

Aalborg/London, 31 December 2019

RE: Single balance – single imbalance price model – Feedback to Discussion Paper

Centrica Energy Trading A/S (CET A/S) is part of Centrica Energy Marketing & Trading (EM&T), the business unit of the Centrica group providing energy management and optimisation services. CET A/S is based in Denmark.

EM&T manages commodity risk and provides wholesale market access for the Centrica Group. EM&T is active with its route to market services, trading and optimisation activities in various European countries with a prominent position in the Nordics. Therefore, we are very interested in providing our views on the Nordic TSOs discussion paper on imbalance pricing (the Discussion Paper).

We welcomed the consultation on the draft NBM roadmap published earlier in 2019 and we contributed with our views. We also do not underestimate the complexity of the project and we acknowledge that further complexity is added by the upcoming deadlines on provisions included in the 'Clean Energy Package'. Nonetheless we are rather disappointed by the lack of commitment to implement single imbalance pricing in the Nordics in a timely fashion.

We hear mixed messages from the stakeholder reference group on the ambition level with key parts of the NBM and especially on single imbalance pricing. TSOs must clarify as soon as possible their commitment to work on a reasonable solution to implement single imbalance pricing or whether they intend to ask for a derogation and continue the application of dual imbalance pricing. The situation is highly uncertain, and it creates undue commercial risks to market participants.

In general, we are not very satisfied due to the lack of transparency around the development of 'All TSOs proposals' at EU level under the EBGL. There has been little involvement of stakeholders after the consultation held in 2018; the requests for amendment are published only by some NRAs and cannot always be found on the ENTSOE platform; often there is no clarity on the timelines (e.g. the NRAs request is from mid-June 2019); there is no mention in ENTSOE communications of an updated version being published; the latest updated version does not include track changes and there is no further possibility for stakeholders to provide comments.

Concerning the 'All TSO proposals on the specification of the harmonised imbalance settlement' we note that NRAs asked to add again a paragraph which was removed after the

consultation process in order to allow TSOs to link the temporary derogation from the 15minutes ISP with a request to maintain dual imbalance pricing¹.

The inclusion of so many circumstances (five) under which a TSO may propose the application of dual imbalance pricing basically reverse the principle that single imbalance pricing is 'the rule' and dual imbalance price is 'the exception'. This is clearly against the spirit of the EBGL.

Essentially, we believe that the if the Nordic TSOs were really intended to introduce single imbalance pricing, they would be able to move ahead perhaps maintaining a contingency in the implementation plan to deal with uncertainty.

More in detail on the Discussion Paper we would like to provide the following remarks:

1. We are aware that there has been an issue with the deteriorating frequency quality in the Nordics in the last decade, however we believe that the discussion paper does not provide any evidence that single pricing may trigger further oscillations. On the contrary, the deterioration experienced so far has been observed in a system underpinned by dual imbalance pricing for for generation. We also believe that most likely the worsening effects on frequency quality have been driven by the increasing amount of intermittent generation and more challenging forecast of renewable sources, rather than the imbalance framework.

If moving to 15-minute ISP is a step in the right direction, as some studies concluded already in 2017, it is not completely clear why after almost three years there has been little progress on this front and the plan to achieve milestone by Q2-2023 is still uncertain.

We kindly request the NBM project to provide evidence, rather than opinions, that moving to single imbalance pricing with a 60mins ISP would worsen the frequency quality.

2. The data provided for 2018 in Annex 3 of the Discussion Paper are misleading: SE1 is the bidding zone in which there have been the highest number of ISPs with diverging mFRR activation (1.7%). However, it is also stated that there have been diverging aFRR activations in the Nordic Synchronous area nearly 70% of the relevant ISPs. It is unclear if the TSO conclusion is that a potential dual imbalance price (like in the Dutch system) would then be applied better 0.1% and 1.7% of ISPs (depending on the price area) or rather 70% of ISPs.

Our understanding is that dual imbalance pricing would apply only because of mFRR diverging activations in the specific bidding zone. However, we urge the Nordic TSOs to provide full clarity on the data provided and to elaborate on the potential consequences and magnitude of the issue highlighted.

