

Feed back Rent-A-Port Green Energy and SRIW-Environnement on CREG's consultation on « Projet de décision sur les objectifs à atteindre par la SA Elia System Operator en 2020 dans le cadre de l'incitant à la promotion de l'équilibre du système visé à l'article 27 de la méthodologie tarifaire »

Rent-A-Port Green Energy (RAP-Green) and SRIW-Environment are, among others, developers-sponsors-owners of offshore wind farms in Belgium and cooperate to diversify their investment portfolio, including development and financing of electricity storage assets in Belgium.

Together with two other partners, RAP-Green and SRIW Environment contemplate an initial investment in a 10.5MW/21MWh battery storage project located in the province of Luxembourg. A connection request was launched at Elia for connection of the project to the 220kV, and construction permit application will be submitted by the end of October this year.

Final investment decision is targeted in Q1 2020 and commercial operation should start in Q1 or Q2 2021.

Through this project, the sponsors want to demonstrate the feasibility of a fully merchant front-of-meter battery project, meaning that the investment decision doesn't require the project to be backed by any public support mechanism: no subsidies, nor public guarantee, nor even capacity remuneration (if and when a CRM would be implemented) are assumed in our business models.

Upon successful implementation of this initial project, it is the ambition of the sponsors to develop a portfolio of battery storage projects by replicating this successful front-of-meter scheme, but also by combining it with behind-the-meter business models. The capacity pipeline, considering the potential sites with available grid access already identified by the project sponsors could reach a total installed capacity of 75-90 MW at horizon 2023, which would deliver a significant contribution to the additional needs for flexible capacity identified by Elia in its Adequacy 2020-2030 study, and in particular the one needed in the last hour before delivery.

In this context, we would like to express our support to CREG's decision project (B)658E/63 of Oct 3rd 2019 to partly condition the remuneration incentive of Elia to the completion of feasibility analysis of implementing a pay-as-clear remuneration on the aFRR reservation market.

We are indeed convinced that such implementation would significantly facilitate access to the market, not only to our projects, but to all projects capable of delivering non-spinning frequency restoration reserves that will be essential to deliver these services in periods where thermal generators are out of the money.

Battery projects are CAPEX-intensive and have high fixed costs (cost of capital, fixed O&M) but have a near-zero marginal holding cost to deliver flexible reserve: there are no must run or start-up costs (service can be delivered from an idle position) neither opportunity cost (no significant revenues missed on the spot market for remaining available for the balancing market). The only marginal holding costs are the compensation of the energy delivered during potential activation tests, that are not remunerated. The only marginal activation costs are the grid fees and the compensation for degradation.

The underlying economic model of a project with such cost structure is therefore to compensate the investment charge and the operating fixed costs through infra-marginal rents captured both on capacity auctions and activation auctions.

A pay-as-bid mechanism puts such economic model at a risk of suboptimal revenues, and creates significant additional market entry cost. The challenge here is to be able to forecast the price of the marginal selected bid and to bid just below that selected bid (placing the marginal bid includes a risk of being only partially selected, reducing potential revenues) to maximize the infra-marginal rent. Hence, forecast and bidding resources that are needed to enter the market create a significant additional burden, certainly for an initial project with moderate capacity. Furthermore, significant revenue can be missed due to suboptimal forecast and bidding strategy: risk of not being selected if the marginal selected bid was overestimated, risk of being selected at a too low price if we want to build in sufficient contingency for being selected or if we have underestimated the price of the marginal selected bid.

In a pay-as-clear mechanism, bidders are more likely to bid at their marginal holding costs, which for a battery project is quite straightforward to calculate on a capacity market (mainly a provision for expenses related to availability tests, which are not remunerated). In general, the price formation will in such scheme be driven by a market based a clear and technology related merit order, which is beneficiary for the whole system and the forecastability of the price evolution. Such conditions of low entry cost barriers and understandable and forecastable, technology & market-driven price evolution clearly favours emergence of a liquid market, which at the end is the best guarantee of a balancing market that will have the best possible “value for money” for the grid users.

We therefore look forward to seeing the result of Elia’s study on the topic and to take part the related consultations, and hope that the process will lead to implementation of pay-as-clear on all reserve capacity auctions from Elia on shortest possible term.

As a footnote to this feed-back, we would also like to suggest a new potential objective with respect to Elia’s remuneration incentive for upcoming years: feasibility and impact analysis of having the costs for the capacity reservation of aFRR compensated through the imbalance tariff (meaning by the BRPs) and no longer through the grid tariffs (meaning by all end-users).

Elia regularly states that its forecasted future needed volumes of aFRR assume that BRPs also invest in own balancing means to compensate “regular”, or “forecastable” imbalances, as aFRR must be left unsaturated by those imbalances to remain capable of compensating the dimensioning imbalance together with the mFRR. However it is our opinion that current reserve cost allocation actually do incentivize BRPs to rely on the “mutualised” balancing means reserved by Elia instead of securing own flexible capacity: BRPs indeed are only charged for the activation of these mutual reserves through the imbalance tariff but not for the holding costs for these reserves, supported by the grid users through the grid tariffs. This obviously creates a situation where relying on Elia balancing means may be the cheapest option.

As in the future the procurement of the reserves will evolve towards daily and even 4 hour procurement, and towards dynamic, day-by-day definition of the needed volumes per delivery period in the future, we believe it is in principle feasible to allocate reservation costs for aFRR to the BRPs having caused an imbalance during that delivery period.

As this would incentivise the BRPs to secure the availability of flexible assets in their perimeter, such evolution would open larger opportunities for corporate, over-the-counter flexibility reservation & activation agreements, which could favour swift emergence of new flexible capacity upon a financing scheme (non-recourse financing) similar to the one enabling fast development of renewable capacities driven by corporate power purchase agreements.