



Generadoras de Chile



# Energiewende: the way ahead

An electric and renewable future for more sustainable and equitable Chile

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COP25, Madrid, 9th December 2019



## Air pollution is Chile's biggest local environmental hazard

Nearly **50%** of the population is exposed to pollution levels over the national air quality standard

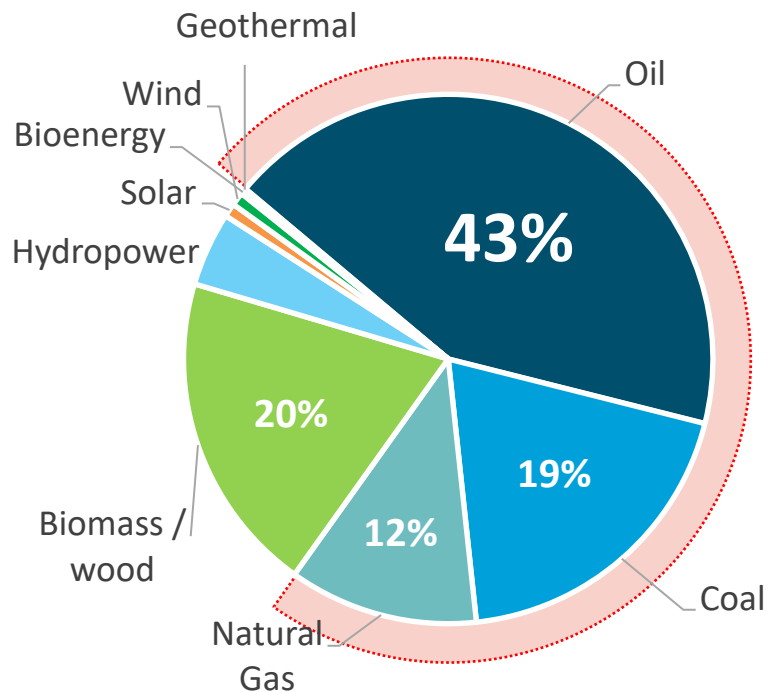
causing **+4.000** premature deaths per year



**24%** of primary energy in Chile is still wood / biomass

**86%** of fine particulate matter comes from the burning of non sustainable wood

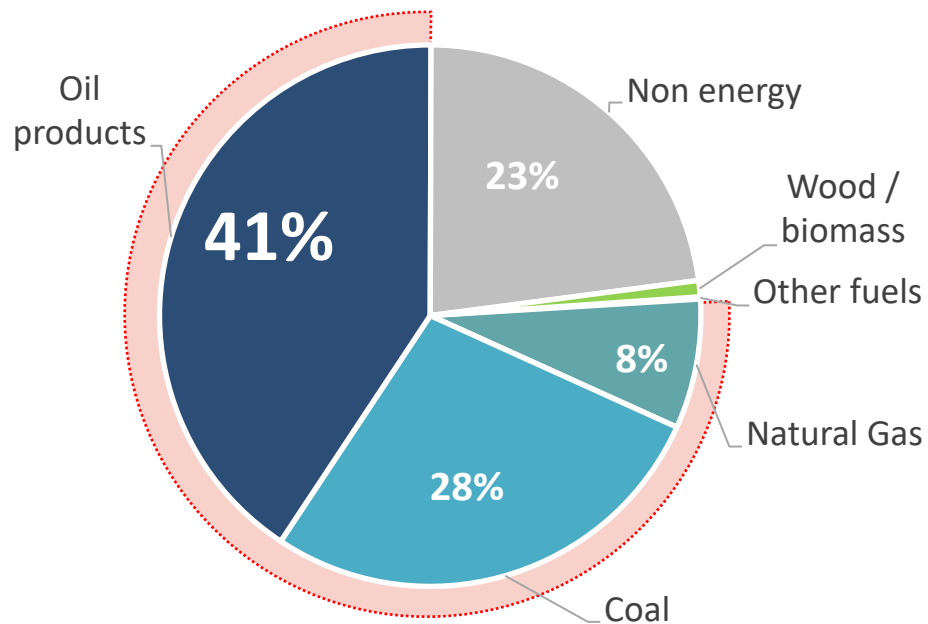
# Oil, coal and NG are still the dominant energy and GHG sources in Chile



