



Review of the Climate Change and Greenhouse Gas Reduction Act 2010 (ACT)

10-year statutory review

A confidential Report prepared for the ACT Government

30 September 2021

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Abbreviations

ACT	Australian Capital Territory
EPSDD	Environmental, Planning and Sustainable Development Directorate
EU	European Union
GDP	Gross Domestic Product
GHG	Greenhouse gas emissions
IPCC	Intergovernmental Panel on Climate Change
KEQs	Key Evaluation Questions
SCC	Social cost of carbon
The Act	<i>Climate Change and Greenhouse Gas Reduction Act 2010 (ACT)</i>
UNFCCC	United Nations Framework Convention on Climate Change

Executive Summary

Background to the Review

The *Climate Change and Greenhouse Gas Reduction Act 2010 (ACT)* (the Act) commenced on 4 November 2010 to 'promote the development of policies and practices to address climate change, to set targets to reduce greenhouse gas emissions and to provide for monitoring and reporting in relation to the targets.' The Act is now in its tenth year of operation, and it is a requirement of the legislation that the Act be reviewed, and the findings presented to the ACT Legislative Assembly.

The purpose of the review was to:

- Assess the effectiveness of the Act in achieving its objects from 2010 to 2020, including a section-by-section review, with analysis of the contribution of each part of the Act and its subordinate legislation and its connection to other key ACT legislation.
- Assess the appropriateness of the Act in achieving the intended outcomes to 2030 and beyond.
- Identify and recommend changes to the Act (including the Objects of the Act itself) so that it can achieve the intended outcomes to 2030 and beyond.

The review provides findings and recommendations based on a series of semi-structured interviews with stakeholders from the ACT Government and the Climate Change Council, supported by a desktop review.

Findings of the Review

The Act provides high-level, relatively simple legislation that has enabled successful policy development and outcomes. To date, the Act has been highly effective in allowing the ACT Government to set the groundwork for action, develop policy and successfully meet emissions reduction and renewable energy targets. The Act has remained a relevant and leading piece of legislation despite significant changes in the external (notably national climate change) policy environment and ongoing changes in climate science and clean technology since its commencement. This finding was unanimous among stakeholders involved in consultation.

The targets and interim targets (Part 2 of the Act) were particularly effective over the last ten years in driving policy development. This can be seen in the achievement of the 40% emissions reductions target in 2020 - having originally been considered an ambitious target. The functions of the Minister (Part 3) and the Climate Change Council (Part 4) have also been effective to date, providing clear powers, accountability and expert advice to help guide policy development. The only section of the Act which has not been utilised effectively to date is the Sector agreements (Part 5). Although Sector agreements have not been used, that has not hindered the overall achievement of the objects of the Act to date.

It is noteworthy in the context of a legislative review that the Act has had such support (noting the scope of stakeholder consultation) and success in achieving its targets to date – support and success that does not always occur domestically or internationally, particularly in natural resource management and environmental legislation.

Beyond 2021, the Act remains broadly appropriate to meet the ACT's climate objectives. However, meeting the future targets is likely to be considerably more challenging, given the types of actions that will be required – particularly at the individual and community level. Therefore, there is some risk that the Act does not provide sufficient power, guidance and accountability for the Government to continue to meet its current targets.

Recommendations for changes to the Act

On the basis of these findings, we anticipate that the Act will continue to empower the ACT to deliver effective climate change policy and action – in its current form, without significant amendment. However, given the likely challenges of meeting future targets, there are opportunities to increase the Act's effectiveness and reduce the risks of not meeting the ACT's climate change objectives.

The following specific recommendations for each part of the Act have been developed through engagement with stakeholders, review of the legislation and supporting policies, and application of the principles of good governance. The recommendations are intended to be consistent with the current high-level and enabling approach of the legislation.

Recommendations for Part 2 of the Act (Targets)

Given the expected challenges in meeting future targets, we recommend that the legislation be updated to limit future Ministers' ability to reduce the interim and 2045 targets. Separately, while we do not recommend the removal of offsets entirely; we suggest that there should be additional requirements to ensure that the offsets achieve actual emissions reductions and maintain public confidence. Therefore, we recommend the following updates to the legislation:

- **Section 6(2)(b):** Include 'but within Australia' to 'emissions offsets outside the ACT' so that offsetting activities be limited to within Australia (and not include international offsets).
- **Section 6(3) (new):** Include a requirement that the Minister 'seek, and have regard to, the advice of the Climate Change Council to assist the Minister' to determine appropriate emissions offsets used to meet the targets.
- **Section 7(2):** Include a requirement that the Minister 'seek, and have regard to, the advice of the Climate Change Council to assist the Minister' setting or changing any interim targets.

Recommendations for Part 3 of the Act (Functions of Minister)

The expected increases in complexity from achieving emissions reductions across multiple challenging sectors, suggests that trying to prioritise the Minister's responsibilities and ensure accountability and transparency will be important.

To better ensure accountability and transparency we recommend the following updates to the legislation:

- **Section 14:** Prioritise the functions of the Minister to have three main objectives from the current functions, with the other functions remaining as lower priorities:
 - 'to promote action to meet the ACT target and the other targets mentioned in part 2' (currently section 14(1)(b));
 - 'to develop, adopt or promote policies and programs relating to climate change' (currently section 14(1)(c)); and

- 'to consider and recommend amending a territory law (including this Act) or a government policy or practice if the Minister reasonably believes an amendment is necessary to achieve the objects of this Act' (currently section 14(1)(k)).
- **Section 14 (new addition):** Include a requirement that the Minister has the following additional function: 'to 'promote the use of a social cost of carbon within the ACT Government'.
- **Section 15(1)(c):** Include a requirement that the social cost of carbon be included within the report on 'the findings of a cost-benefit analysis of any government policies or programs implemented to meet the targets mentioned in part 2 during the financial year' until it is superseded by a national or global social cost of carbon or carbon price.
- **Section 15(1):** Include a requirement that the Minister report on 'the actions the Minister has undertaken to address or adapt to the impacts of climate change'.
- **Section 15 (new addition):** Include a new section which requires the Minister to 'ask an independent entity' to undertake a five-yearly assessment of policies to achieve climate action within the ACT including both mitigation and adaptation activities.

Recommendations for Part 4 of the Act (Climate Change Council)

We recommend that there should not be significant changes to the functioning of the council, however, the following refinements could assist the council to better advise the Minister:

- **Section 17(5) (new addition):** Include a requirement that each year:
 - the Minister notifies the council on the matters that he / she wishes to receive advice on that year,
 - the council develop a proposed work plan for each year – including, but not limited to the matters notified by the Minister (above) – which must be submitted to the Minister for agreement, and
 - the council may provide the Minister with advice that is not in the work plan (above), provided that either the Minister has requested it, or the council has suggested it and the Minister has agreed to receive it.
- **Section 20(2)(b):** Clarify that in general membership of the council should be based on specialist expertise, and amend the membership of the council to:
 - include an adaptation specialist and a First Nations representative, and
 - remove the requirement for a public employee.

Recommendations for Part 5 of the Act (Sector Agreements)

We recommend retaining the Sector agreements in the Act and seeking to promote their potential use in future, such as supporting action on adaptation. Therefore, we recommend the following amendments to the legislation:

- **Section 23 (1):** Amend the definition of a Sector agreement by removing 'on a voluntary basis.'
- **Section 23 (1)(c):** Include 'adaptation' to 'other avoidance or mitigation activities' as a strategy accepted under the Sector agreements.

1. Background and scope

1.1. The Climate Change and Greenhouse Gas Reduction Act 2010

Observed changes in climate are unequivocal at the global scale and are already being felt on regional and local scales. The evidence for human influence on recent climate change has strengthened progressively in the last ten years (IPCC, 2021).

The ACT Government recognises these issues and has made significant public investment to develop policies and legislation that aim to reduce emissions and to prepare for climate change. The Act is a key piece of legislation for achieving the ACT's climate ambitions. The Act commenced on 4 November 2010 to 'promote the development of policies and practices to address climate change, to set targets to reduce greenhouse gas emissions and to provide for monitoring and reporting in relation to the targets.' The objects of the Act are provided in section 5 of the Act:

"(a) to set targets to:

- (i) reduce greenhouse gas emissions in the ACT; and
- (ii) increase renewable energy use in the ACT; and
- (iii) increase renewable energy generation for the ACT; and

(b) to provide for monitoring of and reporting on progress made to meet the targets; and

(c) to facilitate the government's development of policies and programs to meet the targets and to address and adapt to climate change; and

(d) to encourage private entities to take action to address climate change and recognise the entities that take action."

