

European Commission

Energy Efficiency Coordination Group Energy Community Sarajevo, 5 March 2019

Claudia CANEVARI European Commission DG ENER, Unit C3

2050 Long-term Strategy (I)

OUR VISION: CLIMATE-NEUTRAL EUROPE BY 2050



A prosperous, modern, competitive and climateneutral economy by 2050 – A Clean Planet for All



- Lead the way to carbon neutrality.
- Build on the Clean Energy for All Europeans Package.



Create a vision and sense of direction, plan for it and inspire and enable.



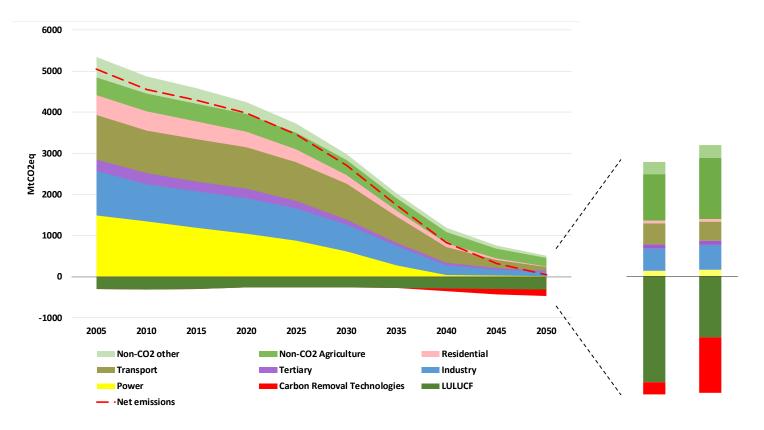
Ensure a socially fair energy transition.



2050 Long-term Strategy (II)

ALL SECTORS HAVE TO CONTRIBUTE

GHG emissions trajectory in a 1.5°C scenario



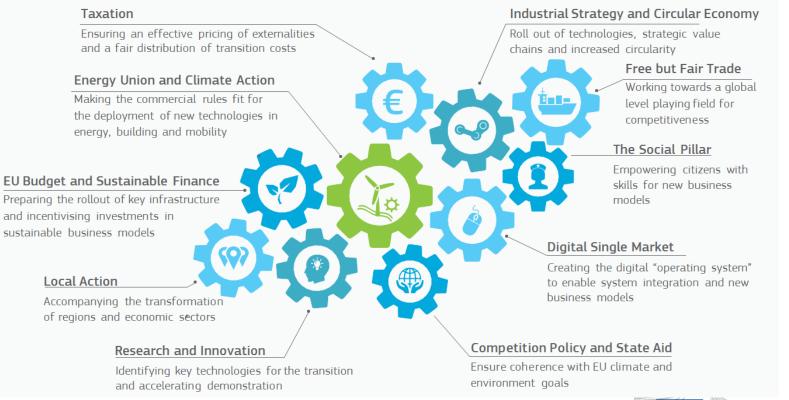


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2050 Long-term Strategy (III)

OUR VISION: CLIMATE-NEUTRAL EUROPE BY 2050

Enabling framework crucial to deliver transformation





Detailed assessment supported by scenario analysis

LONG-TERM STRATEGY OPTIONS

Long Term Strategy Options								
	Electrification (ELEC)	Hydrogen (H2)	Power-to-X (P2X)	Energy Efficiency (EE)	Circular Economy (CIRC)	Combination (COMBO)	1.5°C Technical (1.5TECH)	1.5°C Sustainable Lifestyles (1.5LIFE)
Main Drivers	Electrification in all sectors	Hydrogen in industry, transport and buildings	E-fuels in industry, transport and buildings	Pursuing deep energy efficiency in all sectors	Increased resource and material efficiency	Cost-efficient combination of options from 2°C scenarios	Based on COMBO with more BECCS, CCS	Based on COMBO and CIRC with lifestyle changes
GHG target in 2050	-80% GHG (excluding sinks) ["well below 2°C" ambition]					-90% GHG (incl. sinks)	-100% GHG (incl. sinks) ["1.5°C" ambition]	
Major Common Assumptions	 Higher energy efficiency post 2030 Deployment of sustainable, advanced biofuels Moderate circular economy measures Digitilisation Market coordination for infrastructure deployment BECCS present only post-2050 in 2°C scenarios Significant learning by doing for low carbon technologies Significant improvements in the efficiency of the transport system. 							
Power sector	Power is nearly decarbonised by 2050. Strong penetration of RES facilitated by system optimization (demand-side response, storage, interconnections, role of prosumers). Nuclear still plays a role in the power sector and CCS deployment faces limitations.							
Industry	Electrification of processes	Use of H2 in targeted applications	Use of e-gas in targeted applications	Reducing energy demand via Energy Efficiency	Higher recycling rates, material substitution, circular measures	Combination of most Cost- efficient options from "well below 2°C" scenarios with targeted application (excluding CIRC)	COMBO but stronger	CIRC+COMBO but stronger
Buildings	Increased deployment of heat pumps	Deployment of H2 for heating	Deployment of e-gas for heating	Increased renovation rates and depth	Sustainable buildings			CIRC+COMBO but stronger
Transport sector	Faster electrification for all transport modes	H2 deployment for HDVs and some for LDVs	E-fuels deployment for all modes	Increased modal shift	Mobility as a service			 CIRC+COMBO but stronger Alternatives to air travel
Other Drivers		H2 in gas distribution grid	E-gas in gas distribution grid				Limited enhancement natural sink	 Dietary changes Enhancement natural sink

