



# Carbon Markets to foster Climate Action in Chile



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Chile

A little bit of context

## Brief context of Chile

Despite representing only 0.25% of global GHG emissions, Chile is highly vulnerable to Climate Change

Developing country with increasing GHG emissions

Non-Conditional NDC (2015): Reduce CO<sub>2</sub> emission intensity in 30% by 2030  
(Baseline year: 2007)

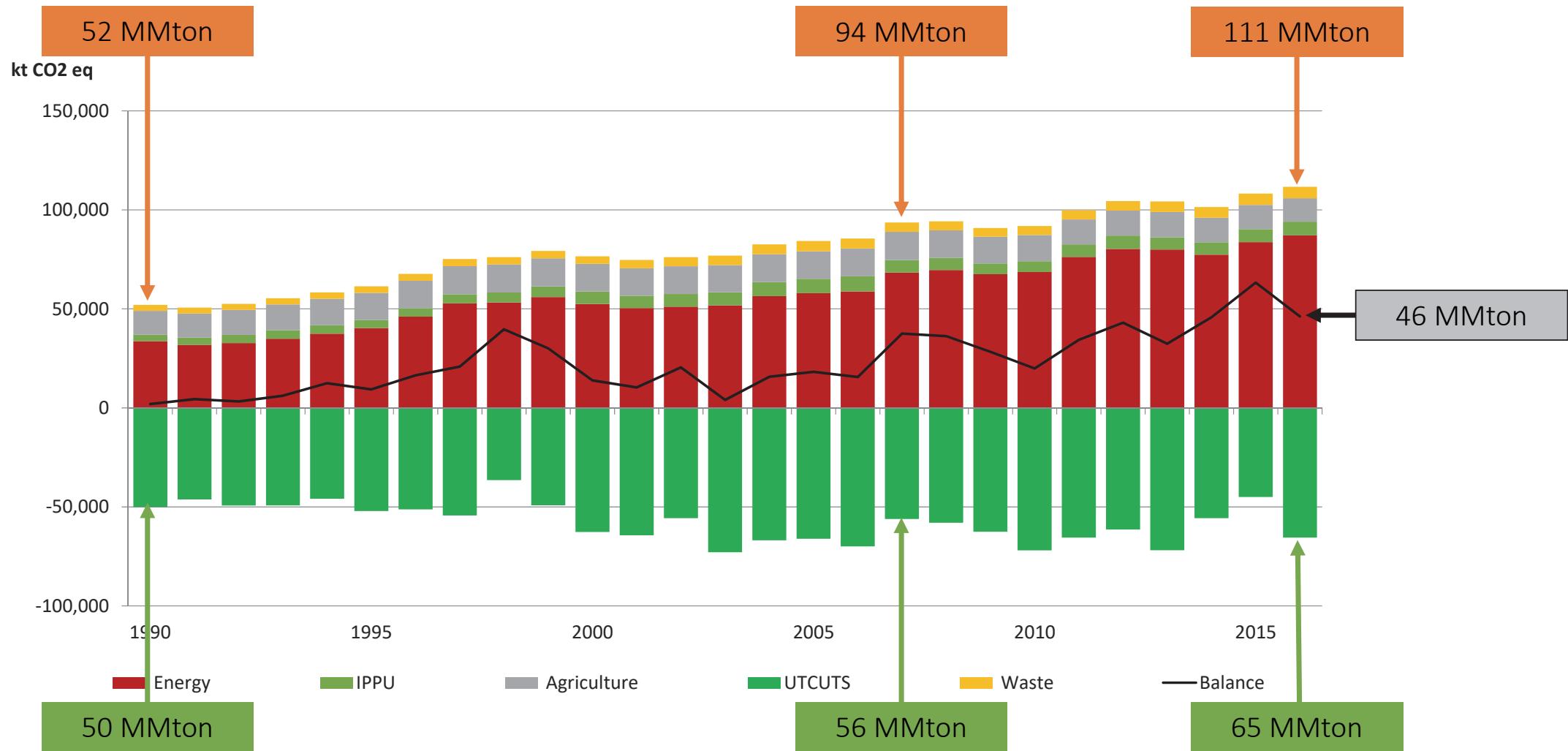
2019 - 2020: years where climate change get in the conscious of Chileans:

- COP25 Presidency
- Climate Change framework bill
- NDC update process
- 4<sup>th</sup> BUR and NC



