1. Welcome and introduction

Co-chairs B.GENET and H.ROBAYE open the meeting and welcome all participants from Market participants, associations, NEMOs and NRAs to the Core Consultative meeting.

G.VISAN, chairman of the Core Steering Group, invites all participants for the opportunity to and open discussion on the Core projects and issues of market relevance.

2. Core CCR overall status

B.GENET presents the submitted methodologies, ongoing implementation and ongoing experimentations and methodology developments in the Core CCR.

Submitted methodologies

Q: Is there any view on when NRAs approval can be expected on these methodologies?
A: The three first methodologies mentioned in the slide (related to SOGL 76, EBGL 41&42) are submitted in December 2019. So, since NRAs have 6 months for the approval process this is foreseen by end of June. Regarding FCA which is submitted March 2020, approval expected around September 2020.

Ongoing implementations

Q: Could you explain, if any, where are the potential threats to the go live? what are the difficulties you are facing?
### 3. Core FB DA Market Coupling

M.PREGL, leading the Core TSOs and NEMOs joint working group in Core region, introduces the implementation of the Market Coupling in Core.

Main milestones are presented. The joint MC integration testing is foreseen to be started by October 2020. The launch of the External //run is foreseen by November 2020. This shall last for 6 months as defined in CACM. After the successful finalization of the EXT//run, the go live window will start. The Go live window is foreseen between end of May 2021 and September 2021.

Following the decision by ACER, the Core FB DA MC will be based on the Flow Based Plain concept. This approach is confirmed by all Core NRAs and ACER. Flow Based Plain will be applied for Ext//run and the Core FB MC operations.

### 4. Interim NTC projects

M.TURCIK, on behalf of the interim NTC Coupling project, presents the current status and outlook for the Interim NTC coupling project. This project focusses on the earlier implementation of the pan European Market Coupling.

Design phase is closed and currently the development and contracting phases are going according to plan. The total testing phase is foreseen to last for approx. 4 months. 2 weeks of Member tests are currently foreseen. More information to MPs will be provided.

Recently some parties indicated to have issues with implementing all projects in parallel and are re-assessing the re-prioritization. Currently, a discussion is initiated and concludes that it is not a question of interim coupling, but also related to COvid-19 and broader pan European level. Project parties expect to be able to come back on this issue by May / June.
Q: Is there any more precise information on the dates foreseen for Member Testing (August/Sept is only in 4/5 months)? Summer period should ideally be avoided
A: the information is the specific slot as part of the overall roadmap. The exact planning is currently being discussed and also related to the pan European discussion on the prioritization of the project roadmaps. As soon as available further details will be published.

Q: Do you have an approximation of the potential delay due to the identified bottleneck, are we talking about few months our few quarters?
A: some parties identified the delays of a few weeks and some others are not in the position to answer it. Especially since it is subject to further pan European project prioritization (SDAC level) it is hard to predict at this stage. The project is working on a work around which may help to speed up the go live.

Q: Croatia- Slovenia are not on the map (in the slide), are they foreseen to be coupled via the interim NTC project or only via the Core FB DA MC project?
A: the interim NTC project started a few years ago with a specific scope focused on the borders without Croatia and Slovenia with the aim to couple MRC and 4M MC (Croatia and Slovenia are already part of MRC). These parties have been contacted to join in NTC mode. In order to be efficient and to follow the agreed milestones the project is focused on the initial scope.

Q: Croatia- Hungary are not on the map (in the slide), are they foreseen to be coupled via the interim NTC project or only via the Core FB DA MC project?
A: on Croatian-Hungarian border there is still no DA MC. This border is also not included in Interim MRC-4MMC project.

Q: in terms of possible delays, do you expect that it potentially collides with FB DA MC project if we talk about a few quarters of delay?
A: this issue is continuously being assessed, if the go lives of both projects will be very close, there will be a discussion with NRAs on the way forward. Until we do have a clear indication on the go lives, the interim NTC project will proceed with the implementation as the FB DA MC project will.

