CONSULTATION RESPONSE

Response to Ei on price hedging opportunities between bidding zones in Sweden

Brussels, 28 February 2025

General messages

- Price hedging opportunities are insufficient within and between all Swedish bidding zones due to low liquidity caused by market size and distribution of generation and demand.
- We encourage the introduction of LTTRs (Long Term Transmission Rights) alongside EPADs in Nordic forward power markets to provide further hedging opportunities to cover cross-border risks.
- We suggest having FTR (Financial Transmission Rights) options or PTR (Physical Transmission Rights) with Use It or Sell It for LTTRs.

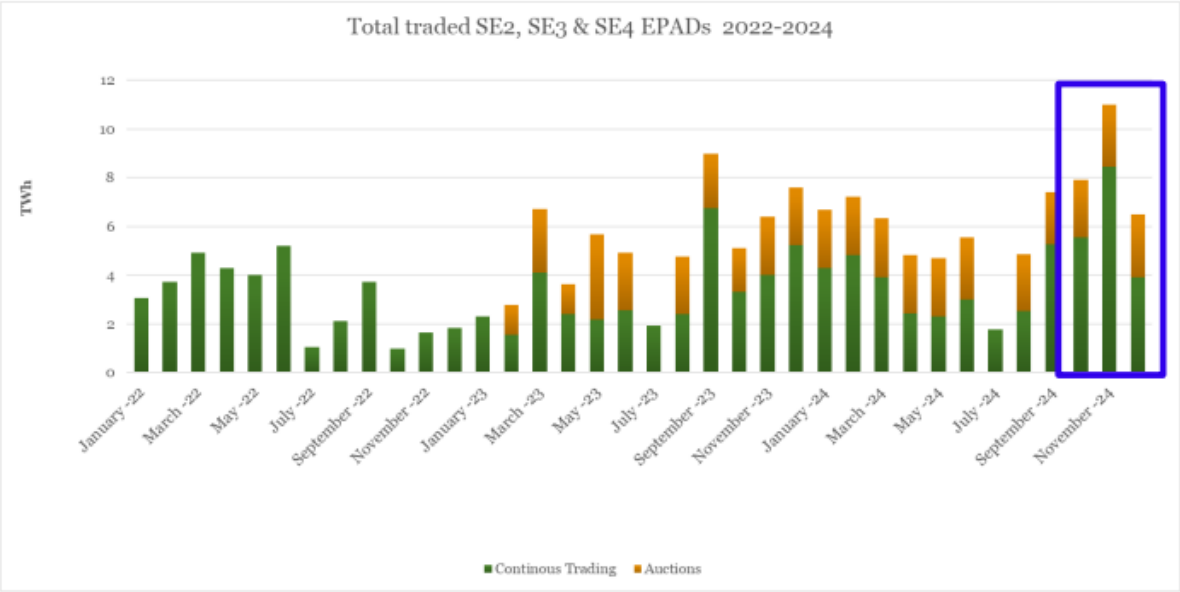
Detailed comments

1. Do you think that there are sufficiently good price hedging opportunities in the bidding areas SE1, SE2, SE3 and SE4? If not, please state in your answer for which bidding area(s) you consider the opportunities to be insufficient.

Price hedging opportunities can be further improved. Swedish production areas like SE1, SE2 and SE4 lack sufficient liquidity for effective hedging. As a result, market participants trade less than necessary, and to a lesser extent, incur slippage costs that are difficult to estimate accurately.

We have seen diminishing liquidity in the Swedish forward electricity market for several reasons. Many small bidding zones, asymmetric power balances, the limitation of using bank guarantees as collaterals and national tax regimes have undermined liquidity in the Nordic financial market. Additionally, market participants observe some challenges to hedge, notably in SE1, following the introduction of flow-based market coupling.

Svenska kraftnät's regular auctions of EPAD contracts for the bidding zones SE2, SE3 and SE4 have recently improved the liquidity.



2. Do you think that there are sufficiently good price hedging opportunities for transmission between Swedish bidding zones? If not, please indicate in your response which bidding zones you consider to be insufficient (SE1-SE2, SE2-SE3, SE3-SE4).

Price hedging opportunities can be further improved, notably between SE1 and SE2, as well as SE2 and SE3. Increasing hedging opportunities between bidding zones can help to increase outright liquidity in some areas.

3. Do you think that there are sufficiently good price hedging opportunities regarding the transmission of electricity between Sweden and other countries? If not, please indicate in your response for which bidding zone boundaries you consider the possibilities to be insufficient (SE3-NO1, SE2-NO3, SE2-NO4, SE1-NO4, SE3-DK1, SE4-DK2, SE1-FI, SE3-FI, SE4-LT, SE4-DE/LU and SE4-PL).

