

Minutes of Meeting Task Force MOG 2 24/03/2023

List of participants

Name	First name	Company/association
Bronckart	Olivier	Elia
Buedts	Nico	Jan De Nul
Carnière	Hugo	Belgian Offshore Platform
Chafaqi	Laïla	Luminus
Chaouachi	Aymen	Elia
Claes	Jan	Siemens Gamesa
Debacker	Béatrice	Engie
De Changy	Maxime	Fluxys
Donnay De Casteau	Loïc	Electrabel
Genêt	Benjamin	Elia
Hahati	Bilal	Elia
Harlem	Steven	Luminus
Hendrix	Stijn	Parkwind
Kormoss	Aymeric	Virya Energy
Laleman	Ruben	Engie
Libert	Brice	CREG
Martens	Pierre	Orsted
Mathy	Aline	Elia
Rogdakis	Georgios	Ocean Winds
Schyvens	Tim	Elia
Steensels	Marc	Otary
Van Bossuyt	Michaël	Febeliec
Van der Biest	Piet	Siemens Energy
Van Huffel	Margot	Otary
Van Thielen	Elmo	Elia
Vergote	Viktor	Luminus
Verhlest	Clara	CREG
Verrydt	Eric	BASF Antwerpen
Waignier	Jean-François	Febeg
Wathé	Gunnar	DEME Group

Agenda of the Task Force MOG 2

Balancing – mitigation measures

1. Introduction and context
2. Summary of mitigation measures
3. Recommended mitigation measures

Dynaminc & Harmonic

4. Data & model provision
5. Introduction on conformity process

The meeting was chaired by Benjamin Genêt. All agenda items were supported by presentations prepared by Elia. The slides serve as background for these minutes and can be found on the Elia website under <https://www.elia.be/en/users-group/workshop>

Minutes of Meeting

Benjamin Genêt (Elia) welcomes all physical and virtual participants to this Task Force MOG 2. He introduces the agenda and the main objectives of today.

Balancing – MOG 2 system integration study

1. Introduction and context

Elia (Kristof De Vos) introduces the presentation on mitigation measures with an overview of the planning and an overview of main questions received from stakeholders in the call for feedback. Answers to questions received are available in the appendix of the support.

2. Summary of mitigation measures

Elia (Aline Mathy) presents the general approach and principle of mitigation measures with general conclusions of system simulations.

BOP (Hugo Canière) asks if analyses were performed on the impact of the alpha parameter in the framework of this study. Elia answers no additional analysis are available at this stage than the information already presented during the discussions with market parties on the alpha re-calibration presented at the end of 2021. Elia clarifies that the effect of the alpha parameter and the storm procedure are included in the market performance analyses during storm and ramp events observed in period 2020-2022.

Febeliec (Michaël Van Bossuyt) asks if market performance improvements were observed over the storm and ramp events observed in 2020, 2021 and 2022. Elia (Kristof De Vos) answers it that the analyses do show improvement compared to the study presented in 2020 (based on data of 2019 and earlier) and that market performance assumptions are adapted accordingly but that no specific attention is paid comparing events within the period 2020-2022. Elia expects it might be difficult to draw strong conclusions over such limited time period as the occurrence of such events is not that frequent. Hence the set of data is quite limited to draw conclusions on a possible trend and there are many elements that influence the impact of the event (predictability, flexibility in the system...).

Febeliec (Michaël Van Bossuyt) mentions that the market performance assumptions should consider the learning curve compared to the study presented in 2020, as well in the design of the mitigation measures. Elia (Kristof De Vos) clarifies the learning curve is taken into account in the analyses by means of updating the market performance assumptions based on recent observations of 2020 until 2022 (showing improvement compared to the study presented in 2020 as indicated above) and that the learning curves are also well integrated in the assumptions and considered in the mitigation measures (being designed in a way that if the market performance would be better, it will not create system imbalances and would not trigger the measure and the associated costs).

