

Introduction to the project

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Austrian Energy Agency

1st EPATEE Webinar
“How energy efficiency policy evaluation can
produce benefits and add value to policy makers”

13 March 2018



This project has received funding from the
European Union's Horizon 2020 Research and
innovation programme under grant agreement No 746265.



EPATEEs objectives and concept

The specific objectives of the project are to **create the favourable conditions** for improving the number and effective use of **ex-post impact evaluations** of energy efficiency policies.

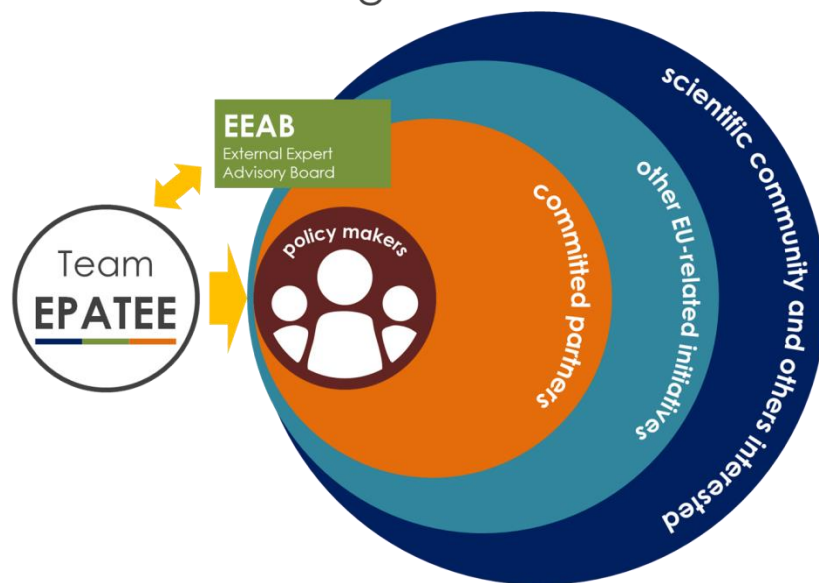
The main general concept of EPATEE is that improving key stakeholders' evaluation practices help **bridging the gap** between their **need for effective policy making** and their **lack of data and analysis about the impacts**.

1. **Asses** needs and existing evaluation practices
2. **Improve** stakeholders' capacity
3. **Enable** regular exchange



Policymakers and policy implementers

EPATEE's coverage



- National ministries responsible for energy or energy related issues
- Energy agencies, public funds or research institutions
- Professional bodies and interest organisations (representing industry, energy, SME, NGOs etc.)

- Universities and other scientific organisations
- Special interest media
- Other EU initiatives and projects as well as EU institutions

Means to achieve project targets

Building resources based on up-to-date knowledge and concrete experience feedback

Knowledge Base
(user-oriented database of references)



Guidance and support



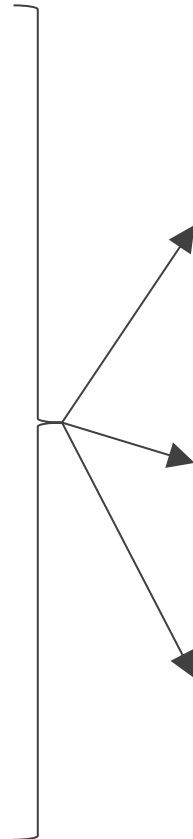
Case studies
(about ex-post evaluations)

Creating the conditions for an effective use of these resources

Online toolbox
making resources easy to use

Experience sharing
targeted workshops, webinars, etc.

Dissemination
of results



- Conduct European and national peer-learning workshops on good policy evaluation practices in different European cities
- Offer webinars on good policy evaluation practices
- Provide overview on main issues and gaps of existing evaluations
- Present cases on available evaluations
- Report on good evaluation practices
- Give guidance on integrating evaluations into policy practice
- Set up an online-toolbox for evaluations
- Disseminate information through website, newsletters, press releases, twitter, presentations, reports and a scientific article
- EPATEE newsletter: <https://epatee.eu/subscribe-our-newsletter>
- First results available on the EPATEE website
 - <https://epatee.eu/main-results>
 - <https://epatee.eu/case-studies>

