

**Energy research Centre of the Netherlands** 

## **Evaluating the ESD and CHP Directive**

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## **Outline**

- Assessment in support of new EED
- Evaluation requirements and approach
- Evaluation cases
- Results
- Conclusions



## Assessment in support of EED

#### Two connected assessments:

- Demand side: impacts of most ESD articles
- Supply side: impact of CHP directive (and some ESD articles)

### Subjects:

- Mid-term evaluation
- Policy options (not dealt with here)

#### Focus:

- Methodology
- Adaptation for specific application



# **Evaluation requirements**

#### Assessment guidelines:

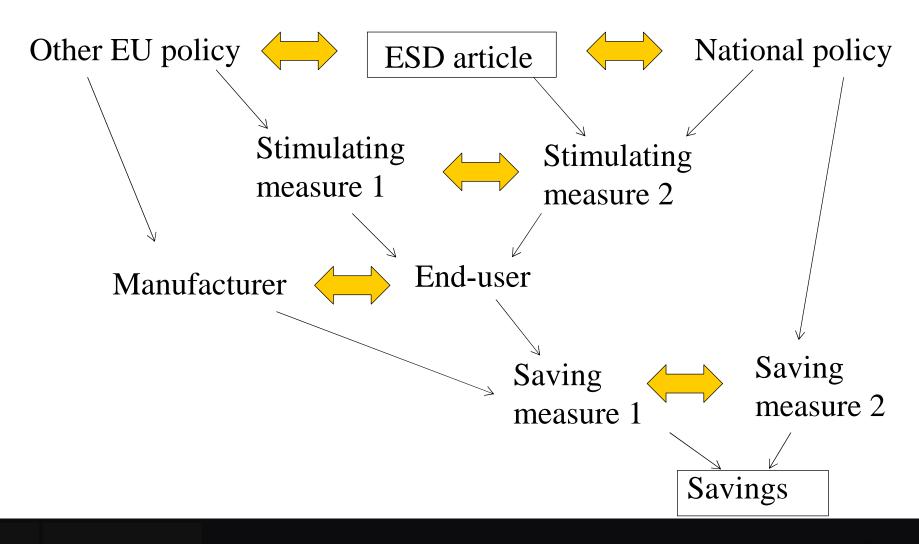
- Relevance: led to new action ?
- Effectiveness: have actions contributed to the goal(s)?
- Efficiency (cost-effectiveness): results at reasonable costs?
- Utility: do impacts correspond to the needs?
- Sustainability: lasting effects?

#### **Problems:**

- Late implementation
- Lack of data
- Unclear formulation of policy
- Interaction with other policy/actions



# ECN Interaction for ESD policies





# Adapted evaluation approach

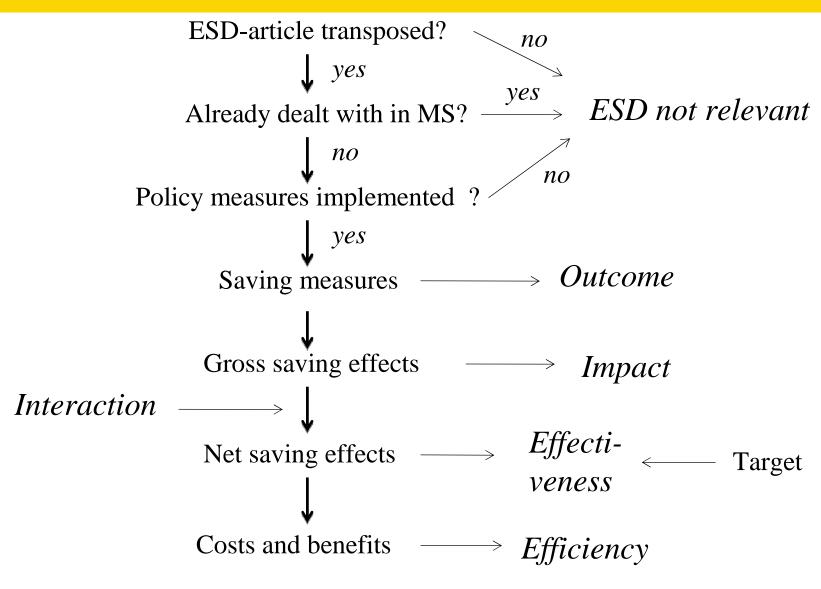
### Adapted assessment:

- Utility and sustainability left aside
- Extra data through survey
- Also process of implementation
- Also market circumstances
- Also analysis of interaction

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Mechanism for delivering savings

