

NATIONAL ENERGY POLICY AND ITS ROLE IN ACHIEVING CHILE'S NATIONALLY DETERMINED CONTRIBUTION

Capacity Building on Emissions Trading
Berlin, Germany, 11-15 December, 2017



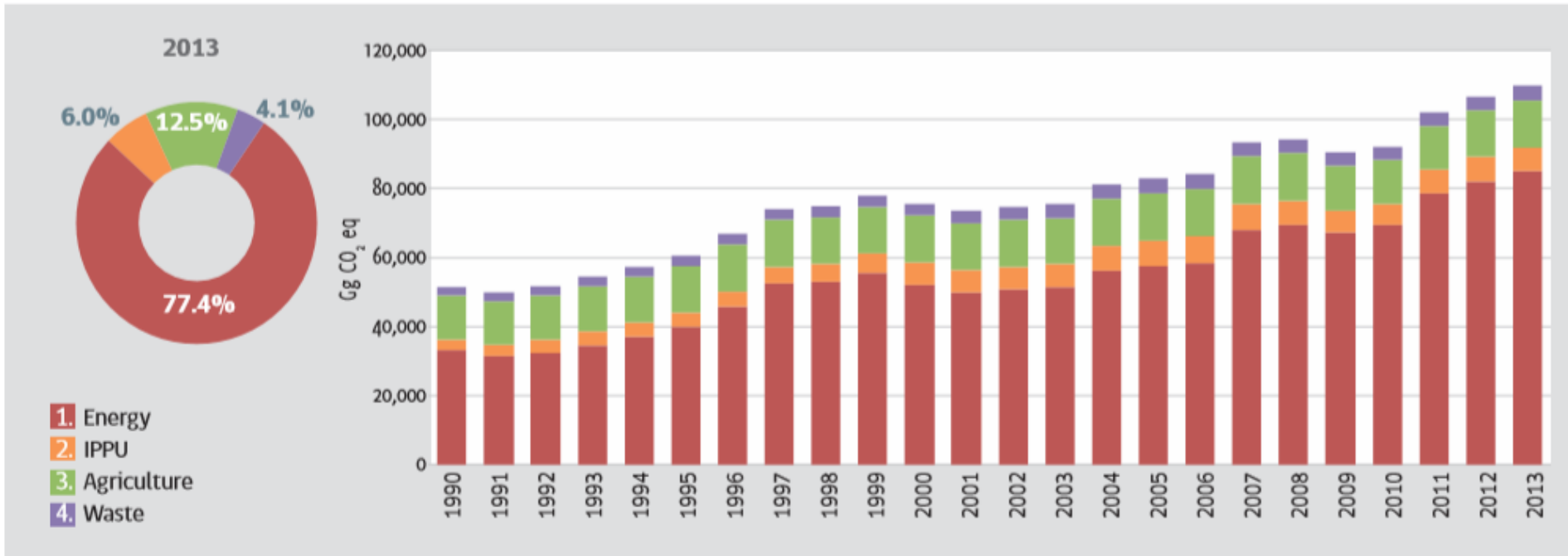
**Gobierno
de Chile**

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Ministry of Energy

Emissions by Sector



Figure 5. Chile's NGHGI: emissions of GHG (Gg CO₂ eq) by sector (excluding FOLU), series 1990-2013



Source: MMA Technical Coordinating Team.

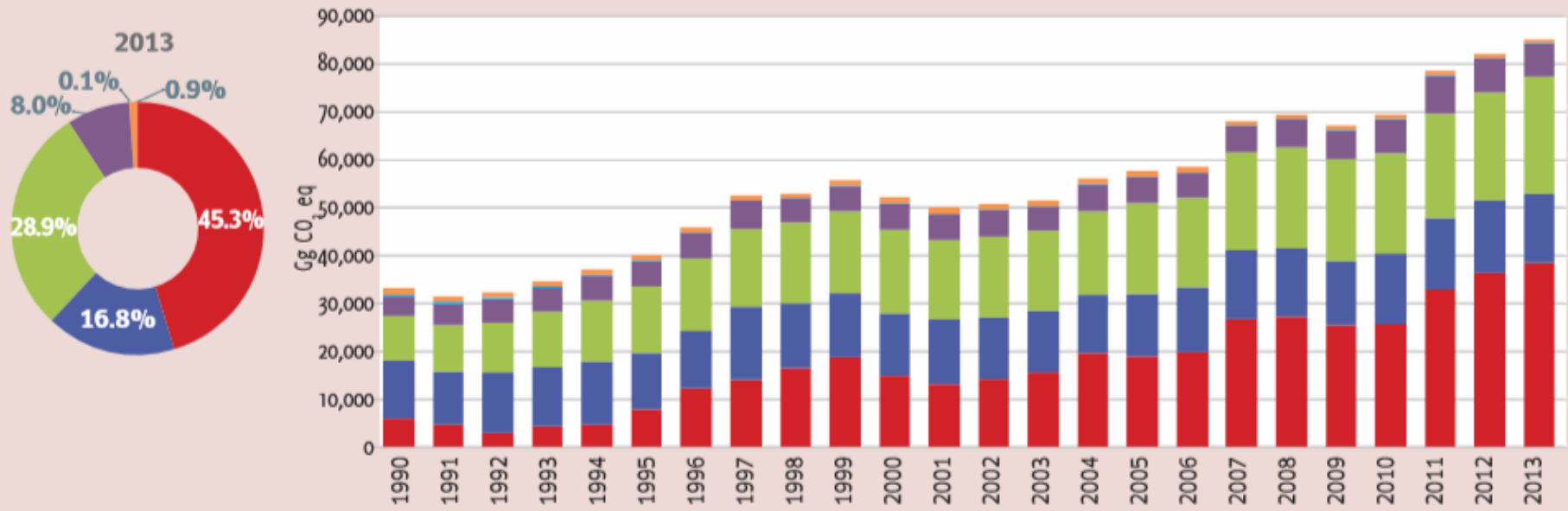
Energy sector emissions have increased by 156,1% since 1990, mainly due to an increase in fossil fuel consumption for electricity production, transport and industry.



