Stay Current

PAUL HASTINGS

October 2025

Follow us on LinkedIn

Industry Update

Unlocking Energy Storage in the EU and France: Regulatory and Contractual Pathways

By Benoît Thirion and Mélanie Morlane

Battery storage deployment is accelerating rapidly in Europe while significant regulatory adjustments are underway in France and the EU, making this a critical moment for companies to understand and follow the evolving legal landscape before committing to projects.

Battery energy storage systems (BESS) are a key lever of the energy transition. The cost of battery storage has fallen sharply in recent years, while installed capacity has grown at an unprecedented pace. EU-wide storage capacity rose from 4.6 GW in 2021 to 34 GW in 2024. In France, capacity increased tenfold in four years, from 100 MW in 2020 to 1.1 GW in 2024. According to the European Energy Storage Association, 200 GW of storage will be required across the EU by 2030, implying annual deployment of at least 14 GW. In France, the multiannual energy program #3 (PPE 3), which is expected to be published soon, foresees a significant increase in battery storage. However, the BESS market still faces significant challenges, with high entry costs and uncertain revenues.

To drive the growth of the battery energy storage market, it is thus crucial to establish an adequate legal and contractual framework. In this respect, several developments have been observed in recent years and further reforms are currently under consideration.

This client alert highlights the main developments of the EU and French legal frameworks for BESS, addressing four main issues: (1) acceleration of procedures, (2) contractualization of performance warranties, (3) diversification of revenue streams and (4) adaptation of the network charges regime.

Streamlining Procedures to Accelerate BESS Deployment

Electricity battery storage now evolves within a clearer legal framework in France, although further improvements are expected with a European stimulus.

French Framework Clarification

Urban planning requirements: Storage facilities qualify as “constructions” under French planning law, requiring building permits and compliance with local zoning rules. Battery storage projects may be authorized as public utility facilities in agricultural and natural zones (see Article L.151-11 of the French Urban Planning Code). However, this case-by-case approach still creates some legal uncertainty and complexity.

Environmental rules: Stationary lithium batteries fall under a dedicated ICPE category, distinguishing them from lead-acid batteries that release hydrogen. Only large-scale facilities (>600 kW) are subject to declaration, reducing administrative burden.

Grid connection: Storage operators were previously subject to both consumption and production regimes. A dedicated connection procedure now applies, with technical standards adapted to storage, including minimum power duration requirements for system security.

Forthcoming EU Developments

Current European regulation: At EU level, regulatory efforts have so far focused on electricity market design (see Regulation (EU) 2019/943) and on environmental performance, waste management and transparency rules for batteries, requiring them to be labelled with key information on their main characteristics, notably state of health and expected lifetime (see Regulation (EU) 2023/1542).

Affordable Energy Action Plan: The Affordable Energy Action Plan aims to give more attention to the development of electricity storage projects. In a recent communication, the European Commission underlined the growing role of energy storage in a decentralized electricity system with high shares of renewables and recommended more relevant tariff structures (see below). The commission is also expected to propose a legislative package by the end of 2025 to further streamline permitting and accelerate deployment of storage facilities.

Contractualizing Performance to Secure BESS Projects

The bankability of battery storage projects depends on the facility's ability to deliver expected performance throughout its lifetime (capacity in MW and MWh, round-trip efficiency, availability and cell degradation). These parameters directly determine revenues and must be contractually secured to reassure lenders and protect the project's bankability.

Performance Warranties in Battery Supply and Construction Contracts

Construction contracts (typically EPC contracts) and battery supply contracts where applicable, must include clear and measurable performance warranties covering residual capacity (e.g., at least 80% after 10 years), round-trip efficiency and availability thresholds. Performance tests at commissioning and during operation are also required to verify compliance.

Performance Obligations in O&M Contracts

Operations and maintenance (O&M) contracts should set out detailed obligations for regular maintenance, monitoring of battery cell health, replacement of defective modules and penalties for failure to meet performance levels.

Alignment of Performance Obligations With Grid and Offtake Commitments

Performance obligations under EPC and O&M contracts must align with commercial agreements concluded by storage operators with grid operators or electricity buyers. A performance shortfall can expose operators to contractual penalties or even exclusion from relevant markets.