¹ Article 8(1)(e) "For all ISPs where the imbalance settlement period is 60 minutes due to an exemption from the requirement pursuant to Article 53 of the EBGL or based on derogation in accordance with Article 62(2)(d) of the EBGL. The full text is available at https://docstore.entsoe.eu/Documents/nc-tasks/EBGL/EBGL_A52.2_191030_All_TSOs_ISHP_imbalance_settlement_harmonisation_amended_proposal_or_submission.pdf

3. The data provided in the Discussion Paper is not clear to conclude that there is a need for a mitigant and that the only mitigant possible is dual pricing in those hours with diverging activations. More granularity is needed e.g. at least data for 3years, hourly data, distinct per FRR type activation and direction and MW activated.

We urge the Nordic TSOs to provide more granular and extensive data to assess the probability of dual pricing applying during some hours and model variants.

4. Concerning the parallel with the Dutch system, we recognise that this regime has been allowed to continue under the EBGL, however it also a fact that the Dutch market has been working with this arrangement for several years and possibly the relatively small dimension of the market justifies this approach. The Dutch system has also been severely affected by internal congestions to the point that recently Tennet proposed to split the country into three bidding zones. Therefore, we challenge the appropriateness of the comparison with the Nordics, although we acknowledge the helpful description on how the model works.

Finally, we want to reiterate our view that that single price provides better economic incentives to BRPs with the benefit of helping to balance the network.

The existing dual balancing regime does not have economic and financial foundation, it is very penalising when operating generation assets in a free market and does not ensure neutrality of revenues for the TSO.

Therefore, we prefer an early implementation of the Single Price Model. However, we do not support a prolonged uncertainty and TSOs should formally commit as soon as possible.

We hope you will find this response helpful. If there are any of the points raised in this response that you would like to discuss feel free to contact me at riccardo.rossi@centrica.com.

Yours sincerely,

Riccardo Rossi
Head of Energy Trading Regulation
Centrica Legal & Regulatory Affairs

Feedback/input to Nordic TSO's discussion paper on imbalancing pricing

Forsberg, Torbjörn <Torbjorn.Forsberg@eon.com>

Fri 12/20/2019 2:23 PM

To:Info Nordicbalancingmodel <info@nordicbalancingmodel.net>;

Hej!

E.ON är positiva till och välkomnar initiativet att införa en-pris och en-positionsavräkning i Norden. Det kommer att medföra en förenklad hantering för inblandade parter. Att invänta kvartsavräkningen anser vi inte vara nödvändigt. Följande synpunkter har vi på diskussionsunderlaget gällande föreslaget om ett införande i juni 2021;

- E.ON anser att det borde vara möjligt att införa en-pris och en-balansavräkning utan restriktioner redan 2021.
- Aktörer som redan idag agerar på reglermarknaden lär inte ändra sitt beteende utan bör rimligen fortsätta lägga in bud på det som är flexibelt. Då vet aktören med säkerhet vad man får för den avropade energin samtidigt som andra kan reglera ut aktörens eventuella obalans till lägre pris än de själv är beredd att göra.
- Att all reglering inte är prissättande för obalanser är även större delen av marknaden medveten om, inte minst de stora aktörerna som är aktiva på reglermarknaden, vilket även medför en risk att självreglera. Liksom om regleringen vänder eller om timmen blir oreglerad.
- I tillägg kan även anföras att de aktörer som idag har den största flexibiliteten även har den bästa informationen om reglerpris och reglerriktning i realtid. Övriga aktörer som skulle kunna hjälpa till, främst genom att handla och anpassa sina planer framåt, har inte denna information förrän upp mot tre timmar senare. Det är av vikt att även denna information kommer marknaden till del på ett så konkurrensneutralt och rättvist sätt som möjligt. Detta kan, och borde, införas så snart som möjligt. Att ange reglerriktning utan pris under timmen hade varit en möjlighet att minska marknadssnedvridningen utan för mycket räknande.
- Kravet på en-prisavräkning kommer från CE där erfarenheten verkar vara att det hjälper systemet och TSO:ernas arbete med balansering, vilket även borde gälla i Norden.
- Ett införande av en-pris gör det möjligt för de nordiska TSO:erna att få hjälp av mindre flexibilitet som inte har teknisk eller ekonomisk möjlighet att agera på reglermarknaderna och som därmed inte kommer reglermarknaden till del. Kan vara speciellt viktigt i svåra situationer.
- Att kunna växla prissättning mellan både en-pris och två-pris, på i förväg obestämda timmar, är därmed lite att missa målet.
- Hantering av specialreglering och andra regleringar riskerar kanske även att felaktigt komma in och resultera i två-pris.
- I vissa driftsituationer skulle istället speciellt känsliga timmar kunna bestämmas vara två-prisavräknade i förväg, om det anses nödvändigt.
- Om det skulle visa sig att införandet av en-pris medför ett kraftigt försvårande arbete med balansen skulle TSO även kunna ha möjlighet att återinföra två-pris.
- Ett införande av en-prisavräkning enligt nuvarande TSO- förslag är ändå att föredra jämfört med alternativet att invänta kvartsavräkningen två år senare.