Energy sector emissions by subcategory



Figure 15. Energy Sector: GHG emissions (Gg CO₂ eq) by sub category, series 1990-2013



1.A.1 Energy industries 1.A.2 Manufacturing industries and construction 1.A.3 Transport 1.A.4 Other sectors 1.B.1 Solid fuels 1.B.2 Oil and natural gas

Source: Energy Technical Team of MINENERGIA.

Energy industries (electricity and heat in red) plus transport (green) and manufacturing industries, including mining (in blue) are the main emitters.



Chile's NDC (mitigation)

- 30% reduction of its emissions intensity (CO_2/GDP) by 2030, compared to 2007 levels.
- Increase it up to 45% with international support.
- Role and responsibility of the Energy Sector is very high.



NATIONAL ENERGY POLICY (PEN)



ENERÍA 2050
POLÍTICA ENERGÉTICA DE CHILE



- Launched by President Bachelet in December 2015
- Long term view on energy development
- Multistakeholder engagement
- Relevant goals on RE (60% in 2035 and 70% in 2050)
- Concrete actions on EE
- Electricity production at the local level
- Climate change as important topic, including market instruments

PEN 2050 PILLARS



PILLAR 1 SECURITY AND QUALITY OF SUPPLY

- Security and flexibility of centralized/ decentralized production
- Interconnection with other countries

PILLAR 2 ENERGY AS DRIVING FORCE FOR DEVELOPMENT

- Inclusive energy Development
- Equitable access to energy services and quality of life
- Territorial Inclusiveness
- Energy sector competitiveness

PILLAR 3 ENVIRONMENTALLY- FRIENDLY ENERGY

- Renewable energy matrix
- Local externalities
- Energy and climate change**

PILLAR 4 ENERGY EFFICIENCY AND ENERGY EDUCATION

- Energy efficiency
- Education and energy culture



ACTIONS COMMITTED ON CLIMATE CHANGE

- To design and implement a **GHG mitigation action plan** for the energy sector
- To design and implement an **adaptation action plan**
- To contribute to **COP21 commitment**
- To evaluate **mitigation instruments under the PMR**
- To promote the use of **low carbon fuels**
- To promote **GHG management in relevant industries**



