

Grid-scale batteries (BESS)

Battery Energy Storage Systems (BESS): what big batteries do and what to ask

The key idea: the grid's shock absorber

A battery energy storage system (BESS) is rows of shipping-container-sized units storing electricity for later. Batteries are the fastest-growing piece of the build-out (the 2026 ISP plans tens of gigawatts of them) and they matter doubly for digital infrastructure: they firm the renewable supply data centres contract and the same technology sits inside every data centre as backup power, a link the next sheet takes further.

What a battery farm does all day

Storing cheap midday solar for the evening peak is only part of the job. Batteries earn much of their keep on **stability services**: responding in milliseconds to keep frequency steady when a generator trips and, with modern **grid-forming** inverters, providing the system strength that used to come from coal-plant turbines. A battery is best understood as grid equipment, not just an energy warehouse.

The build-out, right now

Batteries now dominate new investment: CIS Tender 8 alone awarded support to **4.2 GW / 16.1 GWh** of storage and Tender 10 (16 GWh, closing August 2026) is flagged as likely the final dispatchable tender because the pipeline is so strong. Typical projects: 100–500 MW on a few hectares, beside a substation, solar farm or retiring coal site. Small footprints, but real neighbours. (*Current at July 2026.*)

The real local issues

Fire safety is the question communities ask first and legitimately. Lithium-ion cells can enter thermal runaway; the answer is engineering and standards (unit spacing, detection and suppression, emergency plans written with the local fire service) and incidents at modern installations are rare. **Noise**: inverters and cooling produce a hum; limits apply at dwellings. **Land and looks**: modest footprint, industrial appearance, screening matters. **End of life**: battery recycling is scaling; ask what the approval requires.

What good practice looks like

- Fire management plan developed and exercised with the local fire authority, then published.
- Noise modelled and then verified at nearest dwellings once operating.
- Clear decommissioning and recycling obligations in the approval.
- Honest explanation of what services the battery provides, not just "stores solar".

Questions to ask

What fire standards apply and has the local brigade reviewed the emergency plan? What is the noise level at my boundary, modelled and then measured? Who is responsible for the site at end of life?

Want to know more? Your state planning authority and fire service publish BESS guidance; DCCEE's CIS pages show what storage is being underwritten. *Last checked: July 2026.* This sheet is general information, not legal or planning advice; a specific proposal is confirmed by qualified assessment.