European Engine Power Plants Association

Public Consultation: Revision of the EU's Electricity Market Design

EUGINE Contribution

On the 23 of January 2023 the European Commission launched a public consultation that seeks feedback on 1) making electricity bills more independent from the short-term cost of fossil fuels, 2) driving renewable investments, 3) alternatives to gas to keep the electricity system in balance, 4) lessons learned from short term market interventions, 5) better consumer empowerment and protection and 6) stronger protection against market manipulation.

As the association representing engine power plant manufacturers, **EUGINE supports the decarbonisation of the European energy system and an integrated European energy market that ensures affordable, security and carbon-free energy**. We stand for a market that supports flexible solutions that help balance energy supply and demand in the short, medium and long term.

While we fully understand and support the need to protect consumers from excessive price peaks, drive renewable investments and deter market manipulation, **we regret that the role of gas-fired generation in the medium and long-term is not adequately taken into account**.

The current energy crisis was created by the low availability of different energy sources and technologies, combining in a perfect storm. As the electricity system decarbonises, gas power plants running on renewable fuels will continue to be an important part of the solution to the energy "trilemma" of ensuring reliable, affordable and decarbonised energy. Any review that would oversee this fact risks endangering the secure functioning of the European electricity market and will lead to sub-optimal economic outcomes both for consumers and for businesses.

Making Electricity Bills Independent of Short-Term Markets

Power Purchase Agreements (PPAs)

PPAs are an efficient way to mitigate the impact of short- term markets on the price of electricity paid by the consumer, but they should not become a mandatory instrument.

PPAs are not limited to certain renewable technologies. Some biogas power plants are already today financed through PPAs. In the future, gas power plants running on other

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renewable fuels could also sell their energy through PPAs in so-called “baseload” PPAs. That way, the customer can be sure that 100% of its electricity is renewable.

However, **for any uptake of renewable gas in the electricity sector, either national or European targets would be essential**. Such targets would require suppliers or utilities to source a specified minimum percentage of their electricity demand from renewable gas – green hydrogen, biomethane, synthetic methane, etc. Unfortunately, the EU rules currently being negotiated do not foresee such a target and instead aim at channelling renewable gas to certain very specific sectors, limiting the use of renewable gases across the whole economy.

Currently, to our knowledge, **extremely few PPAs are being signed for renewable gas power plants** yet. This could be due to the **lack of awareness of the technology and/or the relatively small size of the projects**. The slow development of **standards to convert guarantees of origin from renewable gas to electricity** and the competitive disadvantage of renewable gas power are also not helping develop the market.

Finally, the European Commission should strive to maintain a balance between introducing obligations for suppliers or large consumers to use PPAs to cover their exposure to the short-term markets and the use of hedging tools to achieve the same objective. The current energy crisis has shown that it is in the interest of suppliers and ultimately consumers to protect themselves from the volatility of electricity prices. Considering this, we believe **it is imperative that consumers and suppliers be offered a choice between adopting PPAs or other hedging tools** to hedge their exposure in the market without making any tool as a default choice on their behalf.

Forward markets

Forward hedging is as an efficient way to mitigate exposure to short- term volatility for consumers, but longer-term contracts are needed to drive investment.

As shown by ACER, liquidity in forward markets is clearly insufficient and even decreased recently. Besides Germany and few other Member States, **the liquidity of forward contracts to hedge exposure to market risk is extremely limited**. It is also important to note that the role of forward markets of up to 3 years is, first and foremost, to hedge, not to incentivize investments in capacity. Incentivising investments needs longer contract timeframes.

In addition, we would also like to bring to the notice of the Commission that the availability of the right balancing technology will ultimately enable the system to curb price volatility as these balancing technologies can be activated in a short timespan to balance demand and supply.

Lack of liquidity can prevent participants from finding counterparties willing to enter into forward contracts, and disincentives to hedging and the cost of hedging itself sometimes can be onerous. While disincentives to hedging can potentially include capacity remuneration mechanisms, CfDs and other regulatory interventions such as price caps, adequate design can reduce that risk.

Contracts for Difference (CfDs)

Two-way contracts for difference or similar arrangements could be an efficient way to mitigate the impact of short-term markets on the price of electricity, but they should not become a mandatory instrument.

CfDs will not automatically de-link consumer prices from market prices. The impact of short-term markets on the “final price” of electricity paid by consumers will depend on which markets are taken as a reference for determining said consumer price.

