

**Stakeholder telco on single balance – single  
imbalance price model  
11.3.2020**

# Agenda

1. Upcoming changes to Nordic imbalance settlement model
2. The European Methodology for the harmonisation of Imbalance settlement
3. Possible mitigation measures and the Nordic balancing model
4. High-level overview of implementation & work plan for the single price project

**- In the end of each agenda item there's a possibility to ask questions -**

**- Please mute yourself if you're not speaking -**

## 1. Upcoming changes to Nordic imbalance settlement model



# New imbalance model will be implemented as a part of the NBM program by Q2/2021

- The Nordic TSOs are implementing a new settlement model for imbalance power
- The new model is requested by European regulation, the Electricity Balancing Guideline and more specifically, the European methodology for imbalance settlement harmonization
- New imbalance model is based on single position – single price model



# NBM New imbalance model in short

Nordic Balancing  
Model

## Current imbalance settlement

Production  $-$  Planned production  $-/+$  Production imbalance adjustment  $=$  Production imbalance power

Dual price

Consumption  $+$  Planned production  $-/+$  Trade  $-/+$  Consumption imbalance adjustment  $+$  MGA imbalance  $=$  Consumption imbalance power

Single price



## Future imbalance settlement

Consumption  $+$  Production  $-/+$  Trade  $-/+$  Imbalance adjustment  $+$  MGA imbalance  $=$  Imbalance power

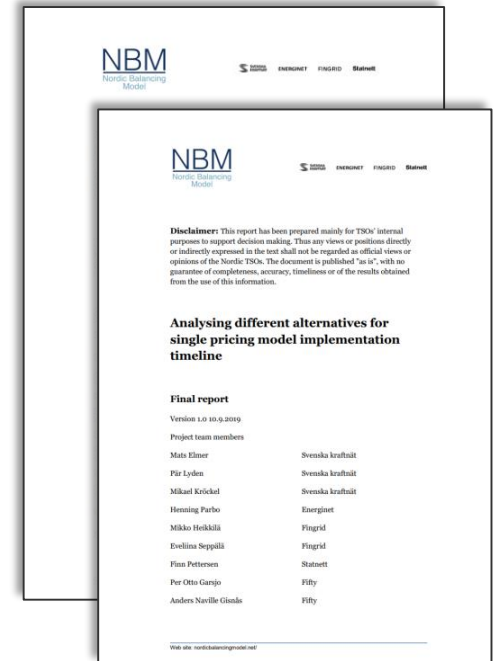
Single price

Consumption and production refers to metered values.

MGA = Metering Grid Area

# Recent developments (1 of 3)

- Nordic TSOs published [a discussion paper on imbalance pricing](#) focusing on dual pricing on so called diverging ISPs on 22 November 2019
- Stakeholder consultation on the TSO paper on imbalance pricing was finalized on 1.1.2020
- [Summary](#) of stakeholder feedback<sup>1</sup> was presented to all stakeholders on 13.1.2020 in a telco
- Almost all stakeholders express their clear preference of not having dual pricing on diverging ISPs even as an interim solution before 15 min ISP



<sup>1</sup> Individual responses available here (stakeholders who gave permission to publish): <http://nordicbalancingmodel.net/wp-content/uploads/2020/01/Nordic-stakeholders-feedback-on-imbalance-pricing-consultation.pdf>

## Recent developments (2 of 3)

- Working group evaluated the stakeholder feedback and different mitigation measures for concerns related to self-balancing
- Nordic Balancing Steering Committee decided 24.1.2020:
  - To implement a single price - single position imbalance model by **Q2/2021**, without the previously proposed dual pricing in so-called diverging ISPs
  - To continue considerations regarding alternative mitigation measures, as the Nordic balancing model is based on market parties following plans and keeping their balance
  - Start the IT implementation in eSett
- Main reason for reconsideration was uncertainty of the cost/benefit of dual pricing as mitigation measure before 15 min ISP
- Decisions were [communicated to stakeholders](#) on 29.1.2020