# ECN General mechanism "ESD to savings"





# **ECN** Assessment cases ESD and CHP

No.		Issue
	ESD	
1	Art.4	Target setting
2	Art.5	Exemplary role of Public Sector
3	Art.6	Energy companies promoting energy efficiency
4	Art.7(1)	Information dissemination by government
5	Art.7(2)	Incentives for market operators to provide more info/advice to final customers
6	Art.8	Qualification, certification and accreditation for EES providers
7	Art.9	Adequate financing for end-use saving measures
8	Art.10	Energy efficiency in transmission and distribution
9	Art.11	Establishment of funds for investments into savings
10	Art.12	Mandatory audits for industry
11	Art.13	Information on use through metering and billing
12	Art.14	NEEAP set-up of reporting
	CHP Directive	
13		Progress reports
14		CHP potentials
15		Barrier analysis
16		Guarantees of Origin for CHP electricity



## Results for ESD- and CHP-cases

### **Examples:**

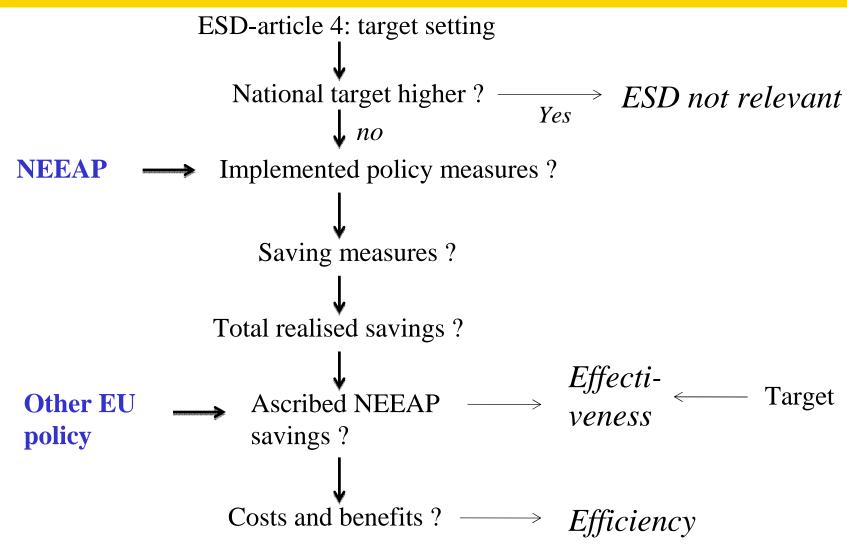
- ESD, article 4 on Target setting
- ESD, article 12 on Audits
- CHP, 4-year reporting

#### Results:

Implementation Impact



# E C N Mechanism for target setting





# Results for ESD-article 4 on target setting

#### Article 4

MS shall adopt overall national indicative target of 9% for 2008-16

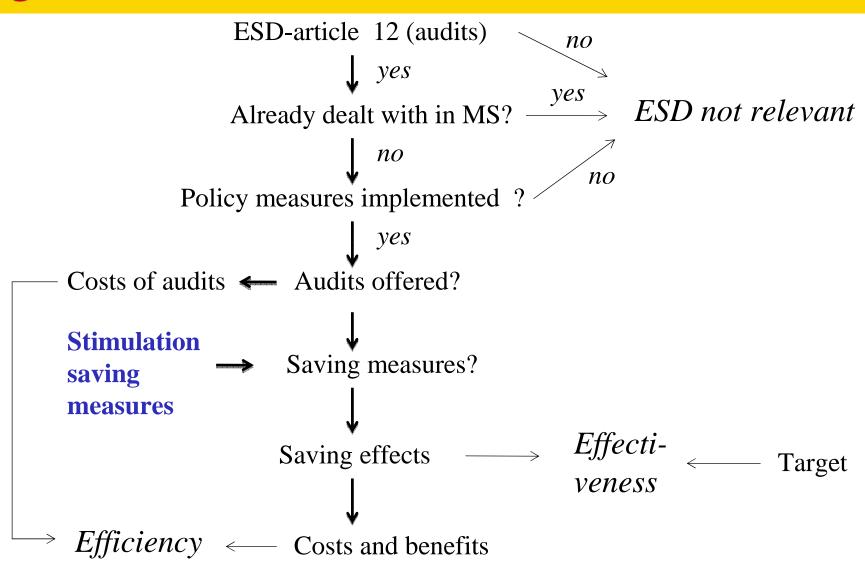
## Results on implementation:

Targets for 2016 set in all MS, of which 7 higher than 9% and some expecting more savings than stated target. But article not relevant in number of cases due to national targets being already higher.