**74%** of energy supply is fossil fuels

Source: National Energy Balance, Chile, 2017

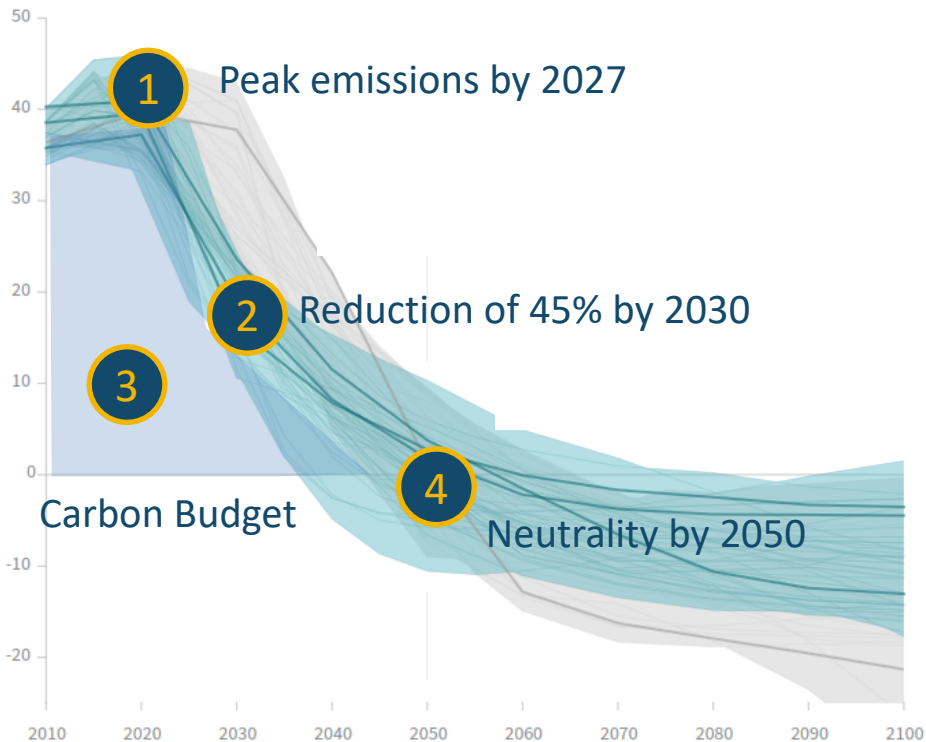
**76%** of GHG come from fossil fuels



Source: Ministry of Environment, 2018

# Chile's commitments seek to be aligned with science and the 1,5°C target

## Proposed draft new NDC



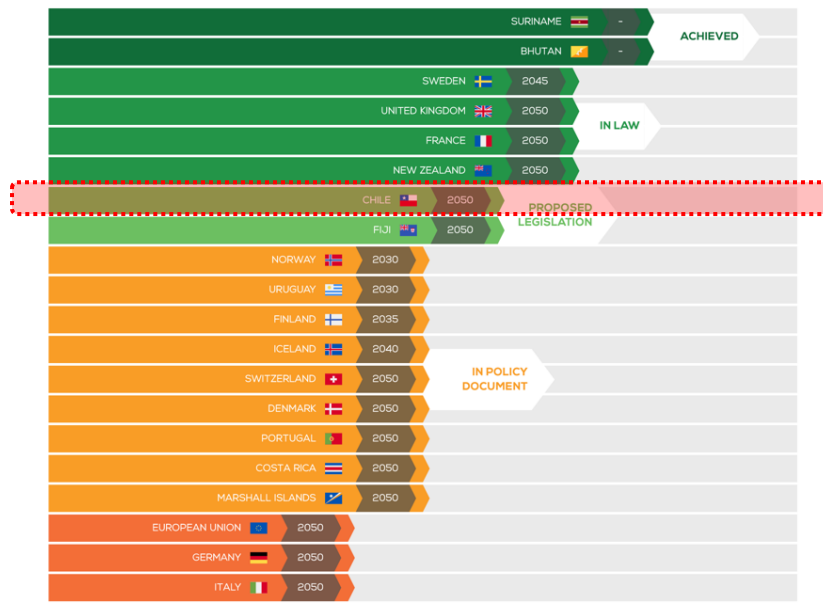
Source: Adapted from Chile's proposed NDC under public consultation (2019)

