

Febeliec answer to the Elia public consultation on the scenarios, sensitivities and data for the CRM parameter calculation for the Y-1 auction Delivery Period 2025-2026 and Y-4 Auction for Delivery Period 2028-2029

Febeliec would like to thank Elia for this consultation on the scenarios, sensitivities and data for the CRM parameter calculation for the Y-1 Auction for Delivery Period 2025-2026 and for the Y-4 Auction for Delivery Period 2028-2029.

Febeliec continues just as previous years to strongly regret that Elia still, as for all other adequacy related studies and analyses, only conducts a consultation on the input data, sensitivities and scenarios, and does not conduct a full consultation on the methodology itself. Febeliec equally strongly regrets that Elia still does not involve the stakeholders in the development of this methodology, other than the stakeholders imposed by the law (FPS Economy plus coordination with CREG). Even though no such legal obligation exists, Elia could (and according to Febeliec, should) have opted for a much larger involvement from all stakeholders, in order to obtain a much stronger buy-in from stakeholders in the methodology, the study and its results. Febeliec will provide its comments on the consultation but this does not mean that Febeliec agrees with the applied methodology and should in no case be interpreted as such. Amongst others, Febeliec still has a wide range of comments and questions that it considers not (sufficiently) answered or resolved on the bi-annual Adequacy and Flexibility Study, which is the basis for the methodology and model for this study as well as the previous consultations on the scenarios, sensitivities and data for the CRM parameter calculations (including a.o. issues that Febeliec has raised regarding underlying studies applied by Elia, in particular referring to the E-Cube study determining demand side response in Belgium which has shown to be seriously flawed, as already indicated by Febeliec for many years).

Febeliec also wants to reiterate its longstanding position regarding the calculation being conducted for just one scenario, with only one specific subset of sensitivities being selected. While Febeliec understands that in the end one final scenario has to be selected for the calibration, Elia could still conduct calculations for multiple scenarios which would allow much better insight in the sensitivity of the results regarding the changes in the scenario. Even though no legal obligation exists for such additional calculations, there also does not exist a legal prohibition for such calculations and they would deliver essential insights for a thorough analysis and selection of the final scenario to be applied. Concerning Elia's statement that it takes into account "the most recent relevant information", it remains opaque which cut-off date is applied for selecting such information as well as the criteria applied to determine relevance or not. In some cases, references are made to press articles while in other cases policy announcements or REMIT announcements are used or in some cases only firm legal policy decisions, which creates an arbitrary feeling (e.g. regarding information taken into account for neighbouring countries). Febeliec insists that it would be wise and prudent to run at least some alternative scenarios, even though there is no legal obligation, in order to provide the necessary relevant input for any governmental decisions.

On the general scope of this input for the CRM parameter for the Y-1 Auction for Delivery Period 2025-2026 and for the Y-4 Auction for Delivery Period 2028-2029, Febeliec also wants to reiterate its comments regarding ERAA 2022, which is the basis for a very substantial part of the analysis conducted by Elia, but which has been heavily criticised by many stakeholders but also ACER, who has in a formal opinion voiced its major concerns regarding ERAA 2022 and considering ERAA 2022 severely flawed and not in line with the legal obligations and requirements. Febeliec can only underwrite ACER's concerns and is extremely worried by such flawed analysis being used as the basis of Elia's analysis as this also severely undermines any outcomes of Elia's analysis and thus does not guarantee that the legal lowest cost criterion (nor any other legal criteria for that matter) can be achieved.

In general, Febeliec already wants to indicate the lack of much actual data provided by Elia. Many spreadsheets provide hardly any methodology used for the calculation or determination of the data, do still not provide all sources and thus in fact provide hardly any basis to provide input on.