Med vänliga hälsningar/With kind regards,

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FORTUM'S COMMENTS ON NORDIC TSO'S' SINGLE BALANCE - SINGLE PRICE DISCUSSION PAPER

Fortum appreciates the possibility to give feedback to the discussion paper published by the Nordic TSOs. Fortum is a true regional energy company with presence in electricity production and/or consumption in all Nordic and Baltic bidding zones. Our regional presence allows us to witness every day the value that the regional resource optimization creates to our societies in increased welfare. We strongly believe that a stronger regional co-operation is beneficial and necessary for all our societies alike. Fortum sees that we need more harmonizing in the region and in the whole Europe in order to further improve the market.

Fortum supports the implementation of single balance - single price model as soon as possible according to the European legislation. We also think that transparency plays an important role in giving market participants the possibility to support TSOs in balancing the power system and in being able to mitigate unnecessary risks.

We have several concerns related to the possible dual pricing for certain ISPs. From market participants point of view dual pricing is very challenging if it is known only after each ISP whether single or dual pricing will be applied.

Please find below further input related to the topic.

1 TRANSPARENCY

- Information on e.g. state of the power system, balancing activations and balancing prices in real time should be published - otherwise market participants cannot support TSOs in balancing the system and cannot mitigate their own risks.
 - Increased transparency is needed both with single price method and possible dual price method.

2 DUAL PRICING

- From market participants point of view dual pricing is challenging if it is known only after each ISP whether single or dual pricing will be applied.
 - If ISPs with dual price are only known afterwards market participants need to be prepared for dual prices all the time

- If understood correctly, two prices always means costs for market participants (if not in balance) - increased risks for market participants compared to today's situation.
 - Transparency is very important in mitigating risks, as mentioned above.
- If dual pricing is applied, small volumes to the divergent direction should not lead to dual pricing and dual pricing should only be applied for an interim period until the implementation of 15 min ISP.

3 DUAL PRICING AND OPERATIONAL SECURITY

- If introducing dual pricing a totally new problem arises:
 - Assume that the beginning of an hour is upregulated and a market participant has also additional surplus. If then during that hour upregulation stops and it moves to down regulation, the market participant must overcompensate accrued imbalance from the beginning of an hour, meaning de facto stronger need to overcompensate.
 - If the market participant in the example is active in both directions in the balancing market, they will have the needed information to react (no matter if prices/activations are published or not).
- This means that introducing dual pricing is actually not mitigating but worsening power oscillations in the system balance

4 HOW TO DEFINE ISPS WITH DUAL PRICING

- When defining ISPs with divergent regulations, only mFRR should be taken into account as long as aFRR activations are based on frequency and there is no aFRR energy market.
 - As long as there is no aFRR energy activation market and activations are based on frequency with pro-rata activations in the whole area, aFRR activations do not reflect the balancing needs of a specific bidding zone - thus only mFRR should be considered.
- Sum / trend based approach
 - We see challenges with both sum and trend based approaches – there is no good approach for defining ISPs with dual pricing.
 - The only suitable approach would be one where market participants know in advance whether the ISP in question has one a two prices and have a possibility to react to the situation.

5 HOW TO DEFINE PRICES

- Imbalance prices should be defined in bidding zone level.
 - Dual price in one bidding zone should not trigger dual price in other bidding zones.
- Target should be to have both mFRR and aFRR components in the imbalance price.
 - However, as long as there is no aFRR energy activation market, imbalance prices should be defined based on mFRR activations only, applying marginal pricing.
 - This will however lead to a dead band (due to ignoring the impact of aFRR), meaning that it would be important to have the aFRR energy activation market as soon as possible.
- In the future also intraday prices could possibly be taken into account when defining the imbalance price.

6 TSOS' IMPACT ON THE OUTCOME

- TSOs should try to learn and aim to forecast the amount of self-balancing in the system and take it into account when ordering balancing energy activations.
 - This together with increased transparency would mitigate overreactions – no need for dual pricing at all?
- We see a risk with dual pricing (especially with sum based methods) that TSO operators might induce dual pricing in purpose by activating certain bids to the other direction just in order to trigger dual pricing.

