

Public consultation on the future network tariff structure for the medium, high, and very high voltage levels in Luxembourg

Questions for Stakeholders

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1. *How far do you share Consentec report's assessment of the current tariff system's strengths and weaknesses, particularly regarding the tension between incentivizing flexibility and ensuring cost recovery? Which issues do you see as the most urgent to address?*

The battery is technically ready to support the grid through flexibility and energy shifting. But today's tariffs do not reflect local grid needs or system value. The battery receives no locational signals and reacts only to national price incentives. As long as dynamic, grid-based signals are missing, the battery must not be penalised. Enabling the use of storage assets is one of the most urgent challenges to ensure a stable and decarbonised energy system.

2. *Do you support replacing the current cost cascade based on maximum annual load with a simpler model based on gross annual consumption considering the expected benefits for stability, transparency and fairness as described in chapter 3 of the Consentec report? Why or why not?*

A flat kWh-based tariff punishes the battery for charging – even when it helps absorb excess generation or shift demand. This ignores its net-zero or even net-beneficial effect on the system. Applying energy-only tariffs treats the battery like a passive consumer, which it is not. Until more precise system signals exist, a reduced or exempted charge is appropriate for storage operations that contribute to grid balance.

3. *What is your view on the shift from tariffs based on actual peak load to a reference capacity? In this model, users subscribe to a capacity and face surcharges when they exceed it, like the new tariff structure applicable to low voltage customers since Jan 1, 2025.*

The battery must remain flexible and adjust its power output dynamically. Fixed capacity contracts with penalties are not compatible with this role. They force overbooking or restrict useful dispatch. This limits the ability of storage to stabilise the grid.

A rigid model does not reflect the technical and operational logic of batteries and discourages investment in urgently needed flexibility.

4. *What is your opinion on the proposal to remove the simultaneity function and instead apply fixed shares on the repartition between capacity and volumetric tariff components given the operational and conceptual challenges highlighted in the Consentec study (see Consentec report 5.4)? Should the tariff still consider usage hours? In your opinion, what balance between capacity in €/kW, and consumption in €/kWh would you consider most fair and effective in encouraging efficient and flexible use of the electricity grid? Would a 40% capacity / 60% commodity split be appropriate (see Consentec report 5.4.1)?*

A fixed split between capacity and energy charges ignores the time-dependent value of battery operations. The battery does not impose constant load but provides targeted support. A share based only on annual figures overlooks actual system benefit. Flexibility-oriented tariffs must consider timing and system impact. A rigid 40/60 approach is not appropriate for assets that actively reduce peak load and congestion.

5. *What approach should be considered for self-consumption from renewable and non-renewable production in the future tariff structure, ensuring that all users contribute fairly to network costs? How should the tariff structure address electricity injection into the grid from renewable and nonrenewable production without creating distortions in investment decisions or in the dispatch of generation units (Consentec report chapter 4)?*

The battery does not produce energy – it shifts it in time. If it injects energy, it is returning what was previously absorbed, often during surplus conditions. Charging the battery for both charging and injection is unjustified. The battery must not be treated as a generator or passive load but as a dynamic, bidirectional grid asset. Its contribution to system stability must be recognised in the tariff structure.

6. *Should specific tariffs be introduced for storage facilities to better reflect their ability to withdraw and inject electricity flexibly? What design principles would you propose?*

Yes – a dedicated tariff structure is essential. The battery must be assessed based on when and where it supports the grid. Dynamic, locational, and time-based pricing allows the battery to reduce congestion and absorb excess generation. A fair tariff should avoid double charges, consider real system benefits, and include moderate infrastructure-related components if needed. The battery is not a load – it is part of the solution.

However, as long as such dynamic and granular pricing signals are not yet in place, a transitional approach is needed. Temporary tariff reductions or exemptions should be available for system-supportive behaviour, especially during periods of surplus renewable generation or low grid utilisation. This ensures that storage investments can move forward today – rather than waiting for the full market and regulatory framework to catch up.

7. *Which key elements should be included in a new network tariff structure to effectively incentivize demand-side flexibility (time-shifted consumption or injection) in a way that is cost-reflective and grid friendly?*

The battery can deliver flexibility exactly when and where it is needed. To enable this, the tariff system must provide time-sensitive and locational incentives. Static price structures prevent batteries from aligning with real system needs. Without fair recognition of flexible services, a key pillar of grid stability remains unused.

8. *What practical considerations should be considered for implementing time-of-use network charges?*

The battery is ideally suited to respond to time-based tariffs. It reacts quickly and precisely. Implementation requires transparent signals, clear tariff windows, and reliable data access. Even before full real-time pricing is introduced, structured time blocks (e.g. midday solar peaks) could serve as interim signals. The battery can operationalise these immediately.

9. *How can industrial customers be incentivised to increase their consumption during peak generation hours, mainly during high PV generation at noon (weekday and weekend)? Do you think there is a potential, and if yes, for which type of assets?*

The battery enables industrial consumers to decouple load from production processes. It can absorb energy during PV peaks and shift usage to low-demand periods – without disrupting operations. Targeted incentives for charging during oversupply hours can unlock this flexibility. The battery provides controllable, behind-the-scenes load shifting where other assets cannot.

10. *Do you foresee technical or operational challenges for consumers and producers in adapting to a new tariff model based on reference capacities?*

The battery's power output is inherently dynamic. It cannot predefine its peak power with certainty, as this depends on real-time market and grid needs. Fixed capacity limits and penalties are not compatible with this behaviour. They result in unnecessary oversizing or restrictions. The tariff design must align with the operating logic of flexible assets.

11. *What kind of transition measures (e.g. gradual implementation, timing, communication, customer guidance or support (e.g. simulation tools)) would you consider necessary to ensure a smooth and equitable implementation of the new tariff structure?*

To ensure storage deployment is not delayed by complex reforms, early implementation should include: clear rules, impact simulations, and targeted communication with storage operators. Transition rules are essential to avoid penalising existing or planned assets. Supporting batteries now accelerates the grid's ability to absorb renewables and manage variability.