Australian Government
Australian Energy Infrastructure Commissioner

Position statement: Treatment of renewable energy assets at end of life – protection for landholders

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The renewable energy industry has experienced rapid growth in recent decades and now accounts for around 36 per cent of Australia's electricity generation.[1] The life span of wind turbines, solar panels, and battery storage technologies is generally assumed to range from 20 to 30 years.[2] As initial projects were installed several decades ago, increasing numbers of turbines, panels and batteries will reach the end of their life in the coming decades. There are now growing concerns among landholders and communities about what happens when it is time to decommission these assets.

It is imperative that this emerging issue is promptly addressed to ensure that there is clarity around who bears the responsibility for decommissioning, including who pays, and how decommissioning funds are secured in a way that host landholders are protected in the event the project owner fails to meet their decommissioning obligations. While acknowledging distinct differences between the renewables sector, addressing such concerns are common requirements in other sectors in Australia, for example, in the mining and offshore gas and petroleum sectors and waste sector in some jurisdictions.

To address these concerns, the AEIC believes the following actions should be undertaken:

- **Landholder agreements**: a consistent suite of clauses and/or template conditions addressing end-of-life activities for landholder agreements should be developed, in consultation with industry, government and community.
- **Regulatory requirements**: in consultation with industry, State planning authorities should develop or revise mandatory model minimum requirements for end-of-life plans in regulatory conditions.
- **Financial security for landholders**: a nationally consistent approach to State-based, legally enforceable mechanisms to provide financial security should be established, including up-to-date research on decommissioning costs.
- **Community confidence**: to improve landholder and community confidence, criteria around project end-of-life provisions and site rehabilitation should be included as part of the Developer Rating Scheme (DRS).

The information below outlines some of the key concerns for landholders when considering hosting a renewable energy project.

What does decommissioning involve?

As renewable energy projects reach the end of their operating life, project owners, in consultation with host landholders, will have to decide whether they are upgraded using new components (refurbished), replaced with new technologies (repowered), or whether the project's assets are dismantled and removed from the site and the site is rehabilitated (decommissioned). Even in the event of refurbishment or repowering, partial decommissioning and new or revised assessments and negotiations with landholders may also be required.

Landholder agreements

In Australia, large-scale renewable energy projects are often developed on private land, with agreements held between host landholders and project owners. These agreements will set out specific rights and obligations for the parties involved. This is a legally binding contract, and the agreement will carry over to the next project owner should the project change hands.

However, there is variation in these contracts and there is a risk that a landholder may not have adequate legal support or sector and regulatory understanding to ensure they are properly protected in the long term.

A consistent set of agreement conditions should be developed in consultation with industry, government, legal advice, and community advocacy. This should then be used as a contract default clause to provide clarity and certainty and minimise variations and potential unintended consequences. For example, in NSW, the State Government has published a private agreement guideline and requires project applicants to maintain a register of agreements.[3]

Recognising that initial agreements may no longer be fit for purpose, there should be flexibility in these arrangements to allow for reconsideration of rehabilitation pathways, reflecting the changing requirements of the landholder and local community.

Regulatory requirements

Although there are national regulations that set compliance frameworks for decommissioning such as the *Environment Protection and Biodiversity Conservation Act* 1999, current regulatory arrangements for decommissioning vary by jurisdiction. For the majority of states, renewable energy projects are now required to develop and submit decommissioning plans for the planning and approvals process. However, these can be 'conditioned', meaning the details of the plan are not developed and submitted until close to the time of decommissioning.

Land use planning regulatory requirements can be attached to the property, not the applicant. In this case if project ownership changes, or the proponent abandons the project, these requirements could revert to the land owner.

Ensuring that decommissioning permit requirements are robust and realistic is essential. Consideration should also be given to conditions requiring periodic updates to decommissioning plans during the life of the project, to capture changes in project lifespan and emerging information on end-of-life management.

Individual commercial agreements and site-based regulatory requirements are usually developed separately. This means they may contain gaps, or even contradictory requirements. It is unclear which would take precedence in this event. It is therefore critical that all aspects of discussion are recorded and captured in these agreements and that the wording of conditions and contract arrangements are carefully considered to avoid conflict

These developments will have broader implications for communities and local councils. Effective end-of-life management should include early engagement and collaboration with these stakeholders to plan for waste disposal and other decommissioning requirements.

To improve community confidence, end-of-life and site rehabilitation requirements should be included as part of criteria for the DRS which the Commonwealth Government is currently developing.

Financial security for landholders

There is uncertainty and community concern about who is liable for the cost and resources required to remove, recycle or repurpose the energy infrastructure at the end of its economic life should a developer fail to meet its decommissioning and rehabilitation conditions.

When a project is decommissioned and a site rehabilitated, the (net) costs of that work will inevitably vary depending on the specific situation (e.g. the scope of activities required and the extent to which parts of the project can be recycled or sold). In NSW, the State Government has developed a cost calculator to help project developers and host landholders to understand the potential decommissioning costs, contributing factors and liability risks.[4] Further research should be undertaken as part of a nationally consistent approach to provide greater clarity on decommissioning costs, recognising there will likely be significant variation across projects and geographic areas.

To improve confidence, there must be a mechanism for providing financial surety**.** There are different financial models that could be used, such as decommissioning bonds, trailing liabilities, pooled funds, and other insurance products. As the effectiveness of each mechanism will likely vary depending on developer ownership structure, how funds are accessed, and specific trigger conditions, all should be considered. Ideally a nationally consistent approach should be agreed to that recognises state jurisdiction and regional context but also provides certainty and transparency for landholders and communities.

Recycling and end-of-life management

As part of decommissioning planning, a decision will need to be made as to how to manage the decommissioned materials. This will impact the cost estimates for decommissioning, and therefore the amount of any financial surety being considered.[5]

Encouragingly, the vast majority of turbine, panel, and battery components are recyclable.[6] However, in Australia current recycling rates for renewable energy technologies remain low,[7] and the capacity to recycle renewable components at the scale required is unclear.

It is important that the industry and governments work together to plan for future recycling needs as the level of renewable energy waste increases in the coming decades. Such requirements will also be influenced by the Commonwealth Government's *National Waste Policy Action Plan 2024* which sets a target recovery rate of 80 per cent for all waste streams by 2030, and similar state and territory policies.

As with decommissioning arrangements, recycling requirements vary by jurisdiction. This has prompted calls for a National Solar PV Product Stewardship Scheme. The AEIC supports these moves towards a mandatory national scheme to manage solar panels at their end of life, and encourages similar work for other waste streams.

References

1. Commonwealth of Australia (2025), *Renewables*, Australian Energy Statistics.
2. RE-Alliance (2025), *Retirement age renewables – Delivering for Australian communities*, July. [toolkit and report]
3. Department of Planning, Housing and Infrastructure (2024), *Private agreement guideline*, November.
4. Wind and solar decommissioning calculators available at: NSW Renewable Energy Planning Framework
5. Coexistence Queensland (2025), *Landholder Guide: Decommissioning Renewable Energy Projects*, September.
6. Clean Energy Council (2025), *Recycling in the future: Sustainable solutions for renewable energy technologies*, August.
7. RE-Alliance (2025).

More information

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Acknowledgement of Country

We acknowledge the Traditional Custodians of Australia and their continuing connection to land and sea, waters, environment and community. We pay our respects to the Traditional Custodians of the lands we live and work on, their culture, and their Elders past and present.

AEIC Position Statements

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