EPATEE

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AEA
Österreichische
Energieagentur -
Austrian Energy
Agency



ADEME
Agence de
l'environnement et de
la maîtrise de l'énergie



ATEE
Association Technique
Energie Environnement



ECN
Energy research
Centre of the
Netherlands



EIHP
Energy Institute Hrvoje
Pozar



FIRE
Italian Federation for
Energy Efficiency



FRAUNHOFER
ISI Fraunhofer Institut
für System- und
Innovationsforschung



IEECP
Institute for European
Energy & Climate Policy



LEI
Lithuanian Energy
Institute



MOTIVA OY
Finland



Stakeholders' needs

What stakeholders told us, what we are going to do

Dario Di Santo, FIRE

1st EPATEE webinar, March 12, 2018



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EPATEE is a project mostly based on a strong involvement of the stakeholders that deal with energy efficiency policy evaluation.

The first step has been the **interview** of 25 key stakeholders from all over EU, aimed at identifying their concept of policy evaluation, the barriers they face, and what kind of support EPATEE can offer them in their opinion.

Based on the interviews, a **first survey** (answered by 35 people) has been designed in order to go into more details on how policy evaluation is implemented in various countries, what issues need to be resolved, and which tools proposed by EPATEE are considered more interesting by the stakeholders.

Two more surveys will be carried on in the next months to complete the picture and provide valuable information to the EPATEE team.

Report of first actions

The report is available in the EPATEE website www.epatee.eu/main-results



All the interviewed stakeholders agree that evaluation can contribute to improve energy policies, even if evaluation, especially ex-ante, is **not a base activity** of the policy cycle yet.

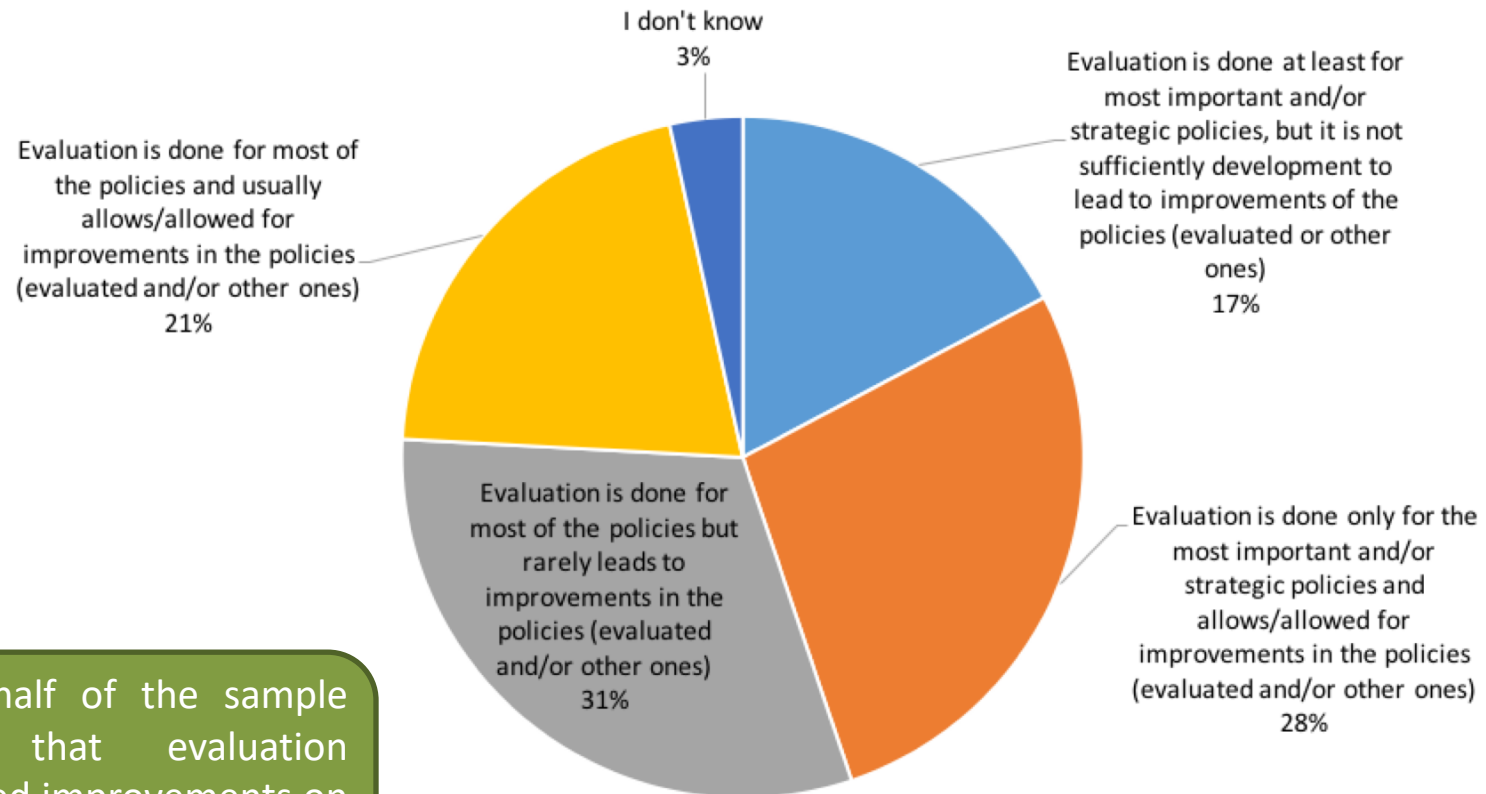
The type of analysis and the extent of the monitored and studied effects **vary a lot** depending on the type and size of the policy, on the priorities of policy makers, and on other state related conditions.

