

An end to support for renewables? The wrong battle to fight

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On Friday, October 11th, the CEOs of 10 European energy utilities, which own about half of Europe's electricity generation capacity, convened a joint press conference in Brussels to issue a warning that the European energy infrastructure is "in jeopardy". Modern power plants would soon be closed for good, because they are making losses under the current market conditions. As a result, they warned the electricity system "may face situations close to blackout (...) every winter from now on". To explain the unfavourable market conditions, they singled out the rapid increase of renewables in some member states because of subsidies. The CEOs specifically mentioned Germany, which is currently forming a new government. They called for an end to support for renewables because wind and solar were mature technologies that no longer require support.

Is it only renewables?

Whilst it is true that conventional electricity generators (gas, coal) have been overwhelmed by the speed with which renewables have been deployed, they have also overestimated the demand for new conventional capacity. They are currently struggling with overcapacity and wholesale market prices that no longer guarantee adequate remuneration for previously profitable power plants.

By 'unfavourable market conditions', conventional generators essentially mean that they are selling less electricity at lower prices. In fact, since 2008, the wholesale market price, i.e. the price at power exchanges, has nearly dropped by half in many EU countries. No one would contest that renewables are the major driver behind this development: renewables have reduced wholesale market prices by pushing conventional, mainly gas-fired¹ power plants out of the market² and, as a consequence, have also reduced the market share of conventional producers.

But the causes go beyond renewables. The total electricity demand has still not recovered from the 2009 decline caused by the financial crisis: The EU-27 electricity demand in the year

¹ Coal-fired plants are currently less affected due to both low coal and carbon prices.

² It is worth noting that this is not due to grid priority granted to renewables but due to the difference in generation costs. Renewable technologies like wind and solar have close to zero generation costs while fossil fuel-fired power plants clearly face generation costs.

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2011 was 95 TWh lower than in 2008 (-3%). This is a significant amount, as it roughly represents the combined electricity production of wind, solar and hydro power in Germany in 2012. Moreover, some conventional producers have overinvested in generation capacities during the last decade. While the installed capacity of fossil fuel-fired power plants in the EU-27 increased by 18% from 2000 to 2010, the expectation of a growing electricity demand has not fully materialised, as the consumption only increased by 10% in the same period of time.

Reforming renewable energy support schemes

It is understandable that conventional generators are calling for an end to subsidies for renewables altogether in order to stop the build-up of renewable capacity. But how realistic is such a move? The massive deployment of renewables has been a political choice and part of the 2007/08 EU Climate and Energy Package. A reversal of this policy seems very unlikely: as stated in the EU low-carbon roadmap,³ there is no decarbonisation scenario without a full decarbonisation of the power sector and, according to the EU Energy Roadmap,⁴ every decarbonisation scenario will feature a high share of renewables, i.e. at least 64% in 2050.

Moreover, support schemes have succeeded in their objective of increasing the market share of renewables while reducing their investment costs.

Despite this, conventional generators have a point. The negative effects of current support schemes on today's electricity system are greater than expected. This is mainly due to uncontrolled growth, in some cases excessive subsidies, unconditional grid priority, and more generally, a lack of market integration: Electricity should only be produced when there is demand and, more importantly for renewables, production should be stopped when the demand is satisfied⁵ in order to avoid negative market prices. In the short-term, further adjustments are needed to increase the efficiency of support and to reduce its negative effects, as enumerated below:

- (1) Payments for renewables should not be fixed but rather should depend on the market value of electricity (e.g. on wholesale market prices).
- (2) Renewables should have to contribute to grid stability (i.e. they should have a scheduling and forecasting obligation, which is usually referred to as 'balancing responsibility').
- (3) Subsidy caps should be introduced (i.e. payments for renewables should be stopped once the development targets have been achieved).

Defining such caps will also help conventional generators, as this reduces the uncertainty on the need for conventional capacities. A harmonised EU policy is preferable but not mandatory to improve the efficiency. Instead, common European framework guidelines could be developed, where different support schemes are allowed to compete.

Payments for both capacity and electricity?

In the long-term, reforming renewable support schemes will not be enough to maintain supply security. While the demand for electricity generated by conventional power plants is in decline, the demand for secured power – which as of today is mostly provided by conventional units – does not decline in the same way. This is why conventional generators are asking to be paid for the secured power they bring to the market in addition to the

³ COM(2011) 112 final.

⁴ SEC(2011) 1565 Parts 1 and 2.

⁵ Ultimately, this means to stop granting unconditional grid priority to renewables.

energy they produce. However, before putting an additional burden on consumers, it is worth exploring alternatives.

Like in other grid-based services, it is not only about the delivery of a certain amount of electricity. It also about having access to electricity, i.e. about the reliability of the service. Still, the reliability part is mostly disregarded in contracts between consumers and suppliers. A transition to a so-called 'reliability pricing system' could be a viable option in which nearly 100% reliability would be guaranteed for base load but not for peak demand. Consumers could then choose between different 'reliability' levels for their peak demand. This could reduce the need for secured power and therefore reduce overall costs. To help this transition, other tools such as demand response based on smart grids and also involving DSOs should be explored.

Given the unlikelihood that EU decision-makers will renege on their decarbonisation or renewable energy targets, it appears that support for renewables is here to stay. Rather than fight a battle against renewables, would it not be better for conventional generators to explore new business models built around a reliability pricing system?