## Carbon neutrality by 2050

ENERGY & CLIMATE INTELLIGENCE UNIT

### NET ZERO EMISSIONS RACE


2019 SCORECARD



Source: Energy & Climate Intelligence Unit (2019)

# Chile is a country rich in renewable energy resources

In 2018, 45% of electricity produced was renewable: mainly hydro and solar, wind & geo



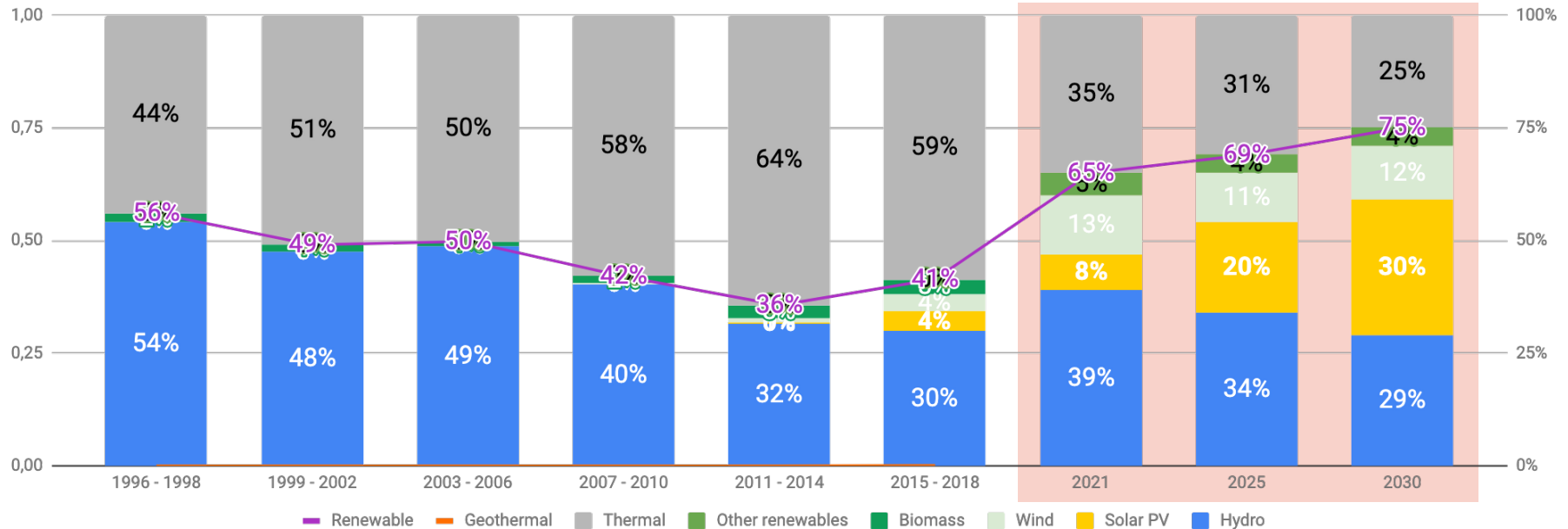
**30%** of electricity will come from solar by 2030, becoming Chile's number one source of electricity.

