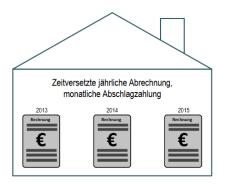


## **Energy Saving Meters**Using Real Performance Data to Drive Real Performance

# Metering Real Performance is Crucial for Business Models, Standards, Incentivation, Political Effectiveness

#### As-Is-State:

Time-delayed annual feedback, monthly payment





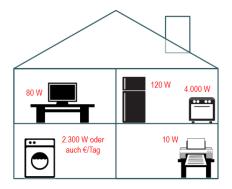


#### **Problems:**

- No information about single uses and influencing variables
- No feedbackincentivation
- Weak indication of energy efficiency

#### **Objective:**

Real-time-feedback on real energy performance



#### **Advantages:**

- Use-specific information
- Real-time feedback
- Automated user recommendations
- High feedbackincentivation (>12%)
- Normalization of influencing variables
- Indication of real efficiency

#### **Energy Efficiency Meter**



Examples –applies to thermal energy, buldlings industry etc.

#### The basis for:

- InnovativeBusiness andFinancingModels
- Policy Evaluation
- Outcome-Based Standards
- Efficiency-Tariffs
- ...



## Metering Real Energy Efficiency: Some Practices an Approaches

### OpenEE (US)



**Open-Source software** (MIT-License) for private companies, utilities and regulators

www.openee.io

### **MEETS (Seattle)**



**Transaction structure** (incl. utilities, regulators, investors, building owners, architects, standards organization...)

www.meetscoalition.org

## Einsparzähler (DE)

(Energy Savings Meter)



**Funding scheme** for pilot projects using metered performance.

Technology open, buildings, homes, companies. 50/50 funding for enabling and metered performance:

- 28 ct/kWh elect.-savings in Homes
- 15 ct/kWh elect. savings others
- 5 ct/kWh nat. gas, heat, cooling
- add. funding for open source (2ct), smart meter gateway (2ct), load-management readyness (2ct)

goo.gl/6vcj84