### Results on impact

Impact could not be observed as MS were still preparing 2<sup>nd</sup> NEEAP with data on realized savings. Some rating of the impact was possible by looking at historic savings being much higher than the target. Moreover, "erosion" of the ESD target due to incorporation of early action savings made the possible impact smaller.

# **ECN** Mechanism for availability of audits policy





#### Results for ESD-article 12 on audits

#### Article 12

MS shall ensure availability of high-quality audit schemes

#### Results on implementation:

Policy measures on audits present in almost all countries, but most mandatory audits due to the EPBD > relevance not very high.

### Results on impact:

Impact dependent on follow-up of the audit, which is hampered by lack of support for actual implementation of measures > large margin for possible impact, probably often limited.



# Results for CHP reporting requirements

#### **Directive**

MS have to submit four-yearly progress reports

### Results on implementation:

Most MS late in reporting and during this delay market actors postponed investment decisions. The reports did provide insight in further barriers to growth in the market for high-efficiency CHP.

### Results on impact:

The progress reports did not trigger sufficient action to achieve the targeted growth of the CHP market, but it enhanced understanding on CHP markets, potentials and barriers.

The non-binding nature did not allow the Commission to enforce further action at MS level.



#### Conclusions

- Practical problems (evaluation period short, little time for response, content of policies not clear of soft)
- Conceptual problems: no direct relation policy-savings and interaction with other EU policy and national policies
- Special evaluation case: formulation of policy does not automatically result in the implementation!
- Approach has been adapted in order to provide the maximum information
- Focus on relevance and strength of policy, instead of on impact
- Relevance often limited, enforcement hardly possible > effect of both Directives has been limited to date



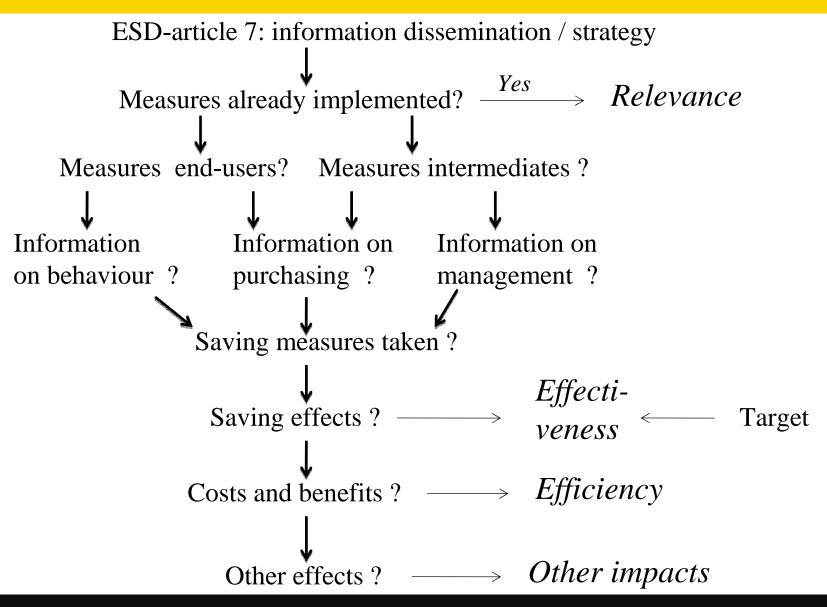
## Annex: Mechanism in other cases

# **ECN** Mechanism for public sector role

ESD-article 5: procurement / example actions Public target? Procurement options chosen?  $\xrightarrow{Yes}$ Rele-Example actions? Option already implemented? \_\_ vance Communication Exchange Market trans-→ Own savings? on examples? best practise formation? Saving measures elsewhere? Saving measures elsewhere? Saving effects realised?  $\longrightarrow$  Effecti-  $\longleftarrow$  Target veness 