1.2. Background to the review

The Act is now in its tenth year of operation and under section 26 of the Act, it requires a review. Any recommended changes to the Act as a result of the review may necessitate an amendment bill, noting that the next review is scheduled to be in another ten years. Section 26 requires that a report of the review must be presented to the Legislative Assembly as soon as practicable after each review.

Since the commencement of the Act in 2010, there have been significant changes in global action on climate change. The background for this review is one of increased awareness of climate risks and falling low-carbon technology costs, but where global emissions continue to rise. The average global temperature has already risen 1°C from pre-industrial levels and climate risks are increasingly apparent. The Sixth Assessment Report by the International Panel on Climate Change (IPCC) was released during the course of this review, and it confirmed that stabilising the climate will require strong, rapid, and sustained reductions in greenhouse gas emissions, and be dependent on reaching net zero CO₂ emissions. (IPCC, 2021).

Falling costs for key technologies mean that renewable power (e.g., solar and wind) is now as cheap as, or cheaper than fossil fuels in most parts of the world. International action is also accelerating. China, the EU, Japan and South Korea have all announced Net Zero emissions targets for 2050 or soon after (2060 in the case of China), and the US is now also moving in that direction. Together, Net Zero

commitments by parties to the Paris Agreement cover nearly 50% of global CO2 emissions and 50% of global GDP, reaching 60% of emissions and 75% of GDP with the inclusion of the USA.

1.3. Methodology

The purpose of the review was to:

- Assess the effectiveness of the Act in achieving its objects from 2010 to 2020, including a section-by-section review of the Act, with analysis of the contribution of each part of the Act and its subordinate legislation and its connection to other key ACT legislation.
- Assess the appropriateness of the Act in achieving the intended outcomes to 2030 and beyond.
- Identify and recommend changes to the Act (including the Objects of the Act itself) so that it can achieve the intended outcomes to 2030 and beyond.

The review was undertaken using a framework to develop a set of key evaluation questions (see Appendix A) to identify the effectiveness and appropriateness of each of the four major sections of the Act:

- Part 2 – Targets,
- Part 3 – Functions of [the] Minister,
- Part 4 – Climate change council, and
- Part 5 – Sector agreements.

The review drew on multiple lines of inquiry to identify findings and recommendations (Figure 1):

- Information was provided by the ACT Government, and further information was also identified from a desktop review.
- Data was gathered from a number of sources including emissions inventories, existing ACT policy, publications on changes to science and technology and current ACT policy and program documents, and legislation from other jurisdictions (see Appendix A).
- A series of semi-structured interviews were held with stakeholders including ACT and SA Government officials, the ACT Minister for Emissions Reductions and members of the Climate Change Council. The interviews were guided by the key evaluation questions. A full list of stakeholders is provided in Appendix A.

The quantitative and qualitative information gathered from both the desktop review and stakeholder interviews provided the review framework with comprehensive and robust evidence which have been used to develop the findings and recommendations provided in this report.

1.4. Structure of the report

This report provides the findings and recommendations from the review. The report is structured according to the review components, each with reference to the four major sections of the Act:

- Section 2 provides the findings from the review of the effectiveness and appropriateness of the Act, and
- Section 3 provides options for reform of the Act and key recommendations.



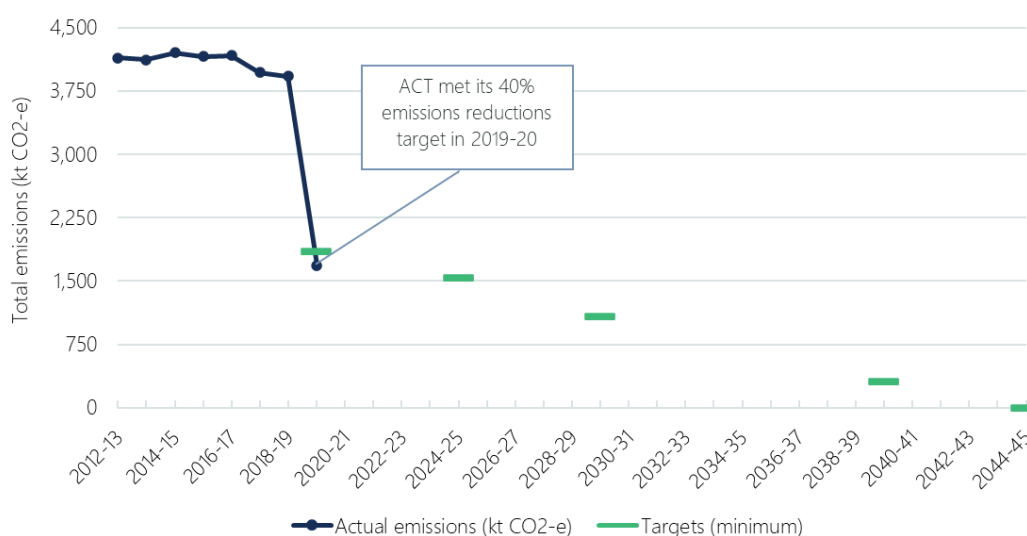
Figure 1 Review process

2. Findings of the review

2.1. Summary

The Act provides high-level, relatively simple legislation that has enabled robust policy development and outcomes. To date, the Act has been effective in allowing the ACT Government to set the groundwork for action, develop policy and successfully meet emissions reduction and renewable energy targets. The Act has remained a relevant and leading piece of legislation despite significant changes in the external (notably national climate change) policy environment and ongoing changes in climate science and clean technology since its commencement. This finding was unanimous among stakeholders involved in consultations.

The targets and interim targets (Part 2 of the Act) were particularly effective over the last ten years in driving policy development. This can be seen in the achievement of the 40% emissions reductions target in 2020 (Figure 2), which was originally considered to be an ambitious target to achieve. The functions of the Minister (Part 3) and the Climate change council (Part 4) have also been effective to date, providing clear accountability and expert advice to help guide policy development. The only section of the Act which has not been utilised effectively to date is the Sector agreements (Part 5). Although sector agreements have not been used, that has not hindered the overall achievement of the objects of the Act to date.



Source ACT Greenhouse Gas Emissions Inventory Report 2019-20 (ACT Gov, 2021b)

Figure 2 Targets have proved effective in driving emissions reductions in the ACT

It is noteworthy in the context of a legislative review that the Act has had such support (noting the scope of stakeholder consultation) and success in achieving its targets to date – support and success that does not always occur domestically or internationally, particularly in natural resource management and environmental legislation.

Beyond 2021, the Act remains broadly appropriate to meet the ACT's climate objectives and remains aligned with climate legislation from other jurisdictions (see Box 2.1). The objects of the Act were also seen as still relevant for the ACT to 2030 and beyond.

Meeting the future targets set out in the Act is likely to be considerably more challenging, given the types of actions that will be required – particularly at the individual and community level. Therefore, there is some risk that the Act does not provide sufficient, power, guidance and accountability for the Government to continue to meet its current targets.

Box 2.1: A comparison of climate legislation from other jurisdictions

Climate Change Act 2017 (Victoria)

- A long-term target of net-zero greenhouse gas emissions by 2050 and a duty of the Minister to ensure this is met.
- Interim targets have been set every 5 years to ensure Victoria remains on track. The Premier and the Minister must determine a greenhouse gas emissions reduction target for the State four years prior to the target date. This progressive target setting has been undertaken in other jurisdictions including New Zealand.
- Requires Climate Change Strategies every 5 years, which will set out how Victoria will meet its targets and adapt to the impacts of climate change (from 2020).
- Requires Adaptation Action Plans for key systems that are either vulnerable to the impacts of climate change or essential to ensure Victoria is prepared (from 2021).
- Establishes a pledging model to reduce emissions from Government's own operations and from across the economy (from 2020).
- Establishes a system of periodic reporting to provide transparency, accountability and ensure the community remains informed.

Climate Change Act 2008 (United Kingdom)

- Established a target for the UK to reduce its emissions by 100% from 1990 levels by 2050 (increasing from 80% in 2019).
- The UK Committee on Climate Change is responsible for advising on the appropriate level of the UK's carbon budgets and steps required to meet them. The Committee also monitors progress towards meeting carbon budgets and recommending actions to keep budgets on track.
- Section 36 of the *Climate Change Act 2008* (UK) requires reports on progress that has been made towards meeting the carbon budgets and the target for 2050 by the Committee on Climate Change. Section 59 requires that each report under section 36 contain an assessment of the progress made towards implementing the objectives, proposals and policies set out in the National Adaptation Program.
- Section 62 gives the Secretary of State the power to direct reporting authorities (organisations with functions of a public nature and statutory undertakers) to produce reports detailing:
 - The current and future predicted impacts of climate change on their organisation.
 - Proposals and policies for adapting to climate change.
 - An assessment of progress towards implementing the policies and proposals set out in previous reports (Wilder *et al.* 2015).

