

Recommendations

Chapter 1 – Climate change science, impacts and global policy developments

- 1. Provide further support for Australian climate change research through a coordinated, expanded national research program on climate science. Under the research program:
 - Australia's network of monitoring stations, buoys, and access to satellite data should be maintained and expanded.
 - Research focusing on compounding and cascading hazards, climate system tipping points, seasonal forecasting of extreme weather events, Southern Ocean science, Antarctic sea-ice and ice sheets should be given additional attention.
 - First Nations people should lead the incorporation of First Nations' knowledge into our understanding of the climate system and the solutions to climate change.
- 2. Lead the establishment of best-practice protocols for conducting extreme weather event attribution studies to ensure different studies are comparable and clearly understandable.

Chapter 2 - Climate-related wellbeing

- 3. Secure agreement with all levels of government on a framework to ensure that climate change risk and adaptation are factored into all policies and programs and their implementation, including but not limited to critical infrastructure, building codes, health, social services policies (such as those on public housing), transport, environmental protection, national security, and sectoral decarbonisation plans.
- 4. Legislate for the National Climate Risk Assessment to be undertaken, and the National Adaptation Plan updated, a minimum of every 5 years, and for ongoing monitoring and evaluation of the Plan.
- 5. Facilitate the development of a First Nations peoples-led framework to engage with First Nations people on decarbonisation and adaptation matters, building on the principle of free, prior and informed consent.
- 6. Facilitate a First Nations peoples-led action plan to enhance First Nations workforce opportunities in decarbonisation and adaptation and remove barriers to employment.
- 7. Support adaptation and transition decision-making, and improve transparency and accountability, by developing simple and accessible tools to explain climate and energy concepts.

Chapter 3 – Reducing Emissions

Electricity

- 8. Coordinate with state and territory governments on a comprehensive and integrated plan to reach the 82% renewable generation target, including development and implementation of a mechanism to ensure the necessary investment in the supply of renewable electricity.
- 9. Together with the state and territory governments provide the following information to the Australian Energy Market Operator each financial year for it to publish (in a similar format to the Connections Scorecard): number of renewable energy projects submitted for development approval or EPBC Act referral, number of renewable energy projects provided development consent or approval under the EPBC Act, and the average time from submission to approval.
- 10. Build on the recommendations in the Samuel Review to prioritise and expedite the EPBC Act assessment process for large-scale renewable energy generation projects, while maintaining rigorous consideration of environmental impacts.

- 11. Respond to the Community Engagement Review on energy infrastructure no later than 30 April 2024, and implement measures to support best practice community engagement and benefit sharing, including with First Nations communities, as soon as possible thereafter.
- 12. Work with state and territory governments to accelerate the rollout of network infrastructure to support the deployment of large-scale renewable energy projects.
- 13. Work with state and territory governments to provide incentives to ensure sufficient renewable energy storage projects that can provide between 4 to 12 hours of storage are deployed by 2030 (through the Capacity Investment Scheme or other mechanisms).
- 14. Provide funding via ARENA and the CEFC to accelerate the commercialisation and deployment of deep storage options.
- 15. Implement measures to ensure there is adequate abated domestic gas supply for firming renewable electricity generation and other purposes, while the domestic use of gas is phased down over time with the deployment of lower and zero emissions alternatives.
- 16. Coordinate with state and territory governments to agree on timing for the retirement of fossil fuel generators and measures to support local workforces and communities affected by closures.

Industry and resources

- 17. Accelerate the early phase-out of higher global warming potential refrigerants, where alternatives are available, including bans for pre-charged equipment imports.
- 18. Review the opportunities and report on barriers and incentives for pre-mine drainage of coal mine methane from open cut mines.
- 19. Introduce measures complementary to the Safeguard Mechanism for reducing fugitive emissions from the oil and gas sectors, including:
 - implementation of international best practice measures for reducing methane emissions from flaring activities that do not perversely encourage venting emissions.
 - development of standards in line with international best practice to support methane leak detection and repair across equipment, technologies and operational practices.
 - introduction of requirements for existing oil and gas facilities to sequester all CO₂ emissions produced.

