Free
Minera Escondida	Mining	2.188,30	702,12	2.921,7	AES GENER, ANGAMOS	C. Atacama 220 kV, Mejillones 220 kV, Zaldivar 220 kV	Free
Minera Esperanza	Mining	370,00	127,98	884,2	HORNITOS	Chacaya 110 kV, El Cobre 220 kV, Encuentro 220 kV	Free
Minera Meridian	Mining	20,00	34,90	115,7	GASATACAMA	C. Atacama 220 kV, Mejillones 220 kV, Zaldivar 220 kV	Free
Minera Sierra Gorda	Mining	405,00	140,59	266,9	AES GENER	Angamos 220 kV, Encuentro 220 kV	Free
Minera Zaldivar	Mining	134,00	70,27	463,9	E-CL	Zaldivar 220 kV	Free
Molycop	Industrial	30,00	16,10	61,5	E-CL	Chacaya 220 kV	Free
Molynor	Industrial	1,50	3,04	20,3	E-CL	Mejillones 23 kV	Free
Noracid	Industrial	0,00	6,87	2,7	NORACID	Mejillones 110 kV	Free
Otros Clientes	Varios	0,00	4,05	22,6	CELTA	Tarapacá 220 kV	Free
Pampa Camarones	Mining	-	2,14	5,3	E-CL	Arica 110 kV	Free
Polpaico	Industrial	3,83	2,27	9,8	E-CL	Mejillones 23 kV	Free
Puerto Mejillones	Industrial	4,00	6,67	5,0	E-CL	Mejillones 110 kV	Free
Quebrada Blanca	Industrial	50,00	15,83	74,6	AES GENER	Collahuasi 220 kV	Free
Quiborax	Mining	1,70	2,93	18,9	E-CL	El Águila 66 kV	Free
Sabo	Mining	7,00	1,00	16,6	ENORCHILE, GASATACAMA	Antofagasta 110 kV, Centro 110 kV	Free
Spence	Mining	180,00	80,05	550,0	ANGAMOS	Encuentro 220 kV	Free
SQM	Mining	210,00	78,56	548,1	AES GENER, E-CL	El Loa 220 kV, El Negro 110 kV, La Cruz 220 kV, Nva. Victoria 220 kV, Oeste 220 kV	Free

UNILINEAR DIAGRAM OF SING INSTALLATIONS





10

OPERATION STATISTICS

I. SING: Generation Installed Capacity

INSTALLED CAPACITY AS PER COMPANY TERM 2004-2014

IN PHYSICAL UNITS [MW]

Company \ Year	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Celta	182	182	182	182	182	182	182	182	182	182
E-CL	719	719	722	705	693	691	1.796	1.796	1.767	1.767
Electroandina	992	992	992	1.000	1.105	1.105				
AES Gener ^{(4) (5)}	643	643	643	643	643	643	643	643	643	277
Gasatacama	783	783	781	781	781	781	781	781	781	781
Norgener ⁽⁴⁾	277	277	283	283	277	277	277	277	277	
Enorchile					11	11	11	11	41	41
Equipos de Generación ⁽³⁾					7	7	7	7	7	7
Cavancha ⁽¹⁾						3	3	3	3	3
Enernuevas ⁽²⁾						2	2	2	2	2
Termoeléctrica Andina							169	169	169	169
Inversiones Hornitos							170	170	170	170
Eléctrica Angamos							545	545	545	545
Noracid								18	18	18
SPS La Huayca								1	1	1
On Group									2	2
Pozo Almonte Solar 2										8
Pozo Almonte Solar 3										16
Tecnet										3
Valle de los Vientos										90
TOTAL	3.596	3.596	3.602	3.593	3.699	3.701	4.585	4.604	4.607	4.081

IN PERCENTAGES [%]

Company \ Year	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Celta	5,1%	5,1%	5,0%	5,1%	4,9%	4,9%	4,0%	3,9%	3,9%	4,5%
E-CL	20,0%	20,0%	20,0%	19,6%	18,7%	18,7%	39,2%	39,0%	38,4%	43,3%
Electroandina	27,6%	27,6%	27,5%	27,8%	29,9%	29,9%				
AES Gener ^{(4) (5)}	17,9%	17,9%	17,8%	17,9%	17,4%	17,4%	14,0%	14,0%	14,0%	6,8%
Gasatacama	21,8%	21,8%	21,7%	21,7%	21,1%	21,1%	17,0%	17,0%	16,9%	19,1%
Norgener ⁽⁴⁾	7,7%	7,7%	7,9%	7,9%	7,5%	7,5%	6,0%	6,0%	6,0%	
Enorchile					0,3%	0,3%	0,2%	0,2%	0,9%	1,0%
Equipos de Generación ⁽³⁾					0,2%	0,2%	0,1%	0,1%	0,1%	0,2%
Cavancha ⁽¹⁾						0,1%	0,1%	0,1%	0,1%	0,1%
Enernuevas ⁽²⁾						0,1%	0,0%	0,0%	0,0%	0,1%
Termoeléctrica Andina							3,7%	3,7%	3,7%	4,1%
Inversiones Hornitos							3,7%	3,7%	3,7%	4,2%
Eléctrica Angamos							11,9%	11,8%	11,8%	13,4%
Noracid								0,4%	0,4%	0,4%
SPS La Huayca								0,0%	0,0%	0,0%
On Group									0,0%	0,0%
Pozo Almonte Solar 2										0,2%
Pozo Almonte Solar 3										0,4%
Tecnet										0,1%
Valle de los Vientos										2,2%
TOTAL	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%

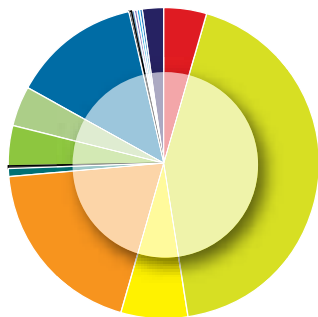
(1) Since November 3, 2010 Cavancha Station belongs to PMGD. Before, it was represented at the CDEC-SING by E-CL.

(2) Enernuevas and SPS La Huayca units corresponding to Small Distributed Energy Resources.

(3) Former INACAL.

(4) As of June 1, 2014, Norgener was absorbed by the AES Gener company.

(5) As of 2014, the Salta Plant, property of the AES Gener Company, is no longer considered in the Installed Capacity of the SING.



INSTALLED CAPACITY AS PER COMPANY

CELTA	4.5%	CAVANCHA	0.1%
E-CL ⁽¹⁾	43.3%	ENERNUEVAS ⁽⁴⁾	0.1%
AES GENER ^{(2) (7)}	6.8%	NORACID	0.4%
GASATACAMA CHILE	19.1%	SPS LA HUAYCA ⁽⁵⁾	0.0%
ENORCHILE	1.0%	ON GROUP ⁽⁶⁾	0.0%
EQUIPOS DE GENERACIÓN ⁽³⁾	0.2%	POZO ALMONTE SOLAR 2	0.2%
TERMOELÉCTRICA ANDINA	4.1%	POZO ALMONTE SOLAR 3	0.4%
INVERSIONES HORNIOS	4.2%	TECNET	0.1%
ELÉCTRICA ANGAMOS	13.4%	VALLE DE LOS VIENTOS	2.2%

(1) Electroandina's power generation assets were transferred to E-CL as of December 1, 2011.

(2) As of June 1, 2014, Norgener was absorbed by the AES Gener company.

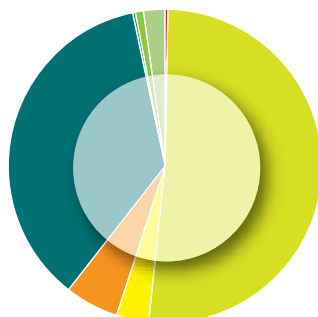
(3) Former INACAL.

(4) With an installed capacity of 2.2 MW, Enernuevas makes up 0.05% of the SING.

(5) With an installed capacity of 1.35 MW, SPS LA Huayca makes up 0.03% of the SING.

(6) With an installed capacity of 2.0 MW, On Group makes up 0.05% of the SING.

(7) As of 2014, the Salta Plant, property of the AES Gener Company, is no longer considered in the Installed Capacity of the SING.



INSTALLED CAPACITY AS PER FUEL TYPE

HYDRO	0.37%
COAL	51.45%
DIESEL	3.40%
FUEL OIL	5.54%
NATURAL GAS ⁽¹⁾	35.99%
COGENERATION	0.43%
SOLAR	0.61%
WIND	2.21%

(1) As of 2014, the Salta Plant, property of the AES Gener Company, is no longer considered in the Installed Capacity of the SING.



INSTALLED CAPACITY AS PER FUEL TYPE TERM 2004-2014

IN PHYSICAL UNITS (MW)

Fuel	Company	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Hidro	E-CL	13	13	13	13	10	10	10	10	10	10
	Cavancha ⁽²⁾					3	3	3	3	3	3
	Enernuevas						2	2	2	2	2
Subtotal		13	13	13	13	13	15	15	15	15	15
Coal	Celta	158,0	158,0	158,0	158,0	158,0	158,0	158,0	158,0	158,0	158,0
	E-CL	340,9	340,9	340,9	340,9	340,9	340,9	340,9	780,5	780,5	780,5
	Electroandina	429,4	429,4	429,4	437,5	439,6	439,6	439,6			
	Norgener ⁽⁵⁾	277,3	277,3	277,3	277,3	277,3	277,3	277,3	277,3	277,3	
	Andina							168,8	168,8	168,8	168,8
	Hornitos							170,1	170,1	170,1	170,1
	Angamos							545,0	545,0	545,0	545,0
	AES Gener ⁽⁵⁾										277,3
Subtotal		1.206	1.206	1.206	1.214	1.216	1.216	2.100	2.100	2.100	2.100
Diesel	Celta	24	24	24	24	24	24	24	24	24	24
	E-CL	62	62	65	48	48	48	48	98	98	98
	Electroandina	50	50	50	50	50	50	50			
	Endesa										
	Gasatacama	3	3								
	Enorchile			6	6	11	11	11	11	12	12
	On Group									2	2
	Tecnet										3
Subtotal		138	138	144	127	132	132	132	132	135,715	138,715
Fuel Oil	E-CL ⁽¹⁾	53	53	53	53	41	41	41	219	191	191
	Electroandina	75	75	75	75	179	179	179			
	Equipos de Generación ⁽³⁾					7	7	7	7	7	7
	Enorchile ⁽⁴⁾									29	29
Subtotal		128	128	128	128	226	226	226	226	226	226
Natural Gas	E-CL	251	251	251	251	251	251	251	688	688	688
	AES Gener ⁽⁶⁾	643	643	643	643	643	643	643	643	643	
	Gasatacama	781	781	781	781	781	781	781	781	781	781
	Electroandina	438	438	438	438	438	438	438			
Subtotal		2.112	2.112	2.112	2.112	2.112	2.112	2.112	2.112	2.112	1.469
Cogeneration	Noracid								18	18	18
Subtotal									18	18	18
Solar	SPS La Huayca								1	1	1
	Pozo Almonte Solar 2										8
	Pozo Almonte Solar 3										16
Subtotal									1	1	25
Wind	Valle de los Vientos										90
Subtotal											90
TOTAL		3.596	3.596	3.602	3.593	3.699	3.701	4.585	4.604	4.607	4.081

(1) The E-CL power generation units that use a Diesel-Fuel Oil mix, have been associated to Fuel Oil.

(2) As of November 3, 2010 Cavancha Station has become a part of PMGD.

(3) Former INACAL.

(4) The Enorchile power generation units that use a Diesel-Fuel Oil mix, have been associated to Fuel Oil.

(5) As of June 1, 2014, Norgener was absorbed by the AES Gener company.

(6) As of 2014, the Salta Plant, property of the AES Gener Company, is no longer considered in the Installed Capacity of the SING.

II. SING: Energy Generation

GENERATION AS PER COMPANY AND UNIT (GWh)

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC	ANNUAL
E-CL													
CHAPIQUÍÑA	4,64	4,36	4,54	3,79	3,98	3,60	3,54	3,38	3,94	3,78	3,81	4,26	47,62
CD ARICA	1,24	0,45	0,95	1,51	1,14	1,47	1,02	0,71	0,88	0,88	0,76	0,42	11,43
CD IQUIQUE	0,40	0,16	0,64	1,12	0,74	1,33	0,87	0,66	1,01	0,89	0,93	0,39	9,13
CD MANTOS BLANCOS	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
CTM3	3,79	0,00	31,40	32,72	0,00	2,09	19,45	3,95	20,68	18,79	47,63	1,07	181,56
CTM2	52,82	59,36	107,41	81,72	107,11	87,49	93,05	102,93	107,71	108,45	106,19	101,94	1.116,18
CTM1	97,38	93,68	107,27	84,09	102,64	103,13	62,80	68,23	98,32	110,99	95,45	108,27	1.132,25
DEUTZ	0,02	0,00	0,01	0,02	0,01	0,01	0,00	0,00	0,00	0,00	0,00	0,00	0,06
CUMMINS	0,01	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,01
U10 - U11 ⁽¹⁾	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
U12 - U13 ⁽¹⁾	101,47	97,49	99,38	110,51	105,84	90,56	90,64	41,56	82,76	107,73	67,88	15,73	1.011,55
U14 - U15 ⁽¹⁾	141,33	65,45	130,82	149,38	87,35	133,44	172,49	173,17	162,85	167,04	149,58	174,10	1.707,00
U16 ⁽¹⁾	115,92	131,39	102,24	120,59	146,79	138,17	117,89	143,63	92,17	107,46	106,55	137,23	1.460,04
TG1 ⁽¹⁾	0,30	0,00	0,00	0,31	0,14	0,13	0,12	0,10	0,27	0,02	0,23	0,13	1,76
TG2 ⁽¹⁾	0,30	0,00	0,00	0,33	0,14	0,15	0,07	0,10	0,22	0,00	0,05	0,09	1,45
TG3 ⁽¹⁾	1,64	1,64	1,51	1,00	1,52	0,54	1,38	0,21	0,39	0,22	0,58	0,32	10,96
Solar El Águila ⁽³⁾	0,40	0,37	0,38	0,33	0,31	0,35	0,34	0,35	0,35	0,40	0,38	0,42	4,38
SUTA ⁽¹⁾	24,70	18,28	20,69	25,73	18,64	14,22	19,83	6,93	7,74	6,19	5,55	4,32	172,82

Total Gross Generation	546,37	472,62	607,25	613,15	576,36	576,70	583,50	545,91	579,29	632,83	585,55	548,70	6.868,23
Own Consumption	34,08	29,26	58,74	75,50	36,72	37,98	35,44	34,18	37,93	41,99	37,93	35,10	494,85
Total Net Generation	512,29	443,36	548,51	537,65	539,64	538,72	548,06	511,73	541,36	590,84	547,62	513,60	6.373,38

