The need for compulsory issuance by TSOs of forward transmission rights

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Since the start of the liberalisation of European energy markets, the European Federation of Energy Traders (EFET) has supported the issuance by TSOs of forward transmission rights (physical transmission rights or financial transmission rights with equivalent effect) at all bidding zone borders in Europe in all directions, to the full amount that the underlying infrastructure can offer for each timeframe. EFET believes that a common design model for the wholesale power market must be introduced on a European basis, which would:

• ensure full market opening by offering the full infrastructure hedging capacity to the market,
• ease cross-border competition and facilitate market entry,
• rationalise price signals and participate to the efficient coupling of forward markets,
• provide additional transparency, and
• increase liquidity on the market.

1. Forward transmission rights

A market participant wanting to supply customers in a new market can choose to ship the electricity across the border or buy and/or generate in the local market. Market participants may enter markets by acquisition or by developing a generating portfolio in the local market in the long run, but at least initially, may instead wish or need to trade electricity across borders.

If a market participant is to supply customers across borders, it is vital to ensure they can hedge their (primarily) long-term positions. A market participant will generally not be able to bear the price risk of congestion on the grid while trying to offer competitive long-term prices to customers within another member state, especially if the regional wholesale market is not yet well developed. In the absence of appropriate hedging opportunities for these risks, new entry into a market will be discouraged, especially for market participants without (temporarily or not) sufficient physical hedges such as power plants.
Transmission System Operators (TSOs)\(^1\), as managers of cross-border capacity, have the ability to manage the associated risks and are the only players in the electricity sector that can do so. Hence TSOs are also the only asset owners and/or operators with an in-built capability to offer primary, physical hedges against future congestion rents through the prior creation of firm cross-border transmission capacity rights. TSOs in this sense are natural sellers of firm transmission capacity rights.

Indeed, when selling capacity rights at auctions, income is in general proportional to the degree of congestion (although, of course, over longer timeframes, the market will not be able to predict what congestion will be, meaning that this proportionality may become decoupled over very long time periods). As income increases if there are more constraints, it is proportional to the potential costs if there is a need to curtail. TSOs are long in transmission. In essence, TSOs only bear the residual risk of congestion being worse (or less severe) than what the market had expected and priced in when bidding for the capacity in the first place. All other market players are short in transmission.

The fundamental role of TSOs in calculating, publishing and allocating all available capacities in all directions and on all borders on a forward basis is therefore an essential part of their “public service” activities, as regulated entities. The issuance of forward transmission rights at all borders in all directions allows to:

- guarantee that a certain minimum volume of products will always be available and offered on a transparent and non-discriminatory manner through organised auctions;
- provide substantial congestion income to TSOs by allowing them to extract the maximum value out of the network infrastructure they manage;
- provide better and more reliable visibility for market participants as to the total volumes of hedging products;
- ensure that the capacity that is offered to the market is maximised at all points in time and that any variations of these volumes is published in a timely and effective manner;
- provide valuable signals as to the structural value of cross border capacity, from a “congestion” point of view. This is useful for all market players and for TSOs and regulators, whereas the daily price signals are much more volatile. For example, forward allocation provides clear market-based price signals as to the need for additional infrastructure investments.

2. Forward transmission rights and alternative hedging opportunities

It is sometimes inferred that market participants should be able to hedge their location price risks among themselves through financial solutions, such as contracts for differences (CfDs). While these concepts work well in theory, and there is no reason why market participants are unable to enter into such arrangements, the practice reveals difficulties.