Adaptation Plan for the Energy Sector

- Energy demand and supply
- Energy transport

In public consultation



ENERÍA 2050
POLÍTICA ENERGÉTICA DE CHILE

MITIGATION ACTION PLAN FOR THE ENERGY SECTOR

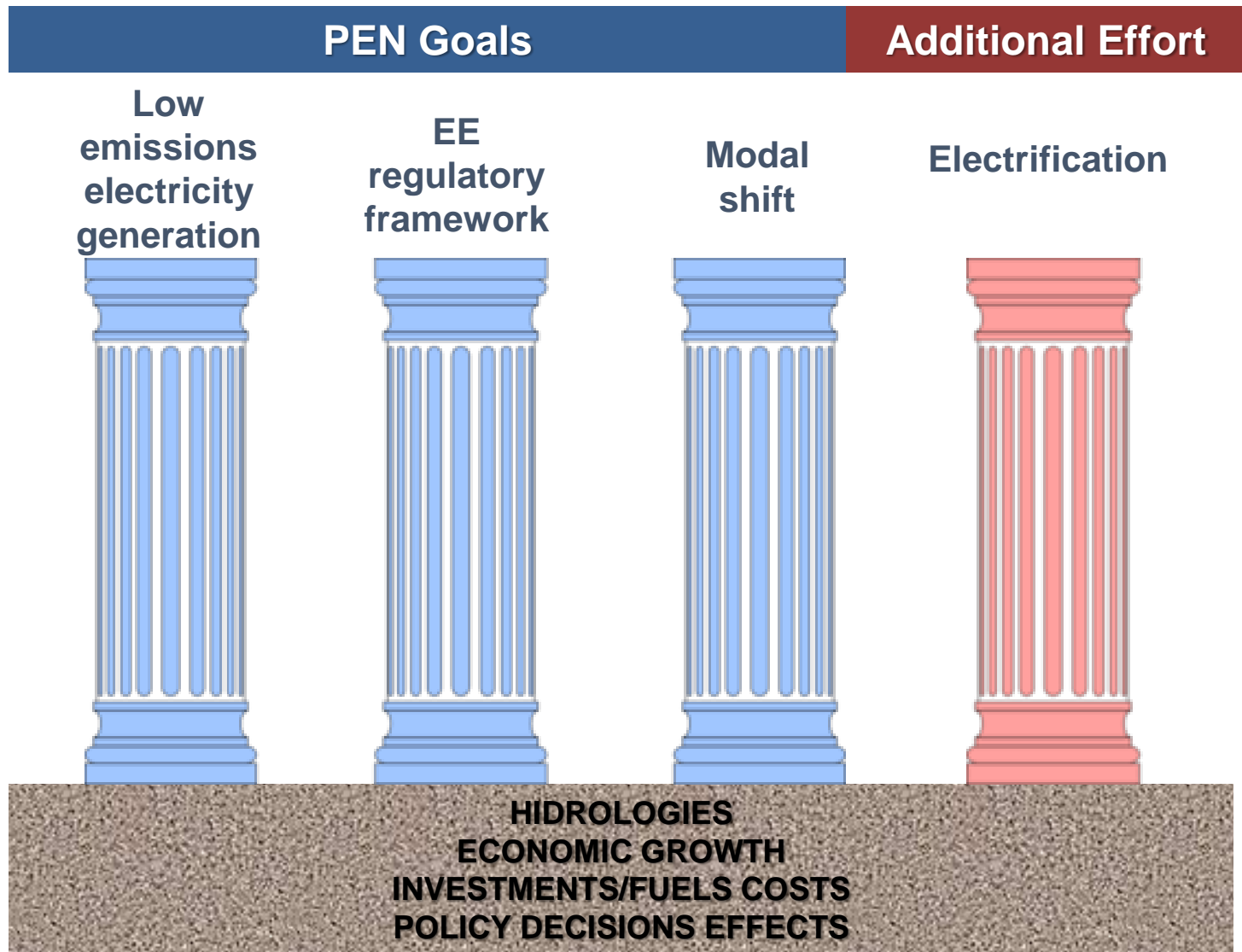


PEN Objectives

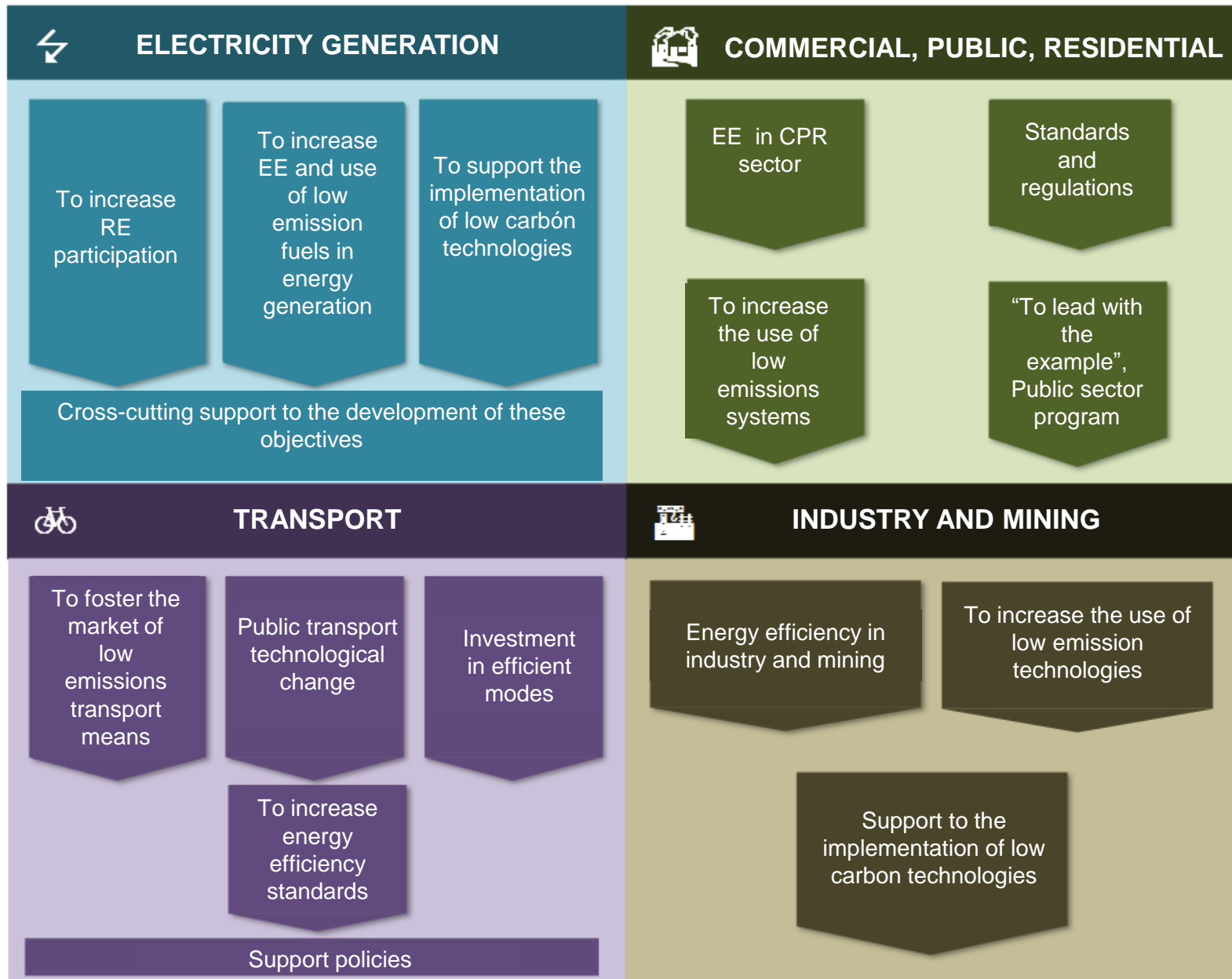
- ✓ To Analyze and recommend **mitigation policy packages** in the energy sector
- ✓ To achieve **Chile's international commitments (NDC)**
- ✓ Estimates **mitigation potential** of PEN 2050 measures
 - ✓ **Evaluates their impact on NDC**







