



Opportunities for carbon neutral housing: EU energy policy and post-2020 perspectives

Carbon neutral social housing in Europe: Post-2020 challenges and opportunities

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Climate and Energy Framework

Climate-Energy Framework 2030

40% GHG reductions

- **32% Renewable Energy**
- **32.5% Improving energy efficiency**

2030

2050

Climate-Energy Framework 2020

[COM(2010)639]

- **20% GHG reductions**
- **20% Renewable Energy**
- **20% Improving energy efficiency**

2020

A Clean Planet for all

**A European strategic
long term vision for a
prosperous, modern,
competitive and
climate neutral
economy**







<https://ec.europa.eu/energy/en/topics/energy-strategy-and-energy-union/2050-long-term-strategy>

Strongly tying national renovation strategies & finance mobilisation through Article 2a of the Energy Performance of Buildings Directive

- ✓ policies and actions to tackle the worst performing segments of Member States' national building stock, including to alleviate energy poverty
- ✓ new obligations for mobilising investments for renovation into highly energy efficient & decarbonised building stocks by 2050
- ✓ detailed roadmaps of national measures, with measurable progress indicators and milestones for 2030, 2040 and 2050

Financial support for energy efficiency is evolving

Type of funding		current MFF 2014-2020				next MFF 2021-2027		
		Programme	Type of projects supported	Total budget allocated to EE	Estimated total value of projects	Programme name	Type of projects supported	Total budget allocated to EE
	Direct support to investments	ESIF	EE in public and residential buildings and SMEs; energy efficient cogeneration and DH	€17 billion to EE	€27 billion	ESIF	EE in public infrastructure and residential buildings and SMEs as well as energy efficient cogeneration and DH	Overall budget €273 billion
	Investment risk sharing (providing guaranties, reducing cost of capital)	EFSI, PF4EE EEEF ¹	investments in EE of buildings and enterprises	PF4EE: €80 million EEEF: €265 million from all investors	€63 billion in EE and RES (EFSI); €480 million (PF4EE) €121 million (EEEF)	InvestEU	investments in EE of buildings and enterprises	Sustainable infrastructure window €11.5 billion
	Policy Support and Capacity Building	Horizon 2020- Societal Challenge 3- market uptake projects and Other Actions (tenders)	building capacity of private and public actors to create the right market & regulatory conditions and to mobilise investments in clean energy, this includes Project Development Assistance grants such as provided by ELENA (European Local Energy Assistance)	850 M€ for EE, 1.19bn€ for EE and RES		LIFE-Clean Energy Transition sub-programme	EE and RES policy implementation, building capacity of private and public actors to create the right market & regulatory conditions and to mobilise investments in clean energy	1bn€ for clean energy
	Research and Innovation developing new technologies or innovative non-technological solutions, with a medium-long term outlook	H2020-SC3 for close-to-market technologies and LEIT-NMBP EeB & SPIRE PPPs ² for development	EE research, development and demonstration of innovative technologies and non-technological solutions/approaches to EE	222M€ (SC3), 475M€ (EeB) and 833M€ (SPIRE)		Horizon Europe- Cluster 4 Climate, Energy and Mobility	EE research, development and demonstration of innovative technologies and non-technological solutions/approaches to clean energy	Climate, Energy and mobility €15billion

Enhanced financial toolbox to support renewables



EU Funding Instruments supporting RES in the next MFF



INCREASED CLIMATE MAINSTREAMING ACROSS EU BUDGET (25%)

Cohesion
Funds

Invest EU

Horizon
Europe

Connecting
Europe
Facility

LIFE
Clean Energy
Transition
Program

Innovation
Fund*

- + Low Carbon Investments kept as priority for Member States under **Cohesion funds** with **higher ring fencing** (30%)
- + **New Invest EU Fund** with a € 11.5 bn Sustainable Infrastructure window to unlock private investment through financial instruments and **tailor made products**
- + **Increased Funds** under **Horizon Europe** for R&I in climate, energy and mobility (€15 bn)
- + **New Window under CEF to support cross border RES Projects (between 15% to 20% of CEF Energy budget subject to market uptake (circa €1,2 -1,7€ bn)**
- + **New Programme** under LIFE for RES & Energy efficiency capacity building and policy support
- + **New Innovation Fund** targeting market uptake of innovative RES, CCS and solutions for Energy Intensive Industries (€ 2bln-€12 bn)

Better data at EU level

EU Building Stock Observatory



<https://ec.europa.eu/energy/en/topics/energy-efficiency/buildings/eubuildings>

EU ENERGY POVERTY Observatory



About

Knowledge & Resources

Indicators & Data

News & Events

About the Observatory

The EU Energy Poverty Observatory (EPOV) is an exciting new initiative by the European Commission to help Member States in their efforts to combat energy poverty. It exists to improve the measuring, monitoring and sharing of knowledge and best practice on energy poverty. This web portal is the main focal point for the EU Energy Poverty Observatory and includes a wide range of useful resources.