The very functioning and logic of two-way CfDs is based on a reference price, which (in the energy sector) is generally the spot market. Therefore, **CfDs can have an impact on the transparent discovery of electricity prices in the market**. A generator with a CFD contract has the incentive to be a price taker in the market, as any loss on the sale of electricity will be compensated by the counterparty or, in this case, the Member State. This reduces the incentive for the beneficiary of the contract to actively participate in the electricity price discovery through bidding.

CfDs should be exercised as an option by the Member States to drive capacity addition in technologies which are still evolving. **Over-reliance on CfDs can distort the market and limit the development of competitive forces**, which may lead to inefficiencies and higher costs for consumers in the long run. Therefore, CFDs should be used based on specific market requirements and not as a general policy.

There should therefore be a possibility, not an obligation, to fund variable generation by CfDs. The interest in CfDs to support generation is to provide revenue certainty to the generator (i.e. it is linked to the variability/unpredictability of spot market revenues and the variability of the energy generated), not on its “inframarginal” nature.

Gas power plants running a few hours a year, notably to support renewables through balancing or to cover dark doldrums, also require forms of public support to ensure a minimum revenue. **Other types of long-term contract such as State-backed capacity remuneration mechanisms are needed** to promote investments in firm, steerable capacity with larger capital costs and lead times.

Relative merits of PPAs, CfDs and forward hedging

The exposure by consumers to short-term volatility is determined by the type of contract and tariff they subscribe to. The exact type of long-term contract or hedging product used by suppliers to mitigate volatility and provide price certainty to customers should not make a large difference there.

On the question of driving investments, long-term contracts seem to be more effective than forward hedging, especially if we consider only hedging below 3 years. **Long-term contracts are needed to secure investment and should be promoted**. They should however not be made a mandatory feature.

As a final note, a **clear definition of what is meant by "long-run cost"** would have been helpful. The price paid by consumers should help recover capital and operating costs of the generating technologies, but that price also includes network costs, taxes and levies. The share of the energy component in consumers' bills is only around 40% of the price paid. It does therefore not make much sense to talk about "long-run cost". A "system cost" approach, including energy but also network and other costs would be a better reference when talking about prices.

Limiting revenues of inframarginal generators

The revenue limitation of inframarginal generators currently in place should not be maintained beyond the planned expiry date.

The so-called current "inframarginal" revenue cap is technology and fuel specific. **Biogas plants are also included under the measure even though their costs often exceed that of natural gas**. This is neither useful nor helping the development of biogas plants. Compared to other renewables, biogas plants have changing variable fuel costs. **Biogas plants**, when designed for flexible balancing operation, need the short-term price spikes for a viable business case and therefore **should be exempted from revenue caps**.

Alternatives to Gas to Keep the Electricity System in Balance

While we think that the current market design can still be improved, we do not see any alternatives to marginal pricing as regards the functioning of short-term markets in terms of ensuring efficient dispatch and as regards the determination of cross border flows.

The "alternatives to gas" wording is also very unfortunate. While it is positive to increase competition in flexible assets, it is wrong to assume that replacing one technology by others will lead to more energy security and lower prices. Instead, all flexible capacity needs to be incentivised to drive competition across different time-frames.

Incentivising the development of flexibility assets

Effective market-based carbon pricing should be the key tool for incentivizing the deployment of low-carbon technologies and fuels. A strong commitment to climate neutrality and a stable, sufficiently high carbon price are crucial for ensuring the necessary confidence to invest in storage and other alternative flexibility technologies such as clean fuels. In the short-term, revenues from e.g. the ETS could be used to support the development and deployment of state-of-the-art flexibility assets.

Flexibility is not a single defined capability, but flexibility needs need to be met in short, medium and long-term. This requires different technological solutions. Regarding short-term balancing, we would like to make the Commission aware of the fact that balancing includes both downward an upward balancing. Looking at the long-term markets, capacity mechanisms for the provision of capacity with clearly defined capabilities are needed. At the same time, it has to be avoided that capacity contracts are made technology specific. All technologies should compete on equal terms to provides specific flexibilities. Decarbonisation should be steered via the ETS carbon price.

More real-time markets with shorter market time units are vital for integrating further renewable energy sources into the European energy system while ensuring a sufficient amount of complementing flexibility assets. Moving the gate closure time closer to real-time, especially when coupled with other measures, improves the incentives to invest in flexible technologies capable of quicker ramp up and ramp down. More widespread use of these assets could, in turn, ensure more cost-efficient and lower-emission operation of the energy system.

The current European market setup does not consider physical network (transmission grid) constraints. While optimizing day-ahead and intra-day dispatch, this leads to very high redispatch costs and thus inefficiencies. **More granular locational pricing** could help reduce the burden on transmission networks by providing a clearer price signal for investing in capacity in areas with high prices.

