

# ACHIEVING THE EU'S ENERGY AND CLIMATE TARGETS UNTIL 2030

A DISCUSSION OF THE DIFFERENT APPROACHES, THEIR POTENTIALS AND LIMITATIONS

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# WELCOME & INTRODUCTION

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# PRESENTATION STUDY ON THE ARCHITECTURE OF THE EU'S ENERGY AND CLIMATE TARGETS FOR 2030

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# AGENDA

- › Preliminary findings: Rationale of and architecture to achieve the EU 2030 targets
  - › History and context of the 2030-targets
  - › GHG emissions reductions: A three-pronged approach
  - › Renewable energy: Member States' contributions to the EU target
  - › Energy Efficiency: (Recently) Sharpened control over Member States' contributions
- › Summary and outlook

# PRELIMINARY FINDINGS: THE RATIONALE FOR AND ARCHITECTURE OF THE EU ENERGY AND CLIMATE TARGETS FOR 2030



# HISTORY AND CONTEXT

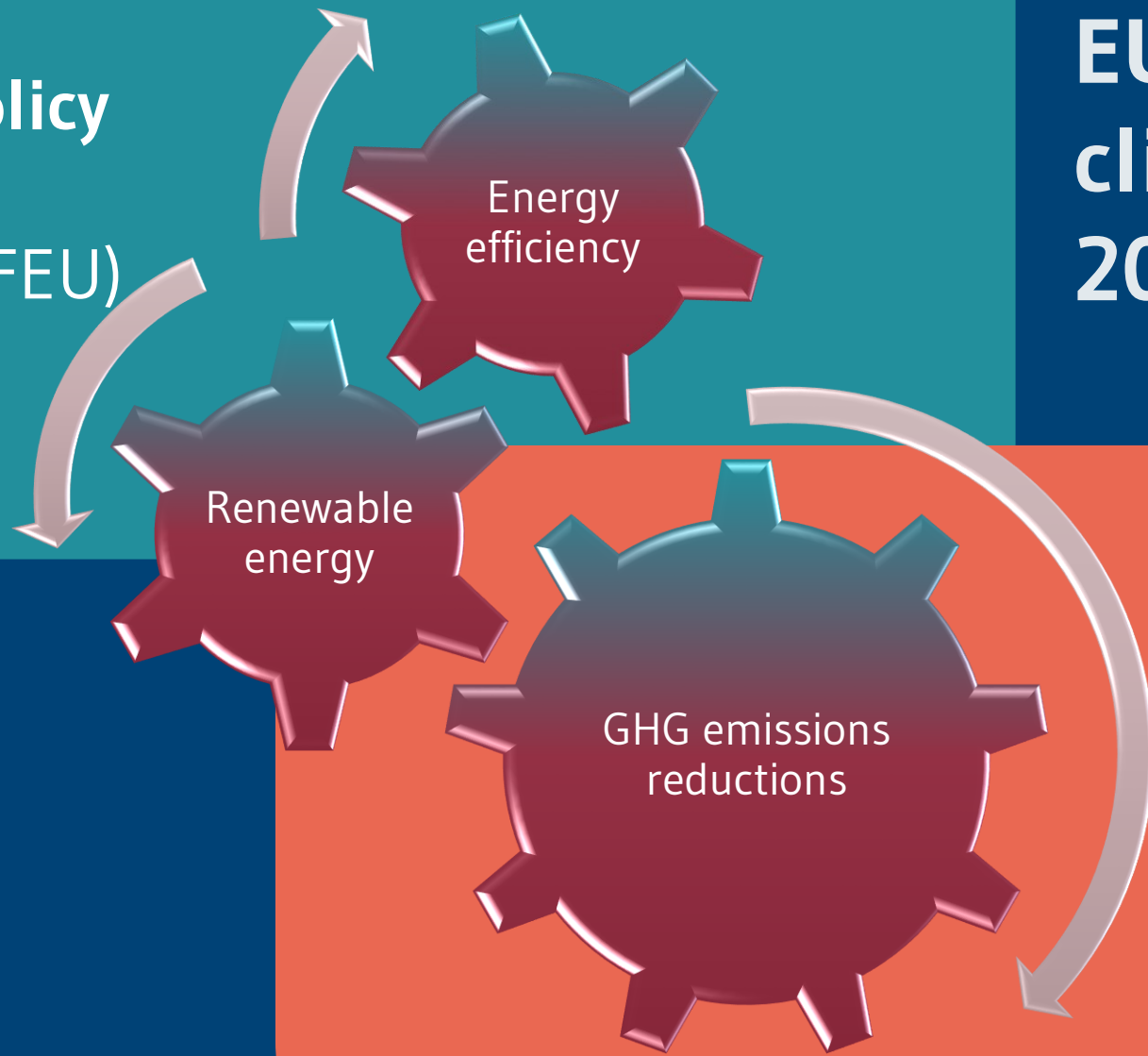
## › EU energy and climate policies have emerged alongside each other

