

„Fit For 55” Package Completion

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November 2023



HUP

Hrvatska udruga poslodavaca

CEA

Croatian Employers Association

EU Level regulatory activities

Paris COP 21 Agreement - December 2015

Long term goal: To keep the increase in **global average temperature to well below 2°C** above pre-industrial levels, by century end;

Short-term goal: to pursue efforts **to limit the increase to 1.5°C**

Entered into force November 2016, EU ratified 2016, RH 2017

By November 2023, 195 countries ratified and signed the Paris Agreement (194 Countries +EU)

EU Green Deal

During 2018 the EU legislation 2020-2030 was finalised and adopted by YE

Studies and scenarios shows the set targets are not demanding enough to comply with Paris Agreement

Climate neutrality for EU by 2050, road map, commitments and policies -**December 2019**

EU Climate Law

Stipulates measures for achieving climate neutrality by **2050**- Proposed March 2020, entered into force July 2021

Climate law confirms EU Green Deal objectives as a legally binding obligation for EU Member States

Sets long-term directions for meeting 2050 climate neutrality

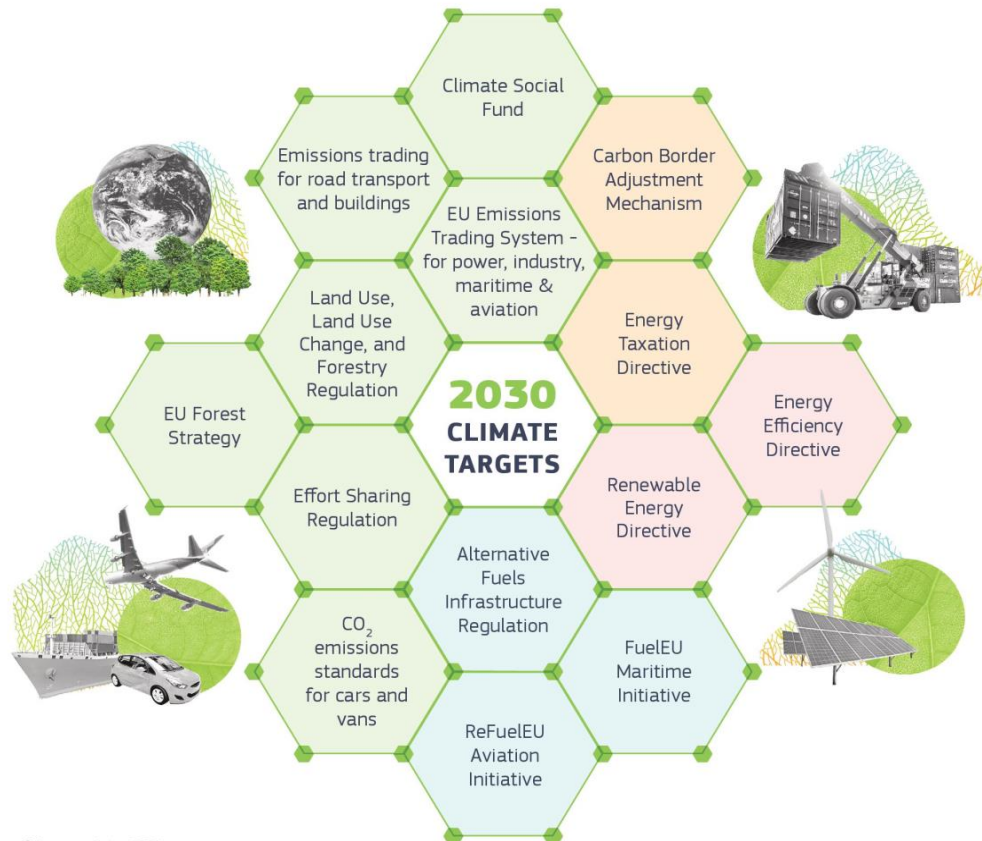
Sets the target of reducing Green Gas Emissions (GHG) by at least 55% by 2030, compared to 1990

Revision of the Regulation on Governance of the Energy Union and Climate Action:
transparent mechanism to monitor EU's targets achievements in MS

EU Level regulatory activities

To achieve a climate-neutral EU by 2050, the already set goals for 2020- 2030, through Directives and Regulations in 2018, needed to **be strengthened** to meet the GHG reduction to at least **55% by 2030**

On **14 July 2021** the **EU Commission issued drafts** of legislation implementing **new 2030 targets**



13 interlinked proposals issued, revising existing EU climate and energy laws, and **6 proposals for new laws**

Aimed at implementing the new 55% GHG emission reduction target by 2030, below levels in 1990

Member States required to prepare new **National Energy and Climate Plans for 2023-2030**