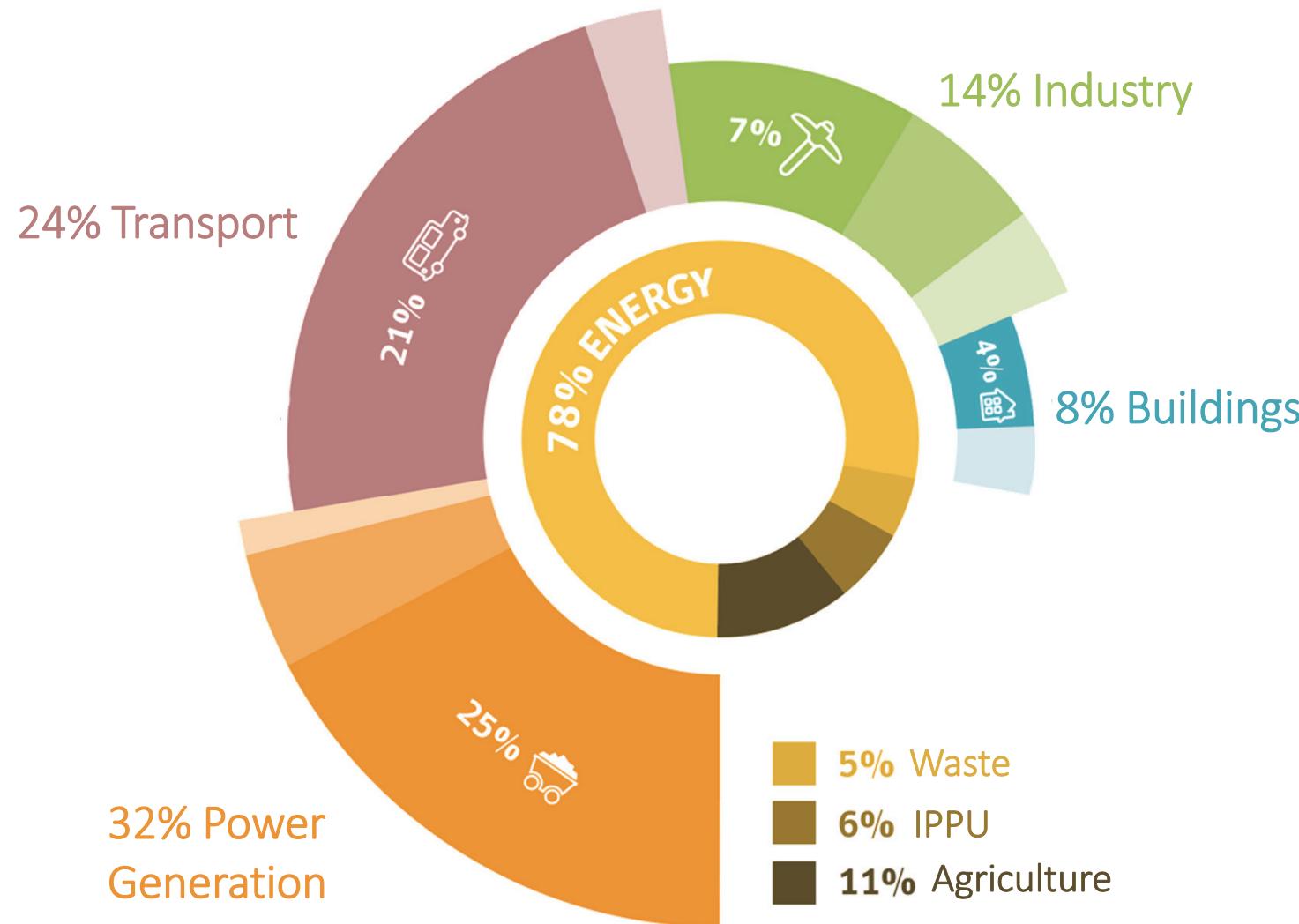
2009	2010	2012	2014	2015	2016	2017	2018	2019
Chile presents its voluntary mitigation commitment (COP15, Copenhagen)	Ratification of the voluntary commitment	MAPS-Chile Project begins: Key information for decision making process	Public consultation of the INDC and Submission of the 1 <sup>st</sup> BUR	Chile announces its first NDC in the UN general Assembly	Public consultation of the National Action Plan on Climate Change; 2 <sup>nd</sup> BUR; 3 <sup>rd</sup> NC	Ratification of the Paris Agreement and publication of the NAPCC	Submission of the 3 <sup>rd</sup> BUR	COP25 Presidency

# Increase in energy consumption increases national GHG emissions



Source: 3rd BUR, Ministry of Environment

Energy sector is responsible for 78% of GHG (2016)