7 PRODUCTION PLANS

- TSOs have indicated that there might be a need to consider additional measures to ensure the quality of production plans after implementation of single balance – single price model. We are concerned that this might lead to unequal treatment of production and consumption and destroy the idea of single balance-single price model.
 - We consider that if applied, these measures should be positive, i.e. remuneration for good quality rather than penalties or additional “imbalance costs” for poor quality.

19.12.2019

Sirpoma

Nordic Balancing Model
Feedback/input to Nordic TSO's discussion paper on imbalance pricing
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COMMENTS ON NORDIC TSO'S DISCUSSION PAPER ON IMBALANCE PRICING BY HELEN OY

It is our honor to have this possibility to comment on Nordic TSO's discussion paper on imbalance pricing.

Dual pricing on divergent ISP hours is an interim solution before implementing 15 min ISP. Once 15 min ISP is in effect dual pricing should not be available. We are pleased to see the discussion paper also outlines the dual pricing being interim. However, we emphasize the importance of having only single pricing once 15 min is implemented.

The criteria for defining the ISP hour as divergent should be unambiguous and the decision process where hour ISP becomes a divergent should afterwards be repeatable from publicly available information.

We would prefer a limit based (MWh or MW) classification criteria for defining a divergent ISP. Volume based limits are simple to follow and the fulfilment of the criteria can be proven. The limit should be set up with a threshold high enough that only ISPs with meaningful divergent balancing volumes for the bidding area could be considered as divergent ISPs.

Dual pricing during divergent ISP should be considered for each bidding area separately. If one bidding area in the Nordic becomes a dual priced it should not cascade automatically to neighboring bidding zones. Only if the predefined criteria on the bidding area are met the ISP hour may be dual priced.

When applying dual price ISP hour, the most market-based method, based on the latest information, for pricing the both directions must be followed. The current approach for generation where spot price is applied is not probably the best suited anymore. Instead we have both up- and down-regulation curves and information of at which price the TSO is purchasing balancing energy. Those should be used also for the non-dominant direction in case of dual price hour.

TSOs' should provide real time information to market participants whether the ISP is up or down regulated. In case, the predefined criteria when the ISP has become divergent ISP are met the information should be notified to market participants in real time.

Helen Oy

A handwritten signature in blue ink, appearing to read "Pekka Manninen".

Pekka Manninen
CEO

Further questions Harri Sirpoma

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Date: 12.12.2020

Feedback and input to proposed imbalance model

Markedskraft has considered the effect of introducing a kind of dual price system as part of the transition process to single price system in the future Nordic Balancing Model (NBM).

Today we have single price model on consumption imbalances and two price model on production imbalances.

One goal of the NBM is to have single price model on both consumption and production and Markedskraft fully supports that.

Though it is understood that considerations are being done to have an intermediate system of a dual single price model on both production and consumption.

Implementation effort of dual single price model in Markedskrafts systems is estimated to be relatively high. We need to make changes to all our customers with consumption balances where we are BRP, and we find it very little effective to make these relatively large changes that should be valid for 2 years only.

The introduction of a dual-price system for consumers that is not familiar with 2-price systems, might have following impact:

- It is a new way for calculating imbalances for the consumers

- The cost of imbalance for consumers will increase

- Long lasting contract with fixed balance cost for consumers might need to be renegotiated

- Due to its complexity, there is a danger of less transparency for the consumers

An introduction of a new way to calculate imbalances, with upgrading of systems and balances that needs to be modified **in addition to implementation of Danish customers in eSett and Swedish elhub**, will lead to too many changes being implemented simultaneously, and this might lead to critics to NBM for being too offensive in introducing new ways to act in the balancing-market while their participants (read: customers) and the market will be stuck with the (unnecessary) costs.

On this background, even though we want a one-price-system in general, we will recommend NOT to introduce the dual-price-system for consumption and production from q2 2021.

This recommendation is due to the cost to the society that needs to implement new and temporary ways to calculate and explain the dual-price-systems. Costs that will be large for a system that will only last until the 2years later introduction of 15-minutes resolution.