- › First commitments to reduce/limit the increase of GHG emissions in the 1990s, on EU as well as international level
- › With the understanding that **GHG emissions reductions should not limit economic growth**
- › Vision of a **sustainable - and secure - energy supply of the future**, with low GHG emissions, high renewable energy and high energy efficiency, also linked to **employment, innovation** etc.
- › With Europe 2020 strategy, introduction of the **20-20-20-(10) targets for GHG emissions reductions, renewable energy, energy efficiency and interconnection**

**EU energy and climate targets for 2030 are currently defined in Art. 2(11) Governance-Regulation:  
(at least) -55% GHG emissions reductions, 42,5% renewable energy, 11,7% energy efficiency, 15%  
interconnection until 2030**

**Climate Policy Objectives**  
(Art. 191 TFEU)

**EU energy and climate targets to 2030**



**Energy Policy Objectives**  
(Art. 194 TFEU)

Interconnection

# EU COMPETENCES IN THE AREAS OF ENERGY AND CLIMATE POLICY

Lisbon  
Treaty 2009

## Art. 191, 192 TFEU – Environmental Policy (Climate)

- › EU can take action in order to achieve the objectives referred to in Article 191 i.a. **preserving, protecting and improving the quality of the environment, including climate protection** (Art. 192(1) TFEU)
- › Ordinary legislative procedure except for in specific cases, listed in Art. 192(2) TFEU.

## Art. 194 TFEU – Energy Policy

- › EU can take action in order to “a) ensure the functioning of the energy market; (b) ensure security of energy supply in the Union; (c) **promote energy efficiency and energy saving and the development of new and renewable forms of energy**; and (d) promote the **interconnection** of energy networks.” (Art. 194(1) and (2) TFEU)
- › Ordinary legislative procedure (Art. 288 TFEU)
- › But: “Such measures shall not affect a Member State's right to determine the conditions for exploiting its energy resources, its choice between different energy sources and the general structure of its energy supply, without prejudice to Article 192(2)(c).” (Art. 194(2), second subparagraph TFEU)

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# FOUR DIFFERENT APPROACHES FOR TARGET ACHIEVEMENT

## GHG EMISSIONS REDUCTIONS



**EU GHG Emissions Reductions Target of (at least)  
-55% to 2030**

**EU ETS 1**

-62 % GHG emissions reductions until 2030 in the energy and industry sectors (Rec. 29, Directive (EU) 2023/959)

**LULUCF**

EU target of 310 mio. tonnes GHG removals to 2030 in agriculture and forestry (Art. 4 LULUCF)

**EU Effort Sharing Regulation**

EU target of -40 % GHG emissions reductions until 2030 in all sectors not covered by EU ETS 1 and LULUCF (Art. 1 ESR)

From 2025: **Legally binding GHG budgets for the MS** (Art. 4(2) LULUCF)

Legally binding **GHG emissions reduction targets** for the MS (Art. 4 ESR)

From 2027: **EU ETS 2 for buildings and road transport** (Chapter VIa Directive (EU) 2003/87)

# GHG EMISSIONS REDUCTIONS: A THREE-PRONGED APPROACH

## › Energy and industry: EU ETS 1

- › **EU-wide cap-and-trade system with obligations for private entities** as the main tool to reduce GHG emissions (Art. 1 ETS)

## › Agriculture and forestry: LULUCF

- › Legally binding **GHG emissions budgets – and flexibility how to achieve them - for the MS** (Art. 4 LULUCF)

## › All other sectors: EU Effort Sharing Regulation

- › Legally binding **GHG emissions reductions targets – and flexibility how to achieve them - for the MS** (Art. 4 ESR)

- › PLUS: **EU ETS 2 as EU-wide cap-and-trade system** to help achieve the EU-GHG-emissions reduction target in the building and road transport sectors

Note: The EU has introduced **various other measures** which supplement and contribute to the three prongs

# SAFEGUARDS AND ENFORCEMENT MEASURES TO ENSURE ACHIEVEMENT OF THE EU GHG EMISSIONS REDUCTIONS TARGET TO 2030

## › EU ETS 1:

- › **Fines for non-compliance** for the obligated (private) entities (100 EUR for every missing allowance), plus obligation to make up for missing allowances (Art. 16 ETS)

