– Consultation response –

EU Offshore Renewable Energy Strategy

Brussels, 24 September 2020 | Europex fully supports the development of a comprehensive EU strategy on offshore energy, which is needed to help scale up offshore energy deployment and ultimately contribute to the decarbonisation of the European energy system. While there are many important issues that the strategy must address, our response focuses on the following regulatory and market aspects:

a) Integration of offshore energy into the market / financing models;
b) Building up the necessary grid infrastructure;
c) Regulatory aspects of hybrid or joint offshore projects;
d) Developing offshore wind as part of wider energy system integration efforts.

The strategy must build on the achievements of coupled and integrated European energy markets, should set out a clear pathway for new offshore renewable plants to participate fully in the market and ensure efficient use of the grid.

a) Integration of offshore energy into the market / financing models

Ongoing innovation ensures short-term electricity markets can accommodate increasing volumes of intermittent renewable energy, including from offshore sources. Significant volumes of renewable energy are already being successfully integrated into the electricity market. Power spot markets (day-ahead and especially intraday) are constantly adapting in order to respond to the growing amounts of renewable energy.

- *Trading becomes possible increasingly closer to delivery/real-time:* Although forecasting accuracy has significantly improved for intermittent resources, there are still inevitable kWh differences in actual vs forecast output. Trading closer to delivery on the intraday market, with shorter gate closure times[1], allows forecast errors to be corrected and market participants to efficiently reduce potential imbalance costs.
- *Higher granularity products allow market participants to adjust hourly deviations:* quarter hour and half-hour intervals on the intraday market allow fine-tuning of portfolios, as well as adjustment in relation to positions on the day-ahead market.

[1] In some cases, up to 5 minutes before delivery.

- *Algorithmic or automated trading allows more efficient handling of assets and maximisation of market opportunities:* Orders and trades can be submitted via an Application Programming Interface (API). This allows faster trading and more dynamic position management, especially helpful when trading intermittent renewables.

The expansion of offshore renewable energy must be done in a way that continues to integrate renewables into the market, allowing generation to fully react to price signals and contribute to the competitive, liquid wholesale energy market. Market integration is not an end in itself, but a way to maximise social welfare for the end consumer. If large parts of production are excluded from the price signal, then important information for price formation, investment, sector integration and dispatch are missing. The energy system as a whole relies on strong price signals in transparent and integrated markets.

Poorly designed support schemes will hamper efforts to fully integrate offshore renewable energy into the market. In the context of financing the development of offshore energy, there is current debate about the use of support schemes (including contracts for difference (CfDs[2]) or sliding market premiums) as instruments to help lower capital costs and 'derisk' investments in new offshore wind development. Proponents of CfDs argue that these mechanisms are able to more efficiently allocate risk among investors, consumers and the government/state, by insulating generators from the wholesale price risk. However, if the support scheme fully socialises the risks (i.e. the government assuming the risk), and shields new offshore plants from the market price signal, this would severely detract from efforts to gradually integrate all generation, including renewables, into the energy market. This appears to be a particular risk with CfDs. As increasing amounts of offshore wind are deployed, having significant volumes not participating in the market or in price formation, undermines the meaning of the price signal. With increasing amounts of intermittent energy, precise price signals are needed more than ever to provide an accurate signal for dispatch decisions as well as for investment. Furthermore, CfD payments are typically based on this reference electricity market price (e.g. the day-ahead hourly market price) – if deployed at scale, these contracts risk undermining the very reference on which they depend.

Incentives must remain for generators to increase their revenues and contribute to system services. Under certain support schemes, such as appropriately designed market premiums, there is an incentive for operators of RES installations to generate increased revenue, as this is rewarded in the form of a fixed or sliding payment on top of the market price. RES installations are thus still acting in a market environment, ensuring their revenues better reflect the market value of electric energy. In some CfD designs currently being discussed, however, any increased revenue risks being absorbed by the CfD contract. In addition, any

[2] CfD schemes work by stabilising revenues for generators at a fixed price level (the strike price). They are effectively an agreement between the parties to pay the difference between the strike price and a reference price, typically with the government/state as counterparty.

guaranteed remuneration through CfDs limits the incentive to generate alternative revenue streams by participating in the capacity market, balancing and ancillary services. This means not taking advantage of specific efforts in the Clean Energy Package and in national regulation to open up these markets to renewable energy and allow revenue stacking.

New long-term support schemes will not be in line with efforts for existing RES installations to transition to a market environment. From 2020 onward, an increasing number of RES installations will reach the end of their time under a support scheme, and many will start operating under full market conditions for the first time. Rolling out new support schemes for significant volumes of renewable energy, shielding installations from wholesale market price risk, will undermine efforts of these installations to operate on the basis of the market price signal. CfD schemes usually run for long periods of time (e.g. 20 years) and risk resulting in a long-term lock-in effect for subsidies instead of promoting a gradual phase-out of subsidies. This will lead to a fragmented situation in which some plants have transitioned to a market environment, while significant volumes of new installations remain in a subsidy scheme.

