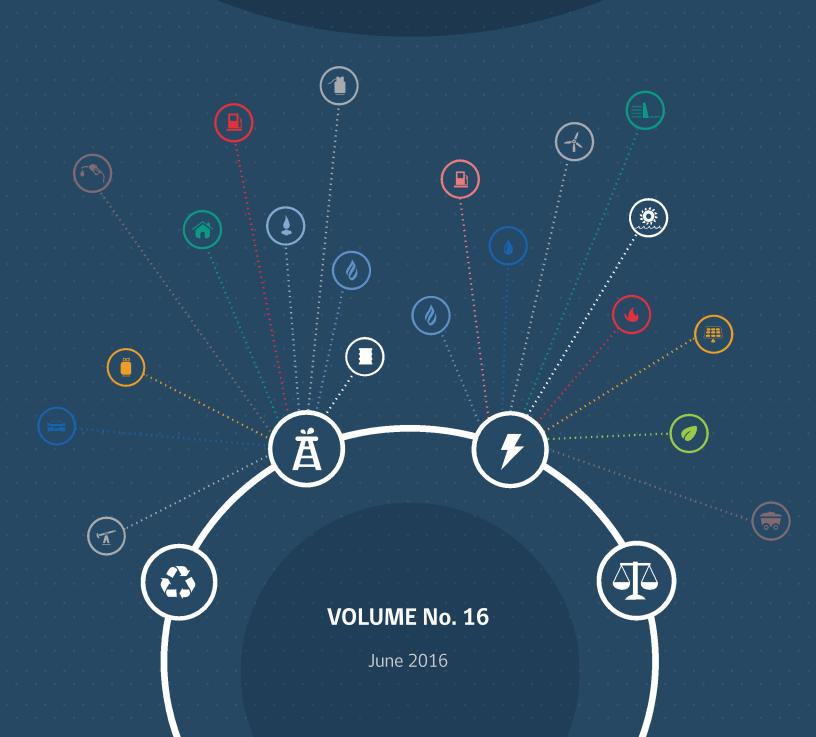
MONTHLY ENERGY SECTOR REPORT NATIONAL ENERGY COMMISSION



HIGHLIGHTS

During the last month, the energy sector has witnessed a series of milestones that reflect the hard work of both the National Energy Commission and the Ministry of Energy. The following are among the principal achievements:

President of the Republic promotes new Law to reduce gap between the residential electricity fares along Chile

President of the Republic, Michelle Bachelet, launched in June 15th 2016, the Equity Fares Law that introduces new mechanisms in aim to reduce the gap between residential electricity fares among the Chilean country.

Nowadays, some localities pay up to 90% more in comparison to Santiago City for the same level of energy consumption. With this Law, is modified the distribution component of the electricity rates, obtaining with this measure, less than 10% of differences between towns along Chile.

"This is one of the laws that has more impact on our national energy agenda. Something as common and as important as how much we pay for electricity in our homes... Is essential to have a fair electricity rates" - said President Bachelet.

In total, 2.7 million customers (10,800,000 people) will have decreased on average by 14% (4,278 CLP). The highest decreases would be around 46% of the respective account type (\$ 15,000), which corresponds to the case of Alto Biobio.

The regulations also recognize the contribution made by the 63 municipalities that contribute most to the power generation.

Ministry of Energy launches mobile app "Calefacción en línea" created by the CNE

The Minister of Energy, Maximo Pacheco, launched the mobile application "Calefacción en Línea" (Heating online) created by the National Energy Commission which would allow Chileans to search for the lowest prices of household kerosene among service stations in Chile; in order to save money this winter.

The application also provides information of the best route to reach the service center, attention schedule, payment methods (cash, cards or checks), calculate directly liters that can be purchased according to the budget of each person and also allowed to report price differences between published in the report and that at the point of sale.

For more information visit the page appcalefaccionenlinea.cne.cl

*The mobile app also allow liquefied gas prices search and firewood.

Comisión Nacional de Energía launches Energy Statistical Yearbook for Chile

With the aim of promoting more transparency of energy information for citizens and participants of the energy sector, the Minister of Energy, Maximo Pacheco, launched the "Energy Statistical Yearbook 2005-2015", document containing the main statistical data last decade for the national energy sector.

In its 135 pages, the Yearbook provides a compilation, management and updating of energy information, which was classified into four thematic groupings, where you can find an analysis of the relevant aspects of the electricity sector and hydrocarbons, as well as the state and advancing environmental approval of energy projects, in addition to the major policy and regulatory issues that arose during the last year in the sector.

The statistical series presented are homogeneous in their calculations without methodology changes in different years considered. This document mainly covers information 2005–2015 period, representing an effort and valuable contribution to the availability of time series.

This Yearbook is now available on the website of the Ministry of Energy, energia.gob.cl; of the National Energy Commission, cne.cl, and the energiaabierta.cne.cl web platform.

Energy Supply Tender in July 27th among the best infrastructure projects in the region

The power supply tender to be held on July 27th - led by the National Commission for Energy- was selected as one of the most important infrastructure projects in Latin America (Strategic 100) for 2016, according to GC organization / LA infrastructure.

The Executive Secretary of the National Energy Commission, Andres Romero, with the Executive Director of Association of Electric Companies, Rodrigo Castillo, received the award on Thursday June 9th at the 14° Latin-American Leadership Forum on Infrastructure, held in Buenos Aires, Argentina.

Strategic report highlights each year 100 projects that provide business opportunities in the coming years, and will bring to the region, the public and private sectors, growth and competitiveness.

SUMMARY

This report was prepared in June 2016 in order to provide energy information and statistics May 2016.

The report's content has been organized into four chapters to facilitate analysis. These four chapters provide information about the electricity sector, international and domestic markets for oil and gas, the status and progress of environmental approvals for energy projects, and finally the main regulatory aspects affecting the sector during the month of May.

This publication contains official information from external sources as well as from the National Energy Commission (NEC).

To prepare the report, an average exchange rate of 681.87 CLP per USD observed in May 2016.

According to Exempt Resolution No. 449, there were 61 electricity generation projects under construction in the SIC and SING, equivalent to a capacity of 4,975 MW.

The installed capacity of the SIC in May was 16,373 MW and it was 4,068 MW, plus the installed capacity in the Aysén (SEA) and Magallanes (SEM) electricity systems. Together, the four systems with Easter Island and Los Lagos; in aggregate represent an installed capacity of 20,610 MW.

Meanwhile, total electric power generation in the SIC in May was 4,537 GWh, and in the SING it reached 1,675 GWh. Therefore, the total generated was 6,212 GWh, 5.7% lower than in April 2016.

The maximum hourly demand recorded in the SIC and the SING in May were 7,238 MW and 2,521 MW, respectively. The maximum in the SIC was recorded on May 18th while the measurement in the SING corresponds to May 11th,2016.

Regarding electricity tariffs, it is important to note that the average marginal cost in May in the SIC was 42.7 USD/MWh, -17.0% lower than April 2016. In the SING meanwhile, the average marginal cost was 73.4 USD/MWh, 40.3% higher than the previous month.

It is worth noting the average market prices recorded in May in the SIC and SING which were 90.7~USD/MWh and 80.6~USD/MWh, respectively.

In terms of international fuel prices, the Brent crude price was 46.8 USD/bbl, 12.9% higher than the previous month. Meanwhile, the average price of WTI crude was 46.8 USD/bbl, and 14.4% higher than the previous month.

The Henry Hub price (international natural gas price reference) increase 0.5% compared to April, with an average value of 1.92 USD/MMBtu.

The average price of coal was 76.9 USD/ton, up 2.4% over the previous month.

In terms of gasoline prices, those of 93-octane gasoline (unleaded) and diesel should be noted. In May the average domestic price of the former was CLP 688 /liter, while the average price of the latter was CLP 421 /liter. In terms of percentages, these represent a rise of 5.0% and null variattion respectively in comparison to April 2016.