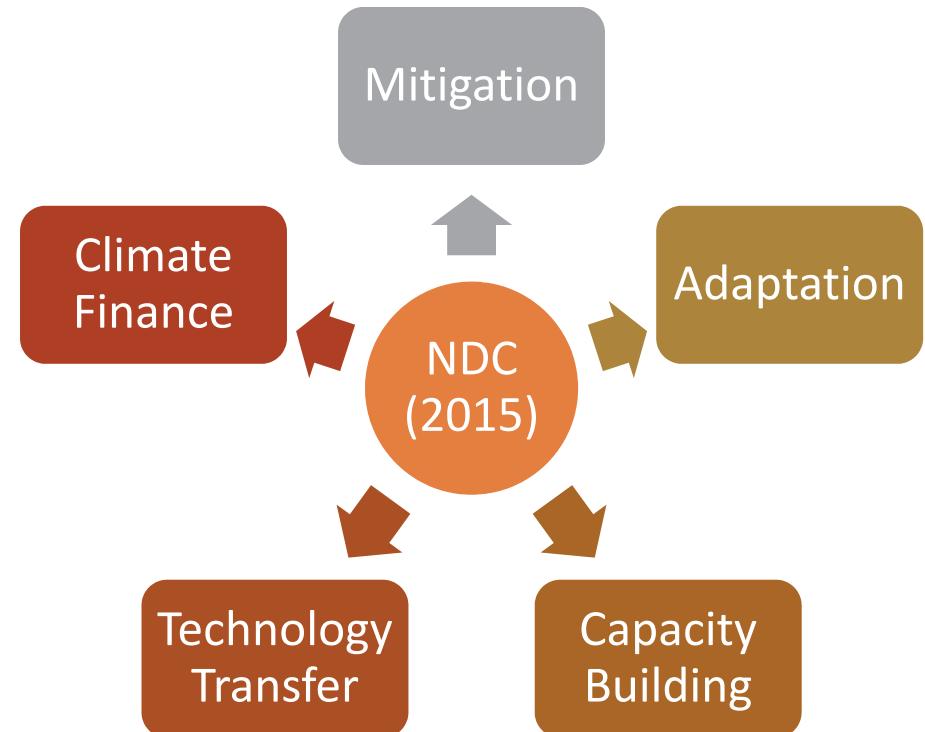


Chile 

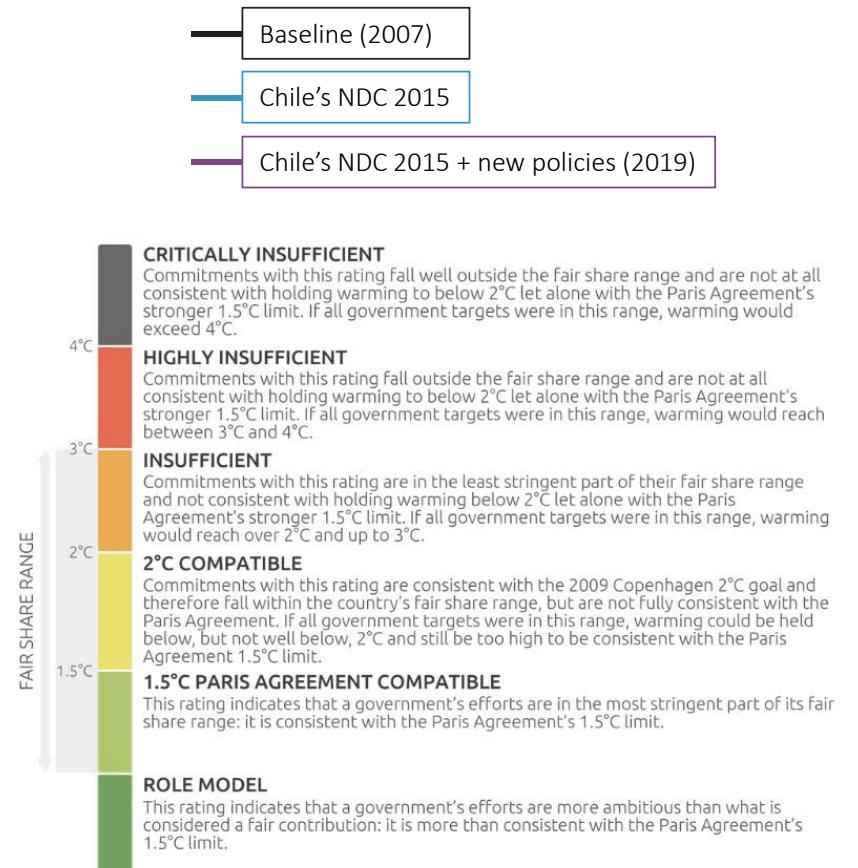
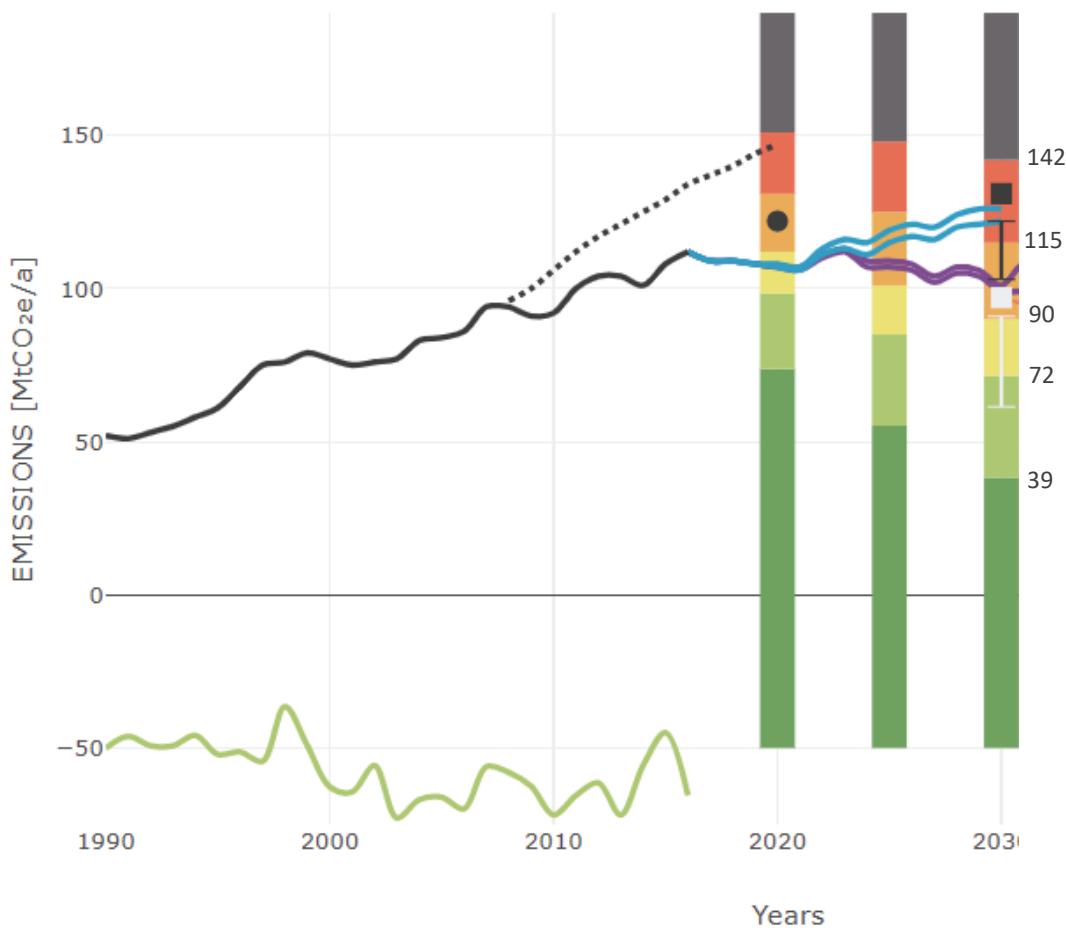
# NDC & Carbon Neutrality

# Chile's NDC (2015)

Current NDC	
	<b>GHG</b> Emission intensity (tCO2/PIB): - 30% (unconditional and - 45% (conditional) by 2030 Based in 2007 emissions.
	<b>Black carbon</b> No goal
	<b>Sustainable Management</b> 100,000Ha mainly with native species. Conditional to Native Forest Bill.
	<b>Afforestation</b> 100,000Ha mainly with native species.
	<b>Reduce degradation and deforestation</b> No goal