## Recent developments (3/3)

- The all TSO proposal on harmonization of imbalance settlement has been referred to ACER on 14.1.2020
  - Moves the legal deadline for implementation up to 6 months and gives uncertainty in particular on the conditions for pricing
  - ACER is expected to make a decision on the proposal on Board of the Regulators meeting on 17<sup>th</sup> of June. Legal deadline for ACER decision is 14.7.2020.
  - After ACER decision, the TSOs have 18 months to implement the proposal
- Referring the imbalance settlement harmonization proposal to ACER extends the legal deadline, but it is not proposed to delay implementation of single position – single price model



# Questions?

## **2. The European Methodology for the harmonisation of Imbalance settlement (ISH Methodology)**

## Current status of the ISH Methodology

- The proposal is currently at ACER and is open for public consultation from 9 March until 29 March
- ACER is in charge of the consultation (i.e. not a TSO consultation).
- ACER will use the Stakeholder input to assess the amended proposal
- Further info:  
[www.acer.europa.eu/Official\\_documents/Public\\_consultations/Pages/default.aspx](http://www.acer.europa.eu/Official_documents/Public_consultations/Pages/default.aspx)

# Timeline

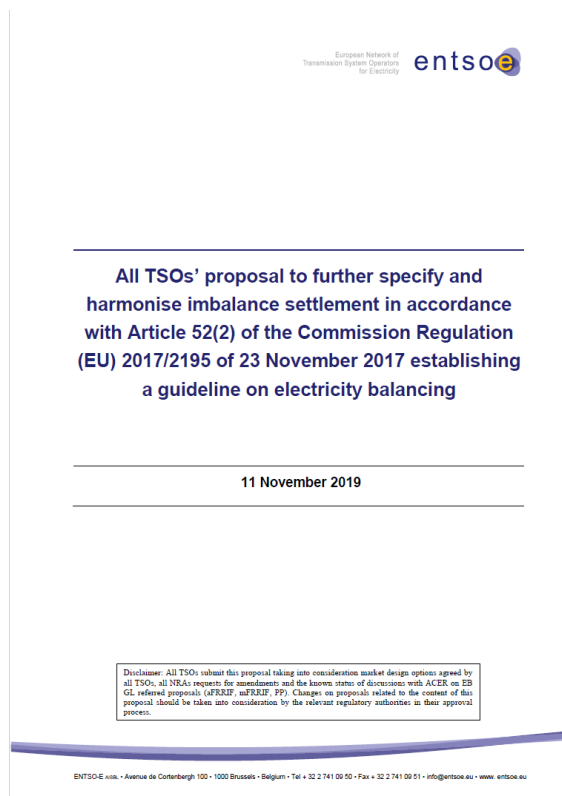
- |              |  |     |                          |
|--------------|--|-----|--------------------------|
| 1.           | EB Regulation entry into force (Article 52.2 Legal basis for Imbalance settlement harmonisation) | 1.  | 18 December 2017         |
| 2.           | TSOs consulted first proposal with stakeholders  | 2.  | 28 Sept to 16 July 2018  |
| 3.           | TSOs submitted proposal to NRAs  | 3.  | 18 December 2018         |
| 4.           | NRAs submitted RfA to TSOs   | 4.  | 14 June 2019             |
| 5.           | TSOs submitted amended proposal to NRAs  | 5.  | 11 November 2019         |
| 6.           | Nordic TSOs indicate implementation date (in NBM roadmap)  | 6.  | 14 November 2019         |
| 7.           | NRAs submitted the amended proposal ACER   | 7.  | 14 January 2020          |
| We are here! |  |     |                          |
| 8.           | ACER launch second stakeholder consultation and in parallel consult TSOs and NRAs                | 8.  | 9 March to 29 March 2020 |
| 9.           | ACER public workshop in Brussels   | 9.  | 18 March 2020            |
| 10.          | ACER will decide and publish their decision  | 10. | 14 July 2020 (at latest) |
| 11.          | TSOs to implement the methodology (at latest)  | 11. | 14 January 2022          |

