



GUIDE BATTERY STORAGE · 8 MIN.

Permitting and Building Law for Battery Storage in Germany: Where Fire Protection Enters the Procedure

In Germany, battery energy storage systems are mostly approved as unregulated special structures. This article puts planning law, building regulations and the outer-area privilege adopted at the end of 2025 into context — and shows at which point in the procedure the fire protection verification is decisive.

Planning Law: The Siting Question and the New Outer-Area Privilege

Every storage project starts with urban planning law: does the site lie within the scope of a zoning plan, in the unzoned built-up inner area under section 34 of the German Federal Building Code (BauGB), or in the outer area under section 35 BauGB? Large-scale greenfield storage projects in particular long failed on the absence of a privileged status in the outer area and required a dedicated land-use planning procedure by the municipality.

At the end of 2025 the legislator addressed this: after an initial Bundestag resolution on 13 November 2025, the provision was narrowed on 4 December 2025. Battery storage systems are now privileged in the outer area if they have a spatial-functional connection with an existing installation generating electricity from renewable energy sources (section 35 (1) no. 11 BauGB). For storage without this connection, section 35 (1) no. 12 BauGB creates an additional privilege subject to strict conditions: an output of at least 4 MW, a distance of no more than 200 m from a substation or a power plant of 50 MW or more, and the area occupied by all storage systems in a municipality approved under no. 12 may not exceed 0.5 per cent of the municipal territory and, at the same time, 50,000 m². In individual cases, the wording of the law and the interpretation of the approval authority are decisive. The privilege accelerates admissibility under planning law — but it replaces neither the building permit nor the fire protection verification.

Note: No BImSchG Procedure — Stationary battery storage systems are currently not subject to permitting under the German Federal Immission Control Act, as they are not listed in the annex to the 4th BImSchV. The decisive approval procedure is the building permit procedure under the state building code — supplemented by grid connection with the network operator and registration in the core energy market data register.

Building Regulations: A Special Structure Without a Special Ordinance

Under building regulations there is a gap: apart from the model ordinance on the construction of operating rooms for electrical installations (M-EltBauV), whose scope was extended in spring 2022 to include energy storage systems in buildings, Germany has no dedicated building-code provisions for battery storage. Free-standing storage plants and storage parks do not fall under the M-EltBauV. Large-scale storage is therefore generally treated as a so-called unregulated special structure — the classification is made by the competent building permit authority case by case after expert consultation, and must not be assumed across the board.

Possible points of reference are in particular section 2 (4) no. 19 of the Model Building Code (installations with an increased fire or explosion hazard, for instance because of possible electrolyte off-gassing during thermal runaway) and no. 20 (electrical hazards). An exemption from the permit procedure, as applies to some building services installations, is not recognised by the expert community for large-scale lithium-ion storage. The practical consequence of the special-structure classification: the authority can impose particular requirements and grant relaxations in the permit procedure — fire protection thus becomes the central negotiating matter of the process.

The Fire Protection Verification: Centrepiece of the Permit Procedure

For the fire protection assessment, a fire protection verification under section 11 of the model building document ordinance is regularly required in the building application procedure, for special structures usually in the form of a site-specific fire protection concept. Depending on state law, it is checked by the lower building supervisory authority or by approved checking engineers or inspection experts for fire protection; the fire brigade's fire protection office is involved.

- Distances: 5 to 10 m to other buildings and structures serve as orientation, to be determined case by case; within a storage park, separate, smaller spacing rules apply between the units.
- Thermal barriers: reduced distances are possible via non-combustible solid partition walls (extended at least 0.5 m above the top edge and end faces of the storage units) or via large-scale fire tests — in each case in coordination with the fire protection office and the property insurer.
- Explosion relief: devices for the controlled discharge of gas pressure during thermal runaway, preferably directly through the external wall, without compromising the fire-resistant room enclosure.
- Indoor installation: if classified as a room with increased fire or explosion hazard under section 29 (2) no. 2 MBO, fire-resistant partition walls of solid construction with at least fire-retardant, tight- and self-closing closures are required; in car parks, a fire-resistant separation is provided for under the model garage ordinance.
- Lightning protection: effective measures under section 46 MBO and the DIN EN 62305 series; for outdoor storage parks, lightning protection class III is generally considered sufficient.

What the Fire Brigade and Fire Protection Office Expect

The fire brigades' guidance documents — in particular the recommendations of the AGBF committee for preventive fire and hazard protection and the BVES safety guideline coordinated with the fire brigades (3rd edition 2025) — decisively shape the requirements in the procedure. Since a fire in a lithium-ion storage unit generally cannot be extinguished by the fire brigade but only prevented from spreading, the requirements target accessibility, water supply and safe operating conditions.

- Fire brigade areas: access routes at least 3.5 m wide, based on DIN 14090 and the directive on areas for the fire brigade, with sufficient load-bearing capacity and suitable turning radii.
- Firefighting water: for medium and large plants, a minimum firefighting water rate of 800 l/min over two hours (at least 96 m³ in total), evidenced via the hydrant network, firefighting water tanks to DIN 14230 or

firefighting water wells to DIN 14220.

- Firefighting water retention: not generally required under building regulations; for large plants and sensitive sites such as water protection areas, to be agreed with the permit authority on the basis of a risk assessment by installer and operator.
- Signage: notice indicating lithium-ion batteries to VDE-AR-E 2510-2 at the entrances, at eye level on the lock side next to the door.
- Alarming: from the fire brigades' perspective, a fire alarm system connected to the alarm-receiving centre is not mandatory but should be agreed with the local fire protection office; automatic notification of the operator and grid disconnection in the event of an incident are customary.

Note: Coordinate Early Instead of Reworking Later — Experience from permit procedures shows: those who bring the fire protection office, the building permit authority and the property insurer to one table before submitting the building application, and agree distances, barriers, firefighting water and access routes by consensus, shorten the procedure considerably. Retrospective conditions on distances or structural separations can only be implemented on a fully designed plant at great expense.

Frequently asked questions

Does every battery storage system need a building permit?

Container-based and building-integrated large-scale storage systems are structures and regularly require a building permit under the respective state building code; the expert community does not assume any exemption from the procedure for large-scale lithium-ion storage. Small home storage systems are to be distinguished from this. State law and the individual case are always decisive — an early preliminary building enquiry creates clarity.

What does classification as an unregulated special structure mean in concrete terms?

In the absence of specific provisions, the building permit authority assesses the plant individually and can impose particular requirements. The central document is the site-specific fire protection concept, which conclusively demonstrates distances, thermal compartmentation, explosion relief, firefighting water and fire brigade concerns, and is checked by approved checking engineers or inspection experts.

Does the new outer-area privilege apply to every storage project?

No. Under the new rules adopted at the end of 2025, storage systems with a spatial-functional connection to an existing renewable energy installation are privileged (section 35 (1) no. 11 BauGB), as are other battery storage systems under section 35 (1) no. 12 BauGB if they have an output of at least 4 MW, are located no more than 200 m from a substation or power plant and comply with the area limits (0.5 per cent of the municipal territory, a maximum of 50,000 m²). For projects outside these categories, the requirement for a land-use planning procedure generally remains.

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