CELTA													
CTTAR	67,85	85,31	101,59	29,41	68,21	69,64	90,62	65,12	89,32	89,86	74,90	78,81	910,65
TGTAR	0,66	0,39	0,29	0,66	0,52	0,57	0,69	0,18	0,34	0,52	0,37	0,28	5,47
Total Gross Generation	68,51	85,69	101,88	30,07	68,73	70,21	91,31	65,30	89,66	90,39	75,27	79,08	916,12
Own Consumption	6,27	6,72	7,79	2,40	6,09	5,73	7,21	5,06	7,19	7,94	6,71	6,55	75,66
Total Net Generation	62,24	78,97	94,09	27,67	62,64	64,48	84,10	60,24	82,47	82,45	68,56	72,53	840,46

NORGENER ⁽⁴⁾													
NT01	71,85	84,41	99,91	97,06	98,81	0,00	0,00	0,00	0,00	0,00	0,00	0,00	452,04
NT02	90,25	86,35	98,70	80,36	99,60	0,00	0,00	0,00	0,00	0,00	0,00	0,00	455,27
CTM3 (Norgener)	0,00	24,79	6,23	75,19	20,03	0,00	0,00	0,00	0,00	0,00	0,00	0,00	126,24
Total Gross Generation	162,10	195,55	204,84	252,62	218,45	0,00	0,00	0,00	0,00	0,00	0,00	0,00	1.033,56
Own Consumption	13,00	12,70	14,90	17,10	15,50	0,00	0,00	0,00	0,00	0,00	0,00	0,00	73,20
Total Net Generation	149,10	182,85	189,94	235,52	202,95	0,00	0,00	0,00	0,00	0,00	0,00	0,00	960,36

GASATACAMA													
TG1A	25,01	4,24	26,79	11,90	0	0	0	4,44	3,01	9,75	6,02	8,57	99,73
TG1B	19,91	0,00	5,12	0,00	0,00	0,00	13,18	2,84	0,00	24,64	21,91	48,13	135,72
TV1C	22,55	2,27	16,98	0,00	0,00	0,00	6,78	3,30	0,00	16,82	12,12	31,10	111,92
TG2A	19,58	25,17	9,93	32,84	21,93	1,27	10,37	16,70	22,26	6,12	9,84	14,12	190,12
TG2B	2,87	9,44	0,00	40,71	22,08	12,45	16,03	19,06	9,20	8,31	34,14	8,48	182,77
TV2C	10,76	19,24	5,47	40,36	22,44	6,60	13,39	17,17	11,93	4,24	23,35	10,40	185,36
Total Gross Generation	100,68	60,37	64,28	125,81	66,45	20,32	59,75	63,50	46,40	69,88	107,38	120,79	905,62
Own Consumption	3,98	3,18	3,49	4,40	3,22	1,83	3,08	3,06	2,33	3,25	3,96	4,37	40,15
Total Net Generation	96,70	57,19	60,79	121,41	63,23	18,49	56,67	60,44	44,07	66,63	103,42	116,42	865,47

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC	ANNUAL
AES GENER ⁽⁴⁾													
Central Salta	0,00	0,00	0,00	0,00	0,00	0,00	4,54	0,00	0,00	0,00	0,00	0,00	4,54
NT01	0,00	0,00	0,00	0,00	0,00	95,86	95,85	100,28	97,07	26,75	80,95	96,49	593,25
NT02	0,00	0,00	0,00	0,00	0,00	94,04	96,88	101,04	30,74	92,88	94,07	93,14	602,79
CTM3 (AES GENER)	0,00	0,00	0,00	0,00	0,00	32,27	59,32	63,34	17,13	8,25	9,35	5,74	195,39
Total Gross Generation	0,00	0,00	0,00	0,00	0,00	222,17	256,59	264,66	144,94	127,87	184,37	195,37	1.395,97
Own Consumption	0,00	0,00	0,00	0,00	0,00	15,72	16,94	17,73	10,25	8,50	12,92	14,10	96,16
Total Net Generation	0,00	0,00	0,00	0,00	0,00	206,45	239,65	246,93	134,69	119,37	171,45	181,27	1.299,81

CAVANCHA

CAVA	1,54	1,39	1,56	0,80	1,49	1,37	1,45	1,47	1,39	1,50	1,46	1,51	16,94
Total Gross Generation	1,54	1,39	1,56	0,80	1,49	1,37	1,45	1,47	1,39	1,50	1,46	1,51	16,94
Own Consumption	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Total Net Generation	1,54	1,39	1,56	0,80	1,49	1,37	1,45	1,47	1,39	1,50	1,46	1,51	16,94

ENORCHILE

ZOFRI_1-6	0,06	0,03	0,05	0,05	0,05	0,03	0,05	0,04	0,06	0,06	0,05	0,03	0,57
ZOFRI_2-5	0,31	0,17	0,30	0,32	0,33	0,39	0,24	0,25	0,33	0,37	0,26	0,12	3,38
ZOFRI_7-12	0,41	0,13	0,34	0,41	0,31	0,46	0,41	0,27	0,32	0,37	0,30	0,14	3,86
ZOFRI_13	0,15	0,05	0,12	0,11	0,14	0,10	0,11	0,09	0,11	0,14	0,10	0,03	1,25
MIMB	1,35	0,54	0,93	1,83	1,37	0,95	2,00	0,97	0,82	0,62	0,79	0,43	12,59
Total Gross Generation	2,29	0,91	1,74	2,72	2,20	1,94	2,80	1,62	1,63	1,56	1,50	0,75	21,67
Own Consumption	0,08	0,05	0,07	0,10	0,08	0,06	0,10	0,06	0,06	0,05	0,06	0,05	0,82
Total Net Generation	2,21	0,86	1,67	2,62	2,12	1,88	2,70	1,56	1,57	1,51	1,44	0,70	20,85

EQUIPOS DE GENERACIÓN ⁽⁴⁾

INACAL1 - 4	1,24	1,34	0,39	1,43	1,30	1,16	0,54	0,01	0,00	0,16	0,10	0,02	7,68
Total Gross Generation	1,24	1,34	0,39	1,43	1,30	1,16	0,54	0,01	0,00	0,16	0,10	0,02	7,68
Own Consumption	0,06	0,06	0,02	0,07	0,06	0,06	0,07	0,00	0,00	0,15	0,09	0,00	0,64
Total Net Generation	1,18	1,28	0,37	1,36	1,24	1,10	0,47	0,01	0,00	0,01	0,01	0,02	7,04

ANDINA

CTA1	105,11	80,69	101,14	28,93	79,50	93,83	93,27	107,54	97,06	76,07	80,70	100,32	1.044,14
Total Gross Generation	105,11	80,69	101,14	28,93	79,50	93,83	93,27	107,54	97,06	76,07	80,70	100,32	1.044,14
Own Consumption	10,82	4,98	10,64	3,02	9,32	10,57	10,87	11,94	11,24	9,90	9,67	10,50	113,47
Total Net Generation	94,29	75,71	90,50	25,91	70,18	83,26	82,40	95,60	85,82	66,17	71,03	89,82	930,67

ANGAMOS

ANG1	163,61	163,42	101,12	97,94	191,28	184,83	177,14	179,12	182,14	177,00	144,35	170,39	1.932,35
ANG2	174,46	172,61	189,89	186,80	193,53	189,92	104,64	87,89	167,19	192,18	174,06	189,69	2.022,85
Total Gross Generation	338,07	336,02	291,01	284,74	384,82	374,75	281,78	267,01	349,33	369,18	318,41	360,08	3.955,20
Own Consumption	36,39	34,72	29,98	28,17	38,16	37,64	28,90	28,09	34,16	36,94	34,36	36,84	404,35
Total Net Generation	301,68	301,30	261,03	256,57	346,66	337,11	252,88	238,92	315,17	332,24	284,05	323,24	3.550,85

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC	ANNUAL
ENERNUEVAS													
MHAH - MHT2	1,51	1,33	1,46	0,62	1,40	1,41	1,42	1,39	1,34	1,39	1,45	1,51	16,23
Total Gross Generation	1,51	1,33	1,46	0,62	1,40	1,41	1,42	1,39	1,34	1,39	1,45	1,51	16,23
Own Consumption	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Total Net Generation	1,51	1,33	1,46	0,62	1,40	1,41	1,42	1,39	1,34	1,39	1,45	1,51	16,23
HORNITOS													
CTH1	101,98	95,79	92,61	75,29	64,02	75,07	53,64	112,27	100,26	114,70	103,29	106,33	1.095,25
Total Gross Generation	101,98	95,79	92,61	75,29	64,02	75,07	53,64	112,27	100,26	114,70	103,29	106,33	1.095,25
Own Consumption	11,25	7,12	11,01	9,37	8,73	8,51	6,27	11,39	10,65	11,57	11,10	11,86	118,83
Total Net Generation	90,73	88,67	81,60	65,92	55,29	66,56	47,37	100,88	89,61	103,13	92,19	94,47	976,42
NORACID													
PAM	2,31	4,13	10,30	11,60	12,05	10,22	11,57	12,24	12,04	12,03	11,84	11,88	122,23
Total Gross Generation	2,31	4,13	10,30	11,60	12,05	10,22	11,57	12,24	12,04	12,03	11,84	11,88	122,23
Own Consumption	0,60	1,85	0,12	4,00	0,04	3,52	0,00	0,03	0,00	0,04	0,00	0,01	10,21
Total Net Generation	1,71	2,28	10,18	7,60	12,01	6,70	11,57	12,21	12,04	11,99	11,84	11,87	112,02
SPS LA HUAYCA													
HUAYCA1	0,16	0,19	0,04	0,00	0,77	1,18	1,39	1,45	1,35	1,55	1,57	1,56	11,21
Total Gross Generation	0,16	0,19	0,04	0,00	0,77	1,18	1,39	1,45	1,35	1,55	1,57	1,56	11,21
Own Consumption	0,00	0,00	0,00	0,00	0,00	0,00	0,01	0,01	0,01	0,01	0,01	0,01	0,06
Total Net Generation	0,16	0,19	0,04	0,00	0,77	1,18	1,38	1,44	1,34	1,54	1,56	1,55	11,15
ONGROUP													
AGB	0,17	0,10	0,12	0,27	0,17	0,17	0,26	0,13	0,13	0,12	0,12	0,04	1,80
Total Gross Generation	0,17	0,10	0,12	0,27	0,17	0,17	0,26	0,13	0,13	0,12	0,12	0,04	1,80
Own Consumption	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Total Net Generation	0,17	0,10	0,12	0,27	0,17	0,17	0,26	0,13	0,13	0,12	0,12	0,04	1,80
VALLE DE LOS VIENTOS													
VALLE DE LOS VIENTOS	11,37	15,66	14,64	14,42	17,53	18,01	18,56	18,74	19,70	20,37	22,12	24,23	215,34
Total Gross Generation	11,37	15,66	14,64	14,42	17,53	18,01	18,56	18,74	19,70	20,37	22,12	24,23	215,34
Own Consumption	0,04	0,06	0,06	0,06	0,04	0,04	0,04	0,05	0,04	0,06	0,07	0,07	0,63
Total Net Generation	11,33	15,60	14,58	14,36	17,49	17,97	18,52	18,69	19,66	20,31	22,05	24,16	214,71
LOS PUQUIOS													
LOS PUQUIOS	0,00	0,22	0,22	0,32	0,34	0,34	0,35	0,38	0,40	0,43	0,40	0,39	3,79
Total Gross Generation	0,00	0,22	0,22	0,32	0,34	0,34	0,35	0,38	0,40	0,43	0,40	0,39	3,79
Own Consumption	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Total Net Generation	0,00	0,22	0,22	0,32	0,34	0,34	0,35	0,38	0,40	0,43	0,40	0,39	3,79
POZO ALMONTE SOLAR 2													
POZO ALMONTE SOLAR 2	0,00	0,00	0,52	1,32	1,48	1,40	1,47	1,69	1,74	1,20	2,03	2,10	14,96
Total Gross Generation	0,00	0,00	0,52	1,32	1,48	1,40	1,47	1,69	1,74	1,20	2,03	2,10	14,96
Own Consumption	0,00	0,00	0,01	0,01	0,12	0,01	0,01	0,01	0,01	0,01	0,01	0,01	0,21
Total Net Generation	0,00	0,00	0,51	1,31	1,36	1,39	1,46	1,68	1,73	1,19	2,02	2,09	14,75

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC	ANNUAL
POZO ALMONTE SOLAR 3													
POZO ALMONTE SOLAR 3	0,00	0,00	0,23	2,18	3,14	3,02	3,15	3,37	3,83	3,85	4,66	4,85	32,28
Total Gross Generation	0,00	0,00	0,23	2,18	3,14	3,02	3,15	3,37	3,83	3,85	4,66	4,85	32,28
Own Consumption	0,00	0,00	0,00	0,01	0,02	0,02	0,02	0,02	0,02	0,02	0,02	0,02	0,17
Total Net Generation	0,00	0,00	0,23	2,17	3,12	3,00	3,13	3,35	3,81	3,83	4,64	4,83	32,11

TECNET

TECNET	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,03	0,14	0,16	0,16	0,07	0,57
Total Gross Generation	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,03	0,14	0,16	0,16	0,07	0,57
Own Consumption	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Total Net Generation	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,03	0,14	0,16	0,16	0,07	0,57

GENERACIÓN SOLAR

MARÍA ELENA FV	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	3,51	20,44	23,95
Total Gross Generation	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	3,51	20,44	23,95
Own Consumption	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,08	0,08
Total Net Generation	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	3,51	20,36	23,87

TOTAL SING

Gross Generation	1.443,39	1.327,22	1.494,23	1.446,30	1.500,19	1.473,26	1.462,81	1.468,73	1.450,63	1.525,25	1.502,39	1.580,01	17.674,41
Own Consumption	116,57	100,70	136,83	144,21	118,10	121,69	108,96	111,63	113,89	120,43	116,91	119,57	1.429,49
Net Generation	1.326,82	1.226,52	1.357,40	1.302,09	1.382,09	1.351,57	1.353,85	1.357,10	1.336,74	1.404,82	1.385,48	1.460,44	16.244,92
Transmission losses	46,30	49,60	35,80	3,30	55,00	63,20	48,10	49,00	52,90	50,00	28,80	49,60	531,60
Sales to free clients	1.119,80	1.067,00	1.166,00	1.158,00	1.171,50	1.138,00	1.148,50	1.153,50	1.138,90	1.199,60	1.208,70	1.254,80	13.924,20
Sales to regulated clients	160,70	134,70	155,70	140,80	155,60	150,30	157,20	154,60	145,00	153,90	151,60	156,00	1.816,00
Total Sales	1.280,50	1.201,70	1.321,60	1.298,80	1.327,10	1.288,30	1.305,70	1.308,10	1.283,90	1.353,50	1.360,20	1.410,80	15.740,30

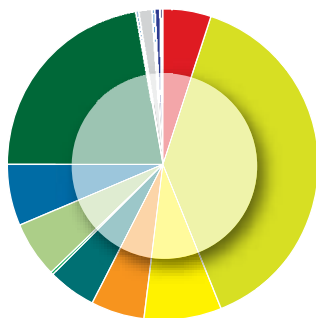
TOTAL SING [IN %]

Gross Generation	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Own Consumption	8%	7%	9%	10%	8%	8%	7%	8%	8%	8%	8%	8%	8%
Net Generation	92%	93%	91%	90%	92%	92%	93%	92%	92%	92%	92%	92%	92%
Transmission losses	3%	4%	2%	0%	4%	4%	3%	3%	4%	3%	2%	3%	2%
Sales to free clients	78%	79%	78%	80%	78%	77%	79%	79%	79%	79%	80%	79%	79%
Sales to regulated clients	11%	10%	10%	10%	10%	10%	11%	11%	10%	10%	10%	10%	10%
Total Sales	89%	89%	88%	90%	88%	87%	89%	89%	89%	89%	90%	89%	89%

(1) As of December 1, 2011, the units that were represented by Electroandina in the CDEC-SING, are now represented by E-CL.

