European Energy Network

Energy efficiency

How effective are public support schemes?

A EUROPEAN SNAPSHOT OF FINANCIAL AND FISCAL INCENTIVES

Public incentives for saving energy – why they matter

- **Achieving a sustainable energy future for Europe.** Saving energy by improving energy efficiency is increasingly recognised as an essential element to move towards a sustainable and secure energy system in Europe, while at the same time boosting competitiveness and creating jobs.
- **Turning the requirements of the Energy Efficiency Directive into long-term benefits.** The recently adopted legislation gives new momentum for national actions to reach energy saving targets, realise the economic potentials and put in place new efficiency programmes.
- **Reaching Europe's 2020 20% energy efficiency target and paving the way for energy efficiency improvements beyond that date.** Additional and more ambitious energy saving measures will be necessary to close the gap to meeting the 20% energy efficiency target before 2020.
- **Getting energy saving measures off the ground.** Fiscal and financial incentives are a common tool across Europe to overcome upfront barriers and trigger dispersed and private energy efficiency investments. Though substantial initial efforts are necessary, such as making an investment to refurbish a building, operational costs are low and the benefits in terms of reduced energy costs are freely flowing. This is similar to all major infrastructure projects which are typically realised with the help of public support schemes.

BUT WHAT INCENTIVES ARE USED WHERE AND HOW EFFECTIVE ARE THEY? HOW MUCH MONEY IS SPENT AND HOW MUCH ENERGY IS SAVED?

To answer these questions, ADEME (French Environment and Energy Management Agency) commissioned a study of national financial and fiscal incentive schemes in place in 2010 to support investments in efficiency in buildings. The research assesses and compares their budgets and effectiveness in delivering energy savings.

The challenge of assessment

- Only half of EU countries provide publicly accessible data that allows for an assessment of the public budgets provided for efficiency measures.
- Of the information available, performance indicators, energy saving estimates and/or a clear methodology are often missing.

Data available to assess the financial and fiscal measures reported

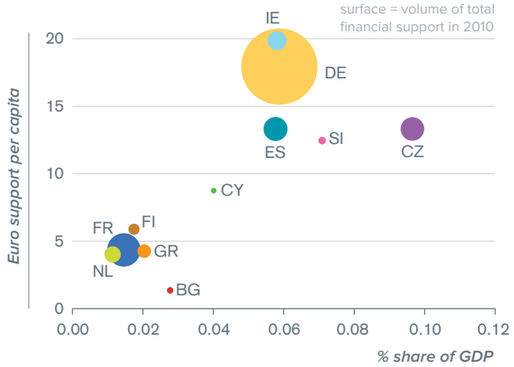
Data available to assess financial measures

Data available to assess fiscal measures

Data insufficient to assess any measure or no measures reported

Per capita spending and leverage

An analysis of 11 countries showed that financial support averaged between € 4-20 per capita in 2010. This compares with the € 25-65 per capita spent by the governments of Europe's five largest national economies to support the consumption of fossil fuels (OECD 2013).



Note: This graph represents a bottom-up analysis based on selected programmes. It does not include energy saving obligations, European funding, regulatory measures or regional or local funding.

THE LEVERAGE FACTOR

Support in the amount of € 1 can trigger private investment of € 13-20 per capita (leverage factor), as shown by the German investment credit support schemes provided by public bank KfW.

Fiscal incentives, mostly in the form of tax rebates spread over several years, have larger budgets but lower leverage factors:

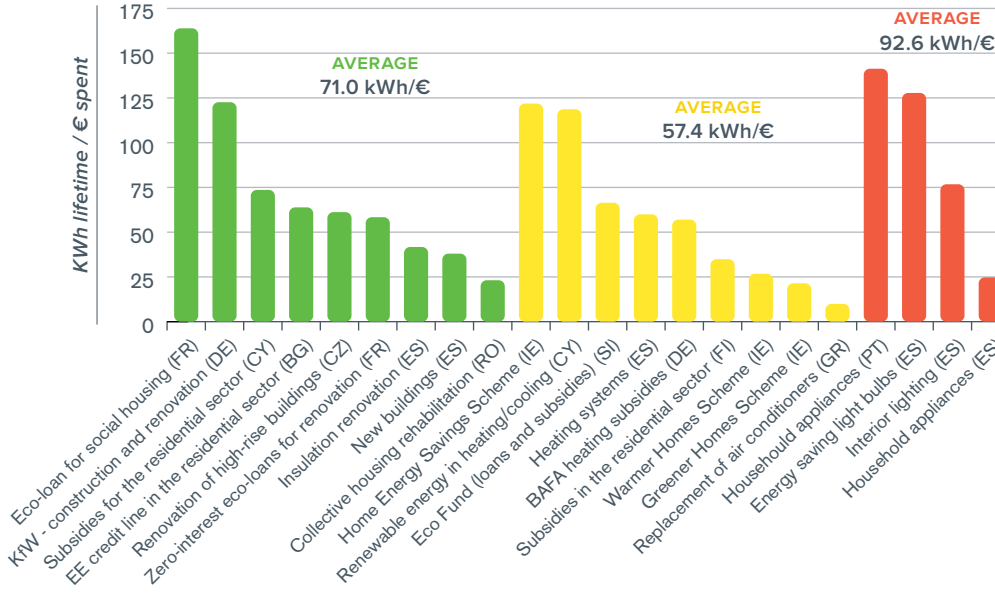
- In Italy, income tax reductions for investments in improving the performance of the building shell and heating systems were worth € 42 per capita in 2010, but the leverage factor was estimated low: € 1 of fiscal support triggered only € 2 of investment.
- The French tax rebate for high energy efficiency performing building materials and equipment for private persons is worth € 40 per capita in 2010.

How effective were the financial support schemes?

Whether the support is for short-lived measures like lighting or household appliances or long-lived ones like wall insulation, the resulting lifetime savings in kWh/€ of public support of these categories are on average assessed as high and comparable.

Diversity of effectiveness within each category is large:

- 20 to 160 kWh/€ for long-lived measures
- 10 to 125 kWh/€ for medium-lived measures
- 25 to 140 kWh/€ for short-lived measures



LONG-LIVED MEASURES
→ Renovation of the building envelope: 20-25 years

MEDIUM-LIVED MEASURES
→ Improved heating/cooling systems: 10-15 years

SHORT-TERM MEASURES
→ Replacement of lighting systems: 5 years
→ Replacement of household appliances: 5-10 years

Conclusions

- The assessment of subsidies for energy efficiency is a worthwhile and necessary endeavour. This study serves as a pilot effort to enter a research area that will likely require more attention alongside the growing importance of energy saving policies for a sustainable and secure energy system in the EU that also boosts competitiveness and creates jobs.
- Fiscal and financial incentives, as provided in many countries in Europe for almost all aspects of energy efficiency in buildings, are accruing sizeable budgets, though much smaller than other energy-related subsidies, and triggering substantial private investments.
- Better and harmonised reporting and use of common performance indicators, energy saving estimates and measurements could help to improve the effectiveness of the diverse national programmes.
- Such indicators must go beyond simple savings in kWh/€ spent.
- Incentive schemes need to be targeted to lead the market and prevent picking only the “low-hanging fruit”.

EⁿR, the European Energy Network, is composed of 25 national energy agencies. Members are responsible for the planning, management or review of national research, development, demonstration or dissemination programmes in the field of energy efficiency, renewable energy and climate change abatement.

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