Chile's coal phase-out update and next steps

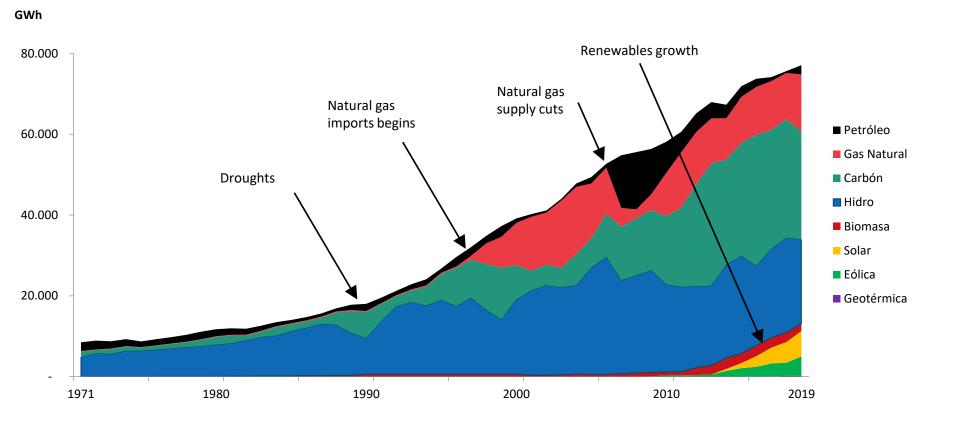


Carolina Gómez

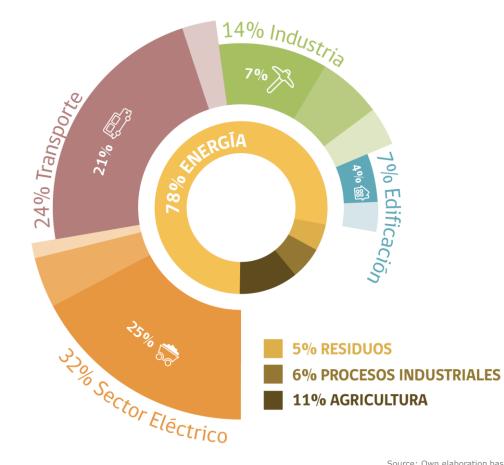
Environment and Climate Change Division Ministry of Energy June, 2020

Gobierno de Chile

40% of electricty generation is coal-based



Today the energy sector is the largest CO₂ emitter

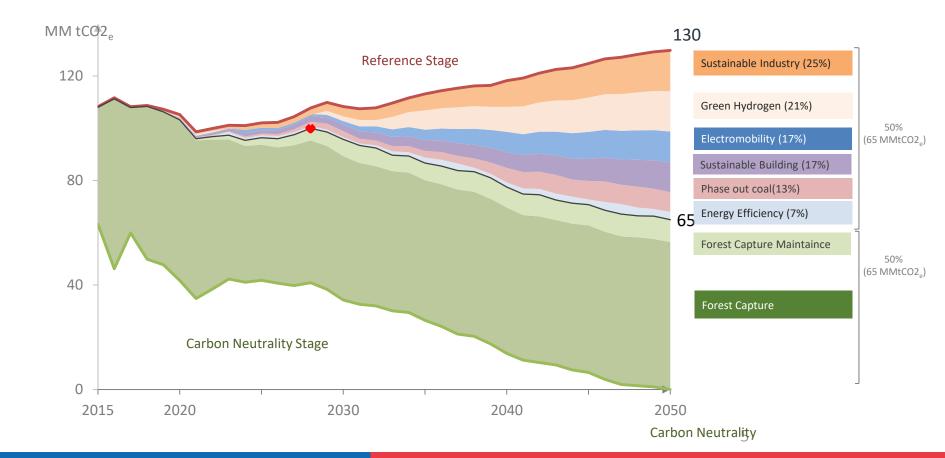




Carbon neutrality 2050



Phase- out coal is one of the principal measures to reach Carbon Neutrality



Voluntary Agreement for coal power plants withdrawal

Voluntary Agreement was signed in January 2018 and ratified in May 2018, in the Energy Road Map 2018-2022

- 1. Not to build new coal power plants unless they have CCS or similar technology
- 2. The Ministry of Energy will lead a **working group** with main stakeholders to establish criteria to provide a smooth transition to a low carbon economy in social, economic, environmental, health, employment and technical terms
- 3. To define a **schedule to phase out** or reconvert existing coal power plants

Coal phase out Roundatable 2018-2019



Coal phase out Roundatable Stakeholders

	Institutions		Institutions
Public	Ministry of Energy	NGO	WWF Chile
Public	National Energy Comission	NGO	Casa de la Paz
Public	Ministry of Environment	NGO	Chile Sustentable
Public	Municipality of Tocopilla	Civil Society	Civil Society Council of Min. of Energy

	Institutions		Institutions
Private	Engie	University	Pontificia Universidad Católica
Private	ENEL	University	Universidad Adolfo Ibáñez
Private	AES Gener	International Inst.	GIZ – German Cooperation
Private	Colbún	Independent Inst.	National Electrical Coordinator

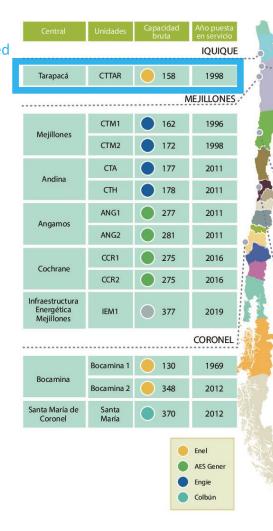
	Institutions
Union	Association of Electricity Generators
Union	Coal Power Plants Syndicate
Clients	Mining Council
Clients	Unregulated Energy Consumers Association
Clients	Consumers and users organization (ODECU)

28 Coal Units, 5 GW Retired of installed capacity

3 plants have been retired since June 2019, having today 25 plants with 5197 MW.

