

Grid Tariffs - Aligning the Grid Tariff Reform with Industrial Competitiveness

FEDIL's Input on the Future Tariff Structure for MT, HT, and THT Levels following the Creos Workshop on New Electricity Tariff Structure of April 17th, 2026

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1. General Principles and Objectives of the Reform

FEDIL welcomes the design elements presented by Creos Luxembourg during the workshop of 17 April 2026 concerning the new tariff concept for MT, HT, and THT users. In particular, FEDIL positively notes:

- the shift towards a more capacity-based tariff structure, built around a reference capacity mechanism combined with exceedance charges;
- the stronger role attributed to contracted or selected capacity through a kW-based approach;
- the integration of a time-of-use (ToU) component differentiating peak and off-peak periods;
- the stated objectives of improving cost-reflectivity, reducing network peaks, and increasing predictability for network users.

FEDIL considers that these principles are broadly aligned with the objective of encouraging a more efficient use of the electricity network and creating clearer economic signals for flexibility, peak management, and demand-side optimization.

FEDIL nevertheless wishes to underline that the design of grid tariffs and network charging mechanisms should not be considered an objective in itself. Rather, the reform of the tariff structure should primarily serve the broader objective of enabling industrial users to successfully navigate the energy transition while preserving their competitiveness. Doing so, it shall contribute to positioning Luxembourg as an attractive industrial location for energy-intensive and electricity-dependent activities, particularly in a European context marked by increasing pressure on industrial investment and growing international competition.

FEDIL, thus, regrets that the current concept does not appear to incorporate an explicit principle aimed at preserving overall cost neutrality — or achieving cost reductions — for industrial users. From FEDIL's perspective, such an objective is nevertheless essential to enable industry to accelerate electrification and support the investments required for the energy transition.

The effectiveness of the grid tariff reform in supporting the energy transition of industrial consumers will largely depend on the careful calibration of the various elements of the new tariff concept, including the capacity component, exceedance mechanisms and time-of-use differentiation. FEDIL furthermore underlines that a purely cost-reflective approach may not, in all cases, result in grid tariffs that remain economically attractive for energy-intensive industries, particularly where production realities, process constraints or limited flexibility potential restrict the ability of industrial sites to adapt their consumption patterns. In such cases, complementary measures reflecting broader industrial and competitiveness objectives may need to be considered. FEDIL believes that these strategic considerations should be integrated into the tariff design framework from the outset, rather than addressed only at a later stage.

2. Capacity-Based Tariff Design

Under this chapter, FEDIL considers that several design elements will be particularly important to ensure that the future tariff structure adequately reflects industrial operating realities while supporting competitiveness and electrification objectives.

A system based on contracted or subscribed capacity combined with exceedance charges should include sufficient operational tolerance to reflect the realities of industrial production processes. In particular, limited and temporary exceedances within a predefined tolerance band should not automatically trigger disproportionate financial penalties. Such an approach would allow companies to manage occasional operational fluctuations, start-up phases, or unforeseen production adjustments without creating excessive cost uncertainty, while still preserving the general incentive to optimize peak demand.

FEDIL further emphasizes that the tariff structure should adequately reflect the specific characteristics of large, stable industrial consumption profiles. Industrial sites operating with high full-load hours and low variability often have a lower marginal impact on network peak dimensioning than highly intermittent or peaky consumption patterns. A well-calibrated capacity-based system should therefore reward stable consumption profiles and ensure that network tariffs better reflect the actual contribution of different user categories to network stress and infrastructure needs.

At the same time, the future tariff structure should create effective incentives for industrial flexibility and system-supporting behavior. Industrial consumers capable of adapting demand, shifting consumption, integrating storage solutions, or aligning electricity use with periods of high renewable generation should be able to benefit from more favorable tariff conditions. Such incentives will become increasingly important to support industrial electrification pathways, including electric heat production, hydrogen generation and other flexible industrial processes. In this context, FEDIL considers that stronger flexibility signals remain necessary, particularly for HT and THT consumers.

Finally, FEDIL believes that reforming grid tariffs at the MT, HT, and THT levels should be considered within a broader industrial and decarbonization policy context. The design of network tariffs should not be approached solely from a grid-technical perspective, but should also consider competitiveness, industrial attractiveness, and the strategic objective of accelerating electrification. Maintaining attractive grid costs for large industrial consumers can contribute positively to network utilization, demand stability, and overall cost mutualization. FEDIL therefore considers that adapted tariff regimes or specific support mechanisms for energy-intensive industries should remain possible where justified by broader economic and industrial policy considerations, even where a purely cost-reflective approach would not naturally lead to such outcomes.

3. Time-of-Use Design and Industrial Flexibility

The proposed Time-of-Use tariff structure represents an important step towards introducing stronger flexibility incentives into Luxembourg's electricity network tariffs. FEDIL supports the objective of encouraging consumption patterns that better reflect system conditions and facilitate the integration of renewable electricity. However, the current design provides only a very limited daytime incentive for HT and THT consumers, while a clear midday advantage is mainly introduced for MT users.

The justification provided is that most distributed renewable generation and new flexibility assets are connected at MV or LV level, where congestion and reverse power flows primarily emerge. While this is technically correct regarding the physical connection points of photovoltaic installations and smaller flexibility assets, it does not fully reflect the broader system role of HT and THT industrial consumers.