A total of 8 energy sector projects were submitted to the Environmental Impact Evaluation System (Sistema de Evaluación de Impacto Ambiental, SEIA): 5 in electricity generation, 1 for electricity transmission energy project, 1 for .Oil and/or gas energy project and 1 for maritime terminal project. Meanwhile, those already being evaluated represent a total investment of USD 33,583 million. In addition, 11 projects related to the energy sector obtained favorable environmental qualification resolutions (Resolución de Calificación Ambiental, or RCA) in May, and of those, 5 were for electricity generation , 1 was for high-voltage electricity transmission line projects, 4 were oil and/or gas energy project and 1 was maritime terminal project.

In conclusion, it should be highlighted among all the important policy issues that occurred in May, the publication in the Official Journal, from May 23th 2016; 4Q of May 23th 2016; which defines average short-term node prices in the Interconnected System Central and Norte Grande Interconnected System, by fixing the price referred in the Article 158° of the General Law of Electrical Services. It is also important to remark the publication of the tender recorded in the Article 131b of the General Law of Electrical Services, through Exempt Resolution No. 426 dated May 19th, 2016. Within other matters mentioned in this report concluded that, in the long term supply needs for the year 2022 they would be covered by the possible award of the tender for the 2015/01 process; currently underway, but for the years 2023 onwards, net uncovered deficit would be appreciated by which would require a new bidding process solvent supply



CONTENTS

F Elec	tricity Sector	5
	1. Electricity Generation Projects Under Construction	5
	2. Installed Electricity Generation Capacity	7
	3. Electricity Generation	8
	4. Maximum Hourly Demand	9
	5. Marginal Costs	9
	6. Average Market Price	10
	7. Short-term Node Prices	10
	8. Node Price in Medium-size Systems	11
	9. Evolution of Variable Distribution Cost Indexes	12
	10. Hydrological Statistics	12
(ğ) Oil a	and Gas Sector	14
	1. International Fuel Market Prices	14
	2. Domestic Liquid Fuel Prices	15
	3. Fuel Gross Margins	16
	4. Domestic Prices of Network Gas Supplied through Concessions	17
	5. Domestic Prices of Bottled Liquefied Petroleum Gas	18
	6. Fuel Imports and Exports	19
	7. Fuel Sales	21
	8. Fuel Inventory	21
Enei	rgy Projects Undergoing Environmental Evaluation	22
	1. Projects Submitted for Environmental Evaluation	22
	2. Energy Projects Currently Being Evaluated	22
	3. Projects with Approved Environmental Qualification Resolution	23
Sect	tor Regulations	24
	1. Proposed Legislations in Process	24
	2. Sector Regulations Published in the Official Bulletin	24
	3. Sector Regulations Not Published in the Official Bulletin	25
	4. Expert Panel Rulings	25



ELECTRICITY SECTOR

1 Electricity Generation Projects Under Construction

As indicated in Article 31 of the Node Price Setting Regulation (0586/2012), "installations under construction" are defined as generation units, transmission lines and electrical substations that have been granted the respective construction permits for civil works or have been granted the order to proceed in the fabrication and/or installation of the corresponding electrical or electromagnetic equipment for electricity generation, transmission or transformation. For more information about NCRE projects, please go to the CIFES Monthly Energy Report.

According to Exempt Resolution Num. 449, "Works under Construction Update and Report," as of June 02 th there were 26 power generation projects under construction in the SING. Together they represent capacity of 2,227 MW and are projected to begin operation between June 2016 and June 2018.

Projects under Construction in the SING

Category	Date Proyect Name	Region	Technology	Capac. [MW]
	jun-16 Finis Terrae II	II Región	Solar Photovoltaic	69
	jun-16 Bolero I	II Región	Solar Photovoltaic	42
	jun-16 Bolero II	II Región	Solar Photovoltaic	42
	ago-16 Sierra Gorda	II Región	Wind	112
	ago-16 Bolero III	II Región	Solar Photovoltaic	21
	oct-16 Blue Sky 1	II Región	Solar Photovoltaic	34
	oct-16 Blue Sky 2	II Región	Solar Photovoltaic	52
	oct-16 Uribe Solar	II Región	Solar Photovoltaic	50
	oct-16 PV Cerro Dominador	II Región	Solar Photovoltaic	100
	oct-16 Bolero IV	II Región	Solar Photovoltaic	41
	dic-16 Cerro Pabellón	II Región	Geothermal	48
NCRE	ene-17 Arica Solar I	XV Región	Solar Photovoltaic	18
NCKL	ene-17 Arica Solar II	XV Región	Solar Photovoltaic	22
	mar-17 Quillagua I	II Región	Solar Photovoltaic	23
	jun-17 Cerro Dominador	II Región	Cogeneration	110
	jun-17 Pular	II Región	Solar Photovoltaic	29
	jun-17 Paruma	II Región	Solar Photovoltaic	21
	jun-17 Lascar I	II Región	Solar Photovoltaic	30
	jun-17 Lascar II	II Región	Solar Photovoltaic	35
	sep-17 Huatacondo	l Región	Solar Photovoltaic	98
	oct-17 Quillagua II	II Región	Solar Photovoltaic	27
	oct-17 Usya	II Región	Solar Photovoltaic	25
	jun-18 Quillagua III	II Región	Solar Photovoltaic	50
	jun-16 Kelar	II Región	NLG	517
·	oct-16 Cochrane U2	II Región	Coal	236
Thermoelectric	feb-18 Infraestructura Energética Mejillones	II Región	Coal	375
	feb-18 Infraestructura Energética Mejillones	II Región	Coal	375

Source: NEC

Source: NEC

Total under construction in the SING, by technology

2% 5% 5% 28% Natural Gas 2,227 Solar Photovoltaic [MW] 23% Concentrated Solar Power Geothermal

Projected operation start date, SING











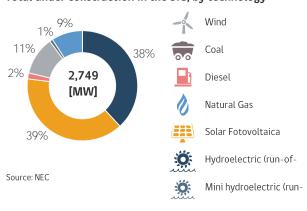
According to Exempt Resolution No. 449, "Works under Construction Update and Report," as of June 02 there were **35** power generation projects under construction in the SIC. Together they represent capacity of **2,749 MW** and are projected to begin operation between June 2016 and October 2020.

Projects under Construction in the SIC

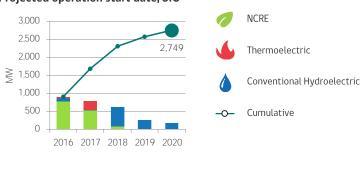
Category	Date Proyect Name	Region	Technology	Capac. [MW]
	jun-16 La Montaña I	III Region	Mini hydroelectric (run-of-river)	3
	jun-16 Río Colorado	III Region	Mini hydroelectric (run-of-river)	15
	jun-16 Los Loros	III Region	Solar Photovoltaic	50
	jun-16 Chuchiñí	III Region	Solar Photovoltaic	3
	jun-16 Las Peñas	III Region	Wind	8
	jun-16 Carrera Pinto II	III Region	Solar Photovoltaic	77
	ago-16 Abasol	III Region	Solar Photovoltaic	62
	ago-16 Quilapilún	III Region	Solar Photovoltaic	103
	sep-16 El Romero	III Region	Solar Photovoltaic	196
	sep-16 San Juan I	III Region	Wind	33
	oct-16 El Pelícano	III Region	Solar Photovoltaic	100
	oct-16 Chaka I	III Region	Solar Photovoltaic	27
	oct-16 Chaka II	III Region	Solar Photovoltaic	23
NCRE	oct-16 San Juan II	III Region	Wind	30
	nov-16 San Juan III	III Region	Wind	30
	dic-16 San Juan IV	III Region	Wind	33
	ene-17 Guanaco Solar	III Region	Solar Photovoltaic	50
	ene-17 PFV Olmué	III Region	Solar Photovoltaic	144
	ene-17 Valleland	III Region	Solar Photovoltaic	67
	ene-17 San Juan V	III Region	Wind	26
	ene-17 San Juan VI	III Region	Wind	33
	abr-17 Malgarida	III Region	Solar Photovoltaic	28
	abr-17 Las Nieves	III Region	Mini hydroelectric (run-of-river)	7
	abr-17 Cabo Leones I	III Region	Wind	116
	ago-17 Divisadero	III Region	Solar Photovoltaic	65
	ago-18 Valle Solar	III Region	Solar Photovoltaic	74
	jun-16 Ancoa	III Region	Hydroelectric (run-of-river)	27
	sep-16 La Mina	III Region	Hydroelectric (run-of-river)	34
	oct-18 Ñuble	III Region	Hydroelectric (run-of-river)	136
	dic-18 Los Cóndores	III Region	Hydroelectric (run-of-river)	150
Conventional	dic-18 Las Lajas	III Region	Hydroelectric (run-of-river)	267
Hydroelectric	may-19 Alfalfal II	III Region	Hydroelectric (run-of-river)	264
	oct-20 San Pedro	III Region	Hydroelectric (run-of-river)	170
	oct-16 Doña Carmen	III Region	Diesel	48
	jun-17 CTM-3*	III Region	Diesel	251

