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Horizon 2020 Energy Efficiency Call for Proposals 2019

**Consumer Collective Actions
and Smart Energy Services**

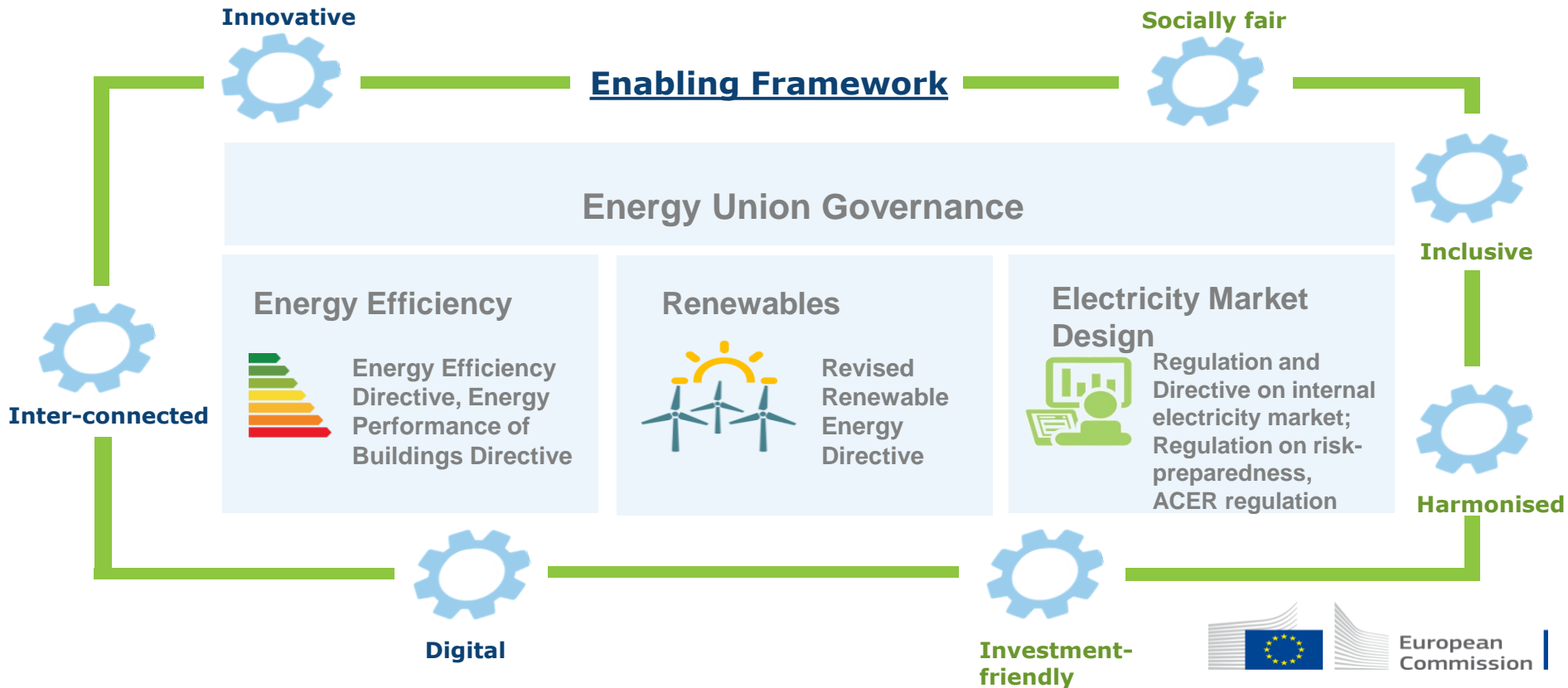
Policy context

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Unit C3 – Energy Efficiency,
European Commission, DG ENER

