



Focus on bottom-up methods to assess energy savings

Final EPATEE conference

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EPATEE Regular reviews and in-depth ex-post evaluations = a good mix !



Regular reviews

- ✓ Providing data for annual reporting
- ✓ Quick feedback loop
- ✓ On-going fine-tuning

Evaluation questions & priorities

Update monitoring practices

Ex-post evaluations

- ✓ When needed
- ✓ Investigating specific issues
- ✓ Possible re-design or major update



FI – Voluntary agreements

“If there are problems, we need to know where those are. It is another question if we can interfere, but we must know and understand the situation.”



DK – Energy Efficiency

Obligation scheme

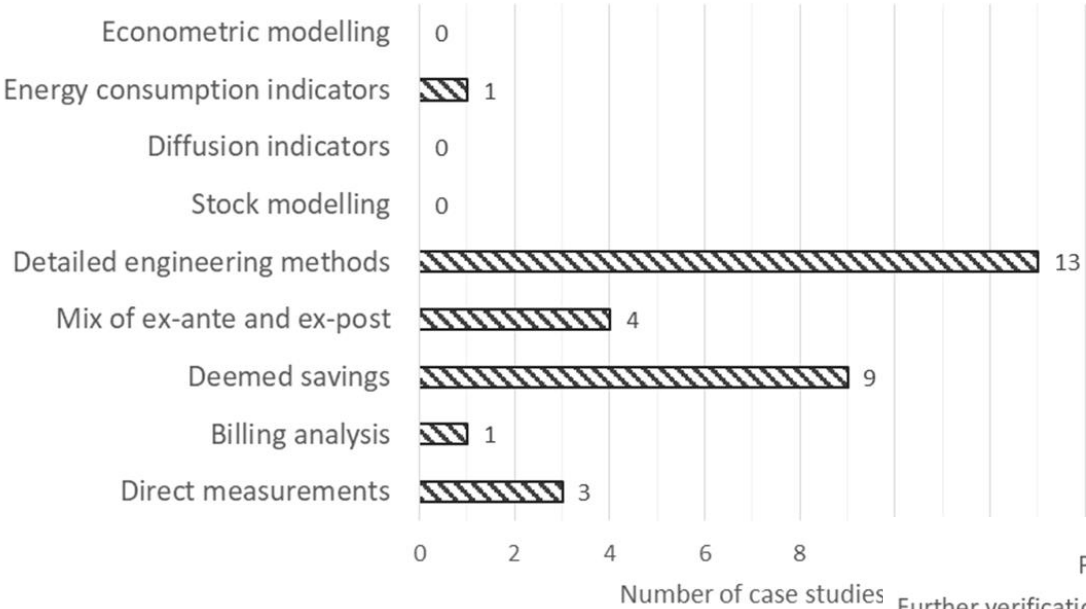
“The ex-post evaluations are used to complement the monitoring of the scheme when preparing a revision of the agreement for the scheme.”

EPATEE Different timing and objectives

→ Different methods



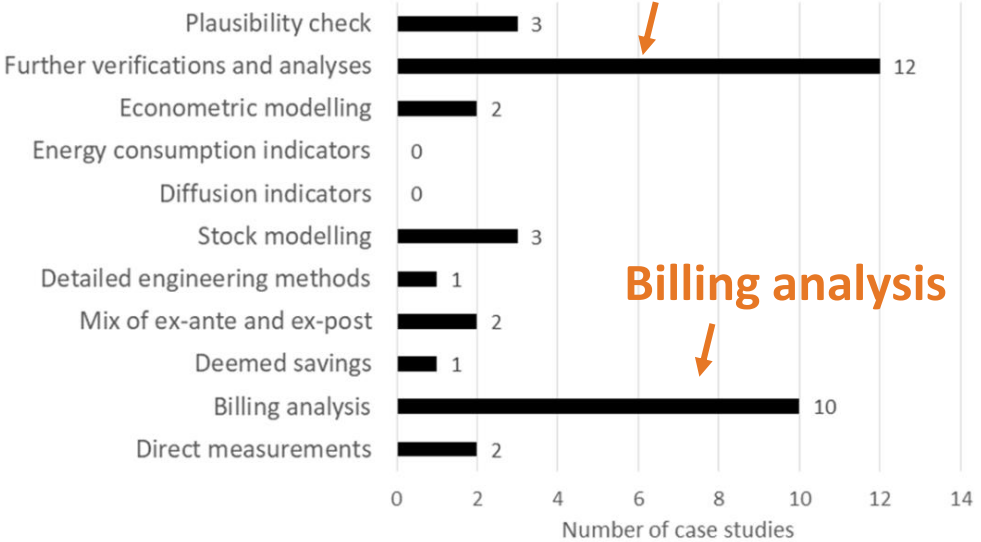
[Analysis of the 23 case studies](#)



← Regular monitoring

Engineering methods

Ex-post evaluations or studies →



Further verifications

Billing analysis

+ it's not all about quantifying impacts !



➔ Growing basis of evidence about **discrepancies**

Possible reasons for the differences:

[Webinars #3 and #4](#)

[Topical case study](#)

Engineering methods

Prebound effect

Building stock

Rebound effect

Behaviours

Performance gap

EE actions

Lack of calibration

Billing analysis

Sampling bias

Weather corrections

Changes other than the EE actions

+ data quality

+ calculation errors

+ possible differences in **scope** (e.g. gross vs. net savings)

➔ None of the method gives “more real” savings

Both provides interesting results

- Most studies show “metered savings” < “modelled savings” **on average**
- On average = there are cases in both senses (“<” and “>”)
- Analysing the reasons for differences often require additional data, so not always possible



UK – Energy Company Obligation

In-use factor to take into account:

- ✓ performance gap
- ✓ rebound effect

+ **NEED** (National Energy Efficiency Data-framework) used to update the deemed savings



Croatian example about monitoring & evaluation tools

Connection between:

- ✓ The System for Measuring and Verifying Energy Savings (**SMiV**)
→ engineering estimates; and
- ✓ the Energy Management Information System (**ISGE**)
→ metered energy consumption

Thank you for your attention

Time for discussion !