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Vattenfall response to the ACER public consultation on:

"Forward Risk-Hedging Products and Harmonisation of Long-Term Capacity Allocation Rules"

General comments

Vattenfall commends the initiatives towards an increasingly more effective and integrated European electricity market that are now initiated.

In addition, Vattenfall supports the idea that regulated infrastructure owners (i.e. owners of transmission infrastructure) in so far as it is possible, actively participate in the market for transmission capacity risk. That means that the current asymmetrical risk position with the market participants having all the area price risks in their portfolio could be alleviated by the TSO:s selling financial instruments reflecting underlying physical transmission capacity. Thus Vattenfall foresees that this is only the beginning of a development and views that all cross border congestion needs the same market and regulatory environment.

Vattenfall is concerned that all bidding area borders is handled in a similar manner. Where implicit auctions are in place to allocate physical transmission capacity on a day-ahead basis, financial instruments reflecting underlying physical transmission capacity should be available to give market participants the possibility to hedge their long term exposures.

Depending on the focal prices used for energy hedging products it may be relevant to consider alternative implementations. Hence, an implementation when the TSO offer CfDs should be investigated along the other alternatives mentioned in the consultation.

As always it is decisive that the definitions are clear, for example Long term can mean different things. Vattenfall has interpreted the intention with "long term" in this consultation as the amount of time before delivery.

Responses to questions raised in the consultation document

Question 1: Are there other products or options which are not considered in this document that would be worth investigating?

Relevant products have been pinpointed in the document. Depending on the focal prices used for energy hedging products it may be relevant to consider alternative implementations. Hence, an



implementation when the TSO offer CfDs should be investigated along other alternatives mentioned in the consultation.

Question 2: What will be the importance of the long-term Target Model and specifically the design of the forward market and the structure of long-term hedging products once the Day-Ahead and Intraday Target Models are implemented? Do you think your interest and demand for long-term hedging products will change (either increase or decrease) with the implementation of the Day-Ahead and Intraday Target Models? More specifically, what is your interest in cross-border/zone hedging?

The long term target model is a cornerstone for long term hedging providing actors in the deregulated part of the market with instruments enabling hedging of price differences. The interest and demand for long term hedging of energy is not expected to change as a consequence of the day-ahead and intra-day target models as such. However, the need and interest for hedging price differences may increase if more bidding areas are established. In addition, the interest may change due to furthered market integration in the hedging market. The magnitude depends on the focal reference price for deliveries in a particular location. The interplay between long term energy hedging products and the financial capacity offered by TSOs to hedge price differences will thus be decisive in furthering market integration also in the hedging market. In "physical" terms Vattenfall sell and buy power in the bidding areas where we have generation or customers.

Question 3: Would long-term hedging markets need to evolve (e.g. in terms of structure, products, liquidity, harmonisation, etc.) due to the implementation of: 1) the day-ahead market coupling, 2) day-ahead flow-based capacity calculation and 3) occasional redefinition of zones? If so, please describe how these changes would influence your hedging needs and strategy. If no evolution seems necessary, please elaborate why. Can you think of any striking change not considered here?

The evolution of long-term hedging markets should be regarded as an evolutionary process where the market's needs steer towards products, reference prices etc suitable for risk management.

- 1. No, deliveries will still be settled with the price in the relevant bidding area so as such there is not a direct pressure on the hedging market to evolve. However, day-ahead market coupling will further market integration in that time frame. A possible evolution is strengthened integration also on the hedging market. Necessary for such integration is instruments that enable hedging against price differences occurring in the day-ahead market. Asymmetries exist between buyers and sellers, some bidding areas mostly export other mostly import. This implies that potential fundamental counterparties for energy hedging may be found in different bidding areas. The potential for trade between actors in different locations is facilitated if the TSO:s sell financial hedging products making it possible to hedge price differences.
- No, the implementation of flow based capacity calculation will not change the hedging need. A change of method to calculate capacities will in this respect only affect the transmission capacity available between bidding areas.
- 3. The TSO should not be allowed to rapidly change the number and localisation of bidding zone borders. It is better to have stable and robust designs than configurations that might change very rapidly. A rapid change may create a price difference risk in the market participants portfolios. Thus occasional redefinitions should not be allowed as that may be a tool for a TSO to put all transmission risk on market participants.