On the different composing elements, and within the short timeframe provided by Elia for the consultation, Febeliec would like to make following comments:

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 40 companies (Air Liquide, Air Products, Aperam, ArcelorMittal, Arlanxeo Belgium, Aurubis Belgium, BASF Antwerpen, Bayer Agriculture, Bekaert, Borealis, Brussels Airport Company, Covestro, Dow Belgium, 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, Recticel, Sol, Tessengerlo 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.

- Individually modelled thermal generation
 - Febeliec has no comments on the specific units presented, but reiterates a longstanding comment on the lack of transparency on the announced (temporary) closure of power plants in Belgium. Moreover, Febeliec also notices that Elia does not seem to consider any additional units in Belgium in the period till 2029 beyond two CCGTs contracted already in CRM auctions and one CHP and wonders whether this is a realistic assumption.
- Storage
 - For storage and in particular batteries, no full methodology is available describing volume determination. Febeliec considers the proposal from Elia regarding the large scale batteries added during calibration too high and is of the opinion that at least a substantial part of this capacity would also be constructed without CRM participation, implying that the capacity in the reference scenario should be substantially increased compared to the proposed 327 MW.
 - Moreover, Febeliec can under no condition accept the proposal of Elia for small scale storage, where Elia proposes lower capacities compared to the previous calibrations for Y-1 2025-2026 and only slightly higher capacity for Y-4 2028-2029 compared to Y-4 2027-2028, whereas currently many new and existing players are active in this domain and the business cases for such batteries, even without CRM, have become very positive. Febeliec considers the proposal from Elia for small scale storage a severe underestimate and thus not in line with the legal lowest cost criterion.
- Renewable and profiled
 - Febeliec does not understand why biomass is expected to be reduced by 2028-2029 compared to the previous analysis and why gas CHP only is foreseen with a very small increase between 2025-2026 and 2028-2029
 - For renewables, as only aggregated numbers are given without any explanation, it is impossible to provide any meaningful comments
 - Febeliec regrets that it is still not completely clear which power plants are included here, in particular diesel generators¹, emergency generators and process generators. Febeliec has made this comment on previous versions of this consultation and regrets that this is still not completely transparently tackled by Elia in its overview.
 - Because of a lack of breakdown (only aggregated data is shown), it is impossible to identify which periods certain categories (e.g. gas CHP, biomass) are available/producing and to have a view on their contribution to system adequacy.
- Forced outage rates
 - Febeliec does not understand why the forced outage rate of nuclear plants is increased as well as that for OCGTs. For the latter, if new OCGTs would be added to the system, it is questionable to which extent they would be facing such higher forced outage rates.
- Demand
 - For Demand, Febeliec was extremely surprised by the proposed values by Elia, especially for 2028-2029. Between 2027-2028 (last year's exercise) and 2028-2029, Elia adds 13,5 TWh of demand in one single year, a Y-on-Y increase with **15%**! Moreover, Elia increases in that same single year the electricity peak consumption from 15 to 18 GW, an increase with **20%**! Moreover, Elia **reduces** demand side response with almost **20%**, to the level it foresees for 2025-2026, implying that despite higher prices and evermore flexible loads and smart meters and its own CCMD program, consumers would not react in any way to price signals! The demand reduction/destruction (implicit and explicit) observed during the recent energy crisis, with price levels in the 100s of euros but nowhere near the 1000s of euros of scarcity situations, thus does not seem to be taken into account at all by Elia.
 - Regarding EVs, Febeliec is very surprised to see that Elia compared to its 2027-2028 analysis adds **839.000 EVs in one single year** (from 850K in 2027-2028 to 1689K in 2028-2029) and also **adds 925000 HPs in one single year** compared to its previous analysis. Looking at the values for 2025-2026, Elia suddenly reaches 870K EVs and 885K HPs, which makes Febeliec wonders about the probability of these values. Moreover, Elia also adds in one single year for 2028-2029 11,2 TWh of industrial demand (9,2 TWh for industry and 2,0 for data centres), values which do not align with a.o. EnergyVille in its