Med vennlig hilsen / Kind Regards
Markedskraft AS

Bård Mageli



To the Nordic TSOs

Position on implementation of single price model in the Nordic balancing areas

Nordenergi welcomes the Nordic TSOs' proposal to implement a full single pricing model by Q2 2021. Single pricing is an important element in the future balancing regime in Europe and in the Nordics as implemented with the Nordic Balancing Model. It ensures that all market participants are met with a clear and transparent price signal on the system state and incentivizes the contribution of flexibility from both consumers and producers in support of the system balance. The proposal is in accordance with EBGL default requirements. We welcome the discussion paper and underline the importance of proceeding timely with the implementation together with the stakeholders.

1. We find the TSOs' concerns about the potential negative impacts of single pricing exaggerated

We understand that the TSOs' primary concern is that a one-price settlement, in combination with 60-minutes ISP (all else equal), increases the risk of power oscillations following that market participants' (BRPs) act on insufficient information. We find this unwarranted for several reasons:

- The discussion paper is based on opinion and theoretical arguments, rather than in-depth analyses on the actual effect of moving to single pricing. There are no proper quantitative assessments of the scope and depth of any potential negative impacts, nor historical analysis on the extent of this problem under the current regime.
- In reality, the current imbalance regime for producers deviates substantially from a pure dual price model, as producers can shift imbalances to the trade or consumption balance. Hence, the incentives arising from the single price model already exists to some extent today, and yet we see no evidence of the negative impacts.
- The balance responsible parties (BRPs) will in practice have relatively limited information during the hour of operation that constitute an ISP. When this is put in relation to the business risk related to self-regulation, we see it very unlikely, that any major oscillation will occur.

Nordenergi is the joint collaboration between the Nordic associations for electricity producers, suppliers and distributors. Nordenergi consists of The Danish Energy Association, Energy Norway, Finnish Energy Industries, Samorka – Icelandic Energy and Utilities and Swedenergy.

- The risk that the system would change dominating direction of regulation during extreme hours (with large upregulation or downregulation needs and high imbalance prices) is highly unlikely. Thus, the hours with the greatest risk of power oscillations will never be strained or extreme hours, and the electrical system's robustness and reliability will therefore not be adversely affected.
- The quality of production plans submitted to TSOs is generally high and we do not see that changing in the future. However, in a single price, single position model the production plans can no longer form a basis for imbalance calculation - what matters is the actual metered generation and consumption. If higher quality production plans are necessary for operational planning, TSOs should provide a positive incentive for providing and updating these. This could be a product purchased by TSOs just like any other ancillary service.

Based on the above, our view is that the TSO concerns are exaggerated and should not, without substantial evidence of the opposite, guide the choice of action and thereby restrict the benefit of a more market-oriented approach.

2. Use of dual pricing after Q2 2021 will have negative implications and impede demand side flexibility

Any future dual pricing use will apply to all imbalances, including consumption, as a result of the move to single positions. This will have several negative consequences:

- Consumers will face more expensive imbalances from the application of dual pricing which will cause financial losses for the market participants. Already signed long-term contracts may have to be renegotiated unless BRPs can and will carry the losses.
- European legislation (for instance the Clean Energy Package) puts strong emphasis on consumer empowerment, consumer access to markets and demand side flexibility. Consumers with balancing responsibility are today free to act on the imbalance prices from the single price model and meet a very strong price signal and incentive from this. In situations with dual pricing, the consumers will be relatively worst off in comparison to the current regime, as it will weaken the price signals and hence counteract entry for new demand side flexibility providers and reduce consumers' incentive to act flexibly. Finally, most consumption has no way to mitigate the additional costs of the dual price model by offering flexibility in the regulating power market and should – as such – not be subject to it.
- An unpredictable application of dual pricing in certain hours will reduce liquidity in the intraday market as BRPs will struggle to estimate the real value/costs of imbalances. Less certainty on the energy value results in larger spreads in the market and makes it harder for buyers and sellers to match.
- We do not see that the current imbalance settlement regime maximizes the volumes offered to the regulating power market – an argument often used in support of dual pricing. As an example, very little down regulation is offered to the market in several price zones, for

instance SE4, despite a significant level of dispatchable generation. Hence one of the often-cited advantages of dual pricing can be questioned.

- The application of dual pricing will also result in unnecessary complexity in market setup and IT-solutions (for consumption and trade), and lead to additional costs for managing this complexity both in terms of IT-costs, and increased uncertainty on imbalance cost exposure in each hour, the costs of which will be passed on to consumers.

Based on the above, we believe the negative consequences of applying dual pricing by far outweighs the potential (and yet non-quantified) benefits and therefore should not be applied for any hours in any Nordic area in the future imbalance price methodology.