Source: NEC

Total under construction in the SIC, by technology



Projected operation start date, SIC



Source: NEC





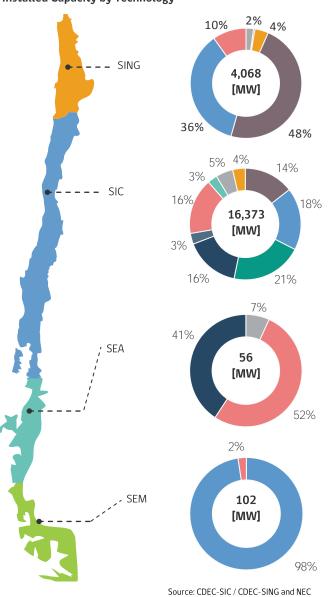




2 Installed Electricity Generation Capacity

The installed electricity generation capacity as of May 2016 was (*)20,610 MW. Of that, 16,373 MW (79.4%) corresponded to the SIC and 4,068 MW (19.7%) to the SING. The remaining 0,8% was distributed among the Aysén and Magallanes electricity systems. As of May, 57.9% the country's total installed capacity is represented by thermoelectric generation, while 13.0% is NCRE. For more information about NCRE projects, please go to the CIFES Monthly Energy Report

Installed Capacity by Technology



Installed capacity by system

System	Capacity [MW]	Capacity [%]
• SING	4,068	19.7%
• SIC	16,373	79.5%
• SEA	56	0.3%
• SEM	102	0.5%

Source: CDEC-SIC / CDEC-SING and NEC



Power generation plants in testing phase

In addition to the total installed capacity, there are **27** synchronous power generation plants with their respective electricity systems that have not yet been approved for dispatch by the CDEC (in the testing phase). Of these, **21** plants are in the SIC (with a total capacity of **471.5 MW**) and **6** are in the SING (with a total capacity of **657.7 MW**). Thus, there is a total of **1129.2 MW** in the testing phase.

^{*} The total installed capacity also includes Los Lagos (6 MW) and Easter Island (4 MW) systems.

^{*}Is not considered in this total the Natural Gas power plant, located in Salta (Argentina); connected to the SING (380 MW)





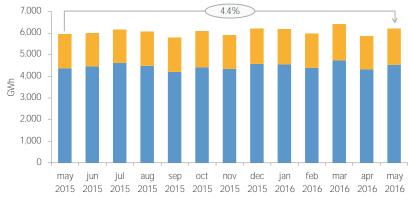




3 Electricity Generation

Power generation in the SIC during May 2016 reached a total of **4,537 GWh**, which were classified as 58% thermoelectric, 31% conventional hydroelectric and 11% NCRE. In the SING, **1,675 GWh** of electric power were generated, 6% from thermoelectric plants and 94% from NCRE. Together the systems reached a total of **6,212 GWh**, a increase of **5.7%** over the previous month and increase **4.4%** in comparison to May 2016. In resume, if we sort by generation category, we distinguish: 33.6% NCRE, 22.5% hydroelectric and 43.8% thermoelectric generation.

Evolution of gross electric power generation, SIC-SING



Generation variation, by system

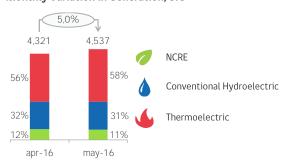
Energy Generation [GWh]		Mo	nthly	An	nual
Total	6,212		5.7%	_	4.4%
SING	4,537		5.0%	_	3.7%
• SIC	1,675		7.6%		6.2%

Source: CDEC-SIC / CDEC-SING

Source: CDEC-SIC / CDEC-SING

Following is a breakdown of power generation by technology in the SIC and SING.

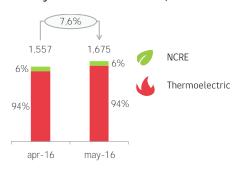
Monthly Variation in Generation, SIC



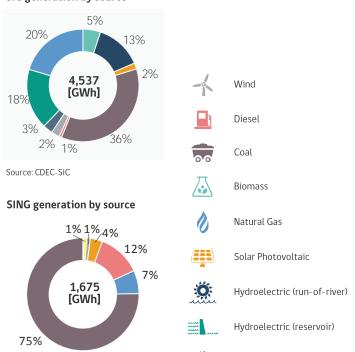
Source: CDEC-SIC

Source: CDEC-SIC

Monthly Variation in Generation, SING



SIC generation by source



Source: CDEC-SIC

Mini hydroelectric (run-of-ririver)







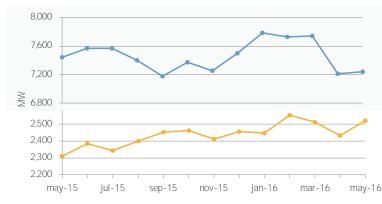


4 Maximum Hourly Demand

In May 2016, The maximum hourly demand recorded in the SIC was **7,238 MW** on 18th, **0.4%** higher than the previous month and **-2.7%** lower over the same month of 2015. In the SING, the maximum hourly demand recorded on 11th was **2,521 MW**, which represented a **3.7%** higher over the maximum hourly demand recorded in the previous month and **9.1%** higher over the same month of 2015

Evolution of maximum hourly demand, SIC - SING

Variation in maximum hourly demand, by system





Source: CDEC - SIC / CDEC - SING

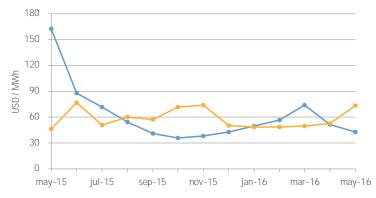
Source: CDEC - SIC / CDEC - SING

5 Marginal Costs

The marginal cost is the variable cost of the most expensive generation unit operating at a specific point in time. In this case, the Quillota 220 kV busbar was used as the reference to obtain the marginal cost in the SIC while the Crucero 220 kV busbar was used as the reference in the SING. The value given for each system corresponds to the monthly average of hourly marginal costs. In May, the average marginal cost in the SIC was 42.7 USD/MWh, -17.0% lower than the previous month and -73.7% lower than May 2015. In the SING, the average marginal cost was 73.4 USD/MWh, 40.3% more than he previous month and 58.3% more the same month of 2015.

