

## CEER Citizens' Q&A

### Long-Term Generation Investment Signals in a Market with High Shares of Renewables

5 May 2021

#### 1 What are generation investment signals and why high shares of renewables could be an issue?

Investing in electricity generation has always been a challenge, even before the liberalisation of the market in Europe during the 1990s<sup>1</sup>.

Investments in production assets are characterised by many hurdles: the non-storability of electricity; the high level of uncertainty involved in both production (outages) and consumption; the necessity to anticipate demand on a long-term basis; the necessity to choose amongst a wide range of very different technologies; and, for some capacities, long payback periods.

Moreover, in a highly capital-intensive sector, such as electricity, decisions are taken on investments that are totally or partially irreversible. The expenses incurred are sunk to the extent that the investor will not be able to recover all the costs if they chose to withdraw when market conditions become unfavourable.

Thus, investing in electricity can be very risky. If investors are not sufficiently confident in their chances of earning income, they will not invest in generation facilities and Europe will face adequacy issues.

In this context, some actors think that this risk of underinvestment could be amplified by the massive arrival of electricity from Renewable Energy Sources (RES). Indeed, it has been observed that RES penetration (wind and solar) tends to lower the average electricity price in the short term.

That is why it is important to establish a long-term framework that can provide sustainable prices for optimal investment cost covering.

#### 2 What does the report propose for generation investment signals?

This report proposes a set of high-level principles which CEER believes are important to set up to fully tackle the issue of generation investment signals. In particular, this report investigates the decision maker's problem and consequences of risk aversion.

CEER also outlines several options for the current market model to evolve in order to solve the challenges brought, amongst others, by high RES penetration and high carbon prices.

---

<sup>1</sup> Electricity market liberalisation was meant to introduce more competition in a market with natural monopolies of electricity companies, with regulation where needed. The overall aim was and is to create a functioning internal European energy market.

### 3 How does it work?

There are a range of actions that can be implemented to deal with investment generation issues:

1. Removing wholesale market price caps affecting price formation;
2. Increasing interconnection between countries to share electricity across borders;
3. Enabling demand-side measures to adjust the demand to better match the supply;
4. Enabling energy storage to store electricity for when needed for the system;
5. Ensuring cost-efficient and market-based procurement of balancing and ancillary services;
6. Implementing scarcity pricing mechanism to better reflect the value of the reserves;
7. Implementing capacity mechanism to provide visibility to investors;
8. Enhancing forward market liquidity and products to allow peak capacities to hedge their revenues;
9. Promoting Power Purchase Agreements (PPAs); and
10. Making the regulatory framework predictable.

Whilst implementing these solutions, it is important to be aware of the impacts they can have, which can lead to other distortions and income redistribution between consumers and producers.

### 4 What is the impact on energy customers?

Current RES policy and the European Green Deal road map provide action plans to “boost the efficient use of resources by moving to a clean, circular economy” and “restore biodiversity and cut pollution”.

However, it remains essential that these policies are consistent with the reliability need for customers (also have a look at the [CEER-BEUC 2030 Vision for Energy Consumers](#)).

Furthermore, RES subsidies are a significant and rising part of electricity bills in Europe. In 2019, 14% of the total electricity bill paid by the EU consumers consisted of RES charges.<sup>2</sup> CEER therefore strives for a market-based approach for RES generated electricity to not unnecessarily increase consumer energy bills.

Having the right investment signals also helps to keep the generation of RES cost-efficient. This report brings some solution to ensure that the rule-setting allows the markets to work properly and encourage efficient long-term investments for the energy transition and the security of supply.

---

<sup>2</sup> [ACER-CEER Market Monitoring Report on the Results of Monitoring the Internal Electricity and Gas Markets in 2019 Retail Markets](#) (published in October 2020).