

TransnetBW response to the European Commission's consultation on the review of the Renewable Energy Directive

On 16 July, the European Commission opened a public consultation on its review of the Renewable Energy Directive (RED). TransnetBW welcomes the opportunity to provide below its views on several of the proposals.

Executive summary

- / With regards to new Art 20a(1), the provision of estimated renewable energy sources (RES) generation data is already widespread among European TSOs. However, such data can derive from estimates or calculations. This would particularly be true for the provision of data on the greenhouse gas content. In consequence, it is important, the legal framework **frees TSOs of liability in case of estimation or calculation errors for such data.**
- / We fully support the integration of small and mobile systems into ancillary services markets as stipulated by new **Art 20a(4). Where, for technical reasons, a minimum size threshold is needed for the direct participation of such units in these markets, the market participation through aggregation should remain an option.**
- / **Hybrid offshore assets**, as referred to by Recital 8 are transmission assets that combine both functions of connecting different bidding zones or countries, and connecting the wind parks to shore. **Hybrid offshore assets are not a combination of transmission and generation assets.** This would risk conflicts with unbundling rules, which is why Recital 8 should be corrected.
- / **We fully support the European Commission's proposal for Member States to define 2050 offshore RES targets per sea basin with intermediate steps for 2030, 2040 as suggested in new Art 9(7).** As Offshore RES will have a significant impact on the European power systems, these targets should be defined in coordination with TSOs.
- / Green hydrogen, and other renewable fuels of non-biological origin (RFNBOs) as referred to in Recital 22, is key for reaching decarbonisation targets. However, **at this point in time, requirements such as "additionality" and "temporality" would negatively impact the urgently needed increase in hydrogen production and the deployment of RES.**
- / **We recommend for Article 19(7) to include a requirement for 'timestamping' of Guarantees of Origin (GOs).** This would not only enable more transparency in the trade of renewable certificates but it would also facilitate the push towards an enhanced GO-system based on hourly or quarter-hourly matching. Likewise, a **Guarantee of Origin should have geographic attributes and the standard unit of production should be reconsidered.**

For any questions related to this document please contact Transnet BW's Brussels Representative, Michael Mieszcanski at m.mieszcanski@transnetbw.de.

New Article 20a(1) on data provision on renewable energy generation and greenhouse gas content (GHG) in real-time

According to Art 20a(1),

'Member States shall require transmission system operators and distribution system operators in their territory to make available information on the share of renewable electricity and the greenhouse gas emissions content of the electricity supplied in each bidding zone, as accurately as possible and as close to real time as possible but in time intervals of no more than one hour, with forecasting where available.'

The provision of estimated RES generation data is already widespread among European TSOs. For instance, the [ENTSO-E Transparency Platform](#)¹ provides actual or estimated generation from renewable energy sources in the electricity mix for each bidding zone on an hourly basis.

This said, the provision of data in close-to-real time on actual amounts of renewable electricity generated requires (a) a full rollout of smart meters, (b) legal certainty for access and use of data and (c) the local organisation for the provision of data, especially for small-scale units.

Therefore it is important, specifically concerning the use of estimated or calculated data on the RES-share and GHG content, **in case of forecasting errors which could lead to market revenue losses for market parties, that TSOs shall not be liable.**

New Article 20a(4) on the inclusion of small units in ancillary services markets

We fully support that national regulatory frameworks should enable small and/or renewable energy units in participating in the ancillary services markets for grid services. Besides domestic batteries and electric vehicles also heat pumps, boilers and solar PV systems should be considered. With the rapid increase of renewables and a replacement of conventional generation units, it is increasingly important that such units are enabled to provide grid services on the ancillary services markets, thus helping to ensure system security and supply (esp. voltage and frequency control) and also mitigating possible distortions of market functioning and competition.

However, art. 1(10), proposing a new Article 20a(4) should be amended as follows:

*"Member States shall ensure that the national regulatory framework does not discriminate against participation in the electricity markets, including congestion management and the provision of flexibility and balancing services, of small or mobile systems such as domestic batteries and electric vehicles, ~~both~~ **either** directly ~~and~~ **or** through aggregation".*

In fact, it is important that TSOs are able to assess the need for a minimum size for the direct participation of those units to system services markets, depending on the service to be procured and the system management needs. **Where a minimum threshold is needed for technical reasons, smaller units (i.e. below that threshold) should participate in these markets through aggregation.**

Recital 8 - Hybrid Assets are transmission assets combining two functions and are thus not a combination of generation and transmission assets

We welcome the objective to further deploy offshore hybrid projects. These dual-purpose solutions that combine the functions of offshore wind connections and interconnections and are built in a modular future-proof way which will optimize the use of the space, would minimize overall infrastructure costs, and maximize socioeconomic welfare. They can also provide environmental monitoring and opportunities for marine wildlife development.

