

# IEPEC Topic Descriptions

## **Evaluation Issues Policy**

*Evaluation of policies and programs showing how and when evaluations are used in the program planning cycle.*

*Typical reasons to start an evaluation are: to assess impacts (estimate the change in energy usage and other targets due to policy instruments/programs, to improve policy design (prioritize program & portfolio budgets, inform resource planning), to reduce uncertainty (provide the information necessary to make good decisions regarding policy instruments), to account for spending (provide information to parliament/local council on results and spending).*

1. Uses of evaluation/evaluation as a tool to build trust
2. Energy savings and renewable energy production
3. Benefits and costs and evaluation perspectives/tests
4. Non-energy benefits (e.g., carbon emission reductions)
5. Market transformation

## **Evaluation Issues – Technical**

*Innovative approaches to evaluation and how methodological challenges have been addressed. Examples could include: 1. Examples of the use of bottom up and top down approaches and/or their integration 2. How savings have been assessed - measured or estimated and the standardisation of savings calculations 3. Establishing attribution and causality, the definition and use of counterfactuals and comparison groups 4. Measuring market effects or market transformation 5. Approaches to balancing the cost and accuracy of evaluation*

6. Methodological issues (e.g. actual vs. estimated savings; causality & attribution; net (additional) savings and definition of counterfactuals)
7. Bottom-up methods and cases
8. Top-down methods and cases
9. Standardisation of energy savings calculations
10. Market effects
11. Accuracy of evaluation results vs. costs of evaluation
12. Matching of ex-ante and ex-post evaluations. i.e. how to properly check whether targets have been met when actual circumstances differ from that for which the target has been defined.

## **Evaluation Issues – Process**

*For this topic, consider process evaluation, or implementation evaluation, to be work performed to track the questions of what was done and why, when, by whom and to whom, what resources were needed and at what cost to benefit. If conducted correctly, the results can be used to for quality assurance, certainty and clear accountability to any interested stakeholder and, perhaps most importantly, it provides a roadmap for someone else to implement the program. It can contain both qualitative and quantitative work.*

13. Process Evaluation
14. Learning from past evaluations and other fields (for policy/programme planning and/or for improving evaluation methods and planning)
15. Monitoring and evaluation as management tool during the implementation of programmes to support coordination of the programmes;
16. Monitoring and evaluation as an accounting management tool

## **In the Field: Evaluation efforts at different governance levels**

*Evaluation can be conducted at different levels of government: local, state, regional, national, and international.*

*Comparisons are often made across governmental units both quantitatively (using different metrics - e.g., kWh per capita) and qualitatively (e.g., by comparing policies, standards, regulations, incentives, and compliance mechanisms).*

17. International/cross-national comparisons
18. National and regional – developed countries
19. Learning from the 2011 NEEAPs in the EU

20. National and regional - emerging economies and developing countries
21. Local (incl. evaluation of local commitments; separation of impacts from national level policies and programmes)
22. Standards, Regulations and Compliance (e.g., building and appliance minimum energy performance standards)

**In the Field: Evaluation of programmes and policies targeting specific markets and technologies**

*This topic focuses on the evaluation of impacts from energy efficiency programs and policies from specific markets and technologies. These impacts include: energy (electricity use and demand, natural gas and other fuels), GHG emissions, jobs, indoor environmental quality (including comfort), etc.*

23. Residential (buildings, appliances, low-income)
24. Tertiary (commercial and public)
25. Industrial
26. Transportation
27. Community-based programmes and action

**In the Field: Evaluation of financial incentive-based programmes and policies**

*Financial incentive-based programs and policies are varied, and the impact and process evaluation of these programs focuses on technologies, impacts, customer response, and sources of funding.*

28. Energy savings obligations and tradable white certificates
29. Energy savings trusts/funds
30. Finance and incentives (including energy or carbon taxation)
31. Demand response and smart meters (including innovative pricing and rates, time-of-use pricing)

**In the Field: Evaluation of Behavioural Programmes**

*Evaluation of programmes designed to encourage both private individuals and organisations to make changes to their energy-use behaviour. Such programmes might use communication and/or advertising campaigns, social marketing or ideas from behavioural economics.*

32. Understanding the process of behaviour change in individuals & organisations
33. Communication and advertising (marketing including the use of social networks such as Twitter, Facebook and games)

**Binding energy efficiency/savings targets**

*What you can't measure, you can't regulate' – so how should binding targets related to energy efficiency be defined and managed in order to be measurable and (cost-) effective; who should be obliged to achieve the targets; and how can achievement be measured? Ex-post evaluations from the EU and other countries will contribute to this group of topics, as will conceptual analysis.*

34. Defining targets (absolute consumption, savings, intensity, actions)
35. Creating (cost-) effective targets
36. Evaluating target achievement (through portfolios of EE programmes and policies)
37. Making targets work (e.g., processes, actors, penalties, incentive mechanisms – who pays for energy savings, and who gets rewarded)
38. Lessons from other countries