



Nordic Capacity Calculation Methodology (CCM) - Stakeholder meeting -

Workshop on Flow-Based and price forecasting in the Nordics

February 22, 13.00-16.00, Teams



Agenda

| | | | |
|---|---|--------------------------|---------------|
| 1 | Welcome | Ulrik Moller (Energinet) | 13:00 – 13:10 |
| 2 | Introduction | Pieter Schavemaker (PM) | 13:10 – 13:25 |
| 3 | UMMs / Information relating to the unavailability of transmission infrastructure | Ulrik Moller (Energinet) | 13:25 – 13:55 |
| 4 | Stakeholder presentations and discussions <ul style="list-style-type: none">• How do the companies currently use the grid information (what is used and how?)• Whether the companies are aware of the FB changes coming up?• If so, how do they prepare for this? | Stakeholders | 13:55 – 15:25 |
| 5 | Questions and Answers | All | 15:25 – 16:00 |



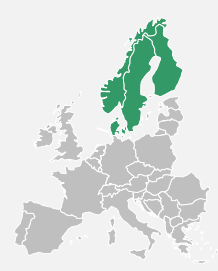
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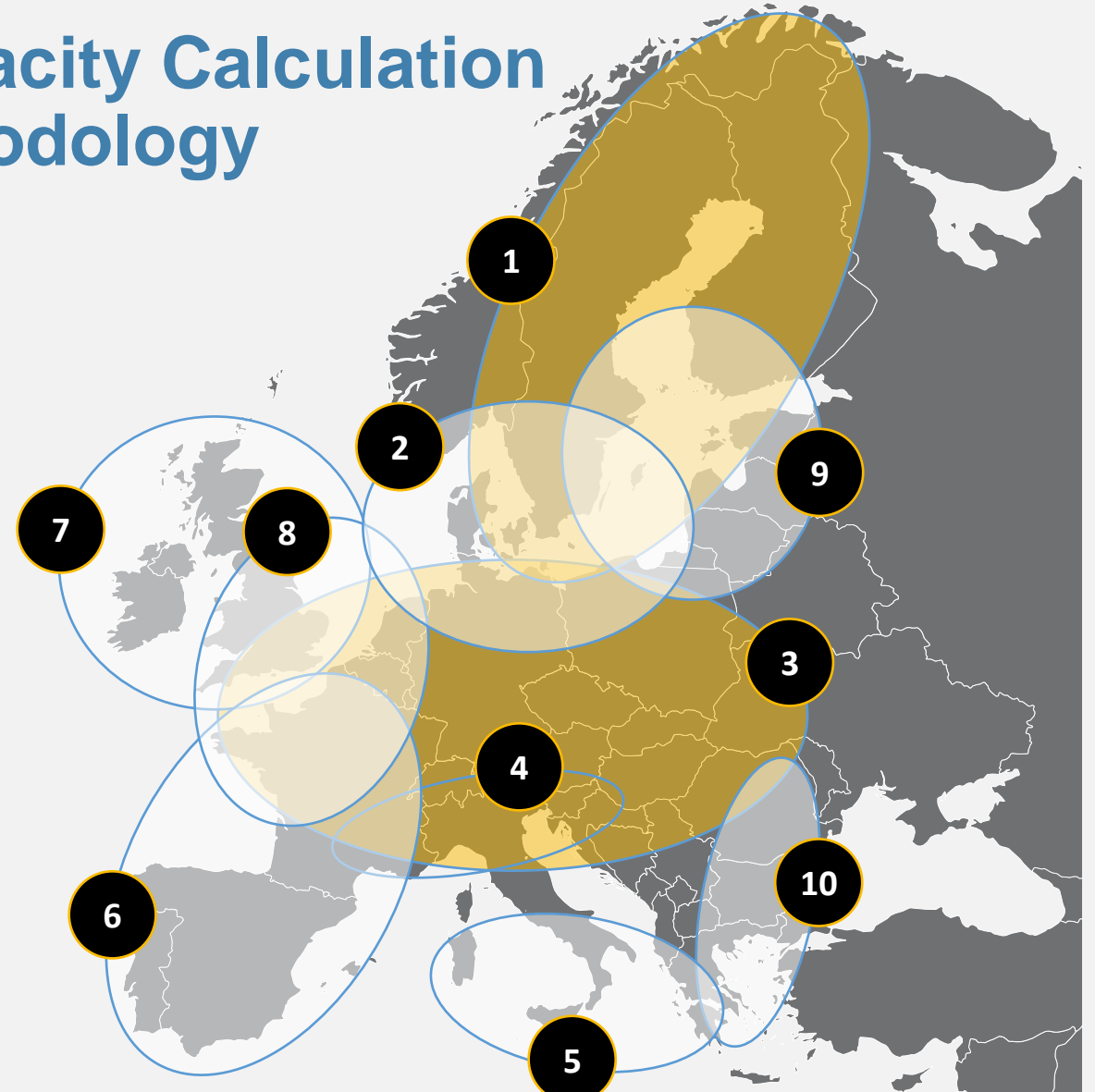
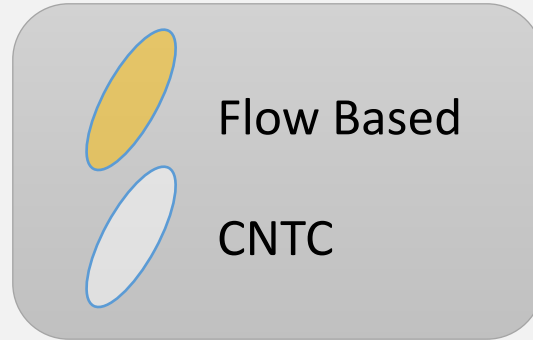
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LT/DA/ID Capacity Calculation Methodology

