



ODYSSEE-MURE

ODYSSEE-MURE fit4-55 (2022-2025)

***A Leap Beyond Efficiency –
Energy Sufficiency Policies in Europe
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Definitions

Need for energy sufficiency

Energy sufficiency

A state in which people's basic needs for energy services are met equitably and ecological limits are respected.

Energy sufficiency actions

Actions which **reduce energy demand**, to take us towards the energy sufficiency state, whilst at the same time **changing the quantity or quality of the energy services demanded** in a sustainable way and not below people's basic needs.

Energy services

The **benefits provided by energy**, such as cooking, lighting, cooling, IT-based communication, automotive transport and industrial processes.

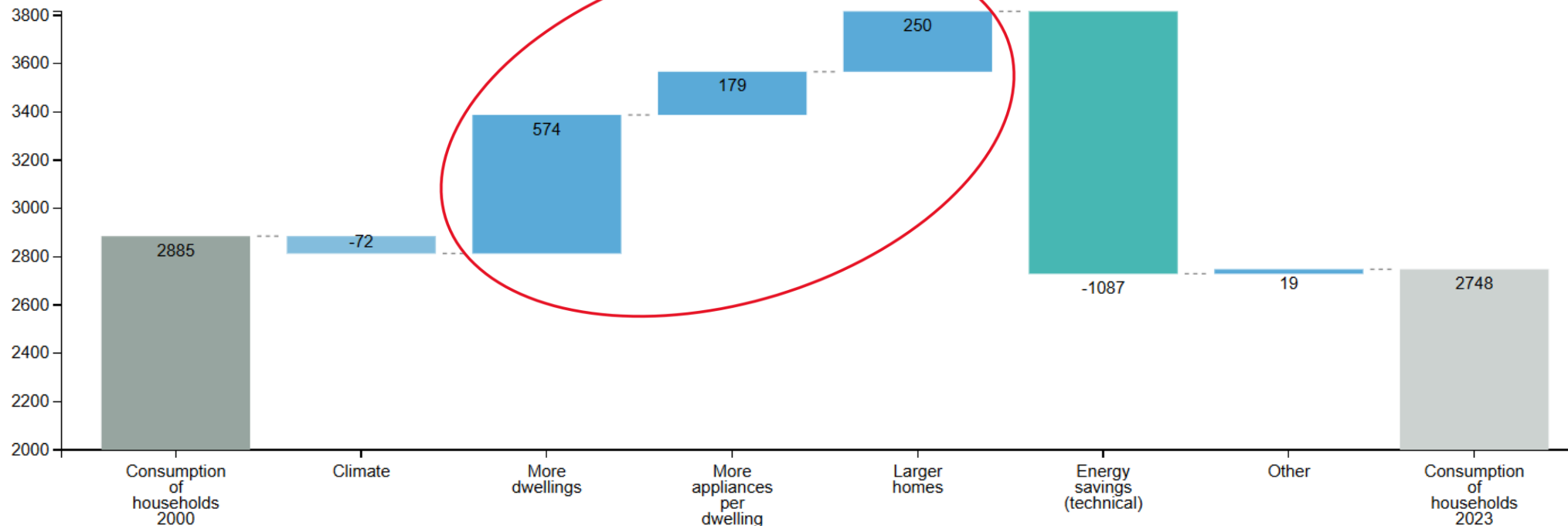
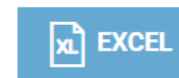
Sufficiency vs. efficiency

Their nature of changing the quantity or quality of the energy services demanded is exactly what **distinguishes energy sufficiency actions from energy efficiency actions**.

Need for energy sufficiency

- Complements energy efficiency by reducing overall energy demand in buildings, transport and households.
- Respecting planetary boundaries: 2024 global over-consumption day was on 1 August and in the EU on 3 May
- Contributes to the achievement of climate and energy targets.

VARIATION HOUSEHOLDS CONSUMPTION
EUROPEAN UNION
TWH (2000-2023)



Source:
Odyssee-MURE



Summary of energy sufficiency work in the Odyssee-MURE project

Types of energy sufficiency policies and measures (MURE search options)

Stock: 121 ongoing, 20 completed and 11 proposed measures

Categories:



Avoiding/Ceasing energy use (e.g., reducing unnecessary heating or cooling)



Substitution (e.g., using public transport instead of private vehicles)



Adjustment (optimizing energy services without reducing basic needs; e.g., heating food with microwave instead of a large electric oven)

Mechanisms:



Direct (e.g., regulatory policies)