(2) Former INACAL.

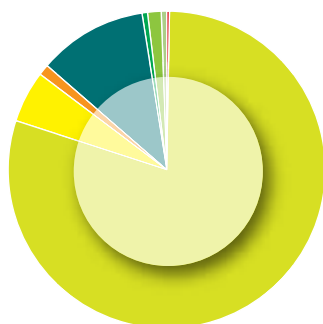
(3) Power plant undergoing trial period.



GROSS GENERATION AS PER COMPANY

CELTA	5.2%	CAVANCHA	0.1%
E-CL	38.9%	GENERACIÓN SOLAR SPA	0.1%
AESGENER ⁽¹⁾	7.9%	ENERNUEVAS	0.1%
NORGENER ⁽¹⁾	5.7%	LOS PUQUIOS	0.0%
GASATACAMA	5.1%	VALLE DE LOS VIENTOS	1.2%
ENORCHILE	0.1%	POZO ALMONTE SOLAR 2	0.1%
EQUIPOS DE GENERACIÓN (EX INACAL)	0.0%	POZO ALMONTE SOLAR 3	0.2%
TERMOELÉCTRICA ANDINA	5.9%	NORACID	0.7%
INVERSIONES HORNITOS	6.2%	SPS LA HUAYCA	0.1%
ELÉCTRICA ANGAMOS	22.4%	ONGROUP	0.0%
TECNET	0.0%		

(1) As of June 1, 2014, Norgener was absorbed by the AES Gener company.



GROSS GENERATION AS PER FUEL

HIDRO	0,5%
COAL	79,6%
DIESEL	5,4%
FUEL OIL	1,0%
NATURAL GAS	11,1%
COGENERATION	0,7%
WIND	1,2%
SOLAR	0,5%

GENERATION OF SING STATIONS TERM 2004 - 2014 (GWh)

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
CELTA										
CTTAR	422	830	1.012	981,0	1.065	1.076,3	972,7	848	912	911
TGTAR	0	2	14	17,9	11	9,6	8,1	4	6	5
Total Gross Generation	423	832	1.026	999	1.076	1.085,9	980,8	852	919	916
Own Consumption	39	72	84	81	86	86,5	74,7	74	74	76
Total Net Generation	383	760	941	918	990	999,4	906,2	778	844	840
E-CL										
CHAPIQUÍNA	45	55	53	53	47	42	40	49	44	48
CAVANCHA ⁽¹⁾	15	15	15	15	15	13				
CD ARICA	2	7	33	32	17	25	16	12	15	11
CD IQUIQUE	4	13	50	60	31	42	34	18	11	9
CD ANTOFAGASTA ⁽⁴⁾	2	15	32	6	0	0				
CD MANTOS BLANCOS	4	25	7	0	69	88	49	40	21	
CD ENAEX			1	0	1	1		0	0	0
CTM1	446,6	880	1.057	1.202	1.191	1.114	1.118	1.204	1.146	1.132
CTM2	849	1.033	1.188	1.298	1.282	1.220	1.159	1.163	1.100	1.116
CTM3	1.601	600	400	814	632	367	310	306	155	182
U10 - U11 ⁽³⁾							0	7	32	0
U12 - U13 ⁽³⁾							22	986	936	1.012
U14 - U15 ⁽³⁾							127	1.915	1.875	1.707
U16 ⁽³⁾							102	1.422	1.451	1.460
TG1 - TG2 ⁽³⁾							0	2	5	3
TG3 ⁽³⁾							1	8	14	11
Solar El Águila									2	4
SUTA ⁽³⁾							9	137	258	173
Total Gross Generation	2.970	2.643	2.837	3.480	3.285	2.912	2.988	7.270	7.064	6.868
Own Consumption	159	169	200	230	225	199	219	472	429	495
Total Net Generation	2.810	2.475	2.637	3.250	3.060	2.713	2.769	6.798	6.635	6.373
ELECTROANDINA										
U09	0									
U10 - U11 ⁽³⁾	0	19	187	322	112	45	32			
U12 - U13 ⁽³⁾	207	463	1.052	1.125	1.121	1.167	609			
U14 - U15 ⁽³⁾	1.549	1.688	1.905	1.784	1.820	1.888	1.447			
U16 ⁽³⁾	1.753	1.884	936	474	732	1.527	1.095			
TG1 - TG2 ⁽³⁾	1	0	12	25	12	4	7			
TG3 ⁽³⁾	43	12	40	56	33	20	16			
SUTA ⁽³⁾					184	187	151			
Total Gross Generation	3.553	4.066	4.132	3.785	4.014	4.838	3.357			
Own Consumption	191	218	255	254	249	294	215			
Total Net Generation	3.361	3.848	3.877	3.531	3.764	4.545	3.142			
AES GENER ⁽⁶⁾										
CC Salta	2.154	2.285	1.628	1.154	1.348	958	734	0	0	5
NT01										593
NT02										603
CTM3 (AES GENER)										195
Total Gross Generation	2.154	2.285	1.628	1.154	1.348	958	734	0	0	1.396
Own Consumption	44	46	38	22	7	5	2	0	0	96
Total Net Generation	2.110	2.239	1.590	1.132	1.341	953	733	0	0	1.300
GASATACAMA										
CC1	1.144	411	1.002	2.331,3	1.405	1.244	1.230	444	684	347
CC2	1.338	1.285	1.311	639,6	1.801	1.729	897	332	248	558
ENAEX	0	0	0							
Total Gross Generation	2.482	1.696	2.313	2.971	3.205	2.973	2.127	776	932	906
Own Consumption	69	61	75	73	90	85	71	38	41	40
Total Net Generation	2.413	1.635	2.237	2.898	3.116	2.888	2.056	738	891	865
NORGENER ⁽⁶⁾										
NT01	549	776	897	1.039	1.049	1.099	1.104	1.145	1.072	452
NT02	528	938	1.107	1.061	911	1.170	1.120	998	1.047	455
CTM3 (Norgener)										126
ZOFRI 1-6 (Hasta 2008)			1	2						
ZOFRI 2-5 (Hasta 2008)			7	11						
Total Gross Generation	1.077	1.714	2.011	2.113	1.960	2.269	2.225	2.143	2.119	1.034
Own Consumption	91	125	138	145	134	149	149	142	154	73
Total Net Generation	986	1.589	1.873	1.969	1.826	2.120	2.076	2.001	1.964	960

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
CAVANCHA ⁽²⁾										
CAVA						2	15	15	17	17
Total Gross Generation						2	15	15	17	17
Own Consumption						0	0	0	0	0
Total Net Generation						2	15	15	17	17
EQUIPOS DE GENERACIÓN ⁽⁶⁾										
CD Inacal					13	44	24	8	22	8
Total Gross Generation					13	44	24	8	22	8
Own Consumption					0	0	0	0	1	1
Total Net Generation					13	44	24	8	21	7
ENORCHILE										
Central Estandartes					6	17	6	1	6	5
ZOFRI 1-6							1	3	1	1
ZOFRI 2-5							4	4	3	3
MIMB									1	13
Total Gross Generation					6	17	11	8	11	22
Own Consumption					0	0	0	0	0	1
Total Net Generation					6	17	10	8	11	21
ANDINA										
CTA						1	756	1.312	1.190	1.044
Total Gross Generation						1	756	1.312	1.190	1.044
Own Consumption						0	63	132	126	113
Total Net Generation						1	692	1.180	1.064	931
ANGAMOS										
ANG1						0	1.280	1.480	1.759	1.932
ANG2							708	1.879	1.838	2.023
Total Gross Generation						0	1.988	3.359	3.597	3.955
Own Consumption						0	201	371	397	404
Total Net Generation						0	1.787	2.988	3.200	3.551
ENERNUEVAS										
MHAH - MHT2 - MHSR						3	17	18	17	16
Total Gross Generation						3	17	18	17	16
Own Consumption						0	0	0	0	0
Total Net Generation						3	17	18	17	16
HORNITOS										
CTH1							668,96	969	1.225	1.095
Total Gross Generation							668,96	969	1.225	1.095
Own Consumption							70,73	99	130	119
Total Net Generation							598,23	871	1.096	976
NORACID										
PAM								25	121	122
Total Gross Generation								25	121	122
Own Consumption								4	3	10
Total Net Generation								21	118	112
ONGROUP										
AGB									1	2
Total Gross Generation									1	2
Own Consumption									0	0
Total Net Generation									1	2

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
SPS LA HUAYCA										
HUAYCA1								0	2	11
Total Gross Generation								0	2	11
Own Consumption								0	0	0
Total Net Generation								0	2	11
VALLE DE LOS VIENTOS										
VALLE DE LOS VIENTOS										215
Total Gross Generation										215
Own Consumption										1
Total Net Generation										215
LOS PUQUIOS										
LOS PUQUIOS										4
Total Gross Generation										4
Own Consumption										0
Total Net Generation										4
POZO ALMONTE SOLAR 2										
POZO ALMONTE SOLAR 2										15
Total Gross Generation										15
Own Consumption										0
Total Net Generation										15
POZO ALMONTE SOLAR 3										
POZO ALMONTE SOLAR 3										32
Total Gross Generation										32
Own Consumption										0
Total Net Generation										32
TECNET										
TECNET										1
Total Gross Generation										1
Own Consumption										0
Total Net Generation										1
GENERACIÓN SOLAR										
Maria Elena FV										24
Total Gross Generation										24
Own Consumption										0
Total Net Generation										24
TOTAL SING										
Gross Generation	12.657	13.236	13.946	14.502	14.907	15.104	15.889	16.756	17.237	17.674
Own Consumption	594	692	790	804	792	818	1.066	1.331	1.355	1.429
Net Generation	12.063	12.544	13.156	13.698	14.115	14.286	14.824	15.424	15.882	16.245
Transmission losses	503	515	481	479	459	493	561		468	532
Sales to free clients	10.401	10.774	11.343	11.832	12.240	12.297	12.703	13.132	13.592	13.924
Sales to regulated clients	1.159	1.256	1.332	1.387	1.417	1.496	1.560	1.699	1.822	1.816
Total Sales	11.560	12.029	12.674	13.219	13.656	13.792	14.263	14.831	15.414	15.740
TOTAL SING [%]										
Gross Generation	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Own Consumption	5%	5%	6%	6%	5%	5%	7%	8%	8%	8%
Net Generation	95%	95%	94%	94%	95%	95%	93%	92%	92%	92%
Transmission losses	4%	4%	3%	3%	3%	3%	4%	4%	3%	2%
Sales to free clients	82%	81%	81%	82%	82%	81%	80%	78%	79%	79%
Sales to regulated clients	9%	9%	10%	10%	10%	10%	10%	10%	11%	10%
Total Sales	91%	91%	91%	91%	92%	91%	90%	89%	89%	89%

(1) Cavancha was represented by E-CL in the CDEC-SING until November 3, 2010.

(2) As of November 3, 2010 Cavancha has become a part of the Small Distributed Energy Resources.

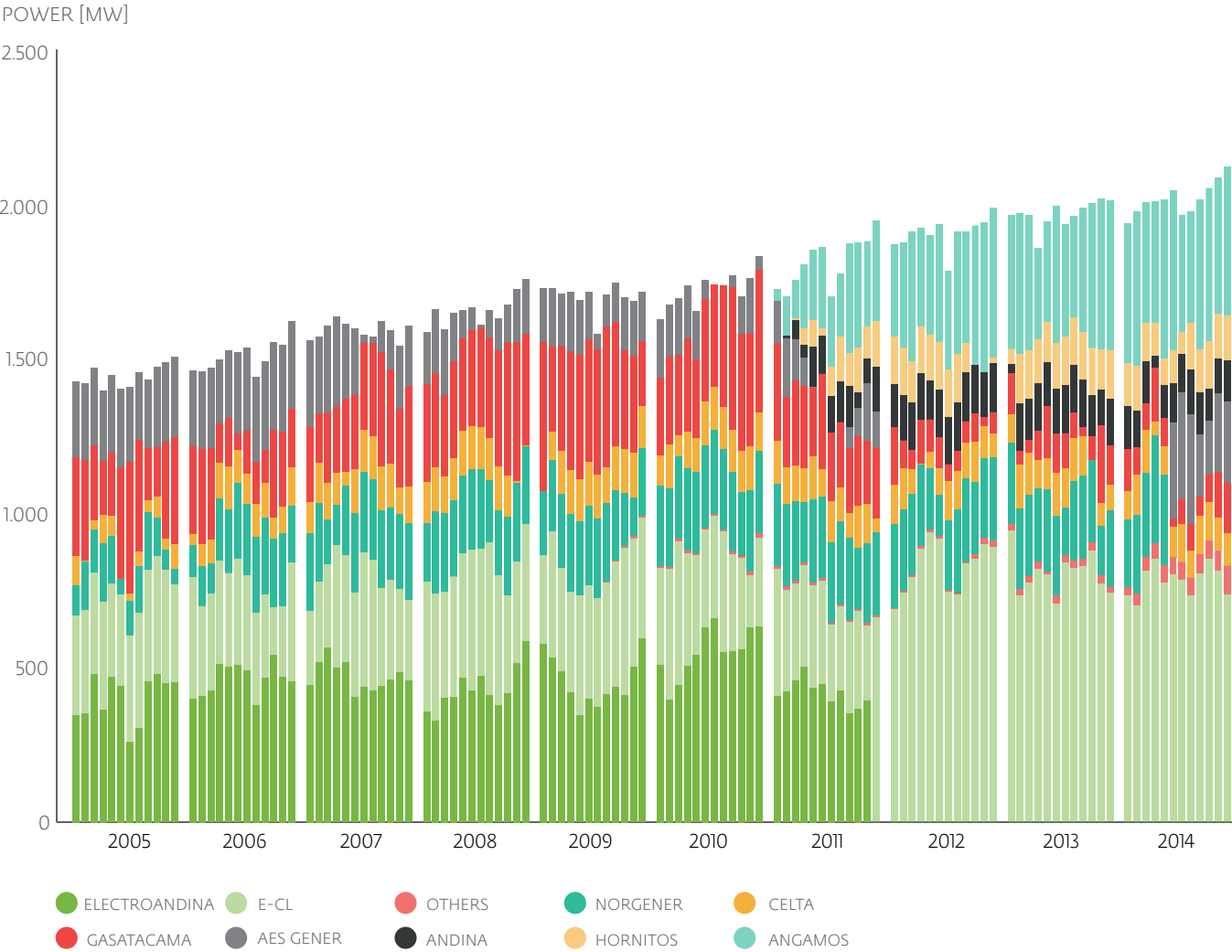
(3) As of December 1, 2011, the units that were represented by Electroandina in the CDEC-SING, are now represented by E-CL.