1. Nordic
2. Hansa
3. Core
4. Italy North
5. Greece-Italy (GRIT)
6. South-West Europe (SWE)
7. Ireland and United Kingdom (IU)
8. Channel
9. Baltic
10. South-East Europe (SEE)



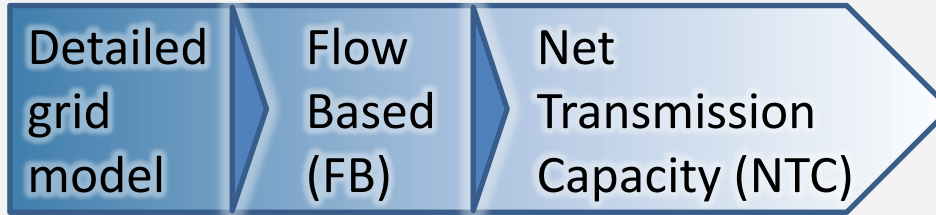


Capacity calculation: from complexity to simplicity

The physical world



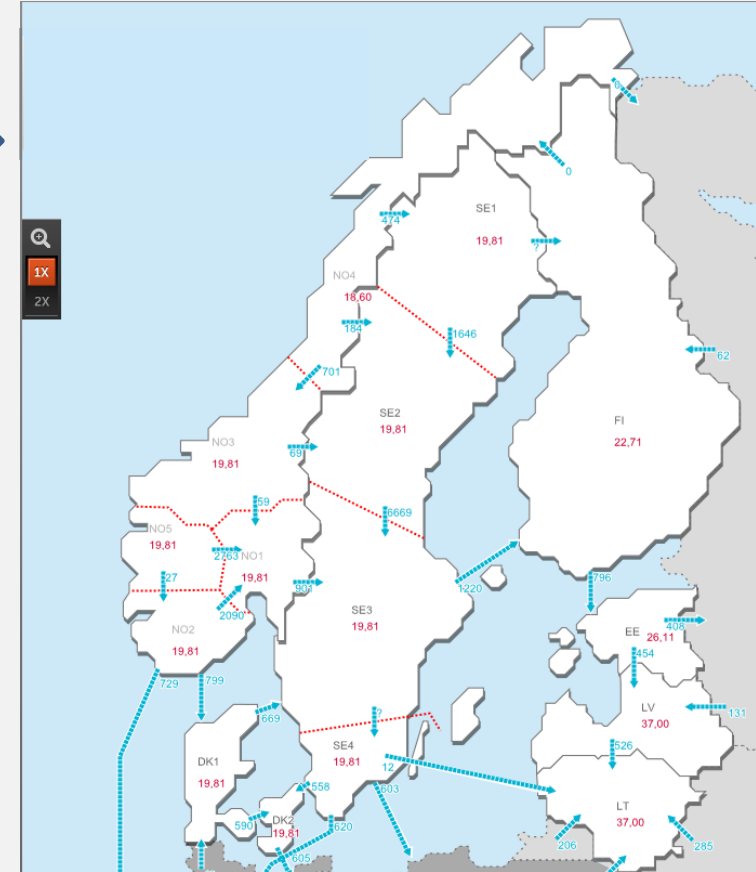
Complexity

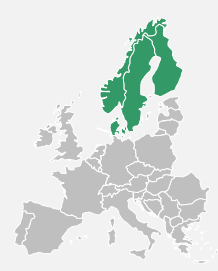


Simplicity

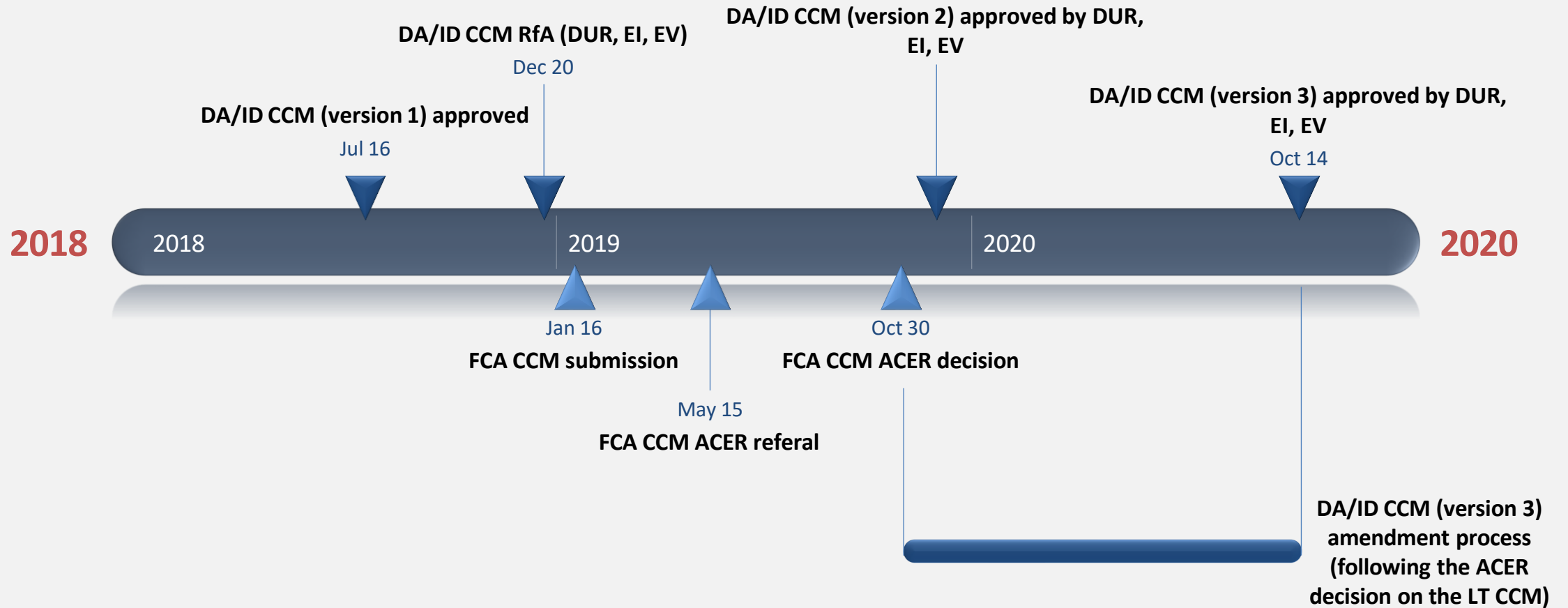
Capacity calculation is the process of translating the complex physical grid into a simplified form that can be understood and applied by the power exchange

