Agentschap NL
Ministerie van Infrastructuur en Milieu

Cost Effectiveness as a Dutch treat?

The 2012 Dutch approach to cost-effectiveness of emission abatement techniques

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14 juni 2012 André Peeters Weem

» Als het gaat om duurzaamheid, innovatie en internationaal

Introduction

-Use of Cost Effectiveness (CE) in The Netherlands
-Reasons for revision
-New approach
-Next steps

-Definition:

$$CE = \frac{\text{Annual costs}}{\text{Annual emission reduction}}$$

Use of cost effectiveness in The Netherlands

- CE method established in 1995
- adopted in Netherlands Emission Guideline (NeR)
- reference values established in 1997
- for decisions on BAT for licensing of industrial activities

Reference values:

	NOx	SO2	VOC	dust
Euro/kg	4,6	2,3	4,6	2,3

Method for calculation of CE

cost price	**Costs**
Additional investments Non-recurring investments Extra depreciation of assets through disinvestment	
Total investments * annuity (= 0.163) (10 years, 10%) (machinery)	**Cost of capital**
Structural investments * annuity struct. (= 0.110) (30 years, 10%) (buildings)	**Structural cost of capital**
Maintenance Service Other fixed operating costs	
Total fixed operating costs	**Fixed operating costs**
Utilities (gas, electric power water, steam, etc.) Residue processing/emission levies Other variable operating costs	
Total variable operating costs	**Variable operating costs**
Revenues and savings	**Revenues and savings**
	Total net annual cost

Method for calculation of CE

Environmental effects	
Annual unabated emission	Annual unabated emission
Annual remaining emission Annual emission during malfunctions Annual emission during maintenance	
Total annual remaining emission	Total annual remaining emission
	Total annual emission reduction
Cost effectiveness	
Cost effectiveness =	**Total net annual cost** **----------** **Total annual emission reduction**

Use of cost effectiveness in The Netherlands

Situation in 2008
- BREFs provide information on BAT
- Reference values outdated
- General legislation in force for most activities
- CE sometimes barrier for introduction of new technology

2008:
Start of revision of method, scope and reference values
Co-operation between government, industry and env NGO
Background study

Revision of the current approach

Outcome of revision process:
- Calculation method unchanged
- Reference values replaced by evaluation range:

Ref values (euro/kg)	NOx	SO2	VOC	dust
Old	4,6	2,3	4,6	2,3
New	5 – 20	5 – 10	8 – 15	8 - 15

- Scope redefined:

New approach to CE

Scope redefined:

- CE only applicable to activities that are:
  - not covered by the EU IED, or
  - covered by the EU IED in case the BREF is outdated

- CE not applicable to
  - IED installations with a BREF
  - activities covered by general legislation

New approach to CE

After 1 July 2012:
Reference values as a range:

- Below lower treshold: CE is favourable
- Above upper treshold: CE is unfavourable

- Between upper and lower treshold: no conclusion possible, CE part of integrated assessment

(euro/kg)	NOx	SO2	VOC	dust
Range	5 – 20	5 – 10	8 – 15	8 - 15

Next steps

NL experience as input for new EU reference document CME

Evaluation of use of CE in relation to EU BREFs

Assessment of CE related to BAT-AEL in current EU BREFs