## Timeline - additions

- The ISH Methodology allows for national adjustments after NRA approval;
  - Additional components in the price calculation
  - Application of dual pricing
  - This implies that additional consultations and NRA approval on national level may be added to – or after - the mentioned EU timeline
- The ISH Methodology shall be implemented in the national T&C
  - This includes national consultations



# The methodology



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# The methodology

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## The "important" content

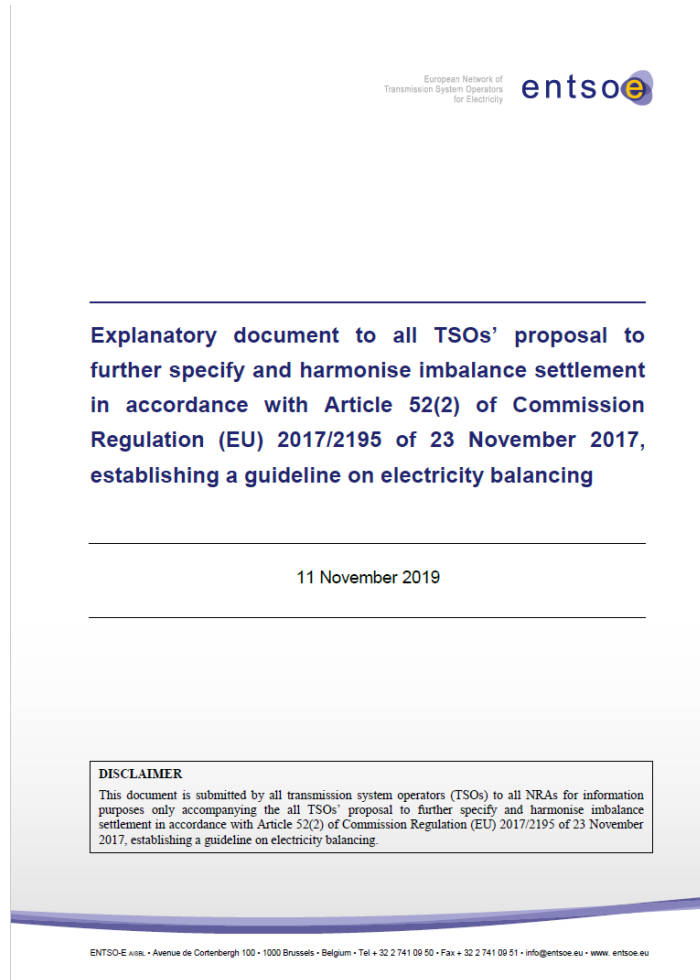


**All TSOs' proposal to further specify and harmonise imbalance settlement in accordance with Article 52(2) of the Commission Regulation (EU) 2017/2195 of 23 November 2017 establishing a guideline on electricity balancing**

11 November 2019

Disclaimer: All TSOs submit this proposal taking into consideration market design options agreed by all TSOs, all NRAs requests for amendments and the known status of discussions with ACER on EB GL referred proposals (aFRRIF, mFRRIF, PP). Changes on proposals related to the content of this proposal should be taken into consideration by the relevant regulatory authorities in their approval process.

# The Explanatory document



- An explanatory document was also attached to the ISH method
- This document is available via the consultations and is recommended reading for Stakeholders with the ambition to have a more thorough understanding of the TSO proposals
- Nordic TSOs have and will continue to publish more detailed discussion papers on the topic