**1**

# The future of electricity generation is renewable

By 2030 Chile's solar PV and wind capacity will grow between 30% (+8.8 GW) and 65% (+16 GW)

Evolution and projection of power generation mix in Chile [% of energy produced]



Source: Data 1996 – 2017: Triannual average based on Energía Abierta, CNE

Projection 2021 - 2030: Results for scenario DMCM: mid demand growth, mid costs. Long term analysis of SEN with ERV, PSR Moray, 2018

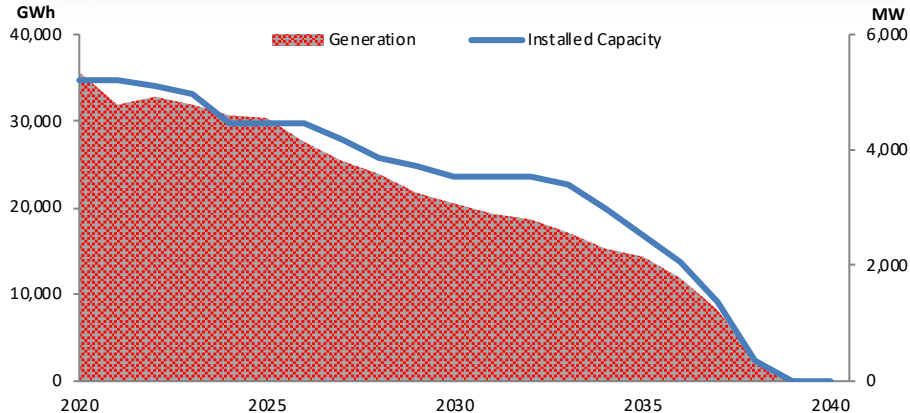
# We have agreed on a voluntary phase out of coal

1 GW out of 5 GW will shut down in the next 5 years and operation will cease by 2040 at the latest



## GOBIERNO Y GENERADORAS ANUNCIAN FIN DE NUEVOS DESARROLLOS DE PLANTAS A CARBÓN

Se constituye además un grupo de trabajo para analizar y definir condiciones y un cronograma para el cese programado y gradual de generación eléctrica a carbón en el marco de la Política Energética 2050.



Source: Operation and development of the National Electricity System without coal-fired power plants (National Electric Coordinator 2019)