The time, human, and money **resources** dedicated to evaluation are not always sufficient to cover all the evaluation needs and to ensure a complete and reliable analysis. At least a **base level** of evaluation should be made mandatory for all the major policies and resources should be allocated since the design phase.

Standardization is open to debate, since someone thinks there is the need of a common standard, whereas others think there are too many differences to reduce everything to a standardized approach.

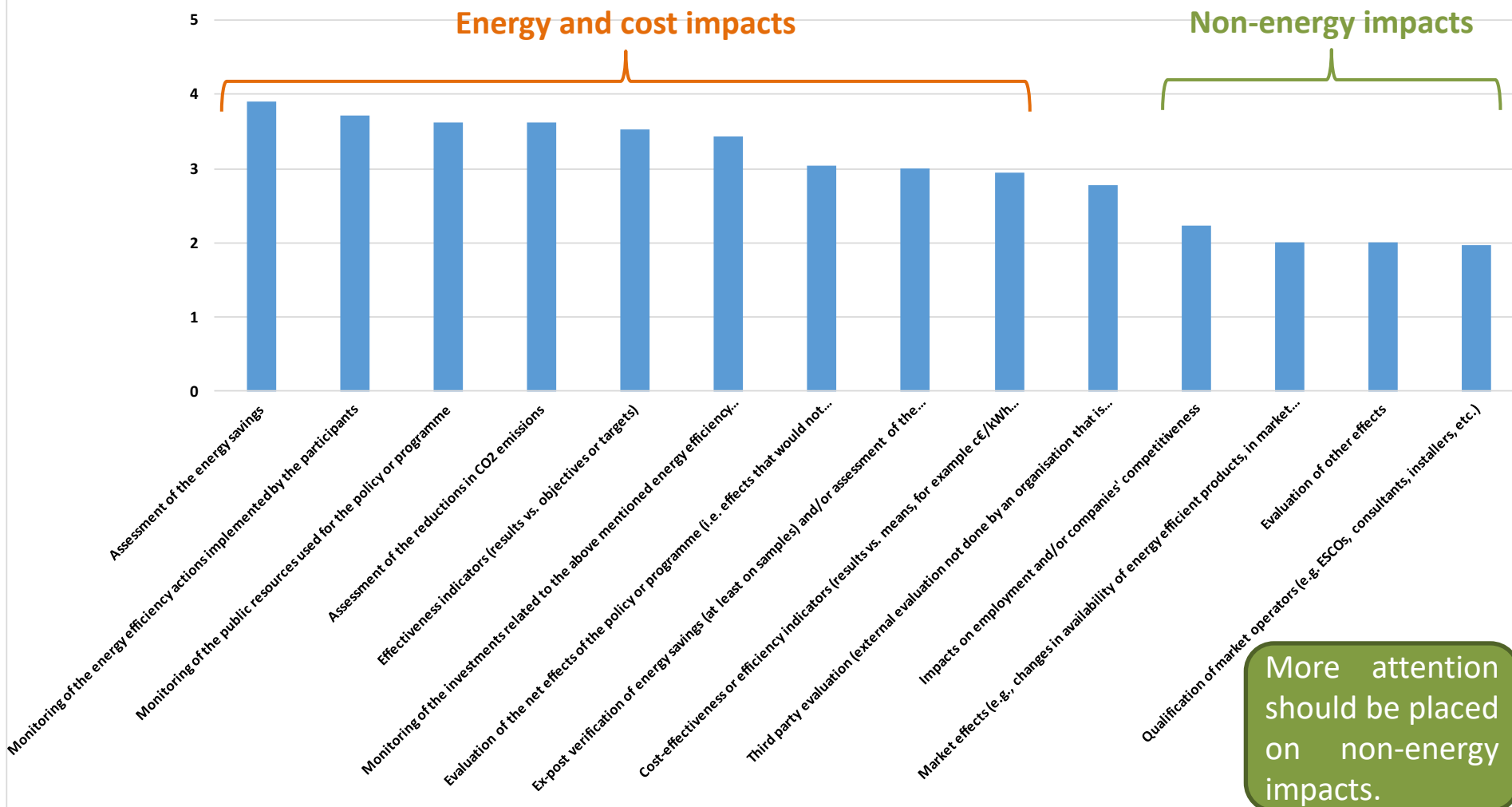
Is evaluation useful?