Energy

CLEAN ENERGY FOR ALL EUROPEANS POLICY PACKAGE



THE CLEAN ENERGY TRANSITION

2030

50% of electricity to
come from renewables



2050

Electricity completely
carbon free



Thanks to the EU ambitious **energy and climate commitments**



Unique opportunity to modernise our economy and to

boost competitiveness

create growth and jobs

Energy efficiency first in the energy transition



- The cheapest energy is the one we do not consume!
- Energy efficiency contributes to the reduction of **greenhouse gases** and goes **hand in hand with renewable energies** to enable the energy transition
- It is also an integral part of the **Energy Union Governance**
- Empower **consumers** by granting access to information on their energy consumption (new rules on electricity market design)

Energy Efficiency Directive - main outcomes of the revision

- ✓ A **new energy efficiency target** for the EU for 2030 of **32.5%**, with an upwards revision clause by 2023
- ✓ Extended **energy savings obligation** to achieve new annual energy savings of at least 0.8% (of final energy consumption) for the next period 2021-2030 and beyond, coming from new energy efficiency renovations or other measures in end-use sectors (11% more ambitious than in the current period).
- ✓ Strengthened rules on **individual metering and billing of thermal energy** (better information for consumers)

Next steps:

Member States will then have 18 months to transpose the new elements of the Directive into national law and 22 months for provisions on metering and billing

Energy Performance of Buildings Directive - main outcomes of the revision

- ✔ Stronger **long term renovation strategies** for Member States, aiming at **decarbonisation by 2050** and with a solid financial component.
- ✔ A **Smart Readiness Indicator** for buildings.
- ✔ Targeted support to **e-mobility infrastructure** deployment in buildings' car parks.
- ✔ Enhanced transparency of national building **energy performance calculation** methodologies.
- ✔ Reinforcement of **building automation**: additional requirements on room temperature level controls, building automation and controls and enhanced consideration of typical operating conditions.

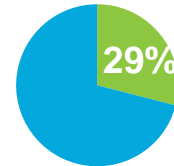
Why do we need flexibility?

Decarbonised and decentralised energy system requires flexibility and smart energy management to reduce peak electricity prices and system costs.

