

TransnetBW position paper on the European Commission's proposal to improve the Union's electricity market design

On 14 March 2023, the European Commission (EC) proposed a regulation (document 2023/0077 (COD)) amending regulations (EU) 2019/943 and (EU) 2019/942 as well as directives (EU) 2018/2001 and (EU) 2019/944 to improve the Union's electricity market design.

TransnetBW welcomes the opportunity to provide below its views on several of the proposals and thereby to respond to the EC's consultation.

Executive summary

- / **TransnetBW strongly supports the European Commission's decision to preserve the well-functioning, liquid and integrated European spot markets** as transmission system operators (TSOs) have optimized their operational processes in the past 25 years based on market mechanisms.
- / Regional virtual hubs **should not be imposed as a target model for the European internal electricity market**. We strongly believe that an in-depth impact assessment should be performed beforehand to adequately assess the risks and benefits for relevant market parties. The EC's proposals are based on a number of misconceptions and would increase uncertainties for TSOs and market parties. Moreover, the role of the TSOs needs to be analysed and justified.
- / Introducing a peak-shaving product could support renewable energy integration and grid stability. However, **the long-term use of a peak-shaving product for smoothing residual load raises concerns as the product could significantly undermine the goal of integrating demand side flexibility into the markets and may lead to large inefficiencies**, depending on the specific product's design.
- / Contracts for Difference (CfDs) should only constitute one among several pillars to address investment risks in renewables projects. CfDs should avoid distortions in short-term and balancing markets or increase system costs or reduce liquidity in forward markets. It is essential that **price signals of day-ahead, intraday and balancing markets drive the use of the most efficient resources in every location and at every moment in time**
- / Capacity remuneration mechanisms (CRMs) would benefit from a degree of simplification. In particular, we need incentives for investments in new reliable capacity with high system benefit. TransnetBW **developed a [concept to incentivise investments in new reliable capacity](#)**. **The concept can be implemented in less than a year (i.e., much faster than traditional CRMs); it is technology neutral and significantly less market-distortive without being a CRM.**
- / **TSOs' congestion income should not be used to finance support for offshore generation**: we see a contradiction with specifically tariff-setting principles, rules against cross-subsidisation, rules against non-discrimination and unequal access (priority dispatch), and independence of NRAs.
- / Moving cross-zonal gate closure times to 30 minutes will have benefits for countries like Germany, allowing a better integration of vRES into the market. It could, however, have detrimental effects in other Member States, which is why **we would recommend a differentiated approach**.
- / **TransnetBW welcomes the EC's proposals to update tariff methodologies**: Both **CAPEX and OPEX should be appropriately recognised, including anticipatory investments**, required to cover grid operator security requirements and long-term network needs (e.g., offshore grid projects), and meet climate goals. These expenditures should not only be focused on traditional grid investments, but also consider investments in smart & digital innovative solutions, including cybersecurity.

- / TransnetBW welcomes the EC's proposals on system flexibility and the option to introduce flexibility support schemes. However, capacity mechanisms and payments for the available capacity may not be the only way to unlock demand-side flexibility and storage. Flexibility support schemes shall thus not exclusively focus on capacity mechanisms. Especially for demand response, other forms of financial incentives may be necessary.

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The fundamental market mechanisms of short-term markets must be preserved as a prerequisite for the safe operation of the European power systems

TransnetBW strongly supports the European Commission's decision to preserve the well-functioning, liquid and integrated European spot markets (day-ahead, intraday and balancing) which ensure an efficient use of generation and flexibility resources, as well as incentives for energy savings.

Transmission system operators (TSOs) have optimized their operational processes in the past 25 years based on market mechanisms. Any upset or fundamental change in the well-functioning spot markets could interfere with TSOs' operational processes. Any changes in this area should therefore require careful consideration through impact assessments which have not taken place. We therefore strongly welcome the EC's choice to abstain from such changes and encourage co-legislators to preserve the fundamental principles of the spot markets.

The EC's proposed regional virtual hubs (Art 9) are based on misconceptions and would increase uncertainties for market parties and TSOs. The role of TSOs in forward markets needs to be assessed and justified.