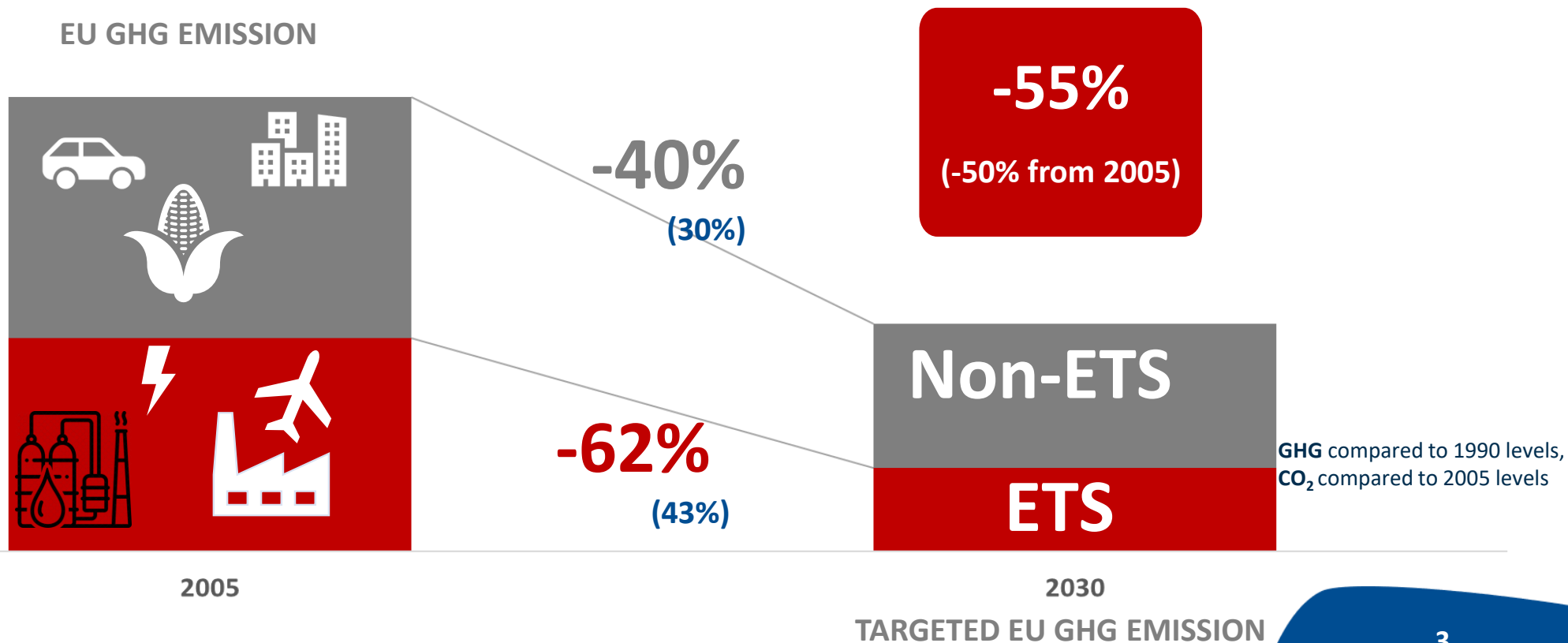
Emission Trading System (ETS) Directive

Sectoral Targets

55% GHG emission reduction target by 2030 (compared to 1990)

Sectoral Targets – split between ETS and non-ETS

ETS /CO2 emission reduction of 62% by 2030 (compared to 2005 levels, actual 43%)



EU Emission Trading System (ETS) Directive

Tightening the Market

Reduction of the total amount of free quotas in circulation – for both systems

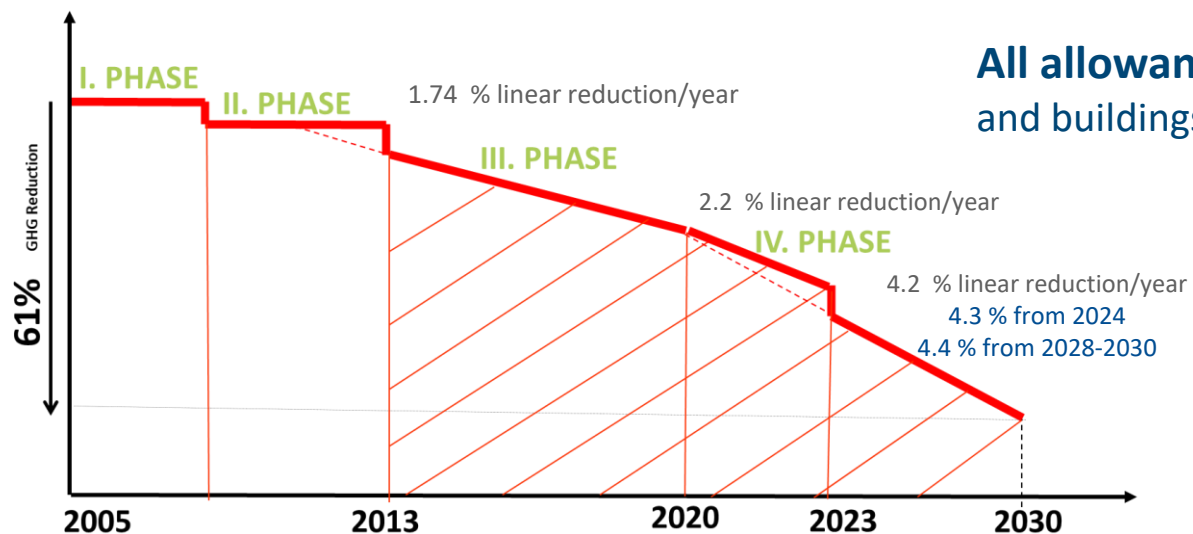
New target to reduce emission in ETS sectors increased to 62% (vs.43 %) by 2030, compared to 2005

