

Experience sharing webinar #4 – How and what can we learn from verifying energy savings first estimated with engineering calculations? (PART 2)

Date: Tuesday 5 March – 11.00 to 12.15 am CET

How to register:

To register please use this link: <https://attendee.gotowebinar.com/register/5701853293279107841>

Background and objective:

The analysis of the [EPATEE case studies](#) showed that **engineering calculations** (deemed or scaled savings) are the methods the **most frequently used** to evaluate energy savings **for regular reporting**. This can be because methods based on measured (direct measurements) or metered (billing analysis) data need more time to provide results (see e.g., case on [Warm Front](#)). Whereas engineering calculations can be applied directly to data collected along the monitoring of the policy measure. Therefore, the need to report annually (or even more frequently) about energy savings often leads to choose to use engineering calculations.

Billing analysis is the method the most frequently used for ex-post evaluations when the objective is to **verify actual energy savings**. Results from billing analysis can then be compared to results from regular reporting, to improve the data or assumptions used in the engineering calculations (see for example the cases of [Better Energy Homes](#) in Ireland, [Supplier Obligations](#) in UK or [Weatherization Assistance Program](#) in the US).

The EPATEE project dedicates two experience sharing webinars to this topic of comparing energy savings based on engineering calculations with energy savings determined from metered energy consumption. The [first webinar](#) presented two examples of ex-post evaluations that tackled this issue.

This second webinar will provide a complementary experience from **studies using large databases of metered energy consumption**, and will present the:

- **Case 1:** Energy savings from renovations in the Dutch non-profit housing sector, with a statistical analysis of the differences between results based on the Energy Performance Certificates, and results based on metered energy consumption.
- **Case 2:** Analysis of the differences between energy consumption from building energy stock models, Energy Performance Certificates, and the impact of efficiency measures using metered data from the UK National Energy Efficiency Data-framework ([NEED](#))



Both speakers will also present the **latest research developments** in this field, and more particularly the concept of [energy epidemiology](#).

The webinar will deal with the following questions:

- **What data and methods could be used to assess energy savings?**
- **How could the “metered” energy savings be compared with the “estimated” energy savings?**
- **What difficulties were encountered?**
- **What can be learnt in terms of evaluation practices for future evaluations?**



Agenda:

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| 11.00 | Introduction | Dario Di Santo and Jean-Sébastien Broc, EPATEE project | |
| 11.10 | Case #1: Assessing energy savings from renovations in the Dutch non-profit housing sector | Pr. Laure Itard , Chair Building Energy Epidemiology, Delft University of Technology (the Netherlands) |  |
| 11.30 | Q&A on case #1 | | |
| 11.35 | Case #2: | Dr. Alex Summerfield , Energy Institute, University College of London (UK) |  |
| 11.55 | Q&A on case #2 | | |
| 12.00 | Open discussion | | |
| 12.15 | End of webinar | | |

References for further readings:

Filippidou, F., Nieboer, N., and H. Visscher, 2017. Effectiveness of energy renovations: a reassessment based on actual consumption savings. Proceedings of the ECEEE 2017 Summer Study, 1737-1746.

<http://proceedings.eceee.org/visabstrakt.php?event=7&doc=8-117-17>

Summerfield, A.J., Oreszczyn T., Palmer, J., and I.G. Hamilton, 2018. Caveats for Policy Development when Combining Energy Ratings, National Building Energy Models, and Empirical Statistics. Proceedings of IEPPEC 2018. http://www.ieppeec.org/wp-content/uploads/2018/05/Summerfield_paper_vienna.pdf

What EPATEE is about

Several barriers limit energy efficiency policy evaluation. This results in a lack of quantitative data, and impedes evidence-based analysis required to distinguish effective from ineffective energy efficiency policies. EPATEE aims at tackling this problem by raising the capacity of policymakers and implementers. The project will provide them both with tools and with practical knowledge to make effective impact evaluation an integral part of the policy cycle. EPATEE makes use of existing evaluation experiences in a range of instruments, such as energy efficiency obligation schemes, regulations, financial incentives and voluntary agreements. Experience sharing is the core of the project. Lessons learnt from other EU initiatives and good practices in how to successfully evaluate the impact and cost-effectiveness of such energy efficiency policies will provide the basis for the development of guidelines and good practice evaluation tools. For further information please visit our website: www.epatee.eu.

