

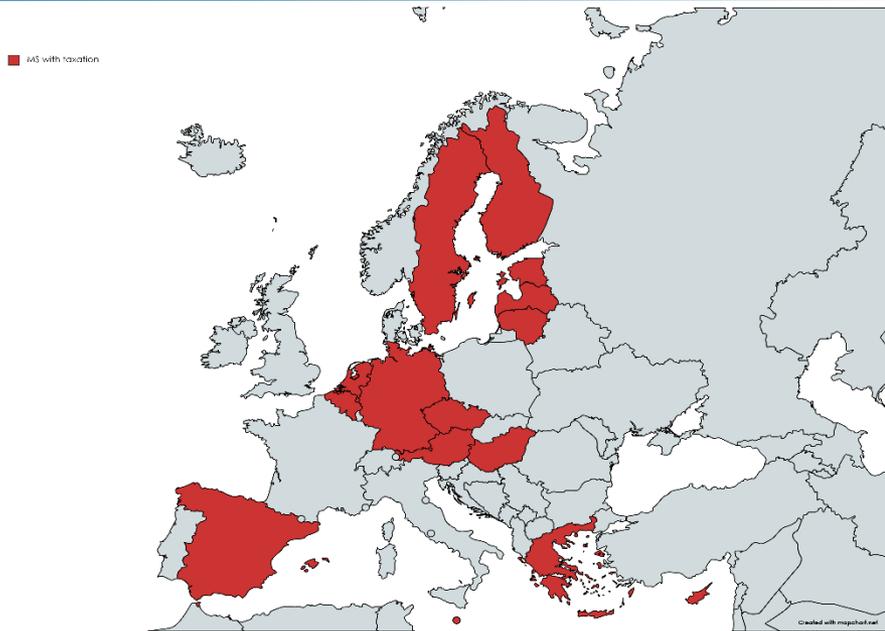
Snapshot of energy and CO₂ taxation for compliance with Article 7 EED targets

Vlasios Oikonomou, IEECP

vlasis@ieecp.org



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Types of taxation

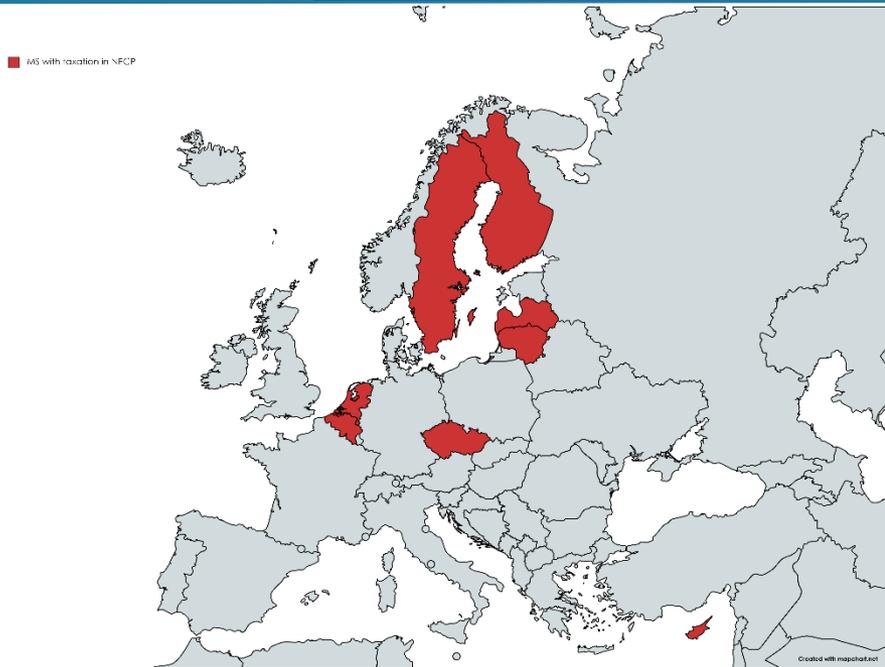
- ✓ General energy taxation covering all sectors
A, BE, CY, CZ, DE, EE, GR, ES, H, LV, NL, SE, (UK)
- ✓ Taxation on transport fuels
FI, LT, MT