The linear reduction factor LRF:

4,3% from 2024 to 4.4% from 2028 to 2030

Currently decrease of 2,2% allowances each year

EU ETS for stationary installations



EU ETS 2

New emission trading systems (self-standing) from 2024 for buildings and road transport, 2027 full implementation (or 2028 if energy prices exceptionally high)

Directive aims to regulate the **liable entity (suppliers that pay the excise duty)** instead of the **emitters**

1 January 2025 all regulated parties shall require **permits**, to carry out their activities
30% frontloading of auction volumes for the first year to ensure smooth start (130%)

LRF: 5.10% from 2024 and 5.38% from 2028

Simplified monitoring reporting and verification requirements for small fuel suppliers

Providers/suppliers to **monitor and report** fuel quantities from **2024 and 2025**

All allowances to be auctioned from 2027, no free allocations for road transport and buildings

Maritime transport to be included in the existing EU ETS system

Obliging entity will be the „shipping company”

Gradually phase-in 2024-2025, as of **2026 fully included**

Aviation sector phase out free allocations as per 2027 -Full auctioning

Already in force ! Monitoring started as of 1 October 2023

New mechanism of protection against carbon leakage

The goal: is to equalise the cost of domestic production of goods (with ETS costs included) and import (without ETS cost included)

It applies on import into EU, for products in EU under ETS regime

For transitional phase CBAM will apply on imports: **cement, fertilizers, electricity, iron and steel, aluminium and hydrogen** (sectors not benefiting from free allowances)

EU importers will have to report on volume of their imports and GHG emissions embedded during their production –without paying any financial adjustment

Transitional phase : **1 October 2023- 31 December 2025**

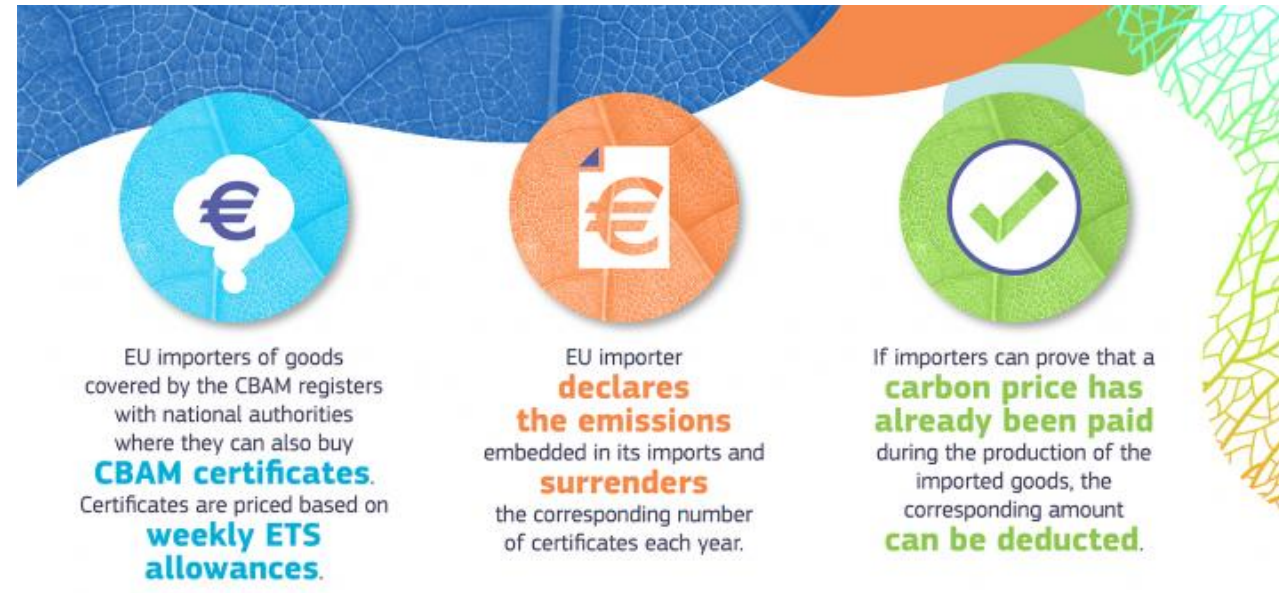
First reporting 1 October 2023- 31 January 2024,

CBAM phase-in: from **1 January 2026 to end of 2034**

After 2026 other ETS sectors will be included, (petrochemical and petroleum fuels?)

