



ODYSSEE-MURE Fit4-55 (2022-2025)
Monitoring the Energy Efficiency Pillar for Climate Neutrality

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Energy sufficiency policies

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Energy sufficiency: Definitions

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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

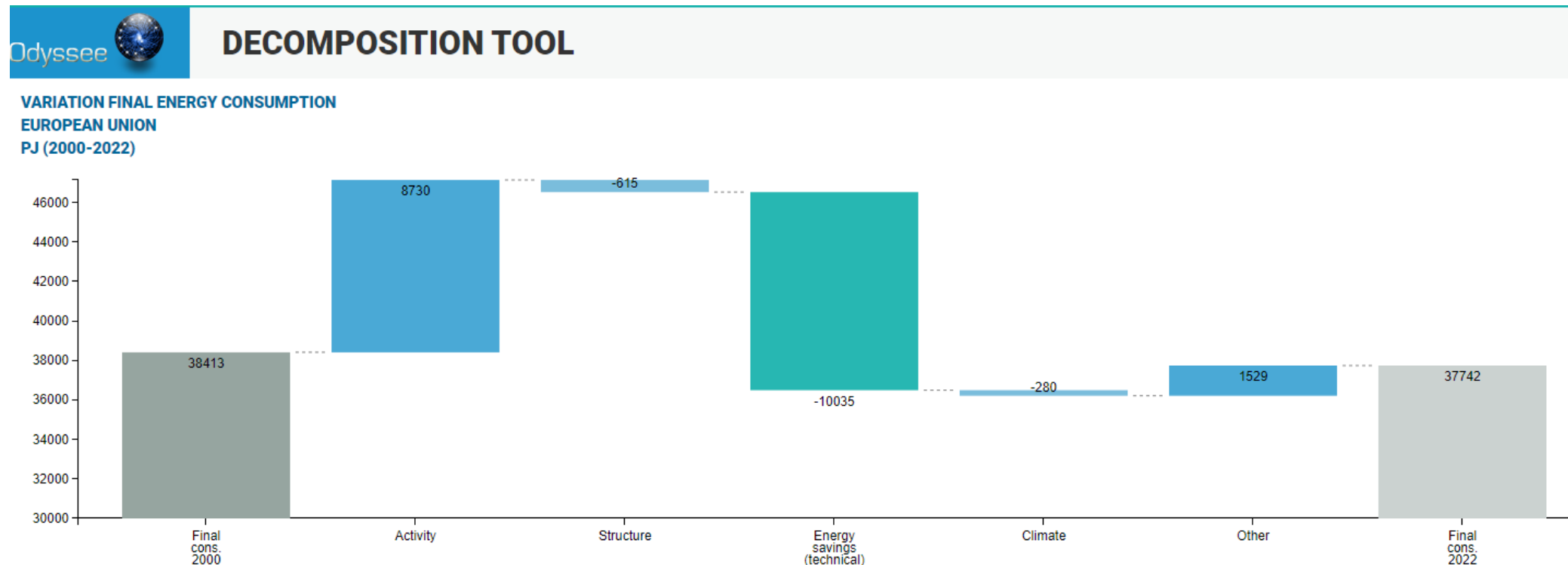
The **benefits provided by energy**, such as cooking, lighting, cooling, IT-based communication, automotive transport and industrial processes.

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**.

Why more focus on energy sufficiency in MURE – the key role of activity changes for energy demand

The decomposition of final energy consumption shows that changes in activities, i.e. in value added, traffic transport, number and size of dwellings and appliances, almost compensated the impact of energy savings in the EU in the period 2000-2022.



Source : ODYSSEE : based on Eurostat and national data

Why more focus on energy sufficiency in MURE – key element for achieving enhanced targets

From the new ODYSSEE-MURE proposal:

While improving energy efficiency is a key cornerstone in achieving the European Union's climate targets, it does not necessarily lead to a reduction in energy demand. However, reducing the demand for energy and materials in the buildings, industry and transport sectors - also referred to as energy sufficiency - is an important lever for a fair and just transition → achieving the EU's energy and climate goals will require not only energy efficiency but also energy sufficiency measures in the Member States.

