Questions and Answers on the revision of the EU's internal electricity market design

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1. Why is the Commission proposing to reform the EU's electricity market design?

For over twenty years, the EU electricity market system has secured supplies, guaranteed affordable prices and allowed the EU to embrace the decarbonisation process. According to the Agency for Cooperation of Energy Regulators (ACER), it delivered annual savings of around €34 billion euros. However, throughout 2021 and 2022, EU energy prices rose considerably and became more volatile especially following Russia's invasion of Ukraine, which destabilised the global energy markets. Many consumers, both households and businesses, saw a significant increase in their energy bills, even if the cost of renewables has continuously lowered over time.

This crisis prompted a wide range of emergency measures at both EU and national level to mitigate the impact. These short-term measures helped us tame the immediate fall-out of spiking energy prices. Still, the crisis shed light on several shortcomings in our market design, in particular how exposed consumers and industries are to energy price spikes. The high degree of price volatility, related to the still prominent role of fossil-fuel based generation in setting electricity prices, highlighted the high degree of dependency on imported fossil fuel sources and a lack of flexibility from non-fossil fuel sources in the EU's electricity system.

To address these shortcomings emerged during the crisis and to draw the benefits of the increasing prominence of renewables, European Commission President Ursula von der Leyen announced a reform of the electricity market design in her State of the Union Address last year. European Leaders called on the Commission to present a reform with the dual objective of securing European energy sovereignty and achieving climate neutrality. This reform is part of the broader Green Deal Industrial Plan aimed to enhance the competitiveness of Europe's net-zero industry and accelerate the transition to climate neutrality.

2. What are the components and the objectives of the proposed revision?

The proposal foresees significant revisions to several pieces of EU legislation, notably the Electricity Regulation, the Electricity Directive and the REMIT Regulation. It includes a set of measures aimed to make electricity bills less dependent on fossil fuel prices by creating a buffer between short-term markets and the electricity bills paid by consumers. This will be done by way of incentivising longer term contracts, in particular boosting the market of power purchase agreements (PPAs), stabilizing the prices of electricity and curbing excessive revenues of energy producers by requiring the use of two-way contracts for difference (CfDs) for new investments in low carbon generation where public funding is needed, and improving the forward electricity markets.

The proposal includes measures that aim at accelerating the deployment of renewables and the phase out of gas by facilitating further the integration of renewables in the electricity system and improving conditions for the use of flexibility solutions such as demand response, storage and other weather-independent renewable and low carbon sources. Among others, this will be achieved by accelerating the roll-out of multi-country offshore renewables projects in the different European sea basins and by securing market access for offshore renewable energy production. The proposed measures will also improve the efficiency of short-term markets, so that renewable energy market participants have more trading opportunities. Enhancing the flexibility of the electricity system provided by non-fossil fuel technologies, such as storage and demand response, will ultimately facilitate the integration of cheaper renewables and therefore lead to more stable energy prices for both households and industry.

The proposal further aims to protect consumers from the price volatility of fossil fuels, empower them with greater contract choice and more direct access to renewable energy. It also seeks to incentivise investments in renewables by facilitating access to longer-term contracts for developers (both State-supported Contracts for Difference, and private Power Purchase Agreements).
This will be achieved by requiring Member States to ensure that instruments to reduce the financial risks associated to the buyer defaulting on its long-term payment obligations in the framework of PPAs are accessible to companies that face entry barriers to the PPA market and are not in financial difficulty. These can be guarantee schemes at market prices, as well as public support for non-fossil fuels PPAs. Also, the reform introduces that obligation for Member States to provide public support for new investments in low-carbon, non-fossil fuel electricity generation in the form of two-way contracts for difference. The ultimate objective is to provide secure, stable investment conditions for renewable and low carbon energy developers by bringing down risk and capital costs while avoiding windfall profits in periods of high prices. Overall, these instruments will also be key to foster the stability and predictability of energy costs across the EU, which is crucial to enhance the competitiveness of EU industry.

Finally, the proposed reform will enhance the ability of the Agency for the Cooperation of Energy Regulators (ACER) and national regulators to monitor wholesale energy market integrity and transparency. This will ensure that markets behave competitively and that prices are set in a transparent way.

