ENSMOVplus workshop at the BEHAVE conference

Tuesday, November 28, 2023, 3:25 PM - 4:40 PM

Title: How much energy do behavioural policy measures save?
Hosted by Sam Thomas, Regulatory Assistance Project, for the ENSMOV plus EU LIFE-funded project.

Background
Article 8 of the Energy Efficiency Directive (EED) requires EU Member States to make energy savings attributable to national energy efficiency policy measures. Energy savings must be monitored and verified before being reported. The energy crisis caused by the war in Ukraine led to renewed interest in behavioural policy measures. Member States will wish to report energy savings from these policy measures, separating the impact of the policy from other factors, notably from higher energy prices.

To raise awareness of the importance of evaluating energy savings from behavioural measures in the context of the EED, the workshop provided a discussion forum for government and energy agency officials to take away knowledge that they can apply in their jurisdictions. By promoting recent research into the impact of behavioural policy measures, the session would aim to help put into practice the knowledge and research on behavioural policy evaluation from the scientific community.

Content
The discussion followed five short presentations that brought together insights from the ENSMOVplus project, the European Commission, two national authorities and two Horizon2020 projects:

- The importance of evaluation in the context of the EU Energy Efficiency Directive energy saving obligation and the ENSMOV plus project | Samuel Thomas (Regulatory Assistance Project)

- Behavioural policy measures in the Energy Efficiency Directive Recast 2023 and RePowerEU energy savings plan | Margot Pinault (European Commission)

- Significant electricity savings with info' nudging during the crisis winter in Finland | Leila Timonen (Motiva)

- Evaluating Greece's public awareness campaign using the streamSAVE methodology | Christos Tourkolias (CRES)

- Behavioural science for energy efficient insights and policy recommendations from the NUDGE project | Filippos Anagnostopoulos (IEECP)

Introducing ENSMOV Plus Samuel Thomas (Regulatory Assistance Project)

Sam explained that the ENSMOV plus project supports the implementation of Article 7 (now 8) of the EED, targeting public authorities and agencies as well as wider stakeholders, such as energy companies and energy service companies, and with activities across the whole policy cycle from (re)design, to implementation, to monitoring & verification and evaluation. With eight public sector organisations, two national associations of stakeholders and four research laboratories and think tanks, the consortium is well-placed to provide support to Member State governments. Sam mentioned some of the resources available on the ENSMOV plus website, including reports, webinar recordings and information on the EED and Member State performance on the ENSMOV plus platform.

Sam highlighted the differences in performance amongst Member States in achieving their 2014-2020 energy savings obligations and provided a breakdown by policy type of the 17 behavioural policy measures reported by Member States. Ecodriving (6) and information campaigns (4) were the most popular so far, but more information campaigns are expected to be reported in 2022, given the responses by governments to the energy crisis that year.

Finally, Sam presented some learnings from the Uniform Methods Project, initiated by the United States Department of Energy, which brings together experience with evaluating behavioural programmes, undertaken by energy utilities and monitored by public utility commissions, in the form of a protocol. The protocol recommends the use of randomised control trials and randomised encouragement designs. Key lessons include the need to embed evaluation in

programme planning, for accurate data on treated users and their energy consumption, for large treatment and control groups, given that savings are typically relatively low as a proportion of energy consumption, and to continue to explore the topic of persistence of savings, where the evidence is complicated.

Behavioural policy measures in the Energy Efficiency Directive and RePowerEU Save Energy plan Margot Pinault (European Commission)

Margot first provided some policy context, highlighting the overarching European Green Deal, the Fit for 55 Package of interconnected legislative proposals and the REPowerEU package aimed at phasing out EU dependence on fossil fuel imports from Russia, based on three pillars, including energy saving energy efficiency. Under the Save Energy Plan and Save Gas for Safe Winter, Member States have reported around 60 measures ranging from energy savings campaigns to energy efficiency programmes and voluntary curtailment measures. These include measures that could be classified as energy sufficiency, such as reducing public lighting hours, banning domestic short-distance flights and reducing the heating and cooling of buildings.

Margot next provided detail on the key changes in the EED recast, which entered into force in October 2023, highlighting the importance of the Energy Efficiency First Principle (Article 3); the new binding EU final energy consumption target and associated "ambition gap" mechanism to ensure that national targets sum up to the EU target (Article 4); the exemplary role of the public sector, across energy consumption, their building stock and purchasing decisions (Articles 5-7); and the energy savings obligation (Article 8).

