EPBD and the solar mandate

Zero-emission buildings Academy

18 June 2024

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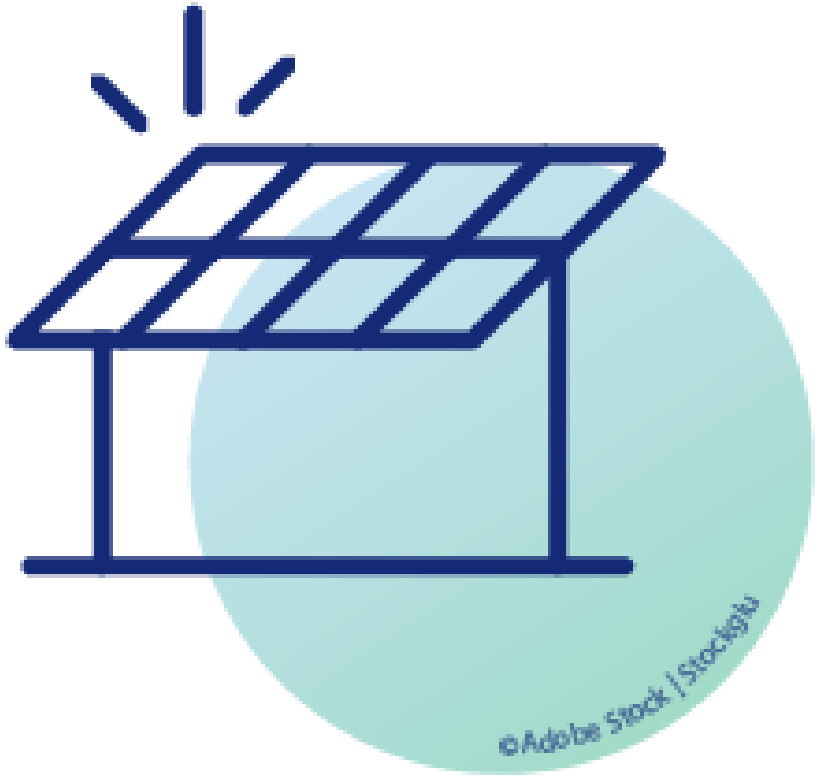
European Commission

Solar energy in buildings – state of play

- Rapid uptake, especially in the residential sector
- Declining costs for solar installations
- Support schemes available in most MS
- Protects consumers from volatility in electricity and gas prices

But:

- Delay in grid connections (Grid Action Plan)
- Lack of available workforce (Skills Partnership)
- European manufacturers under pressure (EU solar alliance)



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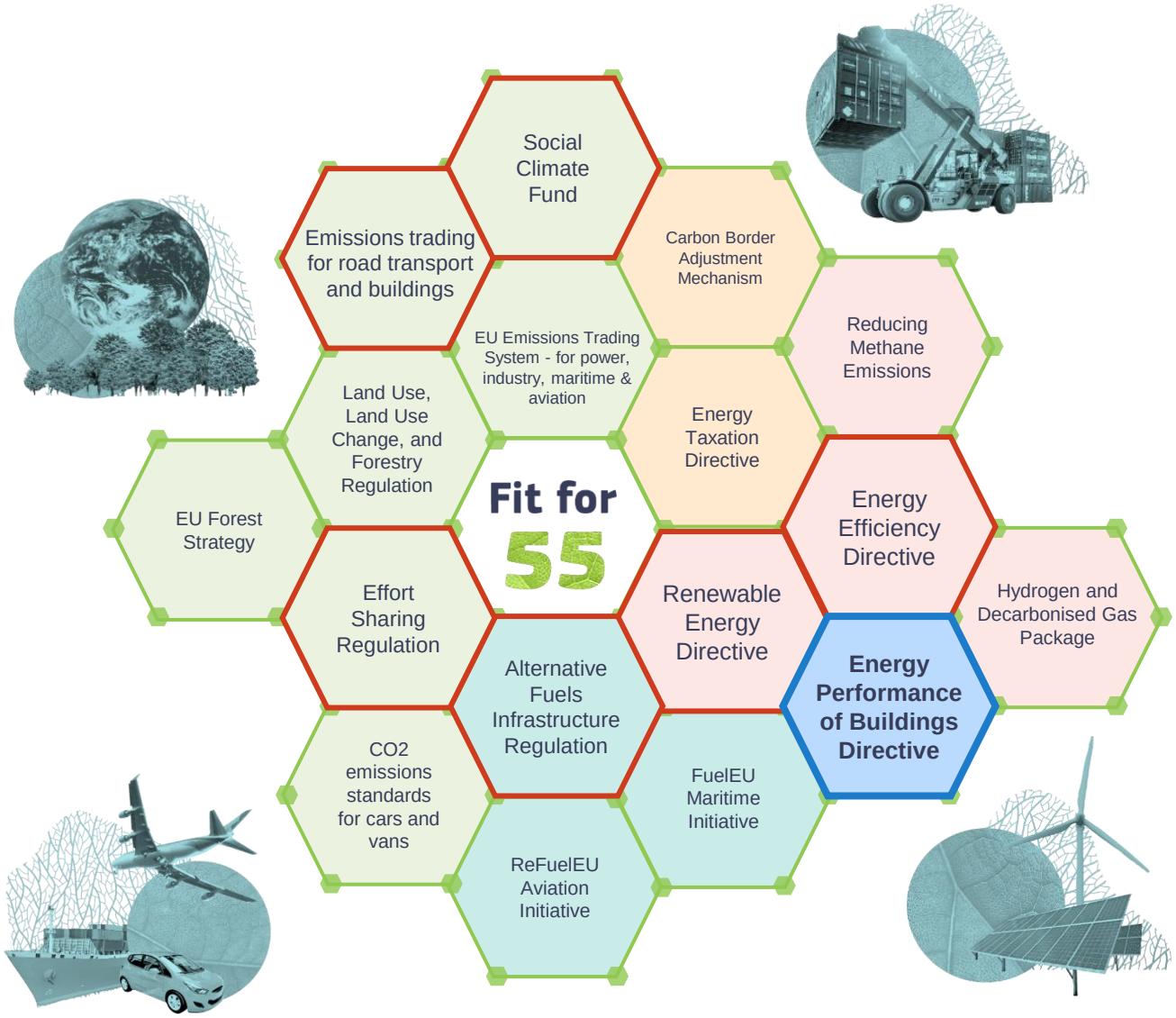