(4) Units out of commission

(5) Former INACAL.

(6) As of June 1, 2014, Norgener was absorbed by the AES Gener company.

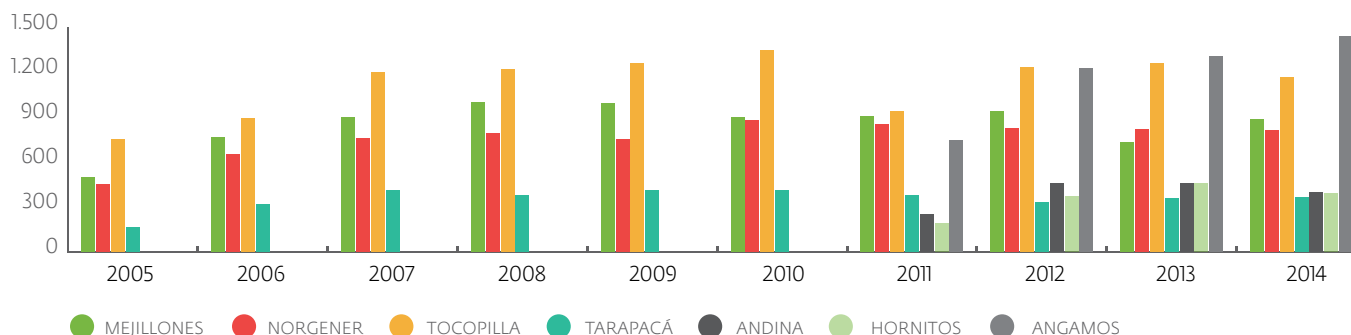
MONTHLY HOURLY MEDIUM GENERATION 2005-2014



III. Fuels: Consumption and Prices

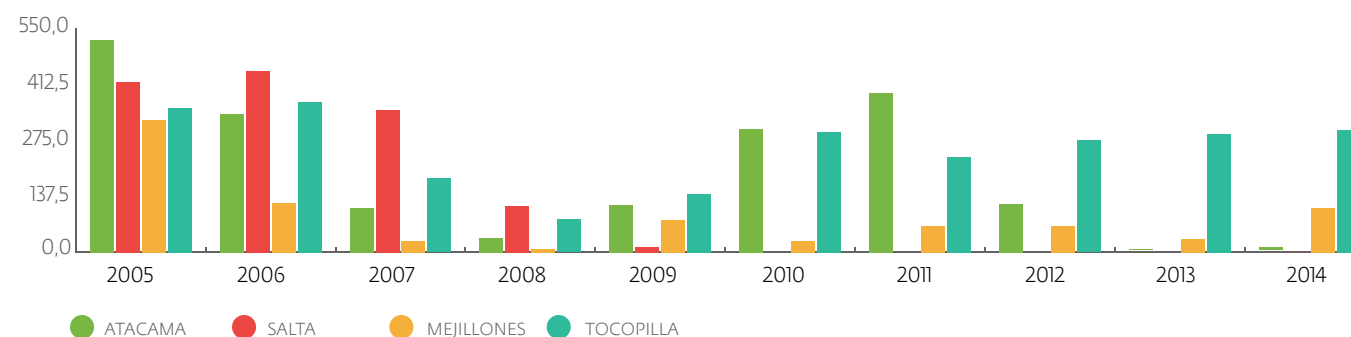
CARBON ANNUAL CONSUMPTION AS PER STATION

THOUSANDS OF TONS



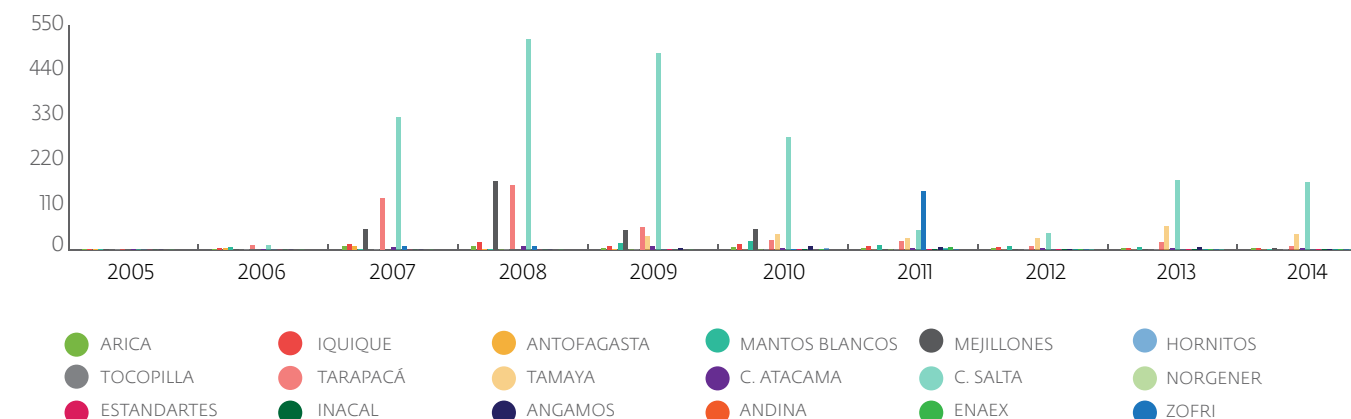
NATURAL GAS ANNUAL CONSUMPTION AS PER STATION

MILLIONS OF M³



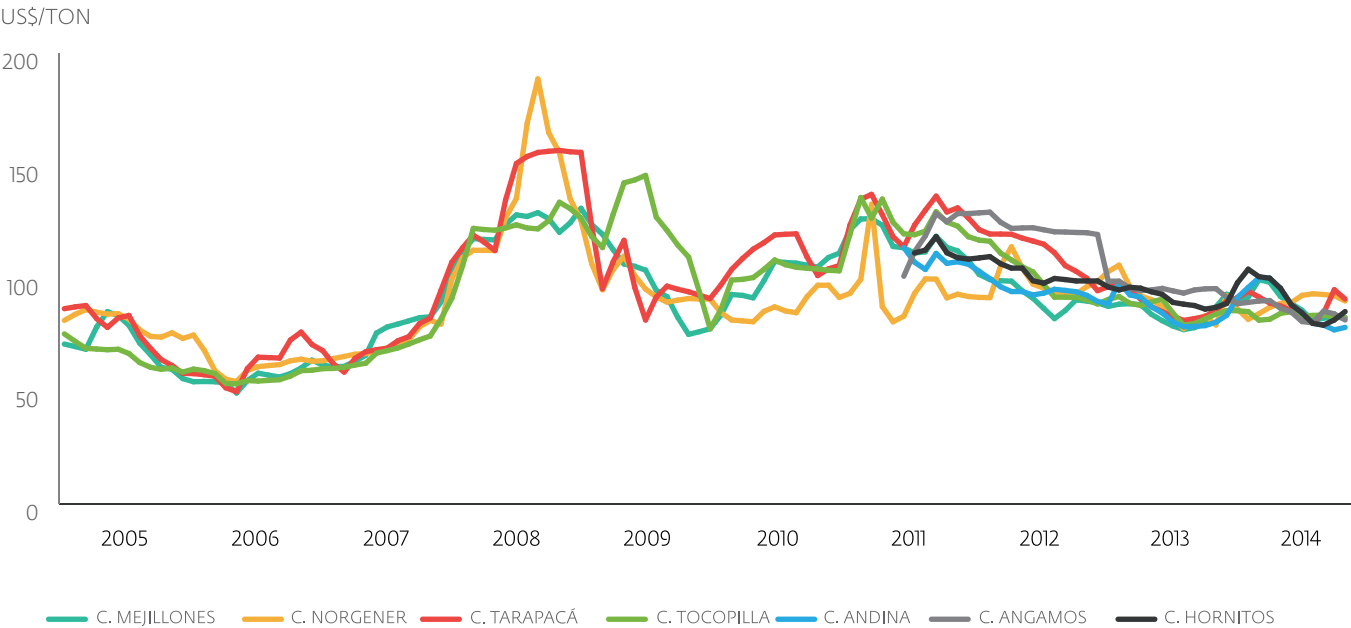
LIQUID FUELS ANNUAL CONSUMPTION AS PER STATION

THOUSANDS OF TONS



CARBON PRICE

Average values per month, updated to December 2014.



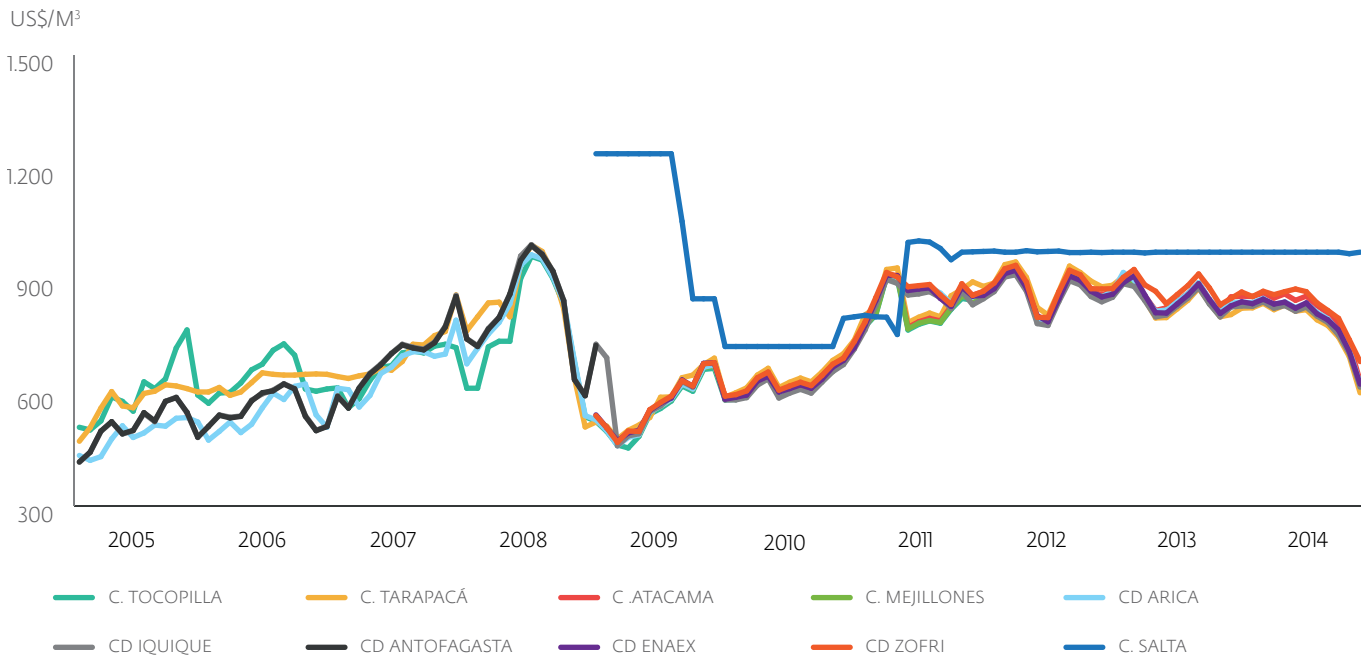
NATURAL GAS PRICE

Average values per month, updated to December 2014.



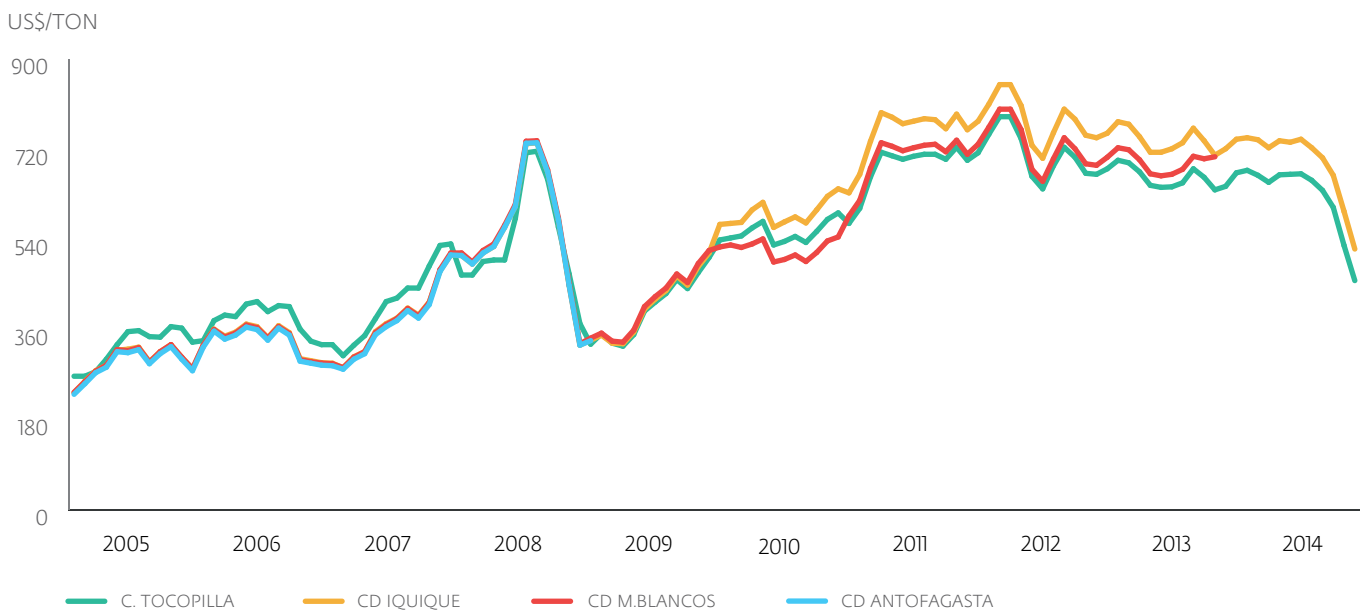
DIESEL OIL PRICE

Average values per month, updated to December 2014.



FUEL OIL PRICE

Average values per month, updated to December 2014.



