



MINISTRY OF
ENVIRONMENT
& ENERGY



UNFCCC COP25 SBI 51 Madrid, December 7th, 2019

Multilateral Assessment Greece

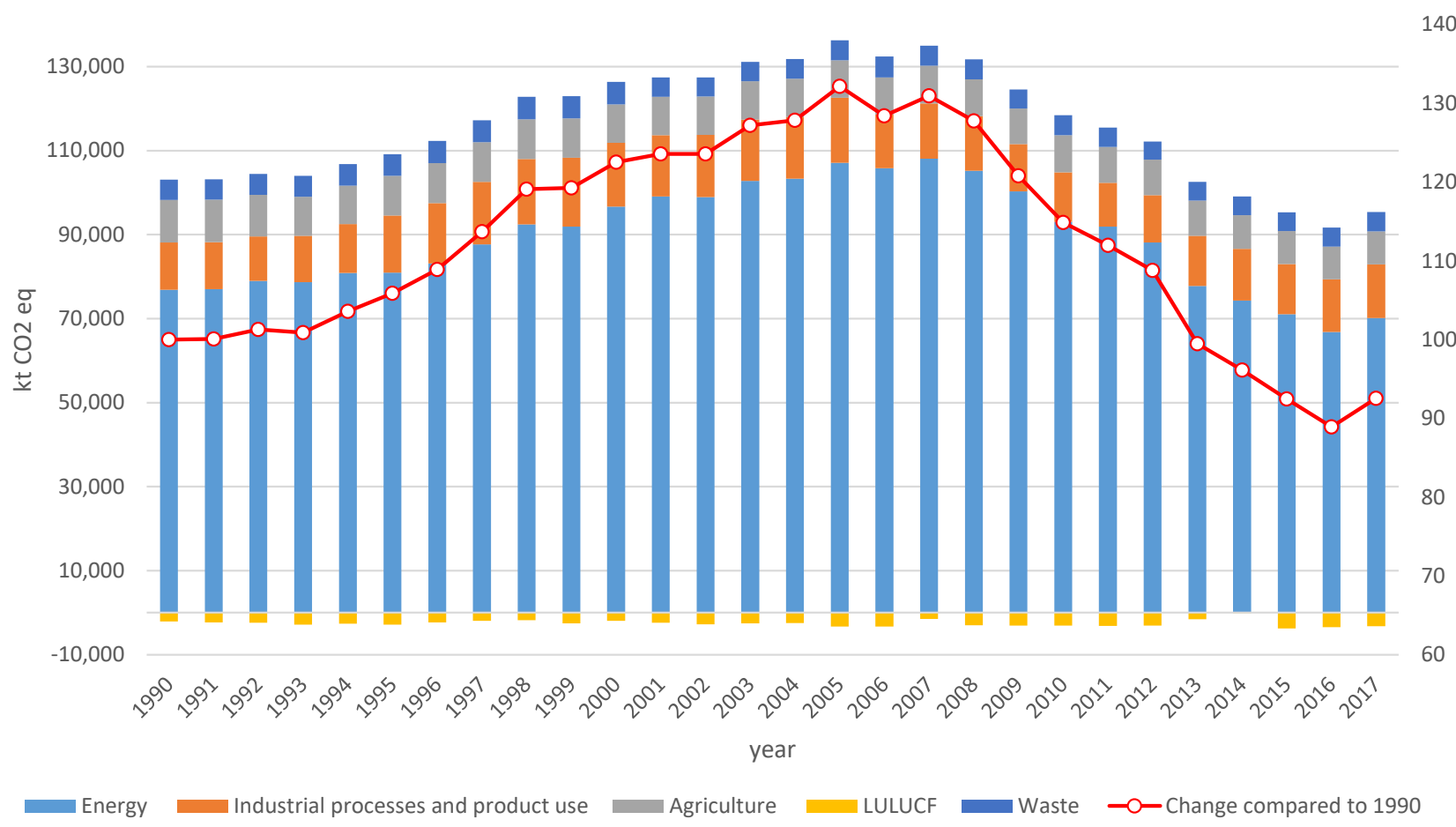
Kyriakos Psychas
Head of Climate Change Department
Ministry of Environment and Energy
k.psychas@prv.ypeka.gr