Practical information for market participants
M.TURCIK presents the practical information for Market Participants.

Q: there are today "NTC profile" covering multiple commercial borders: PL<>DE+SZ+SK and DE<>PL+T. Is it still planned to maintain them, or will there be new "individual NTC" (DE<>PL / DE<>SZ / PL<>SZ / PL<>SK)?
A: technical profiles will be preserved under NTC interim coupling. Two technical profiles will be present. Today the values can be seen on JAO in the interim NTC operations, where can these be found? The same information as today will be published on JAO and on Transparency Platform. The result of the explicit auction will be published by JAO on their website (and on TP).

Q: If representatives of NEMOs are on the call, has there been an assessment of the NTC interim coupling project on the performance of Euphemia/SDAC functioning? Some MPs get increasingly concerned about the multiplication of decoupling events in the recent months.
A: NEMOs are planning tests on performance and are assessing the impact. Hopefully there will be no significant negative impact on performance caused by volume of input data (allocation constrains/bids) stemming for a integration of MRC and MRC. Performance tests realized so far within CORE FB MC project (Euphemia smoke test) does not revealed any significant performance problems (specifically for the NTC based MC between MRC and 4MMC).

5. Core FB Day Ahead - Transparency
S. VAN CAMPENHOUT introduces the FB DA transparency & publication topic. The intention is to discuss the technical clarification on the legal requirements of Core CCM.

Presentation Market Parties
H.ROBAYE presents the view of Market Participants aiming to give the feedback on transparency, what MPs want to have, why and some key recommendations taking into account the experiences in the CWE framework.
MPs need to understand in detail the results of the capacity calculation in order to prepare themselves and make the right decisions for the future (in terms of unit commitment or investments), therefore full transparency is needed to allow this.
CNEC
The CWE FB framework for transparency on CNECs provides a very good starting point for future Core FB transparency. There should be no step back (ie: what is already published should be published in the Core context) and same level is a must for MPs’ operations. One operational issue is highlighted and suggested to be solved in the context of Core FB transparency: adding a character to separate the components on the CNEC string. MPs assessed the elements of the ACER decision and mapped this on the current CWE transparency framework. The expectations is that all elements of the ACER decision shall be covered and NRAs will monitor and ensure this.
S.VAN CAMPENHOUT informs that TSOs have the same starting point in mind when preparing the Core FB DA transparency. Formal obligations are leading to be able to deliver as soon as possible a FB Day-ahead Core process in line with CCM. In addition, there is no intention to have regression compared to CWE and finally, a solution on the character separation will be presented by TSOs.

Remedial Actions
H.ROBAYE explains that in CWE FB, there is no specific measure taken for transparency on RAs. MPs consider that full transparency on RAs (cf. Art 10.7 CORE CCM) should be given (at least) on:
- tap position of the PSTs used in the capacity calculation
- topological actions
- how to consider transparency related to HVDC set point as a remedial action?

The Market Parties defined four key recommendations.
- There should be no regression in Core compared to CWE transparency framework
- Core TSOs and Market Parties need to agree and implement a framework for the transparency on RAs
- Consistency between outputs from Core FB DA and ENTSO-E should be ensured
- Core TSO & JAO should provide templates and illustrative files from output prior EXT//Run

Presentation Core TSOs
S.VAN CAMPENHOUT presents the overall context around transparency and publication. CWE FB DA solution indeed is the starting point for the Core FB DA transparency and publication. Four slides are presented illustrating the Core FB DA transparency framework builds upon the CWE FB DA transparency framework and expands it, most notably for the RAs.