2.2. Targets

Targets, including interim targets, have been effective to date

The benefits of strong and early greenhouse gas emissions reductions through legislated targets are widely recognised. The targets outlined in the Act represent an ambitious commitment by the ACT Government and the achievement of the targets to date should be recognised as providing significant action on climate change in the ACT.

The targets have facilitated a strong and clear foundation for climate change policy in the ACT, with policies that have been recognised nationally and internationally. The targets provide a clear driver for action on emissions and a transparent measure to hold government to account for its progress. It was also noted during stakeholder consultation that the targets acted as a useful tool for communicating progress to the public.

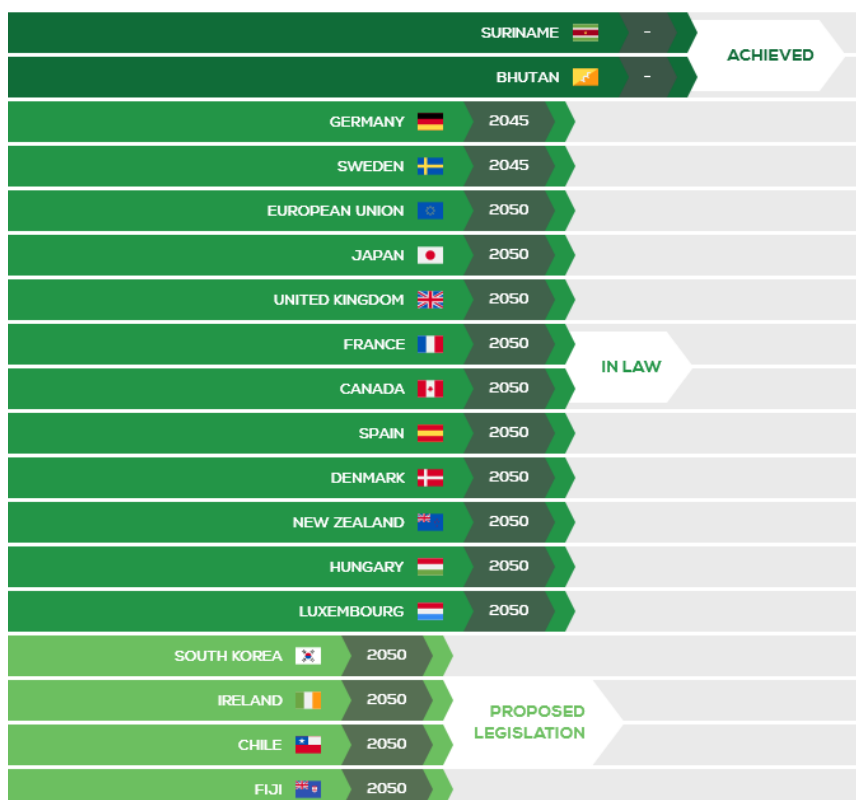
The principal target of the Act is to reduce greenhouse gas emissions in the ACT to achieve net-zero emissions by 30 June 2045. The interim target of a 40% reduction of 1990 emissions by 30 June 2020 was reached. Other targets that were reached by 2020 include:

- The target of sourcing 100% of the ACT's electricity from renewable generation. This target also drove the reduction in greenhouse gas emissions required to achieve the 2020 interim target.
- The target for per person greenhouse gas emissions in the ACT to peak by 30 June 2013 has also been achieved. Emissions have remained below this peak of 10.53 tonnes of carbon dioxide equivalent (t CO₂-e) per person. In 2019-20, emissions were 3.94 t CO₂-e per person, a 63% reduction from 2012-13 levels (ACT Gov 2019).

Maintaining the ability to update the targets and set new interim targets has been seen as particularly useful in maintaining the overarching objectives of the Act. The pathway to 2045 will be as important as meeting net-zero emissions, making the interim targets crucial for achieving overall climate objectives as well as demonstrating progress. The targets were first introduced in 2010, and then revised in 2016 and again in 2018 with the purpose of increasing ambition. In 2016, the ACT Government legislated a new target of sourcing 100% renewable energy by 2020, from within the ACT, or across the National Electricity Market. Reaching this target was made possible by the support from other legislative instruments including the Electricity Feed-in (Large scale Renewable Energy Generation) Act 2011 (ACT) which stimulated investment in large-scale renewable energy across the ACT.

The renewable energy targets are some of the most ambitious in the world. For example, Tasmania is the only other Australian State or Territory to achieve 100% renewable electricity to date (ACT Gov 2021). The emissions targets currently set in the Act are more ambitious than those adopted by other jurisdictions, including the EU and the United Kingdom which both have targets of net-zero emissions by 2050, five years after the ACT target of 2045 (Figure 3).

Section 12 of the Act requires that each financial year the Minister must ask an independent entity to prepare a report about greenhouse gas emissions and the targets for the year. This mechanism has been effective in driving transparency and accountability in yearly emissions reporting. This provides the ACT with greater clarity on emissions within the territory and can be used to support better policy making. This is in contrast to other jurisdictions in Australia which do not provide a detailed emissions inventory on an annual basis, which is often a hindrance to effective policy.



Source Net-zero tracker, Energy and Climate Intelligence Unit (2021)

Figure 3 Global net-zero emissions pledges

The Act has appropriately set and met targets

The current interim targets outlined in the Act are ambitious and world leading. While the targets are challenging, they should remain as they are to ensure the most cost-effective path to zero emissions by 2045. Meeting the interim targets also helps to reduce the risk of not meeting the 2045 target, and helps deliver an appropriate contribution to minimising ACT's total emissions.

The interim five-year targets have provided a clear pathway for emissions reductions and renewable energy generation, facilitating strong policy development. The use of the disallowable instruments has also enabled the targets to adapt to political, technological, social and environmental changes over the past ten years.

The ACT's current long-term target of zero net emissions by 30 June 2045 provides the ACT Government with an ambitious, world-leading target. It provides a predictable planning framework for decision makers to clearly communicate the direction of political commitment towards a low-carbon transition. Based on targets from other jurisdictions and a general community consensus in favour of ambitious climate action in the ACT, the long-term target is appropriate in this context.

Both the interim and long-term targets were updated in 2018 based on advice from the council. According to the council the targets represent a fair share for the ACT's contribution to the global carbon budget. The advice from council shows that the ACT will need to reduce emissions more significantly in the shorter term to enable a smoother transition to zero net emissions, and reduce the difficulties in needing to make more drastic cuts to emissions at a later date to meet the carbon budget (ACT Climate Change Council, 2017).

The current targets are therefore seen as appropriate in meeting the ACT's climate objectives. The use of the disallowable instruments to make any future changes to the targets is also seen as appropriate. However, as the challenge in meeting the targets increases there may be pressure to reduce these targets through this mechanism (see Box 2.2).

Box 2.2: The future challenge to 2045

Although meeting the 2020 interim GHG target, and the 100% renewable electricity generation represent significant achievements for the ACT, the challenge in the coming years will be greater still.

Between 2015 and 2020 emissions from all other sectors (excluding electricity generation) only fell 2 per cent (Figure 4). To meet the next target of a 50% to 60% reduction by 2025 emissions will need to fall by a further 25%.