3. TSOs should conduct an annual assessment of the impact of single pricing in order to evaluate the need for additional mitigation measures

Instead of imposing a dual price model on BRPs ex ante, we suggest that TSO address their concerns by conducting an annual assessment of the impact on single pricing. If the assessment shows significant negative impacts from the single price model, for instance in the form of over-reaction or counter-direction self-regulation in certain hours, TSOs can evaluate the need for, and use of, additional mitigation measures. This assessment and any resulting changes to the imbalance settlement regime should be subject to consultation and regulatory approval.

4. TSOs should consider alternative measures to address any identified challenges

BRP balancing incentives are influenced by several other rules and requirements applied at national level in addition to the current dual price model. TSOs should consider if there are other alternative mitigation measures before applying dual pricing. If the identified and verified challenges cannot be addressed, TSOs could propose to its NRA to implement dual pricing.

The potential introduction of dual pricing should not concern all areas in the Nordics due to concerns in a particular bidding zone or control area. Instead, mitigation measures, including dual pricing, should be introduced at the lowest possible level (whether bidding zone or national). It would be difficult to justify a need for a derogation to regulators, where there is no actual need. Any TSO decision to apply dual pricing should respect the following principles and conclusions:

- **Transparency** - There must be transparency how balancing and imbalance prices are being formed and whether an hour is exceptionally a dual price hour. In order to avoid too strong self-balancing, the market participants need real-time information when the conditions for flagging the hour as dual price are fulfilled and in addition whether this is getting closed to realize. This implies that the condition must be fixed, not proportional. For example, a fixed amount of balancing energy activations into the non-dominant direction.
- **Predictability** - The flagging for dual price hour must follow pre-determined process and conditions. It can't be a black box. It is important that the decision process can be repeated afterwards from publicly available information. This is highly related to transparency.

- **Proportionality** - Finally, we call for proportionality. Dual prices should be applied only when there's a true need, and hence the target needs to be minimizing the number hours where dual prices are to be applied. This implies applying relatively high boundaries. The bidding zones are different and the conditions for dual prices should follow the bidding zone features. On large bidding zones, higher boundaries should be applied and vice versa. The issue of too strong self-balancing is most often local, hence concerns a specific bidding zone. Having the need of applying dual price in an individual area must not corrupt the formation of balancing price in other areas.

The need for applying dual price is connected with 60-minutes ISP and, as TSOs note, the possible and yet unverified risk of too strong self-regulation diminishes highly when changing to ISP15. Hence, the possible application of dual price must be understood as an intermediate and is ended once ISP15 is implemented.

5. Relationship with European regulatory decisions

We do not find it acceptable to delay the single position implementation due to possible later European level regulatory changes. Irrespective of the singly position implementation there will be changes in the way imbalances are to be priced. We understand that the regulatory decisions may also bring burdens for applying dual pricing, and it is good to consider different alternatives to tackle the potential challenges. Some alternatives have been discussed above. This is, however, not a valid reason for postponing single position and single price models.

We thank TSOs for an open and transparent dialogue on this matter look forward to seeing our suggestions reflected in a decision to implement a single price model in the Nordics.

On behalf of Nordenergi,

Martin Schrøder
Chief Adviser, Danish Energy

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--- COMMENTS TO DISCUSSION PAPER ON IMBALANCE PRICING --- VAT REG.NO.: NO-987 059 729

The Nordic TSOs have through NBM web site on 22nd of November asked for feedback and input to a discussion paper on imbalance pricing dated 20th of November. Statkraft wants to contribute with some comments to this paper.

According to the discussion paper the Nordic TSOs find it necessary to supplement the introduction of a single price model with dual pricing during certain imbalance settlement periods (ISPs). The intention with dual pricing is to dampen self-regulation behaviour in those ISPs which can possibly be harmful for the system balance. However, the proposed dual pricing regime is a temporary measure until current 60-minutes ISP is replaced with 15-minutes ISP period which is planned to happen in Q2 in 2023. The temporary arrangement is thus only planned to exist for 2 years.

We believe that developing methodology, processes and IT solutions, and implementing them is both time consuming and costly, both for the TSOs but also for market participants. The question is therefor if this is really needed.