How would you qualify the level of evaluation practice in your country?



While half of the sample states that evaluation produced improvements on policies, the other half thinks this seldom happens.

Main options included in policy evaluation



More attention should be placed on non-energy impacts.

About the barriers perceived by the stakeholders, the strongest three express different issues:

- insufficient financial resources (i.e. when policies are designed a higher amount of resources in terms of percentage of the available budget should be dedicated to evaluation purposes);
- **lack of interest from policy makers and public managers** (i.e. a cultural barrier that exposes Member States and local governments to an ineffective use of the available resources and reduces the possibility to learn by doing);
- lack of reliable data to evaluate non energy effects (i.e. important aspects and impacts of policies are not covered by the evaluation process).

1. To better understand why and how evaluation is useful for policy makers.
2. To stimulate exchanges between peers on the arguments that can be used to convince decision makers about the importance of evaluation.
3. To know your views on evaluation, its importance, and its success stories.
4. To better understand your needs and how EPATEE can help.

To share experiences among the stakeholders and allow them to meet and provide insights on policy evaluation, workshops will be organised at EU and national level:

- **3 EU peer-learning workshop** aimed at allowing stakeholders to meet and share experiences on energy efficiency policy evaluation;
- **6 national peer-learning workshops** aimed at spreading EPATEE's findings to those who benefit most of it: policymakers and implementers.

Webinars will also be organized to complement workshops, provide in-depth discussion on single evaluation topics, and give the opportunity to a large number of stakeholders to take advantage from the EPATEE's information and sharing activities.

STAY TUNED!

Thank you for your attention!

EPATEE

A project to improve the Energy Efficiency policies, by improving their evaluation.



 AEA Österreichische Energieagentur - Austrian Energy Agency	 ADEME Agence de l'environnement et de la maîtrise de l'énergie
 ATEE Association Technique Energie Environnement	 ECN Energy research Centre of the Netherlands
 EIHP Energy Institute Hrvoje Pozar	 FIRE Italian Federation for Energy Efficiency
 FRAUNHOFER ISI Fraunhofer Institut für System- und Innovationsforschung	 IEECP Institute for European Energy & Climate Policy
 LEI Lithuanian Energy Institute	 MOTIVA OY Finland

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Evaluation of Home Energy Efficiency Schemes in Ireland