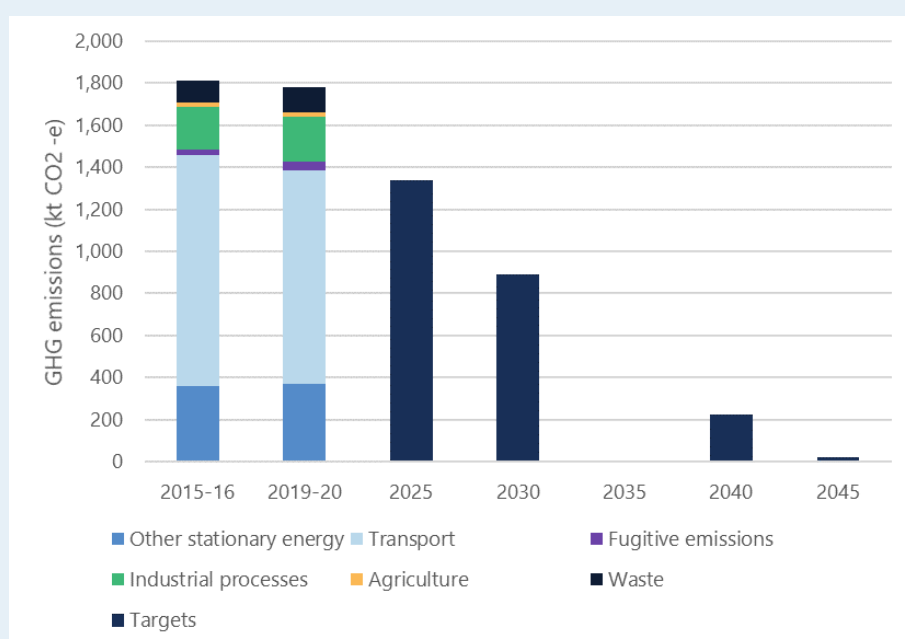


Figure 4 Progress against targets in non-electricity emissions

The two remaining sectors which require the greatest action are transport and other energy (mostly gas used for residential heating). These sectors are likely to be more challenging for the ACT Government to address than the electricity sector, as action will be required by individuals and businesses across the community. For example, some of the actions identified in the 2019 - 2025 ACT Climate Change Strategy include:

- removing existing households from the gas network and installing electric heating,
- building new houses without gas heating,
- shifts to public transport and active travel,
- uptake of zero emissions vehicles for private cars, public transport and freight, and
- waste avoidance, source separation of organic waste from households and businesses and landfill bans.

Box 2.2: The future challenge to 2045

All of these actions are based on behavioural change or changes in technology for individuals and the private sector. Furthermore, the policies to drive these actions are no longer contained within one area of Government, but rather require action across transport, planning and community services.

The ACT has set itself ambitious targets. Meeting these targets will require a step-change in action and government policy and are likely to impose greater costs and changes on the community than have occurred to date. Furthermore, current national policy settings are unlikely to provide the ACT with significant external assistance in reaching its targets.

2.3. Functions of the Minister

The functions and responsibilities of the Minister under the Act have generally been effective in driving action on climate change.

To date, the Act has been an effective mechanism in driving policy development by providing a focal point for action and ensuring transparency. This is demonstrated through the development of the ACT Climate Strategy (2019-2025), which has provided a clear strategy for action aligned with policies and initiatives across Government (see Box 2.3). The inclusion of a function for the Minister to promote the Territory's involvement in state, national and international climate change forums has helped to promote the Act within Government. The functions provide a wide remit for the Minister to drive action and ambition on climate change within the ACT Government, as well as in engaging with the community.

The current responsibilities of the Minister under the Act include annual reporting requirements which have proven effective. The Minister's Annual Reports ensure transparency and accountability for the Government's progress towards the net-zero emissions target in 2045. Section 15(1) of the Act requires the Minister to report on:

“(a) the actions the Minister has taken during the year in the exercise of the Minister's functions under this Act; and

(b) the effectiveness of government actions taken to reduce greenhouse gas emissions during the financial year; and

(c) the findings of a cost-benefit analysis of any government policies or programs implemented to meet the targets mentioned in part 2 during the financial year.”

Continuation of this reporting at an annual frequency help will communicate the effectiveness of the Climate Change Strategy (2019-25), in addition to the implementation of policies that relate to the Territory's emissions trajectory.

In future, the Minister's annual reports will be used to provide a summary of new climate policies, including the Climate Change Strategy (2019-25), which will provide important updates on implementation progress, including a status update for each action. These reports will also assist in the independent review in 2024 by the Office of the Commissioner for Sustainability and the Environment to assess progress and inform the development of the next strategy from 2025.

Box 2.3 Policies and initiatives related to the ACT Climate Change Strategy

ACT Climate Change Strategy (2019 – 2025)

The ACT Climate Change Strategy represents the Government's climate change response to 2025. It outlines the actions Government will take to meet its legislated targets. After 2025, a new strategy will be developed to 2030. It supersedes the Climate Change Strategy and Action Plan (2012) and the Climate Change Adaptation Strategy (2016).

The goals of the Climate Change Strategy cover:

1. Community leadership
2. Just transition
3. Transport
4. Energy, buildings and urban development
5. ACT Government leadership
6. Waste avoidance
7. Land use and biodiversity
8. Industry development and innovation
9. Monitoring, evaluation, reporting and improvement
10. Increasing ambition

Other relevant policies and plans include:

- Canberra's Living infrastructure Plan: Cooling the City
- The ACT Planning Strategy 2018
- The ACT Housing Strategy (2018)
- Draft Moving Canberra: Integrated Transport Strategy

The current strategy builds on initiatives including:

- Transition to 100% renewable electricity
- The Actsmart program
- Energy Efficiency Improvement Scheme
- Construction of the light rail line
- Growing cycle path networks
- Improving knowledge of potential vulnerability

Functions and responsibilities of the Minister are extensive

The Act provides a wide range of functions for the Minister (see Box 2.4), which have been effective in helping deliver action. However, in the future the number of functions covered under the Act and the

lack of prioritisation may reduce accountability and transparency. Given the increasing complexity of climate action required in future across multiple sectors, it is likely to be advantageous to the ACT Government to have such an extensive array of powers at the Minister's disposal. However, as action within the ACT becomes more challenging in coming years, a more prioritised list of (the same or similar) functions could provide direction and guidance as to the key actions and functions that must be delivered to achieve the intended objectives of the Act.

In addition, a recent Government change has created a new Minister for climate action, currently being held by the Chief Minister. The Minister referred to in the Act is now the Minister for Water, Energy and Emissions Reductions. This may reduce clarity on the current Minister's actions relating to policy development and action across the Government. Stakeholders have suggested that there may be a need to better distinguish the roles and responsibilities between Ministers, thereby tightening responsibilities across departments. We note however that any 'machinery of government' arrangements have trade-offs between formally or informally sharing Ministerial responsibility – particularly multi-sectoral legislation such as this Act.

Box 2.4: Current functions of the Minister under the Act

Section 14 Functions of Minister

(1) The Minister has the following functions:

- (a) to regularly review issues relating to climate change;
- (b) to promote action to meet the ACT target and the other targets mentioned in part 2;
- (c) to develop, adopt or promote policies and programs relating to climate change;
- (d) to consult business and community entities about issues relating to climate change;
- (e) to consider and promote actions or strategies by business entities, including technological developments, to address or adapt to climate change or reduce greenhouse gas emissions;
- (f) to promote the Territory's involvement in state, national and international climate change forums;
- (g) to promote the commercialisation, generation and use of renewable energy in the ACT;
- (h) to promote the commercialisation and use of other technologies to reduce greenhouse gas emissions in the ACT;
- (i) to promote research and development consistent with the objects of this Act;
- (j) to support the development of regional, national and international approaches to addressing climate change;
- (k) to consider and recommend amending a territory law (including this Act) or a government policy or practice if the Minister reasonably believes an amendment is necessary to achieve the objects of this Act;
- (l) to assess the impact of climate change on the Territory;
- (m) to support public education about climate change;
- (n) any other functions given to the Minister under this Act.

2.4. Climate Change Council

The council has functioned well since 2010

To date, the council has provided effective and independent advice to the Minister. This has translated into effective design and implementation of policies related to achieving the objects of the Act. Over the last ten years it has retained a good mix of representatives across science and policy, with stakeholders confirming that it has effectively served the Minister and resulted in good decision-making. The council has also operated as an important community-facing mechanism to help communicate decision making.

An important aspect of the legislation is the requirement for the council to provide annual reports of the council's activities during the financial year, including any advice given or recommendations made to the Minister. This has helped ensure transparency and accountability in the provision of advice to the ACT Government. As well as the annual reports the council has also published letters, meeting summaries, submissions and reports and newspaper articles. Topics have included:

- adaptation to climate change,
- carbon budgets,
- social cost of carbon and public investment,
- climate-wise buildings, and
- climate science.

Regular and timely stand-alone science updates and the provision of climate science information continue to act as an effective component of the ACT Government's decision-making. They help inform the public about taking action on climate change, support and add rigor to policy development and enable greater flexibility in developing tailored scientific updates for different purposes and audiences. For example, an article published in the Canberra Times in 2019 provided effective communication to the public through information on climate science, while promoting Government policy towards the net-zero emissions by 2045 goal (Jesson, 2019).

