

# Nordic CCM SH Meeting – meeting minutes

May 12, 2022, 9.00-11.30 (Web Conference, Open Registration)

Participants	
CCM project/Stakeholder Involvement WG	Attendees (in total 75 attendees, including the SI WG members)

Text in non-italics are comments, statements, questions or claims from the stakeholder(s).

Text in italics are answers or comments provided by the Nordic CCM project.

## 1. Welcome and opening words (9.00-9.10)

## 2. External Parallel Run overviews (9.10-10.05)

**Question:** Please give some overview on phenomena, such as counter-intuitive flows, borders captured in the disclaimers. Are the issues still present?

**CCM project:** *The TSOs will soon publish a phenomena document that captures observed phenomena, including non-intuitive flows, amongst others. About the DK2-SE4 border, the Power Transfer Corridor (PTC) representation had issues, and has been solved already. For SE1-FI, the issues are related e.g. to DC/AC load flow computations. The solution is to roll back the FB CC computation to DC load flow until the FB CC tool supports full AC load flow.*

**Question:** Are you publishing flow results? Do you know on which borders non-intuitive flows happen more often?

**CCM project:** *Yes, both physical and scheduled exchanges are being published. Note: due to some issues, the schedule exchanges are not computed correctly, thus temporarily not available on the website. As soon as fixes are applied, the scheduled exchanges will be published again. Non-intuitive flows will be elaborated more in the phenomena document.*

**Question:** when will the first phenomena report be published?

**CCM project:** *It is being reviewed within the CCM project. We expect to publish it next week.*

**Question:** Is any action (in capacity calculation) expected if the impact on ID capacity is significant?

**CCM project:** *We will get back to the stakeholders.*

**Question:** Is there a way to evaluate the ID and DA capacities together, so that maybe the ID capacity is smaller because of benefiting the DA market?

**CCM project:** *publication-wise, we publish the extracted NTC and ID\_ATC. The overall process starts from DA FB CC and MC, followed by the ATCE to compute the extracted NTC. In the end, it computes ID\_ATC. To evaluate the ID gateopening capacity and the DA capacity, the CCM project advises the stakeholders to review the DA FB domain and the market coupling results, and further review the extracted NTC and the corresponding ID ATC.*

**Question:** Please clarify on the KPIs related to the data publication towards DA allocation platform and to the stakeholders.

**CCM project:** *09:30am deadline refers to the current timeline in the NTC world towards NEMOs. In the current operation, the EU Transparency platform is used to publish CC and MC results. During the parallel run, the JAO website, together with the Nordic RSC website, is used for publication, because the Transparency platform does not accept the non-operational data/results. JAO will be supplemented by the Transparency platform after the go-live. For go-live, the data publication towards allocation platform/NEMOs for Nordic market follows the 10am deadline, instead of 11am, which is requirement in accordance with Transparency regulation and used for the 3-month reporting period or the parallel run in general.*

*Note: All timings/deadlines in presentation correspond to the 3-month NRA evaluation reporting period.*

**Suggestion:** substituting the full FB domain, can you indicate the selection criteria for fallback during the SH event?

**CCM project:** *to be elaborated in the later SH event.*

**Question:** Will the phenomena report include explanation on why there is a big price difference between the bidding zones SE1 & SE2?

**CCM project:** *Not in the first version. But if this is a continuous trend through the weeks it could be a candidate for the phenomena report.*

**Question:** Just a clarification of Ritva's last statement in response to the previous question: does the welfare analysis shown in the first presentation take into account the effects on the ID market and ID capacities

**CCM project:** *No, the market reports and welfare analysis only consider DA simulation results.*

**Question:** Regarding phenomena and market simulation reports - is the current publication time (approx. 5-7 weeks after energy delivery week) expected also for the remaining time of the external parallel run? Thank you for providing very interesting and relevant reports!

**CCM project:** *the publication of the market report depends on many factors, e.g. the availability of the SF. The CCM project aims at delivering the market reports as soon as they are ready.*

**Question:** will the 2 publication websites remain after go-live?

**CCM project:** *JAO has limited resource to put all information there at this stage. After go-live, it is foreseen that all publication will be done on JAO and ENTSO-E Transparency platform.*

**Question:** Any progress on the CNEC anonymization between Svk and the SE regulator?

**CCM project:** *The CCM project follows the Swedish security legislation. Currently, the Swedish legislation requires all Swedish CNECs and all Swedish contingencies being associated with other countries' critical network elements to be anonymized.*

**Question:** Is physical flow on CNECs output of SF?

**CCM project:** *No. it is computed by postprocessing.*

**Question:** From my understanding Nordic-FBMC might have a price impact on the adjacent markets like Germany or Holland? Is there any way you could publish that data as well?

**CCM project:** *prices of neighbouring countries are published.*

**Question:** I heard the word 'spanning' pop up. Is Nordic fbmc counting on LTA inclusion?

**CCM project:** *Spanning in the Nordic CCM context refers to the fallback solution for one or two MTUs. It is not related to the LTA inclusion.*

**Question:** How is the NO2-UK-connection handled in SF and the market simulation report? I cant see any information published on that interconnecton.