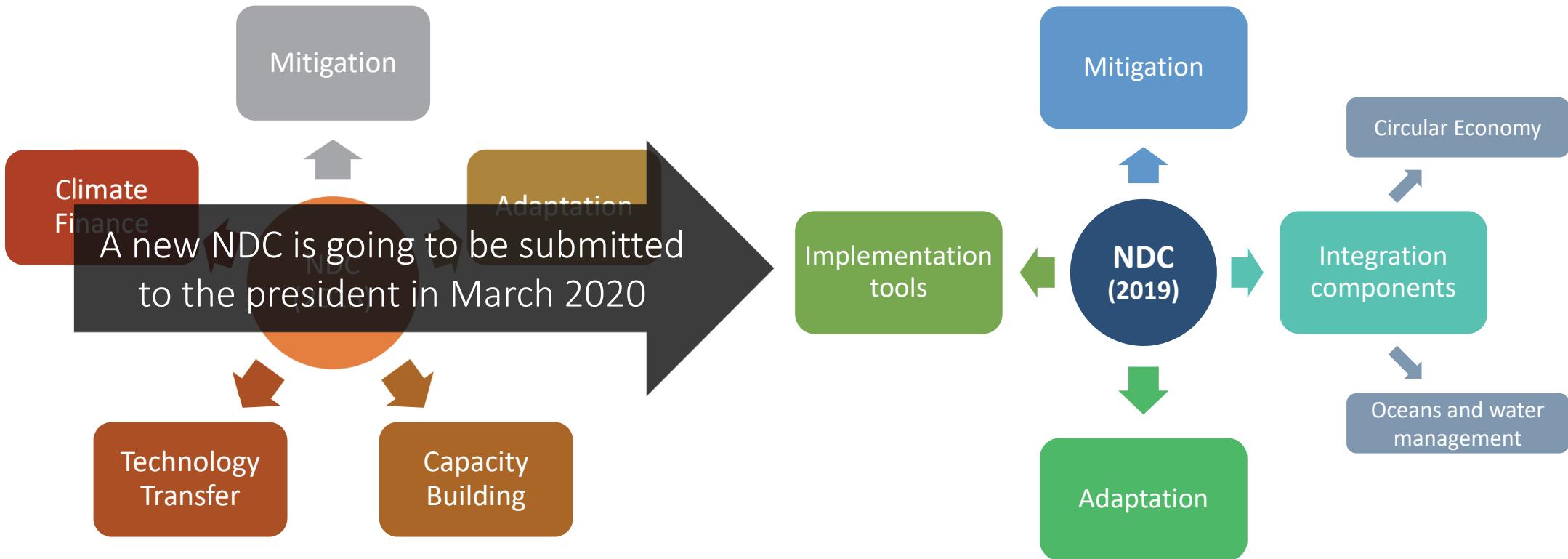


# Is critical to align our ambition with science



<https://climateactiontracker.org/countries/chile/>

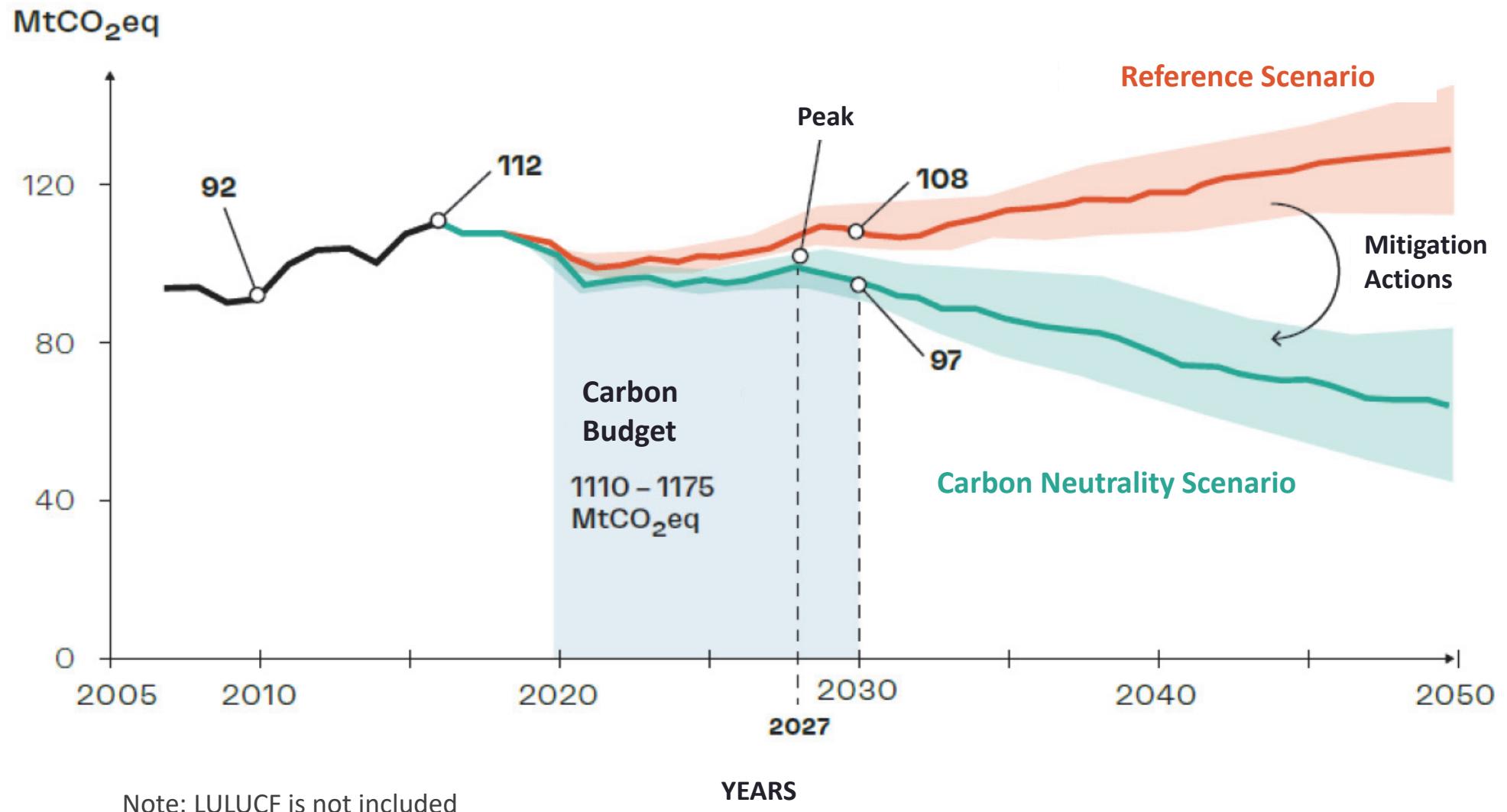
## During 2019 we develop a NDC proposal