In practice, HT and THT grids remain the backbone of the electricity system and, when properly coordinated with distribution-level constraints, can help protect the effectiveness of downstream flexibility. In small, highly interconnected systems such as Luxembourg's, local renewable surpluses and operational constraints inevitably propagate across voltage levels, underscoring the need for system-wide coordination.

Furthermore, large industrial consumers connected at the HT and THT levels are among the few actors capable of providing flexibility at a meaningful scale. Future industrial decarbonization pathways — including electrification, electric heat production, hydrogen production, and flexible industrial processes — require credible and stable incentives to shift consumption towards periods of high renewable generation. This is particularly important because such periods often coincide with low wholesale electricity prices. HT and THT consumers should therefore not be discouraged from increasing electricity consumption when renewable injections are high and electricity prices are low, as this can contribute to renewable integration, system balancing, and more efficient use of network infrastructure.

A tariff structure with almost no daytime differentiation for HT and THT users therefore risks missing an important opportunity to unlock industrial flexibility potential and weakens the economic signal needed to support industrial electrification and renewable integration.

This consideration also appears consistent with the load patterns presented in Creos' own [Scenario Report 2040](#). The analysis of transported power at the 220 kV and 65kV levels shows that, overall, grid load during summer periods remains below winter levels, including during daytime hours (see diagrams 4.18 and 4.19 in the [Scenario Report 2040](#)). While midday load patterns remain visible in summer, the reported summer peaks do not reach the winter peak levels that primarily drive network dimensioning requirements. In this context, introducing broad peak tariff periods for HT and THT consumers during summer daytime hours risks sending a signal that is only partially aligned with the actual seasonal stress observed on the transmission grid.

From an industrial and system perspective, periods characterized by high solar generation and lower wholesale electricity prices should rather be used to encourage additional electricity consumption, electrification, and flexible industrial processes. Applying elevated network tariffs during large parts of the summer daytime hours — as suggested during the workshop of April 17th, between 7:00 and 20:00 — could unnecessarily discourage such system-supporting behavior, despite the absence of comparable summer peak constraints at the transport grid level.

FEDIL therefore believes that the Time-of-Use structure for HT and THT consumers should better differentiate between periods of actual system stress and periods characterized by high renewable generation and lower overall grid utilization. Rather than discouraging daytime electricity consumption during periods of high solar production, the tariff structure should support industrial electrification, flexible consumption, and renewable integration by providing more favorable tariff conditions during the core solar production window, broadly between 11:00 and 16:00 during summer periods. This would preserve

predictability while creating more effective incentives for industrial flexibility, system efficiency, and the efficient integration of renewable electricity.

4. Balancing Flexibility Incentives with Industrial Reality

A tariff design that relies heavily on peak shaving and load shifting, without explicitly accounting for sectors with structurally limited flexibility, risks creating an asymmetric burden on continuous-process industries that cannot realistically adjust their consumption profiles. Many time-of-use and flexibility-oriented tariff schemes implicitly assume that most industrial consumers can shift or reduce load in response to price signals. In reality, industrial flexibility is highly heterogeneous. Continuous processes such as glass, cement, chemicals, or certain manufacturing activities often operate under strict technical constraints, with high interruption costs and limited operational flexibility.

In this context, the future tariff structure should avoid introducing a de facto penalization for non-flexibility. Where flexibility is technically and economically feasible, it should clearly be rewarded through lower tariffs or advantageous time signals. However, sectors with structurally low flexibility potential should not face higher average network costs simply because they cannot respond proportionally to those signals. Non-flexibility should therefore remain broadly cost-neutral compared to the current situation.

This issue is particularly important for energy-intensive, trade-exposed industries, which are strategic to industrial resilience and European sovereignty. If tariffs increasingly rely on capacity peaks and strong time-of-use differentiation without safeguards, flexible users will be able to optimize and reduce their costs, while continuous-process industries will carry a disproportionate share of the burden despite limited technical ability to react. International experience already shows that, without dedicated safeguards, the accumulation of network and policy costs can significantly undermine industrial competitiveness.

For this reason, FEDIL considers that the reform should include an explicit framework for energy-intensive industries, in line with evolving European discussions and state aid frameworks¹. While the current proposal focuses on stricter cost-reflectivity, it does not yet include a dedicated framework for energy-intensive industries. This creates a risk of relative competitiveness loss compared to neighboring countries that already provide dedicated support mechanisms for electro-intensive industries, such as Germany and France.

Several instruments could be considered to ensure a more balanced implementation of the reform: baseline consumption mechanisms for technically unavoidable continuous loads, sector-specific coefficients reflecting objective industrial constraints, or compensation mechanisms that preserve competitiveness while maintaining flexibility incentives, where technically achievable. The overall objective should be to reward flexibility where possible, without structurally disadvantaging industries whose processes are inherently non-flexible.

¹ See for example: CISAF and indirect ETS compensation mechanisms that focus on supporting energy intensive industries.

5. Conclusion

FEDIL remains convinced that a well-calibrated reform can simultaneously improve system efficiency, encourage flexibility and preserve industrial competitiveness. Continued dialogue between regulators, network operators and industrial consumers will therefore remain essential during the further development of the future tariff structure.

FEDIL - The Voice of Luxembourg's Industry

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