



Australian Government

Australian Government response to the
Environment and Communications
References Committee report:
Current and future impacts of climate change on housing, buildings and
infrastructure

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[XX November 2018]

Introduction

The Australian Government (the Government) welcomes the opportunity to provide a response to the Senate Environment and Communications References Committee report, *'The current and future impacts of climate change on housing, buildings and infrastructure'*, tabled on 13 August 2018, and acknowledges the work and recommendations by members of the committee.

The Government would also like to thank those who made submissions or gave evidence to the inquiry for their contribution, which shaped the final report and recommendations.

The Committee's inquiry looked into the current and future impacts of climate change on housing, buildings and infrastructure, accounting for the full range of projected climate scenarios, having regard to matters, including:

- (a) recent and projected changes in sea level rises, and storm surge intensity;
- (b) recent and projected changes in temperature and precipitation;
- (c) recent and projected changes in extreme weather, including heatwaves, bushfires, floods, and cyclones;
- (d) recent and projected changes in natural coastal defence systems including coral reefs, kelp and mangrove forests;
- (e) the impact of these changes on the vulnerability of infrastructure in coastal areas;
- (f) the impact of these changes on water supply and sewage treatment systems;
- (g) the impact of these changes on transportation, including railways, roads and airports;
- (h) the impact of these changes on energy infrastructure, including generators and transmission and distribution lines;
- (i) the impact of these changes on health, education and social services infrastructure, including hospitals, schools and aged care;
- (j) the impact of these changes on private and public housing;
- (k) the impact of these changes on public recreation and tourism facilities;
- (l) the impact on financing and insurance arrangements for housing, buildings and infrastructure;
- (m) the adequacy of current state and Commonwealth policies to assess, plan and implement adaptation plans and improved resilience of infrastructure; and
- (n) any other related matters.

The Government has considered the recommendations of the committee's report and has provided the responses below.

Responses to recommendations

Recommendation 1:

Greens (1.7): That the Australian Government commit to a target of net zero greenhouse gas emissions for Australia by 2040 and the actions necessary to achieve this target.

Labor (1.6): Labor Senators recommend that the Australian Government commit to a target of net zero greenhouse gas emissions for Australia by 2050 and the actions necessary to achieve this target.

Government Response

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Recommendation 2:

That the Australian Government fund the preparation of a National Climate Change Risk Assessment that includes assessments of extreme risks and worst case scenarios for Australia's built environment. This assessment should be updated regularly, such as every five years.

Government Response

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Recommendation 3:

That the Australian Government commission and fund Infrastructure Australia to lead a national audit of at-risk infrastructure including, but not limited to, the following areas:

- road and rail networks;
- ports and airports;
- water, stormwater and irrigation infrastructure;
- electricity generation, transmission and distribution infrastructure;
- telecommunications infrastructure;
- housing and building infrastructure, including the policies and standards underpinning the planning, development and construction of buildings and communities; and
- coastal defences.

Government Response

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Recommendation 4:

Greens (1.14): That the Australian Government provide:

- ongoing funding to support the National Climate Change Adaptation Research Facility; and
- additional funding to CSIRO and other relevant Commonwealth agencies to support further research into climate extremes.

Labor (1.15): Labor Senators recommend that the Australian Government consider providing:

- ongoing funding to support the National Climate Change Adaptation Research Facility; and
- additional funding to CSIRO and other relevant Commonwealth agencies to support further research into climate extremes and impacts.

Government Response

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Recommendation 5:

That the Australian Government lead the development of nationally consistent benchmarks and guidelines on climate risks, particularly sea level rise, for use as part of state and local government planning decisions. The benchmarks and guidelines should be based on comprehensive scientific assessments and include consideration of worst-case scenarios and climate extremes.

Government Response

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Recommendation 6:

That an overarching objective regarding the need to effectively plan for climate change be included in all state and territory planning legislation.

Government Response

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Recommendation 7:

That the Australian Government commission research to enhance the information available to policymakers regarding the full range of social and economic costs associated with heat stress.