Evolution of marginal costs, SIC - SING

Variation in marginal costs, SIC - SING



System	[USD/MWh]	N	lonthly	А	nnual
Quillota 220	42.7	$\overline{}$	-17.0%	$\overline{}$	-73.7%
Crucero 220 kV	73.4	_	40.3%	_	58.3%

Source: CDEC - SIC / CDEC - SING

Source: CDEC - SIC / CDEC - SING









6 Average Market Price

The average market price (AMP) for each system is based on the average price of free customer contracts and long-term supply contracts held by distribution companies as applicable, reported to the National Energy Commission by the distribution companies operating in the Norte Grande Interconnected System and the Central Interconnected System. The AMP calculation takes into consideration a four-month window ending with the third month prior to the AMP publication date.

The AMP recorded in **May** for the SIC was **90.7 USD/MWh**, **-1.3%** lower than the previous month and **-11.5%** lower than May 2015. The AMP in the SING was **80.6 USD/MWh**, **-3.1%** less than the previous month and **-13.8%** down than the same month in 2015.

Evolution of market prices, SIC - SING



Variation in average market prices, by system

System	[USD/MWh]*	Month	ıly	Ar	nnual
• SIC	90.7		1.3%	$\overline{}$	-11.5%
SING	80.6	-	3.1%	$\overline{}$	-13.8%

Source: CDEC - SIC / CDEC - SING

Source: CDEC - SIC / CDEC - SING

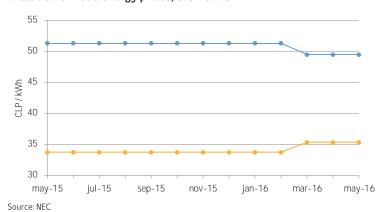
7 Short-term Node Prices

Short-term node prices are set twice each year, in May and October. These prices may be indexed monthly, depending on the conditions established in the twice-yearly decree that sets node prices for electricity supply. The prices are calculated by the National Energy Commission (NEC) which submits a technical report with the results to the Energy Ministry. The ministry then proceeds to set the prices via a decree published in the Official Bulletin.

Node Energy Price

The node energy price is the average over time of the marginal cost of energy in the electricity system operating at the minimum, updated operation and rationing cost. The node energy price in the SIC in **May** was **49.5 CLP/kWh**, -**3.5%** decrease over the same month of 2015. In the SING, the node energy price in **May** was **35.3 CLP/kWh**, **4.7%** up over the same month of 2015.

Evolution of node energy prices, SIC - SING



Variation in node energy prices, by system

System	CLP/kWh	Мо	nthly	Ar	nnual
• PNE SIC	49.5		0.0%	$\overline{}$	-3.5%
PNESING	35.3	_	0.0%	_	4.7%

Source: NEC

^{*} Real value at the publish date, according to the CPI (consumer price index) of second previous month at the indicated date and the observed dollar of the previous month of the publish report date.





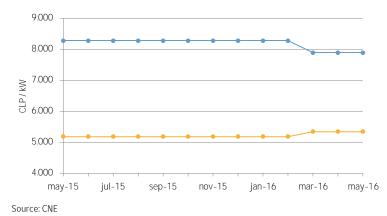




Node Power Price

The node power price is the annual marginal cost of increasing the installed capacity of the electricity system taking into consideration the most economic generation plants, required to supply additional capacity during the annual maximum hourly demand of the electricity system, increased by a percentage equal to the theoretical capacity reserve margin of the system. The node power price in the SIC in **May** was **7,902 CLP/kW**, **-4.6%** decrease over the same month of 2015. In the SING, the node power price was **5,346 CLP/kW**, **3.1%** increase over the same month of 2015.

Evolution of node power price, SIC - SING



Variation in node power price

System	CLP/kW	Monthl	y Ar	nnual
• PNP SIC	7,902	0.	0% 🔻	-4.6%
PNP SING	5,346	— 0.	0% 📥	3.1%

Source: CNE

8 Node Price in Medium-size Systems

Below we present the node energy price and node power price in medium-size systems for May del 2016. These node prices are applied to energy supply at the withdrawal busbars indicated in the following tables:

Variation in node energy price, medium-size systems

Busbar	[USD/MWh]	Index	Annual
Pta Arenas	63	0.0%	5.0%
Tres Puentes	63	0.0%	5.0%
Pto Natales	93	0.0%	5.5%
Porvenir	86	0.0%	5.3%
Pto Williams	262	0.0%	-10.7%
Aysén 23	79	0.0%	-10.5%
Chacab23	79	0.0%	-10.5%
Mañi23	79	0.0%	-10.4%
Ñire33	79	0.0%	-10.4%
Tehuel23	79	0.0%	-10.4%
Palena	86	0.0%	4.7%
G.Carrera	98	0.0%	-17.2%
Cochamó	152	0.0%	-20.3%
Hornopirén	144	0.0%	-11.5%

Variation in node power price, medium-size systems

Busbar	[USD/MW-mth]	Index		ndex Annua	
Pta Arenas			0.0%		6.0%
Tres Puentes			0.0%		6.0%
Pto Natales			0.0%		6.2%
Porvenir		_	0.0%		5.7%
Pto Williams			0.0%		4.6%
Aysén 23			0.0%		5.3%
Chacab23		_	0.0%		5.3%
Mañi23			0.0%		5.3%
Ñire33			0.0%		5.3%
Tehuel23			0.0%		5.3%
Palena			0.0%		5.1%
G.Carrera			0.0%		4.6%
Cochamó			0.0%		4.6%
Hornopirén			0.0%	_	5.3%

Source: CNE

Source: CNE









9 Evolution of Variable Distribution Cost Indexes

The distribution added value (DAV)* is set every four years by the Energy Ministry, based on a technical report prepared by the NEC, and corresponds to the average cost of investment, administration, maintenance and operation of electricity distribution networks calculated for an efficient model company operating in Chile. The DAV has a fixed component and a variable component, both of which were established by Article 182 of the General Electrical Services Law and are indexed monthly. Below we provide the evoluation of the indexator of the variable component both for high and low voltage for May del 2016.

For more information about this, please go to the <u>Decreto N°1T/2012 Proceso de Fijación de Tarifas de Distribución 2012-2016</u>.

Evolution of Indexes



Variation in Indexes

System	Index	Monthly		Ar	nual
CDAT	1.054	$\overline{}$	-0.2%	_	0.7%
CDBT	1.050	$\overline{}$	0.0%		0.5%

Source: CNE

Source: CNE

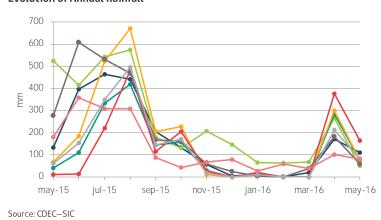
10 Hydrological Statistics

Because of the hydro-thermal nature of the Central Interconnected System, which features large hydroelectric (reservoir) plants with for regulation in different periods of time and thermal plants (as well as other technologies), the use of reservoir water must be optimized in order to minimize the total cost of supplying the system. For this reason, we provide information below from monitoring and recording the important variables associated with hydrology, such as rainfall, and the operational status of infrastructure of the hydroelectric plants in relation to the respective reservoir levels and volumes.

Rainfall Statistics

The monthly rainfall statistics published by CDEC-SIC and updated as of May del 2016 are shown below for the main measurement locations.

