

Febeliec answer to the Elia consultation on the Task Force Princess Elisabeth Zone

Febeliec would like to thank Elia for this consultation on the outcome of the discussions in the task force Princess Elisabeth Zone (PEZ). In general, Febeliec is quite worried about the impact of an increasing volume of inverter-based resources on both system security, a concern to a large extent shared by Elia, and on the overall system costs, covering not only the costs for the generation of these assets but also other related direct and indirect costs such as balancing capacity and balancing energy, grid costs, other ancillary services, and so on.

On the **connection requirements**, Febeliec at this point does not want to provide in-depth comments to the proposed solution. However, Febeliec strongly insists that whichever solution is chosen should lead to the lowest overall system costs, covering both system integrity and security as well as cost efficiency. This also implies that in principle Febeliec is in favour of optimal use of (at least part of) the offshore infrastructure for a.o. (hybrid) interconnectors, to ensure a better load factor and general usage of (very expensive) grid elements. Febeliec takes note of the comments of Elia regarding DC circuit breaker technology. While Febeliec is not an expert in the matter, it nevertheless insists that the technological solution is chosen which best strikes a balance between grid security and overall system costs. Similarly, Febeliec does not pronounce itself at this point regarding the phased approach proposed by Elia, but also insists that a balance should be kept between grid security and overall system costs

On the **dynamic and harmonic**, Febeliec is quite concerned regarding the potential impact on the Belgian grid of the new system characteristics and the new and emerging power system phenomena of a system with a very large share of inverter-based resources, as these could jeopardize system security and/or unduly increase overall system costs.

On **market design**, Febeliec takes duly note of the three critical enablers listed by Elia, the return of the UK to the European single implicit price coupling, the application of an Offshore Bidding Zone (OBZ) and the rollout of Advanced Hybrid Coupling (AHC) and fully supports the combination of these elements to avoid inefficient use of (very expensive) grid infrastructure. Febeliec also insists that the over-arching societal optimum should be selected, ensuring the lowest overall system costs while preserving system security. Febeliec also believes that a well-designed support mechanism is essential to ensure the lowest overall system cost (while no support at all would presumably even result in a lower overall cost). Febeliec is also worried about congestion management in case of overestimation of wind in forecasts or the violation of the technical limits of the grid in case of underestimation of wind in the forecasts. Moreover, Febeliec underwrites the major drawbacks identified by Elia related to explicit coupling in combination with a hybrid design and opposes any outcome which would allow for market manipulation (a.o. due to the predictability of congestion), inefficiency and overall distortive effects on market functioning. Febeliec also is worried about unused capacity in the offshore grid, which implies welfare losses, as well as about congestion in the (onshore) grid, which implies redispatching costs, both at a potentially important (cost) impact for the grid users. It is clear that a correct market design, known ex ante in order to allow offshore wind developers to take it into account in their business cases, is fundamental to ensure grid security in combination with affordability for grid users, including the dual use of (part of) the (expensive) offshore grid infrastructure. In any case, Febeliec is very much in favour of ensuring complete clarity on the market design and all its implications ex ante, in order to allow all involved parties to take these elements into account in their respective situations. Regarding the role of (two-sided) capability based CfDs, a proposal of Elia, Febeliec finds this topic surprising in this document and continues to see some worrisome effects, in particular related to ensuring grid security, which at first glance seems to be covered quite well, while also guaranteeing a minimal impact on the overall system costs, which does not necessarily seem to be guaranteed as also in the case of non-production costs would be incurred by grid users. Elia's proposal mostly seems to be taking into account the business case for the developers, not necessarily the societal impact as a whole. Febeliec also wants to express its concern that such design with a capability based CfDs introduces yet another distortion to the Energy Only Market.

On **balancing design**, Febeliec most strongly insist on the central role of the Balancing Responsible Party; who should ensure that his portfolio is balanced at any moment in realtime. This role does not change depending on whether assets are located onshore or offshore, but is technology-neutral. Moreover, as the Belgian offshore wind area is relatively limited geographically speaking and (offshore wind) forecast errors, which appear to be both frequent and quite significant, have major averse effects on the stability and even integrity of the Belgian grid, Febeliec strongly supports the mitigation measures proposed by Elia. Insofar Balancing Responsible Parties would prove to be able to fulfil their

Febeliec represents industrial energy consumers in Belgium. It strives for competitive prices for electricity and natural gas for industrial activities in Belgium, and for an increased security of energy supply. Febeliec has as members 5 business associations (Chemistry and life sciences, Glass, pulp & paper and cardboard, Mining, Textiles and wood processing, Brick) and 39 companies (Air Liquide, Air Products, Aluminium Duffel, Aperam, ArcelorMittal, Arlanxeo Belgium, Aurubis Belgium, BASF Antwerpen, Bayer Agriculture, Beaulieu International Group, Borealis, Brussels Airport Company, Covestro, Dow Belgium, Etex, Evonik Antwerpen, Glaxosmithkline Biologicals, Google, Ineos, Infrabel, Inovyn Belgium, Janssen Pharmaceutica, Kaneka Belgium, Kronos, Lanxess, Nippon Gases Belgium, Nippon Shokubai Europe, NLMK Belgium, Nyrstar Belgium, Oleon, Pfizer, Proxiums, Sol, Solvay, Tessenderlo Group, Thy-Marcinelle, Total Petrochemicals & Refining, UCB Pharma, Umicore, Unilin, Vynova and Yara). Together they represent over 80% of industrial electricity and natural gas consumption in Belgium and some 230.000 industrial jobs.

role correctly, maintaining balance in their portfolio, and not put in jeopardy the integrity of the Belgian grid, Febeliec could towards the future accept the possible relaxation of some of these mitigation measures. Nevertheless, this could only be considered based on sufficient and clear evidence that doing so would not put at risk the Belgian system and/or massively increase the overall costs, including balancing reservation and activation costs, to the detriment of Belgian grid users. Febeliec supports Elia's position that the proposed mitigation measures are proportionate in view of alternative solutions based on procuring additional reserve capacity, while giving BRPs all opportunities to self-manage the expected impacts of storm and ramping events in the intraday and balancing timeframes, while maintaining safeguards in case they would not prove to be capable of doing so. Febeliec also wants to insist that in case BRPs correctly fulfil their obligations, the impact of the mitigation measures on their positions should be minimal or even non-existent, as should be the case for the offshore wind developers. Febeliec also believes that it is almost impossible from a technical point of view for any system to cope with potential ramp effects of up to 5GW, thus clearly warranting the need for mitigation measures for the sake of system integrity. Febeliec also wants to point out that the expected upward and downward balancing needs identified by Elia, both for aFRR and mFRR in the different scenarios indicate a massive increase of such needs, with equally massive cost implications for the grid users through the increase of capacity reservation costs, reflected in the grid tariffs. While such increase cannot be avoided, all possible measures should be taken to limit this impact as much as possible in order to ensure the affordability and even acceptability of such massive offshore developments. This is even more so clear when taking into account the shape of the current merit orders for both (capacity) products as these indicate that (even minimal) increases could lead to significantly higher costs as the impact would not be linear but potentially almost exponential.