Jim Scheer
Head of Department
SEAI



Overview

The programme/s so far



Evaluations to date



CBA and the billing analysis



Benefits of the evaluation and next steps



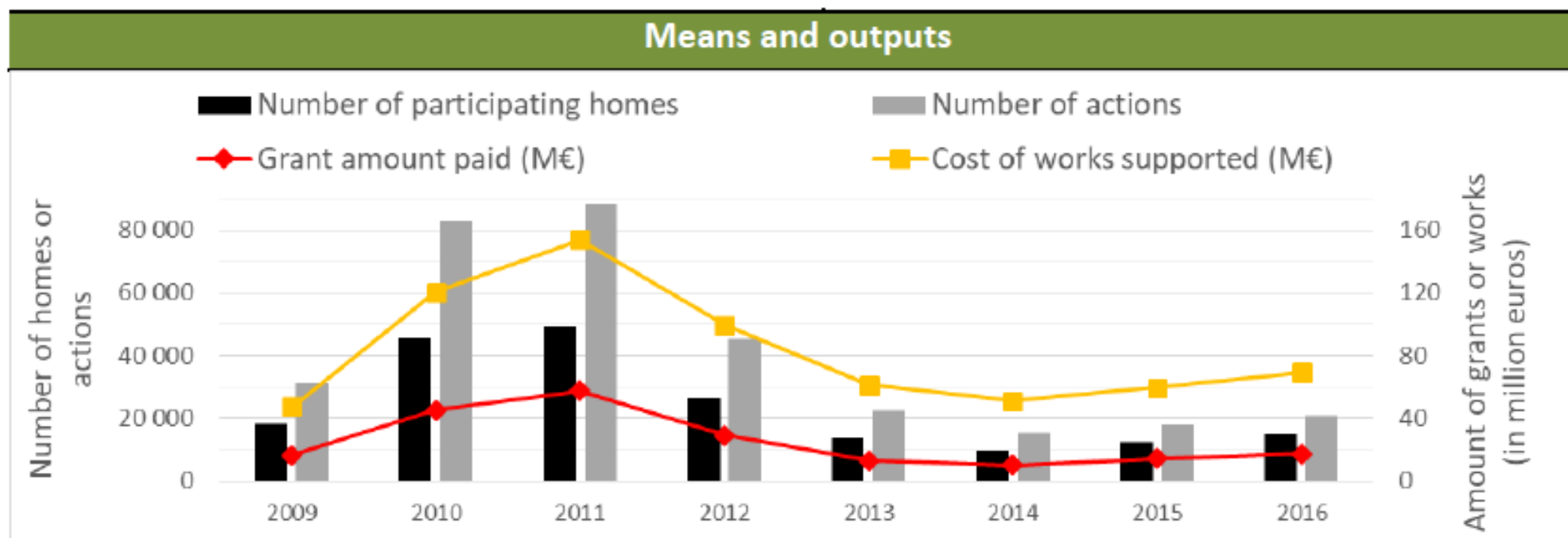
The programme/s so far



Residential grant schemes in Ireland

- Better Energy Warmer Homes (2001 – ongoing)
- Greener Homes Scheme (2009 – 2011)
- Better Energy Homes (2008 – ongoing)
- Better Energy Communities (2012 – ongoing)
- *(Supplier obligations) Underpin and deliver via programmes above*
- *(Home renovation tax incentive (2013 - end 2018))*

Funding and homes per annum – Better Energy Homes Scheme



Source: data from the Better Energy Homes Activity Report (provided by SEAI)

Evaluation to date



Evaluation timeline

1. Modelled estimated savings – engineering calculation, u-value, typical measure (2008)
2. Modelled using Building Energy Rating Software. Adjustments factors (comfort etc.) from literature (2009/2010)
3. Cost benefit analysis – important for ongoing enrollment of policy funders (September, 2011)
4. Billing analysis (July, 2012)
5. Consumer surveys – attitudes to investment, perception of the scheme and benefits (2013, 2015, 2017)