¹ Diesel generators (and similar technologies) seem despite previous comment on this topic by Febeliec still completely missing in the file from Elia. CREG studies have shown that for example only the (aggregated) Belgian hospitals already have up to 200MW of diesel generators and this is not taking into account all the other emergency generators (accounting for several hundreds of MWs of installed capacity, from industrial sites over public services, office buildings to even residential consumers) that are operational in Belgium. Moreover, winter 2018-2019 shows that large BRPs have installed more than substantial volumes of diesel generators to cover their positions (diesel generators which cannot be formally accounted for as "emergency" generators as they are not connected to specific consumption processes). Febeliec reiterates its request to Elia to introduce this category of diesel generators (and similar technologies) to the analysis.

- study end 2022 on “How can Belgium become carbon neutral between now and 2050?”, which also indicates industrial electrification but at a **slower** rate than proposed by Elia.
- For the average peak load, Febeliec cannot accept the proposed values by Elia, especially not for 2028-2029, as this would imply that consumers, when prices are high (in scarcity situations, relevant for the calibration of the CRM) would continue to consume under normal behaviour, whereas the recent history has shown that consumers are already to a large extent price sensitive if prices already reach levels of 100s of euros and would presumably be even more price sensitive and thus show higher elasticity when price levels would reach 1000s of euros under scarcity situations, which is the only moment when peak load is relevant for the exercise conducted by Elia in the framework of the CRM calibration.
 - For total electricity demand, and as also requested during the meetings of the WG Adequacy but formally refused by Elia, Febeliec most strongly insist that an analysis is conducted on the quality of Elia’s total electricity forecasts during all its adequacy assessments (starting already a decade ago with the strategic reserve analyses) in comparison with the observed reality on the one hand for now historic years with measured values and on changes for future years over the different analyses it has conducted, as Febeliec is convinced that Elia systemically overestimates total electricity demand and thus creates a biased analysis of potential adequacy concerns at the detriment of unwarranted adequacy concerns and unnecessary costs for strategic reserves and CRMs, resulting in an unnecessary and undue additional system cost for consumers. Febeliec finds the approach by Elia non-representative of reality, resulting in a probably severe overestimate of total Belgian demand and thus an overestimate of adequacy needs, which will then result in potentially unnecessary higher costs for consumers (if needs are unnecessarily and artificially increased) who are currently already facing the very negative impact of higher energy bills.
 - Demand Side response
 - Febeliec continues as in previous years to voice important questions and comments towards the values used for demand side response as well as the applied studies. Febeliec in this case wants to explicitly refer to the E-Cube study, on which it already voiced numerous comments over the years and which has shown in the current energy crisis not to deliver robust results (as predicted by Febeliec and now acknowledged also by Elia), yet which Elia continues to apply for the determination of demand side response despite its known and proven flaws. While Febeliec appreciates that (finally) the methodology applied by E-Cube will be updated, it cannot accept (nor even understand) why the current methodology, with its known flaws, is still applied, only because this (flawed) methodology has already been applied in the past (and to which Febeliec has continuously opposed for exactly this reason). Febeliec considers this approach by Elia wrongful and even intellectually bizarre.
 - Concerning the data used by Climact, within the short timeframe of this consultation it is impossible to validate all data applied. However, Febeliec wants to reiterate its longstanding comments on the use of outdated data, in casu the economic perspectives of the Federal Planning Bureau of June 2022, which predate the summer of 2022 with substantially higher price levels for gas and electricity (reaching new record levels), leading to severe economic impact for (industrial) consumers and demand side response as well as demand side destruction. Moreover, these very high price levels (especially also in comparison with the rest of the world) also have an effect on future consumption of energy as new investments are shifting to a large extent to global regions with lower price levels. As such, the forecast of the Federal Planning Bureau for economic growth and recovery might be overly optimistic.
 - On demand side response volumes, Febeliec reiterates and most strongly urges Elia to take into account not only voluntary direct and indirect demand response based on peak prices but also voluntary demand side response to longer periods with high energy prices (below peak price levels but for extended periods) as can be observed at this moment. The impact on overall demand (and thus also implicit demand response) could clearly be observed both in 2022 as well as 2023, with several percentage points of demand reduction and thus a very clear correlation between high (not peak) prices and demand (and demand response), which is according to Febeliec far from sufficiently taken into account in the studies by Elia and thus leads to a bias from Elia towards artificially higher but in reality unwarranted adequacy needs. Febeliec also opposes the view from Elia regarding the need for a CRM for demand response to develop, as the current crisis (as also described above) shows clearly that even without such CRM demand clearly reacts in substantial capacities on prices (and this even despite most non-industrial consumers not possessing smart meters and thus delivering only implicit and not even explicit demand side response).