\(^1\) When mentioning TSOs in this paper, we also refer to private HVDC cable owners.
EFET is not aware of a successful example of "appropriate cross-border financial hedging" being offered “in liquid financial markets on both side of an interconnector” in any part of Europe in any other way than through the issuance of PTRs (which may become effectively FTRs when subject to UIOSI procedures day-ahead) by TSOs. Indeed, forward transmission rights issued by TSOs provide an open and non-discriminatory access to hedging solutions against congestion costs (and the day-ahead congestion pricing), with no additional transaction costs. On the contrary, two opposite CfDs are needed on each border for market participants to be able to hedge against congestion costs and pricing. Forward transmission rights, on the contrary, allow all market participants to take part, without having to rely on the non-guaranteed liquidity of financial markets. This is essential for the development of any trading or retail activity for non local participants and this is also essential for generators so that they can benefit from the liquidity (and “coupling”) of all EU markets on a forward basis.

The issuance of forward transmission rights is therefore important for competition to develop in all bidding zones and not only in virtual zones. EFET does not believe there is any reason to consider a non-harmonised model for the issuance of transmission risk hedging products in any part of Europe, based solely on the liquidity (or not) of financial trading in electricity contracts.

Non-availability of forward transmission rights may constrain competition even beyond the bidding zones where these rights are not available. **Competition in generation and retail markets ends up taking place in bidding zones, not in virtual hubs.** Only those market participants who are able to carry the (sometimes considerable) basis risks involved in the absence of access to transmission rights will enjoy the choice of cross border market entry. Exemption to issue transmission rights should therefore not be granted except after a thorough review of the impact on the internal electricity market as a whole.

3. **Role of TSOs and market participants**

In a more fundamental way, EFET believes that the debate on the issuance of transmission rights has taken an erroneous route since the start of the drafting phase of the network code on Forward Capacity Allocation (FCA). Indeed, the Framework Guidelines on Capacity Allocation and Congestion Management for Electricity of 29 July 2011 have identified that the default options for enabling risk hedging for cross-border trading are Financial Transmission Rights (FTR) or Physical Transmission Rights (PTR) with Use-It-Or-Sell-It (UIOSI).

The recent evolution of the debate on forward capacity allocation has pushed market participants to demonstrate why they need and wish TSOs to issue forward transmission right. On the contrary, we call for an inverted reasoning, in line with the Framework Guidelines: the burden of the proof that network access is being granted to market participants in appropriate timeframes should be on TSOs, not on market participants.

One of the fundamental questions around the network code on FCA revolves around the role of TSOs as monopoly providers of transmission capacity. It is important to recall that TSOs bear special responsibilities as monopolistic providers of transmission services. EU legislation recognises them as owners of essential facilities. In this capacity they must, under proper
regulatory supervision, grant individual market participants the transmission access products that they legitimately request, including in forward timeframes. The main thrust of IEM legislation since 1996 has been to guarantee that producers, consumers, retail suppliers and (since 2003) wholesale suppliers may obtain third party access to the grid. Any refusal of access, whether one year ahead, one month ahead or one day ahead must in our view be fully justified in each and every case.

Unless they provide compelling arguments for it – such as threats to network security or binding constraints affecting all interconnection points between any two bidding zones – national regulators should not authorise TSOs to withhold the allocation of forward transmission rights. Sanctioning such withholding prevents market participants from booking transmission capacity in anticipation of the day-ahead timeframe. A failure to issue transmission rights thereby leads as a side-effect to creation of artificial constraints, risks and scarcity. Whichever alternative arrangements market participants have put in place in the financial market or in terms of physical hedging instruments, TSOs should sell their products (interconnection capacity transmission rights) in all the available volumes and at all the necessary timeframes, from forward to intraday.

It is not acceptable for individual (or even pairs of) regulators to decide whether, in a particular country or between two countries, an offering of alternative hedging instruments such as CfDs may suffice and excuse the responsible TSOs from selling forward transmission rights. Allocating forward transmission capacity is a core part of each TSO’s role and TSOs should not be entitled to refuse to provide a service that they are capable of offering independently of the existence of other local hedging instruments developed by the market, unless for compelling reasons detailed above.