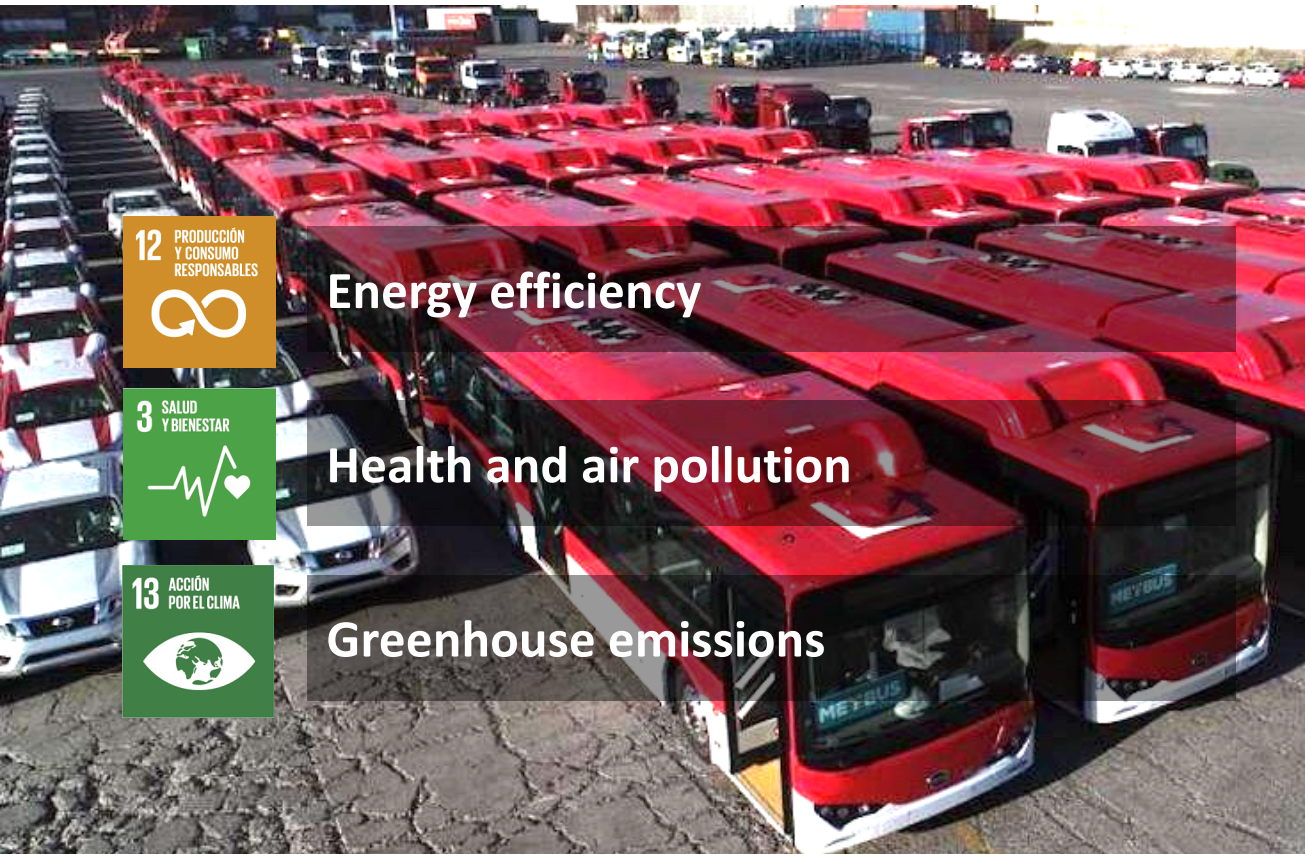




**Electrifying energy demand** is probably the largest lever to tackle green house gas emissions, air pollution and to increase energy efficiency

