



Pay-for-Performance schemes and other ways to develop measured energy savings

Concrete examples from the [SENSEI](#) and [ENSMOV Plus](#) projects

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Our project

➤ Support for the **implementation of Article 7 > 8 EED.**

➤ Target groups: **public authorities & agencies, and stakeholders** (energy companies, ESCos, ...)

➤ Scope: **whole policy cycle**, from policy design to evaluation

14 partners from 12 countries

8 public authorities, agencies or institutes



2 national associations of stakeholders

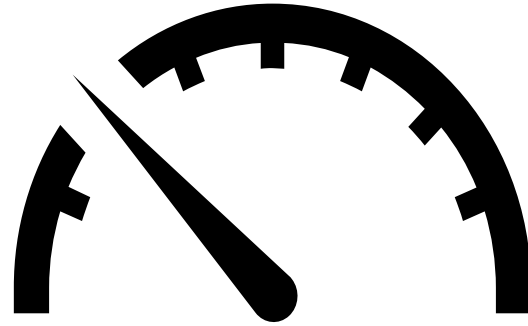


4 research labs or think tanks

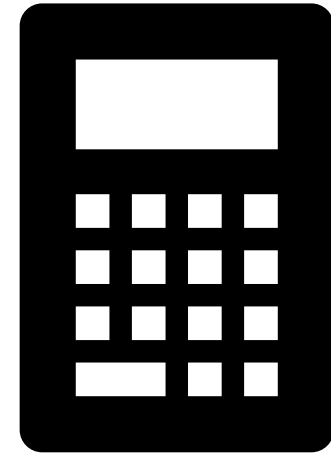


Coordination

M&V 2.0 is
enabled by the
combination of



Smart meters



Data processing

Measured savings allow policy innovation



Tracking real-life performance:
Behaviour, equipment. Real time.

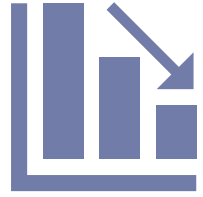


Granularity: Location and time-specific energy savings

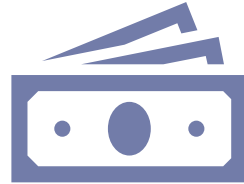


Incentives: Pay-for-performance schemes

TRADITIONAL SUBSIDY SCHEME



Deemed savings
(assumption about
impact of measure)

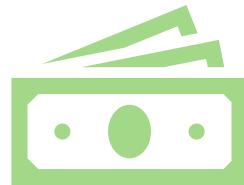


One-off payment
(usually upon
installation)

PAY-FOR-PERFORMANCE SCHEME



Savings established
by comparing
metered energy
consumption to
baseline



Payment
proportional to
energy saved,
delivered “as the
savings occur”

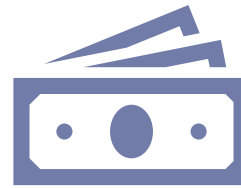


EXAMPLE: PACIFIC GAS AND ELECTRIC (PG&E) RESIDENTIAL P4P



Performance

- ✦ Residential sector in California
- ✦ Through aggregators
- ✦ Rewarded based on portfolio performance (fleet of buildings)
- ✦ CalTRACK method