With targets now set, there needs to be a clear work plan.

Under the Act there is a wide range of matters that the council can provide advice on, and no specific prioritisation or identification of which advice is most important (see Box 2.5). Stakeholders suggest that the council has produced work that is not always aligned with the ACT Government's policy priorities. However, stakeholders also identified that collaboration between the ACT Government and the council is general highly valued, and want to see that collaboration continue and be strengthened in future.

There are also perceived issues with the role on the council of the Director General, EPSDD leading to conflicts between responsibilities to the council and responsibilities to the Minister and Directorate. There are also challenges with the level of funding provided to the council, and the use of EPSDD staff for secretariat functions – noting that these are not matters for the legislative review.

It was noted during stakeholder consultation that given the challenges facing the ACT in the coming years, the council composition and function may need to be updated. Suggestions from stakeholders included:

- increased diversity within the council, particularly representation for First Nations

- additional expertise on adaptation to climate change
- removal of the public sector employee to address possible conflicts between the work of the council and the Directorate.

To meet the future challenge of achieving the interim targets, it will be crucial to ensure the advice provided by council is focused, meets the needs of the Government, and is underpinned by appropriate expertise.

Box 2.5: Current functions of the council under the Act

Section 17 Functions of council

- (1) The main function of the council is to advise the Minister on matters relating to —
 - (a) reducing greenhouse gas emissions; and
 - (b) addressing, and adapting to, climate change.
- (2) The council also has any other function given to the council under this Act.
- (3) Without limiting subsection (1), the matters on which the council may advise the Minister include the following matters:
 - (a) actions or strategies to achieve energy efficiencies;
 - (b) actions or strategies to increase renewable energy use;
 - (c) actions or strategies to achieve the targets mentioned in part 2;
 - (d) community and business views on climate change, including —
 - (i) barriers to addressing climate change; and
 - (ii) proposed actions or strategies to overcome the barriers;
 - (e) actions or strategies to encourage private entities to take action to reduce greenhouse gas emissions and address climate change;
 - (f) actions taken or strategies implemented by private entities to reduce greenhouse gas emissions and address climate change;
 - (g) commercial, regional, national and international practices or policies, including technological developments, to address climate change that may be used in the ACT.

2.5. Sector agreements

To date, Part 5 of the Act relating to Sector agreements has not been utilised. The review of documentation showed no reference to Sector agreements in the 2019-20 Ministers Annual Report, nor in the ACT Climate Change Council Annual Report 2019-20. There is no direct mention of Sector agreements in the Climate Change Strategy (2019-25), and no stakeholders were able to identify any use of the Sector agreements to date.

Stakeholders provided a variety of reasons for the lack of use of Sector agreements including:

- the ACT Government has not needed to enact them yet – having focussed on other actions,
- the purpose and rationale for them is not well understood and therefore they have not been a priority, and
- they are not an appropriate mechanism for ACT policy implementation.

The inclusion of the Sector agreements within the Act was based on the approach taken in South Australia's climate change legislation. In South Australia they are also a voluntary mechanism intended to encourage actions to reduce greenhouse gas emissions and adapt to climate change. The agreements can include commitments including:

- improvements to energy efficiency,
- reducing energy consumption,
- promoting the use of renewable energy, and
- research, development and innovation in technologies or practices.

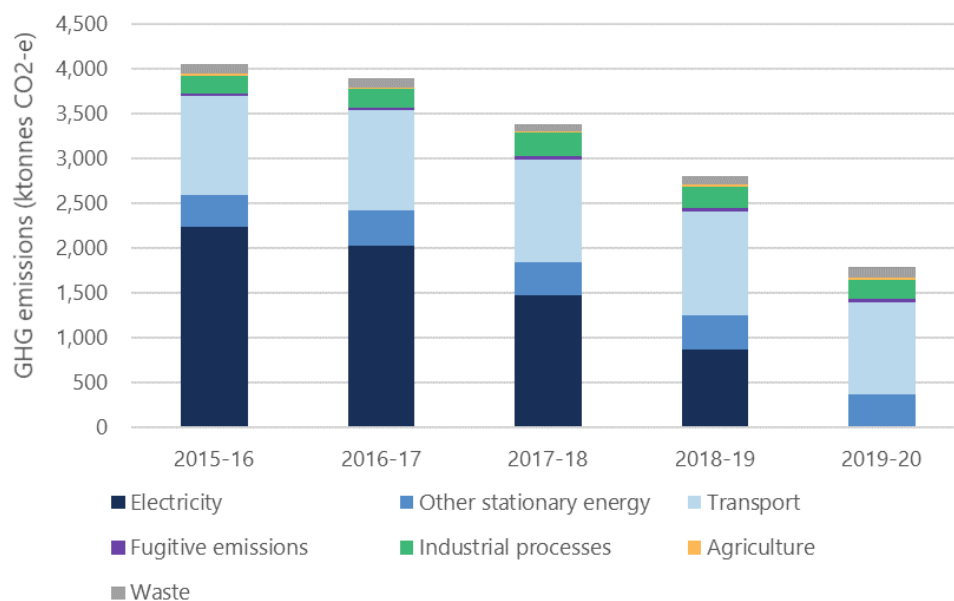
The Sector agreements have been successfully used in South Australia, with over 20 Sector agreements developed to date. However, they have been most successful in supporting action on adaptation for local councils and regions.

Consultation with stakeholders has suggested that to ensure appropriate and successful implementation of Sector agreements in the ACT, agreements must consider the specific geopolitical conditions of the ACT. This may result in an adaptation of the current agreements to allow for successful implementation in the ACT context. For example, the ACT is geographically more restricted compared to South Australia, thereby limiting the number of business and industry groups that can feasibly enter an agreement.

As shown in Figure 5, the focus on emissions abatement with the electricity sector has meant limited action across other sectors. Currently the ACT Climate-Change Strategy 2019-25 places a strong focus on reducing emissions from transport and gas - the two largest sources of emissions from 2020 after electricity. The Strategy notes that unlike electricity, emission reductions in these sectors are less influenced by government and will 'require active participation of the whole community.' This message was carried strongly throughout the consultations.

There are currently limited incentives or regulation within the community and private sectors to actively participate at the scale and rate of change required to meet the targets. These are sectors which may therefore benefit from the use of Sector agreements in future. Application of Sector agreements may therefore be useful tool in achieving significant action to 2025.

The provisions in the Act relating to Sector agreements (sections 23 and 24) are currently drafted in broad terms such as '... to assist in reducing greenhouse gas emissions and meeting the targets ...', with the flexibility of prescribing future requirements by regulation. These broad provisions provide helpful flexibility to potentially accommodate future agreements covering issues such as education, training, R&D, industry transition and structural adjustment – which may 'assist' in meeting the broader targets.



Source ACT GHG Emissions Inventory 2015-16 to 2019-20 (ACT 2021b)

Figure 5 Breakdown of GHG emissions by sector excluding LULUCF

2.6. Adaptation to climate change

Although the Act refers to adaptation in the objects of the Act and the advice from the council, there are limited specific actions or functions relating to adaptation in the Act as it currently stands.

When the Act was first legislated in 2010, most jurisdictions were more focused on mitigation, with the need to address greenhouse gas emissions seen as a high priority and adaptation to climate change required in the future rather than in the short term.

Since then, the impacts of climate change have become increasingly apparent, and the need to adapt to those impacts in the short term has become more pressing. According to the council (2017), maximum, minimum and average temperatures in the ACT are increasing and are projected to rise further. Other significant impacts expected to occur in the ACT include:

- increased frequency and severity of bushfires due to reduced rainfall and higher temperatures,
- hotter, longer and more frequent heatwaves,
- more frequent and prolonged drought due to increased seasonal variability in rainfall, and
- increased frequency and severity of summer storms, with flash flooding and violent winds.

Implementing policies to help the community adapt to the impacts of climate change will be vital. It is also essential that action on adaptation is monitored and reported to measure progress. Given the interconnection between policies to address greenhouse gas emissions and climate change impacts, for example, in the building sector, there are likely to be benefits from delivering action on adaptation and mitigation through one Act. Therefore, we recommend inclusions to the Act to better promote action on adaptation including within the Functions of Minister (Part 3), Climate change council (Part 4) and Sector agreements (Part 5).

3. Recommendations for changes to the Act

3.1. Summary

The Act has been highly effective and broadly supported legislation and therefore these recommendations are made in acknowledgement of that context. On the basis of these findings, we anticipate that the Act will continue to empower the ACT to deliver effective climate change policy and action – in its current form, without significant amendment. However, given the likely challenges of meeting future targets, there are opportunities to increase the Act's effectiveness and reduce the risks of not meeting the ACT's climate change objectives.

