Investing in cheaper, cleaner energy and the net zero transformation inquiry

Questionnaire response 57

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1. Reduce the cost of meeting carbon targets

1. What could be done to improve the cost-effectiveness and alignment of policies to reduce emissions across the industrial, electricity and transport sectors?

Near-term priorities:
• Accelerate demand management programs to reduce grid strain from electrification while maintaining reliability.
• Phase out new fossil fuel approvals to eliminate conflicting incentives that undermine renewable investments.
• Adopt emissions reduction milestones to align sectoral efforts, for example, (\50% by 2030 , 65% by 2035 .

Examples of alignment/misalignment:
• Positive: Coordinated EV charging schedules with vehicle-to-grid (V2G) integration could reduce peak demand by 15-30% while deferring $1.2 B in grid upgrades by 2040 .
• Negative: Continued new fossil fuel project approvals have created significant uncertainty premiums in renewable energy financing, delaying battery storage deployments.

2. Are there gaps in the emissions-reduction policies in the industrial, electricity and transport sectors which should be addressed?

Critical gaps:
• Lack of holistic grid modernisation strategies to manage electrification impacts on aging infrastructure.
• Insufficient workforce training programs for clean energy sectors, despite identified skills shortages.

Adverse outcomes:
• Unmanaged EV adoption risks substantial transformer overloads in suburban networks by 2030 , requiring emergency upgrades costing hundreds of millions of dollars annually.
• Fragmented state/federal renewable targets increase compliance costs by 20% for manufacturing sectors with cross-jurisdictional operations.

3. Are there any duplicative emissions-reduction policies in the industrial, electricity and transport sectors which could be streamlined?

Priority areas:
• Harmonise climate adaptation efforts across Adapt NSW, Reconstruction Authority , and local initiatives.
• Rationalise renewable certification schemes to reduce administrative burdens on project developers.

Duplication impacts:

• Multiple grid connection processes delay battery deployments by 6-12 months per project, despite urgent need for 2.8GW of storage by 2025 .

2. Speed up approvals for new energy infrastructure

1. Are planning and approvals processes for large energy infrastructure taking too long? If so, what causes the most delay?

Key delays:
• Outdated grid interconnection standards not accounting for distributed energy resources.
• Stakeholder consultation redundancies in environmental impact assessments.

2. How can planning and approvals processes be sped up without unduly compromising regulatory standards?

There are salient international examples to accelerate adoption that Australia can look to. For example, the UK-style Nationally Significant Infrastructure Projects (NSIP) system reduced offshore wind approvals from 4 years to 16 months while maintaining environmental standards. Feature Current NSW UK Model Timeline 2-4 years 18 months Community engagement Multiple stages Single portal Environmental review Sequential Concurrent

3. Should clean energy projects be treated differently to other projects for the purpose of environmental and other approvals? If so, how?

Recommendations:
• Mandate benefit-sharing mechanisms (e.g., community ownership models, e.g. Danish wind projects have 20% community ownership).
• Implement state-specific "Renewable Energy Communities " framework with priority grid access for local projects, property value guarantee programs, and skills transfer partnerships to ensure local benefits and faster project acceptance

4. What can be done to build local community support for new energy infrastructure projects?

• Benefit-sharing arrangements, such as offering community ownership stakes (as in Danish wind models demonstrating 40% higher acceptance rates when offering 20% community ownership stakes).
• Programs that guarantee property values and provide local employment or training can further increase support.

5. Please outline any evidence showing the productivity benefits of faster approvals for energy projects.

Evidence:
• Australian Energy Market Operator estimates $2.4 B in savings by 2040 through accelerated grid connection processes.
• Faster approvals could prevent $12M per day in curtailment losses for solar farms by 2030 , directly boosting productivity and investment.

3. Encourage adaptation by addressing barriers to private investment

1. What are the barriers and enablers impacting decisions by owner-occupiers, landlords and developers about how housing is built and updated over time so that it is resilient to the effects of climate change?

1. Passive cooling upgrades (window films, insulation). Passive cooling retrofits reduce energy demand by 25% in Sydney trials.
2. Flood-resistant material replacements
3. Distributed energy system integration

• Key barriers: Lack of information, high upfront costs, and complex approval processes for retrofits.
• Enablers: Minimum resilience standards, targeted retrofit incentives, and integration of distributed energy systems. Minimum standards e.g., adopt EU-style climate resilience certifications for property transactions.

2. What information do people need to make decisions about where to live, how to build and how to upgrade their homes to appropriately factor in climate change?

• Best practice: Provide accessible, location-specific climate risk data (e.g., flood, heat, bushfire), clear retrofit guides, and financial incentives.
• Strategies: Use digital platforms for real-time risk and retrofit information, integrate resilience ratings into property transactions, and ensure insurance and finance products reflect resilience investments.
• Voluntary investments are often driven by insurance cost savings, property value protection, and personal safety concerns.

3. What are the most cost-effective retrofitting options for improving the resilience of Australia's existing housing stock? What are their costs and benefits?

• Passive cooling upgrades (window films, insulation): 25% reduction in cooling energy demand.
• Flood-resistant materials and elevated electrical systems: Significant reduction in flood damage costs.
• Distributed energy systems (solar, batteries): Lower energy bills and improved resilience during outages.
• These measures typically offer payback periods of 5–10 years through energy and insurance savings.

4. What role might minimum standards play in ensuring the resilience of Australia's housing stock?

• Minimum standards ensure all housing meets baseline resilience, protecting occupants and reducing systemic risks.
• EU-style certifications for climate resilience at point of sale or lease can drive market-wide improvements and support long-term adaptation

5. The impacts of climate change are being factored into the regulation of where and how houses are built in different ways around Australia. What does leading practice look like? Where is there room for improvement? Are there lessons we can learn from other countries?

• Leading practice: Integrated, risk-based land use planning (e.g., Netherlands ' flood zoning), mandatory resilience standards, and regular updates based on evolving climate science.
• Improvement areas: Streamlining approvals for retrofits, harmonising standards

nationally, and embedding resilience into all new developments.
• Lessons from abroad: The UK and Denmark have shown that combining strong standards with community engagement and financial incentives accelerates adoption and improves outcomes.