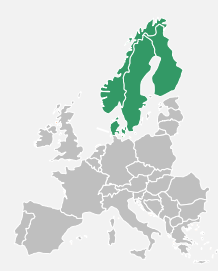
The commercial world



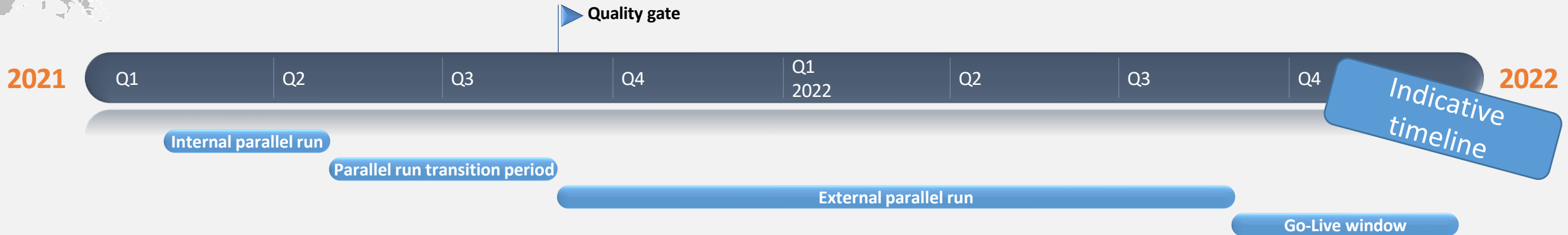


Where do we come from and where are we now? - Regulatory decisions





Status update Nordic CCM



- ❖ Due to IT delivery and data quality issues, the start of the internal parallel run has shifted, and the start of the external parallel run has to be delayed as well
- ❖ In addition, we have also introduced a quality gate before entering the external parallel run, in order to meet high quality standards in the very beginning of the external parallel run, as also requested by the amendments made by the NRAs to the implementation timeline in the DA/ID CMM
- ❖ A parallel run transition period is introduced for ensuring a smooth transition from the internal parallel run to the external parallel run; this will include for example preparing the data publication to the JAO platform and preparing the processes for daily operations together with all parties, including NEMOs
- ❖ At this moment in time - given the uncertainties on the IT deliveries and data quality - we cannot be more precise on the expected dates on the indicative timeline
- ❖ We will keep you posted on the developments and provide an update when a better view on the expected timings is available



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UMM - Legal requirements - Transparency Regulation

Article 10

Information relating to the unavailability of transmission infrastructure

1. For their control areas TSOs shall calculate and provide to the ENTSO for Electricity:

(a) the planned unavailability, including changes in the planned unavailability of interconnections and in the transmission grid that reduce cross zonal capacities between bidding zones by 100 MW or more during at least one market time unit, specifying:

- the identification of the assets concerned,
- the location,
- the type of asset,

— the estimated impact on cross zonal capacity per direction between bidding zones,

— reasons for the unavailability,

— the estimated start and end date (day, hour) of the change in availability;

(b) changes in the actual availability of interconnections and in the transmission grid that reduce cross zonal capacities between bidding zones by 100 MW or more during at least one market time unit, specifying:

— the identification of the assets concerned,

— the location,

— the type of asset,

— the estimated impact on cross zonal capacity per direction between bidding zones,

— reasons for the unavailability,

— the start and estimated end date (day, hour) of the change in availability;

(c) changes in the actual availability of off-shore grid infrastructure that reduce wind power feed-in by 100 MW or more during at least one market time unit, specifying:

— the identification of the assets concerned,

— the location,

— the type of asset,

— the installed wind power generation capacity (MW) connected to the asset,

— wind power fed in (MW) at the time of the change in the availability,

— reasons for the unavailability,

— the start and estimated end date (day, hour) of the change in availability.

2. The information laid down in point (a) of paragraph 1 shall be published as soon as possible, but no later than one hour after the decision regarding the planned unavailability is made.

3. The information laid down in points (b) and (c) of paragraph 1 shall be published as soon as possible but no later than one hour after the change in actual availability.