## › LULUCF:

- › Ultimately, EU Commission to sue MS for failure to stay within their allotted GHG emissions budgets (**retroactive fines for non-compliance, plus obligation to make up for shortfalls**) (Art. 14 LULUCF)

## › Effort Sharing Regulation:

- › Ultimately, EU Commission to sue MS for failure to meet their GHG emissions reductions targets (**retroactive fines for non-compliance, plus obligation to make up for shortfalls**) (Art. 9 ESR)

- › **EU ETS 2:** Fines for non-compliance for the obligated (private) entities plus obligation to make up for missing allowances (Art. 30g jo. 16 ETS)  
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# FOUR DIFFERENT APPROACHES FOR TARGET ACHIEVEMENT RENEWABLE ENERGY



# AT LEAST 42.5 % RENEWABLE ENERGY IN THE EU'S GROSS FINAL ENERGY CONSUMPTION

- › **RED III** as central EU instrument to achieve EU renewable energy target, based on Art. 194 TFEU
  - No legally binding national targets in RED III
  - Rather, binding overall target for RES and self-determined national contributions to commonly achieve it

## *Article 194 TFEU*

1. In the context of the establishment and functioning of the internal market and with regard for the need to preserve and improve the environment, Union policy on energy shall aim, in a spirit of solidarity between Member States, to:

- (a) ensure the functioning of the energy market;
- (b) ensure security of energy supply in the Union;
- (c) promote energy efficiency and energy saving and the development of new and renewable forms of energy; and
- (d) promote the interconnection of energy networks.

2. Without prejudice to the application of other provisions of the Treaties, the European Parliament and the Council, acting in accordance with the ordinary legislative procedure, shall establish the measures necessary to achieve the objectives in paragraph 1. Such measures shall be adopted after consultation of the Economic and Social Committee and the Committee of the Regions.

Such measures shall not affect a Member State's right to determine the conditions for exploiting its energy resources, its choice between different energy sources and the general structure of its energy supply, without prejudice to Article 192(2)(c).

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## APPROACH BASED ON COOPERATION BETWEEN EU AND MS

- › MS to collectively ensure at least 42,5 % RES (Art. 3(1) RED III)
- › **Target Achievement:** MS to determine their **contribution** to the overall EU target in **integrated National Energy and Climate Plans** (Art. 3(2) RED III; Art. 3-5 Gov-Reg)
- › **Next to that, RED III sets out:**
  - › Sectoral Sub-Targets
  - › Provisions to create enabling framework

### NECP update 2023/2024 (Art. 14 Gov-Reg)

- 14 MS submitted final updated NECPs so far
- State of the Energy Union 2024: *The Commission assessment of the draft updated NECPs identified an **ambition gap in renewables consumption** by 2030, with contributions **3-4 percentage points lower than** the revised EU binding target of **42.5%**.*

Article 3 RED III (Directive (EU) 2018/2001)

### Binding overall Union target for 2030

▼M2↓

1. Member States shall collectively ensure that the share of energy from renewable sources in the Union's gross final consumption of energy in 2030 is at least 42.5 %.

Member States shall collectively endeavour to increase the share of energy from renewable sources in the Union's gross final consumption of energy in 2030 to 45 %.

Member States shall set an indicative target for innovative renewable energy technology of at least 5 % of newly installed renewable energy capacity by 2030.

▼B↓

2. Member States shall set national contributions to meet, collectively, the binding overall Union target set in paragraph 1 of this Article as part of their integrated national energy and climate plans in accordance with Articles 3 to 5 and 9 to 14 of Regulation (EU) 2018/1999. In preparing their draft integrated national energy and climate plans, Member States may consider the formula referred to in Annex II to that Regulation. (..)

[https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:02018L2001-20240716#art\\_3](https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:02018L2001-20240716#art_3)  
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# Union-wide target for Renewable Energy

At least **42.5 % RES** in final energy consumption in the EU by 2030

45 %

Art. 3(1) RED

## 27 self-determined national contributions

To meet collectively the **42.5 % (ideally to 45%)**

Art. 3(2) RED, Art. 3-5 Governance-Regulation

### Sectoral sub targets

- Buildings (Art. 15a)
- Industry (Art. 22a, 22b)
- Heating/Cooling (Art. 23, 24)
- Transport (Art. 25)

Provisions regarding  
planning & permitting  
procedures (Art. 15 ff)

Provisions to support  
system integration  
(Art. 20a)

Provisions regarding solar  
energy in buildings  
(Art. 9a EPBD)

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# SAFEGUARDS AND ENFORCEMENT MEASURES TO ENSURE ACHIEVEMENT OF THE EU RENEWABLE ENERGY TARGET BY 2030

