

Nordic CCM SH Meeting – meeting minutes

March 23, 2022, 9.00-12.00 (Web Conference, Open Registration)

Participants	
<p>CCM project/Stakeholder Involvement WG</p> <ul style="list-style-type: none"> • Satu Viljainen (Fingrid) • Ulrik Møller (Energinet) • Susanna Lundmark (Svk) • Ritva Hirvonen (Fingrid) • Jens Stenport Nørgaard (Nordic RSC) • Jakob Glarbo Møller (Nordic RSC) • Zongyu Liu (E-Bridge Consulting) <p>Excused</p> <ul style="list-style-type: none"> • Trond Jensen (Statnett) • Emil Jansson (Svk) 	<p>Attendees (in total 57 attendees)</p>

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.

<p>1. Welcome and opening words (9.00-9.10)</p>
<p>2. Summary of the stakeholder feedback on internal parallel run market reports (9.10-09.30)</p>
<p>Question: Do you compute system price? If so, will it be published?</p> <p>CCM project: <i>In the parallel run setup, the market simulations are performed using the simulation facility (SF). The SF does not produce the system price as output. Thus, it is not possible to report it. In the market reports, the change of the overall Nordic net positions (NPs) (i.e. NP_FB – NP_NTC) is captured, which may also be useful for the stakeholders to get a grip on the potential impact of the Nordic-level NP change on the system price.</i></p> <p>Comment: (FB domain) substitution should be reported / published to assess the impact on the SEW comparison. CCM project: <i>The TSOs will get back to the stakeholders on this request.</i></p>
<p>3. Introduction to simulation facility (09.30-10.15)</p>
<p>Question (from stakeholder): Can the SF be used by market participants?</p> <p>Eeva: No. It is accessible to the NEMOs, NRAs and TSOs.</p> <p>Question (from stakeholder): I assume the Simulation Facility Eeva presented is used for the flow-based calculation. There, she showed that you could choose a hybrid network model. What does this mean? And what were the different topology types?</p> <p>Eeva (the TSOs aligned with Eeva after the stakeholder event): "The network models for SF are PTDF, ATC, or HYBRID. This defines the accepted input type of a session.</p> <ul style="list-style-type: none"> • In PTDF mode, only the PTDF constraints are used. <ul style="list-style-type: none"> ○ All ATC/DC constraints are ignored by the Algorithm Module (even if they have been copied to the Session_Lines table by the PMB, and even if the Line_Capacities table does contain capacities for them for this session). ○ The ATC/DC capacities are implicitly set to zero. • In ATC mode, only the ATC/DC constraints are used. <ul style="list-style-type: none"> ○ Any PTDF constraints in the database related to this session are ignored by the Algorithm Module. ○ The net positions on AC network (normally regulated by the PTDF matrices) are implicitly set to zero for all bidding areas. • In HYBRID mode, a combination of ATC/DC constraints and PTDF constraints is used."
<p>4. Capacity calculation statistics of external parallel run (10.30-10.40)</p>
<p>Question: What's the timeframe for process between the RSC and TSO D-1 and D-2?</p> <p>CCM project: <i>D-2 afternoon: CGMA, IGM and CGM processes take place.</i> <i>D-2 evening: FB capacity calculations</i> <i>D-1 morning: redo FB capacity calculations based on updated information from TSOs in D-2 evening. Afterwards, it is the domain validation step at the TSOs.</i></p> <p>Question: Are the backup FB domains published on the JAO website? It would be nice to publish them. CCM project: <i>The backup FB domains will be published after JAO implements Core data publication.</i></p> <p>Question: At 09:30, is it the sending moment of the FB CC results from the Nordic RSC to JAO, or the publication visible at JAO? CCM project: <i>It is the sending moment from the Nordic RSC. Currently, it is a manual process that the Nordic RSC personnel pushes the 'publication button' to transfer the data to the JAO platform. In the long-run, it is an automated process. Please also consider that there are two NRA KPIs related to the data publication for the EPR and go-live, a) the moment that data to be transferred to the NEMOs at 09:30, and b) the data publication moment on JAO at 11:00 according to the Transparency Regulation.</i></p>
<p>5. Internal parallel run results presentation (10:40-11.20)</p>
<p>Question: If flows under NTC can overload CNEs, then the comparison of SEW is not fair, since "cost" of overloaded CNEs is not considered (subtracted?) from SEW?</p> <p>CCM project: <i>The 'cost' of the overloaded CNECs (i.e. the so-called 'additional flows' in the presentation) cannot be determined accurately. The CCM project provides two estimates to form a band with an upper and a lower bounds and expects the 'actual costs' of the additional flow to be within the band. Please see the presentation slides for details.</i></p>

From the SF, the socio-economic welfare (SEW) is reported as factual simulation outcome. Thus, it is not possible to subtract an estimate from the factual simulation outcome.
Additionally, the TSOs will provide more in-depth information regarding the 'reasons' of the negative welfare in a so-called 'phenomena document'.

Question: Based on the explanation that the 'small' CNEC should be / is removed from future parallel run computations, how quickly in practice (production) such changes in CNECs can be made?