Q: we see a final FB parameters line, in CWE we have FB initial parameters and the FB final parameters before LTA inclusion. Will it also be the case in Core? If not it seems to be a regression from CWE framework.
A: this is not a formal requirement in CCM decided by ACER. TSOs will check if this can be included in the scope to ensure no regression compared to CWE

Q: currently in CWE the LTA inclusion is performed through virtual branches. In Core the FAV approach is used to perform LTA inclusion, how does this translate to a difference in FB parameters before vs. after LTA inclusion?
A: with the FAV approach in Core the same set of CNECs with the same PTDFs exists before and after LTA inclusion. The RAM values of the CNECs change due to the addition of the ‘LTA margin’ parameter. This LTA margin will be published as part of the detailed breakdown of the RAM for each CNEC of the final flow-based domain;

Q: In order to dimension the IT Solutions at MPs side, a list of and number of CNECs would be beneficial and useful. Is it possible to share, even if it is not the definitive list? The sooner the better to prepare for MPs.
A: in general Core TSOs will communicate in the next Core CG when examples can be given of the target publication, including representative data

CNEC
S.VAN CAMPENHOUT presents the overview of the data structure and format for the CNECs. TSOs believe it gives all necessary input for MPs’ analysis, including for automated systems.

Q: MPs indicate that indeed the solution presented makes it easier for MPs. However MPs would also appreciate having the attribute ‘element name’ (typically an enumeration of the line), in order to distinguish the lines. Eventually there is a challenge with the convention in case of multiple contingencies (e.g. in case of a tripod). How do you plan to mitigate the contingencies of the elements?
A: Core TSOs will come back on the possibility to include element name, and on the structure foreseen to process multiple contingencies. In general Core TSOs will communicate in the next Core CG when examples can be given of the target publication, including representative data, so it can become clear how this will be represented

Remedial Actions
Core CG representatives discuss the transparency and reporting on Remedial Actions. The main feedback given by Market parties is that they need detailed information to really be able to feed their internal tools with the right information and enable proper forecasting. This means the technical details from RAs should be known and also how the application of RAs changes throughout the process and finally what is the associated impact.
S.VAN CAMPENHOUT refers to the overview table depicting the formal obligations from Core CCM related to daily publication of Remedial Actions as applied by the NRAO, and explains Core CCM in addition requires an annual reporting delivering an overview including evaluation of Remedial Actions provided as input by Core TSOs to the overall FB DA process. He highlights the Market parties view of tracing the application of RAs throughout each step of the process goes beyond the Core CCM requirements.

Following clarifications were provided

- For PST Remedial actions the NRAO outputs and PST taps will be published
- For topological Remedial actions, the delta in PTDF before/after NRAO boils down to a comparison between the final PTDF values (PTDF values do not change anymore after NRAO) and the initial PTDF values
- ALEGrO as HVDC interconnector follows the Evolved Flow-Based methodology as depicted in Core CCM, which is optimized explicitly as a bilateral exchange in the capacity allocation. Hence ALEGrO is not a degree of freedom within the capacity calculation. Regarding internal HVDC links there are no actual examples yet in place, hence it was agreed to pick up this point when it becomes relevant

Summary and conclusion on transparency

Different Market Parties expressed various expectations that are summarized below in order to allow Core TSOs to provide feedback on what is covered and foreseen latest in the next Core CG.

- Publication of all Flow based domains is preferred to understand the impact of various process steps
  - Initial Flow based domain (before NRAO)
  - Flow based domain after NRAO
  - Pre-final (before LtNom)
  - Final (after LtNom)
- Detailed information on Remedial actions is preferred to understand the application and impact
  - All available Remedial actions
  - Remedial actions applied in the Common Grid Model (before the NRAO)
    - (PST taps and status/settings other elements (opening or closing of one or more line, cable, tfo, busbar coupler or switching of one or more network element from one busbar to another)
  - In case of curative Remedial actions, mapping with respective outages
  - Link between topological Remedial actions applied and constraints that were optimized and impact. Delta PTDF before/after NRAO
- Static grid model publications
  - Network (lines, elements)
  - Detailed related to Remedial actions (e.g. total PST taps, angle, etc)

J.LEPAGE reminds the part of the ACER decision on Core CCMs, section 192(e), for reference. The wording should shed a light on the rationale for the publication of data related to RAs.