## Article 3 The calculation of an imbalance adjustment

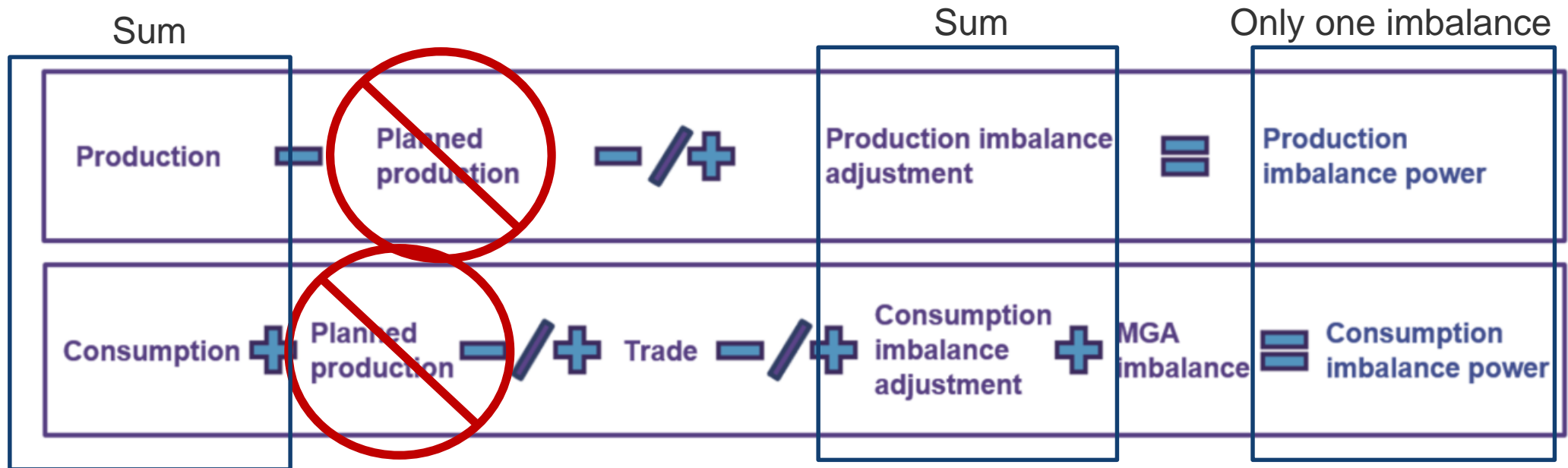
- Specifies (as the title indicates) how imbalance adjustments shall be determined.
- The Imbalance adjustments ensures that the energy allocated to a BRP is adjusted by the volume of activated balancing energy or in other words; BSP – TSO trades shall be accounted for in the allocation of energy to the BRP
- The article is rather generic and includes energy activations for system constraints, balancing, activations in the system defence plan, curtailments, etc.
- **For the Nordics:** The current wording is not perceived to imply any big changes from current practices.

## Article 4 The calculation of a position, an imbalance and an allocated volume

- Harmonised rules for calculation of
  - The final position: Equals the sum of BRPs: external and internal trade schedules;
  - Allocated volume: Refers to the metered as well as the “profiled” consumption and generation adjusted with the in article 2 defined Imbalance adjustment
  - The article allows for additional adjustments of the allocation due to e.g. residuals due to profiling or adjustments to e.g. independent aggregators.



## Article 4 The calculation of a position, an imbalance and an allocated volume



## Article 4 The calculation of a position, an imbalance and an allocated volume

$$\text{Consumption} + \text{Production} - \text{Trade} - \text{Imbalance adjustment} + \text{MGA imbalance} = \text{Imbalance power}$$

- **For the Nordics:** Foreseen as a rather big change compared to current practices;
  - The use of one single final position
  - Removal of the link to production plans and only the use of trade schedules

## Article 5 Components used for the calculation of the imbalance price

- **Main component** is the FRR and RR (if applied) balancing energy prices (calculated by the European platforms – MARI, PICASSO and TERRE)
- **Additional components** allowed (e.g. Scarcity component)
- The article allows a price calculation based on marginal FRR or RR prices **or** a volume weighted average approach
- The price calculation is based on imbalance price area (BZ) demand
- **For the Nordics:** European price formation for FRR and BZ demand will to some extent impact the prices. Not harmonised design choices to be made

## Article 6 Definition of the value of avoided activation of balancing energy from frequency restoration reserves or replacement reserves