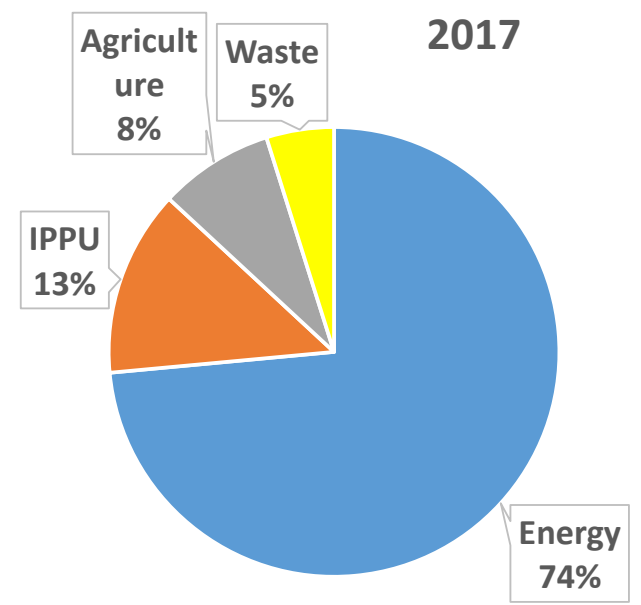
GREECE - basic national data :

- ✓ **Geography:** 131.957 km², consisting of two main geographic areas:
 - a peninsular mainland, and
 - approx. 6.000 islands & islets
- ✓ **Population:** 10.741.165 (2018)
- ✓ **GDP:** 183,704 mil euros (2018)
17.103 euros/capita (2018)
-23,9% (2018/2007)
+3.6% (2018/2013)

GHG emissions profile



- ✓ GHG emissions (2017):
95,421 ktCO₂eq or
8.88 tCO₂eq/capita
- ✓ -7.45% (2017/1990)
- ✓ -29.3% (2017/2007)





2020 GHG emission mitigation commitments



- ✓ Pledge under the Convention for EU and its Member States (Quantified economy-wide emission reduction target, QEERT):
 - Unconditional quantified economy wide emission reduction target of 20% by 2020, compared to 1990 levels

- ✓ Binding commitment under Kyoto Protocol (implementing CP2 since 1.01.2013):
 - CP2: joint commitment of the EU, its MS and Iceland to reduce average annual emissions during 2013-2020 by 20% compared to base year

- ✓ EU internal target: 2020 Climate and Energy Package



EU 2020 pledged target under the UNFCCC

- The EU and its Member States are committed to an independent quantified economy-wide emissions reduction target of 20 per cent emission reduction by 2020, compared to 1990 levels.
- The 20% target is based on the understanding that it will be fulfilled jointly with the European Union.
- LULUCF is excluded from the target.
- The target is based on GWPs of IPCC AR4.
- The target is implemented through binding EU legislation and is mainly based on the EU's "Climate and Energy Package",
 - ✓ For the emissions covered by the EU ETS, under an EU-wide cap, the goal is to reduce emissions of greenhouse gases by 21% in 2020 compared to 2005 levels
 - ✓ For the emissions of GHG not covered by the EU ETS, the goal is a collective reduction of 10% in 2020 compared to 2005 levels.