Evolution of Annual Rainfall



Variation in Annual Rainfall

Rese	ervoir	[mm]	Mo	onthly	Annual
***	Abanico	110	$\overline{}$	-35% 🤻	-16%
***	Canutillar	50	$\overline{}$	-81% 🤻	-90%
***	Cipreses	77	$\overline{}$	-73% 🛓	91%
***	Colbún	77	$\overline{}$	-74% 🛓	15%
***	Otros (**)	163	$\overline{}$	-57% 🛓	>100%
,,,	Pangue	57	$\overline{}$	-69% 🔻	-79%
***	Pehuenche	84	$\overline{}$	-60% 🛓	37%
***	Pilmaiquén	82	$\overline{}$	-20% 🔻	-55%
Ov	erall total	700	$\overline{}$	-63% 🔻	-46%
				•	

 $^(*) The \ relative \ weight in a \ type \ BT1a \ account \ with \ a \ monthly \ consumption \ of \ 150 kWh \ is \ 26.97\% \ in \ the \ SIC \ and \ SING \ 22.95\% \ decreases \ account \ with \ a \ monthly \ consumption \ of \ 150 kWh \ is \ 26.97\% \ in \ the \ SIC \ and \ SING \ 22.95\% \ decreases \ decre$

^(**) Other: Sauzal, Cypress, Molles, Rapel.

n/a: Not available





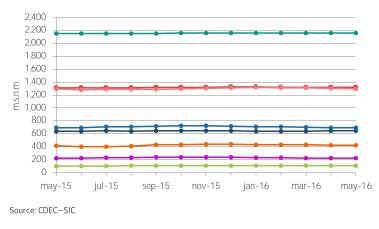




Reservoir, Lake and Lagoon Levels

According to information submitted by the CDEC-SIC, in May the final levels were found for the following reservoirs, lakes and lagoons:

Evolution of Reservoir Levels



Variation in Reservoir Levels

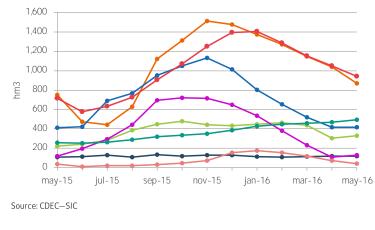
Rese	rvoir	[m.s.n.m.]	Monthly	Annual
	Embalse Colbún	420	-1.2%	1.0%
	Embalse El Melado	644	0.0%	0.4%
	Embalse Ralco	692	0.0%	0.1%
	Embalse Rapel	102	0.4%	1.9%
	Lago Chapo	223	0.2%	0.1%
	Lago Laja	1,319	-0.1%	0.3%
	Laguna El Maule	2,163	0.0%	0.2%
	Laguna La Invernad	1,295	-0.5%	0.1%

Source: CDEC-SIC

Reservoir, Lake and Lagoon Volumes

Based on levels reported by the CDEC-SIC for volumes of water stored in the largest reservoirs, lakes and lagoons, considering the characteristics of each one as of May 2016.

Evolution of Reservoir Volume



Variation in Reservoir Volume

F	Rese	rvoir	[hm3]	Monthly		Annual	
	*****	Embalse Colbún	1,040	$\overline{}$	-16.3%	_	16.0%
	*****	Embalse El Melado	117	$\overline{}$	-0.6%		8.1%
		Embalse Ralco	418	$\overline{}$	-0.6%		1.4%
		Embalse Rapel	303		7.9%		49.7%
		Lago Chapo	108	_	19.5%	_	12.5%
		Lago Laja	1,052	∇	-10.3%	_	32.3%
	*****	Laguna El Maule	470	_	4.9%	_	91.5%
		Laguna La Invernada	69	$\overline{}$	-43.3%	_	7.1%

Source: CDEC—SIC



1 International Fuel Market Prices

The following information details the moving year evolution of the West Texas Intermediate (WTI) crude oil price index, which is used as a reference in the U.S. market, along with the BRENT oil price index which reflects oil prices for European markets. In **May 2016** WTI oil prices was **46.8 USD/bbl.**, **14.4%** increase from the previous month and -**21.0%** decrease from the same month of 2015. Meanwhile, the average BRENT oil prices was **46.8 USD/bbl**, **12.9%** higher than previous month and -**27.2%** lower from the same month of 2015.

Evolution of BRENT and WTI Oil Prices



Crude Oil Variation (USD/bbl.)

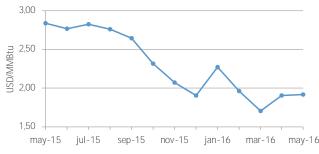
Index	USD/bbl.	Monthly	Annual
BRENT DTD	46.8	12.9%	-27.2%
WTI	46.8	1 4.4%	▼ -21.0%

Source: NEC, based on data from Argus Media Inc.

Source: NEC, based on data from Argus Media Inc.

The following information details the evolution of the Henry Hub (Louisiana) price index, which serves as a reference for liquefied natural gas (LNG) imports to Chile. In **May 2016**, Henry Hub averaged **1.92 USD/MMBtu**, **0.5%** increase from previous month and -**32.6%** decrease from the same month of 2015.

Evolution of Natural Gas Price (Henry



Natural Gas Variation (Henry Hub)

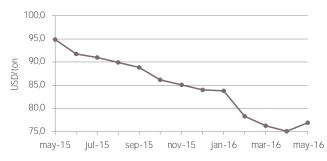
	Index	USD/MMBtu	Mc	onthly	A	nnual
0	HENRY HUB SPOT	1.92	_	0.5%	~	-32.6%

Source: NEC, based on data from the Daily Gas Price Index, NGI Intelligence

Source: NEC, based on data from the Daily Gas Price Index, NGI Intelligence

The following information details the evolution of the price of EQ 7000 steam coal kCal/kg which in **May 2016** averaged a price of **76.9 USD/ton**, representing **2.4%** decrease over the previous month and -**19.0%** from the same month of 2015.

Evolution of EQ 7000 Steam Coal kCal/kg



Variation in EQ 7000 Steam Coal kCal/kg

	Index	USD/ton	Monthly	Annual
00	THERMAL COAL EQ. 7.000 KCAL/KG	76.9	2.4%	- 19.0%

Source: NEC, based on data from Platts Coal Trader International







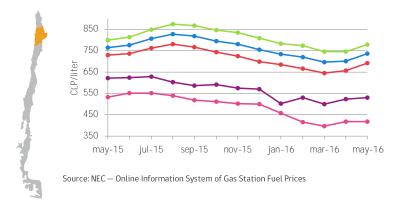


2 Domestic Liquid Fuel Prices

The following information details the evolution of different types of petroleum-derived liquid fuels sold or commercialized at gas stations (93-, 95-, and 97-octane unleaded gas, diesel, household kerosene and diesel oil) during the last 12 months, along with the average monthly price in last month for the cities of Antofagasta, Concepción, Puerto Montt and the Santiago Metropolitan Region.

The information presented is prepared by the National Energy Commission which, as part of its legal functions and powers, developed the Online Information System of Gas Station Fuel Prices, www.bencinaenlinea.cl

Evolution of Liquid Fuel Prices Antofagasta

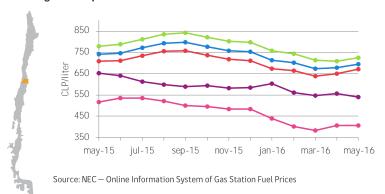


Variation of Liquid Fuel Prices

Fuel Type	CLP/lite	r Ma	nthly	Annual
Gasoline 93 SP	693		5.3%	-5.2%
Gasoline 95 SP	736		4.8%	-3.9%
Gasoline 97 SP	778	_	4.4%	-2.7%
■ Kerosene	531		1.2%	-14.8%
□ Diesel	419		0.0%	-21.3%

Source: NEC — Online Information System of Gas Station Fuel Prices

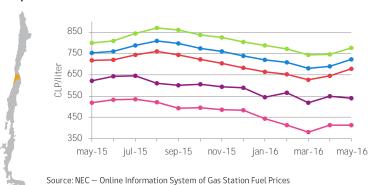
Santiago Metropolitan



Fuel Type	CLP/liter	Mc	onthly	Annual
Gasoline 93 SP	671	_	3.1%	-5.3%
Gasoline 95 SP	696		2.7%	-6.2%
Gasoline 97 SP	726		2.4%	-7.0%
Kerosene	541	$\overline{}$	-2.7%	▼ -17.0%
■ Diesel	407	_	0.1%	▼ -21.2%