3. Are you decoupling electricity prices from gas with this revision?

The more we support the deployment of renewable energy sources and non-fossil fuel flexibility solutions such as demand response and storage, the less our electricity systems will depend on fossil fuel generation, and the lower electricity prices will be. Until these solutions are more widespread, we need to structure consumer contracts in a way that reduces their volatility, and decouples citizens' energy bills from the prices in short-term wholesale markets. The reform thus ensures that all citizens have the right to choose long-term fixed-price contracts. This will, in practice, reduce their exposure to any price surge, like the fluctuating bills of the past 18 months.

Overall, the idea of decoupling consumer electricity bills from the price of gas has been one of the most important drivers for the policy proposals in this reform. While the proposed measures do not affect the price formation in the short-term markets, the reform changes the way infra-marginal generators are remunerated. In other words, even though the generators will continue to be active on the short term market, the volatile short term market price will no longer determine their revenues. Revenues will instead be more shaped by long-term contracts, such as power purchase agreements and so-called two-way contracts for difference, depending on whether the installation was privately or publicly funded. Power purchase agreements will contribute to put the electricity costs of companies and industrial players on a more stable and crisis-proof footing. At the same time, the pay-out that is generated by CfDs when market prices become high will have to be used by Member States to directly lower the electricity bills of all electricity customers (including companies and industry). These solutions will also provide consumers with direct access to the benefits of affordable electricity supply, while ensuring financial resources and predictability to facilitate the deployment of renewable and low carbon energy that will decrease the role of gas in setting the power price.

Under the proposed reform, smaller consumers will also be able to make their bills less dependent on gas prices thanks to a better access to low-cost renewables through energy sharing arrangements. Energy sharing provides the opportunity to a wider group of consumers to access self-generated renewable energy, whether shared by an individual prosumer with other consumers, or shared between two or more consumers that co-own, lease or rent an off-site generation facility.

4. How is the revision supporting investment in renewables, decarbonisation and other objectives of the European Green Deal?

As the EU needs to triple its renewables deployment rate to reach its Green Deal and REPowerEU goals, a core objective of the reform is to boost renewable energy investment. The share of electricity produced by renewable energy sources (predominantly solar and wind) is expected to grow from 37% in 2020 to more than 65% by 2030. The proposed revision thus includes a number of elements to improve investment conditions for renewable and low-carbon energy producers.

First, improved markets for long-term contracts will be a central instrument in this respect, as they will increase investment certainty by providing renewable energy suppliers with predictable revenues and lowering their financial risk and capital costs. Enhancing the flexibility of the system will also be crucial to integrate more renewables. For this reason, the proposal requires Member States to assess their needs for power system flexibility from non-fossil fuel sources, such as demand response and storage, and establish objectives to deliver on these needs. Member States can also design or redesign capacity mechanisms in order to promote flexibility solutions. Moreover, the proposal opens
the possibility for Member States to introduce new support schemes specifically for non-fossil flexibility solutions. Based on the experience during the crisis, the reform also extends the so-called “peak-shaving”, which is a set of measures to reduce gas consumption in the power sector by lowering demand during peak hours.

In addition, system operators will be required to increase transparency surrounding the availability of grid connection capacity and trading deadlines will be brought closer to real time to allow for a more efficient trade of renewables and balancing.

The reform will also make it easier for small consumers to access renewables directly through energy sharing. For example, tenants will be able to access surplus solar electricity produced on neighbours’ roofs, by family or friends. Consumers will also be able to invest in wind or solar parks and sell excess rooftop solar electricity to their neighbours, not just to their supplier.

These measures will be complemented and supported by other measures and targets being discussed as part of the ongoing revision of the Renewable Energy Directive or included in the revised Energy Efficiency Directive, which was recently agreed by the co-legislators.

5. How will this reform strengthen consumer protection and empowerment?

A key objective of the reform is to enhance the protection of consumers from volatile prices and to empower them with greater contract choice, as well as more direct access to renewable energy. In this respect, the proposals introduce new rights for consumers to fixed price contracts, while at the same time allowing them to have multiple or combined tailor-made contracts, as well as access to clearer pre-contractual information. This wider choice will allow consumers, if they wish, to lock in secure, long-term prices to be shielded from sudden price shocks. At the same time, they will be able to profit from price variability to use electricity when it is cheaper, such as to charge electric vehicles or use heat pumps.

The proposal also provides more protection for all consumers and extra protection for the most vulnerable. All Member States will have to establish supplier of last resort so that no consumer ends up without electricity in case of supplier failure. Member States will have to ensure that vulnerable consumers in arrears do not get disconnected. Also, the reform allows Member States to extend regulated retail prices to households and SMEs in the event of a crisis.