Pillars of the Mitigation Action Plan



Packages of policies evaluated



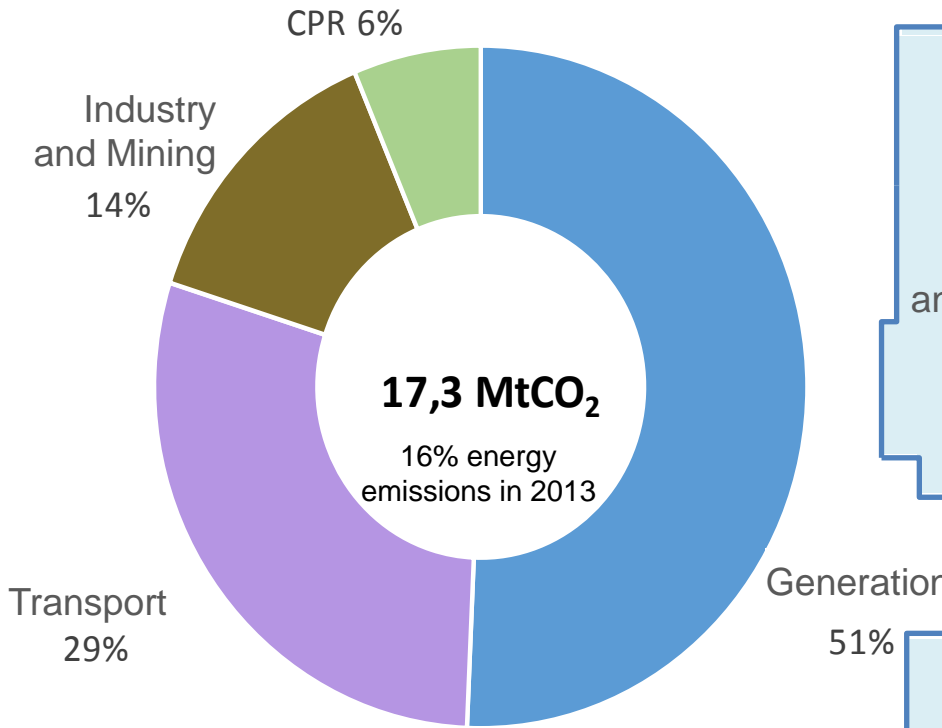
Scenarios evaluated using LEAP model

Current Policies	PEN 2050 goals	Additional Effort
 <p>5 USD/tCO₂ NCRE Law NetBilling</p>	<p>Territorial Planning Pro renewables policies Emission regulations</p>	<p>Geothermal and CSP support Soft loans to District PV</p>
 <p>MEPS Subsidies to Thermal Recon- ditioning</p>	<p>EE Law (WC/decoupling) MEPS for other appliances OGUC Rulement</p>	<p>Electrification Programs</p>
 <p>No measures</p>	<p>EE Law (standards) Modal shift goals</p>	<p>Electrification Programs (electric cars and buses)</p>
 <p>Engine MEPS</p>	<p>EE Law (Energy Management Systems, EMS) Fuel switching</p>	<p>Electrification programs</p>