Source: NEC — Online Information System of Gas Station Fuel Prices

Valparaíso



Fuel Type	CLP/liter	Month	ly A	nnual
Gasoline 93 SP	679	5 .	2% 🔻	-5.4%
🖺 Gasoline 95 SP	723	4.	7% 🔻	-4.0%
Gasoline 97 SP	777	4.	2% 🔻	-2.7%
La Kerosene	540	▼ -1.	8% 🔻	-13.3%
■ Diesel	414	0.	0% 🔻	-20.0%

Source: NEC — Online Information System of Gas Station Fuel Prices



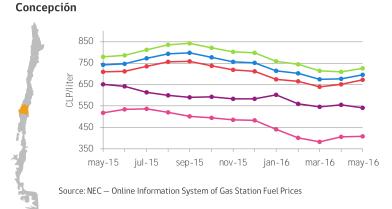






Evolution of Liquid Fuel Prices

Evolution of Elquid Fact F

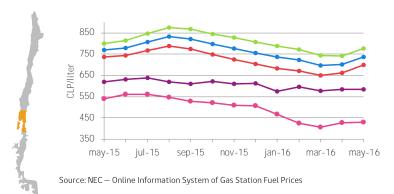


Variation of Liquid Fuel Prices

Fuel Type	CLP/liter	Mc	onthly	Annual
Gasoline 93 SP	686	_	5.1%	-5.0%
Gasoline 95 SP	727		4.5%	-4.5%
Gasoline 97 SP	767		4.0%	-2.6%
Kerosene	543		4.7%	-9.5%
■ Diesel	418		0.2%	-22.2%

Source: NEC — Online Information System of Gas Station Fuel Prices

Puerto Montt



Fuel Type	CLP/liter	Mo	nthly	А	nnual
Gasoline 93 SP	699	_	5.5%	$\overline{}$	-5.3%
Gasoline 95 SP	738		5.0%	$\overline{}$	-4.0%
Gasoline 97 SP	777		4.6%	$\overline{}$	-2.9%
■ Kerosene	585		0.2%	$\overline{}$	-5.6%
■ Diesel	430		0.4%	$\overline{}$	-20.6%

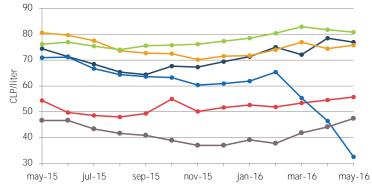
Source: NEC — Online Information System of Gas Station Fuel Prices

3 Fuel Gross Margins

The retail sales price of fuels is structured as follows: sales price at the refinery, sales margin and taxes (VAT and specific tax). The following information shows the evolution of the sales margin for 93-octane gas and diesel in the 5th, 6th, 7th, 8th, 12th and Santiago Metropolitan regions.

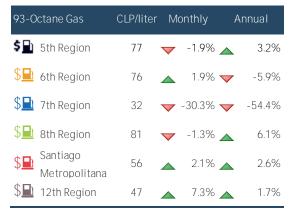
93-Octane Gasoline

Evolution of Gross Sales Margin



Source: CNE

Variation in Gross Sales Margin



Source: CNE



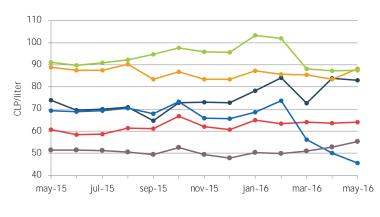






Diesel

Evolution of Gross Sales Margin



Variation in Gross Sales Margin

Diesel Oil	CLP/liter	Monthly	Annual
\$ ☐ 5th Region	83	▽ -1.2%	12.2%
\$ <u>□</u> 6th Region	88	5.7%	-0.9%
\$ ■ 7th Region	46	-9.2%	-34.1%
\$ <u>■</u> 8th Region	87	0.2%	-4.1%
\$ Santiago Metropolitana	64	0.4%	5.5%
\$ □ 12th Region	55	4.7%	7.5%

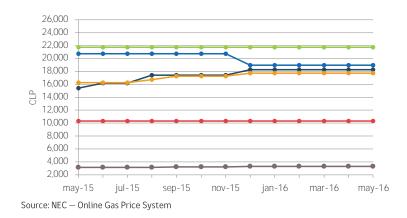
Source: CNE

Source: CNE

4 Domestic Prices of Network Gas Supplied through Concessions

The following information shows the price based on the energy equivalence of natural gas, city gas or propane air, whichever is applicable, distributed to the end consumer as network gas under concession equivalent to **15-kg cylinders of liquified petroleum gas.** This price also includes fixed costs and meter rental, charged by the network gas distribution companies when applicable.

Evolution of Network Gas Prices



Variation in Network Gas Prices

Company (Region)	CLP	Monthly	Annual
Lipigas (2th)	10.312	0.0%	0.0%
Gasvalpo (5th)	18.289	0.0%	18.3%
Metrogas (Metropolitana)	17.787	0.0%	9.3%
Gassur (8th)	18.979	0.0%	-8.7%
Intergas (8th)	21.792	0.0%	0.0%
Gasco Magallanes (9th)	3.305	-0.4%	5.6%

Source: NEC — Online Gas Price System







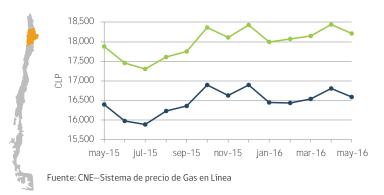


5 Domestic Prices of Bottled Liquefied Petroleum Gas

Bottled LPG is liquefied gas fuel, i.e., propane and butane and their blends (with a maximum 30% of butane). The fuel is compressed for bottling in cylinders of varying sizes that are sold to end users for use in heaters, stoves and water heaters/boilers. The cylinders on the local market have a capacity of 2 kg, 5 kg, 11 kg, 15 kg and 45 kg. They are also sold according to quality; one is sold as normal or regular and the other as catalytic, a category required by some heating appliances that only use a fuel with a low content of olefins, diolefins and sulfur. The information below shows the evolution of the average price of bottled LPG in 15-kg cylinders for the cities of Antofagasta, Concepción, Puerto Montt and the Santiago Metropolitan Region.

Evolution of Bottled LPG Prices

Antofagasta

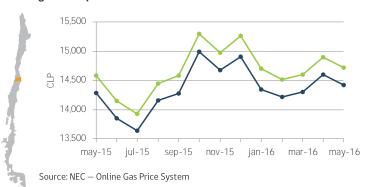


Variation in Bottled LPG Prices

	Туре	CLP	Monthly	Yearly
1	Catalityc	18,210	-1.2%	1.9%
1	Regular	16,590	- 1.3%	1.2%

Fuente: CNE—Sistema de precio de Gas en Línea

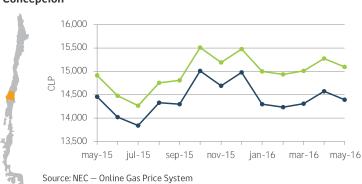
Santiago Metropolitan

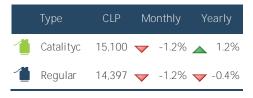


	Туре	CLP	Monthly	Yearly
1	Catalityc	14,722	-1.2%	a 0.9%
1	Regular	14,426	- 1.2%	1.0%

 ${\tt Source: NEC-Online\ Gas\ Price\ System}$

Concepción





 ${\tt Source: NEC-Online\ Gas\ Price\ System}$



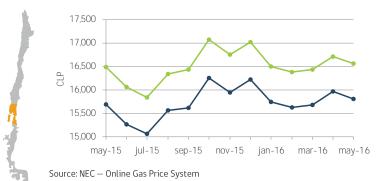






Evolution of Bottled LPG Prices

Puerto Montt



Variation in Bottled LPG Prices



Source: NEC — Online Gas Price System

6 Fuel imports and exports1

Information on imports and exports of primary and secondary fuels corresponds to April 2016 given that the official information source has a two-month time lag. The information on imports mainly applies to coal, crude oil, diesel and natural gas, equivalent to more than 86.2% of total national imports (in tons).