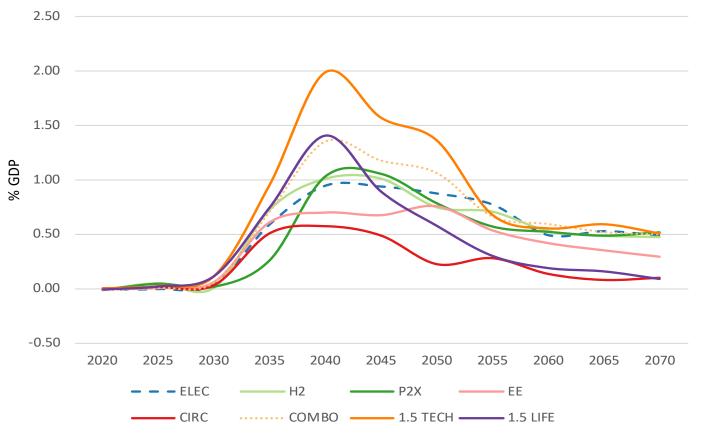


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Investing in the future of Europe

OUR VISION: CLIMATE-NEUTRAL EUROPE BY 2050

Additional investments in % of GDP





2050 Long-term Strategy (III)

OUR VISION: CLIMATE-NEUTRAL EUROPE BY 2050

Next steps

- Leadership and cooperation.
- Invitation to all the EU institutions to consider the EU vision.
- European Council, all relevant Council formations.
- Societal debate.
- Ambitious strategy by early 2020.
- National Climate and Energy Plans.



Governance Regulation (2018/1999): Purpose and Scope of the Proposal

A ROBUST GOVERNANCE TO MEET FOUR OBJECTIVES



Meet Energy Union objectives (notably the 2030 targets).



Ensure Better Regulation and reduce administrative burden.



Allow for investor certainty and predictability.



Synchronise planning and reporting cycles with Paris Agreement.

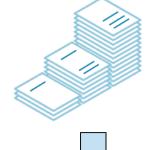


Governance process – How does it work?

MAIN ELEMENTS OF THE ENERGY UNION GOVERNANCE



National Energy and Climate Plans (2021 to 2030) (preparation well before 2020)



Integrated national progress reports (from 2023, every two years)



European Commission monitoring (State of the Energy Union)



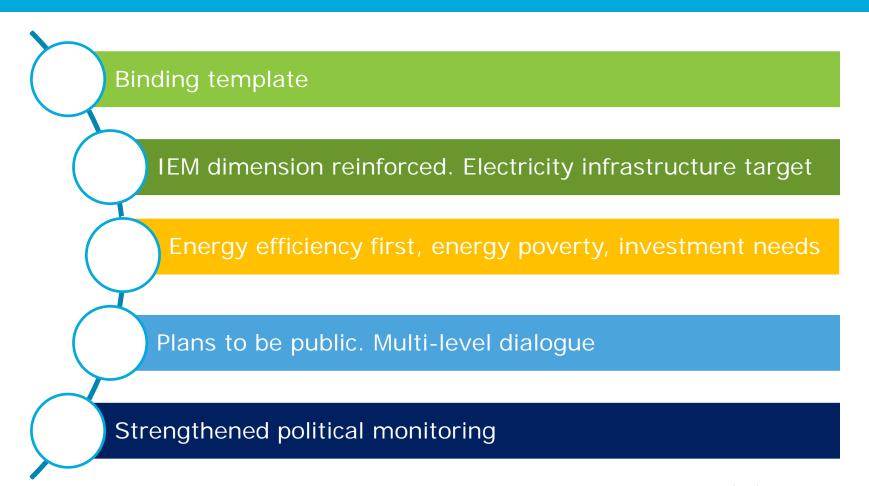
Integrated National Energy and Climate Plans (NECPs)