As discussed in the previous section, the future targets that have been set under the Act, while appropriate in meeting the ACT's fair share of action on climate change, are likely to be more challenging to achieve than previous targets. In particular, the interim target in 2025 will be challenging to meet. The increased challenges in meeting future targets, particularly the need for individual behaviour change, action at the federal level and likely increases in the costs of investments and costs to businesses and the community, will all increase the risks to action. Stakeholders also identified that the Act is currently more limited in enabling adaptation to climate change, compared to action on emissions.

Whilst there is strong community support for action on climate change and a strong mandate for action within the current Government, the pressure to reduce action in light of these challenges may increase. Therefore, to minimise the risks to action, the focus of changes should largely be on ensuring clear governance principles, leading to greater accountability for Government and ongoing transparency in advice and action to meet the currently legislated targets.

The following specific recommendations were developed through engagement with stakeholders, review of the legislation and supporting policies, and application of the principles of accountability and transparency. The recommendations are intended to maintain the current legislation's design as a high-level and enabling Act – rather than including the details of specific programs, tools or mechanisms.

3.2. Targets

The current targets which were updated in 2018 do not need to be changed or updated. Advice from the council in 2017 showed that the targets represent a fair share of action for the ACT to meet global climate targets and keep to below 2°C (ACT Climate Change Council, 2017). However, as discussed, these targets are likely to be more challenging than the 2020 target. In future, there may therefore be political pressure to reduce or delay these targets if action is not on track. There was a clear consensus from stakeholders that the targets should not be reduced, despite the possibility that the 2025 target may be missed. This recommendation is consistent with the United Nations Framework Convention on Climate Change (UNFCCC), which recommends a 'ratchet approach' under which targets can only be strengthened.

3.2.1. Changes to the interim targets

In the current legislation, the Minister can 'determine' the interim targets by using disallowable instruments (section 7(1) and (2)). Therefore, it may be appropriate to update the legislation to ensure interim targets are not decreased in future. For example, changing the targets could be dependent on receiving advice from the council or for there to have been a demonstrated change in scientific advice or national or international policy.

An example of this can be seen in the UK, where under the Climate Change Act 2008 (UK), the Secretary of State can amend the target percentages (for emissions reductions). The power may only be exercised 'if it appears to the Secretary of State that there have been significant developments in scientific knowledge about climate change, or European or international law or policy that make it appropriate to do so.'

3.2.2. Use of offsets to meet targets

Under the current legislation, the wording of the Act is vague with the definition of zero net emissions provided as (section 6(2)):

"any emissions of greenhouse gas in the ACT are balanced by —

(a) avoidance and mitigation activities; and

(b) emissions offsets outside the ACT."

This allows for a wide range of opportunities to offset emissions and meet targets by reducing action within the ACT.

To keep the targets as robust as possible, some stakeholders suggested that offsets could be removed from the legislation. Not using offsets to meet targets is in line with advice provided by the council in 2017 and with the ACT Government's current policy position.

Alternatively, the offsets could be kept in the legislation to provide flexibility for the future and reduce the incentive to soften the emissions targets - but with additional conditions for their use. For example, requirements for only purchasing offsets delivered by an Australian entity or requiring an independent review of any offset providers to ensure the purchased level of emissions reduction is being delivered.

More specific requirements for offsets are found in other jurisdictions. For example, under Victoria's Climate Change Act 2017 (Vic), offsets are allowed to be used to meet net-zero, however eligible offsets are specifically defined as 'a prescribed unit of greenhouse gas emissions issued under a prescribed regulatory, accreditation or certification scheme.'

Recommendations: Part 2 – Targets

Given the expected challenges in meeting future targets, we recommend that the legislation be updated to limit future Ministers' ability to reduce the interim and 2045 targets.

We do not recommend the removal of offsets entirely; however we suggest that there should be additional requirements to ensure that the offsets achieve actual emissions reductions and maintain public confidence.

Therefore, we recommend the following updates to the legislation:

- amend section 6(2)(b) to include: 'but within Australia' to 'emissions offsets outside the ACT' so that offsetting activities be limited to within Australia (and not include international offsets),
- include a new section 6(3) with a requirement that: the Minister 'seek, and have regard to, the advice of the Climate Change Council to assist the Minister' to determine appropriate emissions offsets used to meet the targets, and
- amend section 7(2) to include a requirement that: the Minister 'seek, and have regard to, the advice of the Climate Change Council to assist the Minister' setting or changing any interim targets.

3.3. Functions of the Minister

To the extent that we can anticipate, the range of functions of the Minister remain appropriate to meet the future targets and the expected challenges. However, a key issue raised in consultation was the increasing need for action across multiple sectors, and therefore for policy development across almost all Ministers and Directorates within the ACT Government. As a result, there will be increasing complexity in developing and delivering policy in the future, given this need for cross-government action. In addition, a recent ACT Government change has created a new Minister for Climate Action, as part of the role of the Chief Minister. This may reduce clarity with respect to the current Minister's responsibilities for ensuring policy development and action across the ACT.

3.3.1. Prioritisation of the functions of the Minister

Under section 14 the Act, there is a long list of functions for the Minister, with no prioritisation of action. With the added complexity and challenge in reducing emissions across all sectors, having too many functions given equal weight under the Act will make it more challenging for the Minister to deliver the most important actions and manage action across government.

One suggested approach was that, given the need for action across the entire ACT Government, additional Ministers could be identified and given functions under the Act. However, this would add complexity to an otherwise simple Act, potentially reducing its effectiveness as an enabling piece of legislation. Depending on the allocation of powers, it may be inconsistent with principles of accountability, transparency and clarity that should inform good governance and legislation.

Alternatively, the current Minister's functions could be prioritised to focus on the most important functions and activities whilst still maintaining flexibility in the Minister's remit. This approach is often

used in legislation to ensure that the primary objectives of legislation are achieved. It will also reduce the risk that a Minister could prioritise other functions at the expense of achieving real action on climate change in future.

An approach that prioritises some functions would be consistent with section 17 of the Act relating to the council, which prioritises its functions as follows:

"The main function of the council is to advise the Minister on matters relating to –

- (a) reducing greenhouse gas emissions; and
- (b) addressing, and adapting to, climate change."

Other functions are then listed after the main functions.

3.3.2. Increased reporting requirements

Given the increased need for action across government, and in line with the principles of transparency and accountability, the Minister could be given additional reporting requirements to track progress in policy development across sectors. This is consistent with the independent review of the Climate Strategy which is being undertaken in 2024. Including a requirement within the Act to undertake a longer-term review of the effectiveness of policy in achieving the ACT's climate objectives would help ensure that activities are continuing to achieve as expected and better measure long-term progress against the new interim targets.

This is likely to be more important in the future with the new, more regular interim targets and the more challenging final target. The 2045 target is now only 24 years in the future. Many of the buildings and most of the infrastructure built today will still be in use by 2045. It is therefore vital that progress on policy development is undertaken early as decisions made 'today' will directly affect the costs and risks of achieving the 2045 target. This longer-term strategic reporting would complement the annual reporting on emissions currently required under the Act.

Reporting on a longer-term basis is consistent with legislation in other jurisdictions. For example, the EU climate change legislation includes a requirement that (European Commission, 2020):

"By 30 September 2023, and every 5 years thereafter, the Commission shall assess...

