

Evaluation and Monitoring for the EU Directive  
on Energy End-Use Efficiency and Energy Services

# Ex Ante Assessments of National Policies

## Evaluation and Monitoring of ESD Energy Savings in NEEAPs

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evaluate  
energy savings<sup>EU</sup>

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- (3) Conclusions regarding Evaluation and Monitoring

# Requirements of the ESD

- Energy Efficiency and Energy Service Directive (ESD) requires MS
  - to achieve an overall **national indicative energy savings target** in final energy use of 9% for the 9th year of application
  - to submit **three (National) Energy Efficiency Action Plans**: 2007, 2011, 2014
  
- Few formal requirements relevant for monitoring and evaluation:
  - Methodology for the calculation of the national indicative annual energy savings target adopted for 2016 (Annex I, ESD)
  - At least 20-30% coverage of ESD energy use by bottom-up methods (Annex IV, ESD)
  
- Especially for the 2nd (2011) and 3rd NEEAP (2016), additional requirements are given (Art. 14), e.g.
  - to conduct thorough analysis and evaluation of preceding NEEAPs
  - plans for, and information on the anticipated effects of, additional measures
  - substantial increase of the use of bottom-up methods

# Calculating the Energy Saving Target

Member State	Savings Target	
Austria		✓
Belgium (Flanders)		✓
Belgium (Wallonia+BRX)		✓
Bulgaria		✓
Cyprus	10%	✓
Czech Republic		✓
Denmark	11 % / 2012	○
Estonia		✓
Finland		✓
France		✓
Germany		✓
Hungary		✓
Ireland	9 % / 12,5 %	✓
Italy	9.6 %	✓
Latvia		✓
Lithuania	11%	✓
Malta		✓
Netherlands	higher than 9 %	✓
Poland		✓
Romania	13,5%	✓
Slovakia		✓
Spain	11 % (for 2012)	○
Sweden	10% (PE), 7.5% (E-Use)	○
UK	9 / 18%	✓

- Most of MS provided calculations of targets in which target is calculated according to the ESD  
(... to be verified whether compliance is realistic on the basis of measures and packages listed)
- Some MS base their calculations on national EE plans, partly not consistent with ESD requirements
- Eight MS even intend to exceed the target (CYP, DK, IRE, LIT, NL, RO, ES, UK)

# „Early Energy Savings“

Member State	Early Savings	
Austria	43%	○
Belgium (Flanders)	not transparent	?
Belgium (Wallonia+BRX)	not transparent	?
Bulgaria		✓
Cyprus		✓
Czech Republic		✓
Denmark		✓
Estonia		✓
Finland		✓
France	not transparent	?
Germany	45%	○
Hungary		○
Ireland	7%	○
Italy	calc. for measures	○
Latvia		
Lithuania	17%	○
Malta		○
Netherlands		✓
Poland		✓
Romania		✓
Slovakia	not transparent	?
Spain		✓
Sweden		○
UK	since 2000	○

- Nine MS claim early savings (1995 pp.), especially GER and AUT
- UK 9% early energy savings, but also 9% new energy savings until 2016

# Additionality of Measures

Member State	Additional Measures	
Austria		✓
Belgium (Flanders)	not transparent	
Belgium (Wallonia+BRX)	not transparent	
Bulgaria		✓
Cyprus	no early action	✓
Czech Republic		✓
Denmark		✓
Estonia	no information	
Finland	partly add. (5%)	✓
France		✓
Germany		✓
Hungary		✓
Ireland	acc. to sectoral plans	✓
Italy		✓
Latvia		✓
Lithuania		✓
Malta		✓
Netherlands		✓
Poland		✓
Romania		✓
Slovakia		✓
Spain		✓
Sweden		✓
UK		✓

- Most of MS distinguish between measures being already implemented and additional measures

(... many according to national EE development plans or sectoral plans)
- A good quantity of additional measures announced

(... implemented due to ESD?)

# Monitoring and Evaluation

Member State	Information on evaluation	
Austria	13% bottom-up	✓
Belgium (Flanders)		✓
Belgium (Wallonia+BRX)		
Bulgaria	bottom-up	✓
Cyprus		
Czech Republic	mix of bottom-up / top-down	✓
Denmark		
Estonia		
Finland	bottom-up, 37-50%	✓
France	mostly top-down	✓
Germany	mostly bottom-up	✓
Hungary		✓
Ireland	mostly bottom up	✓
Italy	mostly bottom-up	✓
Latvia		
Lithuania		
Malta		
Netherlands		
Poland		
Romania		
Slovakia		
Spain		
Sweden		
UK	mostly bottom-up	✓

- AUT, BUL, CZ, FIN, FRA, GER, HUN, IRE, ITA, LAT, UK

provide information on evaluation methods (mostly bottom up)

# Ex ante Estimates of Savings

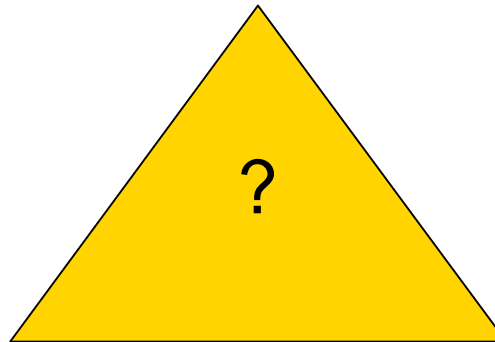
Member State	Ex ante estimates	
Austria		
Belgium (Flanders)		✓
Belgium (Wallonia+BRX)		✓
Bulgaria		
Cyprus	per sector	✓
Czech Republic		✓
Denmark		
Estonia		
Finland		✓
France		
Germany		✓
Hungary		✓
Ireland		✓
Italy		✓
Latvia		✓
Lithuania		
Malta		
Netherlands		✓
Poland		
Romania		
Slovakia		✓
Spain		✓
Sweden		✓
UK		✓

- Only half of MS conducted ex ante estimates, related to potentials
- Three groups of MS:
  - ex ante calculation of savings at the level of **single measures**
  - ex ante calculation of savings at the level of **single sector**
  - ex ante calculation of savings at the aggregated **national level**

# Conclusions

- Main methodological problem:  
assessing the relationship between potentials, targets  
calculated, and measures assessed ex ante

## Calculation of Energy Savings Targets



**Assessments of  
Effects of Measures  
by BU and/or TD  
Methodologies**

**Energy Savings  
Potentials in Sectors  
(national studies, sectoral  
studies, ESD Potentials Study)**

# Conclusions

## ■ From diversity to harmonisation

- Harmonisation of NEEAPs required for the second round
- Harmonisation of evaluation methods

## ■ Learning Processes

- From single measures addressing one sectoral target group or technology towards coherent policy packages in NEEAPs
  - **adequate evaluation and monitoring tools are required**
- From the provision of elaborated methodologies and case applications for monitoring and evaluation towards the development of quality standards and procedural criteria of quality assurance for e&m
  - **formulation of quality standards**
- Despite Member States are responsible for the evaluation and monitoring process according to the ESD, other „provider“ of policy instruments and EEI measures will be involved
  - **division of labour in data generation and data management**

Thank you very much for your attention!

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