# Chile is currently in the process of updating it's NDCs

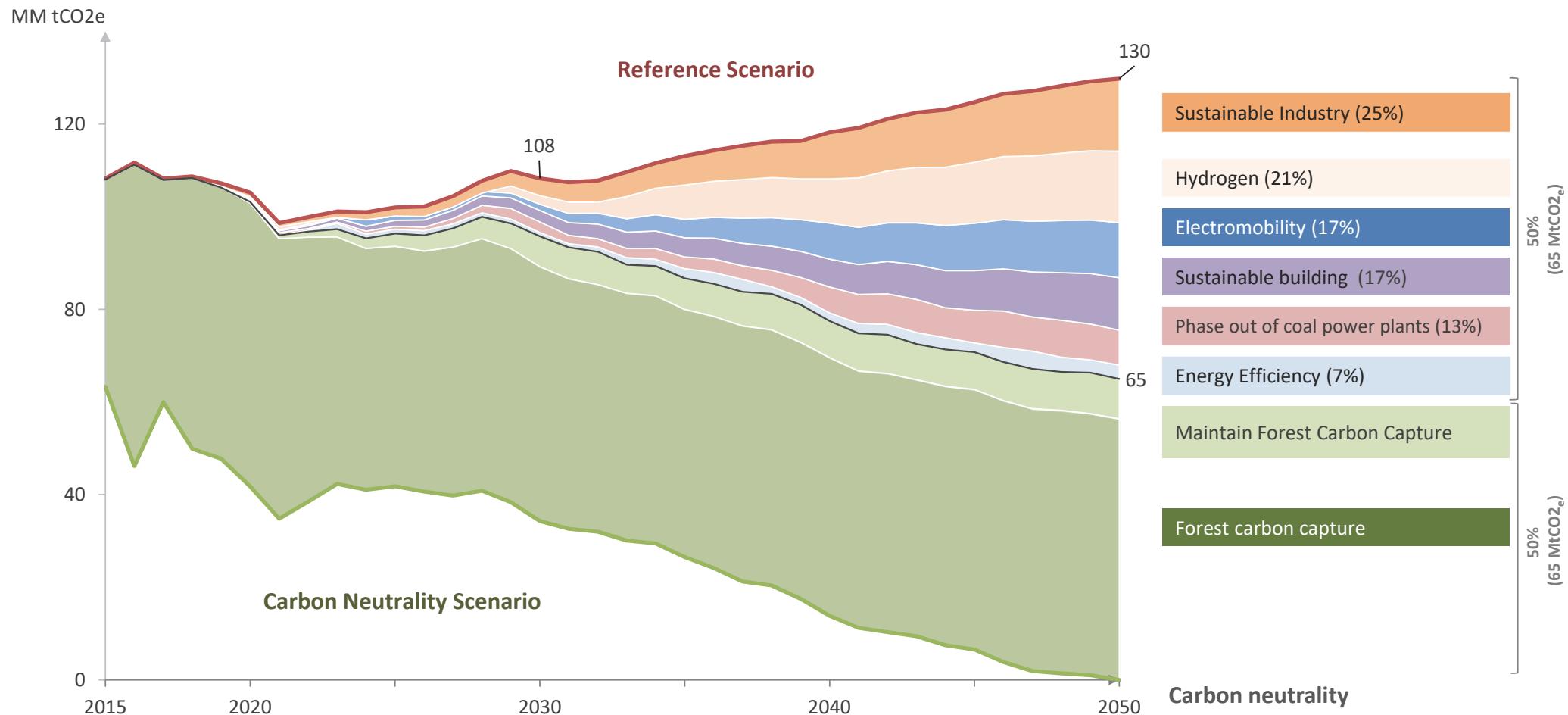
		Current NDC	New NDC (proposal)
	GHG	<p>Emission intensity (tCO<sub>2</sub>/PIB):            - 30% (unconditional and            - 45% (conditional) by 2030            Based on 2007 emissions.</p>	<p>Absolute emissions: to achieve 97 MMtCO<sub>2</sub> by 2030            Carbon budget 2020-2030: 1,110 to 1,175 MMtCO<sub>2</sub>.            Emissions Peak: 2027</p>
	Black carbon	No goal	<p>Between 10% and 20% of emission reductions by 2030, based on 2016 emissions.            Achieved mainly through National Air Quality Policies.</p>
	Sustainable Management	<p>100,000ha mainly with native species.            Conditional to Native Forest Bill.</p>	<p>200,000ha with native species, by 2030.            Equivalent to a reduction between 0.9-1.2 MMtCO<sub>2</sub> by 2030.</p>
	Afforestation	<p>100,000ha mainly with native species.</p>	<p>200,000ha: at least 100,000ha with permanent coverage; of these, at least 70,000ha with native species.            Equivalent to a reduction between 3.0-3.4 MMtCO<sub>2</sub> by 2030.</p>
	Reduce degradation and deforestation	No goal	<p>Reduction of 25% of emissions due to degradation and deforestation of the native forest by 2030, considering the average emissions between 2001-2013.            Equivalent to a reduction between 2.5 - 3.0 MMtCO<sub>2</sub> by 2030.</p>

## NDC update proposal (Mitigation)





# The route to carbon neutrality



Nota: se considera una absorción de 57 MM de toneladas anuales del sector forestal, más un aumento de captura de 8 MM de toneladas en el 2050. Los porcentajes de reducción presentan el agregado del periodo 2020-2050

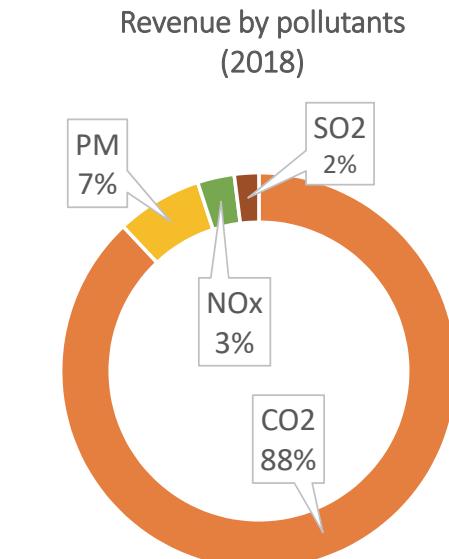
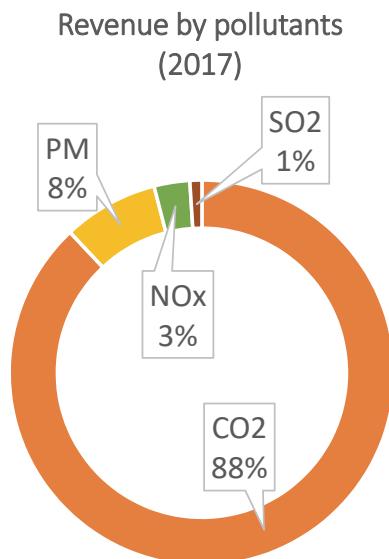
A wide-angle photograph of a vast solar farm under a clear blue sky. In the foreground, a worker wearing a white hard hat, an orange safety vest over a blue long-sleeved shirt, and dark trousers stands with hands on hips. Behind him are several rows of solar panels mounted on metal frames. The Chilean flag is visible in the upper right corner of the image.