Climate and Energy Package

2020 Greek Targets

- ✓ RES: 18% of final energy consumption mandatory until 2020 (Directive 2009/28/EC).
The national target was increased from 18% to 20% by Law 3851/2010
- ✓ Primary energy saving of 20% until 2020: The EU has set itself a 20% energy savings target by 2020 when compared to the projected use of energy in 2020 through Directive 2012/27/EU. **The national target of Greece for 2020 is 18.4 Mtoe final energy consumption (24.7 Primary energy consumption)**
- ✓ For the sectors of Industry & Power, under Directive 2003/87/EC (EU-ETS) there is a **single EU-wide cap**. For non-ETS sectors (ESD), i.e. Agriculture, Transport, Buildings, Waste etc., the target is **4% reduction of 2005 emissions by 2020**



2nd CP (2013-2020) KP target

- ✓ Under the Kyoto Protocol the EU and its MSs in Doha adopted a QELRC (Quantified emission limitation or reduction commitment) of **20% reduction from base year for the period 2013-2020** (Greece ratified the DA on 17th Nov 2015).
- ✓ LULUCF activities under Articles 3.3 and 3.4 (Forest Management) will be accounted during 2nd CP by Greece.



2030 climate & energy framework

- ✓ NDC communicated under the Paris Agreement (GR ratified PA : 7th Oct. 2016)
- ✓ The EU and its Member States are committed to a binding target of an at least 40% domestic reduction in greenhouse gas emissions by 2030 compared to 1990

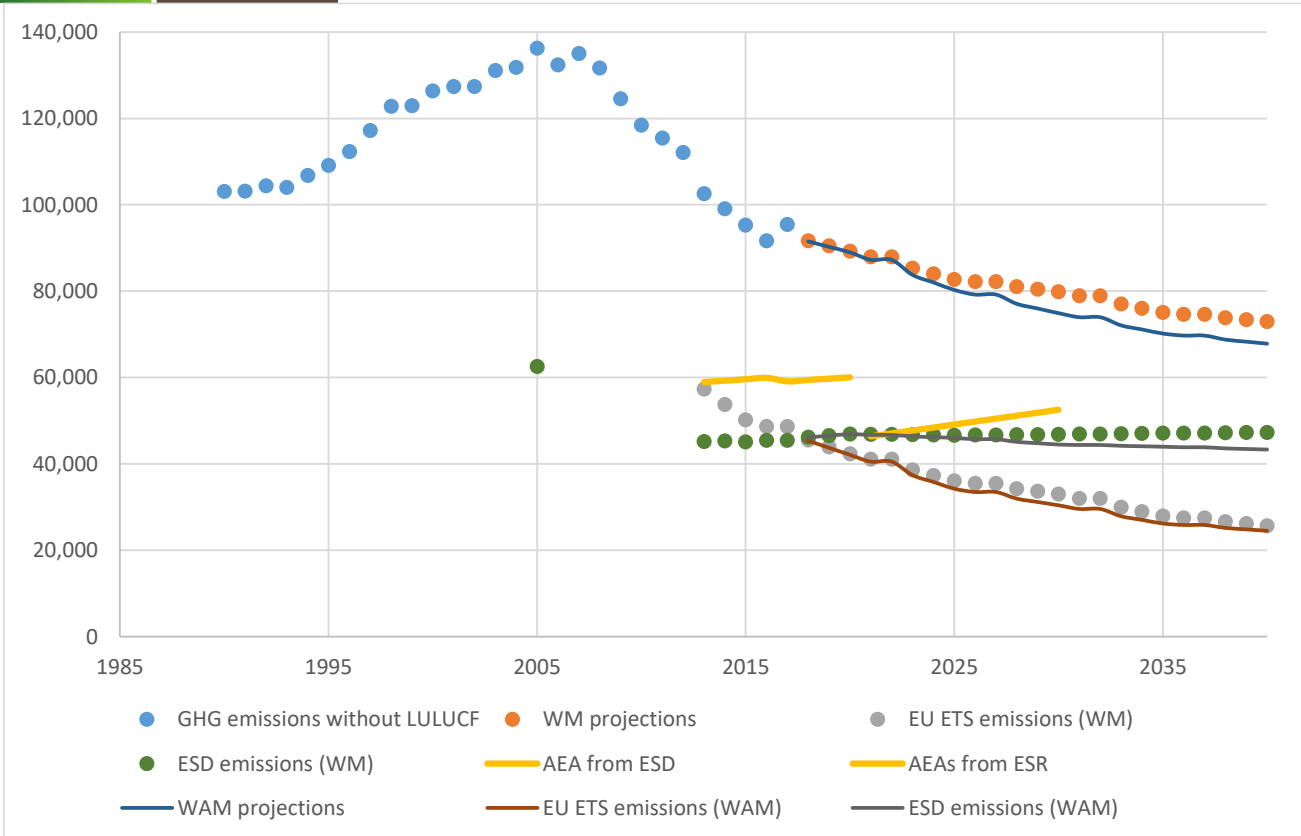
A European Green Deal, towards decarbonization in 2050, is under preparation