Question 4: What is for you the most suitable Long-Term Target Model (combination of energy forwards and transmission products) that would enable efficient and effective long term hedging? What would be the prerequisites (with respect to the e.g. regulatory, financial, technical, operational framework) to enable this market design in Europe? Which criteria would you use to assess the best market design to hedge long-term positions in the market (e.g. operability, implementation costs, liquidity, efficiency...)?

The focal price, or any other prices for energy forwards, should not be determined by regulators. This certainly applies to the products traded as well. Instead, the reference prices and products should be allowed to evolve process like around a price and products relevant in respect to market participants hedging needs. Thus, liquidity will attract liquidity and in the longer term accumulate around one or a few reference prices in Europe. To facilitate this development, instruments enabling hedging of price differences such as FTRs or CfDs are necessary. The financial capacity products should thus focus on the products where the TSO can be a natural seller i.e. in products where they have an underlying revenue (e.g. congestion rents) to hedge.

Question 5: What techniques of market manipulation or "gaming" could be associated with the various market for hedging products? What measures could in your view help prevent such behaviour?

This is the same environment as for any other financial hedging instrument. As long as there are a fair number of actors the likelihood of any gaming is low. Additionally, as the supply of hedging instruments offered by the TSO is inelastic, this will potentially increase the liquidity in the market, thus decreasing any (if existing) potential of gaming. Potential misbehaviour should be counteracted by monitoring by relevant authorities.

Question 6: Would you like to change, add or delete points in this wish-list? If so, please indicate why and how.

The asymmetrical risk position between market participants and regulated infrastructure owners should be alleviated. The TSO:s control the underlying physical transmission capacity which generate congestion revenue to the owner. Hedging instruments alleviating the asymmetrical risk could take different forms but fulfil the same hedging need i.e. provide certainty of future price differences. For the TSO the instrument would provide certainty on future congestion revenue. This certainty is ensured as long as at least the same amount of capacity sold financially is allocated in the day ahead market where the congestion revenue that is being hedged is collected.

Therefore, the TSO should auction Financial Transmission Rights (FTR) or Contracts for Differences (CfD), depending on the market. The auctioning of CFDs could in principle be done similarly as the auctioning of FTRs. The hedge for the TSO would be realised slightly differently through the combination of Contracts for Differences with different locations compared to the FTRs directly connected to a particular bidding zone border but the end result would essentially be the same. In essence, a combination of two CfDs is equivalent with a FTR. A combination of two CfDs in the Nordics is an example of such constructed FTR.

Question 7: Which aspects of auction rules would be most valuable to be harmonised? Can you provide some concrete examples (what, when, where) of how this could help your commercial operation (e.g. lowering the transaction costs)?

The instruments should eventually be cascaded to cover the same time resolution, i.e. instruments should not cover three hours on one border and one hour on another. Another rule concerns the duration of contracts which needs to be coordinated. Very differing durations across Europe may increase transaction costs.

The auction rules should ensure that the products sold are financially firm. The type of products should be decided by market participants needs. As not all participants have the same needs and wishes it would be favourable to let the result of the auction decide which type of instruments to auction. However, a less complicated and pragmatic implementation is to only require that the



TSO:s auctions financial capacity on all borders. Thus, in terms of what and where to auction it is sufficient to require the TSO:s auction financial capacity on all bidding area borders. This means that the TSO can sell FTRs as options or obligations or CfDs. To ensure market participant needs are properly addressed a transparent stakeholder dialogue before implementation is required.

Question 8: Which elements of auction rules have regional, country specific aspects, which should not be harmonised?

Few, if any. However, as noted above, changes in currently working markets could be done by having the TSOs providing hedging instruments for the risk of congestion aligned with existing instruments

Question 9: Which aspects should be harmonised in binding codes?