Statkraft believes that it is not necessary. In the Norwegian part of the Nordic power market, we had for many years until September 2009 a single price model with 60-minutes ISP. Our impression is that this functioned well, and we are not aware that Statnett nor NVE had concerns regarding "self-regulation" which seems to be the main reason for the proposed intermediate solution. We therefor ask the Nordic TSOs not to introduce a temporary system with dual pricing in certain ISP. If, this in the unlikely event, turns out to be a problem, we expect that measures can be taken to remedy the problems.

Statkraft would also like to express a view we have after reading the text about "imbalance service fees" in annex 1 of the discussion paper. Here it is said that: "*the TSO financial surplus generated by the settlement of production portfolios on dual pricing must be recovered by another process since the financial neutrality of the TSO shall be ensured*". The TSOs are regulated monopoly business who are entitled to cover their cost in connection with ancillary services. The costs are

typically covered through fees and/or grid charges. If TSOs income reduces because of the transition from dual-price to single price for generation, we expect that this is compensated through existing, or if necessary new, fees or tariffs. These fees or tariffs should however be designed both to cover intended cost but also as far as possible to give cost-correct signals to market participants.

Yours sincerely,
for Statkraft Energi AS



Asbjørn Grundt
SVP Reg Affairs NWE & Hydro portfolio

17.12.2019

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Feedback about Nordic TSO's discussion paper on imbalance pricing

UPM Energy wishes to thank for the possibility to give feedback about Nordic TSO's discussion paper on imbalance pricing. As a general comment, UPM Energy understands the rationale of Nordic TSOs in creating dual pricing model during divergent ISPs for the interim period before 15 min ISP. However, when the 15 minutes resolution is in place, the need for the dual pricing model must be assessed again. TSOs should have a thorough discussion with market participants about the final imbalance pricing components before implementing 15 minutes resolution.

In this feedback, we emphasize the preconditions that we see necessary for the model to be feasible during the transition period. In addition, we comment on the Annex 1, "Components to consider".

Definition of divergent ISPs and pricing

The first question of the TSOs is whether both mFRR and aFRR activations contribute on the definition of a divergent ISP, or if divergent ISPs are defined only based on the mFRR or aFRR activations.

In UPM's view, the classification should be based on the sum of activated volumes of mFRR. The "Dutch" method of basing the definition of divergent ISPs on the trend of the activated balancing energy should not be used.

When defining whether an ISP is classified as divergent or not, UPM proposes using the fourth option, "for mFRR only". This option is the most market based and transparent alternative, which is why we support it. TSOs propose dual pricing to manage and prevent too strong self-regulation by market participants. The problem is not the small energy amounts needed for balancing the grid for which aFRR is mainly used. Therefore, dual pricing and divergent ISPs should only take place during the hours when there is a need for mFRR activations. UPM does not see any reason to have a limit based on activated power (MW) if only mFRR is used as smaller frequency deviances are balanced by using aFRR.

Solutions should be as simple and easy as possible for market participants to implement. UPM strongly supports using only mFRR energy amounts when defining if ISP is divergent, as this solution would be simple to understand for all market participants.

As it is stated in the discussion paper, if the definition of diverging ISPs is based only on mFRR, it will be natural to use the prices for mFRR. UPM agrees on this.

UPM stresses the need for availability of real-time information of the system state and information about whether the current ISP is considered divergent or not. All market participants in the same markets should have the same level of information to ensure level-playing field. Without real-time information, the risks of market participants not being active in self-regulation would also be increased. By making real-time information available, TSOs would incentivise BRPs to self-regulate but avoid undesired and too strong self-regulation. This way the need to balance the grid by TSO actions would be decreased.

Components to consider in Nordic imbalance price consideration

We comment separately each of the components below.

Main components included in the imbalance price

- All market actors should have harmonized and market-based pricing for imbalance price. To ensure level playing-field amongst participants in the upcoming EU-level aFRR and mFRR markets, all participants in these markets should have the same principles for calculating imbalance price.
- Value of avoided activation (VOAA) should not be used in any situation as imbalance price. Biggest market participants could affect the direction of prices quite easily by placing large bids in the high and low ends of offer stack.
- All imbalance prices should come from the market as in Nordic electricity market currently. Nordic countries use either mFRR price or day-ahead market price, if no balancing bids have been activated. No scarcity factors or other “incentivizing components” should be used in addition to balancing markets prices.
- The use of the day ahead auction price or intraday auction price as a basis for imbalance price should be enabled. This would ensure that the imbalance price is formulated in the market based on demand and supply.
- TSOs should have a thorough discussion with market participants about the final imbalance pricing components before implementing 15 minutes resolution.