Chile

We want to catalyze climate action

# It has been two years of successful operation of the Green tax for fixed sources

- FY 2017: First year of operation
- Regulated installations:
  - Boilers and Turbines
- Regulated pollutants:
  - CO<sub>2</sub>, PM, NOx, SO<sub>2</sub>
- 5 US\$/Ton CO<sub>2</sub>



- CO<sub>2</sub>: 33,6 MMTon
- PM: 5,3 kTon
- NOx: 51,7 kTon
- SO<sub>2</sub>: 43,8 kTon

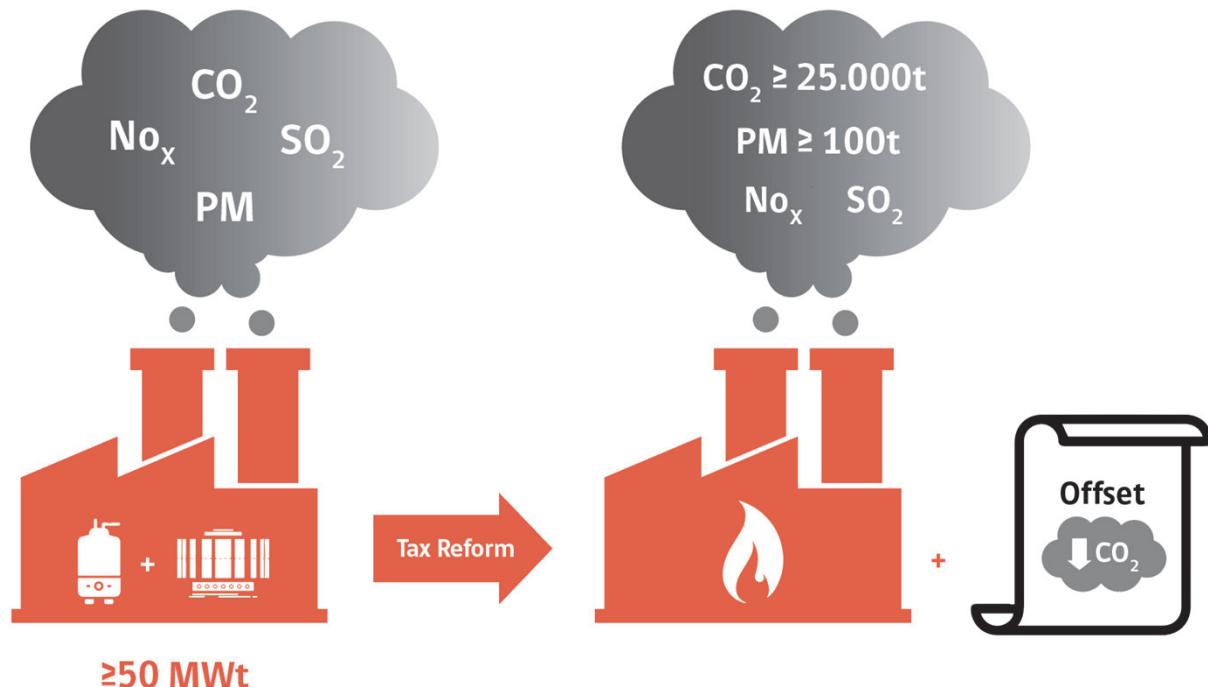
MUSD 191

- CO<sub>2</sub>: 33,3 MMTon
- PM: 4,9 kTon
- NOx: 50,7 kTon
- SO<sub>2</sub>: 43,8 kTon

MUSD 187

# Green tax for fixed sources reform

August 2018: President Piñera sent a national tax reform to Congress to improve two major failures of this instrument



## Change in threshold

Regulated installations

$> 25,000 \text{ tCO}_2$  and/or  $> 100 \text{ tMP}$   
Only combustion processes

Creates a complementary offsets scheme  
For GHG and local pollutants

Was approved by both chambers of the National Congress last January.

# Climate Change framework bill

During 2019 the Ministry of Environment did a participation process to develop a Climate Change Framework Bill

The bill was introduced on Jan 9<sup>th</sup> to the Upper House (Senate)

This bill aims to:

- Create a legal framework that allows **assigning sectorial responsibilities** for the implementation of mitigation and adaptation measures to climate change.
- **Strengthen and give continuity** to policies, plans, programs and actions on climate change
- Establish an ambitious national mitigation goal by 2050, seeking to **achieve neutrality of greenhouse gas emissions**, in line with what science demands.



# This bill empowers carbon pricing instruments to foster climate action

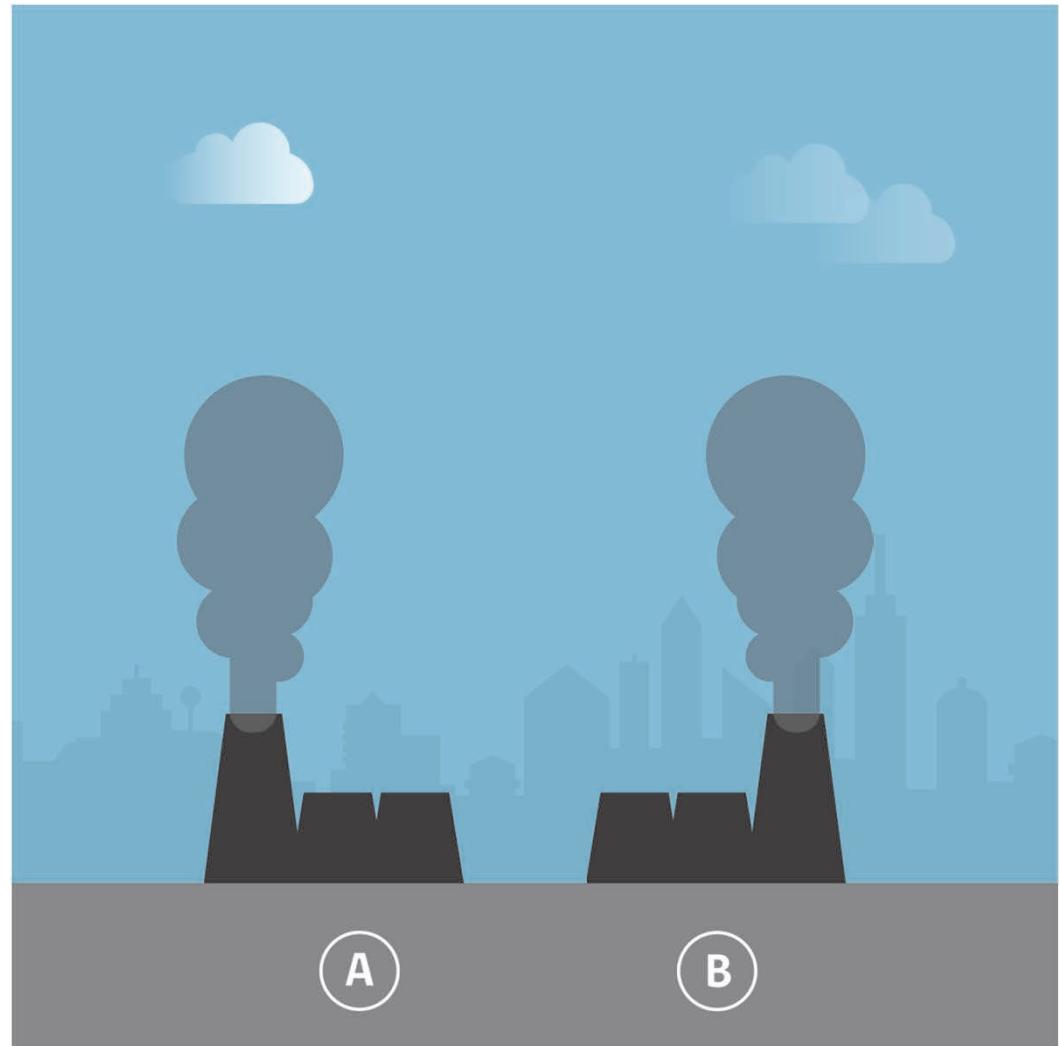
## GHG Management:

