

Energy Affordability and Savings: The Crucial Role of Smart Energy Solutions

November 2022

Europe is facing an unprecedented energy price and supply crisis. Europe must leverage the potential of the digital transformation, which is a key enabler for both accelerating the green energy transition and making energy more secure and affordable for consumers. **Deploying smart energy solutions and unleashing the power of energy data can have a major positive impact on savings and consumer bills.**

The European Commission's recently adopted Digitalising the energy system Action Plan (October 2022)¹ highlights the need to remove barriers on access to and sharing of energy data, recognising that data can be a core asset for the energy transition, to improve system efficiency, savings and empower consumers. This also needs to be fully recognised in the implementation of the RePowerEU Plan² (proposed by the European Commission in May 2022) which aims to make Europe's energy system more resilient and independent of fossil fuel imports.

The potential of smart solutions for saving, and notably a stronger role for demand-side flexibility, needs to be at the heart of emergency measures proposed by the EU and national Governments and in the forthcoming review of the Electricity Market Design (to be proposed by the Commission in 2023).

As such, we call on the European Commission, Member State Governments and European energy regulators to fully recognise the contribution of smart energy solutions for energy security and affordability and swiftly implement existing EU and national legislation (Electricity Directive and Regulation). ESMIG members are working with their partners in the technology and utility industries, across Europe and worldwide, to make energy smarter for the benefit of consumers and for a resilient, fully digitalised energy system. Focus should be on the following 3 actions to be addressed in coordination:

Accelerate and complete the roll out of smart meters across Europe

Smart meters, a crucial enabler of digitalisation in the energy system, have not yet been fully deployed across Europe. While some Member States have completed their roll-out, others are lagging to the detriment of consumers, undermining the digital and green energy transition.

- Fully recognise the role of smart meters and their multiple benefits: the Commission clearly underlined in the Digitalising the energy system Action Plan that for all initiatives outlined in the Plan, it is key that consumers have a smart electricity meter installed in their home as smart meters bring tangible energy savings, empower consumers to better manage their energy, and enable the integration of a growing share of renewables, supporting the green energy transition and reducing the reliance on fossil fuels and energy imports.
- Accelerate the roll-out of electricity smart meters and set new ambitious deployment targets given that the EU's 80% target for 2020 has been missed (and will not be reached before 2025). Setting targets for smart gas, water, and heat meters, as their deployment is less advanced than electricity meters, is paramount.
- Repeat cost-benefit analyses in Member States where they were negative or inconclusive, fully factoring in the European Green Deal and the REPowerEU Plan and all the benefits for consumers, as they enable savings through smart tariffs, and the integration of distributed energy sources, from heat pumps to smart vehicle charging.

¹ https://ec.europa.eu/commission/presscorner/detail/en/QANDA_22_6229

² https://ec.europa.eu/commission/presscorner/detail/en/IP_22_3131



- Enable all functionalities and use cases for smart meters, which vary widely across Europe. Smart meters are a mature and powerful technology which needs to be deployed and used to its full potential in Europe.

Remove barriers on energy data access and sharing, make real-time data available to consumers

Large amounts of data can be a core asset for the energy transition, to improve system efficiency, saving and empower consumers. Data needs to be interoperable and made available (near) real time.

- Remove barriers and implement all provisions to ensure access to real-time consumption data as mandated by the Electricity Directive³. This will help consumers play a bigger role in reducing peak time demand, in line with the EU emergency regulation (October 2022)⁴ including a mandatory 5% reduction target of electricity consumption in peak hours, for consumers to fully benefit from smart tariffs, to valorise their data and allow them to lower their electricity bills.
- Make data interoperable and available, in a non-discriminatory manner, to all energy market participants – barriers on data access and sharing between market participants prevent savings being directly shown to consumers.
- Create, as recently proposed by the Commission in the Digitalising the energy system Action Plan, a common European data space for energy, building a future-proof European framework for sharing energy-related data. Making such a common European data space for energy a reality will only be possible if consumers have a smart meter installed in their home and if smart meters are used to their full potential, enabling all use cases.
- Enable all use cases for automation technologies and AI-powered solutions to fully support efficiency, including the use of sensors, apps etc. to turn off appliances or setting energy saving mode.

Implement and enable demand-side flexibility, energy management: eliminate regulatory barriers

Demand-side flexibility, a powerful solution to increase savings, is part of the EU's electricity market design. Legislation was adopted in 2019, but the provisions have not yet adequately been implemented in most Member States (except for Finland and France, and to a more limited extend Italy, Slovenia, and Spain, where some progress has been made). Demand-side flexibility is key to reduce peak electricity consumption and enable savings.

- Implement all existing EU provisions for flexible consumption and generation in Member States to better respond to the pressing issues of high energy prices, reduce volatility and foster energy independence, but also enabling a better integration of renewable sources, self-consumption, and distributed energy sources.
- Eliminate regulatory barriers on enabling demand-side flexibility and promote active and voluntary participation of all energy end-users in a digitally connected and smartly automated systems. Demand-side flexibility must be available for larger industrial consumers as well as for households, where smart meters are essential enablers.
- Promote energy management with user feedback (including, for example, the visualisation of energy flows and consumption) as this can lead to behavioural changes benefitting consumers through savings and support the energy transition. This is enhanced by the Implementing Regulations on data access and interoperability stemming from the Electricity Directive.

³ <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32019L0944>

⁴ <https://data.consilium.europa.eu/doc/document/ST-12999-2022-INIT/en/pdf>