At the end of this year, the central Ventanas 1 (Puchuncaví) and Bocamina 1 (Coronel) will be retired.

By 2024, 11 plants will be closed, which represent 31% of the coal capacity (1,731 MW)



		Capacidad	A Se mueste	
Central	Unidades	bruta	Año puesta en servicio	
OCOPILLA				
	U12	85	1983	
	U13	86	1985	Retire
Tocopilla	U14	136	1987	
	U15	132	1990	
Nueva	NT01	141	1995	
Tocopilla	NT02	141	1997	
HUASCO				
	Guacolda 1	154	1995	
	Guacolda 2	145	1996	
Guacolda	Guacolda 3	154	2009	
	Guacolda 4	154	2010	
	Guacolda 5	156	2015	
PUCHUNCAVÍ				
	Ventanas 1	114	1964	
	Ventanas 2	208	1977	
Ventanas	Nueva Ventanas	267	2010	
	Campiche	272	2013	

Fuente: Estudio de variables ambientales y sociales que deben abordarse para el cierre o reconversión programada y gradual de generación eléctrica a carbón (Inodú, 2018a).



Schedule of the first stage of coal-phase out Working groups every five years for schedule review 2019-2024



Primera fase: 1.731 MW

Tocopilla Central: Empresa: Potencia: P. Servicio:	a Tocopilla U12 Engie 85 MW 1983	Central: Empresa: Potencia: P. Servicio:	Tocopilla U13 Engie 86 MW 1985	Toco Centra Empre Potenc P. Serv	sa: Engie tia: 136 MW	Central: Empresa: Potencia: P. Servicio:	Tocopilla U15 Engie 132 MW 1990		Mejillon Central: Empresa: Potencia: P. Servicio:	CTM1 Engie 162 MW 1996	Central: Empresa: Potencia: P. Servicio:	CTM2 Engie 172 MW 1998
	Retirada: Ju	nio 2019			Retiro:	Enero 2022				Retiro: Di	ciembre 2024	
IquiquePuchuncaCentral:TarapacáEmpresa:EnelPotencia:158 MWP. Servicio:1999P. Servicio:Potencia:		VI Ventanas U1 Aes Gener 114 MW 1964	Empresa: En Potencia: 13	camina U1 el 0 MW 70	Corro Centra Empre Potenc P. Serv	ll: sa: cia:	Bocamina U2 Enel 348 MW 2012	Puchu Central: Empresa: Potencia: P. Servici	Ventanas U2 Aes Gener 208 MW			
	Retirada: Diciem	ıbre 2019	Retiro: Dic	embre 2020	Retiro: Dicien	nbre 2020	Retiro	:	Mayo 2022	Retiro:	Diciembre 2022	
2019		2020		2021		2022		2(023		2024	

Fuente: Ministerio de Energía

Actualizado a Mayo 2020

People-centered energy transition

Employment Associated with Coal Power Plants

- Direct employment: **4.391** people (contracts or subcontracts)
- Indirect employment: **9.505** people (value chain and its productive linkages)
- **0.17%** of total employment in Chile (direct and indirect)

	Iquique	Mejillones	Tocopilla	Huasco	Puchuncaví	Coronel
Direct Employment	150	1,533	589	533	808	777
% of total in commune	0.14%	3.8%	4.4%	6.8%	1.6%	0.3%

Source: Study on Economic and labor impact of the withdrawal and / or conversion of coal units in Chile, IDB.

June 23, 2020 LAUNCH OF THE ELABORATION PROCESS OF JUST TRANSITION STRATEGY IN ENERGY

Just Transition Motivation

To reach an energy transition with OPPORTUNITIES to the community.

to work in a COLLABORATIVE way with all public institutions involved

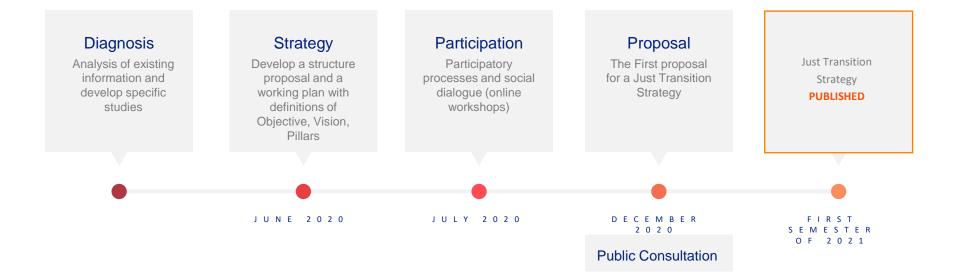
To create effective participation with community and organizations.

GOVERNANCE



The Working Plan

JUST TRANSITION STRATEGY IN ENERGY



PHASE OUT COAL PLAN



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