# Santiago has the largest fleet of electric buses in public transport outside China

Currently only 2% of transport is electric in Chile



12 PRODUCCIÓN Y CONSUMO RESPONSABLES

Energy efficiency

3 SALUD Y BIENESTAR

Health and air pollution

13 ACCIÓN POR EL CLIMA

Greenhouse emissions

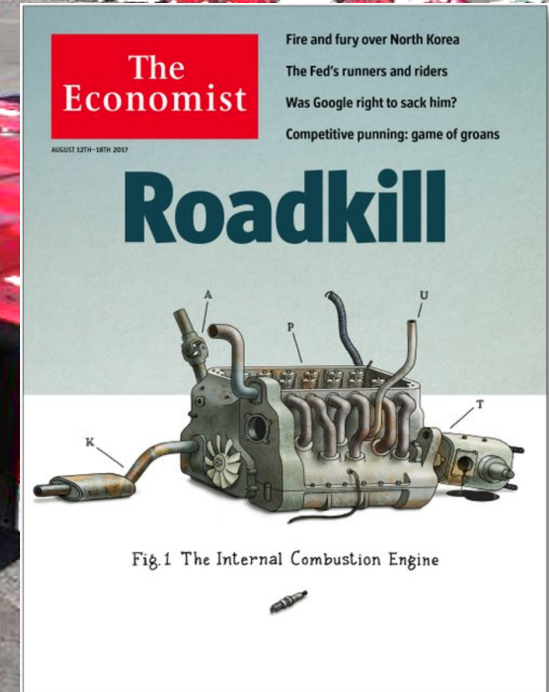
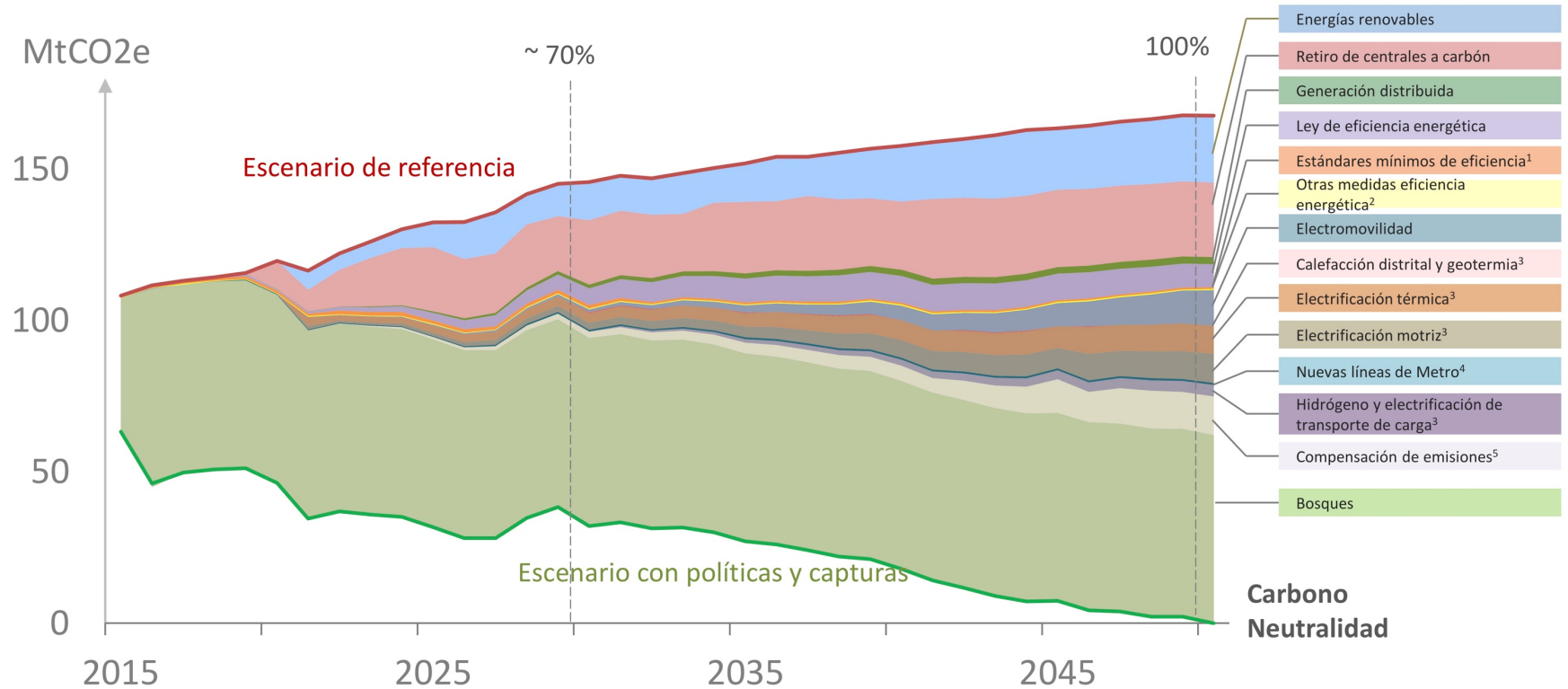


Fig.1 The Internal Combustion Engine

# Achieving carbon neutrality by 2050 is based on multiple initiatives in energy, electricity and by enhancing our forests capture capacity



**Renewables, phasing out coal and the electrification in transport and housing will be key for the “Energiewende”, reducing GHG emissions and local air pollution**





**Generadoras de Chile**



**Thank you!**

**‘A SOLAR SAUDI ARABIA’**

While Trump promotes coal, Chile and others are turning to cheap sun power