Febeliec (Michaël Van Bossuyt) and Otary (Margot Van Huffel) ask to clarify why the best case coverage value for 'Up Ramping event' is reduced compared to 80% compared to the observed 90%). Elia (Kristof De Vos) answers that it assumed that the 90% observation (in best case) is very high and could be seen as unrealistic when increasing installed capacity

from 2.3 GW to 5.8 GW. Otary does not see why this wouldn't as upward ramps can be well managed by the parks via generation reductions. Elia takes note of the remark and will look into it, but also clarifies it will not impact the conclusions as the mitigation measures are justified to cover worst case events where the same values as the observations are maintained (50%). Febeliec asks to also have a look at the reduction of the gradient compared to the observed values.

Otary (Margot Van Huffel) asks if a distinction was made between ramping events that need to be solved from system perspective and other events having no impact on the system. Elia (Kristof De Vos) answers it analyzed the market performance during best and worst case conditions and these are fed accordingly to the system simulation models.

Luminus (Harlem Steven) asks if one or two alpha parameters will be considered if two balancing zones balancing are considered for MOG 2 (e.g. onshore and offshore with the offshore bidding zone). Elia (Kristof De Vos) takes note of the question for further discussion on the balancing implications of Offshore Bidding Zone.

BOP (Hugo Canière) stresses that automatic cut-in coordination should not be seen as an existing measure as this is today still manual. Elia clarifies that the cut-in coordination as such is an existing measure, while acknowledging that the measure is foreseen to evolve from manual to automatic. The nuance will be conveyed in next communications.

3. Recommended mitigation measures

Elia (Aline Mathy) presents the second part of the presentation related to recommended mitigation measures.

BOP (Hugo Canière) asks clarifications if the requirements will be specified at the wind turbine level or connection points. Elia (Aline Mathy) answers that it will in first instance specify these requirements for the wind turbine level but that it, on request of wind parks, will allow the wind parks to comply with the requirement at connection point level, as being mentioned in the slides.

Otary (Margot Van Huffel) agrees with the principle to gradually ramp down production when facing a storm cut-out, but doubts of it is very useful for the system to specify a minimum wind speed level up to which the turbines have to produce 31 m/s. It limits the degrees of freedom of the wind park developers as there might be technologies which are not able to do so. Elia (Kristof De Vos) answers that the benefits for the system have been shown in the previous study (2020) and are confirmed in the new study in terms of reducing the occurrence of events with large generation variations and exceeding operational limits of the system. It also stresses that the HWS-deep type assumption (31 m/sec) was discussed in previous meetings with stakeholders and put forward when presented the assumptions to stakeholders on April 1, 2022. No comments were received at that time, nor from the parks, nor from the technology providers, participating in the meeting concerning the difficulty to meet this technology requirement. Elia (Aymen Chaouachi) adds that releasing this first requirement of 31m/s would increase the occurrence of cut-outs and so thus the occurrence of the application of the other mitigation measures. Elia (Benjamin Genêt) complements that

the justification on this requirements will be described in the public consultation report that will be organized end of this year to collect potential remaining remarks.

Otary (Margot Van Huffel) asks the needs to impose the ramping rate limitation of 15 MW/min when system imbalance exceeds a threshold of 500 MW at the system scale (connection point) and not allocate this to a part of offshore park. Elia (Kristof De Vos) answers that it proposes a proportional application of the measure but that it is open to discuss other allocation of the measure as long as the imposed ramp rate limitation over the entire fleet remains intact.

Otary asks if the ramp rate limitation should not rather be seen as a support for the system provided by the wind power and that in this view, it should be remunerated for this. Elia (Kristof De Vos) answers that it does not follow the argumentation as offshore wind power is at that moment aggravating the system imbalance and the ramp rate limitation is a last resort measure to slow down this aggravation if the wind parks would not manage this themselves under the imbalance price signal.

Otary thinks the mechanism unfairly vilifies offshore wind power as such limits are not put on other technologies. Elia answers that other technologies, at this point, are not identified to put such threat to system security, and that it will consider necessary measure for newly installed capacity of other technologies if it would see a threat for operational security.

Virya Energy (Aymeric Kormoss) asks in which case the 500 MW imbalance situation can take place. Elia (Benjamin Genêt) answers that this can be caused by several factors, being the prediction errors of wind power onshore and offshore, but also other renewables or events onshore. Elia (Benjamin Genêt) stresses that the signal to trigger the ramp rate limitations is a signal for the market that large excess imbalances are taking place which are likely to result in very low or negative prices. More than a constraint for the affected parties, it could actually be seen as a help for these market parties to adapt their portfolio in the right direction.