The rules concerning the regulated entities should be harmonised in binding codes. That is, TSO:s in the European markets should provide hedging instruments proportional to the underlying cross bidding area capacity and congestion rents.

The binding code should e.g. stipulate that the instrument should be financially firm. Financial firmness implies a risk for the TSO. The price difference risk, without the TSO involvement, is completely in the portfolio of market participants. With the firm products offered by TSOs the transmission risk will be with the entity controlling the underlying capacity. The TSO should therefore be allowed to mange its financial risks by buying back sold financial capacity. The buy back procedure should be harmonised in the binding code.

Question 10: If you are to trade from the Iberian Peninsula to the Nordic region and there existed PTRs with UIOSI, FTR Options or Obligations and CfDs in different regions – what obstacles, if any, would you face? How would you deal with them?

The products used for hedging price difference risks should be seen in the context of single price coupling. With single price coupling the way to serve customers in "physical terms" is expected move away from the "channel approach" indicated in the question. Instead commitments will be met by selling and buying power in the bidding areas where generation and customers are located.

One way of dealing with the hedging it is to treat the generation and the contract with the customer separately. This could be achieved by hedging as a producer in the Iberian Peninsula, e.g. selling a energy forward, and as a retailer, e.g. buy a energy forward and a CfD, in the Nordic region. A second approach would be to make a combined position of the different instruments thus hedging the "channel" from the Iberian Peninsula to the Nordic region. If the PTR would require physical trade across some border we would have to buy and sell physical power in more bidding areas than would be required if all instruments where financial which would imply increased transaction costs.

Question 11: Would allocating the products at the same time represent an improvement for market players? Why? Where, if not everywhere, and under which conditions?

Harmonization of the time for auctions would be beneficial. However, harmonization should not be regarded as an excuse for delaying auctions of financial capacity on any border. A yearly assessment of the implementation is proposed. The assessment should transparently present which organizations, if any, that don't take the responsibility for the transmission risk.



Question 12: How important is it that capacity calculation for the long-term timeframe is compatible and/or consistent with the short-term capacity calculation and that capacity is interdependent and optimised across different borders?

The time horizons, forward, day-ahead, intra-day and real time are interlinked. Thus, the traded products should thus be coherently defined. The underlying physical transmission grid sets the limit for how much capacity that can be sold or allocated in the different time frames. Close coordination between capacity calculation for the day ahead time frame and the long term time frame is decisive for a successful implementation. Capacity sold on the longer time frame should reflect the expected capacity in the day-ahead time frame. If there is a lack of coordination between the time frames there is a risk that the TSO sell more or less financial capacity than is expected to be available in the day-ahead market. If she sells more she will have a risk for congestion revenue inadequacy. If she sells less the transmission risk will be in the portfolio of market participants.

As long as the same amount of capacity is sold in the long term market and allocated in the dayahead market the TSO:s will collect sufficient congestion revenue in the day ahead market to pay holders of the financial capacity. The TSO would receive a predictable revenue stream from sold financial capacity

Question 13: Please indicate the importance of availability of different hedging products with respect to their delivery period (e.g. multi-year, year, semester, season) for efficient hedging against price differential between bidding zones. What do you think of multiple-year products in particular?

TSOs should start auctioning the expected available day-ahead capacity at least three years before start of the delivery period. The instrument should align to the settlement period in the day-ahead market. If auctioned contracts cover a year it would be possible for the holder to adjust the position to her needs, i.e. if she only need a seasonal product she can adjust in the secondary market. This could be achieved by selling the remaining seasons thus establishing the position matching the seasonal need. Products covering multiple years could be implemented together with yearly products with particular percentage of the underlying transmission capacity assigned to multiple-year products. For the moment we don't see a benefit from splitting the auctioned capacity between several delivery periods. Once the auctions have started there would exist financial contracts covering several years. If the TSOs start the auction in 2013, they would in effect sell contracts for 2014, 2015 and 2016. Consequently, the participant with a hedge need for two or three years would buy contracts matching the time period needed.