ACTIONS

- Core TSOs to check/ complete the comparison between CWE publication, CCM requirements, current scope to be implemented and new requests from Market parties
- Core TSOs to present in the next Core CG the moment when examples can be given on target transparency and tools to be used for publication and how all information will be represented
- Organize an intermediary feedback/discussion with MPs once the different questions are clarified

Survey on JAO Utility tool

G.MEUTGEERT reminds that TSOs prepared a survey for MPs in order to gather feedback of experience and technical requirements with regards to the Utility tool. Some input has been provided however is still to be assessed by TSO and JAO experts.

- MPs make regularly use of the current tool, sometimes experiencing stability issues
- MPs have a clear preference using csv as output format
- MPs have a divergent view on requirements in relation to visualization

Core TSOs and JAO will not simply expand the current utility tool but investigate a more modern and robust technical solution. Improved visualization will be investigated however expectations should be realistic. It is unlikely that the publication tool will end up being a full-blown analytical tool with dynamic visualization possibilities. Focus will be on providing in a stable manner the ‘raw data’ and a series of meaningful pre-defined visualizations MPs can use this as per their individual needs as there are maybe MPs that use the output of the publication tool to feed their proper “big data” environment.

S.VAN CAMPENHOUT reminds MPs on the Core DA CCM art 25(5) “evaluate the interaction between cross-zonal capacities and cross-zonal exchanges between bidding zones” is that this boils down to “CWE market view” and “CWE
Market graphs" worksheets in the current Utility Tool in CWE. MPs are asked whether they have the same understanding. The conclusion will be formalized for confirmation in the follow up of this topic.

H.ROBAYE asks to an early sharing of the further transparency and publication design with MPs in order to discuss it again prior finalization of the transparency and publication solution. A document describing the transparency design in more detail would be highly beneficial together with a new Q&A session on short/ mid term.

**ACTIONS**
- TSOs to prepare view on remaining open questions and recommendations discussed today and present the proposal for publication tool
- Co-chairs H.ROBAYE and B.GENET to discuss the timing for the follow-up

### 6. Long Term CC alternative approaches

B.GENET introduces the current status of the Long Term Capacity Calculation methodology, being in an escalation process. TSOs have been asked to perform a high level assessment on the different approaches.

J.FERNANDEZ presents the four approaches on which TSOs performed a high level assessment which was provided to Core NRAs, ACER and European Commission.

**Q:** with regards to statistical cNTC approach, it is extracted from FB domain and already somehow some kind of the dimensions that were discussed in CWE when it was about IDCC. How would the same questions be addressed?

**A:** currently different possibilities are investigated like likely direction, extract all direction at the same moment. For the moment the final answers are to be investigated in case of further going into the direction of statistical cNTC approach.

**Q:** with respect to scenario based with flow-based allocation approach, it is difficult to see how FB would work with optional (capacity only) products. How to take into account they will not be nominated?

**A:** FB allocation would not take into account the relieving effect of the flow to take into account the optionality. From market perspective there are a lot of side impacts. These market aspects will need to be further investigated.

**Q:** with respect to the FB approaches, a lot of underlying data is complex to have. But also the effect of each of the scenarios on the available capacities? Is that possible to model, possibly with mock-data?

**A:** Several experimentations have been performed comparing different kind of extractions and comparing cNTC extracted from reference values. Experimenting with mock data is not envisaged since the sum of assumptions care likely to make the results inconclusive.

**Q:** In general it seems that none of the approaches will be implemented before 2023. Is there any intermediate solution foreseen between the Core FB DA MC go live?

**A:** The aspect of an interim step is part of the discussion of concluding on the further methodology. Even in case of an interim approach, still a methodology needs to be designed, then NRAs approval prior starting an implementation. This will require time and would not be realistic to be implemented before the end of the next year.