**CCM project:** *the North Sea Link is not part of the SDAC. Thus, it is modelled as a standard hybrid coupling. For an HVDC modelled as standard hybrid coupling, there is no virtual bidding zone associated with it.*

**Question:** Has it been decided how grid UMMs will look like when flowbased is introduced?

**CCM project:** *UMMs will be discussed in the SH event in June.*

### 3. ATCE (10.15-11.15)

**Question:** What is the DC border upper bound?

**CCM project:** *DC border upper bound in the ATCE context is the upper import and export limits set by the TSOs as input to the SDAC Euphemia. ATCE takes the same upper bound for the DC cables.*

**Question:** Central operation of ATCE, operational stage post-process?

**CCM project:** *According to the CACM, it should be managed at the Nordic RSC.*

**Question:** Will the TSOs perform validation on the ATCE results during operation?

**CCM project:** *Validation on ATCE is under discussion.*

**Question:** Can you elaborate the actual effect of the non-intuitive flow in the DA market and what that means for ID?

**CCM project:** *We will get back to the stakeholders on this question.*

**Comment:** Thank you for providing an overview over what data is available and where! However, we are still missing a calculation of the system price in the external parallel run. From what we have seen of results so far, the Nordic net balance is changed between the NTC to the FB market solution. This would impact the system price. In order to let all market participants adapt to flow-based, can you please explain how you will address this issue with the lack of system price calculation?.

**NordPool:** System price can be calculated based on parallel run results, but since currently zero value is used for the flow of previous day (impacting ramping limits) instead of actual flows, the results are not realistic. Additionally, it is the responsibility of NordPool. Internal discussion at Nordpool is in progress.

**Question:** When do you expect to go live right now? (Timeline right now?) In the future will Nordic FB market be connected to the current FB market in Europe at some point? Sorry, my mic is broken. I will write you a mail

**CCM project:** *The go-live date is dependent on the EPR process. The external parallel run requires at least 12 months with certain KPI requirements set by the NRAs.*

*Regarding the second question, we have not received the email yet.*

**Comment from another stakeholder:** Well it is a given that the Nordic SDAC FB model is part of the overall SDAC market which covers all of EU plus Norway, thus whenever it is put in production it will be part of SDAC just like the Nordics has been since the start of price coupling on a multi-regional basis back in FEB 2014.

**Question:** Is there a plan to publish static grid model similar to the one published in CORE?

**CCM project:** *We will get back to the stakeholders on this.*

**Two questions:**

- In previous internal parallel run reports, I saw a comment that CNECs were missing on NO3-NO5 and NO3-NO1. As this comment does not appear in the external parallel run reports, am I right in assuming, that this issue is cured?  
**CCM project:** *If the issues are not part of the disclaimer any more, they have been fixed.*
- Are you using the 5%-criterion (z2z-PTDF) for considering internal CNECs? If yes, has there been an investigation on whether changing of this 5%-threshold could improve results?  
**CCM project:** *Yes, 5% max z2zPTDF threshold is applied on all CNECs. The analysis with different thresholds is being discussed within the CCM project.*

**Question:** Will DK1A and NO2A be kept in FBMC? I couldnt see these virtual zones in the PTDF.

**CCM project:** *We will get back to the stakeholders on this.*

**Question:** Also more about the data published at JAO, for DK2 there are two virtual zones, DK2\_CO and DK2\_SB. But what about the connection to/from DE via Kriegers Flak? Should it not be a virtual zone for it and if not, why so?

**CCM project:** *this point is being discussed within the CCM project. We will get back to the stakeholders about this question.*

**Question:** Are the non-linear objective function or constraints convex and are the solutions global optima?

**CCM project:** *Mathematically, a twice-differentiable function of a single variable is convex if and only if its second derivative is nonnegative on its entire domain. Being a convex problem helps the solver to find a global optimum. From an engineering perspective, it is more interesting to find a suitable solver that is capable of solving both convex or non-convex problem. For instance, the solver used in the prototype tool, namely 'IPOPT', is capable of solving both convex and non-convex problems.*

**Question/comment:** Non-linearity of this objective function can make it very complex for commercial solvers. Other non-linear alternatives that are both easier to interpret, and solve can be envisaged. For example, in the Core region, they have a very different approach where the objective function is maximizing weighted sum of:

- the sum of ATCs averaged across all Core borders, and
- the lowest ATC across all borders.

The weight set to 1 delivers the highest average (and total) ATC, but risks that a number of borders will receive zero ATC, whilst a weight set to 0 attracts more ATC to the border with the lowest ATC but risks to deliver lower average (and total) ATCs across the Core region.

**CCM project:** *there are solvers that are able to handle to the ATCE problem defined by the Nordic TSOs, given its manageable complexity and limited size of the problem. For example, an open source solver 'IPOPT' can solve the problem without issues. Additionally, this question has been addressed during the stakeholder event as one of the selected questions, answered by the TSOs.*

**Question:** Are you calculating AAC based on scheduled exchanges or physical flows? If scheduled exchanges, why?

**CCM project:** *No. The ATCE method takes DA already allocated flow, being the physical flows on the borders, to extract the NTCs.*

### 4. Closing remarks and any other business (11.15-11.30)

All participants are thanked for their constructive inputs!

The presentations have been uploaded on the Nordic RSC website: <https://nordic-rsc.net/flow-based/documents-presentations/>