Assessing the impact of Energy Efficiency Programs driven by an electric utility provider

eceee 2022 Summer Study

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Energy Efficiency Programs driven by utilities

- Direct relationship with end-users
- Knowledge about their historical energy consumption.

éco21
Ensemble pour consommer moins

SIG

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Small consumers
< 30 MWh/y



Doubléco



Éco-social

activéco habitat



Activéco

Small to medium consumers
30 – 500 MWh/y

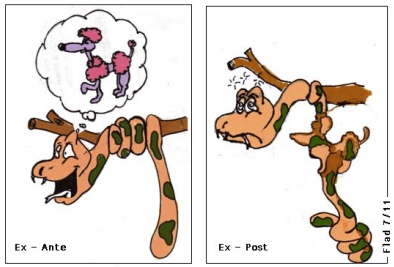


Large consumers
> 500 MWh/y

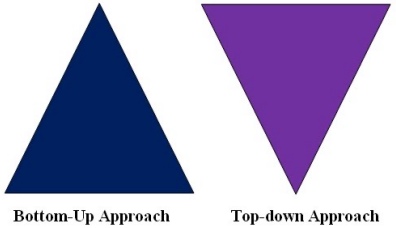
AMBITION NÉGAWATT

Evaluation methods

- ex - ante / ex - post

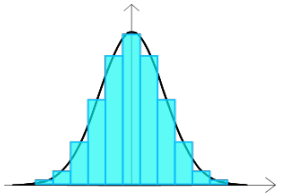


- bottom up / top down

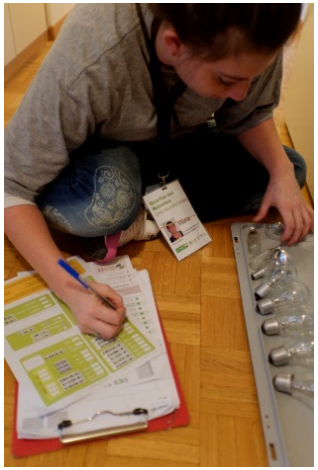


- analytical / statistical

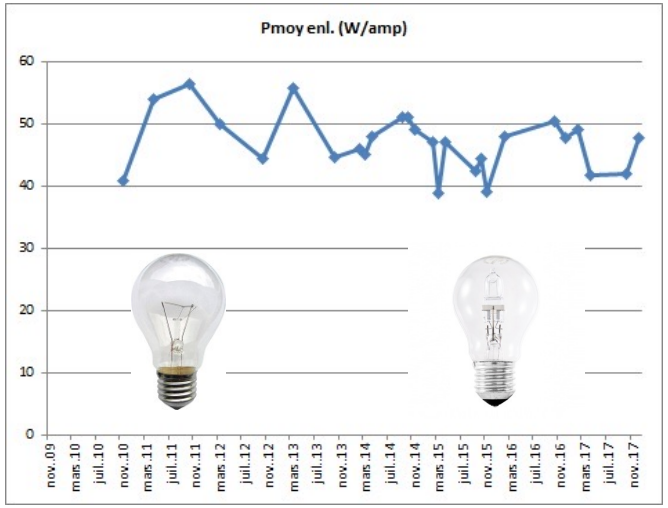




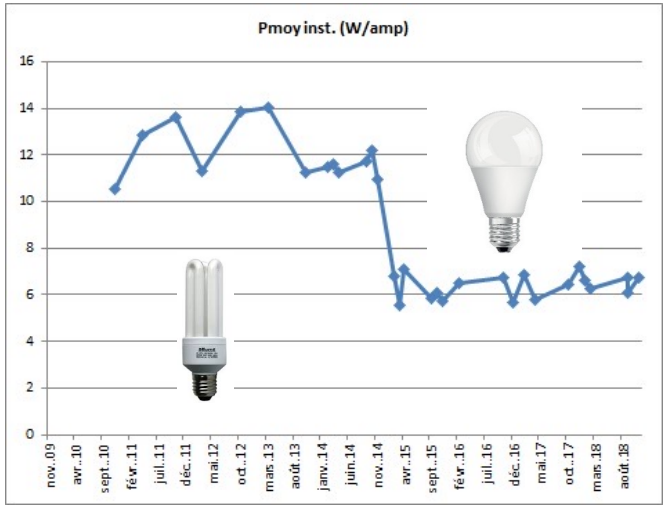