Transport

- 20. Implement a Fuel Efficiency Standard for new light vehicles as soon as possible which progressively reduces the emissions intensity to zero by no later than 2040.
- 21. Complete a review of policy and regulatory settings for electric vehicles by 2024 (including subsidies to purchase electric vehicles, fees and charges to own and drive electric vehicles and taxes and tax concessions) to ensure incentives are effective and efficient in reducing emissions and driving electric vehicle uptake.
- 22. Develop metrics to monitor progress of the rollout of electric vehicle charging infrastructure in the first National Electric Vehicle Strategy annual review. This should take account of the infrastructure needs of regional and rural Australia in terms of the number, distribution and speed of chargers.
- 23. Work with the electric vehicle charging industry during the first National Electric Vehicle Strategy annual review to develop policies and if needed, regulation, to ensure that:
 - public electric vehicle chargers report in real time whether chargers are available,
 - there is a consistent approach to electric vehicle charging formats, including available plug types, payment systems and applications necessary to find and access chargers.
- 24. Consider immediate policy and regulatory options to reduce emissions in existing road vehicles such as by allowing and incentivising lower emissions fuel blends.
- 25. Encourage uptake of lower emissions heavy vehicles by:

- undertaking a cost benefit analysis for a Fuel Efficiency Standard for heavy vehicles by the end of 2024, to adopt a standard to reduce emissions from heavy vehicles over time.
- reviewing regulatory barriers to zero emissions truck uptake and addressing these by the end of 2024.

Agriculture

- 26. Fund an extensive challenge-based program of research and early-stage commercialisation of agriculture emissions reduction technologies.
- 27. Develop a program to support farmers to measure, reduce and disclose their emissions in line with an established government standard, provide advice on actions farmers can take to reduce emissions, and help them to implement high priority actions.
- 28. Explore the potential for time-limited incentives to support broad uptake of fertilisers with nitrification inhibitors.

Land Use, Land-use Change and Forestry

29. Enhance the delivery of impartial, practical guidance and support to landholders to enable them to make informed decisions on sequestering carbon on their farm to best suit their business, including retaining carbon for their own business, supplying the ACCU scheme offsets market, or establishing farm forestry and agroforestry.

Waste

- 30. Work with state and territory governments to update the national waste policy action plan to specify achievable actions to increase the avoidance, recovery and recycling of organic waste across its lifecycle to reduce organic waste going to landfill. These actions should clearly address the barriers limiting the diversion of organic waste from landfill, including government operated landfill sites.
- 31. Work with states and territories to require landfill gas capture at all landfill sites where there is sufficient gas flow. Where gas flow is not sufficient, regulation should require other treatment of landfill gas to oxidize methane, such as biocovers.

Chapter 4 - Cross-cutting issues

Carbon markets

32. Develop and publish a National Carbon Market Strategy.

Sequestration

- 33. Develop a sophisticated modelling capability to analyse and forecast sequestration, for example through a partnership between the government, industry, and academia.
- 34. Incentivise the development of long-lived and engineered forms of sequestration by supporting research and development and as technologies develop, through carbon markets or other financial instruments.
- 35. Take a leading role to reduce the domestic and international regulatory barriers preventing the uptake of engineered sequestration and carbon dioxide removal technologies methods.

Electrification of the built environment

36. Extend the Small-scale Renewable Energy Scheme post-2030 to ensure continued support for electrification and expand the scheme to include household batteries and private electric vehicle chargers.

- 37. Establish methods to track the numbers, locations and speed of private electric vehicle charger installations, to inform metrics on the successful roll-out of charging infrastructure. The government should publish these figures each year, and ensure the data is available to AEMO for grid management purposes.
- 38. Implement policies to increase the accessibility of electrification options. This includes, for example, through provision of zero interest financing to reduce up-front costs and provision of funding for public and Indigenous housing to convert to all-electric.
- 39. Work with state and territory governments to agree on a coordinated, nationally consistent approach to phasing out new gas connections for residential and small commercial buildings and phase-out for existing gas connections.
- 40. Identify and remove barriers to installing private vehicle chargers and vehicle-to-grid capability, while ensuring building codes adequately mitigate safety risks.

Research and development, technology and innovation

41. Include a Research, Development & Demonstration (RD&D) Strategy as a key feature of Australia's Net Zero Plan. The strategy should consider the need for dependable framework conditions that promote innovation, safeguards competitiveness, and amplifies co-operation between government and private sector, as well as tracking progress towards goals.

Federal, state and territory government cooperation

42. As part of development of the Net Zero Plan, develop a set of agreements with the state and territory governments for coordination and cooperation on climate change mitigation, adaptation and resilience, and Australia's transition to a net zero economy.



