Improving demand-side energy policy outcomes using behavioural insights

The Energy Sector Behavioural Insights Platform of the UsersTCP brings together government policy makers and other experts to share knowledge and experiences applying behavioural insights (BIs) to energy policy. The aim of the Platform is to improve the efficacy of demand-side energy policies by ensuring that human behaviour is accounted for throughout the policy cycle.

During its first year of activity, the Behavioural Insights Platform, with the IEA, has developed an environment scan report that:

a) Summarises the behavioural factors acting as barriers to efficient energy use, investment in energy efficient, clean energy technologies and sustainable mobility options.

b) Analyses over 40 case studies, providing a snapshot of how energy ministries, regulators and utilities can leverage BIs to design and implement more effective energy policy and programmes.

Observations for policy makers

- At home, in the office or in public spaces, virtually all our habits and decisions affect energy consumption, from adjusting thermostats to changing a heating system; from buying a new car or opting for public transport or cycling.

- Habits and decisions are driven by personal factors, such as preferences and budget constraints, structural factors such as infrastructure availability and energy market design, and social factors such as prevailing norms. All these factors are in turn affected by policy interventions.

- Behavioural insights gleaned through research in the behavioural sciences can shed light on the catalysts of habits and choices. This can help choose appropriate behavioural levers to encourage efficient and flexible energy use both through policy interventions and utility programmes.

- Evaluating the impacts of behavioural interventions through randomised controlled trials and other evaluation approaches is fundamental to assess their effectiveness prior to large-scale implementation, enabling necessary adaptations.

- BIs have triggered new demand-side energy policies and programmes: encouraging evidence of their impact indicates that they deserve to be mainstreamed and upscaled beyond pilot projects.

- Energy efficiency can be further enhanced by integrating BIs within “traditional” policy design and implementation, including in economic incentives (e.g. retrofit grants; time-of-use electricity tariffs) and regulatory requirements (e.g. energy efficiency standards).

Largest energy end uses by sector in selected IEA countries, 2018

Source: IEA (2020). IEA Energy Efficiency Indicators (database). Notes: Statistics cover the 24 IEA countries for which data are available for most end uses.
Key findings

The coverage of behavioural interventions across user categories and target behaviours is uneven

- **User categories**: most behavioural interventions analysed address individuals and households, with relatively few aimed at organisations and businesses.
- **Target behaviours**: most interventions focus on incentivising habit changes, such as energy saving efforts at home or the use of sustainable mobility options, with few initiatives targeting **energy efficiency investment**.

There is room for experimenting further with behavioural interventions to **encourage investment in more energy efficient technologies and solutions** both in households and in businesses – from electric vehicles to solar panels, building retrofits and more efficient appliances.

So far, behavioural interventions appear to favour certain levers:

- Virtually all interventions leverage information **simplification and framing** to make information more prominent and intuitive (e.g. energy efficiency labels).
- **Feedback mechanisms** are popular to provide consumers with frequent or real-time information on their energy consumption.
- **Social norms** and comparisons are exploited when informing consumers on how they perform relative to peers (e.g. energy consumption patterns).

Deploying the full toolbox of behavioural levers can enhance energy policy impacts

- **Gamification and positive competition** could be further exploited, along with goal-setting and commitment devices, as well as rewards.
- Changes to **product design** and **default options** can facilitate and automatize energy efficient choices.

### Good practices

- **Feedback mechanisms** have been widely used in utility-led demand response and energy efficiency programmes. Providing feedback on energy consumption through home energy reports and in real time has induced energy savings in multiple country contexts.
- Behaviourally informed **design of energy efficiency labels** for appliances and vehicles has been effective in helping consumers understand the benefits of energy efficiency improvements. Well-designed labels can steer purchase decisions towards more efficient products.
- Local initiatives encouraging **community-grouped investments** have significantly increased the uptake of rooftop solar panels: this indicates that there is potential for behaviourally informed investment incentives that capitalise on social norms.