https://ec.europa.eu/info/strategy/priorities-2019-2024/european-green-deal_en

Key climate related data of Greece

- ✓ Total estimated mitigation effect of implemented and adopted policies is approx. **25.6 MtCO₂ eq in 2015** and is projected to be **33.1 Mt CO₂ eq in 2020** and over 45.0 Mt for 2030
- ✓ Total CO₂ intensity of GDP: **-23.4%** in 2017 compared to 2000
- ✓ Total CO₂ intensity per capita: **-33.1%** in 2017 compared to 2005
- ✓ Energy related CO₂ intensity of GDP: **-26.1%** in 2017 compared to 2000
- ✓ Carbon intensity of total power generation: **-45.9%** in 2017 compared to 1990
- ✓ Energy related CO₂ intensity of industry: **-24.7%** in 2017 compared to 2000
- ✓ Specific CO₂ intensity of households: **-31.6%** in 2017 compared to 2000

Projection of GHG emissions (Mt CO₂eq)



- ✓ Total emissions (excluding LULUCF) in 2030: -27% vs 1990, and -45% vs 2005
- ✓ ETS sector in 2030: -58% vs 2005
- ✓ Non-ETS sectors in 2030: -31% vs 2005
- ✓ It is projected that Greece will meet the non-ETS (2020 ESD & 2030 ESR) targets, on the basis of the domestic policies and measures

	1990	2005	2015	2020 (WM+WAM)	2030 (WM)	2030 (WAM)	2040 (WM)	2040 (WAM)
ETS	-	71,8	50,2	42.4	33.0	30.4	25.7	24.5
Non-ETS	-	64,5	45,1	46.9	46.8	44.5	47.3	43.3
Total	103,1	136,3	95,3	89.3	79.8	74.9	73.0	67.8

National Energy Climate Plan of Greece Revision (Dec 2019)

The main pillars of the new plan are:

- the restructuring of the country's energy mix, by eliminating lignite energy production by 2028 at the latest
- improve energy efficiency in all sectors of the economy.