Implementing Regulation on reporting and methodology:
3 options : reporting based on „EU Method”; equivalent third country system; on reference values

As of 1 January **2025** only EU method will be accepted



#EUGreenDeal



Transitional phasing-out of free ETS allowances from 2026 to 2034 (within 10 years)

The target of at least **42.5%** share of renewables in the EU,s overall energy consumption with 2.5% „top up” **45%** (32% currently)

➤ **RES target for transport by 2030:**

14.5% GHG* intensity reduction target using renewable fuels and renewable electricity in transport or

binding target of at least **29% share of RES-** renewables in final consumption of energy in transport sector by 2030

Binding sub- target of 1 % 2025 and 5.5% 2030

of **advanced biofuels** (non-feed-based feedstocks and biofuels produced from Annex IX Part A) and **renewable fuels of non-biological origin (RFNOs-** renewable hydrogen and synthetic fuels (e-fuels) and recycled carbon fuels (RCFs))

Sub-target for RFNBO’s set at 1.0 % share by 2030 as minimum

Energy Union Governance Regulation:

18% RES by 2022

43% RES by 2025

65% RES by 2027

➤ **Targets in industry sector**

RES target for industry: Annual RES increase of 1,6%
on calculated average for **2021-2025** and **2026-2030**

RFNBOs renewable fuels of non-biological origin in industry:
At least **42 %** shall be **Hydrogen by 2030**
60% by 2035

MS contribution to the 2030 target
compared by binding national 2020
target

* removing the actual volume-based 14% renewables in transport fuels and 6% GHG reduction

➤ **Targets in industry sector**

MS have the possibility to **discount** the contribution of **RFNBOs** in industry **up to 20%**:

- The share of blue hydrogen (fossil fuels) is not more **23% in 2030** and **20% in 2035**
- MS' national contribution to EU overall target is met



➤ **Building sector : 49% share of RES by 2030**

➤ **Heating and cooling** :Renewable targets binding increase of **0,8%** for the annually average calculated for **2021-2025** and **1.1 %** from **2026-2030**

➤ **Member States shall:**

Establish mechanism of credits for renewable energy to the transport sector

Promote electromobility (operators' credits and via public charging stations)

Prepare a new NECP with new targets and propose trajectories



The Directive should be transposed By Member States in national laws by 18 months after The publication, some measures as per 1 July 2024

Energy efficiency first!

Stronger and binding 2030 energy efficiency targets- EU level :

Final energy consumption savings of 36% (currently 32.5%) **Primary energy consumption** savings of 42%

MS collectively to reduce energy consumption by at least 11.7% by 2030, projections for 2030 made in 2020

It translate :

Upper limit for primary energy consumption on EU of **992.5 Mtoe**

Upper limit for final energy consumption on EU of **763 Mtoe**

Limit for final energy consumption is binding

Annual new energy savings obligation increased from actual 0,8% (2021-2023), to 1,3% of final energy consumption for energy suppliers (2024-2025), 1.5% (2026-2027) and 1.9 from 2028 onwards.

That's an average of **1.49%** of new annual savings for 2024-2030

Energy savings for **buildings in renovation obligation, 3% annually**

Introduction of annual **energy consumption reduction target of 1.9%** for the **public sector** as a whole

New NECP for 2024-2030 with :

national targets, trajectory and means how to achieve them, approved and harmonised et EU level



Stronger policies and measures:

Energy Management system mandatory requirement for large industrial energy consumers, **energy audits** are extended to small and medium-sized enterprises (SMEs)

Strengthening the Energy Savings Obligation (**Obligation schemes and Alternative measures**), MS may choose the obligated parties

Policy measures: savings in projects with direct fossil fuel combustion, **will not be eligible** from 2024, and from 2026 for policy measures

Eligible projects treated as energy savings :

Hydrogen, renewable electricity, geothermal energy, biogas and advanced biofuels, synthetic fuels

Free allocations conditional: energy efficiency projects plans /energy audit recommendation implementation failure could lead to a 20% reduction of free allowances (ETS1) .



Transposition deadline
for most measures will
be 11 October 2025

Regulation* on the deployment of alternative fuel infrastructure

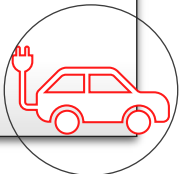
Mandatory national targets for deployment of sufficient alternative fuels infrastructure in the Union, to be met in 2025 or 2030

- MS to ensure **Power output (PO) target**
- **Minimum converge rate** of fast recharging stations for **car and vans** every **60 km** along TEN-T network
- Recharging stations for **heavy-duty vehicles** every **60 km** along the TEN-T and every **100 km** on larger TEN-T from **2025**, complete coverage by **2030**
- Recharging points in **safe and secure parking areas** and in cities (**urban nodes**) for **LDV** and **HDV**
- **Hydrogen refuelling stations** along TEN-T 200 km in between 31 December **2030** accessible, and at least **one** in each **urban node**
- **Shore-side electricity** in at least **50 maritime ports** for large passenger vessels or **100 ports** for container vessels by 2030 (or Calls)
- **Provide electricity** to stationary aircrafts at all gates by 2025, and all remote stands by 2030

ALTERNATIVE FUELS


- Electricity
- Hydrogen
- Ammonia

ALTERNATIVE FUELS FOR ZERO-EMISSION VEHICLES




- Biomass fuels and biofuels
- Synthetic and paraffinic fuels produced from renewable energy