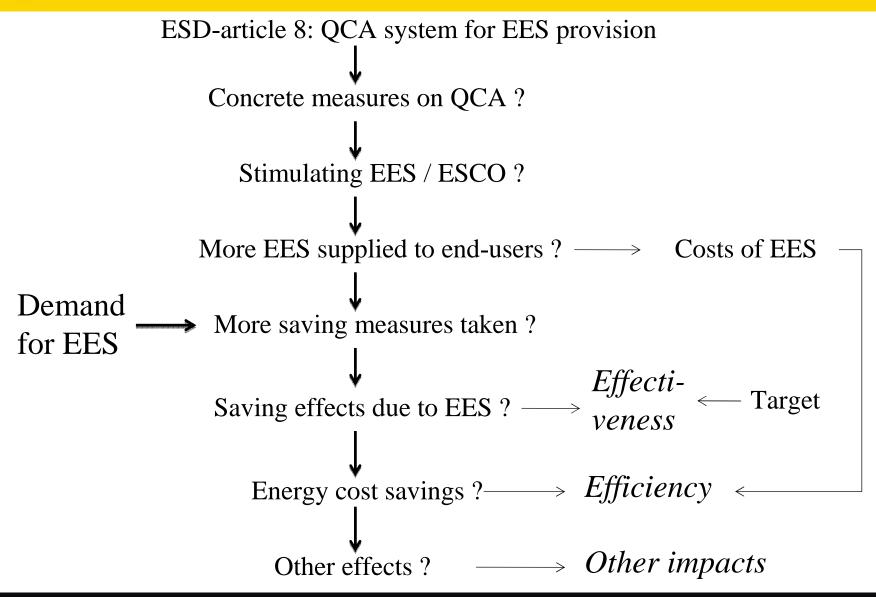


# E C N Mechanism for info to market actors



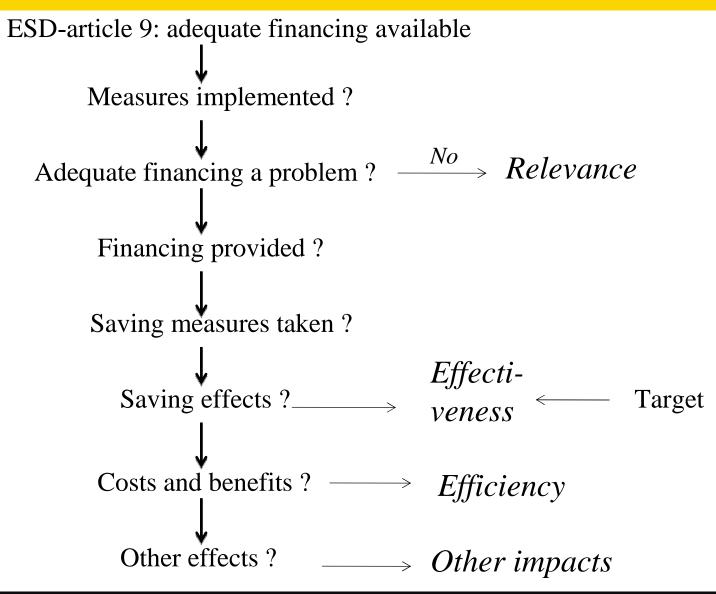


# **ECN** Mechanism for QCA of ESCOs



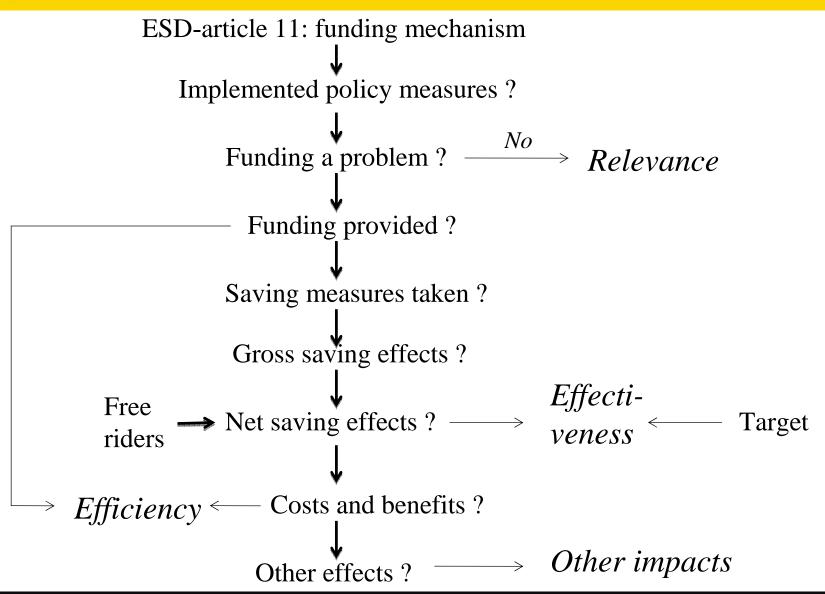


# **ECN** Mechanism for financing





# **ECN** Mechanism for funding





# ECN Mechanism for NEEAP reporting

ESD-article 14: NEEAP reporting