Revised 2030 mitigation targets

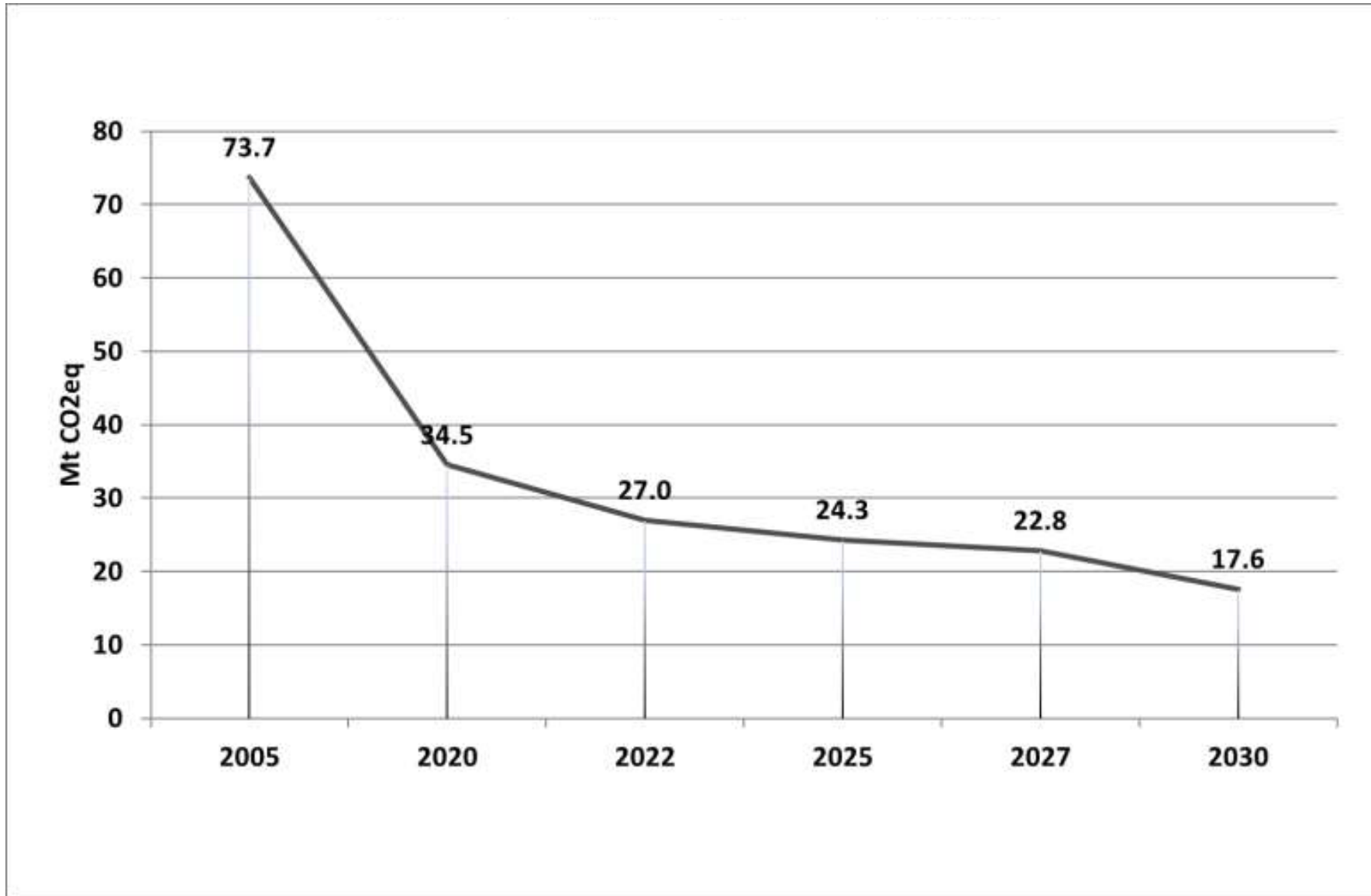


	Revised NECP	Initial draft NECP
Share of RES in Gross Final Energy Consumption	≥ 35%	31%
Share of RES in Gross Final Electricity Consumption	≥ 61%	56%
Final energy consumption	≤ 16.1 Mtoe	18.1 Mtoe
Total installed capacity of PV and wind	≥ 14 GW	13.4GW
Share of lignite in electricity production	0%	16.5%