**Q:** What is the risk if the finally chosen parameters for the LTCC are a bit generous to the Long Term, while anyway a part of the LTA inclusion will be allocated in Day Ahead?

**A:** This question is at the center of the design of LTCC methodology. It is about finding the trade-off between giving liquidity to the LT market and on the other hand to be able to secure the capacities given in Long Term without significant amount of costs for Remedial Actions.

### Next steps and way forward

MPs ask more in general to the aim of the coordinated LTCC methodology. Already today there is an LTCC method in force and also there is an LTA inclusion process. Still TSOs are discussing approaches while no real steps forward are achieved to replace the current LTCC approach.

B.GENET explains that Core NRAs, ACER and European Commission indicated to expect similar LTCC values as today as the target for a new methodology. The challenge to deal with is to develop a new coordinated LTCC method that will result in similar values. What is in place today is not in line with the target model of FCA which requires a coordinated capacity calculation method at the level of the CCR.

J.GREUNSVEN highlights that today LTCC values are based on historical bilateral/ unilateral agreements. Some of those are very old and it is not automatically given that the outcome of the coordinated LTCC method will match per definition those values.

Z.KOESSLDORFER (Core lead NRA) refers to the common message of Core NRAs that none of the historical bilateral/ unilateral agreements can or shall be considered once the coordinated LTCC method is in place.
MPs ask whether the scenario based cNTC approach with the proper parameters would not still be the way forward, possibly as an interim step.

B.GENET indicates that in terms of next steps first the direction of the approach is to be decided by ACER and the European Commission. TSOs provided the high-level assessment to NRAs and will discuss it during the Core IG meeting on 15/04. Most probably NRAs will provide more clarity on the way forward. It is unclear yet if a consultation would be foreseen or not.

Core NRAs remark that the legal status of this process involves the arbitration of the European Commission as Core TSOs have not been able to agree on a methodology for submission within the FCA GL’s foreseen deadline. Any next step will have to be discussed and ideally agreed between all parties around the table (TSOs, NRAs, ACER and European Commission), and Core NRAs will provide their guidance whenever required, but will not be able to decide on which is the most appropriate way forward.

LTA inclusion

J.LEPAGE reminds the CWE discussion whether or not to keep the LTA inclusion in DA. It was concluded to transfer the discussion to Core. It would be welcomed to have an opportunity to share views on this issue, learning how the LTA patch works, impact on Euphemia performance and what the underlying justifications are for keeping it while all borders are now with FTR.

B.GENET explains that performance issues related to LTA are not a concern in Core since another approach than CWE has been chosen (FAV approach instead of virtual branches). LTA inclusion is foreseen in Core CCM, namely because it presents some important benefits in terms of financial balance for TSOs (with LTA inclusion, day-ahead congestion income is always sufficient to cover LTTR holders’ remuneration). As there is no driver to remove it, it is preferred to keep it as is.

7. AOB & closure

B.GENET reminds the communication channels for Core CCR and Market Coupling project.

- **Core section on ENTSO-E website** (e.g. upload of methodologies and reports on public consultations, current status of the Core CCR program, CG minutes, …):
  - Link: [https://www.entsoe.eu/network_codes/CCR-regions/#core](https://www.entsoe.eu/network_codes/CCR-regions/#core)
- **ENTSO-E newsletter** informs regularly about updates in the different CCRs (e.g. submitted methodologies, launch of public consultations, …)
  - Subscription via [https://www.entsoe.eu/contact/](https://www.entsoe.eu/contact/)
- **Q&A forum newly launched on the JAO website** which gives space to Market Participants to ask questions about the External Parallel Run and other relevant topics:

Next Core Consultative Group meeting

The next Core Consultative Group meeting is foreseen on 7 October 2020 in Vienna (near to airport). Main topics will be Market Coupling related (external //run and member testing), and the follow up of the transparency discussions.

B.GENET thanks all participants and informs MPs that the minutes of meeting will finalized with the co-chairs and published on the ENTSO-E website.