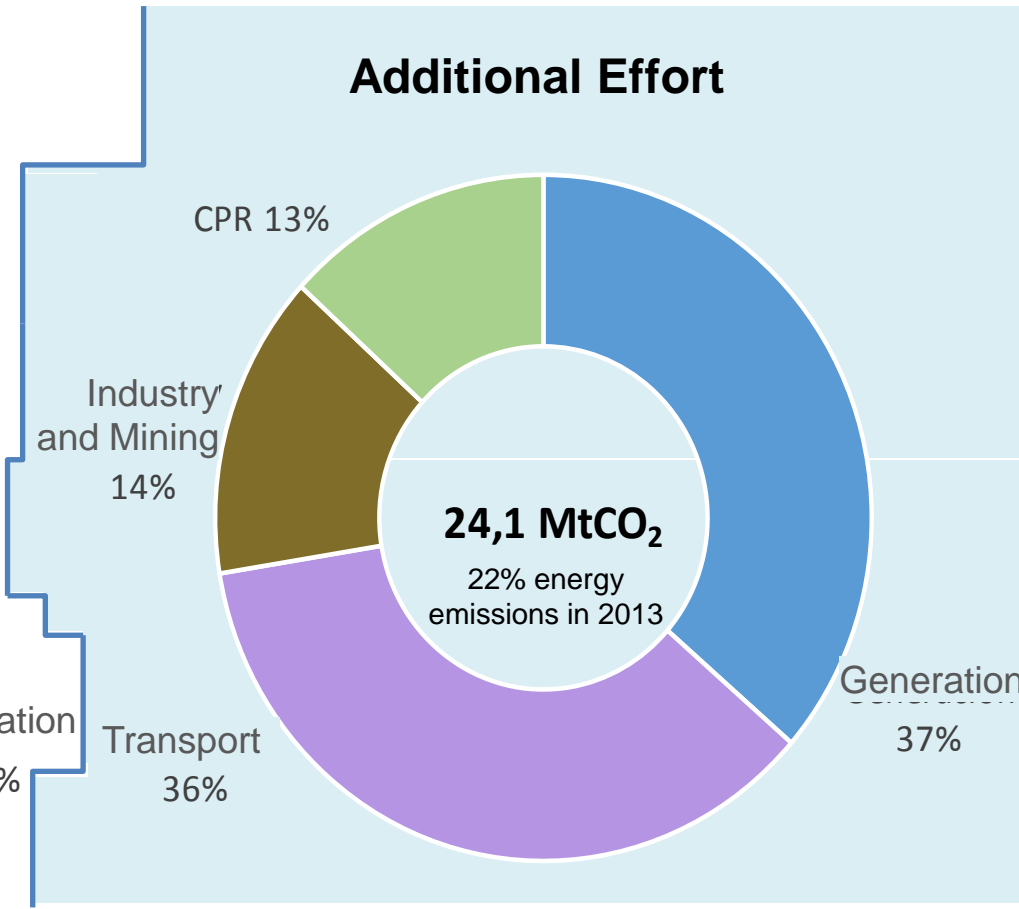
GHG emissions reductions compared to “Current Policy” scenario in 2030



