



EU policies

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EU Policies

The European Green Deal



The Ff55 implementing regulation

Revision of Renewable Energy Directive II

Revision of the Effort Sharing Regulation

Revision of the Emissions Trading System Directive

Revision of the Land Use Land Change and Forestry regulation

ReFuelEU Aviation legislative proposal

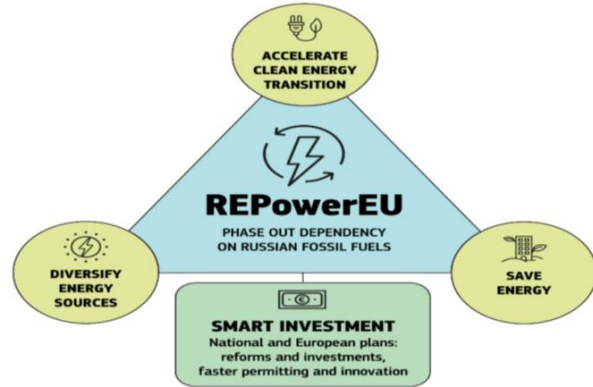
FuelEU Maritime legislative proposal

CO2 emissions standards

CO2 emissions standards HDV proposal

Revision of the Energy Taxation Directive

- Collective binding target of renewables in EU's energy mix to **42,5%** by 2030 with an indicative top-up of 2.5%
 - Indicative target for innovative renewable energy **technology** of at least **5%** of newly installed renewable energy capacity by 2030
 - **Advanced biofuels** and **biogas** produced from Annex IX Part A feedstock **AND** renewable fuels of non-biological origin in energy supplied to transport at least **5,5%** in 2030, of which renewable fuels of non-biological origin at least **1%**
 - GHG intensity reduction at least **14,5%** in 2030 by all renewable fuels and renewable electricity supplied to transport OR **29%** share of renewable energy in final energy consumption in transport
 - strengthens the sustainability criteria for biomass use for energy, to reduce the risk of unsustainable bioenergy production
- EU-wide reduction of **40%** by 2030 in the transport, buildings, agriculture and waste sectors compared to 2005
- By 2030 reduce sectors' GHG emissions by **62%**, compared to 2005 levels
 - Carbon pricing for maritime and, aviation from 2026, buildings and road transport (and certain industries) from 2027
- Increase EU's natural carbon sinks with new EU target of net GHG removals in the LULUCF sector of **310 Mt CO2eq** from 2026 to 2030
- In **2030** SAF at least **6%** of which synthetic aviation fuels average share 1.2% and minimum annual share 0.7%, rest being advanced biofuels (**4,8%**)
 - In **2050** SAF at least **70%** of which synthetic aviation fuels at least **35%**, rest being advanced biofuels (**35%**)
 - SAF include biofuels from agricultural or forestry residues, algae, bio-waste, UCO, animal fats, and recycled jet fuels from waste gases and waste plastic, as well as synthetic fuels and renewable hydrogen
- Biofuels, biogas, renewable fuels of non-biological origin and recycled carbon fuels are taken into account to reduce the GHG content of the energy in ships by **2% in 2025, -6% in 2030 and -80% in 2050** from 2020 average of 91.6 gCO2/MJ
 - Cars and vans running on carbon neutral synthetic fuels can be registered after 2035 (recital)
 - Commission will create a new category of vehicles in an implementing regulation, and present a delegated act to define how these vehicles can contribute to climate neutrality
- **45%** CO2 emission reduction target for new heavy-duty vehicles by 2030 compared to 2019 levels, **65%** by 2035 and **90%** by 2040
- Ongoing



Pillar III – Accelerate roll-out of renewable energy

- Bio methane Action Plan to double the EU bio methane production to 35 billion m³/y by 2030
- Bio methane Industrial Partnership
- Financial incentives to increase production, also through Common Agricultural Policy
- R&I support to innovative technologies

Strategic Technologies for Europe Platform

[Contributing EU programmes \(europea.eu\)](https://europea.eu)

Boost investments in critical technologies in Europe

Deep and digital technologies

Clean technologies

Renewable energy; electricity and heat storage; heat pumps; electricity grid

RFNBOs; sustainable alternative fuels; electrolyzers and fuel cells;

CCS, CCUS; energy efficiency; hydrogen; water purification and desalination; advanced materials; extraction and processing of critical raw materials

Bio technologies

Reinforce, leverage and steer EU funds – to investments in the EU, and in skills

STEP is expected to result in up to **€160 billion** of new investments

InvestEU

Innovation Fund

Horizon Europe

EU4Health

Digital Program

European Defense Fund

Recovery and Resilience Facility

Cohesion policy funds

EU Net-Zero Industry Act: Making EU the home of clean tech industries

Scale up in the EU net-zero technology manufacturing to provide **at least 40%** of its annual deployment needs for strategic net-zero technologies by 2030