Energy Sufficiency is a Gap or „Missing Article“ in the EED recast (and other EU regulation):

- Own new Articles for „Energy Efficiency First“ (Article 3) and „Energy Poverty (Article 24).
- BUT: „Energy Sufficiency“ is only indirectly addressed by an enhanced energy demand reduction target (Article 4)

→ In the ODYSSEE-MURE project, we are anticipating a stronger focus on energy sufficiency in the EU regulation and in the European countries.

Why more focus on energy sufficiency in MURE – EE1st principle + energy sufficiency as top priorities to achieve the goal of climate neutrality

The **environmental impacts of a number of climate policies (including renewables, the hydrogen economy, BECCS and CCUS)** - combined with low efficiencies from production to use – require its **integration into the governance structures** of the transformation of the energy system via a **hierarchical principle in four stages**:

1. The **"Energy-Efficiency-First" principle + Energy Sufficiency to minimize energy demand**

2. Priority for **decarbonisation of the electricity** sector,

3. Giving **priority to** the use of **alternatives based on renewable energy** sources with similar services but with a **lower environmental impact**
(e.g. direct electricity use, sustainable biomass/biofuels/biogas (potentially combined with CCUS), taking into account their limited availability and sustainability criteria)

4. Use of **hydrogen and synthetic products // CCUS** once the **first three stages**, where appropriate, have been **exhausted**

Energy Sufficiency Measures in MURE – status after 2nd update ODYSSEE-MURE

MURE II

MURE DATABASE

Countries :

Select...

Search

Clear All

Less options

Measure Characterisation

Impacts

Relation to EU Policy Frame

Energy poverty & sufficiency

Energy poverty

Energy Sufficiency

Welcome to the MURE database on energy efficiency measures in the European Union (plus Norway, Switzerland, UK and Energy Community Contracting Parties*).

The database includes policies and measures in the countries covered as well as for the European Union as a whole, which aim at the improvement of energy efficiency in the end-use sectors for households, industry, transport and services.

Categorisation by type of action :

Avoiding/Ceasing of energy services

Substitution of energy services

Adjustment of energy services

Categorisation by type of impact :

Direct Sufficiency Measure

Indirect Sufficiency Measure – Monetary

Indirect Sufficiency Measures – Non-monetary

		Cross-cutting	Household	Industry	Services	Transport
BEFORE 2nd MURE update:						
Sufficiency (all categories)	Total: 45	13	7	1	7	17
AFTER 2nd MURE update:						
Sufficiency (all categories)	Total: 96	26	12	2	14	42

Energy Sufficiency Measures in MURE – Overview by type of action and type of impact

Sector	Type of action			Type of impact (on energy services)		
	Direct	Indirect - monetary	Indirect – non-monetary	Avoiding / Ceasing	Substitution	Adjustment
Cross-Cutting (26)	3	2	7	10	13	24
<i>Countries</i>	<i>12</i>	<i>2</i>	<i>4</i>	<i>6</i>	<i>7</i>	<i>12</i>
Household (12)	2	3	1	3	2	10
<i>Countries</i>	<i>2</i>	<i>3</i>	<i>1</i>	<i>3</i>	<i>2</i>	<i>9</i>
Transport (42)	3	7	20	11	26	12
<i>Countries</i>	<i>3</i>	<i>6</i>	<i>7</i>	<i>6</i>	<i>11</i>	<i>8</i>

Energy Sufficiency Measures in MURE – Which concrete measures are behind?

Sector	Type of action		
	Direct	Indirect - monetary	Indirect – non-monetary
Transport (42)	3	7	20
<i>Countries</i>	3	6	7

Direct energy sufficiency measures:

Country	Sector	Title
France	Transport	Interdiction of short domestic flights with a rail alternative
Greece	Transport	Promotion of economical, safe and eco-driving
Greece	Transport	Promotion of use and improvement of energy efficiency of urban public transport systems

Indirect energy sufficiency measures - monetary:

Country	Sector	Title
Finland	Transport	Changes to taxable values of employer-provided commuter tickets and bicycles
France	Transport	Bonus-malus scheme for new vehicle purchases (bonus-malus écologique)
Germany	Transport	Levy on air traffic (Luftverkehrsabgabe)
Germany	Transport	Germany-Ticket for local public transport (Deutschlandticket)
Greece	Transport	Taxation of new cars according CO2 emission
Ireland	Transport	Mineral Oil Tax (Carbon Tax)
Latvia	Transport	Law "On Excise Duties": taxation of oil products and natural gas

Energy Sufficiency Measures in MURE – Which concrete measures are behind?