In particular, the Australian Government should commission research to estimate the potential health system savings and other economic benefits that could be realised by taking measures to reduce the severity of the urban heat island effect.

Government Response

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Recommendation 8:

That the Australian Government request state and territory governments to ensure effective coastal retreat strategies are developed in their jurisdictions. To inform the development of these strategies, the Australian Government should ensure that the state and territory governments have ready access to expert advice from relevant Australian Government departments and agencies.

Government Response

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Recommendation 9:

That the Australian Government request that the Australian Building Codes Board develop minimum requirements for the National Construction Code that are specifically designed to address heat stress risks associated with internal temperatures.

To facilitate the development of amendments to the National Construction Code, it is further recommended that the Australian Government provide funding for research into:

- how overheating in highly rated energy efficient dwellings can be created where there can be inadequate ventilation; and
- the behaviour of building occupants during heatwave periods.

Government Response

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Recommendation 10:

As part of the research into the full range of social and economic costs associated with heat stress called for in recommendation 7, estimates should be developed of the potential health system savings and other benefits that could be realised through enhanced building standards. In particular, the research should consider the benefits associated with retrofitting low efficiency dwellings to keep internal temperatures within safe ranges during extreme heat events.

Government Response

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Recommendation 11:

That all state and territory governments develop educational resources and introduce or expand existing financial incentive programs designed to encourage homeowners to undertake cost-effective retrofitting of existing dwellings.

Government Response

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Recommendation 12:

That all state and territory governments legislate to require that an energy rating measuring passive energy performance must be disclosed to prospective buyers and tenants when a residential property is offered for sale or is available to rent.

Government Response

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Recommendation 13:

That state and territory governments consider whether to set a deadline by which all residential properties for sale or rent in their jurisdiction must meet a prescribed energy rating.

Government Response

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Recommendation 14:

That the Australian, state and territory governments require that new office space used in the public sector meet high standards of climate resilience and sustainability, including higher energy efficiency standards than the minimum required under the National Built Environment Rating System.

Government Response

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Recommendation 15:

That state and territory governments invest in measures to improve energy efficiency and to reduce heat stress risk in public housing.

Government Response

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Recommendation 16:

That the Australian Government work with organisations representing the built environment sector to identify options for ensuring that robust post-project reviews of infrastructure projects are conducted.

Government Response

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Recommendation 17:

That the Australian Government develop a national plan for passenger and freight transport that:

- outlines a transition to net zero emissions transport; and
- ensures decision-making and planning processes for transportation infrastructure projects are appropriate in the face of climate change.

Government Response

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Recommendation 18:

That state and territory governments:

- require the design of new water supply, sewerage, sewage treatment and stormwater assets to be informed by reliable climate projections as well as historical data; and
- ensure state-owned water corporations and local governments have the resources and support necessary to undertake effective maintenance of water supply, sewerage, sewage treatment and stormwater assets.

Government Response

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Recommendation 19:

That the Australian Government support state governments to ensure that water sector assets are climate resilient by offering ongoing access to advice from Commonwealth scientific agencies on relevant climate risks.

Government Response

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Recommendation 20:

That the Australian Government pursue, through the Council of Australian Governments Energy Council, amending the National Electricity Objective to require the electricity sector to reach net zero emissions by 2030.

Government Response

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Recommendation 21:

Greens (1.61): That the Australian Government develop a comprehensive energy transition plan that includes:

- reform of the National Electricity Market rules and revised tariffs to support the growth of renewable energy and ensure networks are prepared to efficiently respond to changes in the energy market;
- a mechanism for the orderly retirement of coal fired power stations; and
- innovative approaches to enable peer-to-peer energy trading.

Labor (1.62): Labor Senators recommend that the Australian Government develop a comprehensive energy transition plan that includes:

- reform of the National Electricity Market rules to support the growth of renewable energy, new energy technologies, and ensure networks are prepared to efficiently respond to changes in the energy market;
- a mandated notice period for the retirement of coal fired power stations as well as a detailed plan for a just transition for coal fired power station workers and their communities;
- and innovative approaches to enable peer-to-peer energy trading as well as other innovative models such as community renewable projects.