### NDC and Carbon Neutrality

- **Long term strategies** for climate mitigation, adaptation and finance
- **Sectoral plans** for mitigation and adaptation
- Strengthen of Huella Chile (organizational GHG management program) to **certificate emission reductions/absorption**
- Developing of standards that **limits the emission of GHG** and/or short-lived climate pollutants by establishment, source or group of them.

## Carbon Pricing:

- Creates a **market to trade the emission reductions** resulting from the surplus in the fulfilment of the emission limits and from mitigation projects elsewhere to meet the standards.
- **Article 6 as promoter** of international emission reductions



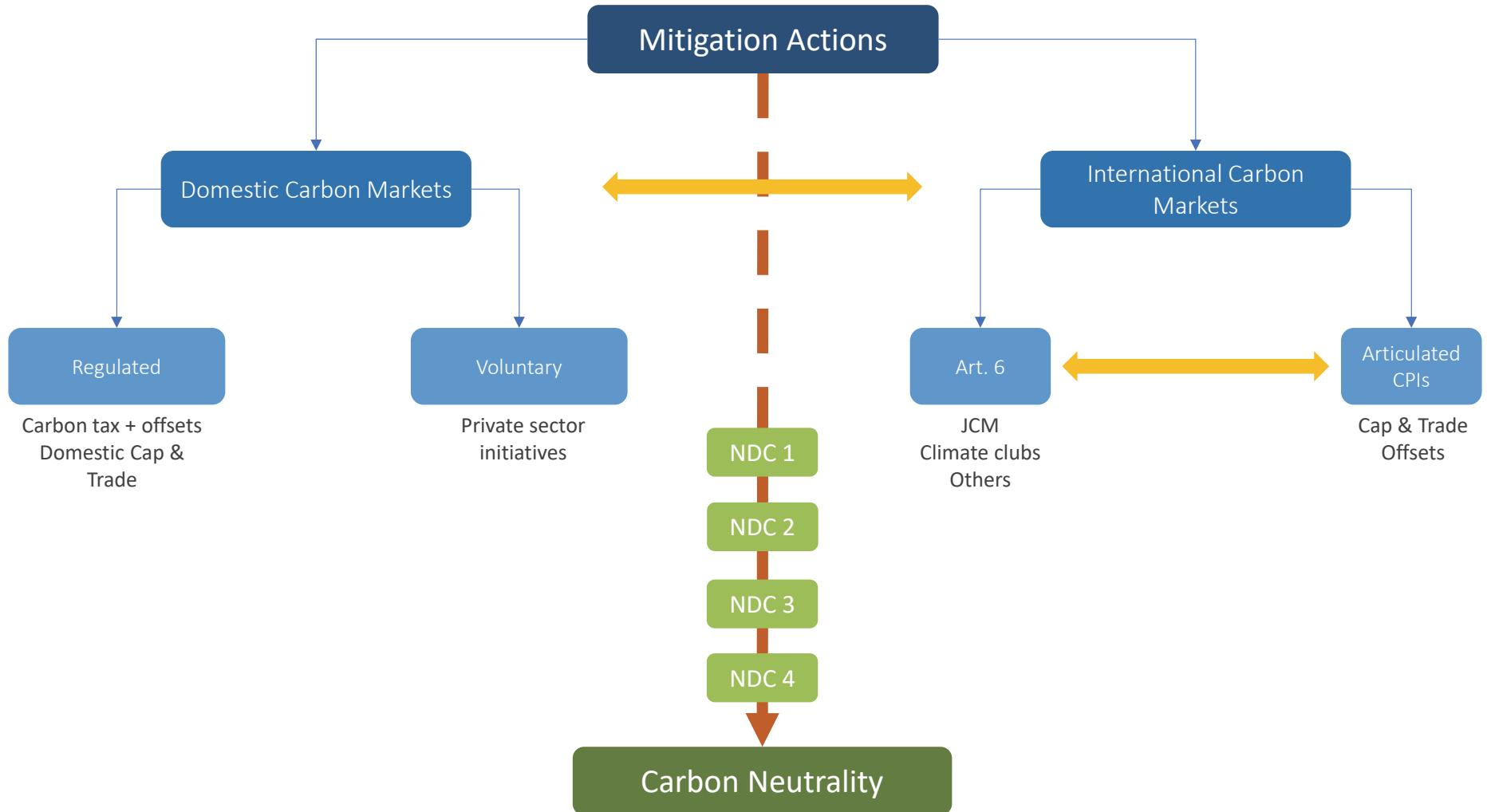
## Art. 6: an opportunity for greater ambition

- International cooperation to achieve NDCs:
  - Art. 6.2. ITMOs (International transferred mitigation outcomes).
  - Art. 6.4. Emissions reduction mechanism (CDM-like).