- On the proposed values for demand side response capacity, Febeliec refers to its above-mentioned comments on the proposal by Elia and cannot accept that for 2025-2026 and 2028-2029 the same base value is applied. Moreover, in light of the recent observations as well as the on-going efforts to unlock flexibility from demand (e.g. smart meter roll-out, dynamic price contracts, Elia's own CCMD program, efforts taken by Elia towards opening its ancillary services for medium and low voltage consumers, efforts taken by DSOs, the European Commission's work on a Network Code on demand side response, the new legislation being discussed regarding the Electricity Market Reform, the increased interest in small scale batteries which make consumers reflect also more profoundly on their consumption, ...), Febeliec considers the capacities which Elia considers potentially to be added during calibration too low (and not even reflecting reality as a substantial part of demand side response will also be developed without CRM, in particular in the non-professional segment) and tis most explicitly for 2028-2029 where Elia is not ambitious at all for any potential increase.
- Febeliec continues to wonder, after already having made this comment in several previous consultations, how emergency generators (see also above) are treated, as it remains unclear if and how such generators are taken into account, and if so, for which volumes. Febeliec wants to stress that in Belgium literally 100s of MWs of emergency generators are installed, with its own members already having massive volumes of emergency generators (in at least one case even 100s of MWs for certain grid users), not even taking into account he 100s of MWs installed at a.o. hospitals, where a CREG study indicated an installed capacity of at least 200 MW. Febeliec explicitly asks that Elia finally provides some clarity on this element and its inclusion in the analysis.
- **Balancing capacity**
 - Febeliec regrets that Elia takes every year higher volumes of balancing capacity to be reserved, while at the same time watering down certain balancing obligations for BRPs (e.g. Day Ahead balancing obligation). As Elia considers needs for balancing capacity to rise over time, it should rather strengthen balancing obligations, in order to avoid that evermore capacity needs to be contracted and paid for by consumers.
 - Febeliec insist that the impact of cross-border balancing capacity should be taken into account as reduction factor for balancing capacity needs, as by 2028-2029 all European balancing platforms should be functional and thus should reduce the balancing capacity reservation needs. At the same time also inter-TSO capacity must be taken into account. Moreover, Febeliec also wants to point to studies in the framework of regulatory incentives conducted by Elia ,which could result in less or no reservation of balancing capacity, while this impact is not at all taken into account in this report.
- **Flow-based domains**
 - Febeliec agrees that for the minimum minRAM 70% is chosen (although Febeliec insists that this value is a legal minimum and TSOs should strive to do better as consumers pay for 100% of the (cross-border) infrastructure). Febeliec also opposes any value below 70% as his 70% is a strict legal requirement.
 - On cross-border capacities, Febeliec does not see any information on which future grid (based also on investments) is taken into account, which is a.o. very relevant in light of many recent announcements (e.g. on hybrid offshore grids).
- **Other countries data**
 - Concerning the updates of other countries data (wrongly labelled neighbouring countries by Elia in the explanatory note), Febeliec takes note that Elia derives information from recent national studies (where it is unclear which cut-off point is taken into account to include or not updates), but also ambitions, in some cases apparently based on press articles while for other cases only official sources are used.
 - On the proposed values, Febeliec can only observe some surprising elements. Febeliec has composed, based on the proposed values by Elia, following overview:

Demand (TWh)	2025-2026	2028-2029	% increase
Belgium	88,7	104,4	18%
France	480	506	5%
Germany	574	619	8%
Netherlands	124	141	14%
UK	295	316	7%
Spain	259	261	1%

Italy	329	342	4%
Poland	167	178	7%
Denmark	41	50	22%

It is surprising to observe that, with the exception of Denmark, Elia proposes with +18% the largest relative increased in demand of all observed countries (and Denmark has a much lower absolute consumption level, skewing the relative increase), while most other countries, facing the same European legislation and goals and impact on electrification, show only single digit increases over the period 2025-2029 (in the case of Spain even only +1%). In this perspective, Febeliec can only question Elia's potentially overambitious proposed values, which however have a very clear impact on adequacy needs and concerns and thus also on the overall system cost as this could lead to additional but unwarranted costly CRM capacity needs.

- Climate years
 - On climate years, Febeliec can only reiterate its known comments on the blackbox approach of Elia by applying the forward looking model of Météo-France, which also incorporates policy choices regarding climate scenarios and is as such not a neutral model. Moreover, Elia refers to ERAA but a.o. ACER has voiced also concerns about the approach chosen by ERAA in this domain as well as the underlying database.
 - Febeliec proposes to include a scenario where the historic approach, with only 30 historic climate years (and also listed as an option in the European framework) is followed, to see what the impact is of the chosen approach compared to the previous approach, to get a feeling for the implications of the blackbox that is now applied by Elia.
- Economic parameters
 - Febeliec would like to see how Elia justifies its proposed (and highly increased) price levels for a.o. CO₂ in 2025-2026 (more than three times higher than in the previous analysis) and oil in 2028-2029 (also than three times higher than in the previous analysis)
- Sensitivities menu
 - On sensitivities, Febeliec strongly regrets that Elia only calculates one single configuration of the base scenario and a combination (or one single) sensitivities. This approach does not provide for additional meaningful insights by comparing different constellations, which would however be very useful.
 - On the sensitivities on UK and French nuclear availability, and as already discussed in the past, Febeliec remains surprised that this is even included, as UK and France already have a CRM in place, guaranteeing the adequacy of the UK and France and according to the ERAA methodology, NRAAs can only take into account national impacts and not those cross border. Febeliec is also surprised that Elia now includes lower availability of up to 8 nuclear units in France even until 2028-2029, while also adding an additional one for the UK. Febeliec wonders to which extent Elia is creating scenarios where it excludes so much capacity in the European system as to create a self-fulfilling prophecy of adequacy concerns.
 - On the flow-based CEP rules sensitivity, Febeliec opposes the inclusion of any sensitivity which would reduce the minRAM below 70% as this the minimum threshold. Febeliec already considers the fixed RAM 70% a very conservative approach by Elia.
 - On the export restrictions in Norway, Febeliec considers this not a reasonable sensitivity as such approach would be in breach with legislation and the single European market of which Norway is an integral part. Moreover, such a unilateral approach by Norway would result presumably in other measures being taken against Norway, which makes such approach very unlikely.
 - Febeliec strongly supports one or even several sensitivities on lower demand in Belgium, as it considers, as described above, Elia's forecasts completely excessive, also compared with most other European countries.
 - On a sensitivity of higher demand in Belgium due to high prices, Febeliec does not at all understand the rationale of Elia, has high prices have clearly shown lower demand in Belgium. Moreover, Febeliec already considers Elia's demand forecast completely excessive and does not see how demand could reach even higher, never-before seen, levels and especially not with high prices.
 - On the lower demand due to high prices, Febeliec supports, as mentioned above, such approach yet the explanatory note lacks any content to evaluate what Elia is actually proposing as methodology to determine such lower demand (and peak demand?) levels. Moreover, it is unclear what Elia intends with "due to economic developments" as lower demand will more directly be linked to high prices rather than an abstract notion of economic development.

