

EMEEES

Glossary / Frequently used terms

As of May 29, 2007

Term	Mention in ESD	Acronym for term	Definition from ESD or explanation for term proposed by EMEEES project
Directive 2006/32/EC on energy end-use efficiency and energy services	Is the ESD	ESD	In the ESD, an indicative target has been set for 9 % cumulative annual energy savings to be realised in EU countries in the period 2008-2016. The Directive states that these energy savings should be monitored and evaluated by a combination of Top-down (TD) and Bottom-up (BU) methods.
Energy efficiency	Yes	EE	ESD Article 3b): “a ratio between an output of performance, service, goods or energy, and an input of energy”
Energy efficiency improvement	Yes	EEl	ESD Article 3c): “an increase in energy end-use efficiency as a result of technological, behavioural and/or economic changes”
Energy efficiency improvement measure	Yes	EEl measure	ESD Article 3h): “all actions that normally lead to verifiable and measurable or estimable energy efficiency improvement” (interpretative remark by EMEEES project: Types of EEl measures can be, e.g., EEl programmes, EEl policy instruments, energy services and other measures, e.g., incentive programmes, building codes, energy performance contracting, voluntary agreements. EEl measures facilitate end-use EEl actions)
End-use energy efficiency improvement action	No	End-use EEl action	Overarching term proposed by EMEEES project for analytical clarification; can be a technical, organisational, or behavioural action taken at an end-user’s site (or building, equipment, etc.), but not necessarily by the end-user himself/herself, that improves the energy efficiency of the energy end-using facilities or equipment, and thereby saves energy
Energy efficiency improvement programme	Yes	EEl programme	ESD Article 3g): “activities that focus on groups of final customers and that normally lead to verifiable and measurable or estimable energy efficiency improvement” (interpretative remark by EMEEES project: i.e., a special type of EEl measures)

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Energy efficiency improvement mechanism	Yes	EEI mechanism	ESD Article 3f): “general instruments used by governments or government bodies to create a supportive framework or incentives for market actors to provide and purchase energy services and other energy efficiency improvement measures” (interpretative remark by EMEEES project: i.e., Public authorities use EEI mechanism to facilitate the provision of EEI measures by market actors. Examples of EEI mechanisms are energy efficiency funds, white certificates schemes, or voluntary agreements with energy companies to save energy through EEI measures)
Energy savings	Yes		ESD Article 3d): “an amount of saved energy determined by measuring and/or estimating consumption before and after implementation of one or more energy efficiency improvement measures, whilst ensuring normalisation for external conditions that affect energy consumption”
Energy service	Yes		ESD Article 3e): “the physical benefit, utility or good derived from a combination of energy with energy efficient technology and/or with action, which may include the operations, maintenance and control necessary to deliver the service, which is delivered on the basis of a contract and in normal circumstances has proven to lead to verifiable and measurable or estimable energy efficiency improvement and/or primary energy savings”
National Energy Efficiency Action Plan	Yes	NEEAP	The first national energy efficiency action plans, which have to be prepared by each Member State by June 30, 2007, “shall describe the energy efficiency improvement measures planned to reach the targets set out in Article 4(1) and (2), as well as to comply with the provisions on the exemplary role of the public sector and provision of information and advice to final customers set out in Articles 5(1) and 7(2) respectively.” (ESD Article 14) The second and third NEEAP, due in 2011 and 2014, are to “include the final results with regard to the fulfilment of the energy savings targets set out in Article 4(1) and (2)” and other additional information.