The total variation of imports registered a decrease of -19.0% over the previous month and increase of 7.5% compared to April, 2016. Meanwhile, the total change in exports recorded a considerable increase over the previous month and to the same period of the previous year. While, the main fuels exported during the month of April was gasoline, which represents 63.1% of total exports measured in tons.

Imports of the main primary fuels during the month of April are coal from United States, Australia, Colombia and Canada; crude oil from Brazil y Ecuador; diesel from the United States and Japan; and liquefied natural gas bought from Trinidad and Tobago and Equatorial Guinea.

During January the exports of diesel and gasoline recorded as country of destination Bolivia.

Here are the details for each of the fuels with percentage changes and countries of origin / destination.

Variation in Imports During the Period

Fuel	[Thous- Tons]	Monthly	Annual
Coal	1,233	8 4.9%	31.4%
Crude Oil	921	>100%	9.6%
■ Diesel Oil	528	20.0%	-5.2%
Natural Gas	287	33.2%	1 7.8%
⇔ Gasoline	37	>100%	-12.4%
LPG	77	21.4%	-12.1%
Household Kerosene	46.3	5 4.0%	25.3%
Overall total	3,129	69.5%	14.0%

Variation in Exports During the Period

Fuel	[Thous- Tons]	Monthly	Annual
👼 Coal	113	(*)	(*)
Diesel Oil	4	5 1%	-34%
Fuel Oil	0	(**)	(*)
⇐ Gasoline	4	(*)	-62%
GLP	0	(**)	(*)
₩ IFO	13	(*)	-3%
Overall total	135	>100%	>100%

Source: Aduana by COMEX (www.comexplusccs.cl)

Source: Aduana by COMEX (www.comexplusccs.cl)

^(*) No transactions recorded during the period under review

^{*)} Not recorded during the reference month transactions

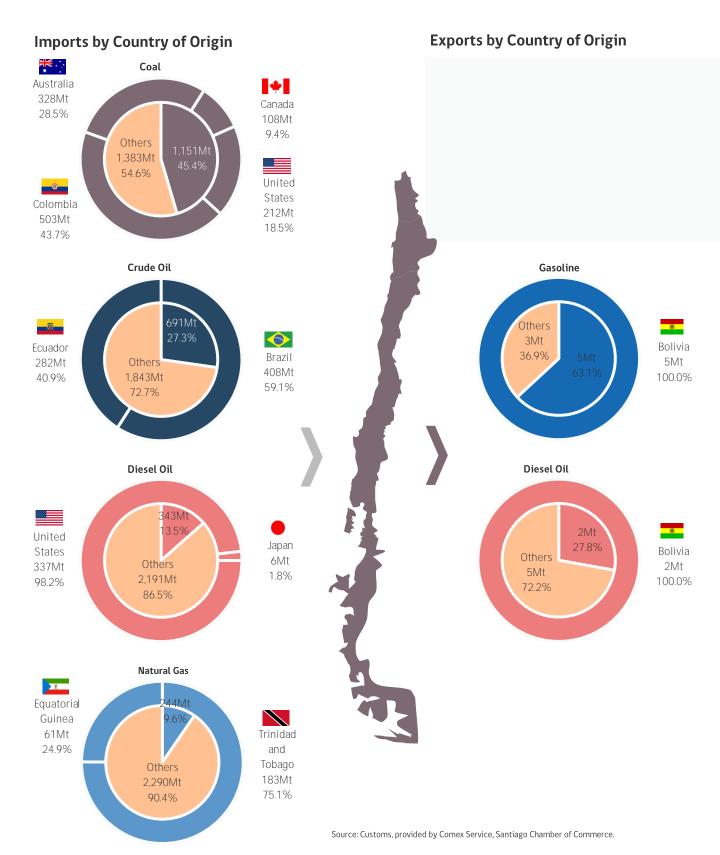
Imports and exports are the March report, due to a process of validation of the new data source.















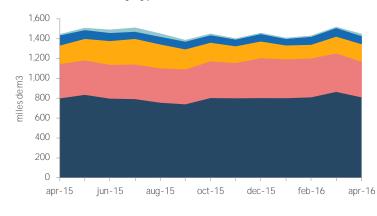




7 Fuel Sales

The following information details the evolution and the variation in the sales of the principal oil-based fuels. The information available is presented with a one-month time lag. The fuels analyzed are: domestic kerosene, fuel oils, liquefied gas, diesel oil and unleaded 93-, 95- and 97-octane gas.

Fuel Sales Evolution, by Type



Fuel Sales Variation, by Type

Туре	[Thous - m3]	Monthly	Annual
Household kerosene	815	-6.3%	1.4%
Fuel Oils	360	-7.0%	3.7%
Liquefied Gas	177	4.1%	-4.7%
⊆ Gasoline	81	-7.1%	-20.8%
Diesel Oil	14	505.0%	273.6%
Overall total	1,447	-4.6%	0.3%

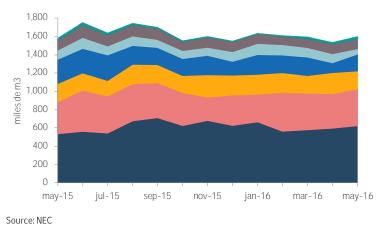
Source: NEC, based on ENAP data

8 Fuel Inventory

Source: NEC, based on ENAP data

The following information presents monthly fuel inventory levels (aviation fuel, household kerosene, fuel oils, aviation kerosene, automotive gas, liquefied gas, diesel oil and crude oil) in thousands of m3 for the entire country. This value corresponds to the last business day of the respective month.

Fuel Inventory Evolution, by Type



Fuel Inventory Evolution, by Type

Туре	[Thous - m3]	Monthly	Annual
× Aviation gas	1	4.5%	1 6.4%
Household K	29	6.7%	14.7%
Fuel Oils	102	-14.7%	-0.8%
🕂 Kerosene Av.	60	71.1%	-30.7%
Automotive gas	197	-39.9%	-41.1%
Liquefied gas	183	-3.4%	-3.6%
Diesel oil	403	93.0%	37.5%
Crudo oil	625	-1.3%	43.8%
Overall total	1,599	4.2%	1.3%
Source: NEC			



ENERGY PROJECTS UNDERGOING ENVIRONMENTAL EVALUATION

1 Projects Submitted for Environmental Evaluation

In May 2016, **8** energy projects were submitted to the Environmental Impact Evaluation System (SEIA), representing an investment of **USD 5,325 million**. Of these, **5** projects are for electric power generation, **1** project is for electrical transmission¹, **1** project is for oil and gas energy and **1** project is for maritime terminal.

Detail of energy projects submitted for environmental evaluation

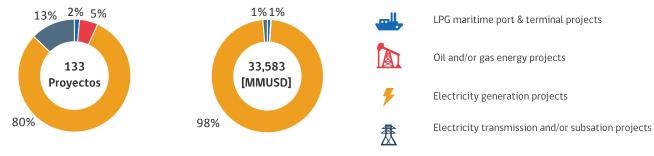
Project Type	Project Owner	Project Name	Presentation Date	Investment [MMUSD]	WEB
Generation	Sociedad Vientos de Renaico SpA	Parque Eólico Piedra Amarilla	20/may/2016	118	<u>Link</u>
Generation	ANDES GREEN ENERGY SPA	PROYECTO ELECTROSOLAR TAMARUGAL	18/may/2016	4.500	Link
Generation	Global Power Generation Chile SpA	Central de Ciclo Combinado Tierra Noble	26/may/2016	400	Link
Generation	Biocruz Generación S.A.	Ampliación planta de generación eléctrica Biocruz Generación S.A.	19/may/2016	0	<u>Link</u>
Generation	Arica Solar 1 S.A.	Parque Fotovoltaico Lauca Solar	18/may/2016	140	Link
High-voltage electricity transmission line	Sociedad Concesionaria Embalse Convento Viejo S.A.	Subestación Seccionadora Convento Viejo y su Conexión al SIC	20/may/2016	3	Link
Oil and/or gas energy projects	European Southern Observa- tory, ESO	RAMAL DE DISTRIBUCION PARA ABASTECIMIENTO DE GAS NATURAL AL OBSERVATORIO ALMA	27/may/2016	4	<u>Link</u>
Maritime terminal	INVERSIONES GNL TAL- CAHUANO S.p.A	Terminal Marítimo GNL TALCAHUANO	24/may/2016	160	<u>Link</u>

Source: SEIA

2 Energy Projects Currently Being Evaluated

In May 2016, **133** energy projects awaiting approval of their environmental qualification resolutions (RCA). Of these, **80%** are projects related to electric power generation, and the remaining are mixed projects. Together they represent a total investment of **33,583 MMUSD**.