- › MS to **determine national contribution** with an indicative **trajectory** that includes **reference points for 2022, 2025 and 2027 in their NECPs** (Art. 3(2) RED III, Art. 3-5 Gov-Reg)
- › MS to submit bi-annual **integrated climate and energy related progress reports** (Art. 17 Gov-Reg)

→ **Assessment** of ambition and progress and **course correction** on the way to 2030 by COM

## Level of Ambition

(Art. 9, 13, 14, 31, 34 Gov-Reg)

- › **Iterative process** between MS and COM when setting up and updating NECP (Art. 9, 13, 14)
- › **Recommendations** if level of ambition deemed to low by COM (Art. 31(1), 34)
- › **Additional measures at EU level** (Art. 31(3))

## Level of Progress

(Art. 29, 32, 34 Gov-Reg)

- › Bi-annual **progress monitoring** by COM on basis of progress reports (Art. 29)
- › **Recommendations** if insufficient progress (Art. 32(2), Art. 34)
- › MS that have not reached their trajectory reference point must **explain how they intend to close the gap** (Art. 32(5))
- › If EU trajectory at risk → MS that have not reached their reference points **must take additional national measures** (Art. 32(3))
- › **Additional measures at EU level** (Art. 32(2))

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# FOUR DIFFERENT APPROACHES FOR TARGET ACHIEVEMENT ENERGY EFFICIENCY



# AT LEAST 11.7% ENERGY CONSUMPTION REDUCTION IN 2030

- › **EED** as central EU instrument to achieve EU energy efficiency target, based on Art. 194 TFEU
- › **Targets:**
  - **Mandatory reduction of energy consumption of at least 11.7 % in 2030** compared to 2020 EU reference scenario projections **so that EU’s final energy consumption** amounts to **no more than 763 Mtoe**.
  - Indicative Union **primary energy consumption** target of **no more than 992.5 Mtoe in 2030**
- › **Target achievement**
  - MS shall **determine their contribution** to the binding **final energy consumption** target of the EU in their NECPs (Art. 4(2-4) EED; Art. 3-4 Gov-Reg)
  - MS shall **make efforts to contribute** collectively to the EU’s indicative **primary energy consumption** target (Art. 4(2) EED)

Article 4 EED (Directive (EU) 2023/1791)

## Energy efficiency targets

1. Member States shall collectively ensure a **reduction of energy consumption of at least 11.7 % in 2030** compared to the projections of the 2020 EU Reference Scenario so that the Union’s final energy consumption amounts to no more than 763 Mtoe. Member States shall make efforts to collectively contribute to the indicative Union primary energy consumption target amounting to no more than 992,5 Mtoe in 2030.

2. Each Member State shall set an indicative national energy efficiency contribution based on final energy consumption to meet, collectively, the Union’s binding final energy consumption target referred to in paragraph 1 of this Article and shall make efforts to contribute collectively to the Union’s indicative primary energy consumption target referred to in that paragraph. Member States shall notify those contributions to the Commission, together with an indicative trajectory for those contributions, as part of the updates of their integrated national energy and climate plans submitted pursuant to Article 14(2) of Regulation (EU) 2018/1999, and of their integrated national energy and climate plans notified pursuant to Article 3 and Articles 7 to 12 of that Regulation. When doing so, Member States shall also express their contributions in terms of an absolute level of primary energy consumption in 2030. When setting their indicative national energy efficiency contributions, Member States shall take into account the requirements set out in paragraph 3 of this Article and explain how, and on the basis of which data, the contributions have been calculated. To that end, they may use the formula set out in Annex I to this Directive.

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# AT LEAST 11.7% ENERGY CONSUMPTION REDUCTION IN 2030

› **EED** as central EU instrument to achieve EU energy efficiency target, based on Art. 194 TFEU

› **Targets:**

– **Mandatory reduction of energy consumption of at least 11.7% in 2030**

compared to 2020 EU reference scenario projections. Final energy consumption amounts to no more than 763 Mtoe in 2030

– Indicative Union **primary energy consumption target of 992.5 Mtoe in 2030**

› **Target achievement**

– MS shall **determine their contribution** to the **consumption** target of the EU in their NECPs

– MS shall **make efforts to contribute** collectively to the **energy consumption** target (Art. 4(2) EED)

## NECP update 2023/2024 (Art. 14 Gov-Reg)

- 14 MS submitted final updated NECPs so far
- State of the Energy Union 2024: *Energy efficiency efforts will need a further step up to achieve the 11.7% final energy consumption reduction target by 2030, as the Commission 2023 EU-wide assessment of the draft **updated NECPs identified a reduction of only 5.8% compared to the 2030 projections.***

Article 4 EED (Directive (EU) 2023/1791)

### Energy efficiency targets

1. Member States shall collectively ensure a **reduction of energy consumption of at least 11.7 % in 2030** compared to the projections of the 2020 EU Reference Scenario so that the Union's final energy consumption amounts to no more than 763 Mtoe. Member States shall make efforts to collectively contribute to the indicative Union primary energy consumption target amounting to no more than 992,5 Mtoe in 2030.