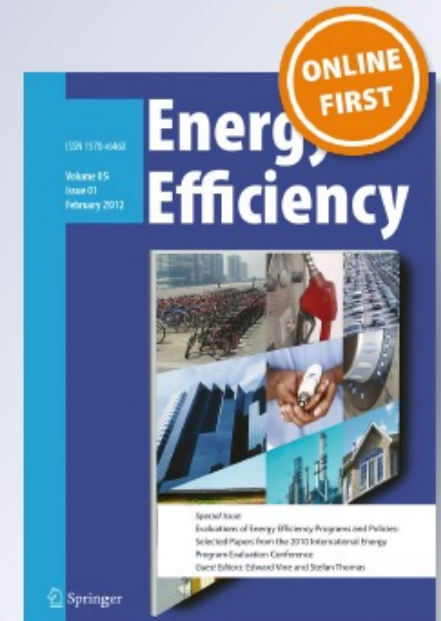
Quantification of energy savings from Ireland's Home Energy Saving scheme: an ex post billing analysis

Jim Scheer, Matthew Clancy & Sadhbh Ní Hógáin

Energy Efficiency

ISSN 1570-646X

Energy Efficiency
DOI 10.1007/s12053-012-9164-8



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The CBA and the billing analysis



CBA

Figure 1: NPV per annum for lifetime of technologies installed

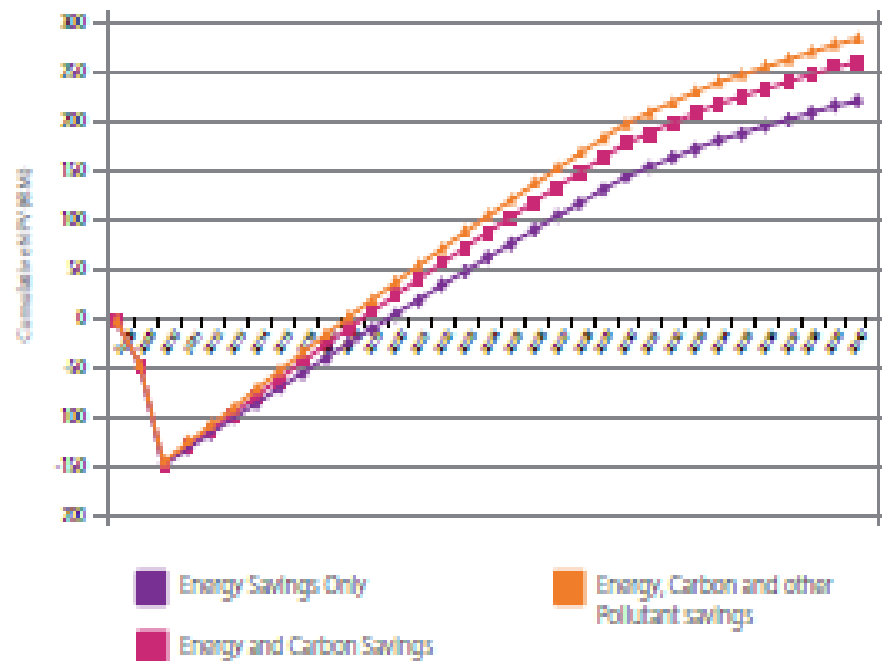
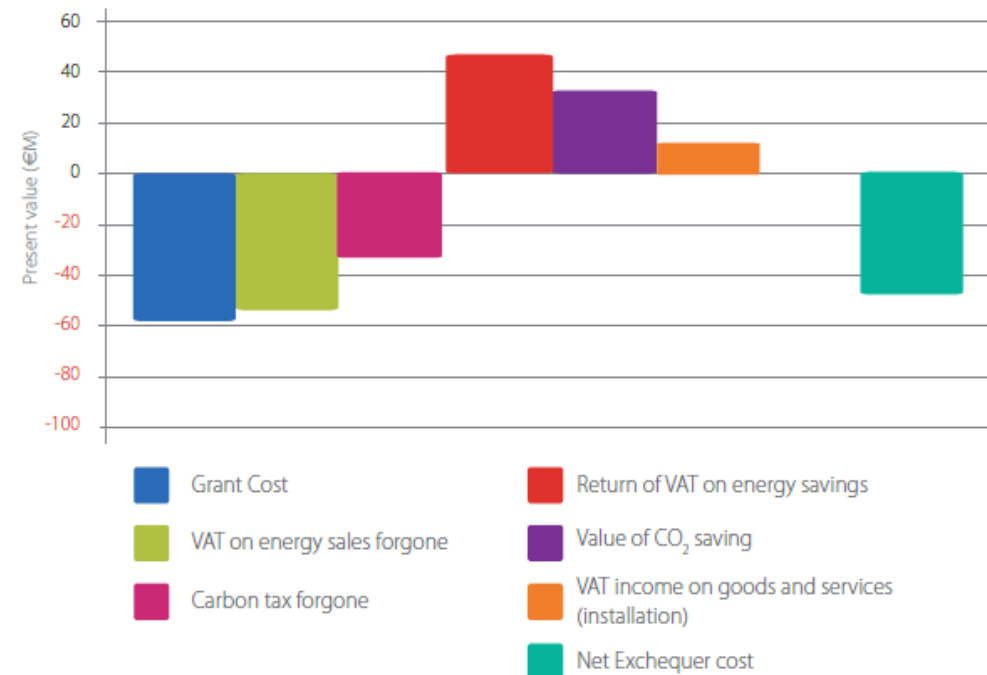


