

CEER Citizens' Q&A

CEER Position Paper on Renewable Energy Self-Generation September 2016

1 What is self-generation?

Renewable energy self-generation consists in the local use of power generated on-site from energy sources such as solar, wind or biomass; e.g. electricity generated by a roof-top solar photovoltaic panel whose output is injected to the private grid of the consumer located below in order to reduce, at least in part, the purchase of electricity from the grid. Self-generation emerges as a plausible game changer for the power sector; it will be part of the answer to demanding targets for renewable generation and also of the shift by which the traditional, centralized paradigm of electricity systems is superseded by a more complex model. Therefore, the Council of European Energy Regulators (CEER) is willing to accompany its development by identifying the conditions under which it may be most efficient, so as to leverage their advantages and minimise potential negative impacts.

2 What does the position paper propose for self-generation?

CEER draws the attention to the fact that to capture the full value of self-generation, a careful analysis of the regulatory context where it takes place (in terms of network and market development, price sensitivity, flexibility, tariff structure, etc.) is needed. Particularly, cost-reflective, transparent tariffs are key to prevent undesired cross-subsidies from ordinary consumers to self-generators.

3 How is this achieved?

Consumers exclusively relying on the network for their energy supply should not be unduly disadvantaged compared to those consumers engaging in self-generation, and all consumers should face relevant price signals. When opting for self-generation, once passive consumers become active *prosumers*, and they gain an additional role as market players which may entail additional responsibilities, e.g. as regards metering and balancing capabilities, above a certain size. Net metering¹ should be avoided, since it implies that system storage capacity is available for free, reduces consumers' time-value sensitivity and undermines efforts to enhance flexibility, whose valuation mechanisms should be open to self-generators on a level playing field.

4 Why is this important and which is the impact on energy customers?

Self-generation makes customers' empowerment no longer restricted to network-supplied power consumption: choices and flexibility extend now to small generation equipment, whose output may be partially stored. This is expected to offer opportunities for network losses reduction, improved demand response, bill savings and CO₂ abatement. It poses also challenges for network operation and for the long-term economic sustainability of system operation, should their costs and benefits not be fairly shared.

¹ Net metering is a regulatory framework under which the excess electricity injected into the grid can be used at a later time to offset consumption during times when their on-site renewable generation is absent or not sufficient.