RENEWABLE FUELS



- Liquefied petroleum gas(LPG)
- Natural gas (CNG; LNG)
- Synthetic and paraffinic fuels produced from non-renewable energy

ALTERNATIVE FOSSIL FUELS FOR A TRANSITIONAL PHASE



*New form of legislation to be **Regulation** instead of **Directive**

Obligation for Union airports, aircraft operators and fuel suppliers

Airports > 100000 freight- tons per year, or over 800 000 passengers from EU airports

Aircraft operators ≥ 500 commercial flights departing from EU airports, or 52 commercial all-cargo flights

Blending mandate for jet fuel mix:

SAF sustainable aviation fuels : synthetic fuels (e-kerosene), advanced aviation biofuels and recycled carbon aviation fuels

Fuel suppliers' obligation- aviation fuel available to aircraft operators at each EU airport contains minimum share of SAF **with increasing sub share of synthetic aviation fuel of:**

2% by 2025;

6% by 2030, of which at least **1.2%** are synthetic aviation fuels; **2%** synthetic aviation fuels **2032-2034**

20% by 2035, of which at least **5%** are synthetic aviation fuels;

34% by 2040, of which at least **10%** are synthetic aviation fuels;

42% by 2045, of which at least **15%** are synthetic aviation fuels

and 70% by 2050, of which at least **35%** are synthetic aviation fuels

Aviation sector in ETS:
Phase-out of free allowances
Full auctioning from **2027**

Transitional/implementation period 2025-2034 with minimum share of SAF as average over all aviation fuel supplied across EU

Aircraft operators obliged to by at least **90%** of the yearly aviation fuel required, at Union airports

As of 2025 **EU eco label** introduced for aircrafts using SAF fuels

Hydrogen and low carbon fuels to be promoted

Entering into force 1 January 2024 (some requirements as of 1 January 2025)



- **GHG intensity limits for energy used on board by ships (> 5000 gross tonnage), EU ports regardless of its flag :**
 - 2% reduction by 2025, 6% cut by 2030, until 80% reduction by 2050**
 - Goal:** Low-carbon and renewable energy products in maritime transport
 - Incentives for renewable fuels of non-biological origin –RFNBO, at least **2%** as of 2034

Shipping companies' obligation

The **Regulation** obliged shipping companies, but the fuel producers and fuel suppliers are obviously involved

An exclusion of **fossil fuels** from the regulation's certification process

As of **1 January 2030**, ships in ports (passenger and containers) to use on-shore power supply, or equivalent zero-emission technologies. From 2035 all EU ports.

The new rules will apply from **1 January 2025**, (some requirements from 31 August 2024)

- **Maritime transport to be included in the existing EU ETS system**

Allowances allocation:

50% emissions from ships departing from EU ports to outside EU jurisdiction

50% emission from ships arriving in EU ports from outside EU jurisdiction

100% emissions from ships departing and arriving in EU ports



Gradually phase in 2024-2025, as of **2026 ETS** fully implemented

Allowances to surrender **40%** for **2024**, **70%** for **2025** and **100%** for **2026** of the total verified emission reported

GHG /CO2 emissions standards for cars/vans- Regulation

Emission reduction trajectory :

15% reduction for new cars and vans between **2025-2029**

55 % reduction (instead of 37.5%) for **new cars**; **50%** (current 31 %) for new vans from **2030-2034** (compared to 2021)

100% reduction for new cars and vans as of **1 January 2035**

Zero-emission cars:

Effectively means ban on registering /sale of new petrol and diesel cars- ICE cars as of 2035



By **2025** EU: Commission EU methodology for assessing the full lifecycle of CO2 emissions for cars and vans

CO2 neutral fuels after 2035 (EU Commission & Germany, CONCAWE)

In place **2025-2029. Review in 2026 !**

• 2020 to 2024	2025 to 2029	2030 to 2034	2035 onwards
• Cars: 93,6 g CO ₂ /km	Cars: 95 g CO ₂ /km	Cars: 49,5 g CO ₂ /km	Cars: 0 g CO ₂ /km
• Vans: 153,9 g CO ₂ /km	Vans: 147 g CO ₂ /km	Vans: 90,6 g CO ₂ /km	Vans: 0 g CO ₂ /km



NEDC emission test procedure

WLTP (Worldwide harmonized Light vehicles Test Procedure)

➤ **Additional Fit for 55 legislation adopted**

CO2 emission standards for Heavy Duty Vehicles

Monitoring, Reporting and Verification (MRV) Maritime Regulation

Effort sharing Regulation

Land Use, Land Use Change a Regulation and Forestry

➤ **Fit for 55 legislation still in process**

Methane Emission Regulation **Q4 2023?**

Industrial Emission directive **Q4 2023?**

Decarbonized Gas and Hydrogen Market Package

Energy taxation Directive

What is important to remember

- **All adopted Regulations enter into force automatically in MS - with obligations as of 2024**
- **All adopted Directives should be transposed in national laws - and in accordance with NECP**

**HUP Energy Association need to be ready to participate in shaping of national legislation
Offer cooperation and knowledge in the preparation of plans, procedures and implementation documents**



THANK YOU!