Simplifying the regulatory framework for net-zero technologies

Scaling up manufacturing of net-zero technologies

Fostering competitive and resilient European net-zero industry



Strategic net-zero technologies that are commercially available or soon to enter the market, and have significant potential for rapid scale-up

- Solar photovoltaic and solar thermal
- Onshore wind and offshore renewables
- Batteries and storage
- Heat pumps and geothermal energy
- Electrolysers and fuel cells
- Sustainable biogas/ biomethane**
- Carbon capture and storage
- Grid technologies

Other net-zero technologies are also supported

Sustainable alternative fuels technologies

Advanced technologies to produce energy from nuclear processes, small modular reactors, related best-in-class fuels

Hydrogen and decarbonised gas markets package

COM(2021) 804 final – The Council's position

The hydrogen and decarbonised gas market package proposes revised and new rules to lower the carbon footprint of the gas market. The goal is to **shift from fossil natural gas to renewable and low-carbon gases and boost their uptake** in the EU by 2030 and beyond.

The package also aims to help **strengthen the security of gas supply and reduce dependency** on imported fossil fuels.

Renewable and low-carbon gases are gaseous fuels with a **lower carbon footprint** than fossil fuels.

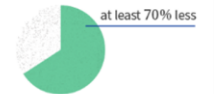
Renewable gases can be produced from:



organic sources
→ biogas
→ biomethane

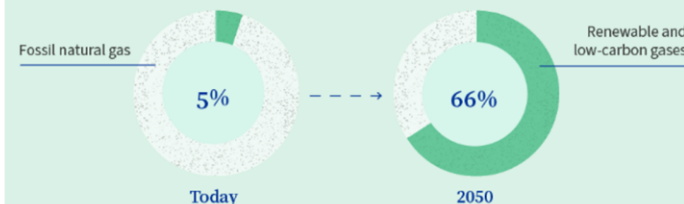


non-biological renewable sources (using electricity)
→ renewable hydrogen
→ synthetic methane



Low-carbon gases are not produced from renewable energy sources but they produce **at least 70% less greenhouse gas emissions** than fossil natural gas across their full lifecycle.

Shift to renewable and low-carbon gases



Horizon Europe Work Programme 2023-2024

Cluster 5 Climate Energy and Mobility, Destination Sustainable, secure and competitive energy supply, Renewable Energy

Renewable Fuels	HORIZON-CL5-2024-D3-01-03	Demonstration of improved intermediate renewable energy carrier technologies for transport fuels	IA, 10 M per project, opens 12 September 2023, closes 16 January 2024
	HORIZON-CL5-2024-D3-02-02	Development of next generation synthetic renewable fuel technologies	RIA, 3 M per project, opens 17 September 2024, closes 21 January 2025
	HORIZON-CL5-2024-D3-01-04	Improvement of light harvesting and carbon fixation with synthetic biology and/or bio-inspired/ biomimetic pathways for renewable direct solar fuels production	RIA, 4 M per project, opens 12 September 2023, closes 16 January 2024
Bioenergy	HORIZON-CL5-2024-D3-01-05	Development of carbon fixation technologies for biogenic flue gases	RIA, 4 M per project, opens 12 September 2023, closes 16 January 2024
International	HORIZON-CL5-2024-D3-02-03	Development of smart concepts of integrated energy driven bio-refineries for co-production of advanced biofuels, bio-chemicals and biomaterials	RIA, 3.5 M per project, opens 17 September 2024, closes 21 January 2025
Cross- cutting	HORIZON-CL5-2024-D3-01-10	Next generation of renewable energy technologies	RIA, 3 M per project, opens 12 September 2023, closes 16 January 2024
	HORIZON-CL5-2024-D3-02-10	Market Uptake Measures of renewable energy systems	CSA, 2 M per project, opens 17 September 2024, closes 21 January 2025
Other actions		Study on how to mobilize industrial capacity building for advanced biofuels	other action, 0.5 M, 4th quarter 2023
		Contribution to InvestEU blending operation under the Green Transition product (including Sustainable aviation fuels)	Indirectly managed action through EIB, 100 M, as of 1st quarter 2023 and 1st quarter 2024



Thank you!

[CORDIS results pack on renewable fuels](https://op.europa.eu/en/publication-detail/-/publication/c4651f9b-eaf2-11ed-a05c-01aa75ed71a1/language-en)
- Publications Office of the EU
(europa.eu)

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<http://ec.europa.eu/horizon-europe>

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