- Stipulates imbalance price calculation rules in ISPs where there is no balancing energy demand in the imbalance price area (BZ)
- The price shall be calculated based on FRR or RR bid prices from BSPs connected to the TSO. In practice, this means that the price equals the average of the first upward and first downward regulating FRR or RR bid price
- **For the Nordics:** A change in methodology - prices will be linked to the local FRR merit order list and the application is related to local demand instead of demand in uncongested area

## Article 7 The use of single imbalance pricing

- Well, the article title is rather intuitive ...
- Single price means that, for a given ISP in a given imbalance price area, the price for negative imbalance and the price for positive imbalance are equal in sign and size.
- Allows for application of dual pricing based on conditions in Article 8
- **For the Nordics:** Production imbalances will be priced using single pricing (i.e. Consumption and production imbalances will be priced the same way)



## Article 8 Definition of conditions and methodology for applying dual imbalance pricing

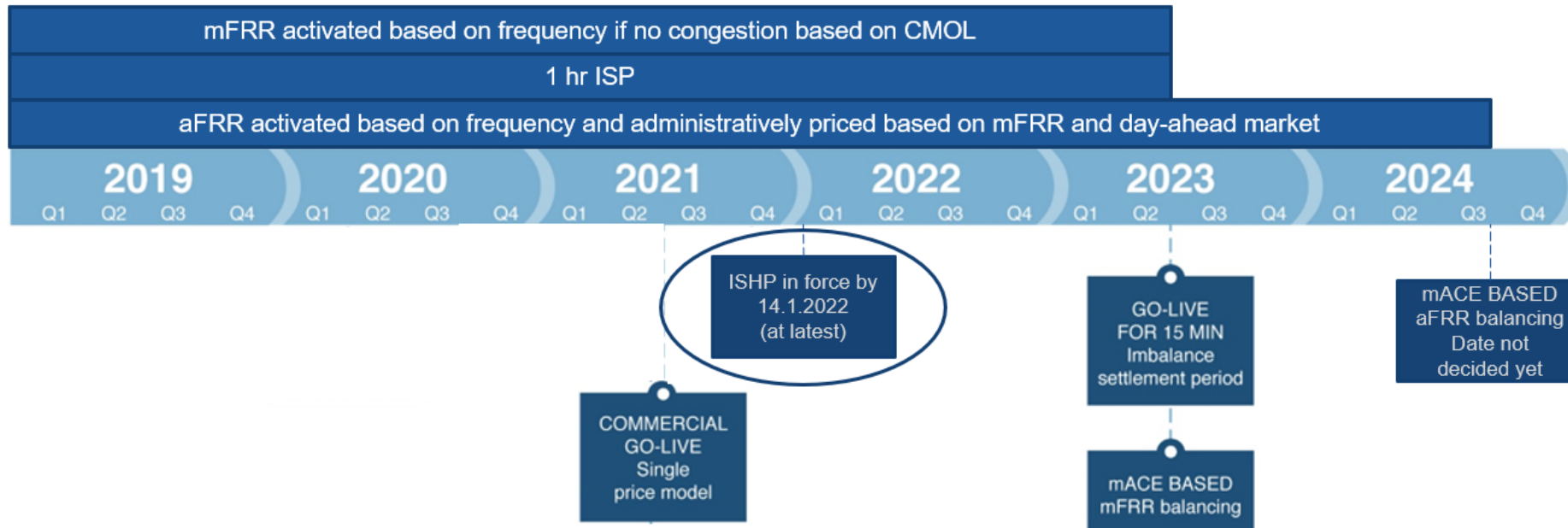
- The article stipulates conditions for when a TSO may propose the application of dual pricing
- Five conditions are listed out of which a few is of relevance for the Nordics
- Application must be justified and approved by national NRA
- **For the Nordics:** As mentioned, the Nordic TSOs have decided (in dialogue with Stakeholders) to not propose dual pricing

## Preliminary thoughts and uncertainties related to the Nordic implementation (1/2)

- The European methodology is not yet finalised/decided, which adds uncertainty
- The revised imbalance settlement scheme will impact on cash flows for TSOs and BRPs and the burden for production and consumption portfolios -> Possible adjustments of BRP fee levels
- The link to production plans are removed and financial incentives for self-regulation is increased. The level of impact is not known
- It shall be noted that implementation is a national matter and it is each national NRA that takes decisions, which may result in national discrepancies (temporarily or permanent)

