
THE ROLE OF MARKET-BASED INSTRUMENTS (MBI) IN THE ENERGY EFFICIENCY POLICY FRAMEWORK

IEA/ENSPOL/RAP Workshop

Market-based Instruments for Energy Efficiency – Policy Choice and Design for the Energy Transition

European Commission, Brussels, 24 January 2017

Barbara Schlomann, Fraunhofer ISI, Germany

KEY QUESTIONS

- Role of MBI in existing energy efficiency (EE) policy frameworks
- Role of the structure of energy markets for the choice of MBI
- Long-term implications of MBI in the energy transition

Role of MBI in existing EE policy frameworks

Existing EE policy framework: different mix of regulation, subsidies, taxes and information



Additional contribution from MBI (EEOs and/or auctions)

- Activating new actors in the EE market
- Addressing of remaining barriers to EE
- Tapping of additional economic EE potentials
- Use of market-based search process instead of normative settings
- Minimizing costs for all actors
- Generation of private equity
- Combination with normative targets possible (technologies, target groups)

Costs and Benefits of MBI: comparison of energy efficiency obligations and auctions

EEOs

- Administration of an EEO can be complex
- State-independent funding
- Achievement of targeted savings rather reliable (with adequate compliance control)
- Real energy saving benefit depends on accounting mechanism (first year savings vs. lifetime savings etc.)
- Choice of cost-effective energy saving options from the individual perspective of the obliged actor
- Obligated party may not be most suitable and motivated actor

Auctions

- Administration of a tender system less complex than EEO
- Tender system independent from financing mechanism but usually use of public budget
- Level of savings not guaranteed ⇒ depends on market acceptance of the system
- Real energy saving benefit depends on accounting mechanism (first year savings vs. lifetime savings etc.)
- Cost-effectiveness can be low in case of low interest in auctions
- Higher stimulation of EE market by motivated and more actors

Role of energy markets for the choice of MBI

Structure of energy markets mainly relevant for EEOs:

- In regulated markets (transmission grid operators, regulated energy prices) EEOs cannot stimulate the market as well as under de-regulated market conditions
- Cost-efficiency of the systems decreases with the number of obligated parties (< 10 in the UK vs. > 1000 in Germany)
- Local customer relations (e.g. local utilities) enable product bundling (savings and RES)

Long-term implications of MBI in the energy transition

- Due to the individual actors' perspective MBI tend to concentrate on short-term EE measures ⇒ not all energy saving options which are economic in a long-term perspective will be addressed
- MBI (esp. EEOs) favour standardized EE measures ⇒ more complex measures and measures with long payback periods (e.g. deep renovations) are less suitable for this type of instrument
- EEOs allow direct setting of ambitious energy saving targets.
- Tenders may stimulate the long-term transformation of the EE market more than EEOs (more and more motivated actors)
- MBI vs. ETS:
 - In the long term, energy savings lead to reduced carbon emissions ⇒ adapted ETS targets needed
 - Possible overlap of targeted actions of ETS and MBI

Final considerations

- Interaction of MBI with other instruments :
 - Regulation should serve as a baseline to ensure additionality
 - Classic support schemes \Rightarrow double funding and/or double instrumentation possible (intentionally or not)
- MBI fit into most policy contexts and can generate an additional value. But
 - Classic instruments are still needed in order to address all relevant barriers to EE
 - In order to achieve long-term savings (e.g. deep renovation), regulation and subsidies may even be more successful
- But: possible rebound and negative distributional effects of MBI (e.g. on low-income households) have to be taken into account
- The concrete design of the MBI determines most of the impacts, general conclusions can hardly be made!

CONTACT

Dr. Barbara Schlomann

Fraunhofer Institute for Systems and Innovation Research ISI

barbara.schlomann@isi.fraunhofer.de