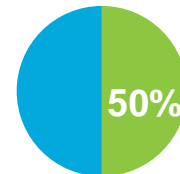
MORE POWER COMING FROM RENEWABLES



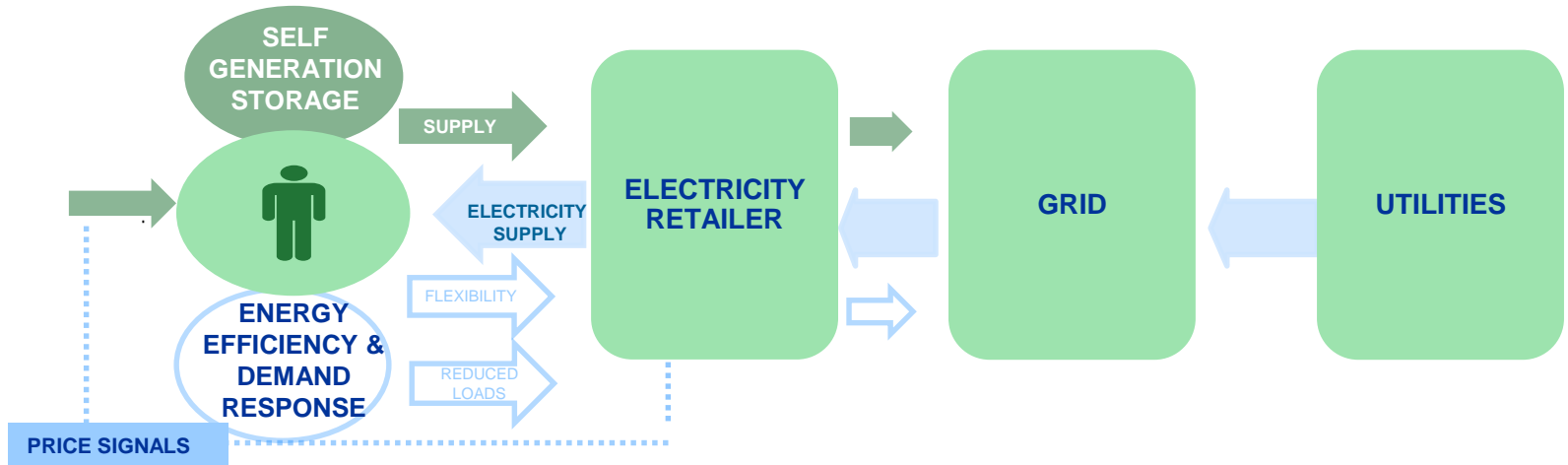
2014



2030



ACTIVE CONSUMERS ARE KEY TO DELIVERING A MORE FLEXIBLE ENERGY SYSTEM...



SMART BUILDINGS & APPLIANCES WILL BECOME THE ACTIVE ELEMENTS IN THIS SYSTEM



Digitalisation enables and accelerates the clean energy transition



Active network management: procurement of services by network operators in markets and on platforms



Energy data: optimisation of asset management through data processing



Active demand side: smart homes & appliances for smart grids

3 POINT STRATEGY TO MAKE ENERGY MARKETS FIT TO DELIVER ON THE ENERGY TRANSITION

- ❖ **EMPOWER ENERGY CONSUMERS** - facilitate access to **relevant and timely information** and provide **tools for active participation in the market**.
- ❖ **REMOVE BARRIERS TO MARKET COMPETITION** – open markets to **new actors**, introduce **price signals** and **incentivise** innovation.
- ❖ **ENSURE CONSUMER PROTECTION AND SOUND MANAGEMENT OF CONSUMER DATA** – set common **principles**, **monitor** and **assist** Member States.

A FAIR DEAL FOR ALL CONSUMERS

“ Our vision is of an Energy Union with citizens at its core, where citizens take ownership of the energy transition, benefit from new technologies to reduce their bills, participate actively in the market, and where vulnerable consumers are protected.

Energy Union Framework Strategy

BETTER INFORMED

- Clearer energy bills
- Certified price comparison tool
- Access to fit-for-purpose smart meters

PROTECTED

- Monitoring of energy poverty (governance)
- Information on alternatives to disconnection
- Out-of-court dispute settlement

EMPOWERED

- Easier switching conditions
- Reward demand-response
- Entitle individuals and communities to generate electricity and to consume, store or sell it back to the market

INFORMATION: SMART METERS, CLEARER BILLS, RELIABLE PRICE COMPARISON TOOLS & SWITCHING



- Planned roll-out of smart meters by 2020
- Existing access to smart meters

- Smart meters are currently only widely available in 4 Member States. 14 MS plan large scale roll-out by 2020.
- Stakeholders across the EU report on difficulty in reading energy bills
- Switching rates remain extremely low in many MS.

- Give **all consumers the right to a smart meter** equipped with fit for purpose **minimum functionalities**.
- Ensure that all consumers have free-of-charge access to at least one **certified energy price comparison tool**.
- **Prohibit all switching related charges.**

WAY
FORWARD

Better access to relevant and timely information is a prerequisite for fair competition and more active consumer engagement with the market .