## Preliminary thoughts and uncertainties related to the Nordic implementation (2/2)

- Some sort of stepwise implementation is needed (Nordic roadmap and European integration)



# Questions?

## 3. Possible mitigation measures and the Nordic balancing model



## Introduction

- The balancing model of the Nordics is based on market parties following plan and maintaining their balance – this will not change with the go-live of the new imbalance model
- There is a need to further assess alternative mitigation actions for self-regulation
- With self-regulation we mean taking an active imbalance with the intent to support the system

# Why it is important for how we balance in the Nordics that the market players follow plans and stay in balance

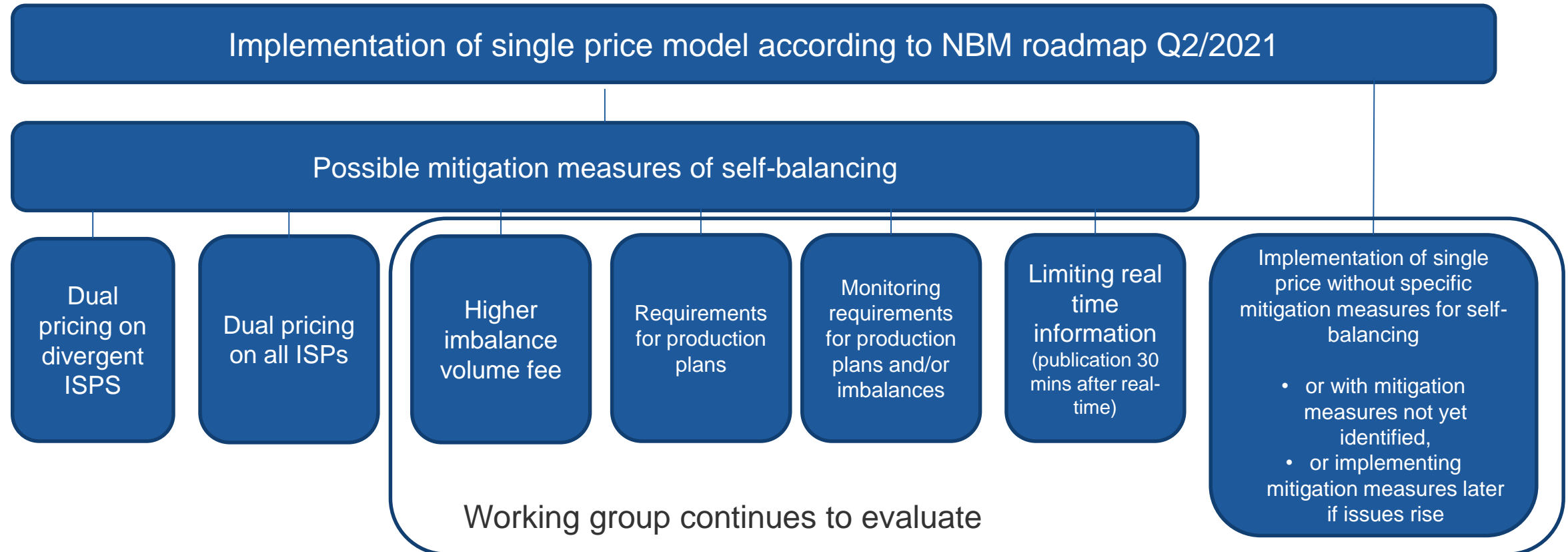
- The aim of the Nordic way of balancing is to maintain operational security and balance in an efficient way for society
  - Be able to give as much cross-border capacity as possible to the market in day-ahead and intraday timeframe and avoid overloads in real-time (with minimum security margins)
  - Avoid uncoordinated actions leading to less efficient activation of balancing energy from mFRR for both balancing and congestion management purposes and risk of poorer frequency quality and overloads
- Production plans are a key element in the necessary processes
  - Final congestion management (redispatch) is based on final production plans for the operational hour
  - Proactive balancing is based on imbalance prognoses which are supported by final production plans for the operational hour