Current shortcomings of forward markets, such as limited liquidity, need to be addressed and mitigated. However, the proposal of regional virtual hubs is a disruptive approach with long implementation times (5 – 10 years, according to ACER) based on untested solutions and with significant uncertainties on cost and risks for both TSOs and market participants whose interest in such Virtual Hub arrangements is far from evident.

From the perspective of a TSO, the adoption of financial transmission rights (FTR) obligations, the extension of the maturity and potentially full firmness bares very significant financial risks for TSOs and therewith the end-consumers due to counter-party-risks or for instance due to a malfunction of an interconnector.

Optimising production and consumption across bidding zones by optimising grid capacity only makes sense in a timeframe close to the physical delivery of electricity when forecasts can be made more accurately. Allocating cross-border capacity sooner than necessary only leads to difficulties in forecasting transmission capacity, and subsequent financial risk for TSOs, the costs of which will be borne by the end consumer.

The financial risk should be thoroughly assessed: adequate cash-flow measures and regulatory cost-recovery comfort would be required to mitigate such risk.

What is more, according to EEX, there are sufficient hedging possibilities for cross-border hedging in the Core region. The German forward market is the most important trading hub in Europe, effectively pooling liquidity from neighbouring bidding zones up to and even including Nordic countries. Spread products, issued by exchanges allow companies to mitigate the remaining price risk that German spot prices do not perfectly match the spot prices of the bidding zone they are active in. Such spread products have grown naturally by the market and have seen a constant growth in volumes because of the efficiency this trading method brings. They do not only exist for the German trading hub, but also for other hubs such as Hungary and France. Therefore, TransnetBW challenges the necessity of LTTRs issued by the TSOs as hedging opportunities. A thorough analysis of the additional need for TSO products by the market and the role of the TSO should be mandatory. Only if the need for such instruments is proven, should TSOs be obliged to issue LTTRs.

Finally, the often-cited Nordic model does not serve as a reference model for the rest of Europe. The price correlation between the bidding zone prices and the Nordic system area price has significantly deteriorated. This makes the Nordic system area price less useful as a proxy hedge for Nordic market participants and **has resulted in continuously decreasing liquidity** in the forward markets.

As a consequence, virtual hubs should not be imposed as a target model for the whole of Europe certainly not without an in-depth impact assessment.

Contracts for Difference (Art 19b) should not create distortions in short-term and balancing markets or increase system costs

TransnetBW supports the EU's ambitious renewable energy objectives. We accept that such investments may require a stronger investment framework. Contracts for Difference should only constitute one among several pillars in such an investment framework next to other instruments already available today, notably Power Purchasing Agreements and forward markets. Long-term contracts should complement short-term markets and give adequate investments incentives and hedging opportunities for renewable and low-carbon generation investors. The use of Power Purchase Agreements (PPA) should be further encouraged. However,

it must be ensured that these contracts between developers and commercial counterparties do not only benefit large consumers or suppliers.

The EC has not restricted the design of CfDs. However, **CfDs must be very carefully designed to avoid distortions in short-term and balancing markets or increases in system costs or reduce liquidity in forward markets.** It's essential that **price signals of day-ahead, intraday and balancing markets drive the use of the most efficient resources in every location and at every moment in time** (e.g. disincentivising production at times of negative prices). This can be achieved by decoupling the remuneration of the CfD from the output of the generator such as with Capability-based CfDs and financial CFDs.

CfDs should remain voluntary, and their price should be set in a competitive manner. We support the proposed provisions allowing market parties to engage in other long-term hedging instruments such as PPAs or forward markets.

The framework for Capacity Remuneration Mechanisms (CRMs) would benefit from a degree of simplification and incentives in reliable capacities with a high system benefit

CRMs, as structural element of national markets, can be essential to ensure adequacy by supporting investments in generation resources providing the necessary flexibility as well as ancillary services. Such resources are required to keep the power system secure and balanced at all times and at all locations, complementing weather dependant generation sources.

The investment framework must be improved for the flexibility resources that will be essential for system security. Weather-dependant generation requires matching flexible resources: when wind and sun are insufficient to cover demand - especially over longer periods of time - alternative resources must be available to keep the system secure.

