

To the Nordic TSOs

## Implementation of a single price model for imbalance settlement in the Nordics electricity markets

European electricity markets are converging towards the use of single imbalance pricing and single position regimes. To this end the EBGL requires all TSOs to develop a proposal on the use of single pricing by one year after entry into force as part of a wider Imbalance Settlement Harmonisation proposal. 18 months after all NRAs approval of this Imbalance Settlement Harmonisation proposal each individual TSO must implement single pricing (ie likely by June 2021).

However, each TSO can propose to its NRA a methodology for applying dual pricing in specific situations. This is a national decision process. There is no link between the implementation of single pricing and 15 ISP – ie single pricing must be implemented even in a 60 ISP regime.

Nordic TSOs have decided to take a common approach on the implementation of single pricing and will prepare a joint proposal on this including a methodology for use of dual pricing. Their preliminary thinking is presented in a draft document<sup>1</sup> which Nordenergi would like to comment upon with this letter.

### **The proposed implementation model**

In the updated NBM Roadmap the Nordic TSOs state that the single price model will be introduced in Q2, 2021 in line with the EBLG requirements. The implementation model of single pricing is, however, depending on that TSOs and stakeholder will find mitigating measures to avoid self-balancing overreactions by market players, as this is an operational concern to the TSOs.

We believe TSOs should implement the single price model as soon as possible and no later than the EBGL deadline and independently of the potential development of mitigating measures. Practically all stakeholders have voiced support for this in previous meetings and consultation. Implementation of the single price model have several positive implications, including market efficiency gains, correct price signals and visibility for market participants; consistent pricing of real time value of energy; and creation of a level playing field between all BRPs regardless of portfolio composition or geography.

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<sup>1</sup> <http://nordicbalancingmodel.net/single-balance-single-imbalance-price-model-is-proposed-to-be-introduced-in-q2-2021/>

*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.*

## Prerequisites for TSOs

TSOs identify a number of prerequisites for single pricing implementation:

- **eSett updates:** Estimated to take 12 months and already initiated
- **National Terms and Conditions for BRPs and BSPs:** 6-9 months including NRA approval.
- **Cash flow:** The change to the single price model also makes a change to the TSOs cashflow, as the dual pricing for production balance has created surplus for TSO. TSO need to reconsider and potentially revise the current fee structure.

Nordenergi does not consider any of these to be significant barriers to achieving the implementation deadline of June 2021. In case TSOs see any timeline constraints from the above prerequisites, we urge TSOs to explain and discuss these in details with stakeholders.

## Nordenergi responses to TSO identified challenges

Nordenergi has reviewed the ‘challenges’ related to the implementation of a single price model as identified by TSO. Below we address each of these ‘challenges’ and share our views and suggestions for further consideration by TSOs.

**1. Too strong self-balancing behavior.** TSOs voice concern that real-time price information on system balance combined with single pricing generates incentives for self-regulation. This feedback loop may trigger oscillations in system balance which impact negatively on the efficiency of the system operator balancing actions and consequently on operational security.

### Nordenergi response:

The single price model should in fact incentivize self-regulation. This is not a challenge but rather a benefit from the implementation of the model. TSOs should also welcome the ability of BRPs to support the system balance through self-balancing. Secondly, we find this a largely theoretical issue at the moment, as BRPs currently have limited visibility on the imbalance price close to real time. Until BRPs are provided more accurate information on real-time system balance and prices, there is no strong signal to self-balance and hence no risk of negative feedback loops on the system balance but also limited efficiency gains. We therefore urge TSOs to increase transparency on the real-time system state and imbalance prices.

Finally, we also remind TSOs that in several parts of the paper the risk of too strong self-balancing behavior is deemed very limited, see for instance the text below from p.8 in the paper:

*Even if the current imbalance settlement would change from current Nordic pricing scheme to single pricing, if BRP's doesn't have visibility to the prices, it is not expected, that BRP's behavior will have an effect on balancing. (p 10)*

*The incentive a single imbalance price create for BRPs to support the system balance can in practice be limited as the price is determined after the operational hour and the BRPs doesn't get accurate signals real-time of what actions that are positive for the system balance. (p 8)*

**2. Possible delay between the price signal and real-time situations.** When applying a long ISP, the BRP is economically incentivized to act on their energy balance over one hour. Since an energy balance over a longer time period has a relatively weak link to the physical power balance (the TSO concern), the EBGL general principles are more correctly achieved by a settlement design that incentivizes the BRP to keep their position – “be in balance”. However, in a situation when the ISP length is significantly reduced, the link between the BRP target based on an energy balance over the ISP and the TSO target to physically balance the system will be strengthened.