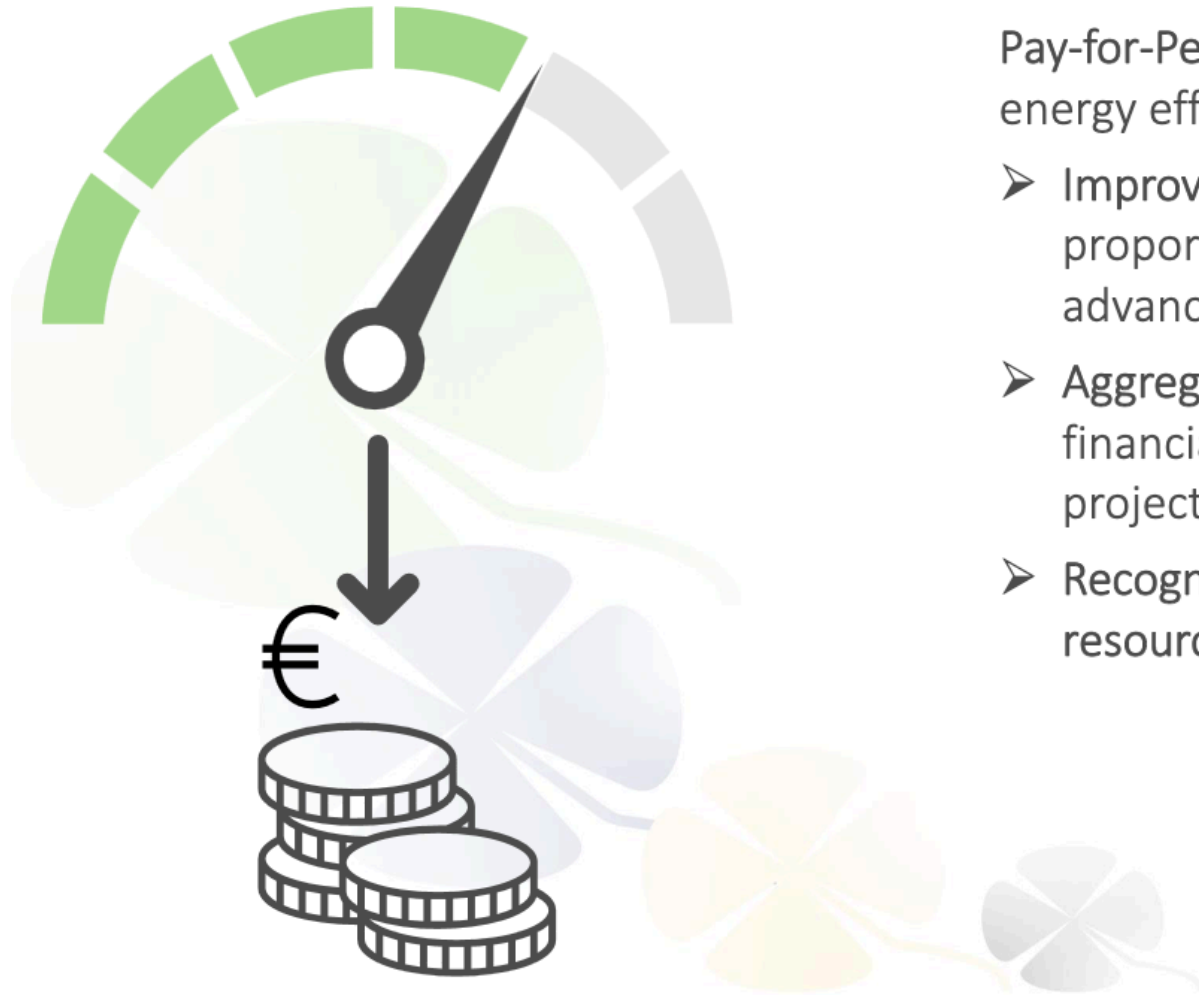
Payments

- ✦ 100% proportional to energy saved
- ✦ Prices per kWh and therm result from bids
- ✦ Monthly
- ✦ Over 2 years
- ✦ Prices based on expected lifetimes of measures

More information: <https://senseih2020.eu>



What is P4P: Payments for energy efficiency are based on measured savings



Pay-for-Performance (P4P) is an innovative approach to finance energy efficiency projects. It allows to:

- Improve subsidy schemes with periodic payments that are proportional to the measured energy savings, using advanced Measurement and Verification techniques.
- Aggregate projects into portfolios to attract investments from financial institutions which are looking to invest in bigger projects.
- Recognize energy efficiency as a demand-side energy resource by quantifying its benefits for the energy system,

Other policy use of measurement methods

- Identifying energy savings potentials
- M&V methods for existing energy efficiency obligation schemes
- M&V methods for existing subsidy schemes
- Provide inputs to update deemed savings



Upcoming developments

- ENSMOV Plus
 - Case studies on the use of measurement (Croatia, France, Germany, Italy + probably Ireland)
 - First online workshop on this topic in September 2023 TBC → get our newsletter on energysavingpolicies.eu
- [RetroMeter](#) project in the UK

Resources

- Sipma, J., Broc, J.S., Skema, R. (2019). [Comparing estimated versus measured energy savings](#). Topical case study of the EPATEE project, funded by the European Union's Horizon 2020 programme.
- Santini, M., Tzani, D., Thomas, S., Stavrakas, V., Rosenow, J., & Celestino, A. (2020). [Experience and lessons learned from pay-for-performance \(P4P\) pilots for energy efficiency](#).
- Tzani, D., Stavrakas, V., Santini, M., Thomas, S., Rosenow, J., & Flamos, A. (2022). Pioneering a performance-based future for energy efficiency: Lessons learnt from a comparative review analysis of pay-for-performance programmes. [Renewable and Sustainable Energy Reviews](#). 158. 112162.

ENSMOV Partners



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ENSMOV Plus



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<https://ieecp.org/projects/ensmov-plus/>



Our Platform: energysavingpolicies.eu



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