CCM project: It is part of the 'learning-by-doing' process. The TSOs are establishing the process to improve the input data quality on a continuous basis.

Question: How does the CNEC selection impact the FB results?

CCM project: The current CNEC selection at each TSO is based on the best operational practice and is considered as the starting point of the 'learning-by-doing' process. Also, the Nordic DA CCM requires regular updates on the CNEC selection methodology. The methodology and the results of the CNEC selection are foreseen to be improved over time.

Question: How "real" are these price spikes? Will we have to expect -500 €/MWh as well in operational FB on a regular basis? Is this a glitch which is repaired by removing CNEC from the dataset?

CCM project: It is an outcome of the provided input data for the FB CC and MC. As the TSOs are improving the input data quality, this instance should be regarded as a standalone case.

Question: Can you summarize in simple words what the take home message is?

CCM project: The TSOs illustrate to the stakeholders how to make sense of the bidding zone prices using the published data/results based on power system economics.

Question: Will the test data in JAO be available via the API, if so, when?

CCM project: The API is already available on the JAO publication platform. The link in the publication handbook is wrong and will be corrected as soon as possible.

6. Data publication for external parallel run (11.20-11.50)

Question: Can you provide the official definition of the marginal value of a bilateral trade? As a follow-up to that it appears difficult to by definition consider "bilateral trades" since no such trades are part of the bidding to SDAC and then by definition should not be possible to consider.

CCM project: The maximum bilateral exchange of a border, is specifically defined in the FB context and computed by an optimization problem that maximizes the exchange of this border subject to the FB domain and all other bidding zone borders have 0 exchanges. It should 'only' be used in the FB context and not be mixed up with the operational NTCs, despite the two terms being cross-border values. In other words, these terms should not be compared due to their fundamental differences. Fundamentally, the maximum bilateral exchange of a border is one single 'corner' case within the FB domain that needs all other bidding zone borders to be at zero exchanges at the same time. Because the optimization problem of searching the max bilateral exchange is constrained by the FB domain, the optimal solution (i.e. the found max bilateral exchange of this border), is a valid corner/optimal case within the FB domain (i.e. this maximum bilateral exchange of a border together with all zero exchanges on other borders at the same time does not impose any overloads that go beyond the FB domain). This corner solution is one of the (many) FB market solutions that the market coupling algorithm may end up at. Indeed, such a corner solution should 'only' be regarded as 'statistically possible to occur'. On the contrary, the operational NTC ensures simultaneous feasibility of all exchanges on all borders. In other words, the operational NTC of one border should be operationally secure no matter the allocated capacities of other borders (i.e. ensuring the simultaneous feasibility). Thus, despite the fact that the TSOs do not recommend the stakeholders to compare the max bilateral exchange values with the operational NTCs, numerically speaking the operational NTCs are expected to be 'much' lower than the max bilateral exchange within the corresponding FB domain.

Question: A question for clarity on result data being published for EPR, namely can you confirm that the "scheduled flow" per CZ Interconnector (e.g. SE3-NO1, NO2-DK1, SE2-SE3, FI-EST, DK1-DE, etc.) is published along the BZ prices for all Nordic BZs and as minimum all adjacent BZs on the continent?

Nordic CCM: The published borders under the 'Max Exchanges (MaxBex)' tab on the JAO publication is explained above. This concept should not be confused with the operational NTCs, nor the scheduled exchanges as the output of Euphemia/Flow determination algorithm.

The TSOs are checking the possibilities to published the scheduled flows from Euphemia.

Question: In the 'Market Map' tab on the JAO publication platform, the maximum bilateral exchange of SE1-FI is much larger than the operational NTC. This should and will not be allowed in the operational environment.

CCM project: Besides the explanation above, please be advised not to use the operational NTCs as indication to understand the maximum bilateral exchange. Also, please also be advised that the maximum bilateral exchange should be considered as a market term. The actual physical flow (induced by the max bilateral exchange) may take detour from the sending bidding zone to the receiving bidding zone (if the grid topology is not radial).

Question: How do you make use of "Max Bilateral Exchange" for understanding the market situation? How to link the max exchange to the real world?

CCM project: In general, if the 'market situation' or 'real world situation' as stated in the comments refer to the operational NTCs, then there are no direct link between the two vastly different concepts. The max bilateral exchange does not serve the purpose to forecast the market situation, but to indicate a 'corner / extreme' case that the FB domain allows on cross-border trades. It is useful in the FB domain validation process as complementary information for the TSO operators to understand the 'size / boundary' of the FB domain by indicating the maximum bilateral exchange of different borders. For instance (as a hypothetical example), for a bidding zone border that is expected to structurally have a max bilateral exchange of 5000MW, the TSO operators during the validation found that it becomes 8000MW. Such observation should trigger some additional checks, e.g. an unexpected large FB due to incorrect CNEC definition.

Question: Why are there no values for SE3_SWL and SE4_SWL at the Ref Net Pos. and HVDC exchange?

CCM project: The TSOs will get back to the stakeholders on this question.

7. Closing remarks and any other business (11.50-12.00)

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/>