Question 14: What would be your preferred splitting of available interconnection capacity between the different timeframes of forward hedging products? Which criteria should drive the splitting between timeframes of forward hedging products?

See also question 13 on split of capacities between delivery periods. The question is interpreted as how to decide when to sell a particular amount of interconnector capacity expected to be available day-ahead. First the expected amount should be calculated before each auction. This will allow the TSO to adjust the amount to sell depending on planned outages as maintenance work. Second, part of the expected capacity not already sold in previous auctions should be made available to the market. The splitting would preferably relate to the volume and open interest in relevant energy contracts and thus most volume be auctioned in the time frames where most trade is done. However, that criterion may be difficult to fulfil especially when the auctions comprise several control areas and TSOs. In addition, liquidity in different delivery periods may differ throughout Europe. Hence, in a harmonized implementation it would be preferred to decide particular percentages of the expected available capacity to auction at a particular point in time.

The instruments should be sold at least with three years horizon with part of the expected transmission capacity sold three years ahead, two year, one year ahead. The part remaining should be sold in quarterly auctions. As not 100 % of expected available transmission capacity is



not sold several years ahead there would remain room for adjusting the final amount sold. A tentative requirement would be to sell 20% three years ahead, additional 20 % two years ahead and 30 % one year ahead of delivery. Remaining capacity would then be sold in quarterly auction within the year prior delivery. In essence, all available day-ahead capacity should be mirrored in the financial market.

Question 15: While products with planned unavailability cannot be standardised and harmonised throughout Europe, they enable TSOs to offer more long-term capacity on average than standardised and harmonised products would allow. Do you think these products should be kept in the future and, if so, how could they be improved?

The long term products sold should allow for planned unavailability periods to be taken into account at the time of auction. Once the products have been sold they should be financially firm. One benefit with firm products is that the TSO is incentivized to allocate at least as much capacity dayahead as previously sold beforehand. Hence, the auction of financial capacity would serve as en incentive for efficient maintenance work and planned unavailability. With the price established the TSO will plan the unavailability to periods when the value of the capacity is relatively low. This will contribute to efficient resource utilization overall.

The regulators should establish clear and transparent rules when the issuing entity i.e. the TSO is allowed to act in secondary market. Situations when this can be of importance are for example grid failures or maintenance that the TSO did not take into account in the auctions. Once the TSO plans have been publicly available i.e. no longer are to be regarded as insider information the TSO could have the same possibility to act and if deemed interesting buy back sold instruments at prevailing market prices in the secondary market.

Question 16: Products for specific hours reflect market participants' needs. What should drive the decision to implement such products? How should the available capacity be split between such products and base load ones in the long-term timeframe?

The beginning of the question hold the answer, the implementation of products reflecting specific hours should be driven by market participants needs. When the contracts move closer to delivery they should be cascaded into contracts reflecting the coming period.

A hypothetical implementation example can demonstrate the principle where yearly products are over time cascaded into hourly products enabling all interested actors to adjust their position according to their needs. Assume three years ahead of delivery the TSO auction financial capacity comprising a full year for example 2015. In the beginning of Q4 2013 these contracts are cascaded into four quarterly contracts. In mid 2014 the Q1 and Q2 contracts are cascaded into monthly contracts and at year end the Q3 and Q4 contracts are cascaded into monthly contracts. Hence, in the beginning of the delivery year the longest contract cover a month. In the beginning of Q3 the monthly contracts are cascaded into daily contracts. Two weeks before delivery daily contracts are cascaded into hourly products.

By cascading into the prevailing resolution in the day-ahead market i.e. hourly products enable all market participants to align the contractual position with its planned production, consumption or trade on an hourly basis. With a standardised cascading procedure as this example a secondary market where participants can sell parts of yearly contracts before the cascading is done may evolve. For example a participant that has bought the yearly contract may sell a contract covering for example two weeks within the delivery period while holding the contract covering a whole year. With this possibility it is possible to perfectly match and hedge any commitments a market participant may have that otherwise is exposed to a price difference risk in a particular hour. The issue of splitting capacity between hourly products and base load ones would thus be solved with cascading as all capacity would initially be sold through the same contract covering all hours within a delivery period.



