

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

Proposal for a reporting checklist for top-down evaluations

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evaluate
energy savings^{EU}

coordinated by



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The Project in brief

The objective of this project is to assist the European Commission in developing harmonised evaluation methods. It aims to design methods to evaluate the measures implemented to achieve the 9% energy savings target set out in the EU Directive (2006/32/EC) (ESD) on energy end-use efficiency and energy services. The assistance by the project and its partners is delivered through practical advice, technical support and results. It includes the development of concrete methods for the evaluation of single programmes, services and measures (mostly bottom-up), as well as schemes for monitoring the overall impact of all measures implemented in a Member State (combination of bottom-up and top-down).

Consortium

The project is co-ordinated by the Wuppertal Institute. The 21 project partners are:

Project Partner	Country
Wuppertal Institute for Climate, Environment and Energy (WI)	DE
Agence de l'Environnement et de la Maitrise de l'Energie (ADEME)	FR
SenterNovem	NL
Energy research Centre of the Netherlands (ECN)	NL
Enerdata sas	FR
Fraunhofer-Institut für System- und Innovationsforschung (FhG-ISI)	DE
SRC International A/S (SRCI)	DK
Politecnico di Milano, Dipartimento di Energetica, eERG	IT
AGH University of Science and Technology (AGH-UST)	PL
Österreichische Energieagentur – Austrian Energy Agency (A.E.A.)	AT
Ekodoma	LV
Istituto di Studi per l'Integrazione dei Sistemi (ISIS)	IT
Swedish Energy Agency (STEM)	SE
Association pour la Recherche et le Développement des Méthodes et Processus Industriels (ARMINES)	FR
Electricité de France (EdF)	FR
Enova SF	NO
Motiva Oy	FI
Department for Environment, Food and Rural Affairs (DEFRA)	UK
ISR – University of Coimbra (ISR-UC)	PT
DONG Energy (DONG)	DK
Centre for Renewable Energy Sources (CRES)	EL

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Proposal for a reporting checklist for top-down evaluations

► Evaluation overview

Contact person(s) for the evaluation:

Organisations involved in the evaluation:

Energy consumption or diffusion indicator used:

Statistical basis of the indicator:

► Main results

It is possible to present values for *all* energy savings (compared to the status quo without any of the targeted end-use actions) and for energy savings *additional* to the end-use actions taken autonomously by final consumers or other actors.

All annual energy savings in 2016 (or 2010) (in GWh):

Additional annual energy savings in 2016 (or 2010) (in GWh):

Other important results:

► Calculation process

- **Normalisation and other corrections for weather, structural effects, etc that were made** (please list the factors corrected for, how it was done, and which data were used):

1.

2.

3.

4.

(please add more lines if needed)

- **Reference trend chosen:**

- The value of the normalised and corrected indicator in the base year (for calculation of *all* energy savings); base year chosen:

- A reference trend of energy efficiency improvement of the indicator reflecting ‘autonomous improvements’ (for calculation of *additional* energy savings); value chosen (in % of improvement per year):

How was this reference trend reflecting ‘autonomous improvements’ developed (e.g., regression analysis, expert assessment)?

- **Was a correction of the reference trend for increases of energy market prices made?**

If yes, what was the price elasticity used:

How was it developed (e.g., regression analysis, expert assessment)?

- **Unitary annual energy savings values for diffusion indicators or specific energy consumption indicators of equipment**

Was such a value needed to calculate total ESD annual energy savings from the results directly derived from the indicator?

If yes, what is this value (e.g., annual final energy savings per m² of solar water heater surface; number of standard annual cycles per washing machine; number of annual vehicle km travelled):

How was it developed, what were the data sources?

► Short description of the measure(s) having an effect on the energy savings evaluated with the indicator (please provide one box per measure)

Name of the measure (or group of measures):

Contact person(s) for the measure(s):

Organisations involved in the measure(s) implementation:

Target group:

Targeted type of final energy (fuel) and end use:

Concrete end-use actions facilitated (please list)¹

Period for which the measure has had an effect:

Short description of the measure(s) (including eligibility requirements for participation/actions, level of financial incentives, if any, and role of actors)²:

¹ ESD Annex III provides examples (a) to (o) of end-use actions, which are not exhaustive

² The Appendix to this checklist provides a non-exhaustive list of types of measures

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► Evaluation quality and uncertainties

- what are the specifications / guidelines used to ensure the evaluation quality?
- how are missing data handled?
- can the uncertainties on the results be assessed or qualified? If yes, please provide the results

► Monitoring and evaluation costs

- What types of costs are related to the monitoring and evaluation of the measure (or group of measures)?
- Can these costs be assessed (e.g. in € for the whole evaluation, or in €/kWh saved)?

► References

(mention here the reports produced and any document used for the evaluation)

Appendix to the top-down reporting checklist: Non-exhaustive list of energy efficiency improvement measures and mechanisms

Category	Subcategories
1 Regulation	Standards and norms: 1.1 Building Codes and Enforcement 1.2 Minimum Equipment Energy Performance Standards
2 Information and legislative-informative measures (e.g. mandatory labelling)	2.1 Focused information campaigns 2.2 Energy labelling schemes 2.3 Information Centres 2.4 Energy Audits 2.5 Training and education 2.6 Demonstration* 2.7 Exemplary role of the public sector 2.8 Metering and informative billing*
3 Financial instruments	3.1 Subsidies (Grants) 3.2 Tax rebates and other taxes reducing energy end-use consumption 3.3 Loans (soft and/or subsidised)
4 Voluntary agreements and Co-operative instruments	4.1 Industrial Companies 4.2 Commercial or Institutional Organisations 4.3 energy efficiency public procurement 4.4 Bulk Purchasing 4.5 Technology procurement
5 Energy services for energy savings	5.1 Guarantee of energy savings contracts 5.2 Third-party Financing 5.3 Energy performance contracting 5.4 Energy outsourcing
6 EEI mechanisms and other combinations of previous (sub)categories	6.1 Public service obligation for energy companies on energy savings + "White certificates" 6.2 Voluntary agreements with energy production, transmission and distribution companies 6.3 Energy efficiency funds and trusts

* Energy savings can be allocated to these subcategories only if a direct or multiplier effect can be proven. Otherwise they must be evaluated as part of a package.