4. For the information laid down in points (a) and (b) of paragraph 1 TSOs may choose not to identify the asset concerned and specify its location if it is classified as sensitive critical infrastructure protection related information in their Member States as provided for in point (d) of Article 2 of Council Directive 2008/114/EC⁽¹⁾. This is without prejudice to their other obligations laid down in paragraph 1 of this Article.

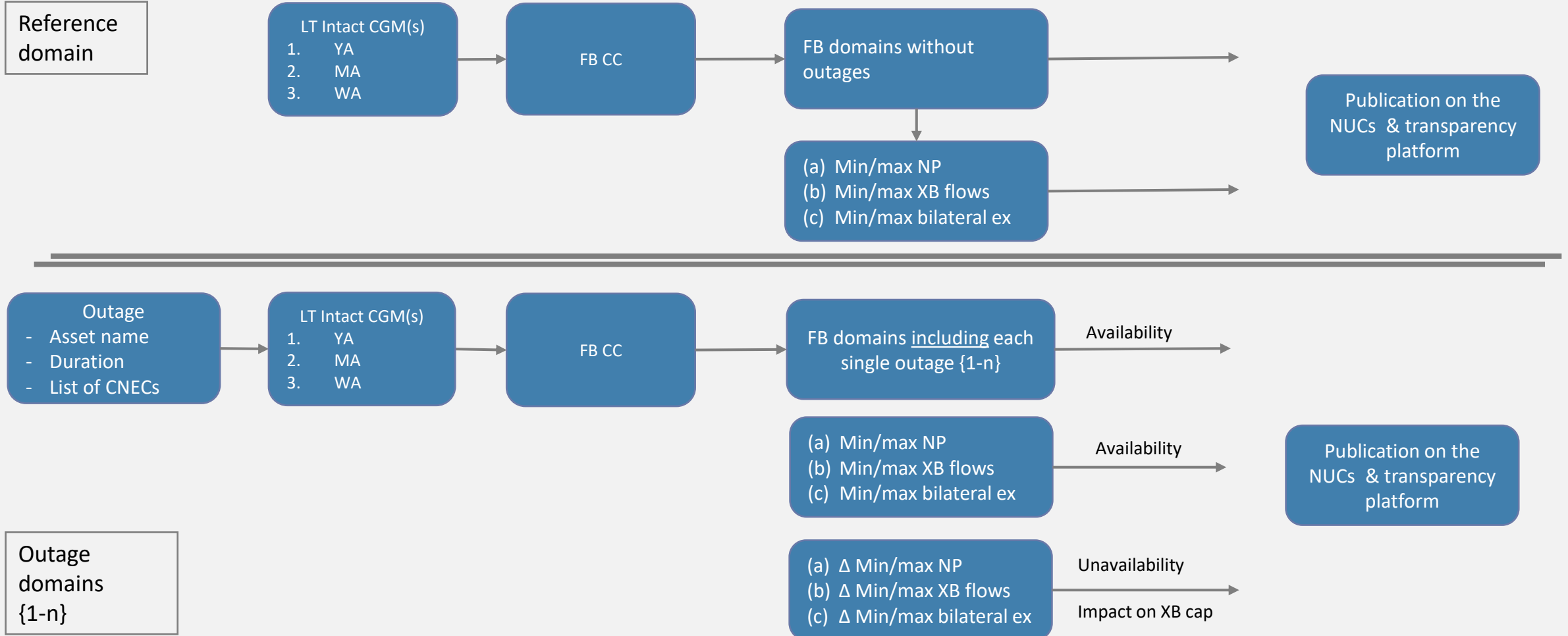


NUCs/UMM – Four key elements

1. NUCs/UMMs will be different in FB compared to NTC
 - ✓ No fixed capacity on any single BZ-border. Available capacity depends on the flows on all other borders
2. Large amount of computations/re-computations are needed:
 - ✓ Number of outages
 - ✓ Number of CNECs for each outage
 - ✓ Many combinations of outages
 - ✓ Shift in outage plans
 - ✓ Unplanned outages
3. The solution should to prove useful for market participants
4. A UMM solution is needed by go live of DA/ID FB



High-level overview of the simplified solution





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Questions and Answers



ENERGINET

 **SVENSKA
KRAFTNÄT**

FINGRID

Statnett