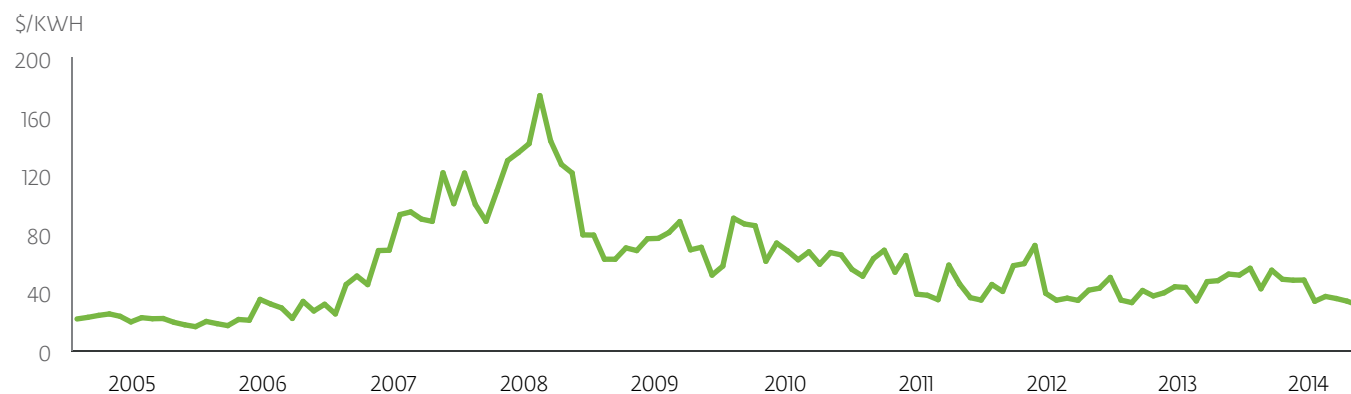
IV. Energy and Power Prices

MARGINAL COSTS OF ENERGY CRUCERO NODE 220 KV TERM 2004 - 2014

Month / Year	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
January	15,5	14,8	19,2	98,3	69,6	50,4	49,7	32,4	46,9	49,7
February	16,3	13,8	34,2	81,4	54,5	78,9	45,7	42,4	32,5	54,4
March	17,3	12,9	38,7	72,6	54,4	75,6	56,9	38,1	31,1	41,3
April	18,2	16,0	34,5	89,8	61,1	74,9	62,2	54,5	38,8	54,0
May	17,1	15,7	52,5	108,2	59,4	53,9	48,9	55,8	35,3	48,1
June	14,4	26,4	53,1	114,4	66,6	64,7	59,2	67,2	37,4	47,5
July	16,6	24,2	72,7	120,9	66,5	60,5	35,4	36,8	41,4	47,7
August	16,1	22,2	74,9	150,3	69,6	55,0	34,8	32,5	41,0	33,6
September	16,4	16,9	71,9	125,0	76,9	60,1	32,2	34,1	32,5	37,1
October	14,5	25,5	70,8	112,0	60,2	52,6	54,0	32,8	45,1	36,1
November	13,2	20,6	98,3	106,7	61,4	59,7	42,3	39,2	45,8	34,3
December	12,3	24,0	81,5	68,9	44,8	58,4	33,9	40,5	50,3	31,6
Average	15,6	19,4	58,5	104,0	62,1	62,1	46,3	42,2	39,8	43,0

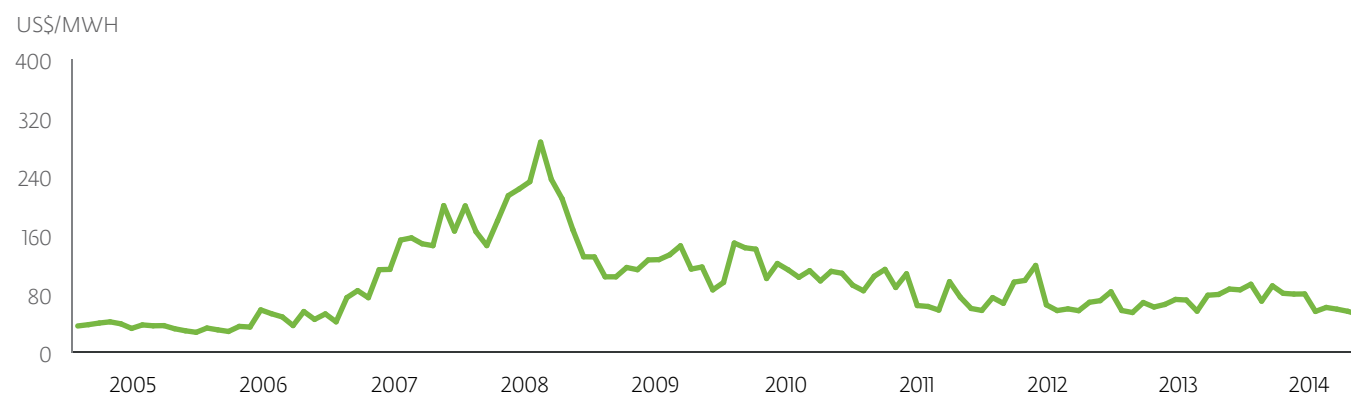
Notes: Monthly averages in \$/kWh.

MONTHLY AVERAGE MARGINAL COSTS OF ENERGY IN CRUCERO NODE



Note: Marginal Costs adjusted to the CPI of December 2014.

MONTHLY AVERAGE MARGINAL COSTS OF ENERGY IN CRUCERO NODE



Marginal Costs adjusted to the CPI of December 2014 and converted to USD using the dollar exchange rate observed on December 30, 2014.

MARGINAL COSTS OF ENERGY CRUCERO NODE 220 KV – YEAR 2014

Day	January	February	March	April	May	June	July	August	September	October	November	December
1	59,5	29,4	73,0	62,2	83,1	56,2	56,2	33,6	41,8	30,9	26,0	43,1
2	90,1	58,8	50,3	72,0	48,6	191,4	191,4	31,8	72,5	29,1	32,2	36,1
3	39,8	88,6	30,0	37,3	35,0	63,7	63,7	38,2	34,4	27,6	37,5	33,6
4	28,5	32,2	29,0	61,4	31,5	64,1	64,1	35,4	30,2	27,1	25,9	30,0
5	28,9	33,1	28,6	43,0	32,7	40,9	40,9	28,2	76,8	29,7	25,9	28,0
6	78,0	72,4	28,6	33,1	28,8	37,2	37,2	29,2	42,6	38,0	27,1	27,7
7	53,6	31,1	27,3	112,9	32,2	26,7	26,7	28,1	35,1	46,5	26,9	27,6
8	35,5	66,6	29,7	67,0	74,4	26,2	26,2	29,5	34,9	39,6	27,1	32,0
9	87,3	95,7	29,3	66,4	62,1	31,3	31,3	30,0	30,7	32,1	27,2	30,7
10	63,2	47,1	35,5	37,7	99,1	65,3	65,3	38,5	28,6	33,2	38,3	29,3
11	26,1	63,1	64,4	62,0	34,1	29,5	29,5	28,7	32,1	34,0	29,5	29,7
12	55,7	36,1	64,3	84,3	56,6	26,0	26,0	28,0	31,9	64,2	29,4	29,8
13	57,8	46,2	30,4	75,3	40,4	106,7	108,8	38,5	42,8	36,9	25,6	35,8
14	26,6	45,3	32,8	77,2	52,1	83,2	83,2	43,1	41,7	29,5	27,7	50,1
15	29,9	41,9	41,5	25,6	46,4	48,2	48,2	27,9	44,6	31,6	74,6	27,9
16	25,1	31,8	36,6	36,2	61,8	27,5	27,5	27,2	54,6	27,0	26,3	26,1
17	25,5	33,0	47,4	51,7	49,3	81,0	85,6	32,4	37,4	29,6	25,6	27,6
18	24,5	74,7	27,3	35,1	62,7	49,0	49,0	29,4	30,1	34,3	27,2	27,3
19	25,8	54,0	28,6	37,8	114,1	29,1	29,1	37,1	30,5	56,2	25,0	35,4
20	64,9	54,2	44,8	33,1	64,6	26,3	26,3	87,5	36,1	35,0	25,6	35,0
21	24,3	70,3	61,7	30,4	49,9	31,3	35,4	27,1	32,6	46,1	25,1	29,6
22	25,3	79,7	34,2	67,5	75,1	28,2	28,2	29,0	26,4	30,8	25,7	28,9
23	45,3	29,9	30,9	46,1	34,4	28,2	28,2	27,3	28,0	32,4	25,7	28,3
24	64,7	29,7	42,9	72,1	25,6	44,5	44,5	26,8	26,4	37,2	31,5	29,6
25	76,5	49,5	32,8	41,0	25,6	29,9	29,9	27,6	27,4	41,5	42,1	34,1
26	100,8	81,8	38,5	34,2	27,8	32,2	40,0	28,1	27,3	33,1	49,5	35,9
27	39,2	84,4	81,3	74,5	28,8	29,3	29,3	27,4	30,6	44,9	28,5	31,9
28	66,2	63,7	43,8	31,3	28,7	27,4	27,4	30,2	35,9	41,5	37,4	28,8
29	49,7		43,1	48,0	28,2	33,8	39,7	57,6	40,5	39,2	86,8	30,5
30	96,9		46,1	62,7	28,2	30,0	30,0	30,1	29,5	32,0	66,8	29,0
31	27,0		46,8		28,2		29,5	27,4		28,1		29,5
Promedio	49,7	54,4	41,3	54,0	48,1	47,5	47,7	33,6	37,1	36,1	34,3	31,6

Note: Daily Average of Real Marginal Costs for Crucero Node 220 kV



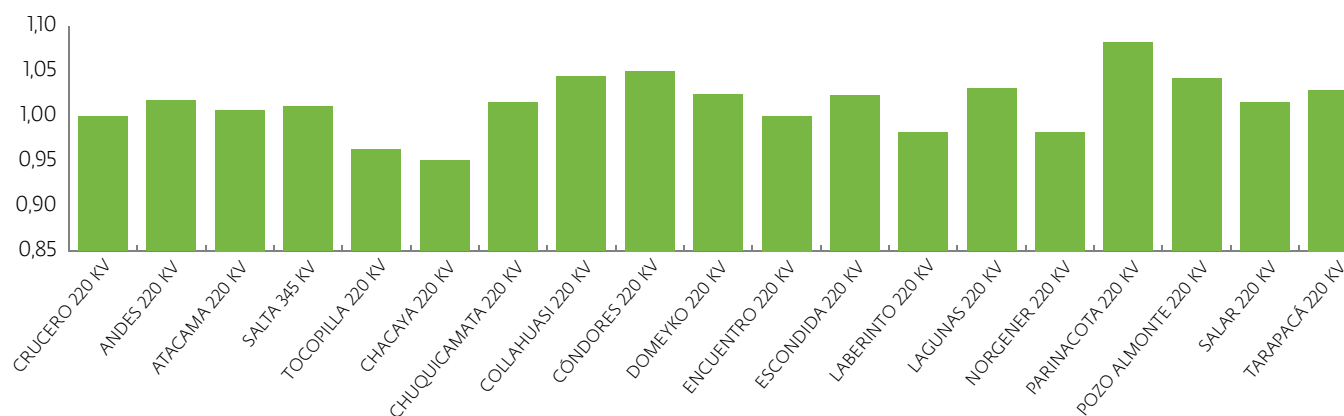
Miscanti Lagoon

ENERGY PUNISHMENT FACTORS YEAR 2014

Bar	Average	Maximum	Minimum
Crucero 220 kV	1,0000	1,0000	1,0000
Andes 220 kV	1,0176	1,0303	1,0079
Atacama 220 kV	1,0071	1,0142	0,9930
Salta 345 kV	1,0109	1,0235	1,0036
Tocopilla 220 kV	0,9632	0,9680	0,9570
Chacaya 220 kV	0,9507	0,9660	0,9373
Chuquicamata 220 kV	1,0153	1,0163	1,0144
Collahuasi 220 kV	1,0444	1,0532	1,0381
Cóndores 220 kV	1,0504	1,0687	1,0402
Domeyko 220 kV	1,0245	1,0364	1,0157
Encuentro 220 kV	1,0006	1,0006	1,0005
Escondida 220 kV	1,0235	1,0356	1,0143
Laberinto 220 kV	0,9821	0,9957	0,9718
Lagunas 220 kV	1,0311	1,0447	1,0240
Norgener 220 kV	0,9825	0,9843	0,9814
Parinacota 220 kV	1,0820	1,1011	1,0720
Pozo Almonte 220 kV	1,0424	1,0568	1,0339
Salar 220 kV	1,0157	1,0169	1,0145
Tarapacá 220 kV	1,0292	1,0467	1,0190

Note: Average values correspond to weekly schedule.

ENERGY PUNISHMENT FACTORS – YEAR 2014



PEAK POWER CRUCERO NODE 220 KV PRICE

Year	Rates setting	Validity		Power Price [\$ /kW-month]
		From	To	
2005	oct-04	01-01-05	30-04-05	3.713,71
	apr-05	01-05-05	31-10-05	3.696,46
	oct-05	01-11-05	31-12-05	3.594,48
2006	oct-05	01-01-06	30-04-06	3.594,48
	apr-06	01-05-06	26-06-06	3.662,67
	apr-06 (index jun-06)	27-06-06	19-10-06	3.672,49
	apr-06 (index oct-06)	20-10-06	31-10-06	3.769,31
	oct-06	01-11-06	31-12-06	3.734,15
2007	oct-06	01-01-07	30-04-07	3.734,15
	apr-07	01-05-07	16-07-07	3.840,04
	apr-07 (index jul-07)	17-07-07	15-09-07	3.795,11
	apr-07 (index sep-07)	16-09-07	31-10-07	3.792,04
	oct-07	01-11-07	31-12-07	3.835,63
2008	oct-07	01-01-08	15-02-08	3.835,63
	oct-07 (index feb-08)	16-02-08	30-04-08	3.692,18
	apr-08	01-05-08	15-08-08	3.455,74
	apr-08 (index aug-08)	16-08-08	15-10-08	3.882,18
	apr-08 (index oct-08)	16-10-08	31-10-08	4.124,06
	oct-08	01-11-08	31-12-08	4.198,66
2009	oct-08	01-01-09	18-01-09	4.198,66
	oct-08 (index jan-09)	19-01-09	30-04-09	5.053,92
	abr-09	01-05-09	15-08-09	5.054,71
	apr-09 (index aug-09)	16-08-09	31-10-09	4.762,80
	oct-09	01-11-09	31-12-09	4.662,80
2010	oct-09	01-01-10	15-04-10	4.662,80
	oct-09 (index apr-10)	16-04-10	30-04-10	4.571,04
	apr10	01-05-10	31-10-10	4.520,17
	oct-10	01-11-10	31-12-10	4.373,28
2011	oct-10	01-01-11	30-04-11	4.373,28
	apr-11	01-05-11	31-10-11	4.319,82
	oct-11	01-11-11	31-12-11	4.451,54
2012	oct-11	01-01-12	30-04-12	4.451,54
	apr-12	01-05-12	31-10-12	4.170,82
	oct-12	01-11-12	31-12-12	4.186,75
2013	oct-12	01-01-12	30-04-13	4.186,75
	apr-13	01-05-13	31-10-13	4.180,54
	oct-13	01-11-13	31-12-13	4.258,87
2014	oct-13	01-01-14	30-04-14	4.258,87
	apr-14	01-05-14	31-10-14	4.371,33
	oct-14	01-11-14	31-12-14	4.964,60