Contribution of taxation measures differs substantially from 75% in cumulative savings (CY, ES, SE) to <20% in most MS

Energy taxes were reported in their majority early enough as taxes with clear objectives (energy/energy efficiency) with only few exceptions

Energy and CO₂ taxes in some cases introduced recently as an alternative measure to close the gap in energy savings from incumbent measures

Interactions with other policies under Art7 exist, mainly with grants and subsidies in related sectors and fewer with Energy Efficiency Obligations (EEOs)



Member State	Cumulative savings 2021–2030
Belgium	677
Cyprus	4.07 / 93.3 / 199.6
Czech Republic	0.5 / 20
Finland	55.26
Lithuania	21.6
Latvia	540
Netherlands	N/A
Sweden	172.2

- ✓ Fewer MS make use of taxation measures (up to now)
- ✓ The longer term horizon of the target allows more possibilities for using more measures or for strengthening the existing ones (such as EEOs?)

✓ **Elasticities**

Direct estimation: Study for short (1-2 years) and long term (15-20 years) estimates/ modelling scenarios/ national verified databases/ inclusion of parameters (income, prices, other measures, seasonal effects, autonomous efficiency improvements, etc)

Indirect estimation: Regressions from academic literature results, particular sector in another (similar) country/ justifications are required

✓ **Calculation of energy savings**

Elasticities should account for “net” effects of the change in prices

Counterfactual scenarios

- a) Bottom-up: estimation of granular estimates of energy use or energy savings and on the multiplication of these granular estimates up to the total level of the affected population
- b) Extrapolation of trends observed before the intervention: Past trend to evaluate the changes over time
- c) Comparison with similar (regional or national) markets where the policy measure is not introduced

Important: counterfactual should ensure that the energy savings that are estimated are directly attributable to the adopted taxation measure, taking into account energy savings from accompanying taxation policy instruments and beyond the EU minimum

ALTERNATIVE: Decomposition analysis (disentangling of the effects of individual policies in sub sectors and end uses)

Elasticities (indicative)

Member State	Short run elasticities	Long run elasticities
Austria	X (WIFO-DYNC model)	-
Belgium	0.18 (cost of km travelled and distance – no price)	-
Cyprus	-0.1 (cement), -0.1 (rest of industry), -0.1 (residential), -0.05 (services)	N/A
Czech Republic	-	Time series 2001–2017
Germany	-0.2 (gas), -0.2 (electricity), -0.2 (heating oil), -0.25 (diesel and gasoline)	N/A
Estonia	-0.26 (gas), -0.18 (electricity), -0.2 (district heating), -0.26 (petrol), -0.26 (diesel)	-
Greece	-0.51 (heating oil), -0.31 (diesel), -0.41 (gasoline), -0.31 (LPG)	-
Spain	-0.236 (res electricity), -0.055 (services electricity), -0.073 (industrial electricity), -0.2 (residential gas), -0.203 (services gas and industrial gas)	
Finland	-0.12 (petrol), -0.11 (diesel)	-
Hungary	Not available	
Lithuania	-0.58 (petrol), -0.26 (LPG) – source provides other values	-
Latvia	Not available	
Malta	-0.16 (petrol transport), -0.21 (diesel transport), -0.2 (gasoil heating), -0.44 (LPG heating)	(unclear if only short-term elasticities would be used)
Netherlands	-0.15 (Residential electricity), -0.1 (gas)	-
Sweden	-0.58 (Gasoline), -0.17 (diesel), -0.07 (electricity)	-1.09 (gasoline), -0.4 (diesel), -0.5 (electricity)
United Kingdom	-0.2 (industry)	-0.47 (industry), -0.3 (services)