2. Each Member State shall set an indicative national energy efficiency contribution based on final energy consumption to meet, collectively, the Union's binding final energy consumption target referred to in paragraph 1 of this Article and shall make efforts to contribute collectively to the Union's indicative primary energy consumption target referred to in that paragraph. Member States shall notify those contributions to the Commission, together with an **indicative trajectory** for those contributions, as part of the updates of their **integrated national energy and climate plans** submitted pursuant to Article 14(2) of Regulation (EU) 2018/1999, and of their integrated national energy and climate plans notified pursuant to Article 3 and Articles 7 to 12 of that Regulation. When doing so, Member States shall also express their contributions in terms of an absolute level of primary energy consumption in 2030. When setting their indicative national energy efficiency contributions, Member States shall take into account the requirements set out in paragraph 3 of this Article and explain how, and on the basis of which data, the contributions have been calculated. To that end, they may use the formula set out in Annex I to this Directive.

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# Binding EU-target for Energy Efficiency

reduction of at least 11,7 % in 2030 compared to the projections of the 2020 EU Reference Scenario

Art. 4(1) EED

## 27 self-determined national contributions

To meet collectively the EU's final energy consumption target

Art. 4(2) EED

### Sub targets

- Exemplary role of public sector (Art. 5, Art. 6 EED)
- Energy savings obligation (Art. 8 EED)

Energy Efficiency First Principle (Art. 4 EED)

Energy management systems and energy audits (Art. 11 EED)

Zero Emission Buildings (Art. 7 EPBD)

National building renovation plan (Art. 3 EPBD)

Ecodesign and Energy Labeling (Eco-Design Regulation)

MEPS & national trajectories for renovation of the residential building stock (Art. 9 EPBD)

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# SAFEGUARDS AND ENFORCEMENT MEASURES TO ENSURE ACHIEVEMENT OF THE EU ENERGY EFFICIENCY TARGETS BY 2030

- › MS to **determine national contribution** on final energy consumption target with an indicative **trajectory** in **NECPs** (Art. 4(2-4) EED; Art. 3-4 Gov-Reg)
- › MS to submit bi-annual **integrated climate and energy related progress reports** (Art. 17 Gov-Reg)

→ **Assessment** of ambition and progress and **course correction** on the way to 2030 by COM

## Level of Ambition

(Art. 4(2-5) EED, Art. 9, 13, 14 Gov-Reg)

- › **Iterative process** between MS and COM when setting up and updating NECP (Art. 4(2-5) EED)
- › **Corrected indicative national contribution** by COM if level of ambition deemed insufficient (Art. 4(5) EED)
- › **Additional measures at EU level** (Art. 31(3)) Gov-Reg)

## Level of Progress

(Art. 4(6) EED, Art. 29 ff. Gov-Reg)

- › Bi-annual **progress monitoring** by COM on basis of progress reports (Art. 29 Gov-Reg)
- › MS that are above their trajectory
  - › **must take additional national measures**, incl. at least one of those listed in Art. 4(6) EED
  - › **must report** on additional measures (Art. 4(6) EED)
- › **Additional measures at EU level** (Art. 4(6) EED)

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# SUMMARY AND OUTLOOK



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## SUMMARY AND OUTLOOK

### › Four different approaches to achieve four different climate and energy targets to 2030

- › Approach for GHG emissions reductions relies mostly on **legally binding instruments and retroactive fines** in case of non-compliance (with a trend towards obligations for private entities, rather than MS)
- › Approach for renewable energy relies mostly on **cooperation, monitoring and course-correction on the way to 2030.**
- › Approach for energy efficiency also relies on **cooperation, monitoring and correction along the way to 2030**, now with strengthened competences for the EU Commission in case of insufficient level of ambition and progress
- › Approach for interconnection follows the development of electricity markets and the need for infrastructure

### › None of the approaches seems fundamentally inappropriate – all of them can potentially deliver



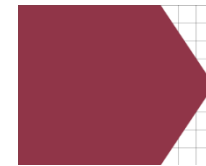
# PANEL DISCUSSION

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THANK YOU FOR YOUR ATTENTION!



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