NECP – BINDING TEMPLATE AND 10 YEAR PLANNING CYCLE Section A Section B NATIONAL PLAN **ANALYTICAL BASIS** 1. Overview and Process for Establishing the Plan ENERGY UNION DIMENSIONS Decarbonisation 4. Current 5. Impact 2. National Energy efficiency 3. Policies and Situation Assessment of **Objectives** and Reference Policies and Measures and Targets Energy security Projections Measures Internal market R&I and Competitiveness



CLEAN ENERGY FOR ALL EUROPEANS

Main key elements





Long-term strategies (LTS)

EU AND NATIONAL LONG-TERM STRATEGIES

The Commission to propose a Union long-term strategy by 1 April 2019

Member States' long-term strategies by 1 January 2020 and subsequently by 1 January 2029 and every 10 years, with voluntary NECPs to be consistent with long-term strategi Public consultation on the with long-term strategi Public consultation on the ctrategy for long-term EU

Non-binding template



greenhouse gas emissions

reduction

The European Commission

today launched a public consultation on a strategy

duction. All interested citizens and stakeholders can send

their contributions by 9 October 2018.

for long-term EU green.

house gas emissions re-

European

Commission

Communication of long-term strategies

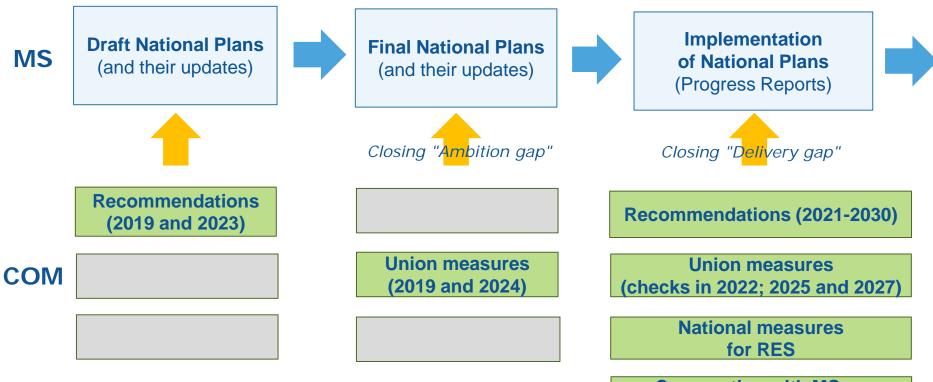
ance with Article 4, paragraph 19, of the Paris Agreement, all Parties should strive to formulate and communicate long-term low greenhouse gas emission development strategies, mindful of Article 2 taking into account their common but differentiated responsibilities and respective capabilities, in the light of different national circumstances

The COP, by its decision I/CP 21, paragraph 35, invited Parties to communicate, by 2020, to the secretariat mid-century. Jono-term low greenhouse gas emission development strategies in accordance with Article 4, paragraph 19, of the Agreement,

Parties who wish to communicate their long-term strategy to the secretariat are invited to send their submissions to LT-LEDS@unfccc int

Target achievement

A RELIABLE PROCESS FOR THE ACHIEVEMENT OF ALL ENERGY UNION OBJECTIVES



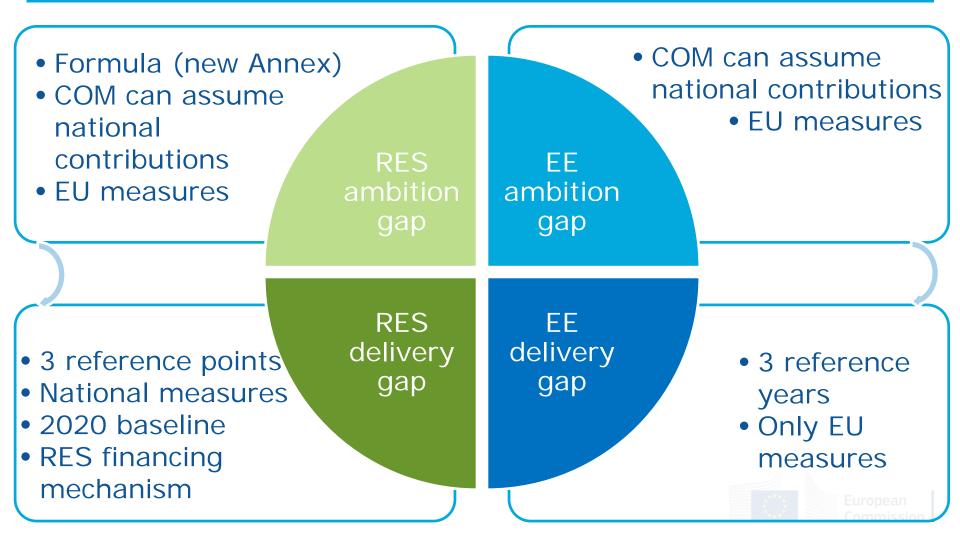
Cooperation with MS on interconnections (2025)

