



Feedback EV Belgium:

Public Consultation (Elia & Fluxys) on the scenarios for the 10-year Federal Development Plans Electricity and Hydrogen

12/09/2025

Introduction

On behalf of EV Belgium, we would like to sincerely thank Elia and Fluxys for the excellent and exceptionally thorough preparation of this public consultation. It's good to see the complex challenges surrounding the energy transition being addressed with such depth and detail. The scenarios and underlying data presented provide a robust foundation for the discussion on the future development of the Belgian energy grid and the transition to a sustainable energy landscape. The open and transparent approach to this consultation, which allows various stakeholders to share their insights, is commendable.

Our contribution focuses primarily on the crucial role of electricity grids in the transition towards zero emission mobility, specifically the shift to electric vehicles (EVs). We are convinced that a strategic focus on the capacity and flexibility of the electricity grid will be the key to a successful and seamless energy transition. The scenarios show that your vision for the evolution of mobility overall aligns with the expectations and ambitions of the sector. Nevertheless, there are a few points we would like to elaborate on to refine by commenting on the plans, particularly in the areas of the role of local energy production, growing flexibility services, and anticipating technological changes in the transport/logistical sector.

The analysis in the consultation documents is an excellent basis for the necessary political decisions that must follow. The transition requires a coordinated approach, and it is essential that the government backs these forecasts with clear and decisive supporting policy measures to prepare the infrastructure and the economy for the future.

Appreciation and specifications

We believe that the projections by Elia and Fluxys for the electrification of passenger transport follow a very realistic and well-considered approach. The work demonstrates a solid understanding of the anticipated growth in the number of electric vehicles and the associated charging infrastructure needs. This forms an important basis for the focus on developing the electricity grid, as these projections will result in the installation of more accessible/public AC- and DC-chargers, specifically in Wallonia where a delay in charging installations is becoming a reality. As overall remarks, we would like to highlight the following points regarding the passenger car market:

- We wanted to highlight that the share of BEV's in stock in 2025 already surpassed the 5% (by the end of 2024) and will land somewhere around the 7% by the end of 2025 (between 430.000 and 450.000 cars).



- We strongly support the energy efficiency factors that are being attributed to BEV's today (about 0,20kWh/km). We would however like to stress that the expectations in this field towards 2050 are very hard to predict and may be underestimated in this case. Battery Technology, Aerodynamics, Drivetrain and the use of Lightweight Materials might change the reality. We do however support the forecast for now, given that these may be reviewed if new scientific research establishes the fact or when technological advances are made.
- At last, we partially share the estimations of the evolution of the passenger cars by 2050 as highlighted in the BASE and ELEC scenarios. Given today's technological status, we believe that the Belgian passenger cars will be 98% to 100% full-electric by 2050. Our forecast - shared by other stakeholders - also shows that the modelling of BEV's in the Excel-sheet may be too limited due to inclusion of PHEV's. Our forecast for Belgium show that the total parc of BEV's will grow as followed:
 - 2030: 2,1 milj BEVs and 200k PHEV's
 - 2035: 3,9 milj BEVs and 100k PHEV's
 - 2040: 5,3 milj BEVs and no more PHEV's

It would thus be advisable to review these numbers in the ELEC and BASE scenario as such that they better reflect this reality.

A second point of discussion concerns the anticipated transition of freight transport. While the plans account for the electrification of LDV's and heavy transport, we expect the transition in this field to proceed faster than the scenarios might suggest. This is driven by technological innovations in battery technology, increasing pressure on companies to reduce their ecological footprint, decreasing prices of e-trucks, increasing fuel prices (ETS2 & professional diesel) and potentially supportive government policies (e.g. e-LDV's). This acceleration requires proactive preparation of the grid to accommodate the charging needs of logistics hubs and transport corridors. It is crucial that the investment plans build in sufficient flexibility to respond to this accelerated demand. We therefore suggest the following amendments to the forecasts:

- We support the forecast on buses as is set in the slides. We underline herewith the obligations under the EU CO2 mandate for buses which clearly mandate a 100% zero emission by 2035 (and 90% in 2030) for urban buses. Given that most buses pass through urban area's in Belgium, we do not expect that many will be left in the park as of 2030. It could thus be that they even go faster than the forecasts predict. However, we do not deem it necessary to amend the estimations in this field yet.
- For the stock of LDV, we do expect a steeper growth than forecasted in the Elia/Fluxys study. Definitely given the economic advantage, (on average) lower number of kilometers driven, upcoming impact of ETS2 and the slack that Belgium is experiencing today in this field (compared to other EU countries). It can thus be argued that the stock will take off at a certain point and grow faster than forecasted now. We do notice that the starting point for LDV's in 2025 might be on a rather high level, only getting to 5% of LDV sales in 2025 YTD. We kindly refer to the first part our analysis of this specific market here: [LINK](#)