Sector	Type of action		
	Direct	Indirect - monetary	Indirect – non-monetary
Transport (42)	3	7	20
<i>Countries</i>	3	6	7

Indirect energy sufficiency measures – non-monetary:

Country	Sector	Title
France	Transport	Measures in favour of carpooling and car sharing
France	Transport	Bicycle rental systems
Germany	Transport	Strengthening rail freight transport (Stärkung des Schienengüterverkehrs)
Germany	Transport	Modernisation of the railway network (Modernisierung des Schienennetzes)
Greece	Transport	Improvements in road transport infrastructure
Greece	Transport	Improvements in public transport networks
Ireland	Transport	Major Public Transport Infrastructure Investment to 2030
Ireland	Transport	National Cycling Policy Framework
Latvia	Transport	Development of the infrastructure of environmentally friendly public transport: trams and buses, EU Funds Programming Period of 2014-2020
Latvia	Transport	New electric passengers trains (railway)
Latvia	Transport	Increase the number of zero emission vehicles in public transport and municipal services: EU funds planning period of 2021-2027
Latvia	Transport	Regular public information and education measures
Latvia	Transport	Development of environmentally friendly multi-modal public transport infrastructure: EU funding 2021-2027 programming period
Latvia	Transport	Greening public transport and bicycling development in Riga metropolian area: Recovery and Resilience Facility Financing, 2023-2026
Slovenia	Transport	Provision of financial resource for the development of rail transport for the period 2014-2030
Slovenia	Transport	Promotion and competitiveness of public transport
Slovenia	Transport	Promoting sustainable freight transport
Slovenia	Transport	Building cycle paths and support structures and promoting cycling
Spain	Transport	Aid program for local entities to promote the use of bicycles through investment in cycling infrastructure (Order TMA 1131/2022)
Spain	Transport	Aid program for municipalities for the implementation of low emission zones and the digital and sustainable transformation of urban transport

Energy Sufficiency Measures in MURE – Which concrete measures are behind?

Sector	Type of impact (on energy services)		
	Avoiding / Ceasing	Substitution	Adjustment
Household (12)	3	2	10
<i>Countries</i>	3	2	9

Avoiding/Ceasing of energy services:

Country	Sector	Title
Finland	Household	Information dissemination and campaigns targeted to residents and other users of buildings
Greece	Household	The "Save 2021" programme
Malta	Household	Electricity Tariff Structure & Eco-Reduction

Substitution of energy services:

Country	Sector	Title
Finland	Household	Information dissemination and campaigns targeted to residents and other users of buildings
Montenegro	Household	Energy Efficiency Home (Energetski efikasan Dom)

Adjustment of energy services:

Country	Sector	Title
Albania	Household	Energy Performance Certificate
Finland	Household	Information dissemination and campaigns targeted to residents and other users of buildings
France	Household	Internal temperature limit for building heating and cooling
Georgia	Household	Development of building energy performance certification scheme (მუშაობის ენერგოეფექტიურობის სერტიფიკაციის სქემის შემუშავება)
Luxembourg	Household	"Klimabonus Wunner", Grant scheme for sustainable housing, sustainable energy renovations an installation of renewable systems (2022-2025)
Montenegro	Household	Energy Efficiency Home (Energetski efikasan Dom)
Portugal	Household	EU's Energy Labelling framework Regulation (EU)2017/1369
Portugal	Household	EU-related: Energy Labelling of Heating Products and Systems
Slovenia	Household	Rules on dividing and billing heating costs in multiple-dwelling
United Kingdom	Household	Energy Performance Certificates



Thank you for your attention!

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