**Nordenergi response:**

We agree with this theoretical challenge when combining single pricing with 60 ISP. However, this will only be a temporary issue until a higher time resolution is implemented. TSOs should provide quantitative evidence of the problem rather than setting the framework on the basis of a possibility. If after this analysis TSOs are still concerned, some mitigants can be considered more detail, also by looking at experiences in foreign markets. The conditions for when an hour will be considered as dual price hour need to be discussed together with the stakeholders. Also it needs to be discussed more in detail which would be the implications of dual pricing and how the negative impacts for market participants for applying dual pricing could be limited.

**3. Production plans quality.** The key concern is that the quality of the production plans will be reduced if there is no financial incentive for production plans.

**Nordenergi response:**

TSOs should justify why the plans are needed. With CCM and increasing levels of variable renewable energy, the importance of pre-sent plans quality and sticking with those should be minor and more important to have always as accurate as possible up-to-date production plans. If high quality production plans are necessary for operational planning, TSOs should provide a positive incentive for providing these. This could be a product purchased by TSOs just like any other ancillary service.

**Position on the TSOs’ proposed mitigation measures**

Nordenergi has also reviewed the three mitigation measures proposed by TSOs to address the potential ‘challenges’. Below we address each of these mitigation measures and share our views and suggestions for further consideration by TSOs.

**1. Dual pricing during the ISPs with balancing actions in two directions.**

<b>TSO justification</b>	<b>Nordenergi Response</b>
In some power systems where single pricing is otherwise used (for example in the Dutch power system), dual pricing is used on specific ISPs when TSO requests both up-and down regulations. This means that BRPs are incentivized not to perform self-regulation during the ISPs when dual pricing is used	TSOs have not yet provided quantitative evidence of the problem. Only after this analysis is possible to consider mitigants including interim solution e.g. dual pricing for a <b>limited share of hours</b> until 15 ISP is implemented.

	<p>However, under this scenario it will be necessary to provide a detailed methodology and clarify:</p> <ol style="list-style-type: none"> <li>1. If it is only to be used in situations with activations in both directions in one particular bidding zone?</li> <li>2. What would trigger an hour of being considered as dual price hour (for example any aFRR activation can hardly justify it)?</li> <li>3. Provide a granular historical analysis to assess how often these situations occur in any one Nordic market area?</li> <li>4. Assess how this will impact consumption and trade BRPs that are currently not subject to a dual pricing model.</li> <li>5. Determine under which circumstances a TSOs may deviate from the framework if the problem does not exist?</li> <li>6. Advance warning for the hours in which single or dual price is applied? How will this be informed?</li> <li>7. Define the minimum level of information and transparency provided to market participants to enable the forecasting of such hours.</li> </ol>
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## 2. Limiting the real-time information

<b>TSO justification</b>	<b>Nordenergi position</b>
<p>A 30 min delay would most probably heavily limit the possibility to take informed decisions on self-regulation, also in a 60 min ISP context, and could therefore be used in an interim phase to limit the self-regulation before the 15 min ISP is implemented.</p> <p>Delay publication of real-time information on system balancing state may also be used in combination or as an alternative mitigation measure.</p>	<p>The publication of real-time information on system state should not be delayed. The availability of real-time information on the system status is of key importance for BRPs to support the system balance and TSOs should generally seek to provide as much transparency on the system state as possible. Delay of this information will reduce efficiency and risk putting BRPs with activated balancing resources in an insider position.</p>

## 3. Contracts for production plans

<b>TSO justification</b>	<b>Nordenergi position</b>
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<p>With the single position model the BRP will be indifferent to whether the imbalance is on the consumption portfolio or production portfolio, since there'll be no financial difference between the two portfolios. Hence, the BRP no longer has a financial incentive to optimize the quality of the production plans provided to the TSO. The quality of the production plans would therefore be incentivized either through requirements in the BRP national terms and conditions or through the BRP's internal use of the same production plans.</p>	<p>The heading states 'contracts', however no such contracts are mentioned in the text. Market participants support the use of contracts in order to introduce a positive incentive for the provision of high quality production plans if those are needed by TSOs.</p>
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We urge TSOs to take our comments and suggestions into consideration in the forthcoming endeavor to implement a single price model in the Nordics and look forward to further discussions in the NBM reference group.

On behalf of Nordenergi,

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