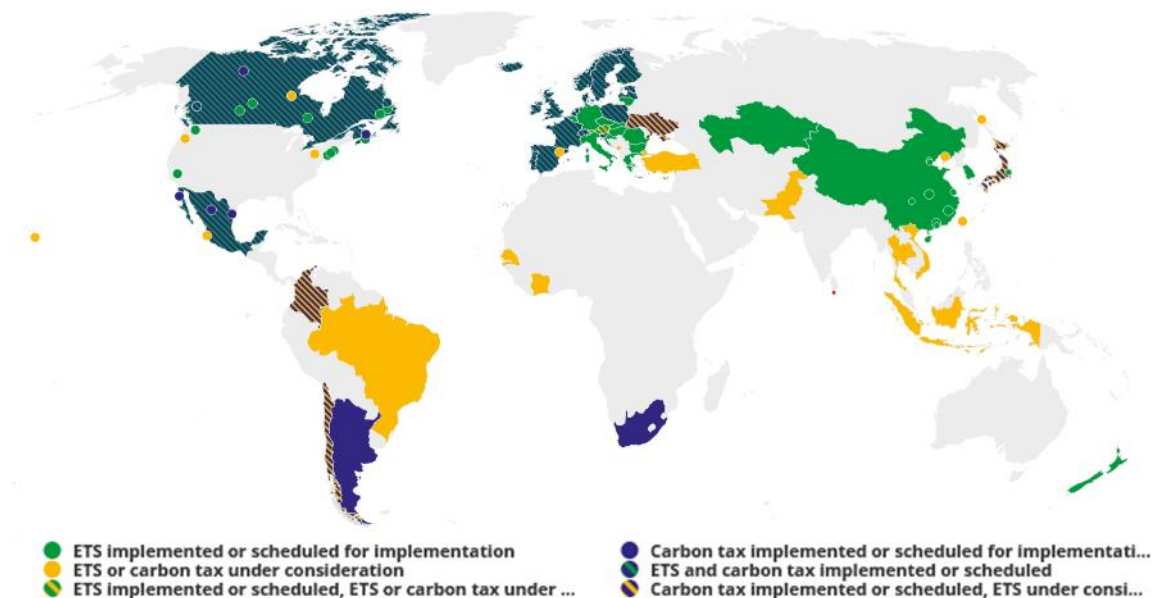
- (a) the collective progress made by all Member States towards the achievement of the climate-neutrality objective ...;
- (b) the collective progress made by all Member States on adaptation as referred to in Article 4."

Reporting on the impacts of climate change to help drive action on adaptation should also be a requirement under the functions of the Minister. This might require reporting on both activities undertaken to address climate impacts and risk and the ongoing changes in climate risk and impacts in the ACT.

3.3.3. Inclusion of the Social Cost of Carbon

Another issue that was raised through the stakeholder consultation was the social cost of carbon (SCC). Advice from the council in 2017 recommended that the SCC be applied in any cost-benefit analyses used to inform public investments or policy and regulatory decisions in the ACT. We understand that the ACT Government is currently developing an internal SCC and implementing it for use in policy development. There is potential to elevate the importance of the SCC through direct inclusion in the Act.

When the Act was first implemented in 2010, the national carbon pricing mechanism was in development and was expected to provide a national carbon price. The scheme was implemented in 2011 as part of the broader Clean Energy Package but was then repealed in 2014. Since that time, there has been no widely accepted price on carbon emissions in Australia. International carbon pricing initiatives have expanded significantly including the EU, California, Canada and China (Figure 6), and now cover an estimated 21.5% of global GHG emissions (World Bank, 2021)



Source World Bank, Carbon Pricing Dashboard (2021)

Figure 6 Summary map of regional, national and subnational carbon pricing initiatives

Inclusion of the SCC within the legislation could help support the ACT Government's ambition to be a national and international leader on climate action. It would also help prepare for future national or international carbon prices. The SCC also provides a valuable reporting mechanism that can demonstrate the value of action in the ACT, further supporting transparency and accountability for action.

Recommendations: Part 3 – Functions of the Minister

The expected increases in complexity from achieving emissions reductions across multiple challenging sectors, suggests that trying to prioritise the Minister's responsibilities and ensure accountability and transparency will be important.

To better ensure accountability and transparency we recommend the following updates to the legislation:

- amend section 14 to prioritise the functions of the Minister to have three main objectives from the current functions, with the other functions remaining as lower priorities:
 - 'to promote action to meet the ACT target and the other targets mentioned in part 2' (currently section 14(1)(b));
 - 'to develop, adopt or promote policies and programs relating to climate change' (currently section 14(1)(c)); and
 - 'to consider and recommend amending a territory law (including this Act) or a government policy or practice if the Minister reasonably believes an amendment is necessary to achieve the objects of this Act' (currently section 14(1)(k)),
- include a new sub-section in section 14 that the Minister has the following additional function: 'to promote the use of a social cost of carbon within the ACT Government',
- amend section 15(1)(c) to include a requirement that the social cost of carbon be included within the report on 'the findings of a cost-benefit analysis of any government policies or programs implemented to meet the targets mentioned in part 2 during the financial year' until it is superseded by a national or global social cost of carbon or carbon price,
- amend section 15(1) to include a requirement that the Minister report on: 'the actions the Minister has undertaken to address or adapt to the impacts of climate change', and
- include a new section (perhaps 15A) which requires the Minister to 'ask an independent entity' to undertake a five-yearly assessment of policies to achieve climate action within the ACT including both mitigation and adaptation activities.

Noting that it is not generally expressly addressed in legislation, the ACT Government may wish to consider how best to use administrative arrangements to ensure clear accountability for functions under the Act as part of individual Ministerial portfolios.

3.4. Climate Change Council

The consensus on the Climate Change Council from stakeholders was that the advice provided has been highly valued and that the collaboration with the Directorate has enabled good policy development. However, some feedback has suggested that the council's work could be more planned and directed to ensure that the advice given continues to meet the needs of the ACT Government and support robust policy development.

The stakeholder engagement process suggested that the council's purpose, activities, and membership could be clarified and updated. Alternate suggestions included:

- more significant changes to the operation of the council to increase its independence from the Minister / ACT Government, and
- transfer of some functions to a separate independent commissioner to allow the council to better focus on implementation and community engagement activities.

3.4.1. Changes to the functions of the council

The review of the Act and feedback on the council suggests a limited mandate for significant changes to the council's operation. In particular, the existing requirement under Part 2 of the Act for an annual independent report on emissions and the general acceptance of the science and targets within the ACT Government (and the community) suggests little need for additional independent oversight from the council.

The council's role in providing advice in close collaboration with policy development within the ACT Government is a valuable role for the council. In the future, it may be required to provide advice that is more focused on implementing policies across government. This will be easier to facilitate if it acts as an advisory body rather than an independent 'watchdog' monitoring the activity of the ACT Government.

Although there is no mandate to make significant changes to the functioning of the council, there are opportunities to improve and refine Part 4 of the Act. In particular, the Act allows the council to provide advice on a wide range of topics, with no guidance on how to prioritise the advice or ensure that the advice is wanted or driving good policy development.

Therefore, the Act could be updated to give the Minister the ability to provide direction to the council and request advice. This could be further supported by requiring the council to create an annual work plan that the Minister must endorse. These updates will help ensure that the advice provided by the council is targeted whilst maintaining the ability of the council to provide additional reports or guidance under the existing functions of the Act if needed.

For example, in the UK, under the Climate Change Act 2008 (UK), the Committee on Climate Change has a duty to provide advice or other assistance on request. The Act specifically requires that:

"The Committee must, at the request of a national authority, provide advice, analysis, information or other assistance to the authority in connection with—

- (a) the authority's functions under this Act,
- (b) the progress made towards meeting the objectives set by or under this Act,
- (c) adaptation to climate change, or
- (d) any other matter relating to climate change."

3.4.2. Changes to the membership of the council

The council's membership is intended to include a "broad range of skills and knowledge relating to addressing, or adapting to, climate change" (section 20(2)(a)). There were several suggestions from stakeholders as to how the council's membership could be updated to better reflect the future challenges of addressing climate change.

There were two particular gaps in the membership of the council identified by stakeholders. Section 20(2)(b) requires the Minister 'to the greatest extent practicable, ensure that' members represent business and community interests and scientific and sector-specific representation. Currently, there is

no explicit requirement for a representative for the interests of First Nations peoples within the Act, which potentially limits the knowledge and diversity of the council (noting that a First Nations person may be a member of the council without the explicit requirement).

A second gap in the legislative requirements that was identified by stakeholders was explicit expertise in adapting to climate change (again noting that that expertise may be present on account of the particular council members). Whilst the council is required to 'advise the Minister on matters relating to addressing and adapting to, climate change,' there is no requirement that a member represent adaptation to climate change. Expanding the council's membership to include this area of expertise will help ensure that the advice from council on adaptation can meet the high standard of advice provided on climate action – particularly given the additional adaptation-related recommendations made in this review.

Finally, the council currently includes a requirement to include a public employee on the council. This role has been filled by the Director-General of the Environment, Planning and Sustainable Development Directorate (EPSDD). We understand that this has been challenging as the Director-General also has duties to the Minister, which may conflict with the council's actions or advice. If the council receives greater direction from the Minister in future (proposed above), there would be less need for the Director-General to remain a member. Collaboration can be achieved through other mechanisms without leading to (perceived or actual) conflicts of interest between serving on the council and providing advice to the Minister.