Expected GHG emission reductions

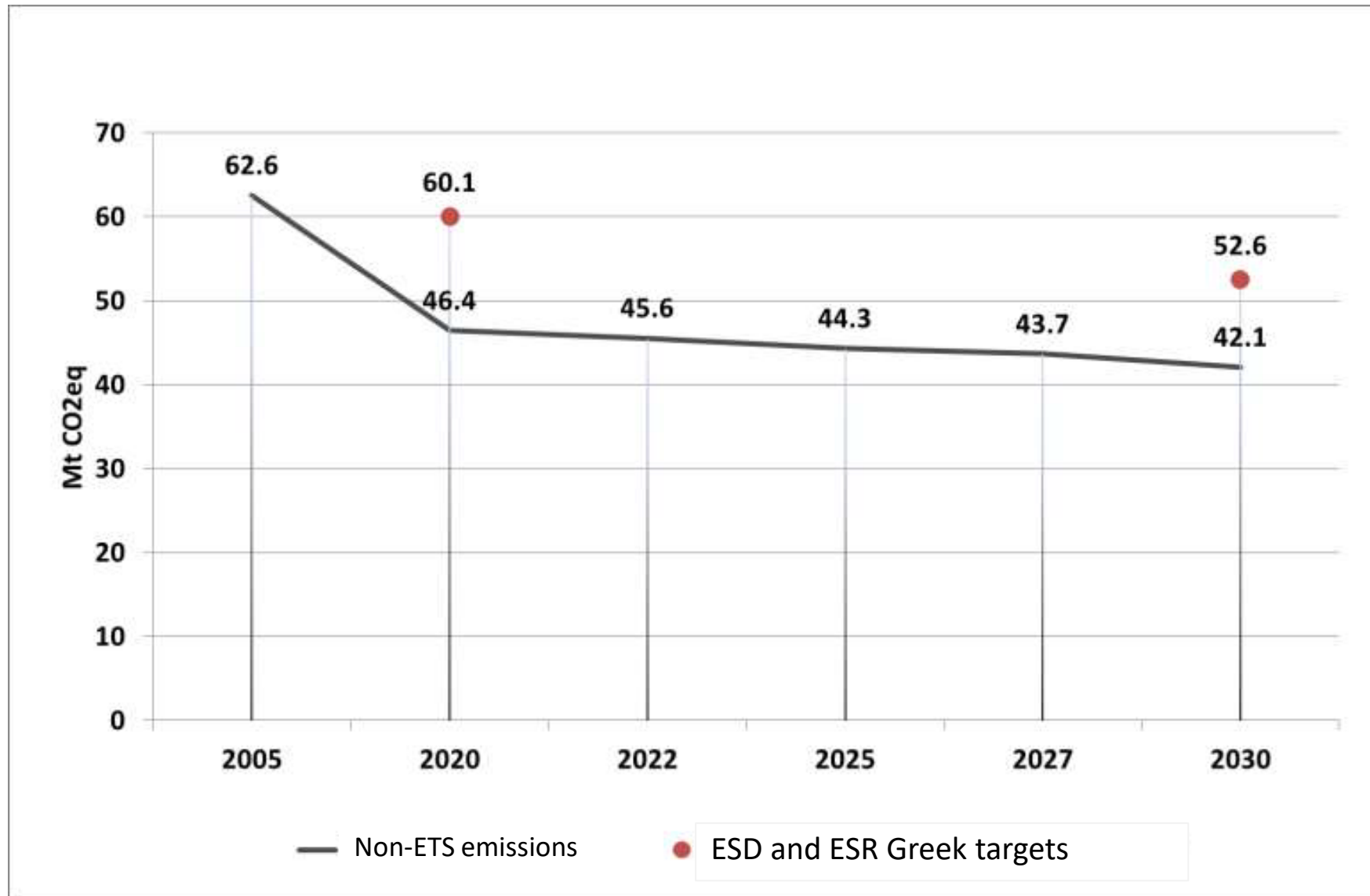
Reduction of GHG emissions	≥ 42% vs 1990 ≥ 56% vs 2005	28% vs 1990 46% vs 2005
Reduction of EU-ETS GHG emissions	76% vs 2005	
Reduction of non-ETS GHG emissions	33% vs 2005	