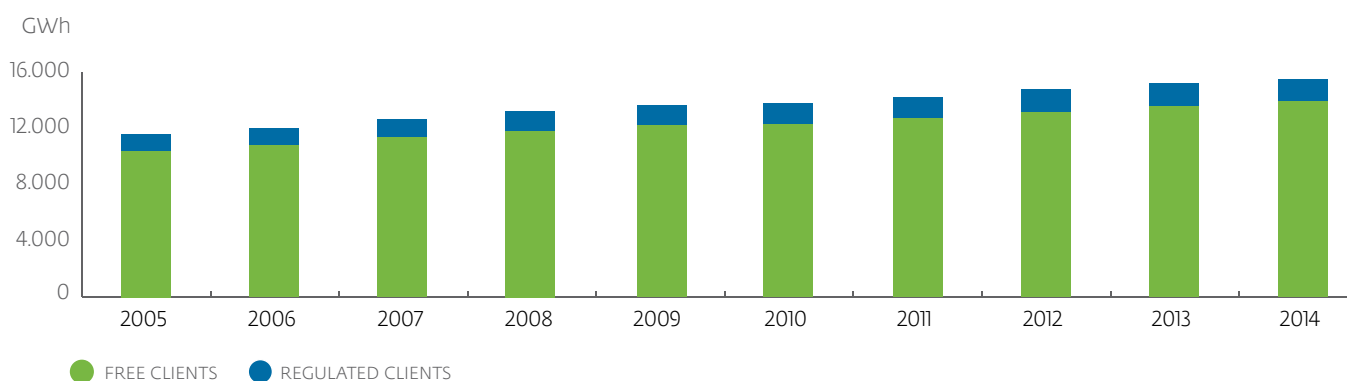
V. Energy Annual Sales

SING ANNUAL SALES TERM 2004-2014

Year	Sales [GWh]			Growth		
	Free Clients	Regulated Clients	Total	Annual	Average Accrued	Accrued
2005	10.401	1.159	11.560	2,8%	6,5%	28,6%
2006	10.774	1.256	12.029	4,1%	6,0%	33,8%
2007	11.343	1.332	12.674	5,4%	5,9%	41,0%
2008	11.832	1.387	13.219	4,3%	5,7%	47,0%
2009	12.240	1.417	13.656	3,3%	5,4%	51,9%
2010	12.297	1.496	13.792	1,0%	4,9%	53,4%
2011	12.703	1.560	14.263	3,4%	4,8%	58,6%
2012	13.132	1.699	14.831	4,0%	4,7%	65,0%
2013	13.592	1.822	15.414	3,9%	4,6%	71,4%
2014	13.924	1.816	15.740	2,1%	4,4%	75,1%

*Note: Cumulative growth rates are based on 2001 sales (8,991 GWh).
Yearly sales cover net power generation minus transmission loss.*

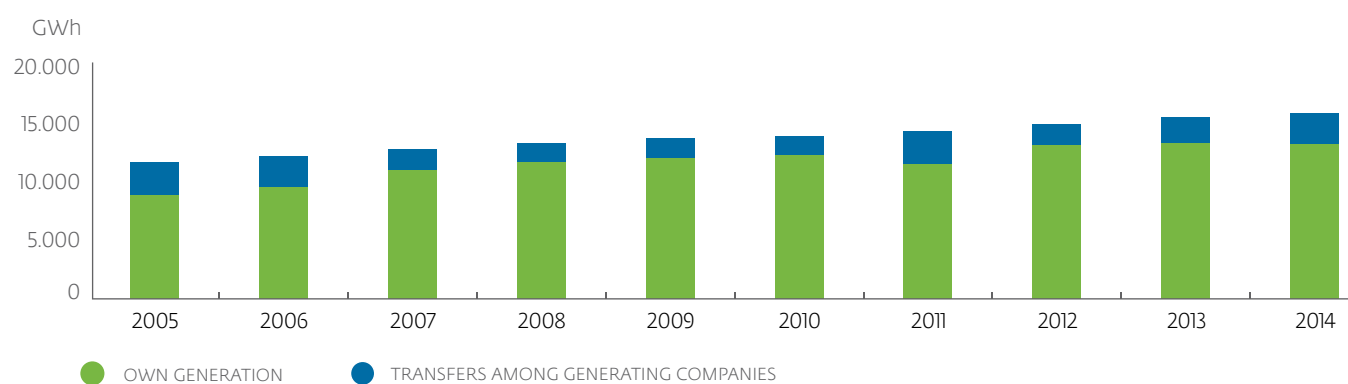
SING ANNUAL SALES EVOLUTION (GWh)



SING ANNUAL SALES COMPOSITION TERM 2004 - 2014

Year	Energy Sales	Own Generation	Transfers among Generating companies	Transfer Percentage /Sales
	(GWh)	(GWh)	[GWh]	[%]
2005	11.560	8.654	2.905	25%
2006	12.029	9.332	2.698	22%
2007	12.674	10.838	1.836	14%
2008	13.219	11.513	1.706	13%
2009	13.656	11.890	1.766	13%
2010	13.792	12.154	1.639	12%
2011	14.263	11.385	2.878	20%
2012	14.831	13.026	1.805	12%
2013	15.414	13.202	2.212	14%
2014	15.740	13.103	2.637	17%

SING ANNUAL SALES COMPOSITION



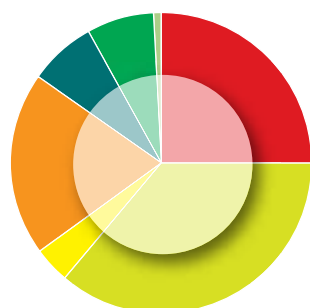
VI. 2004-2013 SING Energy and Power Transfers

ENERGY TRANSFERS AMONG SING GENERATING COMPANIES (GWh) YEAR 2014

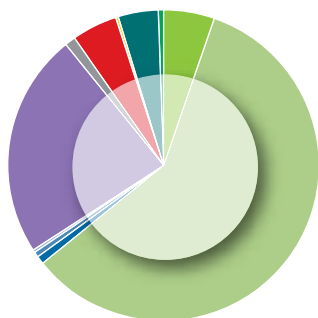
COMPANY		January	February	March	April	May	June	July	August	September	October	November	December	Total	NET
AES GENER	Purchases	5,5	1,9	6,1	4,9		31,8	3,9	21,4	133,0	165,8	118,2	134,9	627,4	624,8
	Sales					2,6								2,6	
ANDINA	Purchases				43,0	0,9					7,3			51,2	
	Sales	22,5	16,5	32,2			19,1	21,6	31,0	18,0		0,5	20,9	182,3	131,1
ANGAMOS	Purchases														
	Sales	130,7	123,7	72,6	72,9	148,8	145,3	85,0	78,2	156,0	168,8	139,8	151,3	1.473,1	1.473,1
CAVANCHA	Purchases														
	Sales	1,5	1,4	1,6	0,8	1,5	1,4	1,5	1,5	1,4	1,5	1,5	1,5	17,1	17,1
CELTA	Purchases	25,3			42,8	8,1	6,7		29,6		7,2	19,6	19,3	158,6	93,7
	Sales		16,8	30,7				13,5		3,9				64,9	
E-CL	Purchases	108,6	114,4	57,5	14,8	79,4	72,6	72,7	100,4	51,3	39,1	71,3	121,0	903,1	903,1
	Sales														
ENERNUEVAS	Purchases														
	Sales	1,5	1,3	1,5	0,6	1,4	1,4	1,4	1,4	1,3	1,4	1,5	1,5	16,2	16,2
ENORCHILE	Purchases	39,5	40,1	39,7	39,6	42,4	43,0	43,8	41,8	41,0	42,2	41,7	38,0	492,8	492,8
	Sales														
EQUIPOS DE GENERACIÓN S.A.	Purchases														
	Sales	1,2	1,3	0,4	1,4	1,2	1,1	0,5			0,1	0,1		7,3	7,3
GASATACAMA	Purchases						4,5							4,5	
	Sales	68,3	33,3	35,3	97,9	39,9		33,7	37,5	26,3	44,3	82,3	89,4	588,2	583,7
GENERACIÓN SOLAR SPA.	Purchases														
	Sales											3,6	20,4	24,0	24,0
HORNITOS	Purchases		4,9	20,8	32,0	45,2	20,5	49,2		13,4		12,9	8,3	207,2	178,1
	Sales	3,3							12,7		13,1			29,1	
NORGENER	Purchases	61,7	33,4	55,1	3,5	29,7								183,4	183,4
	Sales														
NORACID	Purchases														
	Sales	1,3	2,4	10,2	11,6	11,9	10,3	11,7	12,1	11,6	11,6	11,4	11,3	117,4	117,4
LOS PUQUIOS	Purchases														
	Sales		0,2	0,2	0,3	0,3	0,3	0,3	0,4	0,4	0,4	0,4	0,4	3,6	3,6
SPS LA HUAYCA	Purchases														
	Sales	0,2	0,2			0,8	1,2	1,4	1,4	1,4	1,6	1,6	1,6	11,4	11,4
ON GROUP	Purchases	1,4	1,3	1,4	1,2	1,3	1,2	1,2	1,4	1,3	1,4	1,3	1,5	15,9	15,9
	Sales														
POZO ALMONTE SOLAR 2	Purchases														
	Sales					0,3	0,3	0,3				0,5	0,8	2,2	2,2
POZO ALMONTE SOLAR 3	Purchases				0,1	0,3	0,1	0,1	0,1	0,1	0,1	0,1	0,1	1,1	1,1
	Sales														
TECNET	Purchases														
	Sales									0,1	0,2	0,2	0,1	0,6	0,6
VALLE DE LOS VIENTOS	Purchases		1,2	4,0	3,7	1,1		0,1						10,1	
	Sales	11,3							18,6	19,5	20,2	21,9	24,0	115,5	105,4

Note: The indicated amounts do not include purchase-sale operations agreed among generating companies.

ENERGY NET PURCHASES AT THE CDEC-SING



● AES GENER	25.1%
● E-CL	36.2%
● CELTA	3.8%
● ENORCHILE	19.8%
● HORNITOS	7.1%
● NORGENER	7.4%
● POZO ALMONTE SOLAR 3	0.0%
● ON GROUP	0.6%



ENERGY NET PURCHASES AT THE CDEC-SING

ANDINA	5.3%	NORACID	4.7%
ANGAMOS	59.1%	LOS PUQUIOS	0.1%
CAVANCHA	0.7%	POZO ALMONTE SOLAR 2	0.1%
ENERNUEVAS	0.6%	TECNET	0.0%
EQUIPOS DE GENERACIÓN	0.3%	VALLE DE LOS VIENTOS	4.2%
GAS ATACAMA	23.4%	SPS LA HUAYCA	0.5%
GENERACIÓN SOLAR SPA.	1.0%		

ENERGY TRANSFERS AMONG THE CDEC-SING GENERATING COMPANIES (GWh) TERM 2004 - 2014

		2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
CELTA	Purchases	628,5	343,1	160,0	162,0	102,0	64,7	138,8	218,1	200,5	158,6
	Sales	0,0	0,2	45,2	162,0	119,8	85,1	62,6	23,4	53,6	64,9
E-CL	Purchases	0,0	26,2	0,0	115,0	189,2	548,6	433,9	928,2	1.008,7	903,1
	Sales	1.522,8	1.057,6	714,9	695,0	193,5	75,4	18,6	6,7	4,4	0,0
ELECTROANDINA	Purchases	968,1	540,8	382,3	740,0	663,6	158,5	473,9			
	Sales	0,0	23,0	69,8	41,0	89,8	418,3	20,1			
AES GENER	Purchases	0,0	0,0	121,0	13,0	0,0	17,5	46,5	102,4	99,1	627,4
	Sales	1.335,6	1.357,0	812,2	676,0	1.201,4	836,0	643,3	0,0	0,0	2,6
GASATACAMA	Purchases	806,1	1.638,1	1.126,2	617,0	594,0	795,0	1.517,6	74,6	40,1	4,5
	Sales	36,1	0,0	0,0	29,0	66,9	19,9	0,0	118,0	589,7	588,2
NORGENER	Purchases	503,1	150,3	104,4	60,0	217,3	40,6	75,6	190,1	379,3	183,4
	Sales	11,3	260,7	251,7	103,0	82,7	150,2	219,0	20,2	0,0	0,0
EQUIPOS DE GENERACIÓN S.A.	Purchases					0,0	0,0	0,0	0,0	0,0	0,0
	Sales					12,1	42,4	23,1	7,4	20,3	7,3
ANGAMOS	Purchases						1,5	0,0	0,0	0,0	0,0
	Sales						0,0	1.476,4	1.215,8	1.158,3	1.473,1
ENORCHILE	Purchases						12,2	46,7	65,0	302,7	492,8
	Sales						5,5	0,0	0,0	0,0	0,0
CAVANCHA	Purchases						0,0	0,0	0,0	0,0	0,0
	Sales						2,5	14,5	15,0	17,2	17,1
ANDINA	Purchases						0,0	81,7	0,0	60,4	51,2
	Sales						0,4	282,6	222,3	201,9	182,3
ENERNUEVAS	Purchases						0,0	0,0	0,0	0,0	0,0
	Sales						2,9	16,6	17,6	17,0	16,2
HORNITOS	Purchases							63,1	227,6	107,4	207,2
	Sales							101,4	134,1	33,3	29,1
NORACID	Purchases							63,1	0,0	0,0	0,0
	Sales							101,4	24,0	114,9	117,4
SPS LA HUAYCA	Purchases							63,1	0,0	0,0	0,0
	Sales							101,4	0,4	2,5	11,4
ON GROUP	Purchases									14,9	15,9
	Sales										0,0
GENERACIÓN SOLAR SPA.	Purchases										0,0
	Sales										24,0
LOS PUQUIOS	Purchases										0,0
	Sales										3,6
POZO ALMONTE SOLAR 2	Purchases										0,0
	Sales										2,2
POZO ALMONTE SOLAR 3	Purchases										1,1
	Sales										0,0
TECNET	Purchases										0,0
	Sales										0,6
VALLE DE LOS VIENTOS	Purchases										10,1
	Sales										115,5

FIRM POWER AND PEAK HOURS POWER DEMAND AS PER COMPANY – YEAR 2014

FIRM POWER	TOTAL SING	AES GENER	C.T. ANDINA	ANGAMOS	CAVANCHA	CELTA	E. GENERACIÓN (1)	E-CL (1)	ENERNUEVAS	ENORCHILE	GASATACAMA	C.T. HORNITOS	NORGENER	NORACID	ONGROUP	PAS 2	PAS 3	La Huayca	TECNET	Valle de Los Vientos
Firm Power - Injections [MW]	2.194,8	140,9	84,0	273,8	1,9	91,7	3,5	952,5	1,5	23,6	517,7	78,8		9,0	1,5	0,0	0,0	0,0	0,8	13,5
Net Demand HP [MW]	2.120,6	414,1	113,8	267,8		124,0		939,7		39,5	64,2	145,8		8,6	3,2					
Losses [MW]	74,2	-273,2	-29,8	6,1	1,9	-32,3	3,5	12,8	1,5	-15,9	453,5	-66,9	0,0	0,3	-1,7	0,0	0,0	0,0	0,8	13,5

FIRM POWER	AES GENER	C.T. ANDINA	ANGAMOS	CAVANCHA	CELTA	E. GENERACIÓN (1)	E-CL (1)	ENERNUEVAS	ENORCHILE	GASATACAMA	C.T. HORNITOS	NORGENER	NORACID	ONGROUP	PAS 2	PAS 3	La Huayca	TECNET	Valle de Los Vientos
Purchases [MW]	273,7	31,2	8,8	0,0	37,1	0,0	29,7	0,0	16,4	0,0	68,7		0,0	1,8	0,0	0,0	0,0	0,0	0,0
Sales [MW]	0,0	0,0	0,0	1,9	0,0	3,5	0,0	1,5	0,0	446,0	0,0		0,2	0,0	0,0	0,0	0,0	0,7	13,5

(1) Since the Definitive Firm Power calculation in 2011, the Electroandina units became part of the E-CL.