- On the sensitivities for higher demand side response and higher large-scale battery capacity, Febeliec would at least add also higher small-scale battery capacity
- On the sensitivity on the uncertainty on prices of gas and coal (and oil?), while Febeliec supports such sensitivities (and regrets, as mentioned above that only one single scenario will be modelled and calculated by Elia, thus not providing additional insights from these sensitivities), it remains unclear which price levels Elia would then analyse.
- On preselected capacity types, Febeliec does not understand why OCGTs or other generation technologies are excluded for 2025-2026 (e.g. small diesel engines) and why other technologies as small-scale storage are not at all considered. Moreover, Febeliec remains puzzled why only demand side response with a SLA of 4h is considered, where many more categories exist.
- Scenarios post DY
 - Febeliec regrets that Elia has not foreseen data or an analysis for every year in scope, specifically for 2029 and 2031 but more importantly for none of the years between 2034 and 2040, where merely an interpolation seems to be used although this according to Febeliec does not provide a sound enough basis for the needs for the CRM, as an auction for the period 2028-2029 (and also 2025-2026) could lead to a very high and unnecessary overprocurement of capacity if only a very limited number of years would be identified with potential adequacy concerns (e.g. also due to the impact of all announcements for additional investments, which could greatly limit the need for assets with long subsidy cycles, which would then erode the business cases of other asset and technology classes).
- On the intermediate price cap, Febeliec wants to reiterate its comment on the arbitrary and too limiting selection of technologies by Elia, as this excludes many technologies (e.g. large and small scale batteries, demand side response with other SLAs, ...) and insists that the scope is extended to ensure that the CRM does not lead to unwarranted costs, in breach with the legal lowest cost criterion.
- Revenue parameters:
 - Febeliec continues to have problems with the approach by Elia, as balancing revenues are not taken sufficiently into account. Febeliec, as mentioned above, considers the technology list for the determination of the IPC to be too restrictive and in combination by e.g. not taking into account FCR revenues or aFRR revenues, the business case of storage is largely underestimated and thus also the larger deployment of this technology as compared to Elia's forecasts in the past.

On the appendices, Febeliec within the very limited timeframe of this consultation cannot provide a full-fledged overview of comments, but wants to refer to the comments made during the meetings of the WG Adequacy. Moreover, specifically on the E-Cube methodology for the determination of demand side response volumes, Febeliec wants to refer to its comments since the very first discussions on the methodology, that it considers an approach based on market prices for splitting between technologies not the best nor even a good proxy indicator. This fundamental flaw in the design is also the reason why Febeliec explicitly and repeatedly has stated and asked to be recorded that it cannot agree nor support the methodology proposed by E-Cube and that it also is not certain that trying to patch up the initially flawed methodology will deliver any better results as the fundamental flaw remains. Moreover, Febeliec is very worried that the proposed changes will lead to an ever-increasing exclusion of demand response volumes as it will become even more difficult to evaluate the underlying technology and this could lead to undue exclusion of demand response volumes from the analysis. The proposed approaches to avoid miscounting generation as DSR are not robust and could also result in miscounting DSR as generation (an element that is apparently not even considered by E-Cube and Elia).

On the Climact analysis, Febeliec wants again to refer to the extensive work done by EnergyVille (see above), with a much more comprehensive and robust methodology.

General Conclusion

Febeliec as always remains available to discuss its comments to this consultation and the input data, but also still remains available to discuss the methodology. Febeliec is looking forward to the qualitative and especially quantitative results of the adequacy study from Elia and hopes that these will be presented and discussed.