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## Electricity Market Design

### 1.1 Background

The European Commission's proposal for the electricity market reform, released on March 14, aims to address the surge in electricity prices in 2022 and concerns regarding supply security. However, it also initiates a broader discussion that was already on the horizon—modernizing Europe's electricity market design to facilitate the necessary investments for a seamless transition to a climate-neutral economy.

The primary focus of the proposed reform is to stimulate the use of long-term contracts. The underlying idea is simple: by providing investors with greater certainty about demand, they can access more affordable capital and make higher investments, ultimately leading to lower power prices for consumers. Additionally, consumers with long-term contracts experience less vulnerability to price fluctuations.

Nevertheless, there is a challenge in aligning the interests of producers, who seek to secure prices for their output for several decades, with consumers who often cannot commit to purchasing electricity at a fixed price for more than a few years in advance.

### 1.2 Key Elements of the Electricity Market Design Reform

The reform consists of two proposals. The first updates the regulation of the wholesale energy market and the regulator's role, and the second addresses the EU's market design.

The reform, which realistically will not enter into force earlier than 2025, does not drastically change the controversial elements of the EU market, such as the merit order-based price setting.

Instead, it adds dampening tools to reduce short-term price fluctuations while incorporating new elements that could make the market better suited to deploy the (variable) renewable generation required to meet the EU's climate targets.

The European Commission proposes a central role for long-term contracts such as Power Purchase Agreements and two-way contracts for differences to reach such targets. It also intends to foster demand-side flexibility, storage, and peak-shaving solutions. Also, the scope of energy sharing amongst auto-producers and off-takers shall be broadened to allow for both sharing or selling electricity without creating “energy communities.”

### 1.3 FEDIL Position

- **Contracts for difference** should be voluntary in the sense that generators can choose whether to participate in a competitive call for tender by a Member States that rewards a two-way CfD. Two-way CfDs should, however, become the only way the Member States can subsidize new investments in power generation assets. As CfDs are the only way to channel back revenues from inframarginal to consumers, they can bring higher price stability while promoting new investments into renewables.

New investments for electricity generation that can be covered by CfDs should include investments in new power generating facilities, investments aimed at repowering existing power generating facilities, and investments aimed at extending existing power generating facilities or prolonging their lifetime.

Further, the two-way CfDs should be designed to preserve market price signals and for dispatchable renewable energy, such as hydropower, and biomass, to prevent

them from continuing to produce during negative market prices and take advantage of the subsidy schemes.

Moreover, EU-wide harmonized two-way CfDs design rules and guidelines should be developed to preserve a level playing field within the energy markets across Member States. Member States should ensure that the revenues collected from two-way contracts for difference are passed on, in a harmonized way, mainly to intensive industry sectors with high energy needs and under competitive pressure on the international markets in proportion to their dependency on international markets and their electro-intensity and those industries indispensable for the transformation towards climate neutrality. It is absolutely crucial to allow consumers to access the benefits of the two-way CfDs via redistribution. CfDs alone do not reduce market prices for consumers. Annex I of the Guidelines on State Aid for Climate and environmental protection should guide passing on the revenues.

Furthermore, EU-wide redistribution rules must ensure that revenues collected from two-way contracts for difference will be channeled back, proportionally to their entire import consumption, to net-importing Member States by their exporting partners.

- Decarbonizing the industry entails providing it with stable and competitively priced renewable energy sources. **Power Purchase Agreements (PPAs)** have a crucial role to play in this endeavor. They can contribute to both decreasing the price volatility for consumers and ensuring that consumers purchase energy with profiles suitable to their needs. They can also play a key role in financing new renewable energy investments.

However, industrial companies often encounter challenges when accessing PPAs, as they struggle to compete with less price-sensitive sectors with better credit risk ratings. PPA developers naturally prioritize off-takers who are willing to pay higher prices and possess more substantial credit risk ratings. Consequently, the industrial sector faces evident entry barriers into the PPA market, especially compared to the technology sectors.

Therefore, Member States must eliminate these barriers in subsidized renewable projects, where a share of the generated electricity is made available for sale in PPAs. Preferential treatment should be given to bidders from sectors facing significant exposure to international competition and relying heavily on electricity for value creation and decarbonization.

Furthermore, industrial off-takers are often reticent to contract renewable PPAs at predetermined prices for long-term periods of up to 10 to 15 years because of the price risk. A de-risking tool would help encourage off-takers to conclude PPAs by ensuring that the contracted, fixed PPA price stays competitive compared to market prices during the contract period. Such insurance could come in the form of state-backed partial compensation of the price difference between the PPA price and the market price, should the market price become lower than the PPA price. Such a tool would – subject to state aid regulations – be a valuable complement to the different measures being put in place to encourage producers to develop renewables.

- **An affordable power price for the industry:** The technology of choice for decarbonizing the industry is to replace heat generation, fueled mainly by natural gas, with direct or indirect electrification. Indirect electrification involves using electricity to produce another form of energy, such as hydrogen or synthetic fuels, which is then used in the industry's processes. As a result, the electricity needs of industry will increase significantly, particularly for energy-intensive industries such as steel, cement, and chemicals. Some sources predict that electricity demand will at least double.

Therefore, a competitive and stable electricity price will be essential to enable the

decarbonization of the industry; at the same time, it will increase the industry's cost predictability. A competitive power price in the short term encompasses two elements: it must be competitive in relation to the price of natural gas and in relation to the electricity prices charged by Europe's international trading partners, such as the USA, Korea or Japan.

We suggest two tracks toward an industrial power price:

1. For investments in renewable energy projects that require the deployment of public support, only two-way contracts for difference (CfD) should be envisaged, under which the commercial revenues of certain types of generators shall be kept within limits in line with the total costs of the relevant technology. This way, pricing the power from inframarginal technologies would be based more closely on their true production costs.
2. In the short term, subsidies are needed to compensate for the price difference so that electro-intensive companies can remain competitive in the global market. Even though the design of the subsidies may differ across EU Member states, it is crucial to ensure that they target similar industries and that the final power prices for the benefiting industries are aligned to avoid market distortion within the EU. This approach recognizes that different Member States may apply different approaches to the same end but that the EU-level playing field can be preserved, nevertheless.