Hedging opportunities between Sweden and other countries can be further improved. Market participants can utilise proxy hedging in more liquid bidding zones in combination with LTTRs.

To improve liquidity in SE1, we suggest better hedging possibilities between SE1-FI and SE3-NO1, such as through the means of cross-border EPAD pilots.

As an association of energy traders engaged in power and gas trading, we emphasise our support for issuing LTTRs (in the form of FTR options or PTRs with UIOSI) in all bidding zone borders and all directions with longer maturities and maximum capacity. These tools are preferred by market participants in the EU as they enable them to cover their cross-border risks, decrease hedging costs, and ultimately stabilise costs to consumers.

LTTRs can co-exist with other hedging instruments based on price spreads, such as EPADs, and complement each other, notably in two ways:

- EPADs can complement forward transmission rights to hedge non-standard volumes (MW);
- EPADs can give market participants flexibility concerning when and for which period hedging takes place when forward transmission rights are auctioned at fixed dates for fixed delivery periods. Secondary markets for forward transmission rights, however, largely mitigate this lack of flexibility, but they take time to develop, especially given the absence of LTTR auctions in the Nordic area.

4. If the answer to any of the above questions is "no", explain why there are not sufficiently good price hedging opportunities in the affected bidding zones and bidding zone boundaries.

Following the Swedish bidding zone split and the introduction of a system price in 2016, there were significant impacts on the Nordic markets' liquidity in the forward timeframe. Market liquidity for certain products and areas is poor respectively due to the lack of interested players in the market and the lack of other mechanisms supporting the liquidity. Only TSOs may have the physical position to offer additional liquidity in some areas, like SE2. Additionally, market participants observe a lack of counterparties – notably buyers –

in SE1 and SE2, as well as increased volatility following the introduction of flow-based market coupling.

While we observe an improving situation concerning liquidity, we maintain that it could be further improved by introducing LTTRs.

For instance, in a bidding zone where the liquidity of EPADs is low, such as the Finnish and Swedish bidding zones, LTTRs can provide a "bridge to liquidity" towards more liquid bidding zones, both in terms of their forward electricity market and their market for EPADs.

5. If you consider that the hedging possibilities are insufficient, develop what kind of measures you consider can contribute to sufficiently good hedging possibilities.

We advocate and support the issuance by TSOs of forward transmission rights at all bidding zone borders in Europe and in all directions, at maximum available capacity with longer time maturities. Long-Term Transmission Rights (LTTRs) can complement and co-exist with EPADs in the Swedish and wider Nordic markets.

On the one hand, LTTRs offer open and non-discriminatory access to hedging solutions against cross-border transmission price risks without additional transaction costs, such as registering to a power exchange. LTTRs contribute via competitive auctions to developing the wholesale trading and retail activities of non-local participants in all bidding zones.

On the other hand, EPADs can complement forward transmission rights to hedge non-standard volumes (MW) and give market participants flexibility regarding when and for which period hedging takes place when forward transmission rights are auctioned at fixed dates for fixed delivery periods. Providing increased EPAD auction volumes on all borders and increased trading horizons (e.g. Y+2) would contribute to more cross-border hedging opportunities.

Moreover, to further develop hedging opportunities, PPAs are market-efficient tools to develop liquidity and foster investment in new low-carbon energy sources. PPAs are issued on a multi-annual basis and require LTTRs to cover their cross-border risks. The introduction of LTTRs would provide increased opportunities between one or two price

areas for cross-border PPAs. To further incentivise the uptake of PPAs, we suggest the use of public credit guarantee schemes, like the Norwegian Eksfin power purchase guarantee.

Lastly, investment in grid capacity to increase cross-border capacity would reduce congestion and increase liquidity.

6. Please provide a description of how the proposed measure under question five (5) leads to sufficiently good price hedging opportunities for the affected bidding zones and bidding zone boundaries.

We recognise that LTTRs are not silver bullet solutions for liquidity. Nonetheless, they cover cross-border risks and encourage cross-border trading by market participants. LTTRs and EPADs can work in tandem on Nordic and Swedish power markets.

Table 18: Summary of annual benefits and costs

	Measure 1: Improved market making	Measure 2: Regional EPADs	Measure 3: TSO-auctioned EPADs	Measure 4: TSO-auctioned FTRs
Volume impact: increased liquidity (TWh)	6.1	9.4	17.5	35.1
Benefit from added volume: Lower bid-ask spread, (€m)	6.3	14.7	51.0	N/A
Costs (€m)	5.4	~ 0	0.45	0.45
Net benefit	**0.9**	**14.7**	**50.5**	

Note: Costs for Measure 1 based on the lower range value; Volume of measure 3 is based on option 1.
Source: Compass Lexecon analysis

From the 2022 Compass Lexecon study, the table indicates that the FTRs increase liquidity the most and can reinforce the improved SvK auctioned EPADs.[1]

[1] Compass Lexecon 2022 study on Measures to improve risk hedging opportunities on the electricity market in Sweden, p.88, FCA-Konsultrapport-Measures-to-improve-hedging-opportunities-on-the-electricity-market-in-Sweden.pdf

In addition, the introduction of LTTRs would:

- guarantee that a certain minimum volume of products will always be available and offered in a transparent and non-discriminatory manner through organised auctions;
- provide better and more reliable visibility for market participants as to the total volumes of cross-border transmission 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 are 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 participants, 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.