*An opportunity to foster the energy transition*



# How can we use Carbon Markets to increase ambition?



# What is happening with JCM in Chile?

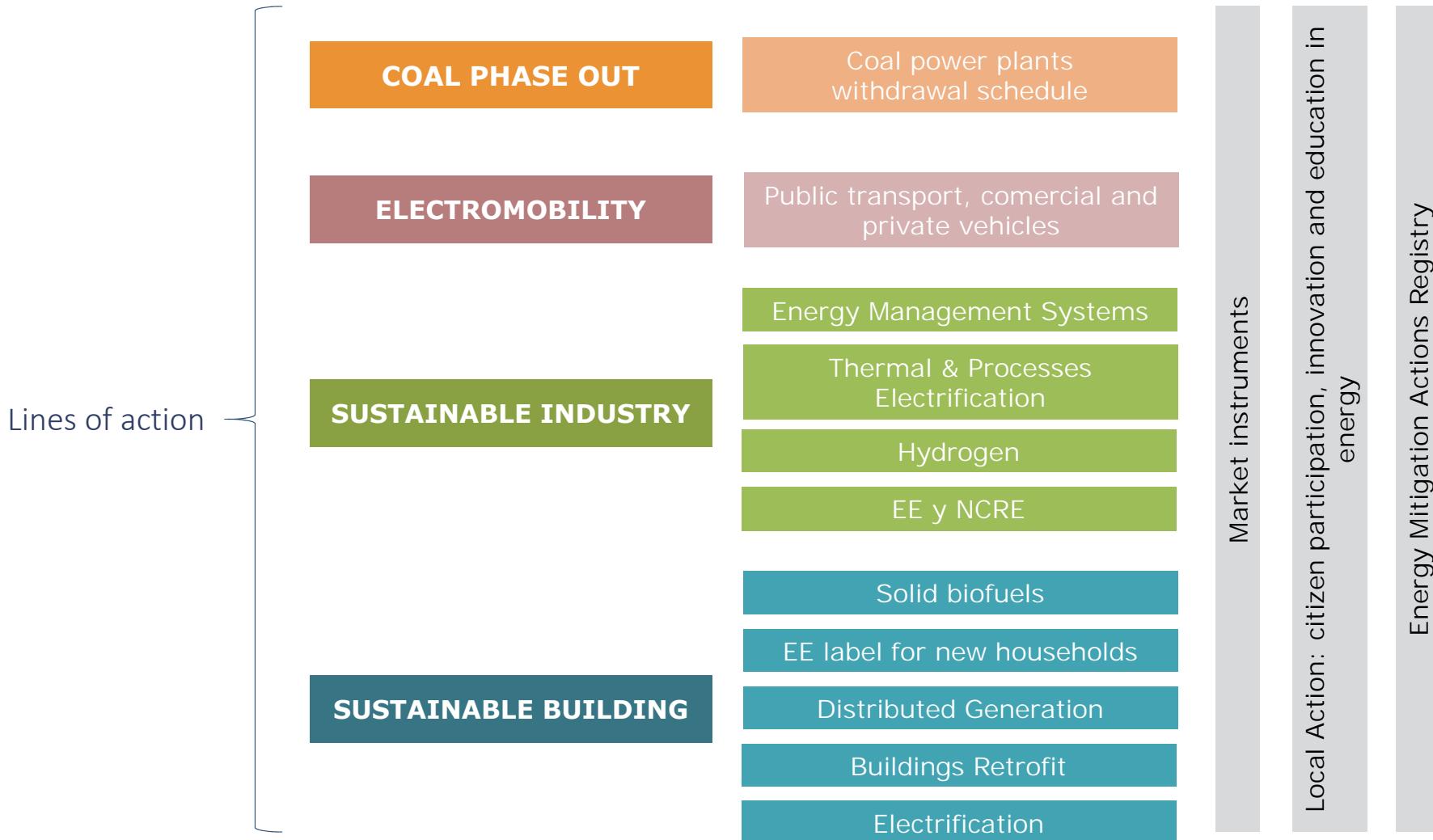
## PROGRESS REPORT FOR ALL SELECTED JCM MODEL PROJECTS

DATE : feb, 2020

Sheet Name	Project	Project Participants	Announcement of selection	Contract of financing
FY2016-01 Waseda EI	Introduction of 1MW Rooftop Solar Power System to University	- Waseda Environmental Institute Co., Ltd. - MGM Innova Capital Chile SpA	Jan. 12, 2017	Mar.,15, 2017
FY2018-01 Liberal Solution	1.4MW Solar Power and 2.3MWh Storage Battery Project in San Pedro de Atacama city	- Liberal Solution Co., Ltd. - MGM Innova Capital Chile SpA	Nov. 27, 2018	Jan. 22, 2019
FY2019-01 Asian Gateway	3.4MW Rice Husk Power Generation Project in Maule	-Asian Gateway Corporation -La Gloria S.A.	Nov. 26, 2019	In Process
FY2019-02 Farmland	3MW Solar Power Project in Chillan, Nuble Region	-FARMLAND Co., Ltd. -Land and Sea SpA -Farmdo Energy Chile SpA	Jan.24, 2020	In Process

※Started or completed works are shown in blue cells

# Carbon Neutrality Strategy in the Energy Sector



# Carbon Neutrality Strategy in the Energy Sector

Lines of action

## COAL PHASE OUT

Coal power plants withdrawal schedule

## ELECTROMOBILITY

Public transport, commercial and private vehicles

## SUSTAINABLE INDUSTRY

Thermal & Processes Electrification

Hydrogen

EE y NCRE

Solid biofuels

EE label for new households

## SUSTAINABLE BUILDING

Distributed Generation

Buildings Retrofit

Electrification

Innovation and education in

Registry

Market instruments

Opportunities  
for projects  
under JCM

Do not hesitate to  
contact us

The background of the image shows a dramatic sunset or sunrise over the ocean. In the foreground, the silhouettes of several Moai statues from Easter Island are visible against the bright sky. The sky is filled with warm orange, yellow, and red clouds.

Chile

Final thoughts...

## We have been doing a lot, but this is just a first step...

### Challenges / work ahead

- Explore and articulate all Carbon Pricing Instruments to achieve in the most cost-effective way possible our Carbon Neutrality goal by 2050 (or sooner).
- Build capacities in our public and private sector to get them ready for the new generation of carbon markets.
- Build governance to articulate climate action: implementation and financial tools to catalyze the energy transition and increase climate ambition.
- Create sustainable business models for the private sector to participate more actively in the implementation of actions and instruments towards carbon neutrality, including both domestic and international carbon markets.
- Initiatives like JCM promote innovative technology transfer and support developing countries in their energy transition.
- Generate robust MRV schemes centralized in the Ministry of Environment, avoiding double counting (vertical and horizontal) and using new technologies as blockchain to track the information cost effectively.
- Develop a robust IT infrastructure to track all the efforts and meet the transparency requirements under Art 13 of the Paris Agreement.

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