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Solar mandate in the EPBD – background

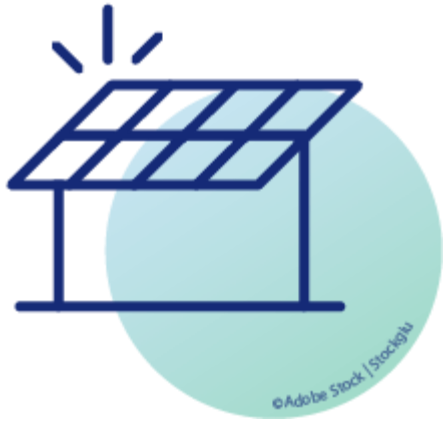
The proposal came from **REPowerEU** and the **EU Solar energy strategy**

REPowerEU > rapidly reduce dependence on Russian fossil fuels

- Natural gas demand declined by 18% between August 2022 and March 2024
- 56 GW of new solar energy capacity installed in 2023

EU Solar energy strategy:

- European Solar Rooftops Initiative (EPBD amendment)
- Simpler and faster permitting
- Target 700 GW PV in 2030 (today 260 GW installed capacity)
- Skilled workforce



COP 28:

"**triple the world's installed renewable energy generation capacity** to at least 11,000 GW by 2030"

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EU Solar energy strategy

- All new buildings are “solar ready”.
- Solar installations on residential, public, commercial and industrial buildings can be deployed very rapidly, as they utilise existing structures.
- Allow consumers in multi-apartment buildings to effectively exercise their right to collective self-consumption, without undue costs. (RED and EMD).
- Ensure that energy poor and vulnerable consumers have access to solar energy, e.g. through social housing installations, energy communities, or financing support for individual installations.
- Support building-integrated PVs for both new buildings and renovations.

EPBD Article 10: Solar energy in buildings

- New buildings are designed to optimize their solar energy generation potential
- Deployment of suitable solar energy installations on new buildings
  - By 31 Dec 2026 for new public and non-residential buildings >250m2
  - By 31 Dec 2029 new residential buildings and new roofed car-parks adjacent to buildings

- Gradual phase-in of requirement for existing non-residential, where feasible:
  - For existing public buildings gradually between 31 Dec 2027 – 31 Dec 2030 according to floor area
  - For existing non-residential buildings >500 m2 by 2027, based on trigger points (major renovation or works requiring a permit)

Other relevant provisions for solar energy in the EPBD

- **National Building Renovation Plans** (Article 3)
- From **1 January 2025**: **no more financial incentives for stand-alone boilers** powered by fossil fuels (Article 17(15))
- Plan policies and measures **with a view to a complete phase-out of boilers powered by fossil fuels by 2040** through the national Building Renovation Plans (Article 3 and Annex II)
- **Zero-emission buildings** must not produce any on-site emissions from fossil fuels (Article 11(1))
- Technical Building Systems – MS shall promote **energy storage** for renewable energy in buildings (Article 13(6))
- **One stop shops** (Article 18)

Some initial thoughts in view of the guidance

For the article as a whole:

- The article is technology-neutral i.e. covers solar PV and solar thermal.
- The article covers solar energy on buildings, not only on the roof but also on the façade etc as long as it has a clear link to the building.

Integrated approaches and innovative solutions

Some examples of integrated approaches:

- PV and EV charging
- PV and local battery storage
- PV and heat pump
- Solar thermal and heat pump
- Solar thermal and hot water storage
- Solar thermal and building thermal storage
- Energy sharing
- …

Some examples of solutions:

- Building Integrated PV (BIPV)
- Combined solar thermal and solar PV
- Solar combined with green roofs
- …

Next steps

- Publication in Official Journal took place 8 May 2024 (EU 2024/1275).
- Preparation of guidance including best practices on-going.
- Deadline for transposition in Member States 29 May 2026.