Besides, no evidence was brought during the consultation process for the network code on FCA to show that the non-issuance of transmission rights would bring any benefit to the internal energy market, or that the issuance of transmission rights could in any measure be harmful to existing, alternative arrangements for forward hedging.

4. Minimum requirements for regulators’ assessment on the absence of need for forward transmission rights at bidding zones borders where TSOs do not issue PTRs or FTRs

In the unlikely case that TSOs would have brought compelling arguments that the non-issuance of transmission rights would bring any benefit to the internal energy market, we believe that the assessment performed by national regulators to allow TSOs not to issue PTRs or FTRs should follow a strict structure along the lines of the proposed modified version of Article 35.4 and 35.5 of the network code on FCA as amended by ACER in its recommendation to the European Commission.
a. Survey

The survey mentioned in Article 35.4 should be disseminated throughout and beyond the concerned bidding zones, and include all market participants having an activity in the bidding zones of the concerned region (not only those active on both sides of each border). The survey conclusions should also take due account of the representativeness of the respondent.

b. Evaluation

The structure of the evaluation must ensure that the adequate parameters are analysed and should be conducted in a way that enables to guarantee its objectivity. The evaluation should be performed on a border-per-border analysis, keeping in mind the objective to “provide market participants with long-term hedging solutions against congestion costs and the day-ahead congestion pricing”, as defined in the Framework Guidelines:

- Report on the annual and monthly available volume of existing financial hedging instruments for each direction and for each border,

- In case these hedging instruments are defined against a system price (or any other external price reference), the study should also calculate the equivalent volume of cross-zonal hedging instruments (available for hedging against the price spread between each pair of bidding zones).

  In case of CfDs, this would require, for example, to calculate the volume of compatible CfDs which would allow forming a “synthetic FTR” between the two bidding zones.

- In case there is no financial hedging instrument available to the market on one side of the border (or a very limited volume), the study should conclude on the inappropriate availability of cross-border financial hedging being offered in liquid financial markets on both side of an interconnector for that bidding zone border (no long term hedging solutions against congestion costs and the day-ahead congestion pricing) and consequently on the benefit of making FTRs\PTRs available,

- Report and comparison with the annual, monthly and weekly volume of available PTRs or FTRs that could be offered by TSOs as a result of the existing network infrastructures (available structural hedging instruments in each direction and on each border which could be offered to the market),

- When the volume of hedging instrument offered to the market does not equal the volume of available FTRs or PTRs, the analysis should also conclude on the inappropriate availability of cross-border financial hedging being offered in liquid financial markets on both side of an interconnector for that bidding zone border and on the benefit of making FTRs\PTRs available,

- Equally when hedging instrument are being offered to the market, the study should compare the churn rate in CfDs with the churn rate in markets where hedging is done directly in the bidding zone, such as Germany and the UK, in order to draw conclusions on the appropriate availability of cross-border financial hedging being offered in liquid financial markets,
- Report on the average liquidity of existing financial hedging instruments for each direction and for each border: contrary to PTRs/FTRs auctions, volumes must be collected throughout the year in case of continuous trading. This is therefore not equivalent to offering all the available volume through an auction of PTRs/FTRs products,

- Report on price spreads and on the volatility of this liquidity of existing financial hedging instruments across the year.

- Report on the granularity of the existing financial hedging products: in order to efficiently hedge cross border positions, market participants need some cross-border hedging products which offer an hourly hedge on market spreads, such as PTRs or FTRs. This is usually not offered with financial products that are based on a daily (or weekly, or monthly) average of market prices.

  This is needed especially when Peak / Off Peak market spreads are inverted. For example, with a financial product based on daily market spreads – that is to say based on the “end of day price difference” - it would be impossible to hedge against the strictly positive price difference for all the hours of the day in a specific direction.

These minimum requirements should be included in the proposed FCA network code, possibly in an annex. When a lack of hedging product is identified on a specific border, action should be taken immediately to introduce forward transmission rights.