In addition, the proposal further empowers all consumers, including the energy poor and vulnerable, to access renewable energy directly through participation in energy sharing arrangements. The proposed right to energy sharing will allow consumers to take control of their energy future, with the ability to sell or give away electricity to other consumers, to rent, lease or co-own off-site facilities, and to share energy within their communities. This will allow all interested consumers, even those who do not own a rooftop or cannot afford investing in solar panels, to benefit from renewable energy directly and make their electricity bills independent from the price of gas.

6. How is the proposed revision making the EU's electricity market more resilient to future price shocks and reinforcing the competitiveness of EU industry?

To improve the stability and predictability of the cost of energy, the proposal intends to improve access to more stable longer-term contracts and markets, such as Power Purchase Agreements, Contracts for Difference and forward markets. This will ultimately contribute to make EU industry more competitive by guaranteeing more stable prices for their energy use, and improving the availability of lower-cost renewable energy sources.

The proposal seeks to facilitate their uptake by addressing a number of barriers, including consumers' credit risks. First, Member States will be required to provide instruments to reduce the financial risks for companies struggling to enter the PPA market, including guarantee schemes at market prices. To further encourage the growth of the market for such agreements, renewable and low carbon energy project developers participating in a public support tender will be allowed to reserve a share of the generation for sale through a PPA. In addition, electricity retail companies will now be under the obligation to “hedge” appropriately, namely to ensure that they not only rely on short term markets to purchase electricity, but also via long-term markets, such as PPAs. Such strategies will be required to mitigate their risk of over-exposure to price volatility.

In addition, the reform foresees that investment support for power producers for new investments in low carbon generation should be structured as “two-way” Contracts for Difference, which stabilises the prices by setting, in addition to a revenue guarantee, an upward limitation of the market revenues of the generation asset. This is to ensure that producers do not gain windfall profits from
excessively high market prices, while at the same time always having revenue certainty guaranteed by the government. The proposal further requires that any revenues above the ceiling are channelled to support all electricity consumers proportionately to their consumption to directly lower the prices.

A further means of guarding against excessively volatile prices is to use long-term contracts that lock in future prices, such as so-called “forward contracts”. To boost this market, the proposal will create reference regions to increase the liquidity, thereby improving hedging possibility, and oblige system operators to provide transmission rights, both on a regular basis and with a longer maturity (up to 3 years ahead). Finally, under the proposed changes to the REMIT regulation, national and EU authorities will have enhanced ability to monitor energy market integrity and transparency – thus ensuring that markets behave competitively and prices are set transparently.

7. What is the difference between power purchase agreements, contracts for difference, and forward markets?

Contracts for Difference: This is a contract which is concluded by a public entity to encourage investment. It tops up the market price paid for electricity if the price is below a certain level, but requires the generator to pay back amounts where the market price is above a certain level. The net effect is that the revenues and the price are stable, close to the costs of production and do not exceed such costs. Many CfDs currently only have a revenue guarantee, but there is clearly scope to pursue more two-way CfDs.

A two-way contract for difference is a contract signed between an electricity generator and a public entity, typically the State, which sets a strike price, usually by a competitive tender. The generator sells the electricity in the market but then settles with the public entity the difference between the market price and the strike price. It thus allows the generator to receive a stable revenue for the electricity it produces, while at the same time it provides a revenue limitation for generators when market prices are high. In a two-way CfD, if the market price is below the strike price, the generator receives the difference; if the market price is above the strike price, the generator pays back the difference.

Power Purchase Agreement: This is a commercial contract between an electricity customer and a generator, whereby the generator agrees to sell energy (directly) to the customer at a certain price.

Forward contracts: This is a contract between a customer and a generator to buy/sell a certain amount of electricity at a certain price in the future. It is normally done to hedge price exposure and decrease the dependence on short-term prices. It is similar to a PPA, but generally for a shorter time period.

8. When will these new rules be in place?

The proposal will be adopted through the ordinary legislative procedure, meaning that the different pieces of legislation will have to be discussed and agreed by the European Parliament and the Council. It will be for them to set the pace of the deliberations and following negotiations. The Commission is confident that co-legislators will handle this reform as a priority file, and hopes to see it adopted as soon as possible.

For More Information

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