

DECARBONIZATION OF BUILDINGS

BETWEEN ENERGY EFFICIENCY, RENEWABLES AND ETS2

Brussels, 10.12.2024



GEFÖRDERT VOM



WELCOME & INTRODUCTION

Fabian Pause, Foundation for Environmental Energy Law



GEFÖRDERT VOM

NEW EUROPEAN LEGISLATION FOR THE DECARBONIZATION OF BUILDINGS

Dr. Maximilian Wimmer, Foundation for Environmental Energy Law

Dr. Kjell Bettgenhäuser, Guidehouse



AGENDA

- › From the Renovation Wave to the final “Fit for 55” legislation
- › ETS 2 for the buildings’ sector
- › Interaction of the legislation/implementation in the Member States
- › Outlook on the next steps for buildings’ decarbonization
- › Future policy puzzle – How to combine EE/RES policy and EU ETS II best?
 - › Major steps for MS in EPBD transposition: MEPS and trajectories
 - › Big Picture and Interaction of measures
 - › Advantages of a multidimensional instrument mix

FROM THE RENOVATION WAVE TO THE FINAL "FIT FOR 55" LEGISLATION



Overview: Buildings' decarbonization

Energy Performance of Buildings Directive: (EPBD)

New legislation for new and existing buildings

- National building renovation plans
- Minimum energy performance standards/trajectories for progressive renovation ("MEPS")
- Zero-emission buildings (ZEB)
- Solar energy in buildings
- Energy performance certificates

Energy Efficiency Directive: (EED)

Energy efficiency target and energy efficiency first principle

- Reduction of energy consumption of at least 11,7 % in 2030

Exemplary role of public bodies' buildings

- Renovation of at least 3 % of buildings owned by public bodies each year

Heating and cooling assessment and planning

- local plans

Renewable Energy Directive: (RED)

Renewables target

- Share of renewables of at least 42,5 % in 2030

Renewables in buildings

- New indicative EU target (at least 49 % renewables in 2030)
- National shares and measures

Heating and cooling

- Increase share of renewables by at least 0,8 to 1,1 percentage points as an annual average

ETS 2 for the buildings' sector:

A new, separate emissions trading system

- European "cap and trade" system for emissions from buildings, road transport and additional sectors

- fully operational in 2027

In combination with Social Climate Fund

- (also) support for buildings' efficiency and renewables in buildings

ETS 2 FOR THE BUILDINGS' SECTOR



GEFÖRDERT VOM

A NEW, SEPARATE EMISSIONS TRADING SYSTEM

› NEW SECTORS:

- › **Buildings**, road transport and additional sectors (Art. 30a, Annex III ETS Directive)
- › “Upstream” approach, i.e. the distributors of combustibles/fuels are obligated (Art. 30b, Annex III ETS Directive)

› CAP AND TRADE SYSTEM (Art. 30c para. 1-3 ETS Directive)

- › By 1.1.2025, determination of the **total quantity** for 2027 based on historical data
- › subsequent annual determination based on actual emissions

Cap will amount to
1 036 288 784
allowances for
2027.

GRADUAL INTRODUCTION

- › **2025:** Obligation to monitor ETS 2 emissions by distributors (Art. 30f para. 2 ETS Directive)
- › **2026:** Obligation to report (Art. 30f para. 2 ETS Directive)
- › **From 2027: Auctions** (Art. 30d para. 1, para. 2, Art. 30k para. 2 lit. b ETS Directive)
 - › ETS 2 will be delayed to 2028 if energy prices are deemed exceptionally high

INTERACTION OF THE LEGISLATION/IMPLEMENTATION IN THE MEMBER STATES



New efficiency and renewables legislation for buildings' decarbonization

SUPPLY

- Energy efficiency target, *Art. 4 EED*
- Renewables target, *Art. 3 RED*
- Renewables in buildings, *Art. 15a RED*
- Heating/cooling, *Art. 25 f. EED, Art. 23 RED*
- Nat. building renovation plans, *Art. 3 EPBD*
- Energy perf. certificates, *Art. 19 ff. EPBD*
- ZEB, *Art. 11 EPBD*
- Exemplary role (3%), *Art. 6 EED*

BUILDING STOCK

- Solar energy in buildings, *Art. 10 EPBD*

- Energy efficiency target, *Art. 4 EED*
- Nat. building renovation plans, *Art. 3 EPBD*
- Energy perf. certificates, *Art. 19 ff. EPBD*
- "MEPS", *Art. 9 EPBD*
- ZEB, *Art. 11 EPBD*
- Exemplary role (3%), *Art. 6 EED*

