Webinar in the framework of the project “ODYSSEE-MURE - Monitoring EU Energy Efficiency First Principle and Policy Implementation” 
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Energy Efficiency Funds in Europe

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The Fraunhofer-Gesellschaft undertakes applied research of direct utility to private and public enterprise and of wide benefit to society.

- **29,000** staff

**75** institutes and research units

Major infrastructure capital expenditure and defense research

- **€2.8 billion**
- **€2.4 billion**

Almost 30% is contributed by the German federal and states Governments

More than 70% is derived from contracts with industry and from publicly financed research projects.

Finance volume

2020
KEY QUESTIONS

- How do Energy Efficiency Funds contribute to financing energy efficiency investment in the EU?
- What are the main challenges in evaluating such overarching energy efficiency policies?
- What could be a suitable evaluation methodology?

This presentation discusses the contribution of Energy Efficiency Funds to the financing of energy efficiency investment in the EU. As an example, the German Energy Efficiency Fund and its evaluation is described more detailed. The presentation is based on the MURE database on energy efficiency policies and a policy brief prepared within the ODYSSEE-MURE project (https://www.odyssee-mure.eu/).
ABOUT THE ODYSSEE-MURE PROJECT

Comprehensive monitoring of efficiency trends and policy evaluation in EU countries, Norway, Serbia, Switzerland and the United Kingdom.

LEARN MORE

LATEST NEWS

30 NOVEMBER 2021
On November 30th the Odyssee-Mure project hosted a live webinar: "Recent energy efficiency trends in the EU" (by L. Sudries and B. Lapillonne, Enerdata).

28 SEPTEMBER 2021
3 webinars have recently taken place:
- 28 September: Energy Sufficiency Indicators and Policies
- 4 October: Energy efficiency, structural change and energy savings in the manufacturing sector, with special focus on Denmark
- 12 October: Identification of energy savings from the EU ETS through top-down indicators from ODYSSEE-MURE

18 January 2022
Webinar "Energy Efficiency Funds in Europe"

KEY PUBLICATIONS

POLICY BRIEFS
Short summary of key findings on sectoral energy efficiency trends and policy measures.
Learn more

WEBINARS
Webinars on energy efficiency policy monitoring and analysis by key experts.
Learn more

https://www.odyssee-mure.eu/
ENERGY EFFICIENCY AS A KEY PILAR TO REACH AMBITIOUS ENERGY EFFICIENCY AND CLIMATE TARGETS

- The “Energy Efficiency First” principle plays an important role in the European Green Deal and the “Fit for 55” package.

- In the proposal for a recast of the Energy Efficiency Directive, a new Article 3 shall ensure that energy efficiency is broadly considered in policy and investment decisions in the Member States.

A key challenge of a broad application of the Energy Efficiency First Principle is the financing of energy efficiency investment in all sectors (buildings, services, industry, transport).

Financing options for energy efficiency investment:

- Public financing (public budget, tax incentives, special funds)
- Pay-as-you-go financing (e.g. by allocating investment costs to energy prices)
- Use of investor capital (e.g. energy performance contracting, crowdfunding)
GENERAL CHARACTERISTICS OF ENERGY EFFICIENCY FUNDS

- Financing: mainly through public means, but often independent from volatile public budget (e.g. special funds fed by revenues from EU-ETS or charges on energy prices)

- Broader than traditional grant or subsidy programmes → comprise several programmes and types of instruments (grants, subsidies, information, advice) and often different sectors (buildings, services, industry, transport)

- Organization: different organizational approaches (from own institutional structure to pure financing bodies)

- History: first funds started in the early and mid 1990s in UK, Denmark, Czech Republic and some states of the U.S.; continuous diffusion since early 2000s.

- Focus: early funds only focused on energy efficiency, some later funds also include renewable energies or other
OTHER LARGE ENERGY EFFICIENCY FUNDS

https://www.eeef.lu/home.html

https://energysavingtrust.org.uk/

ADVANCING SUSTAINABLE ENERGY FOR EUROPE

It focuses on financing energy efficiency, small-scale renewable energy, and clean urban transport projects (at market rates) targeting municipalities, local and regional authorities and public and private entities acting on behalf of those authorities.
EXAMPLE: THE ENERGY EFFICIENCY FUND (EEF) IN GERMANY

- Established in 2011 to exploit energy savings potential in multiple sectors; in place until 2018
- Pure financing body, no institutional structure
- Financing comes from a special fund which is fed by money from the normal public budget and revenues from EU-ETS
- Yearly budget strongly increased from 77 MEUR/a to 300 – 500 MEUR/a in later years
- 23 energy efficiency programs are funded by the EFF addressing all final energy sectors
The EEF was evaluated by independent research institutions for the years 2011-2017.