(2) Since the Definitive Firm Power calculation in 2011, the INACAL units became part of the POWER GENERATION TEAMS.

POWER TRANSFERS AMONG THE CDEC-SING GENERATING COMPANIES (MW) TERM 2004 - 2014

	E-CL (1)		ELECTROANDINA (1)		NORGENER		CELTA		GASATACAMA		AES GENER		EQUIPOS DE GENERACIÓN (1)		ENORCHILE		CAVANCHA		ENERNUEVAS		C.T. ANDINA		C.T. HORNITOS		ANGAMOS		NORACID		SPS LA HUAYCA		ONGROUP		POZO ALMONTE SOLAR 2		POZO ALMONTE SOLAR 3		TECNET		Valle de los Vientos		
	Purchases	Sales	Purchases	Sales	Purchases	Sales	Purchases	Sales	Purchases	Sales	Purchases	Sales	Purchases	Sales	Purchases	Sales	Purchases	Sales	Purchases	Sales	Purchases	Sales	Purchases	Sales	Purchases	Sales	Purchases	Sales	Purchases	Sales	Purchases	Sales	Purchases	Sales	Purchases	Sales	Purchases	Sales	Purchases	Sales	
2005		140,1	124,2			82,7		56,4		61,4			184,6																												
2006		159,1	86,8			80,4		71,8		122,9			202,9																												
2007		64,8	41,8			91,0		55,6		55,1			178,8																												
2008		33,5	5,5			81,6		27,0			14,3		66,3																												
2009	20,2			59,3	102,9		20,8	26,2				109,4	1,3	0,1																											
2010	84,92			106,7	96,02		11,64	27,66				105,9	4,9	2,2		0,4	0,2																								
2011		173,1				111,5		10,8		52,3			62,9	4,6	4,0		2,2		1,6	35,5		57,8			99,8																
2012	120,9					119,1		42,9			354,7	12,7		3,8	4,7		1,9		1,5	46,2		49,0		33,6		0,1		0,0		0,0											
2013	52,4					160,5		42,4			390,8	12,6		3,7	5,5		1,9		1,4	48,0		68,5		6,4		0,1		0,0	1,7												
2014	29,7						37,1			446,0	273,7			3,5	16,4		1,9		1,5	31,2		68,7		8,8		0,2		0,0	1,8			0,0		0,0			0,7			13,5	

(1) Since the Definitive Firm Power calculation in 2011, the Electroandina units became part of the E-CL.

(2) Since the Definitive Firm Power calculation in 2011, the INACAL units became part of the POWER GENERATION TEAMS.

VII. Tolls: Payment for the use of SING Transmission System

TOLLS FOR TRUNK SYSTEM – YEAR 2014

PAYMENTS FROM GENERATING COMPANIES TO TRUNK COMPANIES [THOUSAND OF CH\$] YEAR 2014

From/To	ETSA			Transelec			TOTAL
	Tolling Input	Tolling Output	Adjustment of Toll per Metered Unit ⁽¹⁾	Tolling Input	Tolling Output	Adjustment of Toll per Metered Unit ⁽¹⁾	
AES GENER	25.948	19.451	4.858	1.021.397	595.535	80.247	1.747.437
ANDINA	2.475	473	0	26.772	26.022	0	55.742
ANGAMOS	7.106	5.740	0	91.291	199.877	0	304.014
CAVANCHA	0	0	0	0	0	0	0
CELTA	23.985	68.729	-6.400	2.042.993	1.767.033	-105.711	3.790.630
E-CL	56.674	130.439	5.317	2.144.274	3.753.473	87.824	6.178.002
VALLE DE LOS VIENTOS	2.544	0	0	102.969	0	0	105.513
ENERNUEVAS	0	0	0	0	0	0	0
ENORCHILE	164	17.287	-4.048	3.240	453.603	-66.867	403.379
GASATACAMA	2.834	9.962	145	195.350	261.212	2.403	471.906
HORNITOS	2.364	1.173	0	26.600	62.894	0	93.031
INACAL	53	0	0	657	0	0	711
LOS PUQUIOS	0	0	0	0	0	0	0
NORACID	338	4	127	3.831	197	2.103	6.601
ON GROUP	0	35	0	20	1.780	0	1.835
PAS 2	0	846	0	0	21.657	0	22.503
PAS 3	163	2.179	0	10.479	55.754	0	68.575
SPS LA HUAYCA	0	0	0	0	0	0	0
SUNEDISON	396	0	0	14.791	0	0	15.187
TECNET	4	0	0	251	0	0	254
TOTAL	125.049	256.316	0	5.684.916	7.199.039	0	13.265.320

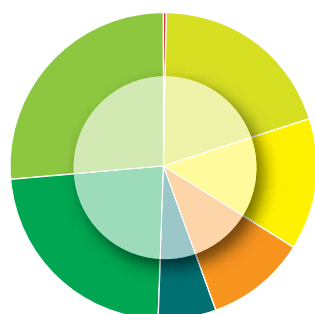
(1) PUB: Unit Toll per Bar, CUE: Unique Expected Charge

2014 SUB-TRANSMISSION SYSTEM TOLLS

VASTX PAYMENT FROM GENERATING COMPANIES TO SUB-TRANSMITTERS [THOUSAND OF CH\$] – YEAR 2014

From/To	AES GENER	E-CL	ENORCHILE	GASATACAMA	NORACID	NORGENER	TOTAL
CODELCO	11	46.526	2.128	103	4	7	48.778
E-CL	682	2.980.689	136.326	6.576	251	439	3.124.963
ELECDA	474	2.071.890	94.761	4.571	174	305	2.172.175
ELIQA	355	1.552.225	70.993	3.424	130	229	1.627.357
EMELARI	211	922.581	42.195	2.035	78	136	967.236
TRANSELEC	790	3.451.509	157.859	7.615	290	509	3.618.572
TRANSEMEL	899	3.929.169	179.706	8.668	330	579	4.119.352
TOTAL	3.423	14.954.589	683.968	32.992	1.257	2.204	15.678.434

COLLECTION AS PER VASTX - YEAR 2014

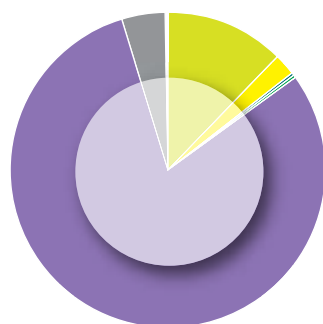


CODELCO	0.31%
E-CL	19.93%
ELECDA	13.85%
ELIQUA	10.38%
EMELARI	6.17%
TRANSELEC	23.08%
TRANSEMEL	26.27%

PAYMENT FROM SUB-TRANSMITTERS TO GENERATING COMPANIES DUE TO ENERGY AND POWER LOSSES [THOUSAND OF CH\$] - YEAR 2014

From/to	E-CL	ELECDA	ENORCHILE	GASATACAMA	TRANSEMEL	AES GENER	NORGENER	TOTAL
AES GENER	242							242
E-CL	229.495	273	16.290	0	22.752	15	11	268.837
ELECDA	41.804		2.794	9				44.607
ELIQUA	4.206							4.206
EMELARI	3.872							3.872
ENORCHILE	21							21
GASATACAMA	19							19
NORACID	11							11
NORGENER	86							86
TRANSELEC	1.735.171		12.767	157				1.748.095
TRANSEMEL	97.248		8					97.255
TOTAL	2.112.174	273	31.859	166	22.752	15	11	2.167.250

PAYMENT FOR ENERGY AND POWER LOSSES - YEAR 2014



AES GENER	0.011%
E-CL	12.405%
ELECDA	2.058%
ELIQUA	0.194%
EMELARI	0.179%
ENORCHILE	0.001%
GASATACAMA	0.001%
NORACID	0.001%
NORGENER	0.004%
TRANSELEC	80.660%
TRANSEMEL	4.488%

VIII. Energy and Power Demand SING 2004-2014

SING GROSS ENERGY DEMAND

Year	Gross Generation [GWh]	Growth Rate
2005	12.657,4	2,7%
2006	13.236,0	4,6%
2007	13.945,8	5,4%
2008	14.502,3	4,0%
2009	14.906,7	2,8%
2010	15.103,8	1,3%
2011	15.889,2	5,2%
2012	16.755,7	5,5%
2013	17.236,8	2,9%
2014	17.702,7	2,7%

SING GROSS ENERGY DEMAND



SING POWER MAXIMUM ANNUAL DEMAND TERM 2004-2014

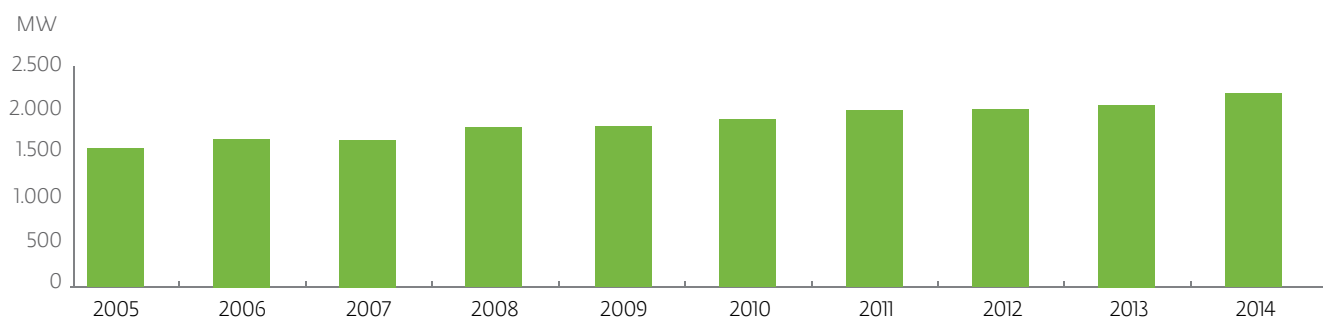
Year	Day	Time	Gross Maximum Generation [MW]	Net Maximum Demand [MW]
2005	27-nov-05	22	1.635	1.566
2006	15-dic-06	23	1.770	1.676
2007	24-abr-07	22	1.751	1.665
2008	21-dic-08	22	1.897	1.805
2009	27-sep-09	22	1.907	1.816
2010	26-dic-10	23	1.995	1.900
2011	23-dic-11	22	2.162	2.003
2012	25-dic-12	22	2.169	2.013
2013	01-dic-13	22	2.226	2.060
2014	26-dic-14	23	2.363	2.195

The Maximum Net Demand is equivalent to the gross power generation minus the stations' own consumption.