Documentation and Information used:

- **UPEI Association**
UPEI- The voice of Europe's Independent Fuel Suppliers
- **EU Commission and EU official web page**

'Article 27

Calculation rules in the transport sector and with regard to renewable fuels of non-biological origin
regardless of their end use

The share of biofuels produced from the feedstock listed in **Part B of Annex IX** in the energy content of fuels and electricity supplied to the transport sector shall be limited to **1,7 %**;

The **share of biofuels** and biogas produced from the feedstock listed in **Annex IX** and renewable fuels of **nonbiological origin** shall be considered to **be twice its** energy content;

The **share of renewable electricity** shall be considered to be **four times its energy** content when supplied to **road vehicles** and may be considered to be **1,5 times its energy** content when supplied to **rail transport**

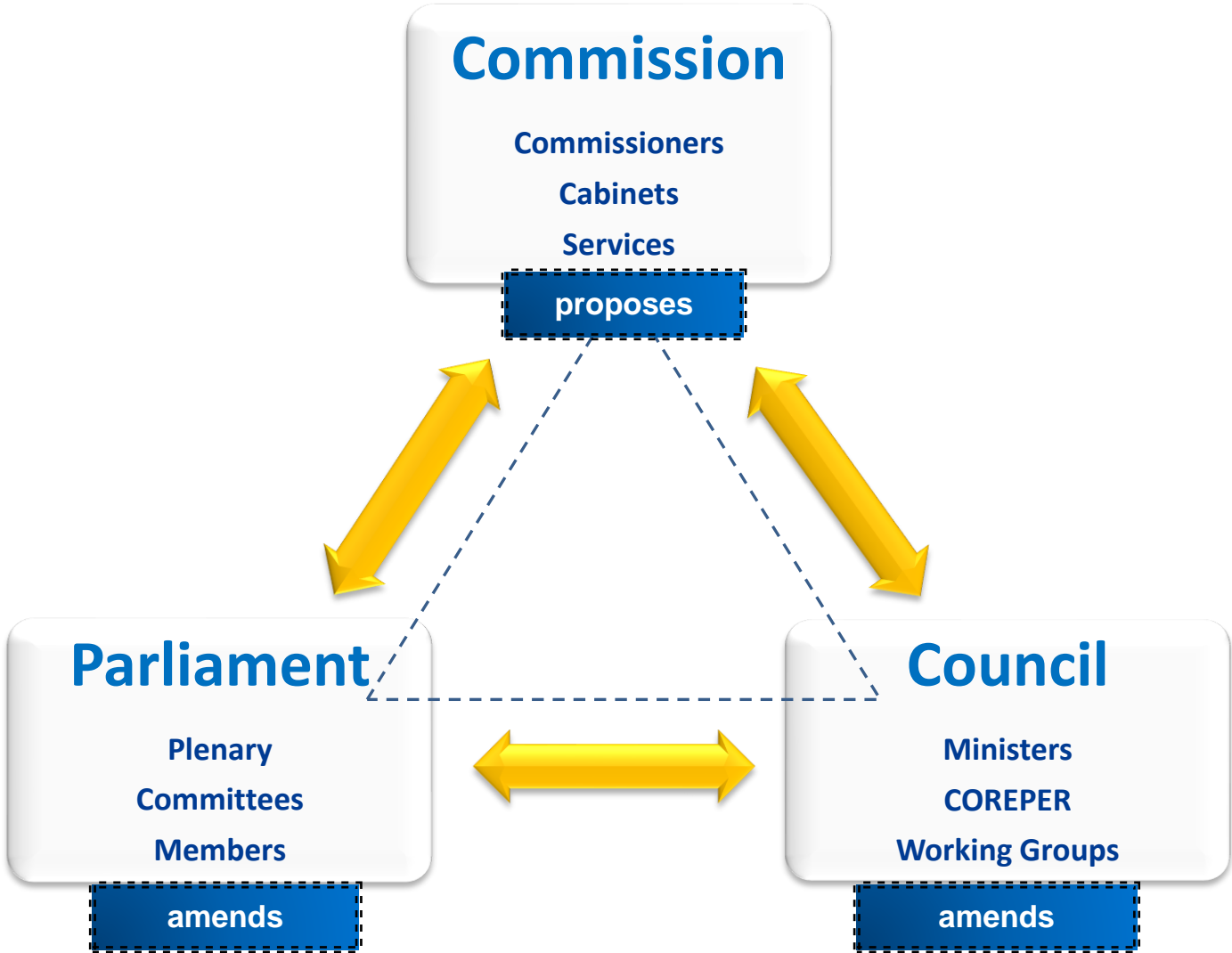
The share of **advanced biofuels** and biogas produced from the feedstock listed in **Part A of Annex IX** supplied in the **aviation and maritime** transport modes shall be considered to be **1,2 times their energy content**

The **share** of renewable fuels of **non-biological origin** supplied in the **aviation and maritime** transport modes shall be considered to be **1,5 times their energy content**

HOW IS LEGISLATION ADOPTED?