- Regarding the trucks, a similar analysis may be struck as for the LDV with some important differences. Overall, the e-truck market is still in an early phase but growing at a steady rate of doubling the number of trucks every year. Here too we expect that the growth will take off as of 2027 in a more extensive manner. By 2050, we do expect that about 90% to 100% of trucks registered in Belgium will be BEV. This because international longhaul trucks only represent a minor group within the total stock of Trucks. We expect that the majority of trucks will more easily electrify as of 2027. The expected growth as of then will also be steeper than for LDV and passenger cars, because of the higher impact of competition between companies (every cent counts). Some specific and targeted policy measures are however needed to unlock this sooner than later market.
 - We do put questions forward regarding the efficiency of e-Trucks as defined in the consultation. We don't have hard numbers, but believe that the efficiency is already better than mentioned and could be checked with relevant scientific sources.

Additional general remarks

In addition to the targeted comments above, it is important to emphasize that the carbon intensity of electricity will decrease significantly in the coming years. The increased integration of renewable energy sources into the energy mix will lower the total emissions from electricity production. This makes the electrification of mobility not just a transition from fuel to electricity, but also a direct contribution to the overall decarbonization of society. This positive development must – in our opinion – be highlighted and strengthened in the plans. The overall plan considers zero emission by 2050 in all scenario's, which is good, however, too little attention is given throughout the study in our opinion.

One of the most crucial aspects that, in our view, deserves more attention in the study is the development of flexibility services, particularly those that can be provided by electric vehicles. The amount of battery capacity represented by the growing fleet of EVs offers an unparalleled potential for providing Vehicle-to-Grid (V2G) services. EVs can serve as mobile energy storage systems that can help stabilize the grid by absorbing power during overproduction of renewable energy and feeding it back during peak moments. This reduces the need for expensive investments in additional grid capacity and traditional energy storage systems. However, it is essential that a clear and stimulating legal and regulatory framework is created to enable the participation of EVs in these flexibility markets. The uncertainty surrounding this framework hinders the necessary investments today. We therefore urge that the plans provide more room for considering this possibility and need for policy measures, in close cooperation with the government and the industry.

A last important argument we want to underline, relates to the importance of locally and nationally produced energy. Where the energy has traditionally depended on centralized and often foreign sources, the energy transition offers a unique opportunity to decentralize production and local energy production, supporting energy independence from foreign actions and strengthening our geopolitical position in the world. Encouraging locally



generated renewable energy, such as solar and wind power, offers numerous advantages. It increases Belgium's energy independence and security of supply, reduces vulnerability to geopolitical tensions and the volatility of international energy prices, and creates local economic benefits and employment. We encourage a stronger focus on strengthening local production capacity, particularly by stimulating decentralized projects that contribute to a more resilient and robust network.

Conclusion

The scenarios and analyses that Elia and Fluxys have presented in this consultation are an impressive piece of work and a strong foundation for the future. The focus in both the ELEC and BASE scenarios (but also in the MOL scenario) on the electrification of mobility demonstrates foresight. Based on the insights presented and the points we have raised, we are convinced that, with the right political support, Belgium is ready for the mobility transition. The rapid growth of the BEV fleet and the expected electrification of goods transport underscore the urgent need for a flexible and robust electricity grid. It is imperative that investment plans incorporate sufficient flexibility to respond to this faster-than-anticipated transition in the transport sector. Furthermore, we wish to re-emphasize the importance of flexibility services and decentralized energy production. The substantial battery capacity of the future EV fleet offers an unparalleled opportunity to stabilize the grid and reduce the need for expensive infrastructure investments. Simultaneously, strengthened local energy production contributes significantly to Belgium's energy independence and resilience.

We trust that our comments and data will contribute to further refining of your scenarios. EV Belgium remains committed to continuing this collaboration, working closely with the government, grid operators and the industry to establish the necessary frameworks to make this essential transition a resounding success. We look forward to the next steps in this process, confident that a collaborative approach is the key to a sustainable future for Belgium. The technical and strategic preparation of the electricity grid is well underway, but the realization of the plans requires a clear and unwavering political will. This includes creating a stimulating legal framework for new services like Vehicle-to-Grid and proactively responding to a potentially accelerated adoption of electric trucks. We hope this consultation is the start of a joint effort by all parties involved to make the energy transition a shared success story. We thank you again for the opportunity to contribute to this important process.

In conclusion, we would like to again thank Elia and Fluxys once more for this crucial and in-depth consultation, which provides an indispensable foundation for Belgium's future energy strategy. Our contribution aims to refine these projections by providing a more detailed insight into the accelerated adoption of electric mobility, encompassing both passenger vehicles and freight transport.

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