CONSUMER PROTECTION & SOUND DATA MANAGEMENT

SHARE OF HOUSEHOLD INCOME SPENT ON DOMESTIC ENERGY



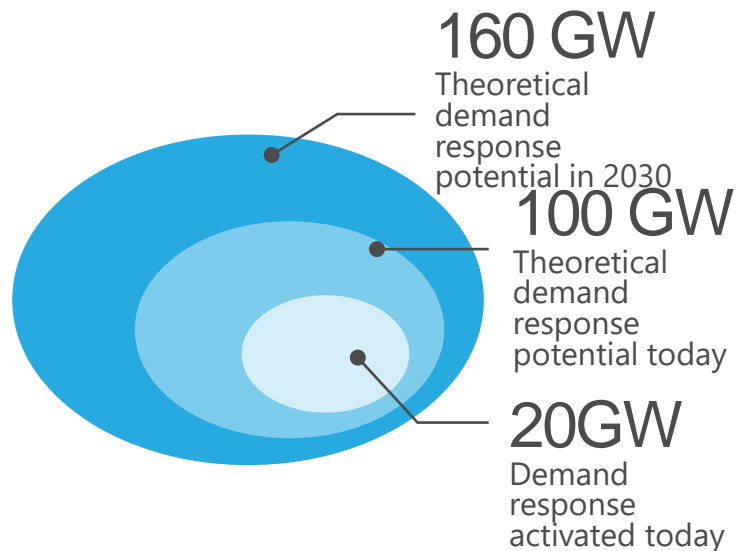
Smart meters generate roughly 3000 times as much information as the analogue meters

- The affordability of energy services is becoming a concern in many Member States.
- Digitalisation of the retail electricity market requires sound management of data

- **Monitoring** of energy poverty.
- Investments in domestic **energy efficiency**.
- **Set principles for granting access to consumer data**, with the **explicit consent of the consumer**, including non-discrimination, transparency and easy access.

WAY
FORWARD

ENGAGEMENT: COMPETITIVE PRICES, DEMAND-RESPONSE, SELF-GENERATION, NEW SERVICES



- In some Member States self-generating and self-consuming electricity is effectively banned.
- Most consumers in the EU do not have access to independent aggregators which are the gateway to trading self-generated electricity and to effectively benefit from demand response schemes.

- Encourage **dynamic price contracts** for consumers.
- Grant consumers the **entitlement to generate** electricity and either **consume, store or sell it back**.
- Ensure **fair and full market access for independent aggregators** and other third party service providers.

WAY
FORWARD

Competition within the retail energy market is key for unlocking efficient consumer behaviour and keeping the cost of the energy transition at check.

Enabling active consumers and energy communities

- **Electricity Directive, Article 15, Self-consumers**

Entitlement to all consumers to generate, self-consume, store or sell self-generated electricity while ensuring non-discriminatory network tariffs

- **Electricity Directive, Article 16, Local energy communities**

Entitlement to that local energy communities to own, establish, or lease community networks and to autonomously manage them; access all organised markets either directly or through aggregators or suppliers in a non-discriminatory manner;

- **Renewable Energy Directive Article 21 Renewable self-consumers**
- **Renewable Energy Directive Article 22 Renewable energy communities**



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**EC1 - The role of consumers in
changing the market through informed
decision and collective actions**

Talía Brun Marcén, Unit B1 - Energy
Executive Agency for Small and Medium-sized Enterprises (EASME)

Energy

Challenge

- A precondition for active demand is for consumers to be aware of their own potential to permanently or temporarily reduce energy consumption and what is the monetary value of that potential in the market
- Different forms of collective action have the potential to assist consumers in forming critical mass and to facilitate increased uptake of energy efficiency and active demand solutions and services
- Lack of awareness on the potential benefits of such actions, together with regulatory barriers, hamper their full development

Scope

Set up and/or support energy communities to:



Increase energy efficiency
within the community

and/or



Optimise energy
management to integrate
a greater share of
renewable energy

The proposed action should:



