

Decommissioning and recycling

What happens when the panels, turbines and batteries reach end of life — and who pays

The key idea: the end belongs at the beginning

Solar farms run 25–35 years, wind farms similar, batteries less. Every project proposed today will one day be removed, repowered or abandoned and which one happens is largely decided by what the *original* approval and lease require. "Who cleans up and with whose money?" is a day-one question and communities are right to refuse vague answers to it.

What decommissioning involves

Solar: panels, frames and cabling removed, foundations pulled or cut below plough depth, land rehabilitated to its prior use; the process is well understood and, because components have salvage value, less costly than communities often fear. **Wind:** turbines dismantled and blades removed, with foundations usually cut down and buried below use depth; blade recycling is the industry's hardest problem and improving. **Batteries:** units removed for recycling under transport and safety rules. **Repowering** (new equipment on the existing site) is common and needs fresh approval.

The money question

The risk isn't technical; it's an operator that no longer exists in 2055. The protections are financial and legal: **decommissioning conditions in the planning approval** (not just the lease), **financial security** (bonds or bank guarantees that survive the operator's sale or failure) and lease clauses giving the landholder rights over removal. Several states now expect or require these; practice varies, so the question is always what *this* approval secures.

Recycling, honestly

Panel recycling works technically and is scaling commercially in Australia, though capacity still trails the coming wave; some states already ban panels from landfill. Turbine metals recycle readily; blades are the frontier. Battery recycling is established and improving fast, pulled by the value of the materials. The fair statement: recycling pathways exist and are strengthening and a proposal should name the ones it will use rather than gesture at the future.

What good practice looks like

- Decommissioning obligations and financial security in the planning approval, not the lease alone.
- Security sized by an independent estimate and reviewed over the project's life.
- Recycling routes named for panels, blades and batteries.
- Landholder rights on removal and land condition written into the lease.

Questions to ask

What does the approval (not the brochure) require at end of life? What financial security exists, held by whom, reviewed when? What happens if the operator is sold or fails? Which recycling pathways are named?

Want to know more? Your state planning authority publishes decommissioning requirements; state environment agencies cover e-waste and landfill rules for panels and batteries. This sheet is general information, not legal or planning advice; a specific proposal is confirmed by qualified assessment.