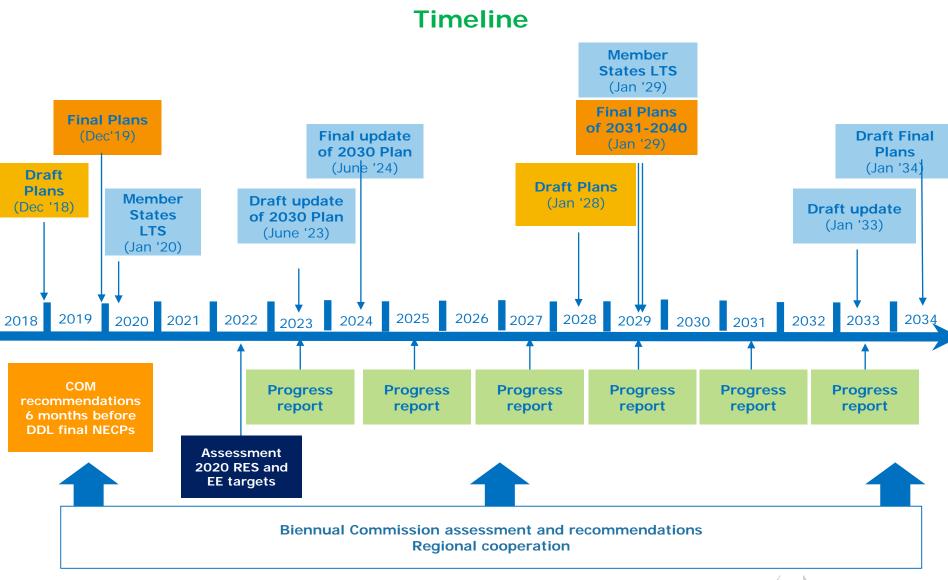


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RES and Energy Efficiency Gap Fillers

DEDICATED INSTRUMENTS FOR THE 2030 TARGETS







Preparation

PUBLIC CONSULTATION



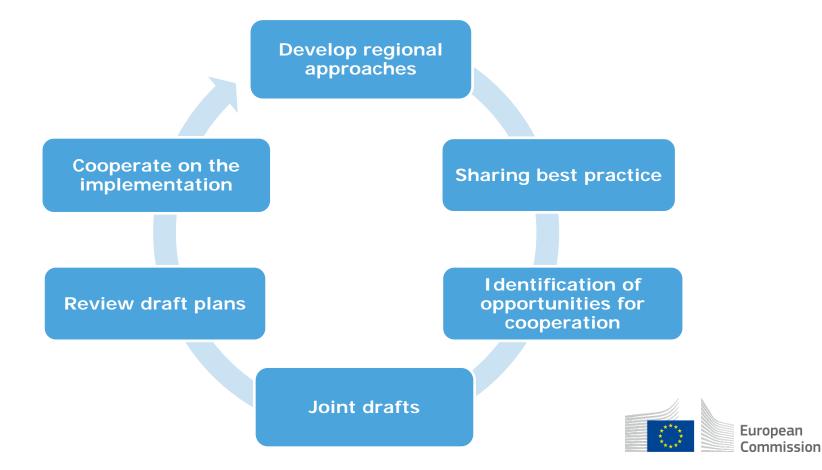
- Public to be given early and effective opportunities to participate in the preparation of the NECP as well as the LTS
- Multilevel climate and energy dialogue



Regional cooperation

MEMBER STATES SHALL CONSULT NEIGHBOURING COUNTRIES. MEMBER STATES CAN CONSULT THIRD COUNTRIES

Commission shall facilitate regional cooperation and provide guidance



Progress within the EU

SUMMARY OF PROGRESS MADE ACROSS THE EU IN DEVELOPING DRAFT NATIONAL PLANS

Institutional set up: Almost all Member States are now equipped

Political process: Vast majority of Member States approved draft NECPs by end 2018

Public consultations: Many Member States started already in 2018

<u>Regional cooperation</u>: high-level groups are discussing NECPs

<u>Analytical basis</u>: Overall steady progress. Some foreseen delays in projections of policies and measures

NECP content: Most Member States are fully engaged in drafting their NECP



Where to start?

CONCRETE ACTIONS TO PREPARE THE GROUND FOR THE PREPARATION OF THE NECP

Start internal administrative dialogues. Define responsibilities

Assess existing strategies and plans and identify gaps

Assess the Clean Energy Package (and its novelties)

Assess existing policies and measures and identify best practices

Reinforce analytical tools (modelling, reporting)

Identify and address barriers/weaknesses

Develop an internal timeline