National granularity and sensitivity analyses are needed to address specific locational scarcities for adequacy, transmission capacity, or ancillary services provision. Moreover, **locational aspects should also be considered in the design of CRMs.** This can ensure that the required investments take place in the right locations (e. g. to provide sufficient location-dependent ancillary services).

CRM design should be consistent with the acceleration to decarbonisation of the power system and avoid lock-in effects of fossil fuel technologies beyond their necessary contribution to adequacy. CRMs must value the contribution of different technologies, including demand response and storage, to system adequacy.

Since timing is key to solve adequacy issues, CRM approval should be framed into a reasonable and reduced timeframe to avoid undue delays between the decision of the MS and its actual implementation.

With the challenges of regions such as southern Germany in mind, where a lack of reliable capacities amounting to around 17-21GW until 2030 are expected¹, TransnetBW has developed a concept to incentivise investments in new reliable capacity. The concept can be implemented in less than a year (i.e. much faster than traditional CRMs); it is technology neutral and significantly less market-distortive. **This concept is not a CRM. Its implementation would however benefit from the afore-mentioned simplified framework for CRMs:**

Regulation (EU) 2019/943 of the european parliament and of the council of 5 June 2019 on the internal market for electricity	Amendment proposal
<p>Article 14 Nr. 3</p> <p>[...] Current bidding zones shall be assessed on the basis of their ability to create a reliable market environment, including for flexible generation and load capacity, which is crucial to avoiding grid bottlenecks, balancing electricity demand and supply, securing the long-term security of investments in network infrastructure.</p>	<p>Article 14 Nr. 3</p> <p>[...] Current bidding zones shall be assessed on the basis of their ability to create a reliable market environment, including for flexible generation and load capacity, which is crucial to avoiding grid bottlenecks, balancing electricity demand and supply, securing the long-term security of investments in network infrastructure.</p> <p>Within this reliable market environment, Member States may take measures that have a guiding effect in ensuring that investment in flexible</p>

¹ [Microsoft Word - 02 Beschlussvorschlag.docx \(bmwk.de\)](#)

generation and load capacity occurs in particular where it contributes to the reduction of network congestion in addition to its contribution to resource adequacy.

TSOs' congestion income should not be used to finance support for offshore generation

The EC's proposed compensation of offshore generation plants (proposed Art 1[8][b] adding point (c) to Art 19 Regulation 2019/943) constitutes an **implicit and non-transparent subsidy to one specific generation technology at the expense of consumers and contradicts internal markets principles**. Specifically, we see a contradiction with specifically tariff-setting principles (Art. 18(1) of Regulation 2019/943), rules against cross-subsidisation (Art. 59 of Directive 2019 / 944), rules against non-discrimination and unequal access (priority dispatch), and independence of NRAs (Art. 57 of Directive 2019/944).

Congestion income should be used to increase transmission capacity or to reduce tariffs. Introducing a new primary objective would imply that congestion income should first be used to compensate a specific type of generator, and only secondly reducing tariffs for consumers. Instead, it is more efficient to address the root causes of the risk faced by generators in hybrid projects, namely grid congestions. If congestion income is diverted from investments in networks towards generation assets, it would aggravate the problem in the long-term.

Compensation via congestion income would also be ineffective. As congestion income is an unstable form of revenue by nature, and since it is also used for different priority objectives as set by NRAs (to reduce consumers' tariffs, to invest in new transmission capacity or to solve existing congestions), the amount available for offshore generators would be highly variable and thus unable to provide firm revenues.

Better solutions exist to give revenue guarantees to offshore producers, such as two-sided capability-based Contracts for Difference (CfDs) or financial CfDs. Those types of CfDs decouple remuneration from actual injection, thereby fully covering the "volume risk" of generators.

Adjustments to cross-zonal intraday gate closure times (Art 8) should consider national specificities

The EC's proposed shortening of the Intraday cross-zonal gate closure to 30' ahead of real time by 2028 is possible and beneficial in Member States like Germany:

In Member States with already fairly high shares of weather dependent variable renewable energy sources (vRES), a move to 30 minutes would allow for better integration of vRES into the market and thus reduce balancing requirements.