Maximizing Revenue Streams Through Ancillary Services, Capacity Guarantees and Market Trading

BESS projects rely on a combination of complementary revenue streams: (i) ancillary services for the grid, (ii) capacity mechanism, (iii) electricity trading, and (iv) public support mechanisms.

Generating Revenue Through Ancillary Services for the Grid

In Europe and particularly in France, the monetization of services provided to the electricity system, known as ancillary services, remains the primary revenue stream of battery storage. In particular, storage operators are eligible to participate in primary and secondary reserves, activated in response to frequency deviations. Remuneration for this participation is provided under contracts with RTE (the public electricity transmission grid operator). In addition, RTE and Enedis (the public electricity distribution grid operator) run tenders for local flexibility services to manage network congestion, offering a combination of fixed annual premiums and activation payments.

Generating Revenue Through the Capacity Mechanism

Battery storage operators can generate revenues through their participation to the capacity mechanism. Under this system, operators must have their capacity certified by RTE in exchange for a commitment to make their batteries available during peak periods. Certified operators receive capacity guarantees, which can be traded bilaterally or on organized markets. A reform of this mechanism, expected to enter into force in 2026, shall introduce multi-annual contracts of up to 15 years for new projects, extend eligibility to cross-border capacity and establish a centralized levy to finance the scheme.

Generating Revenue Through Electricity Trading

BESS operators can directly sell electricity on the market, notably through energy arbitrage, which consists of charging when energy prices are low and discharging at their peak. This source of revenue is particularly promising given the depth and liquidity of the electricity market and the increasing price volatility arising from renewable penetration. However, it remains exposed to storage costs and market risks. To optimize dispatch and maximize this source of revenue, many storage operators rely on aggregators, making the structuring of aggregation agreements a key contractual issue.

Generating Revenue Through Public Support Mechanisms

At national level: Even though public support is less prominent than for renewable energy facilities, some public support mechanisms are available for BESS projects. In particular, the energy minister may launch tenders for storage capacity whenever national planning objectives are not met or flexibility needs are identified (see Article L.352-1-1 of the French Energy Code). Successful bidders shall enter into contracts with the TSO, ensuring remuneration comparable to contracts for difference (CfDs) used in the renewables sector. The “Decarbonized Flexibility” tender launched in August 2024 is the first example of such a scheme.

At EU level: Horizon Europe and Important Projects of Common European Interest (IPCEI) on batteries provide support for innovation and deployment. The European Commission has announced plans to explore a more permanent support instrument through tripartite contracts under which industry would commit to purchase storage volumes while Member States and EU institutions would provide regulatory assurances, incentives and price guarantees.

Adapting the Network Charges Regime to BESS Specificities

Battery storage operators are subject to network charges (*tarif d’utilisation des réseaux publics d’électricité* or TURPE), which raises two issues: (i) the risk of double charging, and (ii) specific tariff adjustments for battery storage.

Double Charging Concerns

Withdrawals from the grid for charging can be treated as net consumption and subject to network charges, even when batteries subsequently provide system services or reinject electricity into the grid. As a result, the same electricity flow may be charged twice: once upon withdrawal for storage and again when delivered to end-consumers. The French Energy Regulatory Commission (CRE) maintains that these are distinct withdrawals generating network costs, while industry players argue that storage should be recognized as shifting — not consuming — electricity use.

Recent Charges Adjustments

At national level: Under TURPE 7, in force since 1 August 2025, CRE introduced temporary optional tariff component for injection-withdrawal sites (see CRE deliberation of 4 March 2025 on the tariff for the use of public electricity transmission networks). This mechanism provides more favourable tariffs where batteries operate counter-cyclically. Although initially limited to certain network zones, CRE has indicated that the measure could be progressively extended to the entire grid.

At EU level: The European Commission has recently highlighted the need for tariff structures that avoid double charging, reflect the cost impact of storage on the grid and provide incentives for grid-

friendly behavior and timely investments (see *Notice on Guidelines on Future-Proof Network Charges for Reduced Energy System Costs* published on 2 July 2025).

✧ ✧ ✧

If you have any questions concerning these developing issues, please do not hesitate to contact either of the following Paul Hastings Paris lawyers:

Benoît Thirion
+33-1-42-99-04-23
benoitthirion@paulhastings.com

Mélanie Morlane
+33-1-42-99-04-33
melaniemorlane@paulhastings.com