➤ The best way to support the system in the Nordics is by following plan and staying in balance

## Feedback from stakeholders to consultation on "[Discussion paper on imbalance pricing](#)" and voluntary feedback to "[Single pricing model timeline report](#)" on self-regulation

- Stakeholders don't see possible self-regulation as a problem for system operation
- Some stakeholders (at least) see self-regulation as a benefit, which the single price model should incentivize and TSOs welcome
- The Nordic TSOs would like to ask market players to elaborate on why they find self-regulation behaviour from BRPs attractive, instead of explicitly providing their flexibility to the TSOs as a BSP through balancing energy market bids

# Possible mitigation measures



# Alternative mitigation measures - overview

Mitigation measure	Description	Target
<b>Higher imbalance volume fee</b>	Will increase the cost of having an imbalance	Incentive to maintain balance
<b>Requirement for production plans</b>	Give requirements on scheduling of production and provide the TSOs with necessary information for real-time operation	Incentive to follow plans
<b>Monitoring requirements for production plans and/or monitoring of imbalances</b>	Follow up on BRP imbalances and the following of productions plans	Both incentive to maintain balance and follow plans
<b>Limiting real time information</b>	Design of when information is made available to the market players	Both incentive to maintain balance and follow plans
<b>Implementation of single price without specific mitigation measures for self-balancing</b> <ul style="list-style-type: none"> <li>• or with mitigation measures not yet identified,</li> <li>• or implementing mitigation measures later if issues rise</li> </ul>		

## To be published in March..

Current requirements and the  
use of production plans by each  
Nordic TSO

March 2020

Preliminary title

Will also include  
requirements for  
imbalances and current  
monitoring activities

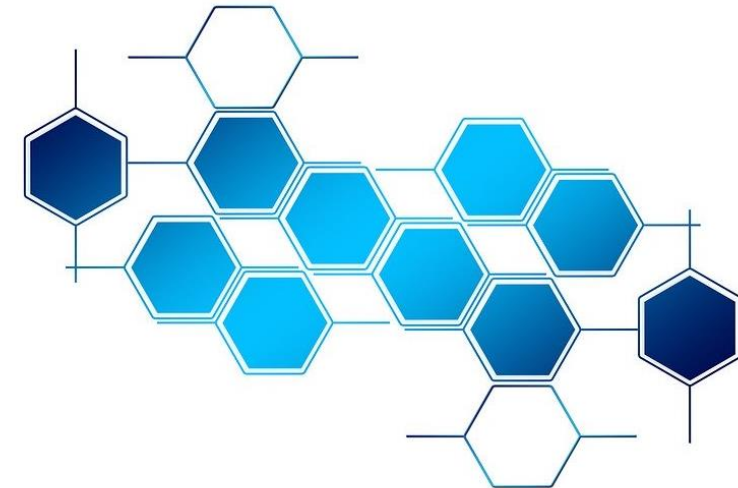
# Questions?