This being said, moving to a 30-minute intraday cross-zonal gate closure time could have serious implications in Member States whose TSOs are applying a proactive balancing approach or who use replacement reserves which have a full activation time of 30 minutes.

We would therefore recommend applying a differentiated approach to the introduction of cross-zonal intraday gate closure times through network codes and guidelines. This would allow those Member States that would benefit from shorter gate closer times moving changing to 30 minutes earlier and give other Member States either more time or propose other solutions.

Member States and NRAs need to update tariff methodologies to enable network operators implement the energy transition

We welcome the EC's proposal for tariff methodologies to reflect both capital and operational expenditure (Art 1(7), amending Art 18 of Regulation 2019/943). While TSOs will in the foreseeable future still need to make significant, capital-heavy investments in new infrastructure projects, operational expenses are likewise increasing.

Both CAPEX and OPEX should be appropriately recognised, including anticipatory investments, required to cover grid operator security requirements and long-term network needs (e.g. offshore grid projects), and meet climate goals. These expenditures should not only be focused on traditional grid investments, but also consider investments in smart & digital innovative solutions, including cybersecurity.

Regulatory frameworks should recognise the value of investments in flexible grid assets by TSOs both onshore and offshore, (High Voltage Direct Current, Phase Shifting Transformers, etc.), which will contribute to more RES integration.

Tariff methodologies should provide appropriate incentives to TSOs over both the short and long run, allowing for a sustainable coverage of the necessary costs with an adequate return on the capital invested, considering appropriate associated risks depending on the type of assets, while ensuring controlled tariff increases for consumers

Regulatory sandboxes are a very useful tool to encourage constructive exchanges between system operators and with NRAs. They can also incentivise first movers and facilitate sharing of regulatory knowledge and good practices across countries. However, there are still several challenges that need to be overcome, such as the important number of resources required in some cases, or the need to get an agreement on exemptions from EU rules with ACER or the EC.

Ideas to add system flexibility (Art 19c-e) are welcome, but implementation deadlines are not realistic

TransnetBW welcomes the EC's proposals on system flexibility and the option to introduce flexibility support schemes. However, capacity mechanisms and payments for the available capacity may not be the only way to unlock demand-side flexibility and storage. Flexibility support schemes shall thus not exclusively focus on capacity mechanisms. Especially for demand response, other forms of financial incentives may be necessary.

TransnetBW supports the access of decentralized demand-side flexibility in particular to existing markets and existing system services such as congestion management, as well as the reduction of market entry barriers, e.g. through cost sharing for one-off costs for the development of the flexibilities of electric vehicles and heat pumps (e.g. costs for their integration into information and communication systems).

However, the proposed deadline of 1 January 2025 for the report and of March 2024 to develop a European methodology (Art 19c) is unrealistic considering the novelty of this work and its technical complexities.

The proposed peak-shaving product (Art 7a) could significantly undermine the goal of integrating demand side flexibility into the markets

Introducing a peak-shaving product could support renewable energy integration and grid stability. However, using it long-term for smoothing residual load raises concerns, as the product could significantly undermine the goal of integrating demand side flexibility into the markets and may lead to large inefficiencies, depending on the specific product's design.

A market-based deployment of flexible and price-sensitive loads, relying on price signals from energy and ancillary service markets, is preferable in terms of cost efficiency compared to alternative control methods based on market-exogenous factors. This premise holds true, provided that unbiased price formation in the energy markets is allowed and reliable, sending robust price signals to market participants.

To achieve the goal of integrating demand side flexibility into the markets, appropriate tools are needed to provide market participants with sufficient financial incentives to offer their flexibility to the market. Since the financial added value from a temporal load shift based on market prices is not yet sufficiently high, targeted support for making demand side flexibility available is desirable."

About TransnetBW

TransnetBW is a certified electricity transmission system operator (TSO), operating the transmission grid in the German state of Baden-Württemberg. Through this grid, we ensure that electricity is supplied to the region, Germany and throughout Europe with interconnections to control areas within Germany as well as to Austria, France and Switzerland. TransnetBW is a member TSO of, among others, the European Network of Transmission System Operators ([ENTSO-E](#)) and the [Renewables Grid Initiative](#) (RGI).

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