Question 17: Should this possibility be investigated and why (please provide pros and cons)? In case you favour this possibility, how should this buyback be organised?

Yes, the possibility should be investigated. Vattenfall reckons this an important part when requiring the contracts financially firm. It is thus reasonable that the TSO is allowed to buy back already sold long-term capacity. One important feature with the long-term capacity is that a price in future delivery periods is established. With this visible price the TSO can plan and schedule maintenance to periods where the price is low. But, if she is not allowed to buy back sold capacity she will unnecessarily face a risk of not collecting enough congestion revenue to cover payments to holders of the long-term capacity products. The buy-back procedure could be done either by posting buy bids in the ordinary auctions or in the secondary market.

Making the TSO part of the market requires that the she has to follow the same rules as all other market participants. Hence, before she can act and thereby buy back sold capacity she must disclose any information, on the relevant platform, that may affect the price. A planned outage of a transmission line affecting capacities between bidding areas is an example of such information that may affect prices in the bidding areas and hence the price difference relevant for the long-term capacity.

Question 18: With the potential evolution from PTRs with UIOSI to FTR options, does the removal of the nomination process constitute a problem for you? If so, why and on which borders, if not on all of them?

If there is a liquid day-ahead market in both areas a shift to the financial instrument would not cause problems. However, it could change how a particular hedge is done. The "physical" trade will have to be reflected in the day-ahead market in both areas and the price difference risk between them managed with the financial instrument.

Question 19: How could the potential evolution from PTRs with UIOSI to FTRs on border(s) you are active impact your current long-term hedging strategy?

A change from PTRs to FTRs would not change the underlying hedging need but may change how a a particular hedge is executed, see also question 18..

Question 20: If nomination possibility exists only on some borders (in case of wide FTRs implementation), is it worth for TSOs to work on harmonising the nomination rules and procedures? If so, should this harmonisation consider both the contractual and technical side? How important is such harmonisation for your commercial operation? Which aspects are the most crucial to be harmonised?

In case PTRs are used on some borders the rules and procedures should align with the rules of the wide FTR implementation. It should be ensured that all capacity between bidding areas is made available for single price coupling.

Question 21: Looking at the current features offered by the different auction platforms (e.g. CASC.EU, CAO, individual TSO systems) and financial market platforms in Europe, what are the main advantages and weaknesses of each of them?



Question 22: How do you think the single auction platform required by the CACM Framework Guidelines should be established and organised?

o How do you see the management of a transitional phase from regional platforms to the single EU platform?

o Should current regional platforms merge via a voluntary process or should a procurement procedure be organised at European Union level (and by whom)?

o Should the Network Code on Forward Markets define a deadline for the establishment of the single European platform? If so, what would be a desirable and realistic date?

The development towards a single auction platform must be stepwise in respect to geographical extension and depth of harmonisation, with one auction platform covering the internal market as the ultimate target. Regional platforms should be coordinated with capacity calculation regions, defined according to Network Code Capacity Calculation and Congestion Management, for the day-ahead time frame. The development towards regional platforms must not hinder a single or several TSOs from auctioning of financial price hedging instruments before the regional platform is established. Regulators have an important role to monitor progress and to ensure that the solutions suggested deliver on the goals. As the auctions release financial capacity needed for hedging price differences between bidding areas it would be preferred to start the auctions before the single price coupling is in place. A transitional feature during the first years would be that the TSOs sell a larger share of the underlying capacity close to delivery. If the auctions start in 2015 no long term capacity sold financially would be sold in quarterly and monthly auctions. The Network Code on Forward Markets should define a detailed clarification of roles and responsibilities concerning the auction platforms. A potential target date would be at the same time as single price coupling is introduced.