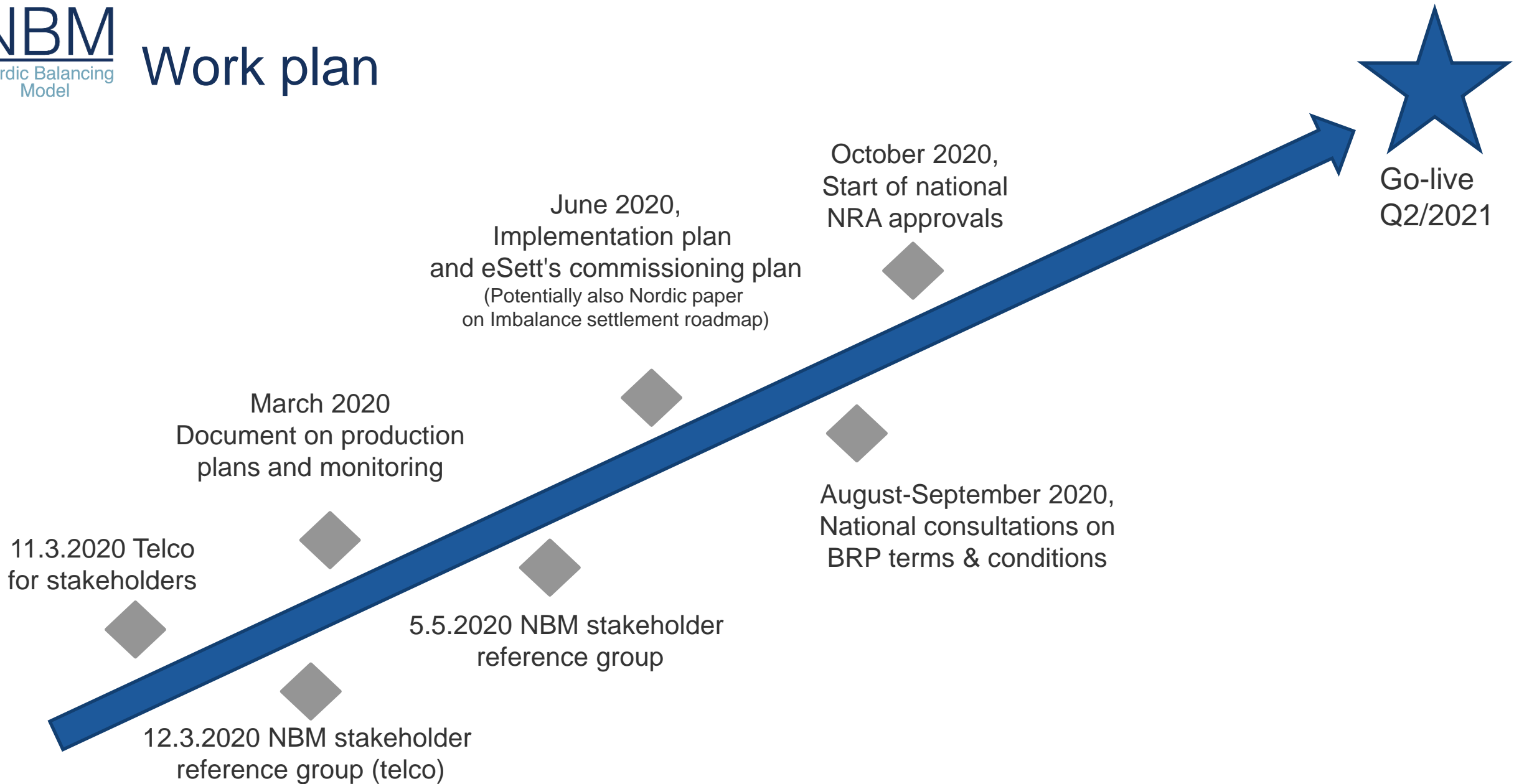
## 4. High-level overview of implementation & work plan for the single price project

# High-level overview of implementation

- Biggest changes to IT systems are needed in the joint Nordic imbalance settlement company, eSett
  - In addition TSOs back-office systems needs to be updated
- TSOs have understood that BRPs and market players need to make only minor changes to their IT-systems
- **National** terms & conditions for BRPs needs to be updated (no Nordic legal process required)



# Work plan



# eSett and single balance

- eSett has received order from TSOs to implement single balance model and preparations has already started
  - IT system implementation from two balance model to single balance model will be started soon
- NBS Handbook will be updated to be single balance - single price compatible
- Currently eSett sees that there are no need for comprehensive testing period with market participants
  - Visible changes for market concerns Online Service user interface and reporting of imbalance settlement results (from eSett to BRP)
- Commissioning plan of single balance will be prepared during the spring 2020

# Questions?



**Thank you!**  
**Questions?**

**Material is available at:**  
<http://nordicbalancingmodel.net/>