Having more locational and technology-based information in the bidding process has multiple benefits. First, it provides **more accurate price signals** as it takes into account the specific cost of delivering power to different locations and the cost of integrating different technologies. Second, it ensures **efficient use of resources** as the generators are selected based on their true cost of production and, finally, it improves **integration of renewable sources** as markets can better facilitate the matching of flexible supply with flexible demand. Having said that, this may also increase the complexity of the market operation.

Further, a **pro-active utilisation of foreseen redispatch costs** (upfront payment to boost investments, especially in flexibility) could help remediate the mismatch between energy production and consumption in specific areas.

To enhance the flexibility assets needed by the system, it must be recognised that the **operating hours of these assets will be limited**. Making investments in such assets attractive therefore requires either high wholesale prices or an additional income stream that compensates the value of being available to provide flexibility when needed.

Finally, we recommend that the current system of monitoring resource adequacy includes more **detailed reporting on available generation capacity**. For example, the European Resource Adequacy Assessment and other such reports should have a more detailed approach to flexibility assets.

There should also be **targets for capabilities (e.g. quick ramp-up and ramp-down times)** needed for balancing the energy system on a national, regional and/or European level. These targets could, for example, be included in National Energy and Climate Plans.

Capacity markets to incentivise long-term flexibility

Remunerating operators of assets for keeping flexible capacities (and the linked capabilities) available through capacity remuneration mechanisms (CRMs) should be the way forward.

Flexibility assets, due to their nature, are prone to volume-based risks – the inherently limited and volatile number of operating hours each year makes long-term investments risky. Furthermore, pre-crisis day-ahead electricity prices were regularly below 100–150 €/MWh, i.e. well below the cost of many flexibility options. Hence, while the short-term markets are efficient at ensuring efficient dispatch on a day-to-day basis, they appear to give limited signals for long-term investments needed for balancing the energy system. Measures to decrease or shift the risk inherent to these assets should therefore be considered.

There are a set of “quick fixes” to the current rules, which could be a quick solution to incentivise new investments in flexile assets:

- First, amending the current rules to make capacity remuneration mechanisms that remunerate capacity within the market the default option.
- Second, a “capability adder” could be inserted into the CRMs, defining specific network requirements and services that need to be provided too. Thus, the use of CRMs could be made more widespread, especially for ensuring a sufficient amount of flexible assets. Compensating operators not only for energy but also for the “capabilities” needed for balancing the energy system such as on-demand capacity and ramp-up.
- Third, shorten the very long approval timeframes for national capacity mechanisms to increase investment certainty.
- Forth, longer term contracts (>10 years) are needed to incentivise investments with high CAPEX costs and longer lead times, which often are the main solution to cover long-term (seasonal, yearly) supply gaps. Innovative, decarbonised solutions to provide

long-term flexibility (such as hydrogen power plants) exist and should be promoted. Additionally, CRMs could be used to decarbonise existing assets still running with natural gas.

New products to foster demand reduction and shift energy at peak times

It is not **appropriate to enable a product to foster demand reduction and shift energy at peak times as an ancillary service**. Ancillary services refer to very specific technical capabilities such as “steady state voltage control”, “fast reactive current injections”, “inertia”, “black start capability”, etc.

“Demand reduction” or demand-side response can provide ancillary services but is not an ancillary service *per se*. In addition, ways to remunerate demand reduction as a service already exist, e.g., disconnection agreements.

Coordinating demand response in periods of crisis

The technical response to emergency situations is already regulated in Regulation (EU) 2017/2196 (network code on electricity emergency and restoration). The aim of price signals on energy markets should indeed be to avoid reaching emergency situations addressed through the procedures described in Regulation (EU) 2017/2196.

We understand that “crisis” is meant to refer to periods of low supply and very high prices. In such cases, **the price signal should suffice to reduce demand**. Targeted support should be provided to consumers, especially those in need. If then price caps or other emergency measures limiting price signals are introduced, mandatory demand response becomes necessary. We are of the view that going down such an avenue (that is, extending the current emergency measures) is not advisable neither from an investment nor from a political perspective.

For further information, please see:

EUGINE-EUTurbines position paper: “For a Market Design that Supports Security of Supply and Adequacy”, January 2023

EUGINE Statement on Emergency Interventions to Address High Energy Prices, September 2022

EUGINE is the voice of Europe's engine power plant industry. Our members are the leading European manufacturers of engine power plants and their key components.

Engine power plants are a flexible, efficient, reliable and sustainable technology, helping to ensure security of electricity supply and providing (renewable) electricity and heat.

For more information please see www.eugine.eu

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