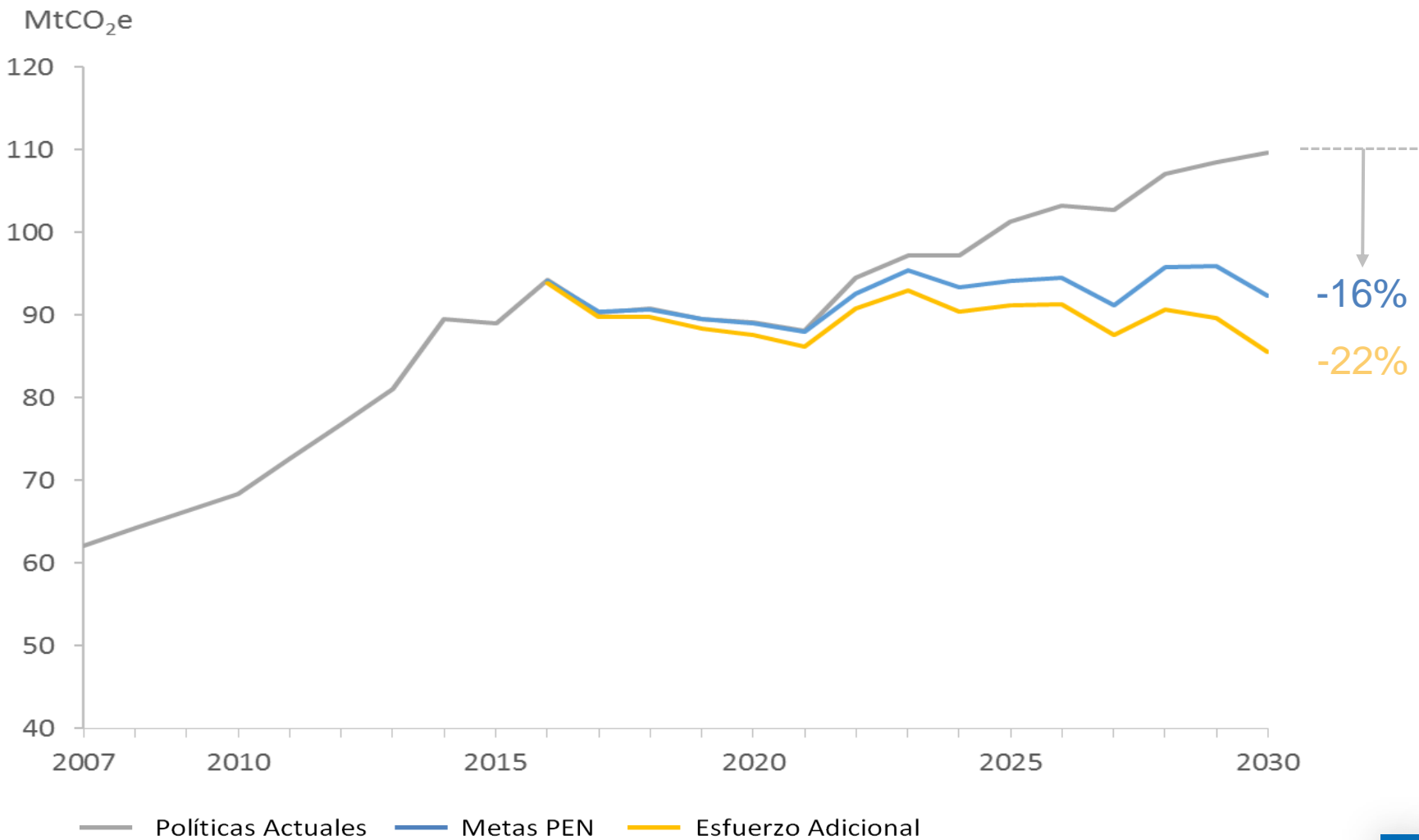
PEN Goals



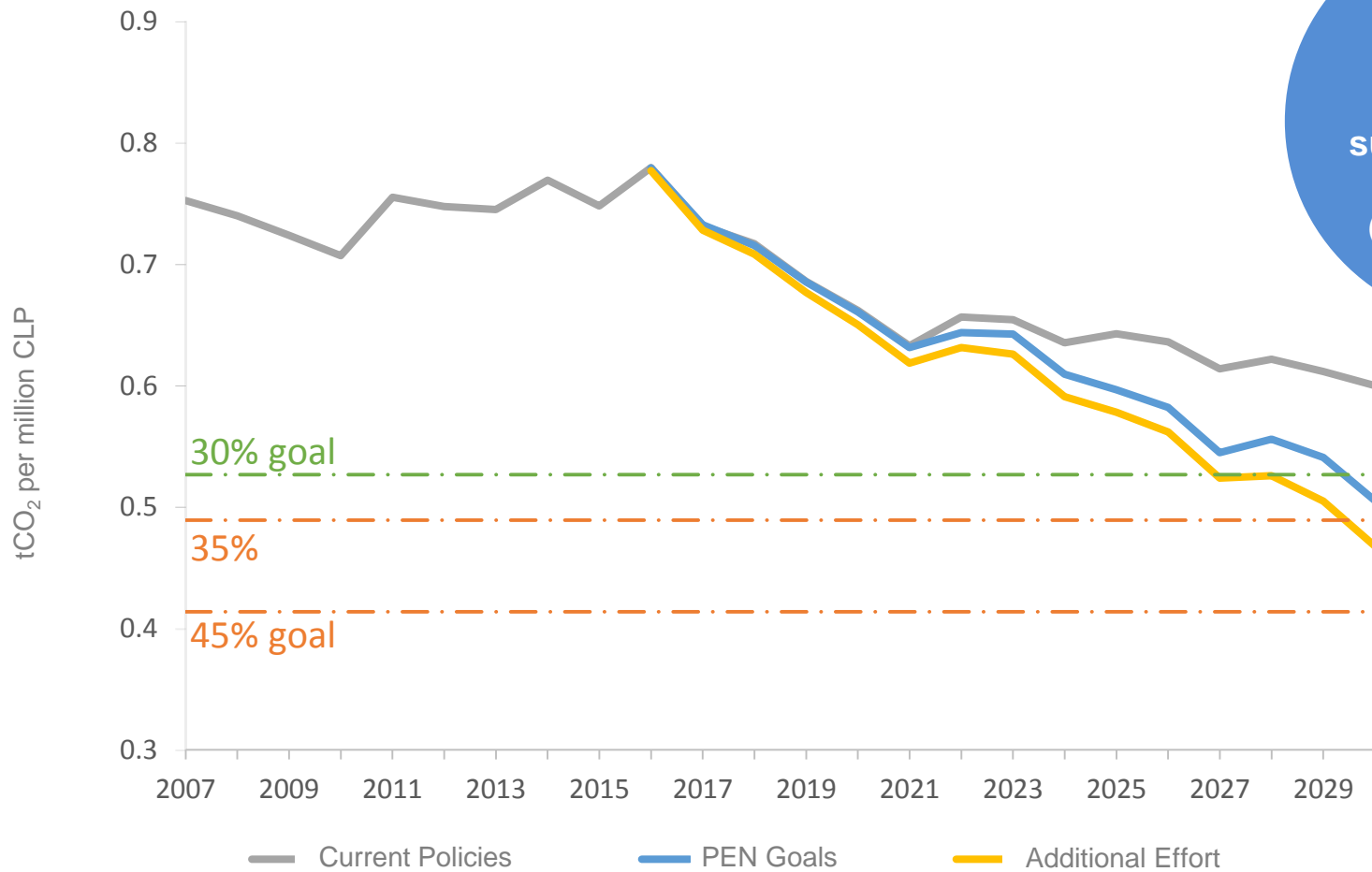
Additional Effort



Impact of PEN measures on NDC, in absolute terms

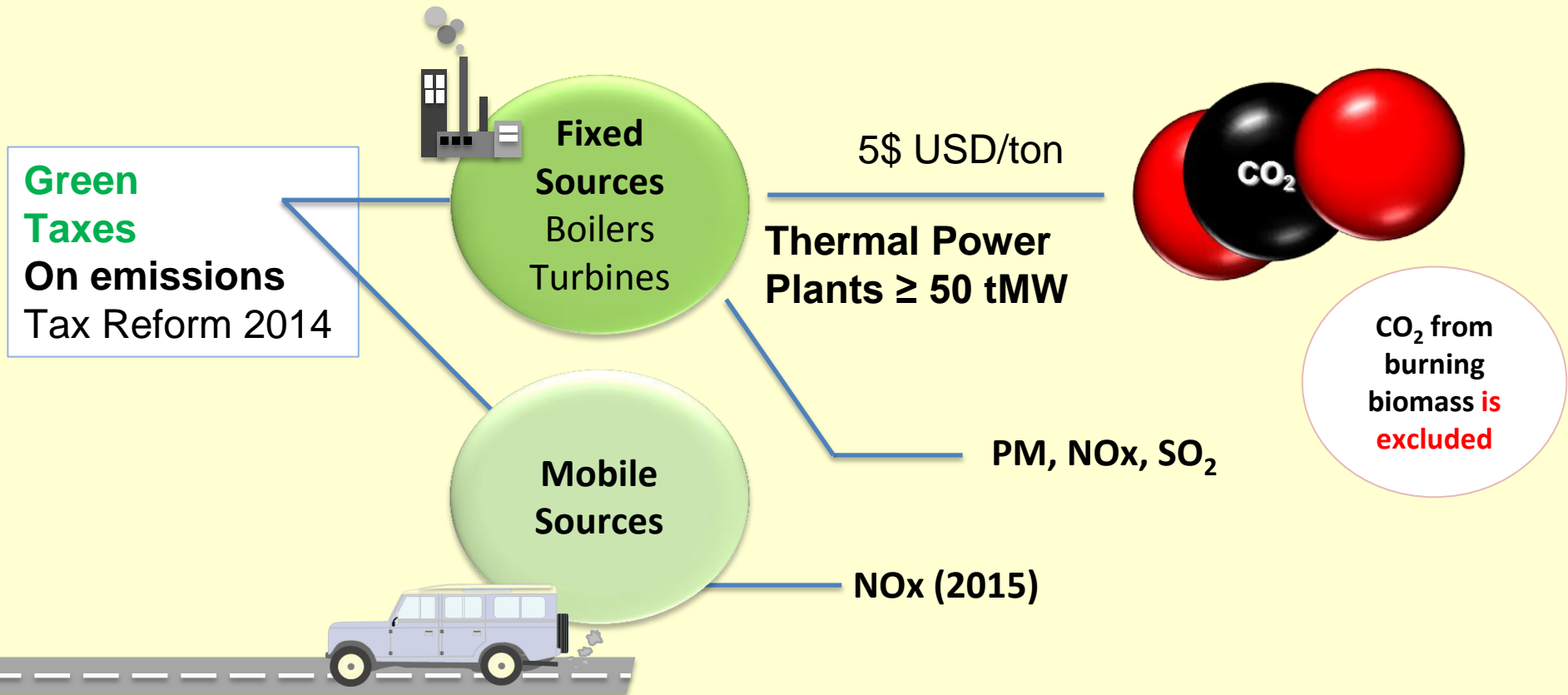


Impact of PEN measures in Chile's NDC (intensity target)



To evaluate the role of carbon pricing in supporting PEN's implementation (PMR) is critical

Carbon Tax in Chile



- Entered into force: January 1 2017
- **93 facilities** representing **40% of total GHG emissions**.
- Fiscal Revenue Raising: USD 170 millions annually.