Proven instruments are available on the power market to manage market risks. The power market is designed to cover both the physical feed-in of volumes and the longer-term financial risk. There is an increasingly integrated and highly liquid spot power market in Europe, covering both day-ahead and intraday timeframes. The derivatives market (OTC forward contracts or exchange-traded futures contracts) allows price risks to be hedged on a long-term basis. If the design of a subsidy scheme is such that the state assumes both the price and volume risks, meaning there is no exposure to market price, then volumes are withdrawn from the energy-only markets which is detrimental to market efficiency. The socialisation of the wholesale market price risk also removes any incentive for renewable plant operators to hedge their risks on the derivatives market.

Should support schemes be assessed as necessary they should be granted based on a competitive process and designed to include direct marketing i.e. participation of new offshore plants in the wholesale market, providing incentives to be commercially efficient and operating on the basis of the power price signal. Other best practices, such as competitive auctioning and robust pre-qualification should also be followed.

Regulatory and policy certainty is key to scaling up offshore wind. The clear trend towards auctioning of support for offshore wind is positive, and this should become the default mechanism for new offshore wind installations. Recent experience with offshore wind auctions suggests that subsidy levels in terms of EUR/MWh are falling, technological innovation and learning is driving cost reductions and that there is healthy competition among developers. These developments show that offshore renewable power generation can be commercially competitive in mature markets.

In this context, the need for revenue stabilisation mechanisms is decreasing. What is vital, however, are clear political commitments and a stable long-term regulatory framework to attract investments and scale up offshore wind. This includes the establishment of clear long-term expansion paths for renewable energy, spatial and environmental planning, facilitation of permitting procedures and incentivising the build-out of the transmission grid.

b) Building up the necessary transmission grid infrastructure

Developing the adequate transmission infrastructure – both onshore and offshore is an ongoing priority – in order to effectively manage congestion and accommodate increasing amounts of renewable and decentralised production. With the rapid expansion of offshore energy, the need for adequate and timely construction of transmission infrastructure will become more acute, in order to transport the energy produced offshore to demand centres, sometimes located geographically far from the production. Key aspects to incentivise grid development include:

- Facilitation of planning and approval processes;
- Addressing public acceptance issues;
- Establishing a masterplan for the coherent development of the onshore and offshore grid.

c) Regulatory aspects of hybrid or joint offshore projects

Proposed hybrid or joint projects would combine offshore generation and transmission assets, which conventionally operate as separate entities. In hybrid setups, offshore wind farms may be physically connected to several markets. Such projects clearly still face regulatory barriers, primarily stemming from the international nature of these projects. From an electricity market perspective, any hybrid functionality of cables (whether they are defined as an interconnector between bidding zones or a cable to transport energy to shore) would require clarification in the legal framework as well as a thorough understanding of the impact on current market arrangements.

In this context, EU guidance on how to apply market rules in the offshore renewable energy sector is required. The creation of a short-term regulatory sandbox could be beneficial to allow temporary derogation for pilot projects to test different requirements. However, there must be clearly defined conditions around any sandbox, as well as a thorough understanding of any impact on current market arrangements stemming from commercial flows to multiple markets. Such a sandbox should have the objective of paving the way for changes to the regulatory framework itself, should it prove necessary.

Future hybrid projects must be in line with fundamental principles of the electricity market e.g. balancing responsibility for generators, compliance with unbundling principles as set out

in EU legislation, among other aspects, whilst also ensuring efficient use of the grid. In the case of hybrid projects physically connected to at least one foreign market, responsibility for both the grid connection and the interconnector should be clarified and aligned between project stakeholders. If the project is also planning to incorporate power conversion to hydrogen, unbundling arrangements should also be clarified.

d) Developing offshore wind as part of wider energy system integration efforts

Offshore development should be done in view of supporting the wider objectives of a competitive European energy market, as well as achieving closer integration between sectors. In some cases, there will be a clear rationale for combining offshore projects with conversion assets, such as power-to-hydrogen (for example in terms of producing hydrogen at times of excess renewable energy or ensuring the energy produced can be efficiently transported to where it is needed).

The power market price should play a key role in incentivising the production and trading of hydrogen. To promote green hydrogen, full integration of RES into the electricity market with full market-price exposure would allow for conversion assets to take advantage of power price developments and contribute to the economically viable production of green hydrogen.

About

Europex is a not-for-profit association of European energy exchanges with 29 members. It represents the interests of exchange-based wholesale electricity, gas and environmental markets, focuses on developments of the European regulatory framework for wholesale energy trading and provides a discussion platform at European level.

Contact

Europex – Association of European Energy Exchanges
Address: Rue Archimède 44, 1000 Brussels, Belgium
Phone: +32 2 512 34 10
Website: www.europex.org
Email: secretariat@europex.org
Twitter: @Europex_energy