Scarcity pricing

- All imbalance prices should come from the market as in Nordic electricity market currently. UPM opposes in all cases the setting of scarcity factors or other incentivizing components in addition to balancing markets prices.
- There should be enough trust in the markets in determining the right price for imbalance price. Therefore price limits should be allowed to rise as high as possible.
- All artificial factors transform the market into a more politically driven and TSO operated direction, which is highly undesirable. TSOs should not direct markets nor influence in the price formation.
- If e.g. a scarcity factor is added on the formation of imbalance price, it will create a strong incentive for market participants to withdraw some of their assets from FRR markets in order to gain a better price in imbalance settlement as scarcity factor would increase the imbalance price.

Pricing in case of dispatch of strategic reserves

- No comments.

Incentivising component

- All imbalance prices should come from the market as in Nordic electricity market currently. UPM opposes in all cases the setting of scarcity factors or other incentivizing components in addition to balancing markets prices.

Component with regards to financial neutrality

- All imbalance prices should come from the market as in Nordic electricity market currently. UPM opposes setting other components in addition to balancing markets prices to the imbalance price.

Publication of real-time or close to real-time information on balancing energy prices, imbalance prices and system balance

- UPM stresses the need for availability of real-time information of the system state and information if current ISP is considered diverging or not. Without this information, self-regulation of market participants will not be possible.

Imbalance service fees

- Imbalance service fees should be the same for all kinds of market participants, whether they represent generation, consumption or aggregation.
- Imbalance service fees should not be a part of imbalance pricing. Instead, they should be separate, cost-based and predictable.

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Feedback and input to “ Nordic TSOs discussion paper on imbalance pricing”

Vattenfall understands the TSO's concerns that a one-price settlement, in combination with one hour ISP (all else equal) creates an increased incentive for generators to act and adjust production within the hour. In an extreme case, having market participants acting on insufficient information, this might lead to power oscillations. However, Vattenfall does not support the TSOs assumption that dual imbalance price model has to be applied on imbalance settlement periods (ISPs) with divergent balancing directions. The reasons for this is expressed below. Instead we argue that these concerns are exaggerated and should not, without more substantial evidence, decide the choice of action for this transitory period and there by restrict the benefit of a more market oriented approach.

Motivation:

- **The magnitude of the problem may be overestimated.** The balance responsible parties (BRPs) will in practice have relatively limited information during the hour of operation that constitute an ISP. As long as the dominating regulating direction will be used to determine the imbalance cost, market participant will always face a risk of changing the balancing direction if engaging in self-regulation. This risk will have a strong “cooling effect” on the non-desired behavior..

Power oscillations can still cause unnecessary jerky operation which is in the interest of both System Operators and the plant owners to avoid. Still, Vattenfall does not consider that this is reason enough to impose such far reaching restrictions that is proposed in the paper. Rather we suggest that System Operators continuously evaluate how the system works and only then discuss these types of measures with market participants.

- **Adverse effects for the power system is unlikely.** The risk that the system would change dominating direction of regulation during extreme hours (with large up-regulation or down-regulation and high cost of being imbalanced) is be considered highly unlikely. Thus the hours with the greatest risk of power oscillations will never be strained or extreme hours and the electrical system's robustness and reliability will therefore not be adversely affected.
- **Less restrictive alternative measures should be considered first.** If the Nordic TSOs still is determined to implement a change in the market rules, we instead proposes that the fixed fee on imbalances is increased to strengthen the incentives

for the BSPs to actively bid their flexibility to the Nordic regulation power market. That way a too restrictive and complex system design is avoided.

Vattenfall's position

- Vattenfall encourage the Nordic TSOs to first and foremost safeguard and develop the existing model used for consumption imbalances in the Nordic System. We propose single price settlement where the net volume of called regulating power defines the direction of divergent ISPs/hours. Vattenfall is convinced that this will not jeopardize the safe operation of the electricity system, as extreme hours will not be the one with power oscillations.
- In order to further strengthen the incentives for market participants to transparently offer their flexibility Vattenfall suggest that the fixed fee on imbalances is increased. This will lower the incentives for BRPs to self-balance, and rather act as BSPs on the regulation power market.
- As a second measure the new system with single price and hourly settlement could subject to control point, e.g. 6 months after go-live of the new system. If operating experiences at that point reveal problematic situations alternative measures may then be proposed.