Distribution of Projects and their Investment [millions of USD]



Source: SEIA









3 Projects with Approved Environmental Qualification Resolution

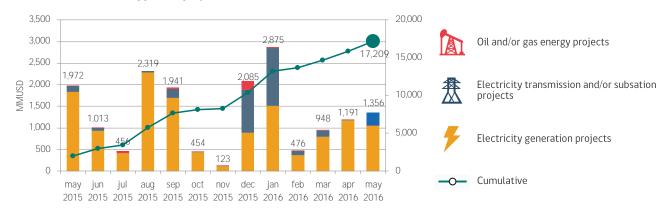
In May2016, the environmental qualification resolutions (RCA) of **11** energy projects were approved. Of these, **5** projects are for electric power generation with total capacity of **462 MW**, **1** projects is for electricity transmission¹, **4** projects are for Oil and/or gas energy project and **1** project is for maritime terminal. Together they represent a total investment of **USD 1,366 million**.

Presentation Date	Project Type	Region	Project Owner	Investment [MMUSD]	Web
06/may/2016	Generation	XV	ELECNOR Chile S.A.	800,0	<u>Link</u>
06/may/2016	Generation	II	Fotovoltaica Los Andes SpA.	50,0	<u>Link</u>
13/may/2016	Maritime terminal	V	GNL Quintero S.A.	300,0	<u>Link</u>
17/may/2016	Oil and/or gas energy projects	XII	Empresa Nacional del Petróleo - Magallanes	4,0	<u>Link</u>
18/may/2016	Oil and/or gas energy projects	XII	GeoPark Fell SpA	9,0	<u>Link</u>
20/may/2016	Generation	III	CENTRAL SOLAR DESIERTO I Spa	35,0	<u>Link</u>
31/may/2016	Generation	III	Hydrochile S.A	158,0	<u>Link</u>
07/jun/2016	Oil and/or gas energy projects	XII	Empresa Nacional del Petróleo - Magallanes	0,5	<u>Link</u>
08/jun/2016	Oil and/or gas energy projects	XII	Empresa Nacional del Petróleo - Magallanes	0,5	<u>Link</u>
08/jun/2016	Generation	Χ	Nueva Degan SPA	3,0	<u>Link</u>
13/jun/2016	High-voltage electricity transmission line	III	Transmisora Eléctrica del Norte S.A.	6,00	<u>Link</u>

Source: SEIA

In line with the above table, the evolution is presented for the last mobile year of investment associated to energy projects have received a favorable RCA. The total investment to date totaled **USD 17,209 million**. In particular, energy power generation projects have a total investment of **USD 13,462 million** (78.2%), equivalent to **5,220 MW** approved.

Investment evolution-Approved projects with RCA in the last 12 months



Source: SEIA

23



SECTORIAL REGULATIONS

1 Proposed Legislations in Process

Bulletin Number	Subject of the Proposed Legisla- tion	Initiative and Ur-	Current Status	Bill Submittal Date	WEB
9890-08	Amends Decree-Law No. 323 of 1931 of the Ministry of Interior and other laws.	Simple Urgency	Second Constitutional Procedure (Senate). Discussed by the Min- ing and Energy Committee.	29/01/2015	<u>Link</u>
10161-08	Modifies the General Electric- ity Services Law to introduce mechanisms for fairness in electricity rates.	Urgent	Second Constitutional Procedure (Chamber of Deputies). Discussed by the Chamber of Mining and Energy Committee since 16th March of 2016.	01/07/2015	Link
10240-08	Establishes new systems of power transmission and make an independent controller organism for the national electricity system.	Urgent	Second Constitutional Procedure (Senate). Approved in general discussion. It sets the 28th April of 2016 as deadline to present the indications	07/08/2015	Link

2 Sectorial Regulations Published in the Official Bulletin

Decree No. 2T, of 6 May 2016; which defines Exploitation Rights and Implementation of New Development called "Substation Beamsaw New Diego De Almagro; between New Line 2x220 kV S / E New Diego De Almagro - Cumbres and Bank Autotransformers 1x750 MVA 500/220 kV" in Trunk Transmission System of Central Interconnected System indicating contractor . Link

Exempt Decree No. 373, of May 23, 2016, Fixing System Expansion Plan Transmission Trunk for the next twelve months . $\underline{\text{Link}}$ Decree No. 4T, of May 23th 2016, which sets node prices average in the Central Interconnected System and Interconnected System of Norte Grande, because of price fixing referred to in Article 158 ° of the General Law of Electrical Services. Link









3 Sectorial Regulations Not Published in the Official Bulletin

Exempt Resolution No. 397, dated May 4th, 2016, which updates and reports generation and transmission works in construction. <u>Link</u>

Exempt Resolution No. 401, dated May 9, 2016, which informs and communicates new values of the cost of short-term failure in the Central Interconnected System and the Norte Grande Interconnected System.

Exempt Resolution No. 405, dated May 12, 2016, awarding ID 610-5-LQ16 tender for elaboration of the study "Analysis of expansion needs Trunk Transmission System SING and SIC". Link

Exempt Resolution No. 417, dated May 16, 2016, awarding ID 610-4-LE16 tender for elaboration of the study "Valuing expansion needs Transmission System SING and SIC". <u>Link</u>

Exempt Resolution No. 418, dated May 17, 2016, which calls for public tender and approves Administrative Rules, Techniques and Schedules for hiring the study entitled "Calculation of the rate of cost of capital for gas distribution companies network". Link

Resolution 425, dated May 19, 2016, approving responses to comments Contracts Report, referred to in Article 131b of the General Electricity Services Law refers. Link

Exempt Resolution No. 426 dated May 19, 2016, approving Bids Final Report, that Article No. 131 of the General Electricity Services Law refers to. <u>Link</u>

Exempt Resolution No. 431 dated May 23, 2016, which awards tender ID 610-8-LP16, for preparation of the study "Analysis of Profitability of public service concessionaires gas distribution network corresponding to 2015". Link

Exempt Resolution No. 435, dated May 25, 2016, that communicates value of the indices contained in the fares formulas for supplies subject to pricing. Link

Exempt Resolution No. 436, dated May 25, 2016, which has published the list of prices of energy and power distribution substations primary and Central Interconnected System of Norte Grande Interconnected System. Link

Exempt Resolution No. 442, dated May 30, 2016, approving modifications to Technical Report Final for Pricing Knot Short Term April 2016 Interconnected System of Norte Grande and the Central Interconnected System, approved by Resolution exempt No. 331, 2016, and amended by Resolution No. 390, 2016, both of the National Energy Commission. Link

Exempt Resolution No. 444 dated 31 May 2016 amending Exempt Resolution No. 383 of 2016, which establishes and communicates the value of the indices contained in the indexing formulas indicated.

4 Expert Panel Rulings

During the period the Panel of Experts did not issue any ruling.

Comisión Nacional de Energía

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