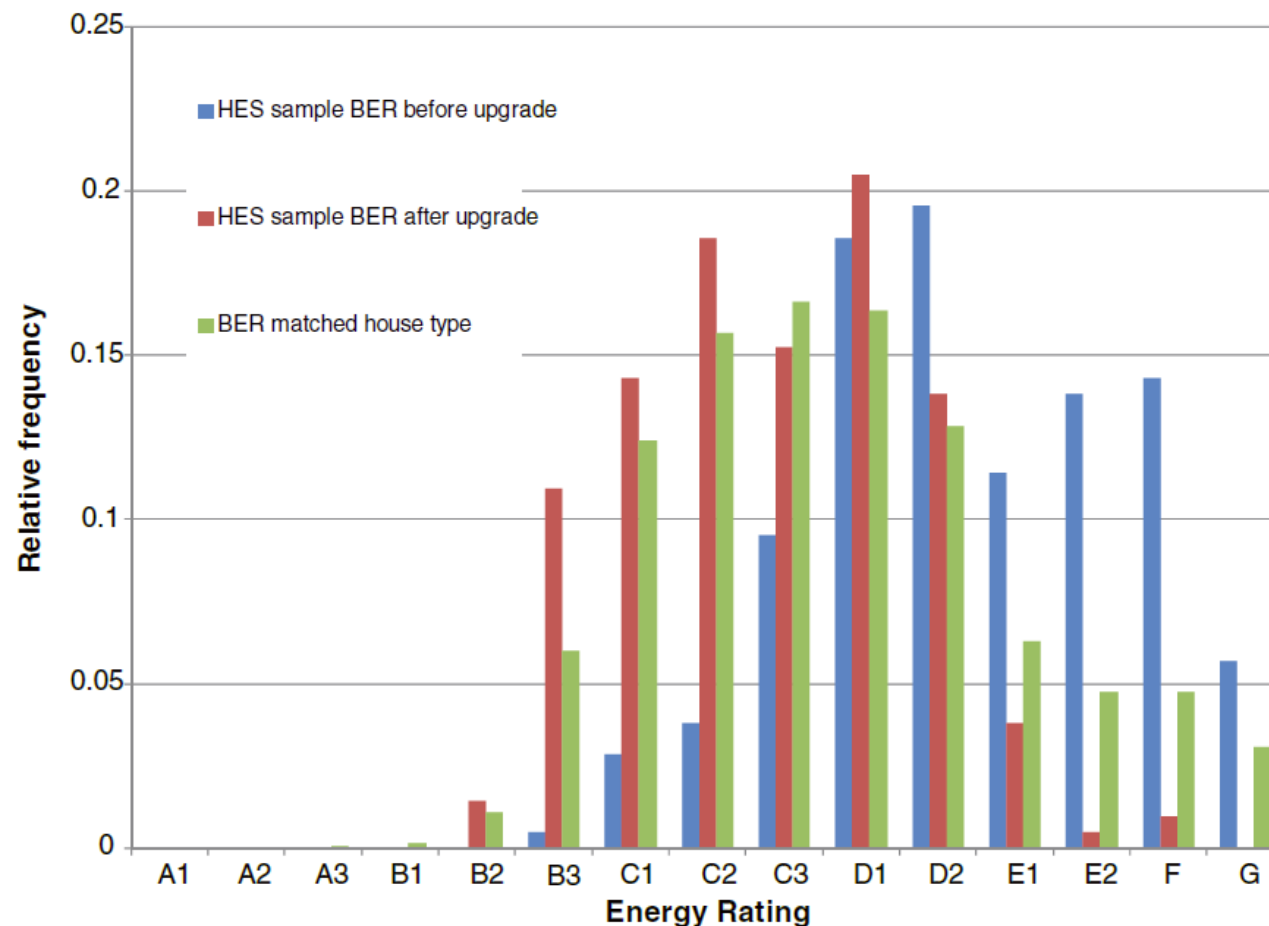
Figure 2: Exchequer flows – HES scheme



<https://www.seai.ie/resources/publications/Economic-Analysis-of-Residential-and-Small-Business-Energy-Efficiency-Improvements.pdf>

Billing analysis

- Metered data for 210 (gas) homes
- Difference in difference approach (sample change in demand versus population change)
- Measures gas savings 3,660 kWh per dwelling (average)
- Comparison with engineering estimate - 'adjustment' factor
- Used to re-estimate the standard 'average house' savings figure applied to number of dwellings to get scheme impacts
- Non-random sample / biased – some comparison of sample with population (postulate if under or over estimate)



Benefits of the evaluation and next steps



Benefits of the evaluation

- Shift from engineering to measured data - good for analysis and peace of mind
- Forming an evidence base
- Led to more money for the scheme over time – the scale-up was only possible with the data to back up impacts
- Understood consumers better – scheme participant AND non-participants
- Experienced evaluation - it was a start and now spread to other programmes
- Made us think ...

Other considerations

- Time investment was big - money small
- Unlikely we are getting all the benefits – e.g. multiplier effect. Could some big impacts be missed? – consider neighborhood and peer effects for example
 - This view can alter what data might be collected and what might be tested via the policy from the start

Convincing top management of the benefits – and further improvements

- **Integrity** – Being able to stand over assertions
- **Credibility** – winning the argument with Department of Finance
- **Flexibility** - being better informed about the impacts allows intelligent tweaks to the scheme that show on the 'score board'
 - Mandatory access to actual use data from the start (condition of grant)
 - Spatial analysis - communities scheme, neighbourhood / peer effects
 - More measurement
 - Internal dwelling temperatures
 - More measurement
 - Bills
 - More measurement
 - Costs of measures over time
 - More measurement