The evaluation was focused on the legal requirements for the evaluation of programs financed from Federal budgets:

- Target achievement
- Effectiveness
- Efficiency

**Demands of the Federal Budget Code**

1. **Target achievement**
   - Target-Actual Comparison
     - Comparison of the originally planned objectives with the actually achieved target realization

2. **Effectiveness**
   - Causality
     - Check whether the measure was appropriate and causative.

3. **Efficiency**
   - Cost-effectiveness
     - Check whether the implementation of the measure is cost-effective.

**Input of Federal budgets**
THE EVALUATION SYSTEM

OBJECTIVES
Basis for the implementation of the target achievement, effectiveness and efficiency monitoring

- Achievement of energy efficiency and GHG reduction targets
- Exploitation of economic energy savings potentials
- Decreasing energy costs
- Target achievement (= energy / GHG savings)
- Effectiveness (= difference gross / net savings)
- Efficiency (= cost effectiveness)

INDICATORS
Key element of an evaluation system: quantitative and qualitative indicators

METHODS
Core element for data collection and analysis

- Several quantitative and qualitative methods
- Depending on the programme within the fund

- Cumulated savings in 2017: 3.4 TWh final energy (gross) and 1.2 Mt CO₂ reduction
- Reduction of energy costs: 235 MEUR / a
- Positive contribution to the German energy efficiency and GHG reduction targets
- The evaluation method developed for the EEF was generalized and now forms the general guideline for the evaluation of all energy efficiency programmes in Germany
- Some recommendations from the evaluation for the further development of the EEF were taken up by the Government for a restructuring of the financial support landscape for buildings and industry from 2019
# Recommendations for the Improvement of Energy Efficiency Funds and Similar Financial Instruments

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<th>Overarching Principle</th>
<th>Explanation</th>
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<td>Facilitate access</td>
<td>Simplified access to support programmes by streamlining the programme landscape and by establishing central digital access to the energy efficiency programmes, central &quot;support pilots&quot; and regional network nodes.</td>
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<td>Improve implementation</td>
<td>Numerous proposals were made at the level of individual measure evaluations, ranging from streamlining application processes and shortening processing times to increasing the stability of funding and creating new funding areas, within the framework of what is legally permissible.</td>
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<td>Strengthen multipliers</td>
<td>Consistent marketing of support programmes, strengthening of target group-specific communication and integration of new sales actors.</td>
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<td>Emphasize system orientation</td>
<td>Strengthen results- and profit-oriented funding and create additional opportunities to take advantage of funding.</td>
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<td>Increase quality of implementation</td>
<td>Strengthening of quality thinking and sustainability aspects in funding programmes.</td>
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<td>Improve follow-up</td>
<td>Provide for consistent target setting in new funding programmes and strengthen continuous monitoring.</td>
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RESTRICTURING OF THE FINANCIAL SUPPORT PROGRAMMES IN GERMANY SINCE 2019

- Cross-cutting structure of the EEF was substituted by sectoral measures bundles for buildings and industry
- The bundling of different types of policies under the umbrella of an overarching programme was maintained and even strengthened by establishing a uniform access ("one-stop shop):

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<th>Promotion Strategy for Energy Efficiency and Heat from Renewable Energy Sources</th>
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| **Industry**  
  Energy efficiency in the economy  
  – subsidy and credit  
  – funding competition |
| **Buildings**  
  Federal funding for efficient buildings |
THE "NINE-STEP-APPROACH" FOR THE EVALUATION OF ENERGY EFFICIENCY POLICIES

1. Identification of general characteristics of the policy
2. Identification of framework conditions
3. Review of policy targets: the policy targets are the basis for the definition of indicators
4. Definition of an indicator set based on policy targets
5. Data collection for analysis of defined indicators
6. Data analysis for gross values of indicators
7. Adjustments for baseline and effects like the free-rider or spill-over effect generating net values of indicators
8. Calculation of future projections (ex-ante evaluation)
9. Summation and comparison of different policies in an overarching evaluation project
**KEY MESSAGES**

- Energy Efficiency Funds are an important instrument for financing energy efficiency investment which are implemented at the level of the EU as well as in 9 EU Member States and other European countries and U.S. states.

- Their main advantages over single financial support programmes are the assurance of longer-term financing through their partial independence from the volatile public budget and their broader cross-technology and cross-sectoral impact.

- The methodological challenge for the evaluation of such an overarching financial policy is that both the impact of the individual actions and their interaction within the fund must be considered.

- Well-designed and harmonized policy evaluations can help to improve existing policy measures for energy efficiency and to design new ones.
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