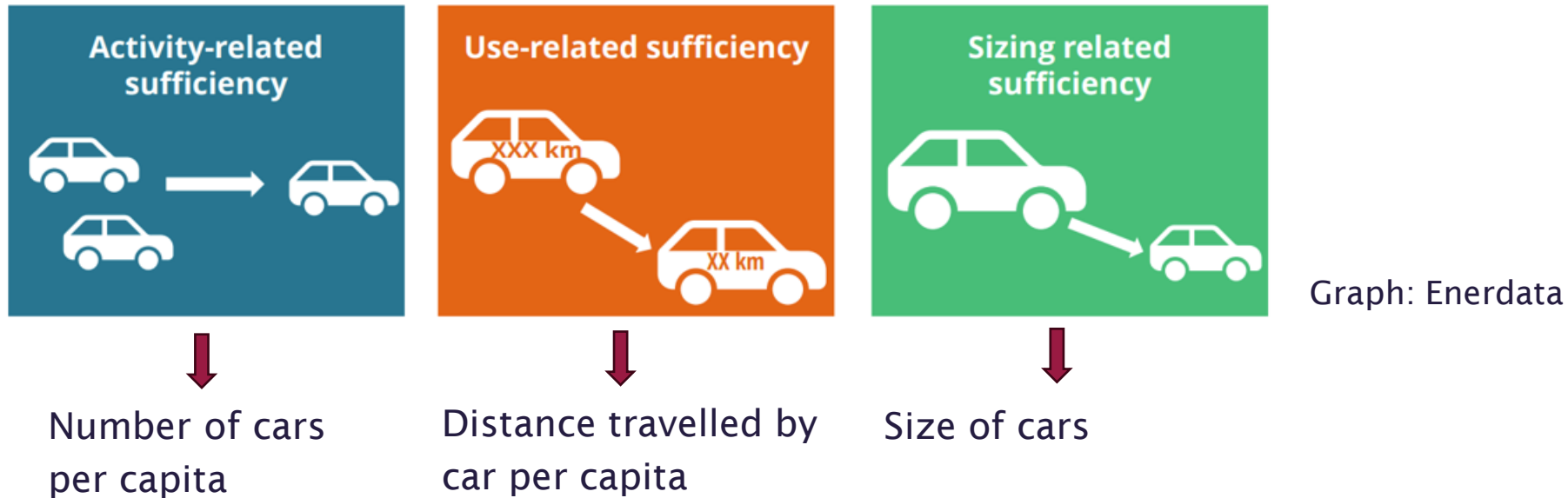
Indirect:

Monetary (e.g., progressive energy tariffs).

Non-monetary (e.g., public awareness campaigns)

Energy sufficiency indicators (Odyssee database)

- Sufficiency indicators address the impact of three types of behaviour in different sectors. Example for transport:





Energy sufficiency policy briefs at the Odyssee-MURE project

A Leap Beyond Efficiency - Energy Sufficiency Policies in Europe (2025) to be published at: odyssee-mure.eu/publications/policy-brief/

Forthcoming:

Evolution of sufficiency policies in Poland (webinar on 17 February)

Lifestyles in EU MS and its potential for energy consumption reduction (publication date open)

Previous project:

[Energy Sufficiency Indicators and Policies](#) (Gynther 2021)



Future work at the Odyssee-MURE: Enhanced Scoreboard

Energy sufficiency (and energy poverty) analysis tools to be included into the Energy Efficiency Scoreboard: [scoreboard](#)

In sufficiency, focus will be on the household and transport sectors

Indicators (level + trend) module monitors changes in activity (e.g. number of dwellings), as well as comfort and behavioural factors (e.g. size of dwellings)

The policy module will address the impact of sufficiency versus energy efficiency policies and measures



European energy sufficiency policies and measures



Energy sufficiency policies, households

- 🌡️ **Temperature regulations:**
 - **France:** Limits for heating and cooling in residential buildings, established already in the 1970s.
- ⚡ **Progressive electricity tariffs:**
 - **Malta:** Higher unit costs for electricity as consumption increases (Electricity Tariff Structure & Eco-Reduction Scheme).
- 🔥 **Heat billing by actual use:**
 - **Slovenia:** Individual billing for heating in multi-apartment buildings, reducing consumption by 5%.



Energy sufficiency policies, transport

- 🚗 **Fiscal and economic incentives:**
 - **France:** Bonus-malus scheme encouraging low-emission vehicle use.
 - **Finland & Greece:** CO₂-dependent car purchase taxes.
 - **France:** Electric bike subsidies for low-income seniors.
- 🚆 **Public transport incentives:**
 - **Germany:** VAT reduction for rail travel and imposing air travel levies to promote trains over flights.
- 🚲 **Cycling infrastructure:**
 - **Latvia:** Bicycle and micromobility infrastructure development.
 - **Spain:** Local government support for cycling infrastructure.
- 🏢 **Workplace initiatives:**
 - **The Netherlands:** Travel-related emissions reduction program (e.g., promotion of cycling, public transport cards and workplace parking restrictions).



Energy sufficiency policies, services sector

Temperature regulations:

- **Greece:** Operation Thermostat limits on heating (19°C) and cooling (27°C) in public buildings, with additional measures like window shields and night ventilation.

Office space reduction:

- **Finland:** Target to reduce office space per state employee from 18 m² to 10 m² by 2030 through hybrid working practices.



Energy sufficiency policies, cross-sectoral

Energy sufficiency plans:

- **France:** Comprehensive Energy Sufficiency Plan launched in 2022 to address energy crises across sectors, with long-term goals introduced in 2023.
- **Spain:** "Plan +SE" (More Energy Security) with 73 measures targeting crisis readiness, including energy sufficiency.

Energy taxation:

- **EU-wide** measures increasing energy costs to incentivize efficiency and sufficiency.



Energy sufficiency during the 2022-2023 energy crisis

Crisis response:

Emergency measures like indoor temperature caps (e.g., Greece, the Slovak Republic) and public campaigns (e.g., "Flip the Switch" in the Netherlands and "Down a Degree Campaign" in Finland).

Highlighted sufficiency's role in mitigating energy shortages and price surges.

Outcomes:

Effective in short-term demand reduction, but long-term impacts remain limited.

Take-aways:

Consideration of energy sufficiency is potentially a powerful tool, but long-term strategies are needed.

Further reading on emergency measures in 2022-2023:

- European Energy Network (EnR): [Results of monitoring survey of behavioural measures](#) (August 2023)

The way forward

Challenges:

Current EU directives focus on efficiency, not sufficiency.
Need for broader societal adoption and policy integration.

Opportunities:

Growing civil society support. See e.g., [2024 Sufficiency Manifesto](#) calling for binding EU targets to reduce energy and material consumption / [French citizens voting for sufficiency as their first recommendation](#) in the convention on the future of the EU.

Future directions:

Integrating energy sufficiency into long-term strategies.
Continuing the monitoring and impact evaluation of sufficiency to portray what can be achieved.

Thank you!

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