Article 8 becomes progressively more ambitious during the 2020s, requiring more energy savings, excluding savings from fossil fuel combustion and requiring a share of savings to be made among vulnerable customers and energy poor households. Annex V of the EED sets out the requirements that savings must be caused by policy measures with at least one objective is to achieve end-use energy savings, and that the savings are additional to EU law. However, Margot highlighted the specific derogation for energy efficiency improvement measures taken pursuant to the emergency regulations instituted under the REPowerEU initiative, with the exception of energy savings resulting from rationing or curtailment measures.

Finally, Margot highlighted Article 22 on Information and Awareness Raising, which focuses on the dissemination knowledge on energy efficiency measures and providing holistic support to all households, particularly those affected by energy poverty and those living in the worst performing buildings.

Significant electricity savings with info nudging during the energy crisis in Finland Leila Timonen (Motiva)

Leila presented findings from the 'Down a Degree' campaign, coordinated by Motiva, the state-owned sustainable development company that provides energy advice to households. The campaign used the local context and global energy crisis to launch a successful campaign to encourage citizens in Finland to reduce their energy consumption. The campaign had the short-term goal to make energy savings in 95% of Finnish households and to reduce consumption by 5% during peak demand. The long-term is to permanently lower energy consumption by making Finnish homes energy efficient and to increase the temporal control of electricity use according to its supply and price.

Leila presented results from a survey in which 91% of respondents reported having made energy saving measures, with 50% saying that they had lowered room temperatures. Peak consumption was 8% lower than in the previous year, having a significant positive impact on how they have coped with electricity sufficiency, and they estimate total energy savings during winter 2022-23 of 4 TWh. When asked in the survey, 89% of Finns said that they now follow the price of electricity at least occasionally, 60% said that they learned new ways of energy saving during the winter crisis, 51% said that they learned use electricity flexibly at different times and 40% said they enjoyed saving energy.

Leila put the success of the winter campaign down to strong messaging, clear instructions and practical savings tips, aided by the leveraging of existing strong cooperative relationships between the state administration, industry associations and companies. The common external threat was also clearly important, as Finns saved energy for both economic and principled reasons.

Evaluating Greece' public awareness campaign using the streamSAVE methodology Christos Tourkolias (CRES)

Christos introduced the streamSAVE Horizon 2020 project, which aimed to assist Member States in their efforts to deliver rapidly scalable savings and increase their chances of successfully meeting energy efficiency targets. Among the project outputs are savings calculation protocols for behavioural change measures, along with indicative values for some of the values used in the protocol.

Christos demonstrated how the protocol was applied to the awareness raising campaigns in the residential, tertiary and transport sectors in the Greek energy efficiency obligation scheme. Between them, the two campaigns contributed over half of the savings reported by Greek obligated parties between 2017 and 2020.

Christos also presented results from a survey undertaken after the residential campaign.
Social media had a slightly higher self-reported reach (48%) than leaflets (44%), with around 80% of people saying that they were very or quite likely to adopt energy saving advice and to pass the information to others in their network. 42% of people reported receiving information from more than one obligated party, while the majority of people said that they would not upgrade their homes without participating in a national subsidy programme.

Christos concluded with three policy recommendations:
-Conduct surveys after campaigns to better understand consumer behaviour.
-Evaluation of the measures after the campaign has ended.
-Develop standardised methods for assessing energy savings.

Behavioural science for energy efficiency: Insights and policy recommendations from the NUDGE project Filippos Anagnostopoulos (IEECP)

Filippos placed behavioural measures in the context of the EED – the need for energy efficiency improvements to meet energy efficiency targets (Articles 4 and 8); the importance of information and awareness raising (Article 22); and the calculation methods used to assess the impact of policy measures, including "surveyed savings" for measures resulting in changes in consumer behaviour (Annex V). He defined "nudges" as subtle changes in the decision-making environment that predictably alter behaviour without restricting options or significantly altering economic incentives.

Introducing the NUDGE Horizon 2020 project, Filippos explained that it had undertaken extensive field trials (in Greece, Portugal, Germany, Croatia and Belgium), produced a research protocol to measure impact and provided recommendations for policy makers and implementation bodies. The research protocol covers a wide array of techniques to cover different types of interventions and adjustments to deal with practical data challenges.

Filippos explained that the evidence collected during the project showed that energy savings ranged from 3-4% for interactive nudges, with participants interacting with apps showing more pronounced effects, and up to 16 %

for Default nudges for automated consumption optimisation (e.g. EV charging). However, the evidence is inconsistent on the effectiveness of nudging across countries, with energy price rises during the crisis acting as a confounding factor. In all pilots, some groups showed insignificant or contradictory effects. Three broad conclusions flow from the work:

(i) default nudging is the most impactful form of nudge;
(ii) regulatory incentives should be aligned with nudges to maximise effects; and
(iii) to be effective, field trials require a good sample size, representative groups and limited interventions.