But there are many influencers...

National Institutions, Think Tanks, NGOs, Professionals and Academics, Companies, Consumers, Industry Trade Associations, and of course the Media...



Legislative proposal- EU Commission

First reading- EU Parliament and Council

Second reading- EU Parliament and Council

Conciliation- A conciliation committee 50% Parliament and Council

Third reading: EU Parliament and Council

Approved: Approved by Parliament and Council, the act is adopted.

Rejected: Not Approved by Parliament or Council, in any stage of process, the act is rejected

New Proposal : EU Commission

Trilogue: Informal meeting of all three EU institutions . Agreements must be adopted by each institutions’ formal procedures.

Energy Taxation Directive

The proposal introduces new structure **of tax rates based on energy content and environmental performance** (as EUR/GJ) , rather than **on volume** (in Croatia and most MS)

Conventional fossil fuels are taxed **the highest**, while electricity, biofuels and renewables are at **lowest rate**; ranking to be detailed

Removal of incentives for fossil fuel consumption through EU, exceptions only for renewable electricity, advanced biofuels and RFNBO fuels

For other **exemption and reduction**, MS will apply for authorisation- **unanimous approval in the Council needed**

Energy sustainable products and electricity for intra-EU air and water transport 10 years of transitional period (without or lower taxes)

Proposed minimal tax rates in Energy Taxation Directive

Motor fuels

	Current minima	2023 – €/GJ	2023	2033 – €/GJ *
Petrol	359 €/1000 l	10.75	385.4 €/1000 l	10.75
Gasoil	330 €/1000 l	10.75	419 €/1000 l	10.75
LPG	125 €/1000 kg	7.17	162.4 €/1000 kg	10.75
Natural gas	2.6 €/GJ	7.17		10.75
Conv. biofuels		5.38		10.75
Sust. biofuels		5.38		5.38
Hydrogen		0.15		5.38
Advanced biofuels/RFNBOs		0.15		0.15
Electricity	0.5 - 1 €/ MWh	0.15	0.58 €/ MWh	0.15

Ranking to be mantined by MS

Minimal tax rates will be adopted every year starting from 1 January 2024

* Before indexation

Other fuels

	Current minima	2023 – €/GJ	2033	2033 – €/GJ
Kerosene (aviation)	0	0	467.6 €/ 1000 l	10.75
Gasoil (NRMM)	21 € / 1000 l	0.9	35.1 € / 1000 l	0.9
Gasoil (maritime)	0	0.9	35.1 € / 1000 l	0.9
Heavy fuel oil (maritime)	0	0.9	36.7 € / 1000 l	0.9

Non-Road Mobile Machinery - **NRMM**

Adoption and enforcement of EU fuel standards for gasoline and diesel



European Committee for Standardization

CEN (through TC) prepare and adopt EU fuel standards.

Standard for gasoline is **EN 228**: 2017

Standard for diesel is **EN 590**: 2022

To make the standards mandatory the official decision should be made and declared

For transport fuels in EU that is done through **Fuel Quality Directive 98/70/EC**.

The **FQD** was amended in 2003 and 2009 as **2003/17/EC** and **2009/30/EC**

The fuel quality standards are often referred to as EURO + number. It is not correct; EURO are exhaust gas quality standards indicating level of NOx and PM emission limits

History and levels of Euro standards for passenger cars

Euro standards	Entry into force		Emission limits		
	New approvals	All new registrations	Petrol <u>NOx</u>	Diesel <u>NOx</u>	Diesel PM
Euro 0	1 Oct 1991	1 Oct 1993	1,000mg/km	1600mg/km	(no limit)
Euro 1	1 Jul 1992	31 Dec 1992	490mg/km	780mg/km	140mg/km
Euro 2	1 Jan 1996	1 Jan 1997	250mg/km	730mg/km	100mg/km
Euro 3	1 Jan 2000	1 Jan 2001	150mg/km	500mg/km	50mg/km
Euro 4	1 Jan 2005	1 Jan 2006	80mg/km	250mg/km	25mg/km
Euro 5	1 Sep 2009	1 Jan 2011	60mg/km	180mg/km	5mg/km
Euro 6	1 Sep 2014	1 Sep 2015	60mg/km	80mg/km	5mg/km

4,5 mg/km PMP measurement procedure

Standards and other standardization publications are **voluntary** guidelines providing **technical specifications** for products, services, and processes EU standards are adopted by one of the 3 European standardisation organisations (ESOs):