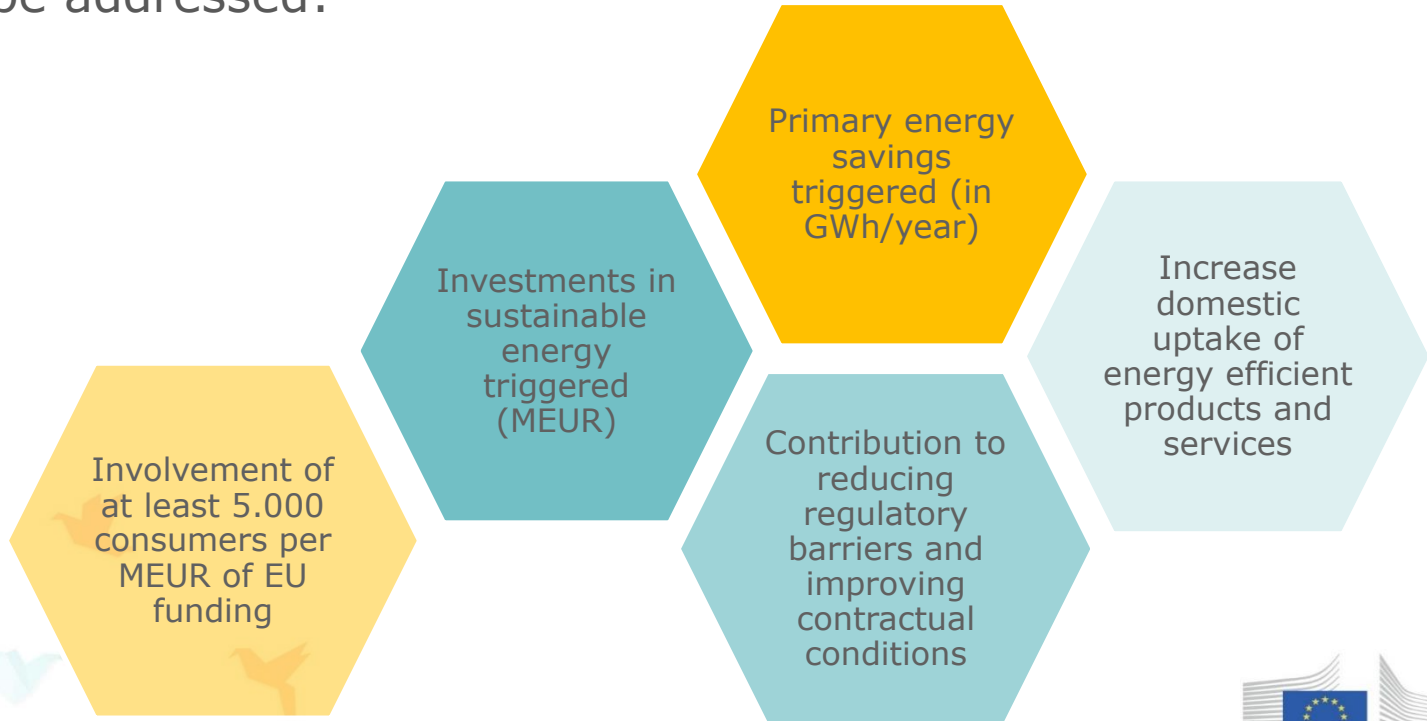
Identify and address regulatory barriers and contractual conditions for cooperative actions



Demonstrate that collectively organised energy-related actions are financially viable and attractive to the members of the energy communities

Impact

Proposals are expected to demonstrate impacts depending on the scope addressed:



Lessons learnt

- Gather a Consortium with relevant stakeholders necessary to implement what you propose
- Build on existing projects
- Go beyond BAU
- Consider European added value of proposed action
- Think about the project's legacy from the start
- Credibility and clear calculations are key when assessing impacts
 - Substantiate the foreseen energy savings (present clear baselines, benchmarks and assumptions)
 - Demonstrate a clear link to the proposed activities

Past projects



IEE projects <http://ec.europa.eu/energy/intelligent/projects>
H2020 projects <https://cordis.europa.eu/projects/en>

- Coordination and Support Action (100%)
- Call Opens: 12th of March 2019
- Deadline for applications: 3rd of September 2019
- Budget: 7,5 M€

Thank you!

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www.ec.europa.eu/easme/energy

