

Implementation of 15min Imbalance Settlement Period highlighting differences between countries

14.09.2021 / NBM stakeholder reference group meeting

Janne Heikka

Visit nordicbalancingmodel.net

Agenda

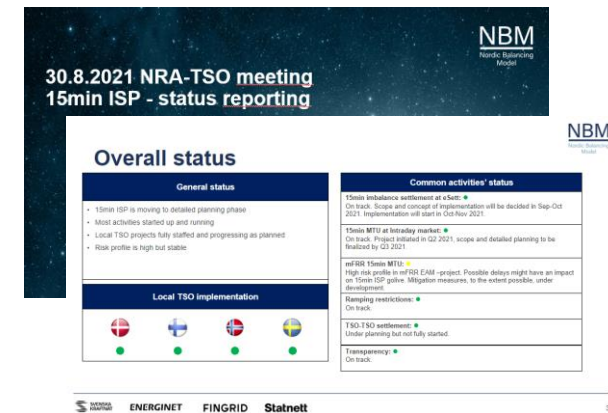
- Latest news from the project
- Implementation status
- Energy metering and datahubs

Value chain of 15min ISP



Latest news from the project

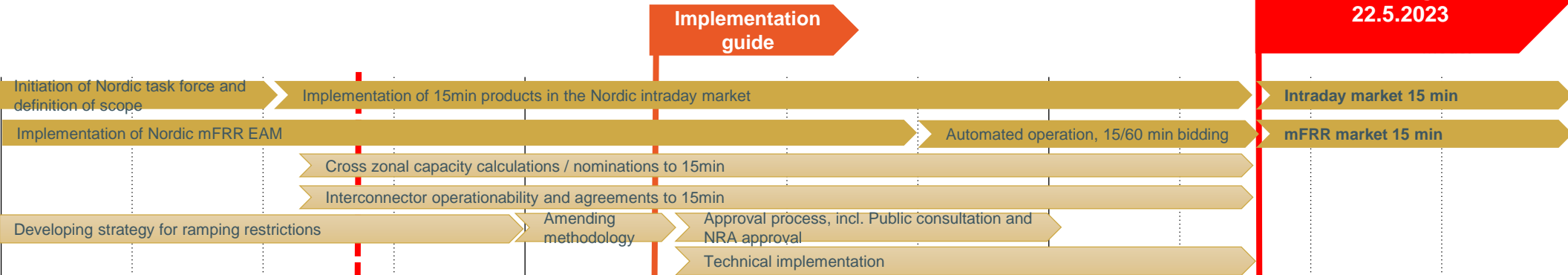
- Implementation of 15min intraday market has started in cooperation with TSOs, NEMOs and RSC
- Legislation, setting requirements for 15min energy metering, approved in Finland and Norway
- Semi-annual Nordic 15min ISP status reporting to the Nordic NRAs initiated
 - *Implementation is progressing as planned on both Nordic and local levels*
 - *Risk profile is stable but **high** – top risk is related to golive of mFRR EAM automated operation*



Overall status of implementation

Energy markets & exchange:

- Intraday 15min MTU
- mFRR 15min MTU
- Cross-zonal capacities 15min
- Interconnector readiness
- Ramping restrictions



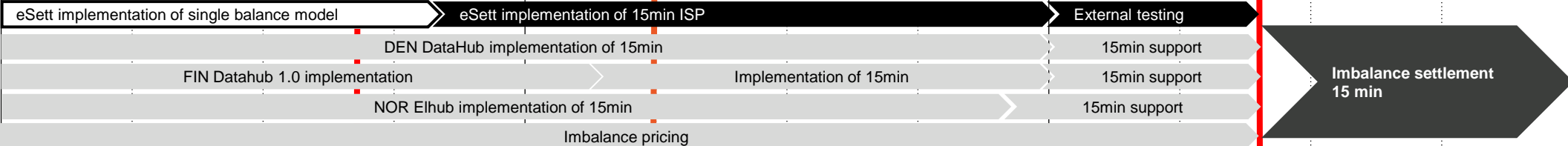
15min ISP go-live 22.5.2023

Intraday market 15 min

mFRR market 15 min

Imbalance settlement:

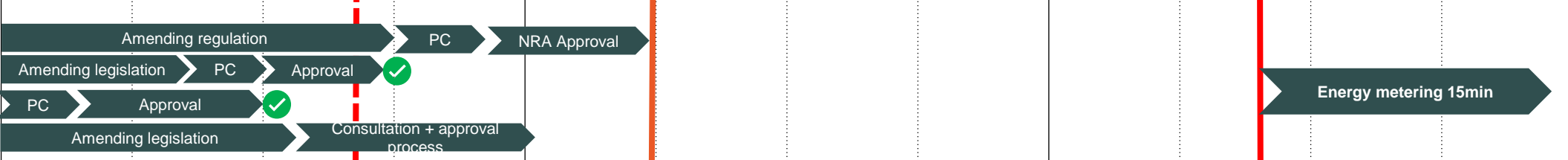
- eSett 15min
- DEN DataHub
- FIN Datahub
- NOR Elhub
- Imbalance pricing



Imbalance settlement 15 min

Legislation on 15min energy metering:

- Denmark (regulation)
- Finland
- Norway
- Sweden

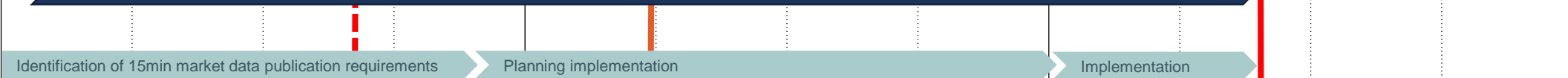


Energy metering 15min

Agreements



Publication of 15min market information



ENER

2021				2022				2023			
Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4

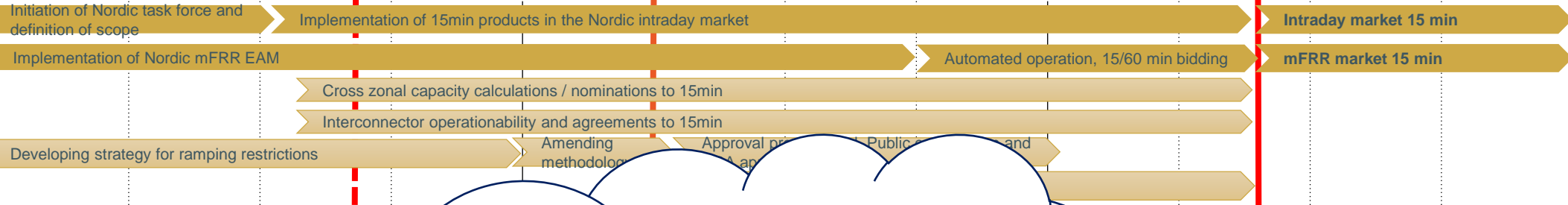
Overall status of implementation

15min ISP go-live
22.5.2023

Implementation
guide

Energy markets & exchange:

Intraday 15min MTU
mFRR 15min MTU
Cross-zonal capacities 15min
Interconnector readiness
Ramping restrictions



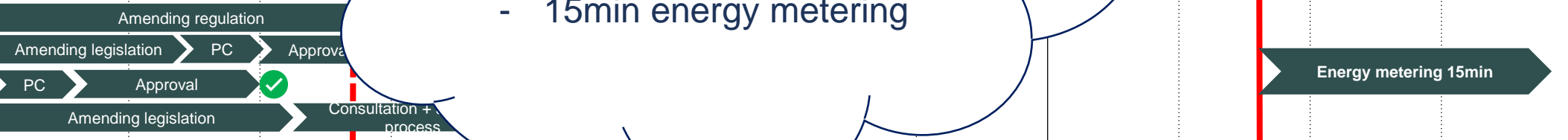
Imbalance settlement:

eSett 15min
DEN DataHub
FIN Datahub
NOR Elhub
Imbalance pricing



Legislation on 15min energy metering:

Denmark (regulation)
Finland
Norway
Sweden



Agreements

Publication of 15min market information



Most significant differences between countries:

- Datahubs
- 15min energy metering



ENERGY

2021				2022				2023			
Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4

Requirements for 15min energy metering

Denmark	Finland	Norway	Sweden
<p>Regulation (Market regulation D1) pending and subject to approval by the NRA. Expected to be approved during 2022.</p> <p>Proposed requirements for 15min metering:</p> <ul style="list-style-type: none"> • All exchange • All production • Large consumers (>100 MWh/year) 	<p>Legislation approved.</p> <p>Requirements for 15min metering:</p> <ul style="list-style-type: none"> • All exchange • Production ≥ 1MVA • Consumption ≥ 3x200A fuse • Consumption/production directly connected to >400 V grid • All remotely programmable meters <p>Link to the legislation: https://finlex.fi/fi/laki/alkup/2021/20210767</p>	<p>Legislation approved.</p> <p>Requirements for 15min metering:</p> <ul style="list-style-type: none"> • All exchange • All production • Consumption that is directly connected to >1000V grid <p>Link to the legislation: https://lovdata.no/dokument/LTI/forskrift/2021-06-25-2308</p>	<p>Ordinance pending and subject to approval by the Ministry. Expected to be approved by the end of 2021.</p> <p>Proposed requirements for 15min metering:</p> <ul style="list-style-type: none"> • All exchange • All production • All consumption metering points that are not included in a consumption profile shall meter with <ul style="list-style-type: none"> • 15 min resolution if they are not required to fulfill the “function requirements” already stipulated in the metering ordinance • 15 min resolution if they already fulfill the “function requirements” • 60 min resolution if they are required to fulfill the “function requirements” already stipulated in the metering ordinance, but does not fulfill the requirements • The consumption profile shall be calculated with 15 min resolution

Datahubs

	Denmark	Finland	Norway	Sweden
Coverage of local datahub	Covering all metering points in Denmark	Covering ONLY low voltage (< 110kV) DSOs' metering points in Finland. Excluding other MGAs.	Covering all metering points in Norway	N/A
Datahub today	In operation	Under implementation. Golive Feb 2022.	In operation	N/A
Datahub 15min support	From ~Jan 2023	From ~Jan 2023	From ~Jan 2023	N/A
Profiling after golive of 15min ISP	All hourly data that is used for imbalance will be profiled in the DataHub at sum level. For each hour a profile will be calculated based on the 15 minutes values and the hourly sum will be profiled based that.	All hourly data that is used for imbalance will be split equally by 4 in the Datahub. MGAs outside of Datahub services are responsible for reporting 15min data directly to eSett.	Hourly production and exchange data will be split equally by 4, and hourly consumption data will be profiled in the Elhub	DSOs are responsible for consumption profiling into 15min resolution. DSOs are responsible for reporting of 15min data directly to eSett.

Upcoming stakeholder involvement

Nordic webinar

Topical Nordic webinar will be in the end of the year.

Implementation guide

The TSOs will be drafting the Implementation guide during the autumn, which is planned to be published Q1 2022. Stakeholders will be involved in the process either via public consultation or in some other way.



Thank you for your attention! Questions?

Visit nordicbalancingmodel.net

Contact: [janne.heikka\(at\)fingrid.fi](mailto:janne.heikka@fingrid.fi)