BOP (Hugo Canière) asks if the automatic cut-in coordination can be based on a system imbalance trigger as well. Elia answers that the cut-in coordination is a mechanism for the existing parks and that it is willing to discuss the implementation aspects (i.e. the cut-in profile to be followed to take into account technical constraints) but it is not re-considering the design principles of the mechanism. Elia clarifies that existing wind parks can voluntary opt for the ramp rate limitations applied for the new parks, based on a system imbalance trigger. BOP asks if it is possible to analyze the impact if all wind power plants would use such automatic cut-in with system imbalance trigger. Elia answers it could do such an analysis in theory, but does not see the added value as the actual cut-in coordination framework will be maintained for existing parks (notably for those having technical difficulties to react real-time on the system imbalance). If these parks can react on the system imbalance, these can voluntary opt for the ramping limitation framework proposed for the new parks. *[Elia also wants to remind that the current cut-in coordination mechanism for existing parks (and the implementation of an automatic process towards 2029) is not in scope of the MOG 2 discussions and shall be discussed in the framework of the T&C SA and OPA towards.]*

BOP (Hugo Canière) reacts on the financial compensation of preventive curtailment. Elia answers that in the initial proposal, the unremunerated activation is assumed up to a certain cap identified over 5 years but acknowledges that information on the support mechanism is needed to have the full picture on the financial impact. Elia confirms it will come back on this topic once having view on the selected support mechanism.

Luminus (Viktor Vergote) asks clarification why preventive curtailment measures are not impacted by the choice of offshore bidding zone. Elia (Kristof De Vos) answers that the decision to trigger the preventive curtailment will be taken at least one hour before real time, to ensure that market parties can cover the shortage via the intra-day market, in which flexibility is still expected to be available in general.

Febeliec (Michaël Van Bossuyt) asks clarification on the next steps for the balancing aspects given the whole political decision of the tender and the financial mechanism. Elia (Benjamin Genêt) answers that ideally another iteration might be consider after the clarification of the political decision, and ideally before summer.

Febeliec (Michaël Van Bossuyt) asks which additional mitigation measures are foreseen for “poor market performance” case. Elia (Kristof De Vos) answers that at this point, the only potential solution he sees is to solve this with reserves or exceptional balancing measures. Elia will monitor the performance and discuss with stakeholders in due time if such evolution would occur.

Febeliec (Michaël Van Bossuyt) repeats it request to investigate the improvement of market performance during the last years, improvements and lessons learned. Elia takes it as action point.

Dynamic & Harmonic

4. Data & model provision

Elia (Aymen Chaouachi) introduces the new requirements of model and data provision foreseen for MOG 2, but also already used as reference for new other type of units.

Parkwind (Stijn Hendrix) asks clarification on the definition used for the “grey-box” model for model requirements provisions for direct client. Elia (Aymen Chaouachi) answers that grey-box model refers to models with a minimum list of inputs and outputs that need to be available. This would be critical to allow Elia to have access to important parameters for studies.

Parkwind (Stijn Hendrix) asks what is the simulation that the TSO (Elia) will perform. Elia (Aymen Chaouachi) answers that the TSO will perform only a sanity check of the model received to make sure that the models reflect well the simulation compliance report and the site specific conditions.

Otary (Marc Steensels) asks clarification on how life-continuous monitoring will be performed. Elia (Aymen Chaouachi) answers that this is already the case as conformity should be throughout the life time of the installation in this case Elia will put in place tools to allow that the models and the real reaction are consistent especially that compliance tests do not cover all possible events eg short-circuit faults.

5. Introduction on conformity process – Olivier Bronckart

Parkwind (Stijn Hendrix) asks if Elia will take a larger role in the simulation and potentially the conformity process. Elia (Olivier Bronckart) answers that the solution is not yet finalized and under development. A proposal will be presented in the one of the next Task Force MOG 2 for validation.

AOB and closure

Parkwind (Stijn Hendrix) and Otary (Marc Steensels) mentions that some open questions remains on connection requirement aspects. Elia (Benjamin Genêt) answers that a follow-up on open questions will be performed in the next Task Force MOG 2.

Benjamin Genêt thanks all participants for participation and closes the Task Force MOG 2.