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Bottom-up calculation / evaluation methods	Yes	BU	ESD Annex IV 1.1: "... energy savings obtained through the implementation of a specific energy efficiency improvement measure are measured in kilowatt-hours (kWh), in Joules (J) or in kilogram oil equivalent (kgoe) and added to energy savings results from other specific energy efficiency improvement measures"
Top-down calculation / evaluation methods	Yes	TD	ESD Annex IV 1.1.: "... the amount of energy savings is calculated using national or larger-scale aggregated sectoral levels of energy savings as the starting point"
"energy efficiency indicators"	Yes		Mentioned in ESD Annex IV 1.1. in connection with top-down calculations. Top-down evaluation methods are often based on the analysis if the development over time of a specific energy consumption per unit of production in an industry sector, or per unit of service provided by appliances or cars.
Cross-sectoral measures	Yes		EEl measures which target specific end use EEl actions but in more than one sector. ESD Annex III mentions standards and norms for products and buildings, energy labelling, metering and informative billing, as well as training and education that lead to application of energy-efficient technology and/or techniques
Horizontal measures	Yes		EEl measures which target many end-uses (as opposed to specific EEl measures). ESD Annex III mentions energy taxation, focused information campaigns, other regulation
"Early action"	Yes		ESD Annex I 3.: EEl measures initiated not earlier than 1995 (in certain cases: 1991) with verifiable and lasting effects after 2008 "may be taken into account in the calculation of the annual energy savings. Measures of a technological nature should either have been updated to take account of technological progress, or be assessed in relation to the benchmark for such measures. The Commission shall provide guidelines on how the effect of all such energy efficiency improving measures should be measured or estimated"

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Normalisation factors	Yes		<p>ESD Annex IV 1.2. mentions the following normalisation factors:</p> <ul style="list-style-type: none"> (a) weather conditions, such as degree days; (b) occupancy levels; (c) opening hours for non-domestic buildings; (d) installed equipment intensity (plant throughput); product mix; (e) plant throughput, level of production, volume or added value, including changes in GDP level; (f) schedules for installation and vehicles; (g) relationship with other units.
<i>Correction factors for top-down calculations:</i>			
Autonomous savings	No		Proposed by EMEEES project for analytical clarification: Energy savings that are realised without the influence of an EEI measure, i.e. due to technological progress or increasing energy prices or changes in the business cycle
Hidden structure effects			Proposed by EMEEES project for analytical clarification: Changes in the top-down indicators that are due to structural changes within the sector observed by an energy efficiency indicator but are not corrected for due to lack of data; e.g., changes in production structure within a sector, or changes in average occupancy of dwellings that are not tracked
<i>Correction factors for bottom-up calculations:</i>			
Free rider effect	No		Proposed by EMEEES project for analytical clarification: Energy savings attributable to actors, who would have implemented an end-use EEI action anyway, but make use of facilities or support provided by an EEI measure
Multiplier effect	Yes		The initial energy-saving effect of an EEI measure is enhanced due to a market transformation, i.e. "meaning that the market will implement a measure automatically without any further involvement from the authorities or agencies referred to in Article 4(4) or any

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			private-sector energy services provider.” (ESD Annex IV 5.)

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Direct rebound effect	No		Proposed by EMEEES project for analytical clarification: The initial energy-saving effect of an EEI measure is reduced, because part of the avoided expenditures on energy is used to increase comfort levels (e.g., higher thermostat setting after implementing insulation measures)
Double counting	Yes		ESD Annex IV 1.1.: “The authorities or agencies referred to in Article 4(4) will ensure that double counting of energy savings, which results from a combination of energy efficiency improvement measures (including mechanisms), is avoided.” Interpretative remark from EMEEES project: the combined effect of the overlapping EEI measures may be smaller or larger than the sum of the separate effects. An example would be industry customers participating in an energy audit programme, and then having energy service companies implement some of the technical end-use EEI actions proposed in the energy audit through energy performance contracting.
Technical interactions	No		Proposed by EMEEES project for analytical clarification: Regards an overlap of the energy-saving effects of two or more end-use EEI actions targeting the same end-use; e.g. combination of thermal insulation and efficient boiler; in this example, the combined energy savings will usually be smaller than if the energy savings from each action is evaluated and added together
Lifetime factors	No		Proposed by EMEEES project for analytical clarification: Regards the persistence of EEI measures and possible changes in the saving performance of a measure dependent on e.g. climate trends, usage pattern trends, maintenance regime