Government Response

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Recommendation 22:

Greens (1.62): That the Australian Government:

- continue and expand the Renewable Energy Target beyond 2020 and consider adopting renewable energy reverse auctions, such as those adopted by the Australian Capital Territory and Victoria, to bring more new generation into the National Electricity Market;
- adopt a National Energy Storage Target of 20 gigawatts of multi-hour storage by 2030;
- ensure regulatory arrangements support the continuing deployment of grid level battery storage and household solar and battery storage technologies; and

- commit to not providing any direct funding, subsidies or other support for the construction of new coal fired power stations in Australia.

Labor (1.63): Labor Senators recommend that the Australian Government:

- implement a national electricity investment mechanism that supports the continued transition to renewable energy, consistent with expert advice on the electricity decarbonisation needed to meet Australia's obligations under the Paris Accords;
- adopt policies to support investment in electricity storage to support continued growth in renewable energy;
- ensure regulatory arrangements support the continuing deployment of grid level battery storage and household solar and battery storage technologies; and
- commit to not providing any direct funding, subsidies or other support for the construction of new coal fired power stations in Australia.

Government Response

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Recommendation 23:

That the Australian Government work with the state and territory governments to develop a national climate change and health strategy.

Government Response

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Recommendation 24:

That state and territory governments require proposals for new health and education facilities to be subject to rigorous assessment of climate-related risks, including the risks associated with the proposed location and building design.

It is further recommended that state and territory governments commence planning to ensure that facilities in high-risk locations that are nearing the end of their useful life are replaced with new facilities in more suitable locations.

Government Response

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Recommendation 25:

That:

- the Victorian Government's Healthy Homes Program be expanded to cover all of Victoria; and
- other state governments introduce programs similar to the Healthy Homes Program to reduce the climate-related health risks faced by low income individuals with complex healthcare needs.

Government Response

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Recommendation 26:

That state and territory governments work with local governments and water authorities to increase the use of rainwater, stormwater, recycled water and other water sources to maintain the green infrastructure used for public recreation.

Government Response

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Recommendation 27:

That the Australian Government replace the National Climate Resilience and Adaptation Strategy with a comprehensive and ambitious national climate change mitigation and adaptation strategy.

This new whole-of-government strategy should contain sector-based national targets and timeframes for emissions reductions against which performance can be measured. The strategy should also incorporate strategies relating to transport (recommendation 17), energy (recommendation 21) and health (recommendation 23).

Government Response

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Recommendation 28:

Labor (1.81): Labor Senators recommend that the Australian, state and territory governments review all environmental legislation to ensure that adequate consideration of the effects of climate change is expressly required as part of future assessment and decision-making processes.

Greens (1.81) as above plus (1.82): In particular, the introduction of a greenhouse trigger should be a key issue for consideration as part of the upcoming independent review of the Environment Protection and Biodiversity Conservation Act 1999.

Government Response

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Recommendation 29:

That the Australian Government pursue the creation of a COAG Climate Change Council.

Government Response

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Recommendation 30:

That the Australian Government establish an independent statutory authority to:

- provide Australians with an independent and reliable source of information about climate change science; and
- assist stakeholders to understand and implement effective adaptation techniques, including by acting as a 'one stop shop' that can direct stakeholders to relevant Commonwealth departments and agencies.

Government Response

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Recommendation 31:

That the Australian Government's National Resilience Taskforce develop recommendations for the Government to consider that would facilitate more frequent betterment of assets that need to be reconstructed or repaired following natural hazards.

Government Response

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Recommendation 32:

That state governments provide local governments with exemption from liability for decisions made in good faith relating to the use of land that is subject to climate change risks, such as flooding, coastal hazards and bushfires.

Government Response

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Recommendation 33:

That the Australian Government provide specific purpose payments to the states to assist local governments to improve the resilience of infrastructure assets most at risk to climate change.

Government Response

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