CEN

European Committee for Standardisation

CENELEC

European Committee for Electrotechnical Standardisation

ETSI

European Telecommunications Standards Institute

NSBs

National standardisation bodies adopt and publish national standards

Climate change parameters by 2100

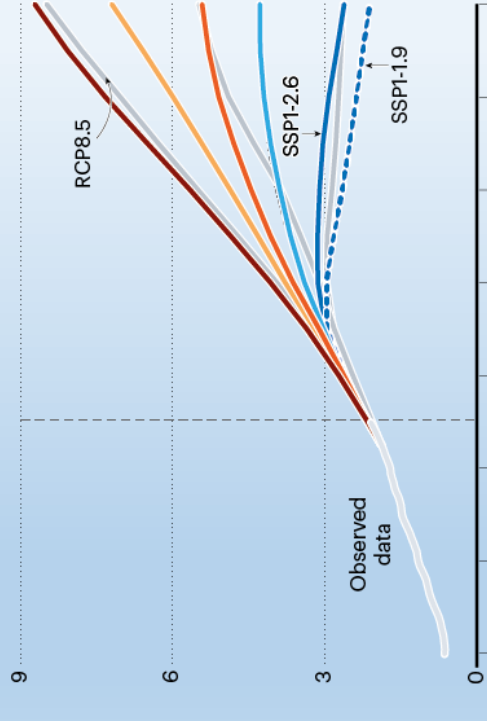
A RANGE OF FUTURES

Researchers have developed new scenarios, called Shared Socioeconomic Pathways (SSPs), to explore different ranges of development and how they would alter the climate. These complement older scenarios called Representative Concentration Pathways (RCPs).

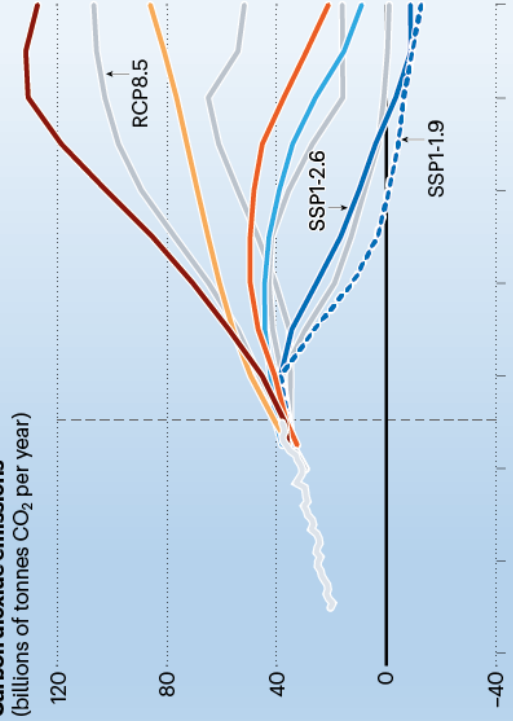
— SSP1 — SSP2 — SSP3 — SSP4 — SSP5 — RCPs

Global warming power (watts metre⁻²)

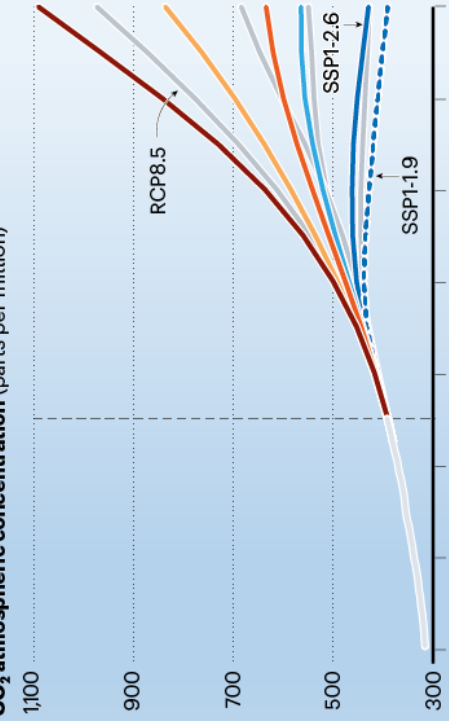
Total radiative forcing measures the level of warming from greenhouse-gas pollution. The SSPs have similar levels to the RCPs.



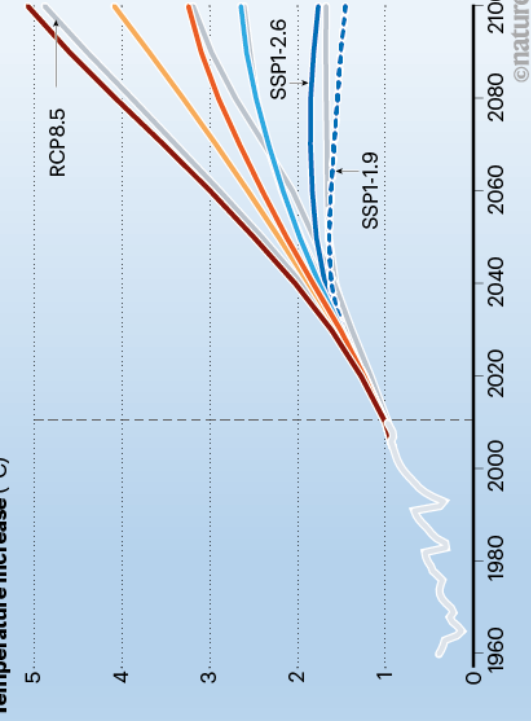
Carbon dioxide emissions (billions of tonnes CO₂ per year)



CO₂ atmospheric concentration (parts per million)



Temperature Increase (°C)



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