 - Opinions of householders (before and after)

Evaluation essential for integrity and credibility of schemes



Evaluation of energy efficiency policies in Sweden

EPATEE

13 March 2018

Policy evaluation practices

- A couple of decades ago, evaluation was common
- Due to disappointments of not being able to produce reliable quantitative results, for several years practically no evaluations were made in the field of energy efficiency policy
- But lack of evaluations made it difficult to assess policies
- Now evaluations are very common, but with the insight that evaluation has to be built-in into policies from the beginning, meaning it has to be a part of the design of any policy

Prioritizing evaluation efforts

- Depending on the scope and character of an energy efficiency policy instrument, the evaluation method applied takes this into account. Some policies can be evaluated in quantitative terms, but far from all.
- Sometimes a qualitative evaluation method is more suitable, as is often the case with information campaigns.

Some examples

- Between 2004 and 2014 there was a major policy instrument for energy efficiency in large industries. However, as no evaluation method was built into the design, this resulted in several evaluations, with results pointing in different directions.
- A policy instrument called technology procurement groups can be assessed in terms of market impact.
- Municipal energy advisors are a "soft" instrument which requires an evaluation to take into account several qualitative aspects.

Main aspects and issues

- From a Swedish viewpoint, the most important single aspect is to be aware already in the planning phase how to evaluate.
- A consequence of such a practise is that it supports being able to establish reliable quantitative data.

Further challenges

- It could be worth analyzing how to be able to develop methods which allow for reasonably comparable results.
- Of course, a single method can not be applied to different policies, but how could comparability be enhanced?
- This issue could be discussed on an international level, too.