2030 GHG emissions of EU-ETS

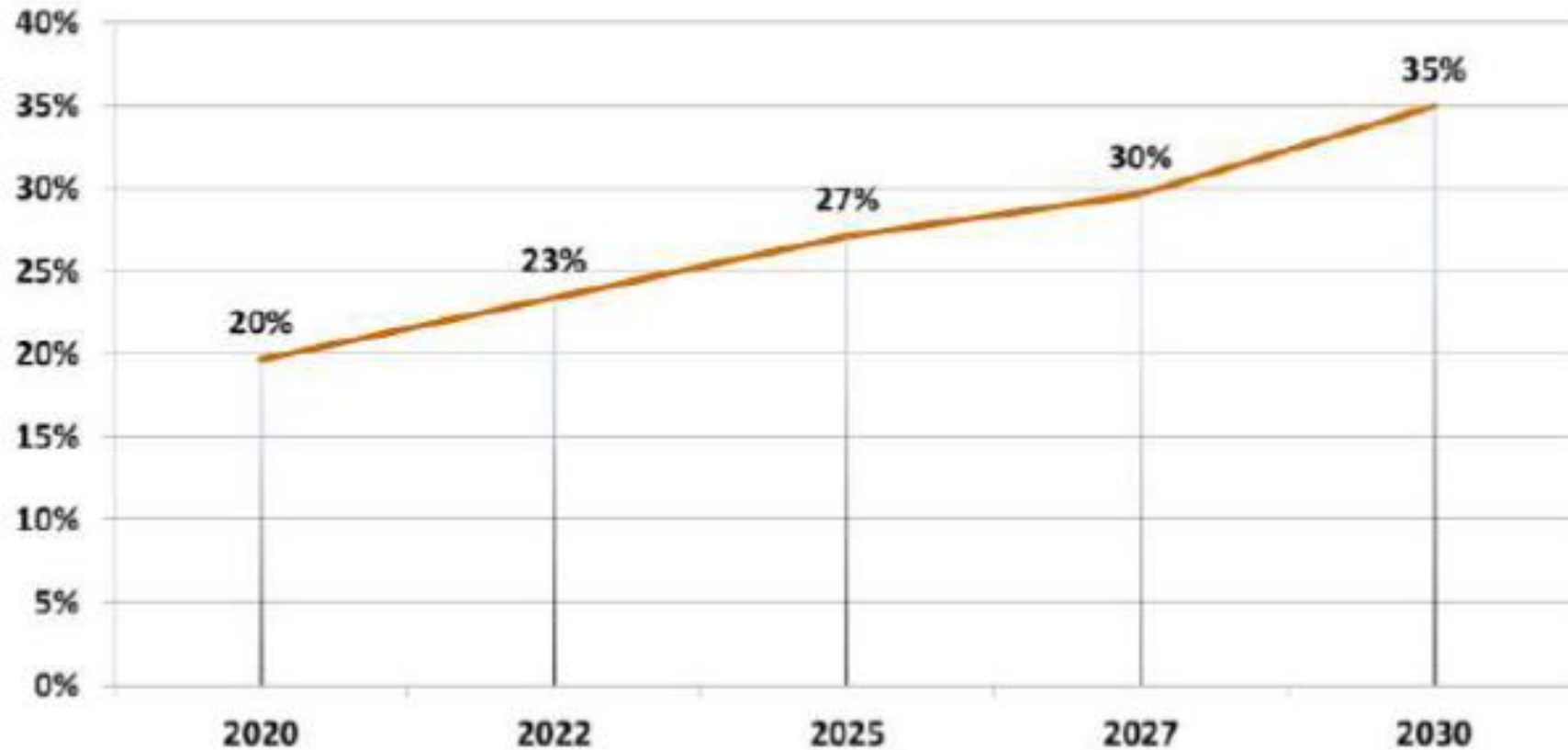




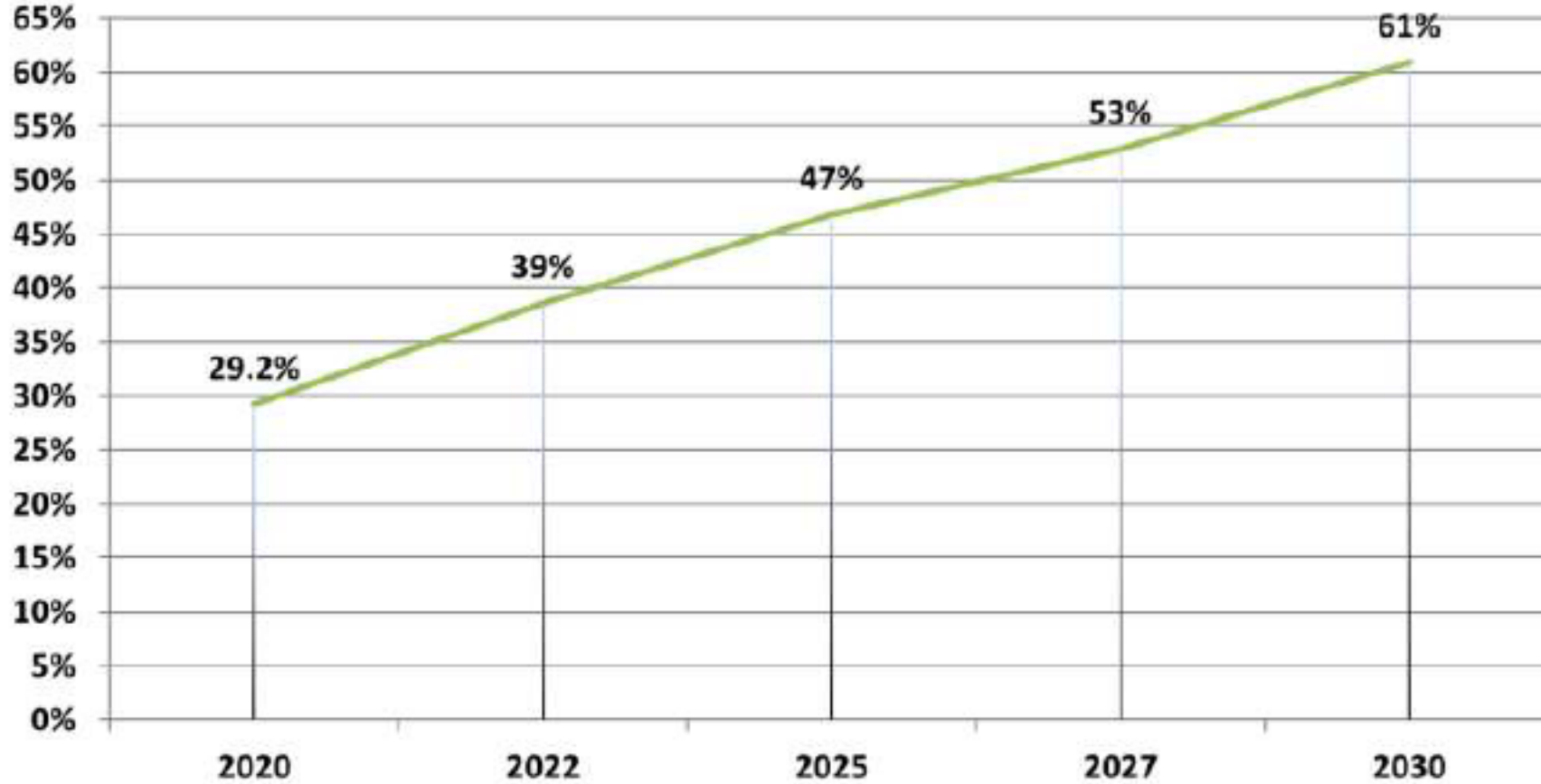
2030 GHG emissions of non-ETS



2030 RES share in the Final Gross Energy Consumption



2030 RES share in the Final Gross Electricity Consumption



Thank you very much
for your attention!