As owners of the transmission cables, TSOs are best equipped to offer hedging options to cover basis risk in the form of LTTRs. This enables market participants to hedge their cross-border risks without resorting to more costly and complicated alternatives, ultimately keeping the cost of trading low.

We also emphasise ensuring the firmness of LTTRs. TSOs, as the natural sellers of LTTRs at the bidding zone border, can manage and adjust associated risks as owners of the physical transmission capacity. While we understand TSO concerns regarding periods of high LTTR compensation (incl. rare cases of market decoupling), the firmness of LTTRs ensures the trust of market participants in the transmission rights. At the heart of that system is the market participants' trust being fully protected against basis risks when holding an LTTR, which in turn increases the prices they are willing to offer for LTTRs.

Specifying the types of LTTRs, we prefer FTR options and PTR with UIOSI as these products give market participants the maximum flexibility to compete across borders and avoid creating new barriers to entry for cross-border market participants. On the other hand, we advise against introducing FTR obligations as there is no market participant appetite for them, putting disproportionate risks on market participants while introducing collateral obligations for TSOs.

Another tool to promote hedging in the forward markets is through the promotion of Power Purchase Agreements (PPAs). Cross-border PPAs contribute to developing price hedging opportunities in local areas and across the bidding zones. They are market-efficient tools to foster investment in new low-carbon energy sources, while also increasing liquidity.

Cross-border PPAs are often signed on a multi-annual basis (5-10 years). The introduction of LTTRs with longer time maturities matching the longer timeframes would enable covering cross-border risks for contract parties. To further incentivise the uptake of PPAs, we suggest the use of public credit guarantee schemes to cover counter-party risks and increase market confidence in the PPAS. A good example from the Nordic region is the Norwegian Eksfin power purchase guarantee.

Lastly, increased EPAD auction volumes would help increase liquidity for the underlying hedging product, while longer trading horizons could reduce the basis risk on existing PPAs.

7. What impact do you think new players and products, regional virtual hubs in the Electricity Market Directive, etc., can have on the price hedging opportunities for affected bidding zones and bidding zone boundaries?

As mentioned above, there are no silver bullet solutions to address low liquidity in Nordic and Swedish forward markets. Nevertheless, LTTRs provide additional open and non-discriminatory access to hedging solutions against cross-border price risks without additional transaction costs. We suggest that after the introduction of LTTRs, Nordic closely monitor on both sides of the border the impacts on forward market liquidity.

We also expect persistent volatility to give rise to hedging needs for producers and consumers who want to ensure stable cash flows and/or reduce exposure in the spot market.

We are sceptical regarding the benefits of introducing Virtual Trading Hubs and we believe that ACER has not yet demonstrated positive benefits on liquidity in the Forward market. Additionally, it could increase the risks for market participants with long-term Nordic system price contracts.

We hold that introducing new concepts could split the liquidity between the systemic price and physical hubs. Establishing a new hub price in Europe and providing zone-to-hub LTTRs or similar seems impractical, as there appears to be little motivation for participants to shift their position and trading activities to a hub-based product. Instead of creating new products (e.g. Hub for Central Europe), the efforts should be concentrated to improve liquidity in existing products.

To test the impacts of introducing Virtual Trading Hub (VTH) in Continental Europe, we commissioned with Eurelectric and Europex a study to Compass Lexecon to analyse its effect on European forward markets.[2] The study reveals that regional VTHs are far from providing a more efficient basis for (proxy) hedging than existing physical hubs. Furthermore, the study considers that the introduction of VTHs in continental Europe is likely to have negative effects on the liquidity of forward markets, splitting the liquidity and discriminating against areas not covered in Virtual Hub calculation.

The consultants recommend consolidating existing forward markets instead. We reiterate our position that market participants should be free to trade in the market of their choice as they do today, letting hubs emerge naturally based on where liquidity actually is.

As generation technologies with different profiles continue to be developed, the market may organically develop new hedging products to match its needs.

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[2] Further details in the Compass Lexecon study commissioned by Energy Traders Europe, Eurelectric and Europex: https://www.energytraderseurope.org/documents/assessment-of-potential-impacts-of-regional-virtual-hubs-on-the-forward-markets/