What is energy poverty?



Role and Mission

<https://www.energypoverty.eu/about/about-observatory>

A map of Europe with red pins indicating the number of countries visited by participants at various locations. The numbers are as follows:

- Spain: 2 (multiple locations)
- France: 2 (multiple locations)
- Germany: 2 (multiple locations)
- Italy: 2 (multiple locations)
- UK: 2, 3, 4
- Poland: 2, 3, 4, 5, 6, 8
- Czech Republic: 2
- Slovakia: 2
- Hungary: 2
- Romania: 2
- Bulgaria: 2
- Greece: 2, 4, 5
- Turkey: 2
- Switzerland: 2
- Austria: 2
- Netherlands: 2
- Belgium: 2
- Luxembourg: 2
- Portugal: 2
- Ireland: 2
- Sweden: 2
- Norway: 2
- Finland: 2
- Denmark: 2
- Poland: 2, 3, 4, 5, 6, 8
- Czech Republic: 2
- Slovakia: 2
- Hungary: 2
- Romania: 2
- Bulgaria: 2
- Greece: 2, 4, 5
- Turkey: 2
- Switzerland: 2
- Austria: 2
- Netherlands: 2
- Belgium: 2
- Luxembourg: 2
- Portugal: 2
- Ireland: 2
- Sweden: 2
- Norway: 2
- Finland: 2
- Denmark: 2

Energy

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graph TD; A[Project Promoters  
(e.g. cities)] --> B[PDA provides access to:  
Technical skills  
Financial skills  
Legal skills]; B --> C[Bankable and aggregated projects]
```

Project Promoters
(e.g. cities)

PDA
provides access to:

- Technical skills
- Financial skills
- Legal skills

Bankable and aggregated projects

ENERSHIFT



Dates: 2016 - 2019

Aim: improve the quality of Social Housing Buildings through retrofitting

Countries: IT

Key actions:

- ✓ **Implementation of energy retrofitting interventions for € 15 mil. thanks to the use of innovative financial schemes such as energy performance contracting models**
- ✓ **Beneficiaries: Over 3000 families living in 76 SHO's buildings, located in 14 municipalities of Liguria**

Website: <https://enershift.eu/en/il-progetto/>

Cost effective prefabricated, multifunctional renovation elements for the total building envelope

Design, manufacture and installation of modular panel systems for façades and roofs

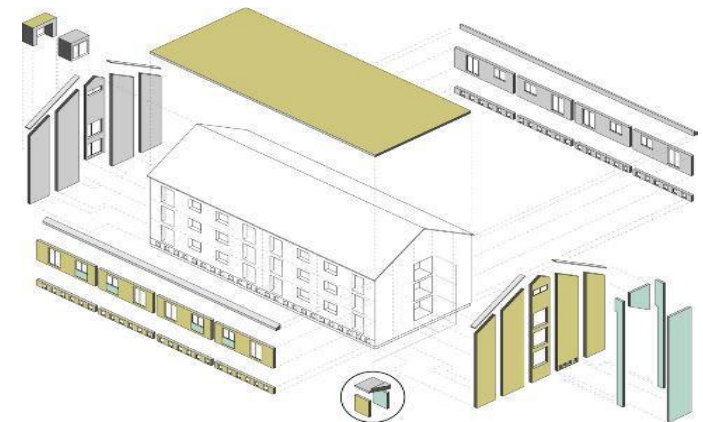
Easy plug and play connections for installing

Demonstration in 5 pilots + 2 real life learning labs

Integration of advanced, high tech processes throughout the supply chain

3D scanning/ 3D printing / advanced geomatics / BIM

MORE-CONNECT (Horizon2020 project 633477)



Expected impacts:

- **Energy savings:80%**
- **Investment Return:8 Years**
- **Total renovation time:8 days**

<http://www.more-connect.eu>



ENERGY UNION

EnergyUnion #EnergyUnion

European Commission
Commission européenne

Commission européenne
European Commission

Thank you!

Paula Rey Garcia
Team leader Buildings & Finance
Energy Efficiency Unit
DG ENER, European Commission

<https://ec.europa.eu/energy/en/news/commission-proposes-new-rules-consumer-centred-clean-energy-transition>