However, Recital 8 considers offshore hybrid projects as *"combining offshore renewable energy generation with transmission lines interconnecting several Member States"*. TSOs understand offshore hybrid projects as the set of transmission assets (interconnector cables from hub-to-shore and from hub-to-hub, and potentially the offshore energy hub itself) which combine both functions of connecting different bidding zones or countries, and connecting the wind parks to shore. **Generation assets should remain out of scope, as it would otherwise imply that transmission and generation are combined. This could well be in direct contradiction with EU unbundling rules, which are key to safeguard neutrality, non-**

¹ <https://transparency.entsoe.eu/generation/r2/actualGenerationPerProductionType/show>

discrimination, fair competition and security of supply. **We strongly recommend applying the same rules for on- and offshore projects.**

New Article 9(7a) on the definition of intermediate steps of offshore RES targets per sea basin

We strongly welcome the European Commission's proposal that "*Member States bordering a sea basin shall cooperate to jointly define the amount of offshore renewable energy they plan to produce in that sea basin by 2050, with intermediate steps in 2030 and 2040.*" This proposal is consistent with the TEN-E Regulation and provides for much needed long-term visibility on regional offshore RES plans.

Since the EU's target is to achieve 300GW of offshore wind by 2050 and 40GW of ocean energy by 2050, these targets will have a significant impact on the power systems across the EU, far beyond the shores. It is important for all TSOs - not only those with access to the shores - to have certainty about the growth of offshore RES to make required grid developments and ensure the offshore RES can be transported to where it is consumed.

As a consequence, Member States' offshore RES targets should be defined in close coordination with TSOs and ENTSO-E's pan-European grid planning process (Ten Year Network Development Plans).

Recital 22 on renewable Fuels of non-biological origin

We welcome recital 22, in particular the clarification that "*National measures to support should not result in net pollution increases due to an increased demand for electricity generation that is satisfied by the most polluting fossil fuels.*"

In order to achieve the EU's climate goals and reaching carbon neutrality by 2050 a well-integrated energy system is required. Especially green hydrogen is key for reaching decarbonization targets. For hydrogen to contribute to climate neutrality its production needs to expand to a much larger scale, become fully decarbonised and find a cost-effective place in the electricity system. At this point in time, requirements such as "additionality" and "temporality" would negatively impact the urgently needed increase in deployment of RES.

Both additionality and temporality work as a market entry barrier for electricity demand especially in the industry sector. Industry needs short term decarbonisation options for its processual GHG-emissions and additional requirements would severely hinder the hydrogen market to develop. Instead of additional barriers, in our view, there should be a clear signal to an increase in RES capacity across the EU. This aspect must be carefully taken into account when deciding on the rules for determining the renewable origin of hydrogen, also considering that the large-scale deployment of RES is still facing many barriers.

Amendment to Article 19(2) and (8) on guarantees of origin (GOs) for renewable energy sources.

We welcome the amendment removing Member States' ability not to issue guarantees of origin (GO) to a producer that receives financial support as this will support the growth of the GO market in the coming years. At the same time, this new market revenue stream may further support the phase-out of operating aid for already mature technologies. Nonetheless, particular care should be given at Member State level to take into account the market value of GOs and avoid the risk of double compensation.

In our view, there is no need to track actual electrons. The book-and-claim system should be maintained for certification of renewable electricity. However, the certification of renewable energy should take into account the real energy flows.

Therefore, it is important that GOs have a finer time and space granularity: the actual consumption of electricity needs to be "matched" on a time-granular basis with renewable electricity production (because electricity cannot be easily stored in large quantities), thus taking into account real grid constraints to guarantee the link between the produced renewable energy and the consumed energy. While recent initiatives for "granular GOs" have focused on matching consumption with renewable generation on an hourly basis, **the target should be an even finer resolution of 15 minutes**, which is aligned with the most common settlement period in the wholesale market. **This will be a key step towards enhancing the way in which we can better align the remuneration of renewables with system needs.**

Furthermore, relying only on the physical location in the definition of the GO is not sufficient to take into account the physics of the grid. To reflect potential grid congestions, a mechanism may be required to potentially limit the volume of traded GOs between areas. This is particularly crucial when considering the expected uptake of large-scale storage. The situation may arise where, with only "time granular GOs",

storage operators could be receiving a significant premium through GOs by taking advantage of the high-price volatility across time. However, this premium, without distinction to location, would in effect incentivise a large-scale deployment of storage with no consideration for the existing state of grid development nor for the rising need to resolve grid constraints. The result may be akin to the effect of feed-in tariffs on small-scale RES, and may lead to market bids from storage operators being disconnected from the actual demand and system needs. At best, this would mean that storage operators reacting to GO prices would not efficiently help resolve grid congestions. At worst, it would mean they would even further exacerbate them.

Finally, ensuring a better representation of actual physical flows in the GO scheme may also require finer granularity in terms of minimum volumes per unit traded. Currently, the 1MWh lower bound does not allow for the participation of smaller generation units and small loads, and seems inadequate when considering the move towards hourly or quarter-hourly matching for which the volumes traded will inevitably be smaller.

In a nutshell, one of the prerequisites to achieve the target model is having a mature and sufficiently liquid GO market. Until we have achieved this, a step-wise approach will have to be taken - much in line with the evolution of the wholesale electricity market. Therefore, **we recommend for Article 19(7) to include a requirement for "timestamping of GOs"** which would not only enable more transparency in the trade of renewable certificates but would also facilitate the push towards an enhanced GO system based on hourly or quarter-hourly matching. Likewise, a **Guarantee of Origin should have some form of geographic attributes correlating with where the energy was produced**. Finally, we recommend to reconsider the standard unit of production for GOs which would enable the push towards a more granular system based on temporal matching. This will also be necessary for the GO system to gradually evolve towards a more efficient market design, reflecting the physical reality of the grid.

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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