The Carbon and local pollutants tax

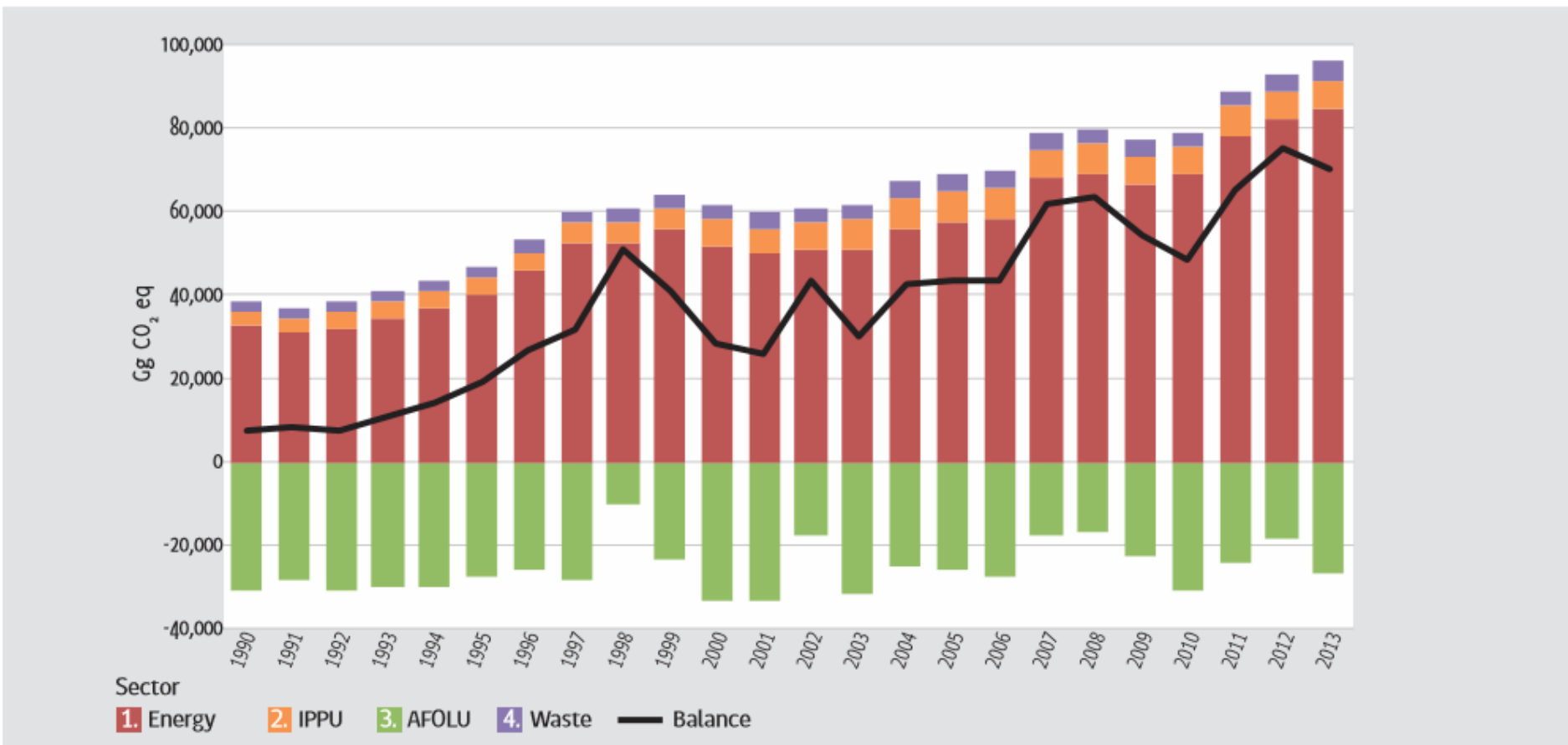
- ✓ Enabled to put a “price on carbon” in Chile
- ✓ New knowledge and infrastructure for MRV
- ✓ Created capacities at public and private sector
- ✓ Established the basis to escalate it to more sophisticated carbon pricing instruments (ETS).

GRACIAS!



Emissions and removals by Sector

Figure ES1. Chile's NGHGI: GHG emissions and removals (Gg CO₂ eq) by sector, 1990-2013



IPPU= Industrial processes and product use; AFOLU= Agriculture, forestry and other land use; FOLU= Forestry and other land use

Source: MMA's Coordinating Technical Team.

Current Policy scenario assumptions



Average GDP Growth
2030



Millions Population
2030



Coal USD/ton
in 2030



Oil USD/bbl
In 2030



Gas USD/MMBTU
in 2030



Average GDP Growth 2030-2050



Millions Population
2050



Coal USD/ton
2050



Oil USD/bbl
2050



Gas USD/MMBTU
2050



PEN 2050 Relevant goals assumptions