Small consumers (< 30 MWh/y) ex-ante



Collecting data

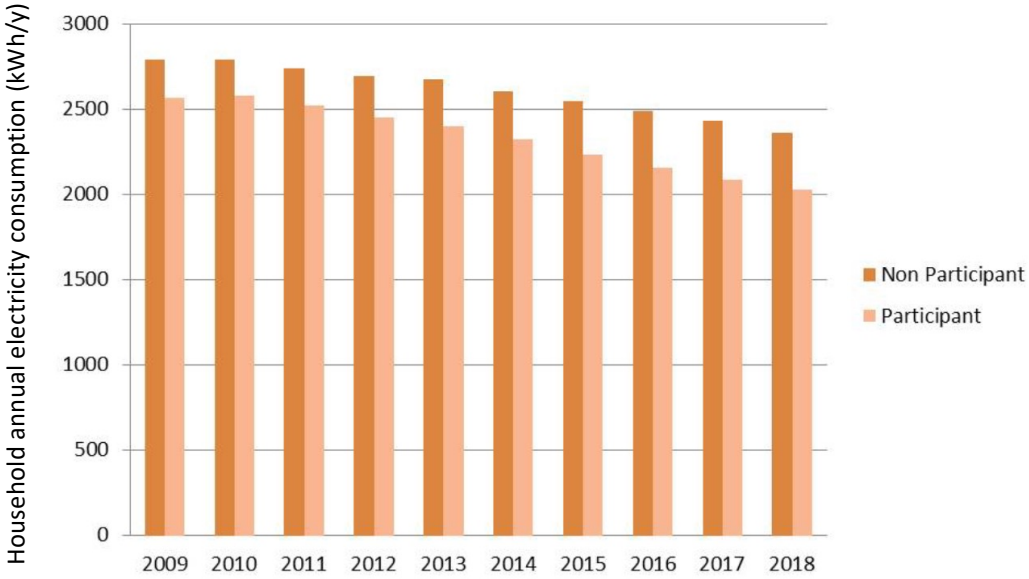


Average power of replaced bulbs (Watts per bulb)

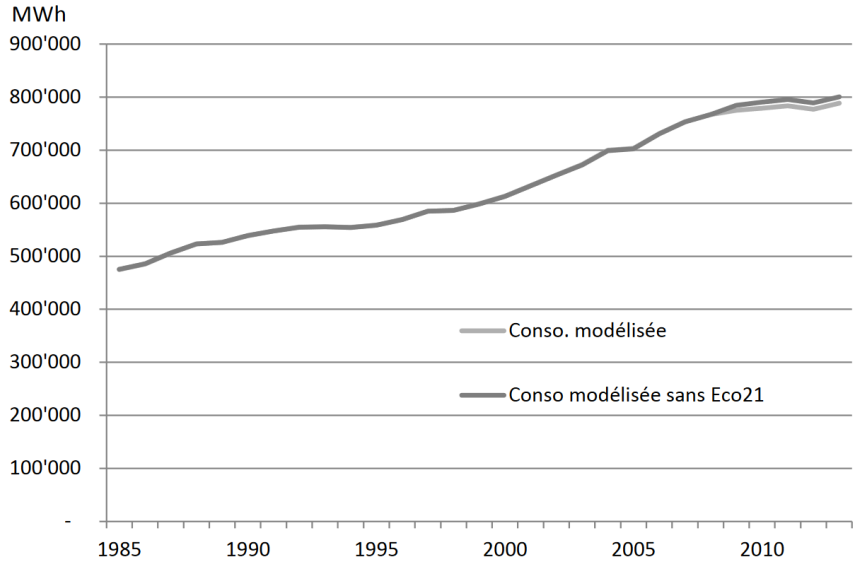


Average power of installed bulbs (Watts per bulb)

Small consumers (< 30 MWh/y) ex-post (bottom-up and Top-down)



Ex-post / Bottom-up
Annual billing analysis

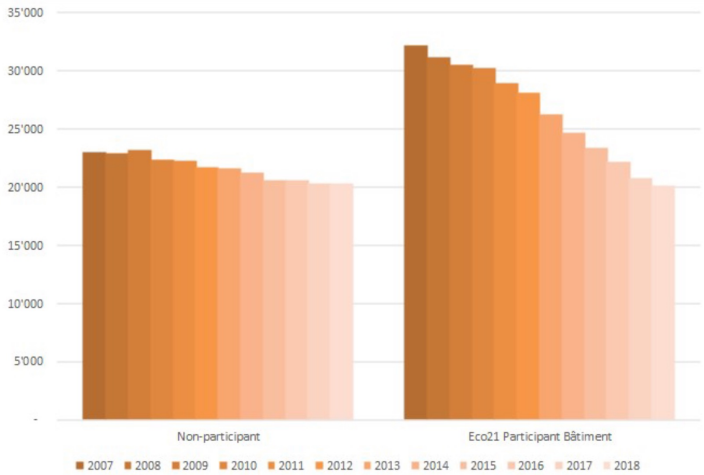


Ex-post / Top-down
Statistical series

Small to medium consumers (30 to 500 MWh/y) ex-ante & ex-post



Ex-ante based on online simulation tools



Ex-post billing analysis

Large consumers (> 500 MWh/y)

- Energy Management



- EVO Measurement & Verification Protocol

Results

- In 2009, the utility aimed to reduce the total electricity consumption by 5% by 2013
- This goal was finally achieved in 2017

- The potential initially identified was quite realistic, but the time required was underestimated

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Thank you