

## Guidelines on State aid for climate, environmental protection and energy 2022

**Investment and well targeted funding for new buildings and renovation has to include dynamic solar shading.**

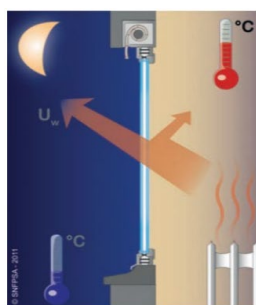
Dynamic solar shading, as an important measure of the energy efficiency first principle, must be included in states aid to help reducing the greenhouse gas emissions of the building stock. It is equally important to help medium and low-income households, as well as most vulnerable people making their dwellings more performant, resilient and adapted to climate change.

Dynamic solar shading must be included in point (b) of the measures covered as it **improves the energy and environmental performance in buildings.**

By managing the appropriate quantity of daylight and solar gain inside buildings, dynamic solar shading helps to reduce or avoid air conditioning use during the cooling season, while decreasing heating consumption during the heating season.

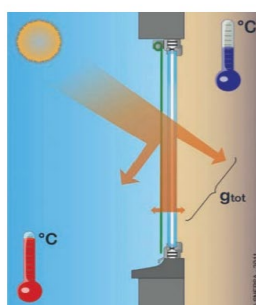
If 75% of windows are installed with dynamic solar shading the potential energy savings can accrue up to 19% saving in heating and cooling energy use (or 49.3 Mtoe/yr) and a carbon emissions reduction of 19% (equivalent to a saving of 117 MtCO<sub>2</sub>/yr). If cooling would become equally important to heating the savings can add up to 22% in buildings.

- **In single-family house, external shutters reduce the total energy demand for heating and cooling by 38%**



### PROTECTION AGAINST THE COLD IN WINTER

- Solar shading provides up to 31%<sup>iv</sup> additional insulation to double glazing windows
- = By avoiding heat loss, it decreases the consumption of heating



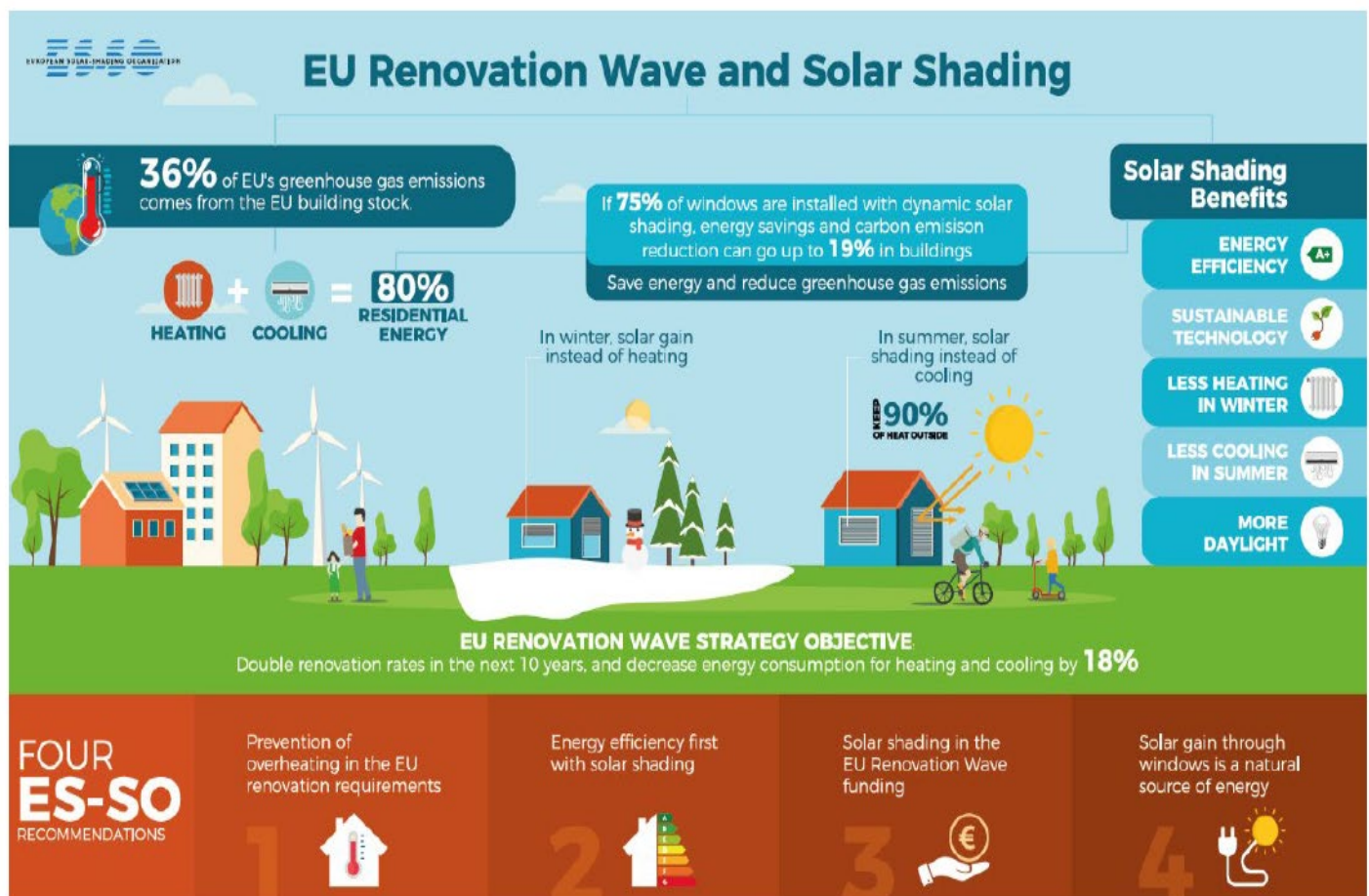
### PROTECTION AGAINST OVERHEATING IN SUMMER

- Can block more than 90% of the heat outside
- Solar shading decreases by 5°C, in average, the interior temperature in summer
- In the best-case scenario, rooms with internal blinds are 8-13°C cooler<sup>v</sup> than without blinds, while rooms with external blinds are 12-18°C cooler
- = By preventing solar gain, it optimizes and reduces active cooling

Dynamic solar shading is a sustainable technology, generating much less carbon emissions during its production process with energy savings, reaching about 60 times its CO2 footprint over its 20-year lifespan. When automated, dynamic solar shading is even more energy efficient.

- It is crucial to use dynamic solar shading when renovating buildings or constructing a new one improves the energy and environmental performance in buildings.

[Read our Position Paper](#)



ES-SO is a not-for-profit organization to Belgian Law (ES-SO vzw) established in Brussels. It is the umbrella organization of the professional solar shading associations in the European member states. Dynamic solar shading is a low carbon emission technology designed and manufactured in Europe. The industry consists of thousands of small to medium-sized companies, employing more than 450,000 people across the Member States and generating annual sales of over € 22 billion.

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