Renewables:
Building/Grid

Infrastructure for
sustainable
mobility,
Art. 14 EPBD

In addition to EPBD, EED, RED: GHG reduction via ETS 2 with a price signal

Alleviating energy poverty, *Art. 24 EED*

Financing instruments and measures, *Art. 17 EPBD*

EU LEVEL →		Efficiency		Renewables	
IMPLEMENTATION		SUPPLY	BUILDING STOCK	SUPPLY	BUILDING STOCK
	Union targets with national measures	<ul style="list-style-type: none"> Energy efficiency target <i>Art. 4 EED</i> 		<ul style="list-style-type: none"> Renewables target <i>Art. 3 RED</i> Renewables in buildings <i>Art. 15a RED</i> 	
	Planning and general obligations for the MS	<ul style="list-style-type: none"> Heating/cooling (Assessment/Planning) <i>Art. 25 f. EED</i> 	<ul style="list-style-type: none"> Nat. building renovation plans <i>Art. 3 EPBD</i> Energy perf. certificates <i>Art. 19 ff. EPBD</i> 	<ul style="list-style-type: none"> Nat. building renovation plans <i>Art. 3 EPBD</i> Energy perf. certificates <i>Art. 19 ff. EPBD</i> 	
	Targets and direct obligations for the MS		<ul style="list-style-type: none"> “MEPS” <i>Art. 9 EPBD</i> 	<ul style="list-style-type: none"> ZEB, <i>Art. 11 EPBD</i> Exemplary role (3%), <i>Art. 6 EED</i> 	<ul style="list-style-type: none"> Renewables in heating/cooling <i>Art. 23 RED</i>

SUPPLY

BUILDING STOCK

SUPPLY

BUILDING STOCK

Union targets with national measures

- Energy efficiency target
Art. 4 EED

- Renewables target
Art. 3 RED
- Renewables in buildings
Art. 15a RED

Planning and general obligations for the MS

- Heating/cooling (Assessment/Planning)
Art. 25 f. EED

- **Nat. building renovation plans**
Art. 3 EPBD
- **Energy perf. certificates**
Art. 19 ff. EPBD

- **Nat. building renovation plans**
Art. 3 EPBD
- **Energy perf. certificates**
Art. 19 ff. EPBD

- Alleviating energy poverty, *Art. 24 EED*
- **Financing instruments and measures, *Art. 17 EPBD***

Targets and direct obligations for the MS

- **“MEPS”**
Art. 9 EPBD

- Renewables in heating/cooling
Art. 23 RED

- **Solar energy in buildings**
Art. 10 EPBD

- **ZEB, *Art. 11 EPBD***
- Exemplary role (3%), *Art. 6 EED*

IMPLEMENTATION

OUTLOOK ON THE NEXT STEPS FOR THE BUILDINGS' DECARBONIZATION



CONCLUSION: THE EUROPEAN LEGAL FRAMEWORK PROVIDES FOR NEW/STRICTER LEGISLATION FOR EXISTING AND NEW BUILDINGS

› **BUT: There is (more or less) room for the MS regarding the implementation in their national legislation:**

- › EPBD contains a 24 months deadline until May 2026 by which EU countries must incorporate its provisions into their national legislation (Art. 33 EPBD)
- › Furthermore, there are other deadlines, e.g. MEPS in Art. 9 EPBD must be met until 2030/2033 (non-residential buildings) and 2030/2035 (residential buildings)
- › Some MS may already be able to achieve the new targets in the buildings' sector (partially) with existing instruments (e.g., funding etc.)

FUTURE POLICY PUZZLE HOW TO COMBINE EE/RES POLICY AND EU ETS II BEST?



FUTURE POLICY PUZZLE HOW TO COMBINE EE/RES POLICY AND EU ETS II BEST?



MAJOR STEPS FOR MS IN EPBD TRANSPOSITION: MEPS AND TRAJECTORIES IN NBRP

Draft **nBRP** by December 2025

› Definition of **MEPS** for non-residential buildings

› Individual buildings are addressed

› Threshold defined at -16% of PE by 2030 and -26% by 2033

› Establish a **trajectory** for progressive renovation of residential buildings (by May 2026)

› Average PE of residential stock needs decrease by 16% by 2030 and by 20-22% by 2035

› At least 55% of decrease coming from worst-performing residential buildings (defined as 43% WPB)