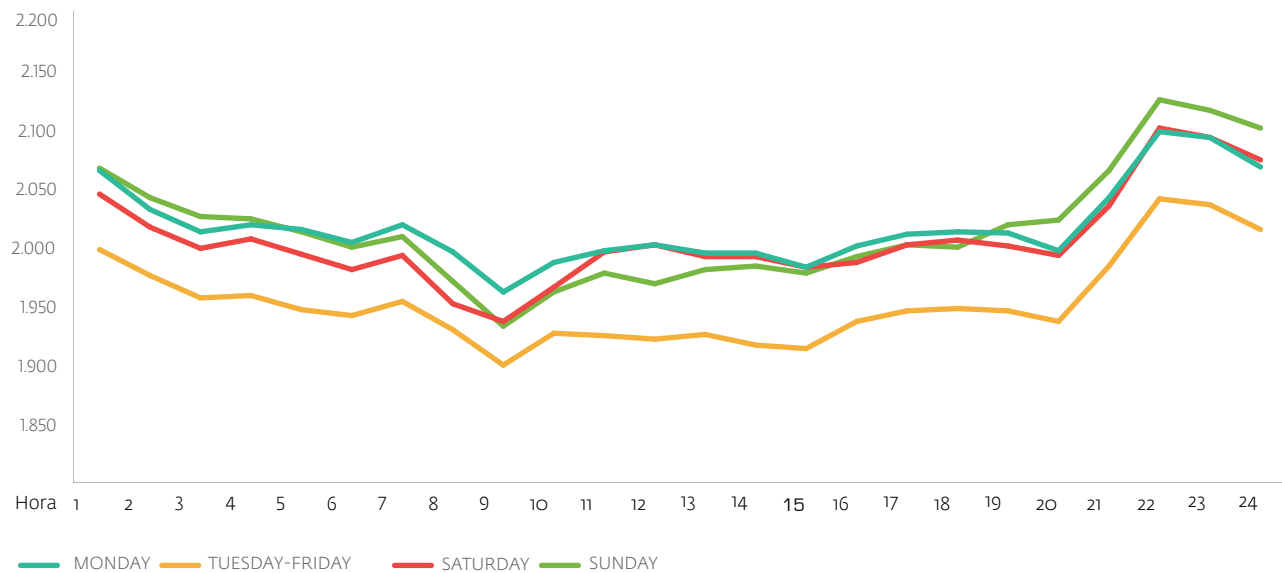
MAXIMUM GROSS ANNUAL GENERATION TERM



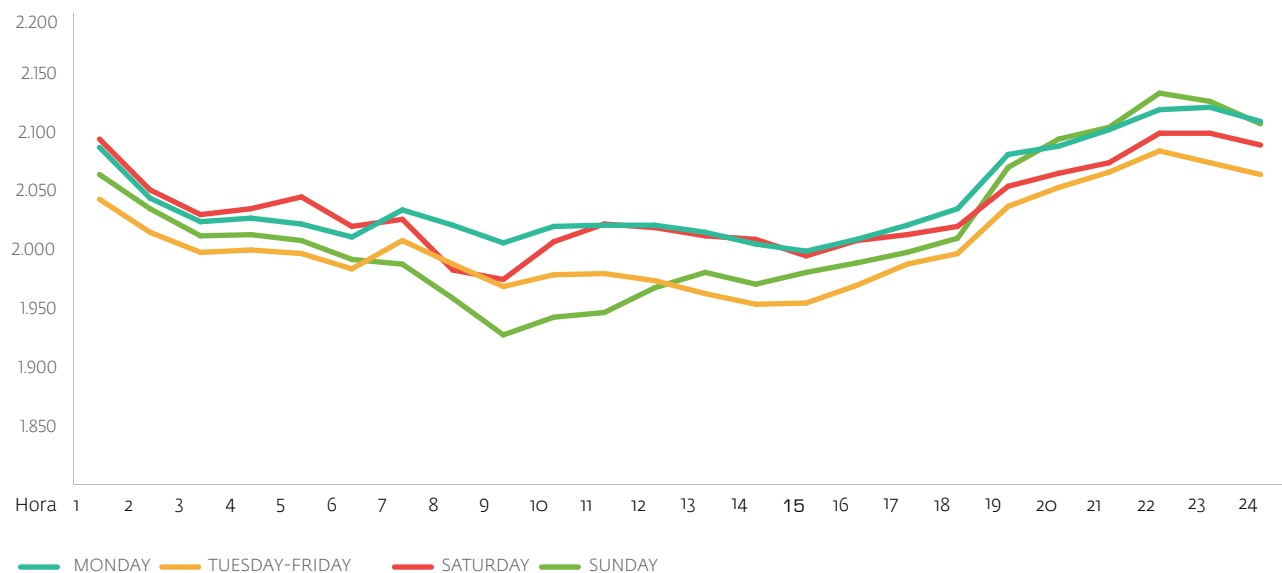
NET MAXIMUM DEMAND TERM



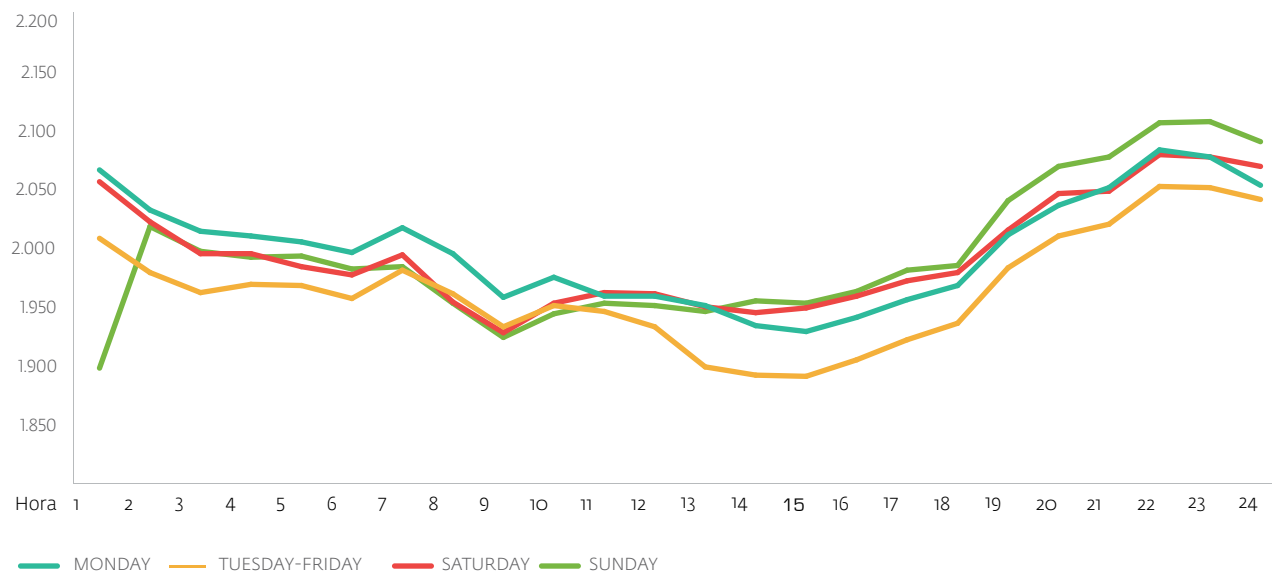
HOURLY AVERAGE GROSS GENERATION 2014 JANUARY - MARCH (MW)



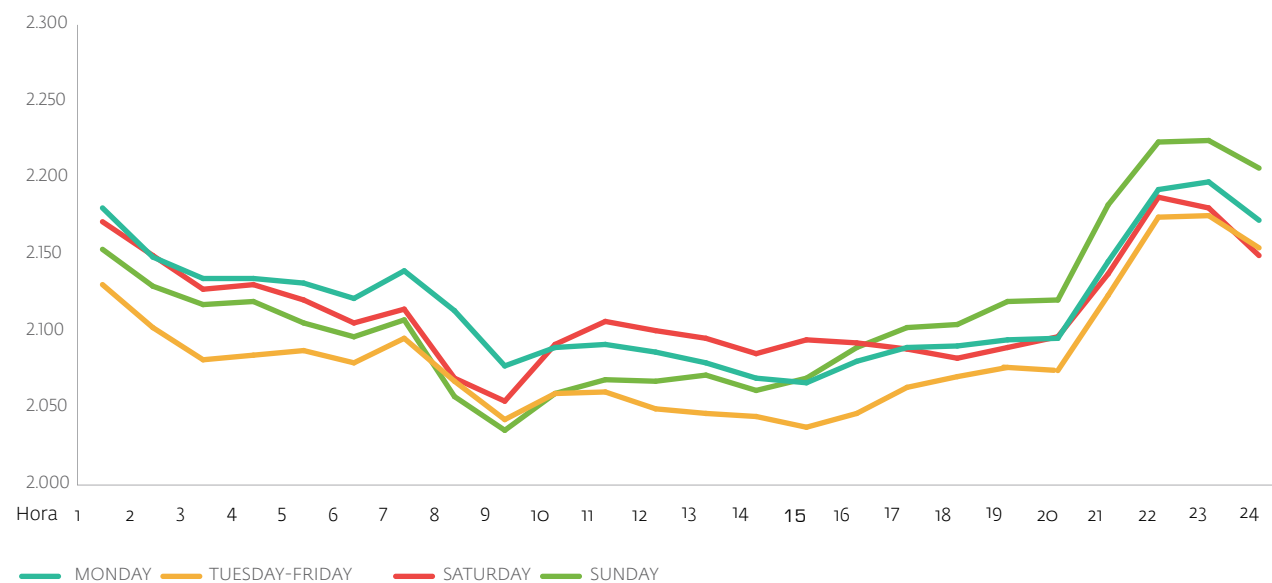
HOURLY AVERAGE GROSS GENERATION 2014 APRIL - JUNE (MW)



HOURLY AVERAGE GROSS GENERATION 2012 JULY - SEPTEMBER (MW)



HOURLY AVERAGE GROSS GENERATION 2012 OCTOBER - DECEMBER (MW)



IX. Non-Conventional Renewable Energies (NCRE)

2014 NCRE BALANCE

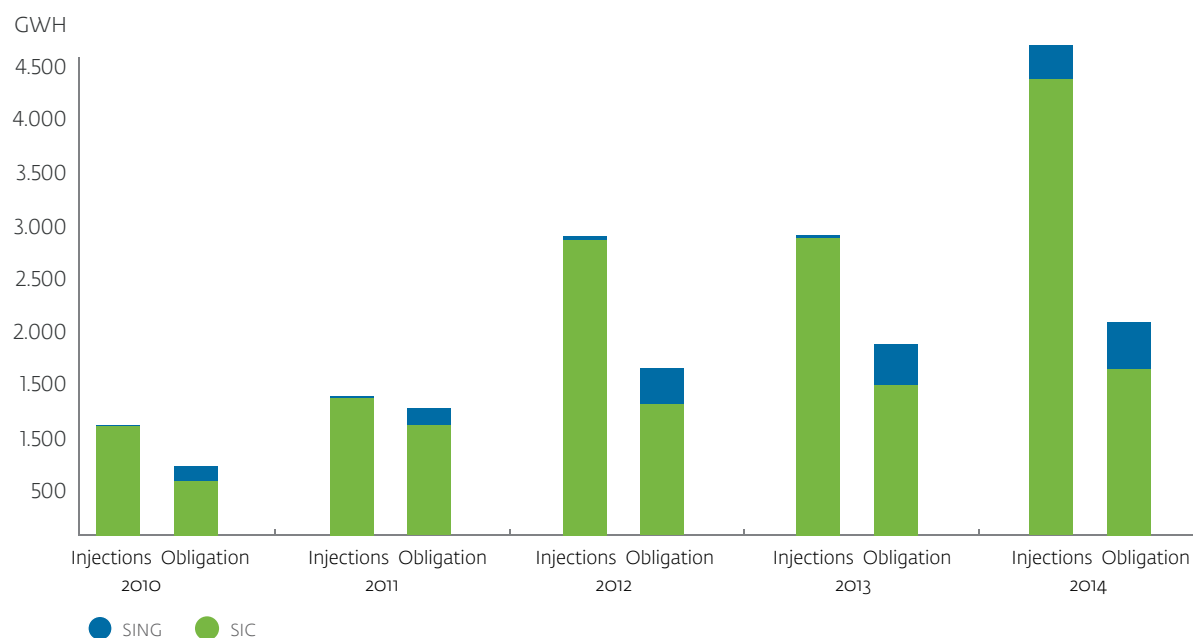
Withdrawals subject to obligation	
System	Energy [GWh]
SIC	30.997
SING	8.677
Total	39.673,2

NCRE acknowledged injections	
System	Energy [GWh]
SIC	4.289,3
SING	321,3
Total	4.610,5

NCRE obligation (5% subject withdrawals)	
System	Energy [GWh]
SIC	1.566,0
SING	436,8
Total	2.002,8

NCRE Net Surplus / Shortage	
System	Energy [GWh]
SIC	2.723,3
SING	-115,5
Total	2.607,8

BALANCE NCRE 2010 - 2014



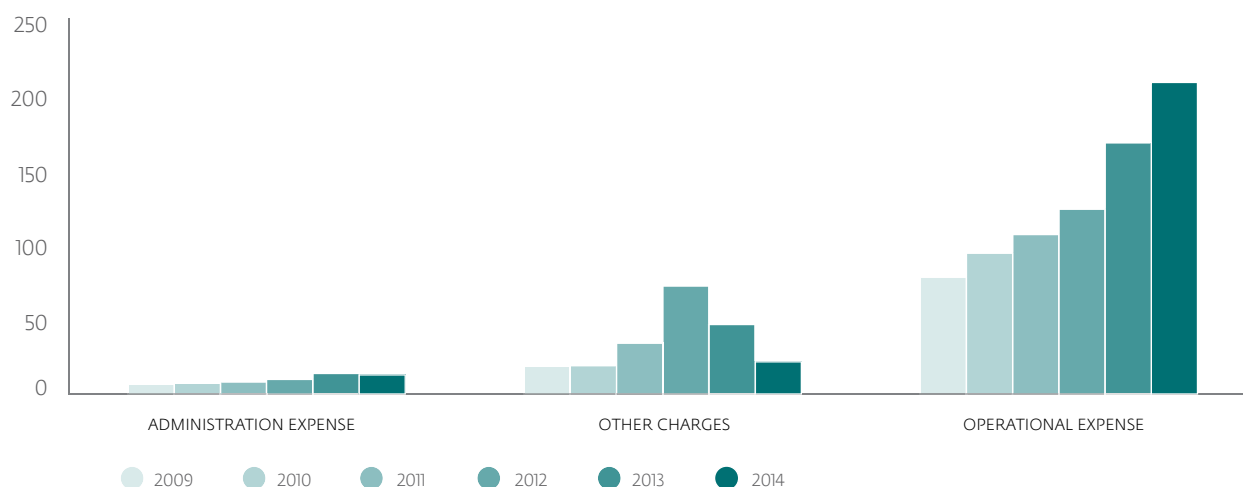
X. CDEC-SING Budget

CDEC-SING BUDGET

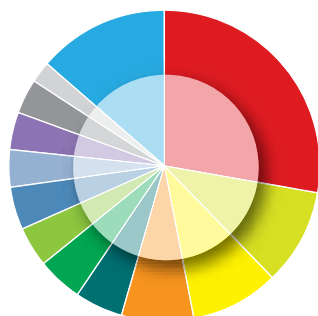
CDEC-SING Budget [thousand UF]	2009	2010	2011	2012	2013	2014	Variation (Thousands UF)	Variation % [Last year]
Administration expense	6,5	7,1	8,1	9,7	13,7	12,7	-1,0	-7,0%
Other charges	18,6	18,8	33,9	72,0	46,3	21,4	-24,9	-53,7%
Operational costs	77,7	93,8	106,2	123,1	167,3	207,4	40,1	24,0%
Remuneration and Other related	57,8	63,2	72,5	86,9	112,6	139,6	27,0	24,0%
Office lease and related expense	7,1	7,8	10,4	10,5	11,5	20,9	9,4	82,5%
External Services and Advising	2,2	2,7	2,9	3,9	4,4	9,5	5,1	114,6%
Equipment, Software and Services lease	10,5	20,1	20,4	21,8	38,8	37,3	-1,5	-3,8%
Total	103	120	148	204,8	227,2	241,5	14	6,29%

CDEC-SING BUDGET

(THOUSANDS OF UF)



BUDGET PARTICIPATION OF CDEC-SING'S MEMBERS



E-CL ⁽¹⁾	27.94%	CT HORNITOS	4.55%
ESCONDIDA	9.95%	COLLAHUASI	3.73%
AES GENER ⁽²⁾	9.33%	CELTA	3.84%
ANGAMOS	7.40%	GASATACAMA	3.69%
CODELCO ⁽³⁾	4.99%	MINERA ESPERANZA	2.30%
TRANSELEC	4.74%	OTROS	13.43%
CT ANDINA	4.12%		

Note: Only those CDEC-SING members with a participation rate greater than 2% are represented individually.

(1) Includes E-CL and Edelnor Transmission

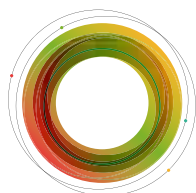
(2) Includes AES Gener and Norgener.

(3) Includes 4 operations: Chuquicamata, R Tomic, M Hales and G Mistral

NORTE GRANDE INTERCONNECTED SYSTEM / GEOGRAPHIC OUTLINE

Updated: April 2015





CDEC | SING
CENTRO DE DESPACHO ECONÓMICO DE CARGA
SISTEMA INTERCONECTADO NORTE GRANDE

Address:
Av. Apoquindo 4501
6th floor, Las Condes
Santiago de Chile

Phone:
56(2) 2 367 2400

Web:
www.cdec-sing.cl

Twitter:
[@cdec_sing](https://twitter.com/cdec_sing)