Dear Commissioner Simson,

Dear Director General Juul-Jørgensen,

The achievement of climate neutrality by 2050 requires a cross-sectorial effort that makes use of all available solutions. The upcoming Renovation wave will be pivotal to successfully decarbonise EU buildings and maximise their contribution to energy system integration. In the current coronavirus crisis, these initiatives take another critical dimension to ensure the recovery contributes to the well-being of all citizens, supports local, qualified and sustainable jobs, boosts the EU’s leadership in clean energy industries, and creates new green growth ecosystems.

Coupling the deployment of on-site renewables, energy storage and demand response with a strong renovation program makes complete sense. The barriers preventing the penetration of decentralised energy solutions in buildings are similar. The Renovation wave should aim to remove these to unleash the deployment of efficient, smart and renewable energy solutions in EU buildings.

There are six – very – good reasons to integrate the contribution of on-site renewables and demand-side flexibility in the upcoming Renovation wave:

1. The untapped potential for renewable energy generation and demand side flexibility in buildings is significant. Only with solar-rooftops, the EU could generate 680 TWh of additional renewable electricity – approximately 25% of EU current electricity demand. If the building stock was fully electrified, activating just 1% of the total installed capacity of electrical appliances and systems would give the EU a potential of flexibility of about 37 GW upward and 23 GW downward capacity.

2. Coupling on-site renewables with renewable heating and cooling technologies drives substantial CO2 emission reductions. Heating and cooling accounts for more than 50% of the energy consumption of buildings, with 83% of this energy produced through carbon-intensive fuels. This energy demand can be easily decarbonised with collective and singular renewable energy solutions, such as heat pumps, that reduce CO2 emissions and contribute to indoor and outdoor air quality.

3. Buildings represent precious decentralized energy resources which support a more flexible and efficient energy system. The electrification of EU buildings combined with smart appliances and HVAC systems enhances sectoral integration and results in significant system efficiency gains. Home energy storage is an essential component of the future integrated energy system, with half of Europe’s installed electrical energy storage capacity deployed in residential buildings in 2020.

4. Deploying renewables in buildings accelerates the switch to e-mobility. Between 80% to 95% of charging takes place at home or at the office, making the built environment the main enabler of electro-mobility as a source of flexibility. The Renovation wave is a great opportunity to connect the roll-out of smart charging infrastructures with on-site renewables, optimizing the renewable energy consumption of vehicles and reducing local grid congestion.

5. Small-scale renewables are key for an EU Green Recovery. Two-thirds of Europe’s rooftop solar potential could provide electricity at lower rates than current residential tariffs, tackling energy poverty and boosting local jobs in the installation, maintenance, and construction sectors at a crucial time for Europe. Small-scale solar installations create three times more jobs than large-scale plants, contributing to an energy transition which benefits citizens.

6. Renewables enable community renovation efforts and promote a more efficient and decarbonised system. The integration of renewable and flexibility services for homes empower citizen collectives to trigger deeper renovation projects. Empowering citizens through collective action will mobilize private capital and trigger a scaling of renovation projects in collective and private housing. The Renovation wave can support EU citizens by providing them with financial and other capacity building tools to uptake all relevant energy solutions, including on-site renewables and smart appliances.

Both in December 2019 and April 2020, several EU associations urged the EU institutions to develop an “integrated approach” to the building renovation wave, leveraging the combined benefits of energy efficiency, renewables and flexible buildings. Signatories of this declaration would like to strongly echo this message, which is a pre-requisite to a successful EU renovation strategy.

Best regards,

EHPA, EuropeOn, REScoop.eu, smartEn, SolarPower Europe

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1 Joint Research Centre (2019)
2 EDF (2018)
3 SolarPower Europe and EY (2017)