BIG PICTURE: MAIN CHARACTERISTICS OF REGULATORY POLICY AND ETS II

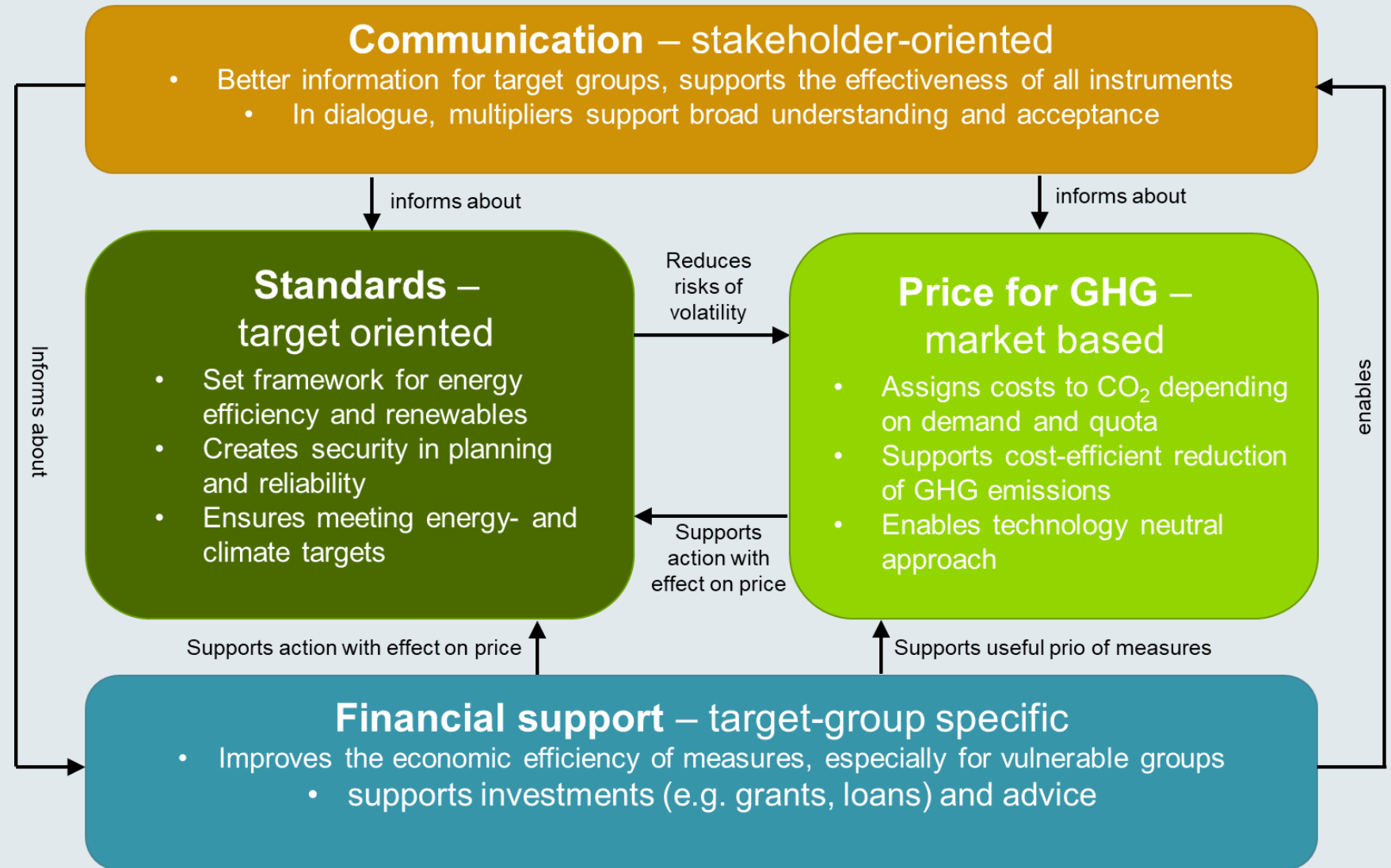
› Regulatory Policy

- › Provides **clear framework**, boundaries and standards
- › **Reliability** and security in planning
- › Ensures compliance with **energy and climate targets**

› ETS II

- › **Efficient market instrument** for identification of decarbonization options
- › Provides **flexible pricing** based on demand and cap
- › Enables **technology neutrality**

INTERACTION OF MEASURES



GEFÖRDERT VOM



ADVANTAGES OF A MULTIDIMENSIONAL INSTRUMENT MIX

- › The national CO₂ price for buildings only sends **insufficient price signals**
- › European emissions trading for buildings **should be prepared now**
- › **Price jumps** can slow down the **steering effect** of emissions trading
- › A cost-efficient and socially acceptable transformation path needs a **strategic, reliable mix of instruments**
- › The EU Building Directive sets a **new framework**

ADVANTAGES OF A MULTIDIMENSIONAL INSTRUMENT MIX

It's all about the mix: clear perspectives for owners, users, industry, trades and the climate

- › ... the **motivation of building owners**
- › ... the **strengthening of local implementation** capacities and the economy
- › ... the **cost-efficient achievement** of climate targets
- › ... the **economical use of budgetary resources**

The combination of **CO₂ price** with the **consistent implementation of renovation paths** for buildings with the lowest overall efficiency (WPB), **targeted funding** and **information** enables the building stock to develop in a way that is compatible with the goals. This creates clear perspectives for the building industry and minimizes investments in non-future proof measures.

PANEL DISCUSSION

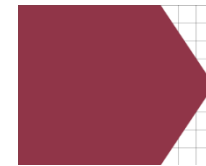
Nina Neumann, DG ENER

Denisa Diaconu, BPIE

Luke Haywood, EEB



GEFÖRDERT VOM



THANK YOU FOR YOUR ATTENTION!



GEFÖRDERT VOM

