Nordic CCM Monthly EPR Results SH Meeting – meeting minutes

June 13, 2024, 9.00-11.00 CET (Webinar)

Partio	cipants
Total participation (including CCM project members):	40

The presentation has been uploaded on the Nordic RCC website: https://nordic-rcc.net/flow-based/stakeholder-meeting-material/

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.

EPR result elaboration: Day-ahead

SH question: for the given period several of the external ICs (Nordic-continental) were constraining CNEs in the SDAC EPR results. Therefore, I wonder what then was provided as ID ATCE for those ICs since logically it should be zero or close to it? **CCM project:** in the same DA direction, the ID ATC is close to zero. The opposite direction has quite large ID ATC. Please also check for yourself on the NRCC website regarding the ATC ID results for more analysis.

SH question: In period 2, the prices in SE2 were lower in FB compared to NTC while SE1 was unchanged. What is the main reason for the lower prices in SE2?

CCM project: Preliminarily, it's because there is a little more capacity among others from NO3 to SE2 and that's why the price is decreased a little in SE2.

SH question: Interesting clear indication of improved cross-zonal flows on 27-28 April via FB (although also giving more Counterintuitive flows; high to low price). However, when did the referred to unexpected outage occur which is indicated as not fully captured in the NTC capacities, including the LineSet for SE3<->(NO1+DK1)?

CCM project: The mentioned outage was planned. The maintenance work had impact on the same borders as in the lineset, and was captured by the corresponding CNECs in FB. With FB, we observe that the capacity is allocated in a better way than we could do with the NTC during the outage for this maintenance work.

SH comment: Thanks for answer, i.e. the outage was planned, thus known in production before setting SDAC NTC (ATC) and then it would also have been known in time for the SDAC FB capacity calculation process.

EPR result elaboration: Intraday

SH question: How to interpret the 10 MW in the ID ATCE model, e.g. is it the 10 MW effect on a given CNE due to XXX MW shift in flow across e.g. BZ X to BZ Y?

CCM project: Yes, suppose that a XXX MW shift in flow across BZ X to BZ might affect the flow on a CNEC with 5 %. Then, the extra 10 MW on that CNEC could result in 200 MW more flow across BZ X to BZ Y. Please bear in mind though that the extra 10 MW capacity will be shared between all corridors that have an effect on the CNEC. In other words, we increase the RAM with 10 MW for all CNECs meaning that we can use that "extra space" and distribute it among the corridors based on the distribution factors. We do this to 'catch' that all loading flows won't happen at the same time (and compensate for that we don't take into account relieving effects from the ID-trade) meaning that the risk for actual overloading a CNEC due to this relaxation is small and controllable.

SH question: As we understand, the production ID ATC and ATCE comparisons in our view is a bit skewed because with the production capacities they are also capturing external TSO's limitations and they are quite frequently set by the external TSOs. CCM project: Indeed, your understanding on the impact of not considering the external limitations is correct. The reason of not considering the external limitations comes from the cross-CCR capacity calculation process. It is a consequence of having multiple CCRs in Europe. The external limitations are provided after the Nordic TSOs calculate the ATCE results. In other words, the Nordic TSOs compute the ID ATCs (of the external borders, i.e. HVDCs in SE4, NO4, DK1, etc) based on the Nordic grid constraints. The external TSOs compute the external border capacities based on their grid constraints. Both ID ATC results are provided to the ID trading platform. The smaller external border capacity prevails. The current process does not facilitate the Nordic TSOs to wait for the external TSOs' inputs on the external borders and optimize the Nordic internal borders based on internal Nordic grids and the external limitations

SH comment: One critical weakness in comparing average or total ID ATCE capacity over a longer period with the actual SIDC usage of ATC in production is that it misses the fact that when ID ATCE capacities are actually needed on a substantive level due to changed fundamentals from SDAC (12 noon) and through SIDC (from 15 CET until 60/30 Min before delivery) then it is frequently seen that very limited (even zero at times) ID ATCE is given for major interconnectors that in NTC production today would have 1000s of MW available.

CCM project: we will provide more MTUs of incidents and elaborate how ATCE solves them in the future monthly SH events.

SH question: I just noticed that during the preprocessing of ATCE inputs you set the negative PTDFs to zero to avoid relieving effect. And I was thinking in the context of non-intuitive flows, how does it work?

CCM project: Yes, setting the negative PTDFs to zero is only done for the ID-ATC meaning that relieving effects (negative PTDFs) will be taken into account for the day-ahead allocation (that could result in non-intuitive flows). In terms of the impact on the non-intuitive flows from the DA MC, the border DA AAFs are the inputs to the ATCE optimization, such that the resulting ID ATC is always larger or equal to zero. In other words, the non-negative ID ATCs implies that the extracted NTC values are larger or equal to the DA AAF, no matter the DA AAF is non-intuitive or not.

To be more specific, the ATCE optimization maximizes the Nordic level total capacities. If A->B is non-intuitive from the DA MC, the ATCE results will guarantee the DA allocated capacity of this non-intuitive direction. Whether the A->B ID ATC will be larger (even more non-intuitive) or zero, depends on the overall Nordic level total capacities. Regarding B->A ID ATC, the explanation holds as well.

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