Recommendations: Part 4 – Climate Council

We recommend that there should not be significant changes to the functioning of the council, however, the following refinements could assist the council to better advise the Minister:

- include a new sub-section (perhaps 17(5) that includes a requirement that each year:
 - the Minister notifies the council on the matters that he / she wishes to receive advice on that year,
 - the council develop a proposed work plan for each year – including, but not limited to the matters notified by the Minister (above) – which must be submitted to the Minister for agreement, and
 - the council may provide the Minister with advice that is not in the work plan (above), provided that either the Minister has requested it, or the council has suggested it and the Minister has agreed to receive it, and
- clarify under section 20(2)(b) that in general membership of the council should be based on specialist expertise and amend the membership of the council to:
 - include an adaptation specialist and a First Nations representative, and
 - remove the requirement for a public employee.

3.5. Sector agreements

The Sector agreements have not been used to date. However, given the need for action across multiple sectors in the future, they may be helpful in achieving future targets and objectives. Part 5 currently creates no regulatory burden (or any other negative consequences), and therefore given the prospect of their future use (which we encourage), there is limited rationale to remove them entirely.

The Sector agreements are currently vaguely defined in section 23(1) and perhaps unhelpfully suggest that there is no mechanism that provides value to any entities undertaking them – on account of the ‘voluntary basis.’ The requirement to report on actions undertaken may also be perceived as relatively costly for many entities and be perceived as an unnecessary risk.

Identifying a process to make the Sector agreements more valuable to an entity (let alone a broader industry) is a matter of policy implementation that is outside the scope of this review. However, we recommend removing the expression ‘on a voluntary basis’ to confirm that commercial terms and value is available suggest that they could be used in future to provide funding for entities or industries to:

- undertake or develop monitoring and reporting activities,
- undertake education programs, research and development
- manage industry transition / structural adjustment), and
- obtain accreditation or recognition through recognised schemes that would add value to entities or industries undertaking action.

The definition of Sector agreements could also be updated to include activities relating to adaptation to climate change as well as action on emissions. This may be a more useful tool as there is greater scope for businesses to engage in and report on adaptation activities at lower cost and risk than mitigation activities.

Recommendations: Part 5 – Sector Agreements

We recommend retaining the Sector agreements in the Act and seeking to promote their potential use in future, such as supporting action on adaptation.

Therefore, we recommend the following amendments to the legislation:

- amend section 23(1) to delete ‘on a voluntary basis’, and
- amend sections 21(1)(c) to include: adaptation’ to ‘other avoidance or mitigation activities’ as a strategy accepted under the Sector agreements.

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Appendix A - Review method

Key questions and data requirements

The review was undertaken using a framework to develop a set of key evaluation questions to identify the effectiveness and appropriateness of each of the four major sections of the Act. The Key Evaluation Questions are provided below.

Table 1 Key questions for review - effectiveness of the Act

Key questions for review	Considerations	Rationale	Data source
Have the relevant sections of the Act been effective in meeting the objects of the Act?	<ul style="list-style-type: none"> • Have the current targets under the Act been met? • Have the functions of the Minister been fulfilled to date? • Have the functions and duties of the Council been fulfilled? • Have sector agreements been undertaken? 	<ul style="list-style-type: none"> • To understand what the Act has achieved to date • To understand whether the objects of the Act have been achieved 	<ul style="list-style-type: none"> • Published documents including emissions inventory, ministerial reports, Climate Council annual reports, published sector agreements • Discussion with project team • Qualitative insights from consultation
What has driven the effectiveness of the Act?	<ul style="list-style-type: none"> • Has the Government taken action on climate change as a result of the Act? • Did the Act facilitate / enable effective policy development? • Have private entities undertaken action as a result of the Act? • Has the community been engaged as a result of the Act? • To what extent was the success of climate policy in ACT attributable to the Act? 	<ul style="list-style-type: none"> • To understand the key aspects of the Act which have made it effective in meeting its objects • To understand whether the effectiveness of the Act was altered by external factors and whether this should be reflected in future targets or recommendations 	<ul style="list-style-type: none"> • Published documents including strategies, policy documents, emissions inventory • Qualitative insights from consultation • Possible illustrative case studies
What, if anything has prevented the effectiveness of the act?	<ul style="list-style-type: none"> • Were there any barriers to achieving the objects of the Act? • Where there any gaps that prevented effective development of targets, monitoring and reporting, policy development, or private action? 	<ul style="list-style-type: none"> • To inform any recommendations for changes to the Act in future • To understand whether the effectiveness of the Act was altered by other factors (e.g. governance, resourcing, communication) 	<ul style="list-style-type: none"> • Discussion with project team • Qualitative insights from consultation

Key questions for review	Considerations	Rationale	Data source
	<ul style="list-style-type: none"> Has the Act produced any positive or negative unintended or unexpected outcomes? 	and whether this should be reflected in future recommendations	

Table 2 Key questions for review - appropriateness of the Act

Key questions for review	Considerations	Rationale	Data source
Are the current sections of the Act sufficient to achieve the required climate action to 2030?	<ul style="list-style-type: none"> Are future targets set under the Act expected to be achieved? Are the functions of the Minister sufficient to achieve the required climate action to 2030? Are the functions and duties of the Council sufficient to achieve the required climate action to 2030? Is the operation of the Council appropriate? Are the sector agreements sufficient to achieve the required climate action to 2030? 	<ul style="list-style-type: none"> To understand whether the sections of the Act are sufficient to achieve required future outcomes To identify recommendations for changes 	<ul style="list-style-type: none"> Published documents including emissions inventory, ministerial reports, Climate Council annual reports, published sector agreements Discussion with project team Qualitative insights from consultation

Key questions for review	Considerations	Rationale	Data source
If the Act is considered appropriate, what are the key enabling factors?	<ul style="list-style-type: none"> • To what extent will existing policies enable achievement of the future targets? • Is the Act expected to drive appropriate policy development to meet the future targets? • Is the Act appropriate to achieve private sector action to meet the intended outcomes to 2030? • Has there been a change in the climate science, technology which affects the appropriateness of the Act? • Is the Act likely to be appropriate for driving community engagement with climate action? • Are there any barriers to achieving future targets which the Act cannot overcome? • Is the Act aligned with other jurisdictions? • Are there any gaps in the Act that need to be overcome to ensure future targets and objects are met? 	<ul style="list-style-type: none"> • To understand how the Act will enable future targets and outcomes to be met • To understand any barriers or gaps in the Act which may prevent outcomes or targets being achieved • To understand if the Act is still appropriate in light of changes to science, technology or action in other jurisdictions • To identify recommendations for changes to the Act 	<ul style="list-style-type: none"> • Published documents including strategies, policy documents, emissions inventory • Qualitative insights from consultation • Illustrative case studies

Table 3 Key questions for review - recommended changes to the Act

Key questions for review	Considerations	Rationale	Data source
Are there any recommended changes to the Act?	<ul style="list-style-type: none"> • Are there any barriers to action which could be changed through the Act? • Should there be any changes to the targets included in the Act? This could be changes to existing targets or inclusion of new targets • Should there be any new functions or responsibilities included in the Act? • Should the Act include more sector specific actions/targets/functions etc • Should the Act be expanded to include adaptation? 	<ul style="list-style-type: none"> • To identify and recommend specific changes to the Act 	<ul style="list-style-type: none"> • Discussion with project team • Qualitative insights from consultation • Case studies

Stakeholder engagement and document review

Engagement was undertaken through focused interviews. A total of 12 stakeholder interviews were undertaken. Table 4 provides details of stakeholder interviews.

Table 4 Stakeholder interviews conducted to inform the review

Who we spoke to	Agency / organisation
Barbara Norman	Former chair of the Climate Council
Gene McGlynn	Executive Group Manager, Climate Change and Energy Division, EPSDD
Daniel Harding	Executive Branch Manager, Policy, Climate Change and Energy Division, EPSDD
Penny Sackett	Former chair of the Climate Council
Diane Favier	Manager, Climate Change Policy and Strategy, Climate Change Branch, Environment, Heritage and Sustainability Division, Department for Environment and Water SA Government
Sam Engele	Coordinator General, Climate Action, Policy and Cabinet, Chief Minister, Treasury and Economic Development Directorate (CMTEDD), member of the Review of the Act Steering Committee
Faheem Khan	Advisor to the Chief Minister
Ben Ponton	Director General, EPSDD
Geoffrey Rutledge	Deputy Director General, Sustainability and the Built Environment, EPSDD and Chair of the Review of the Act Steering committee
Minister Shane Rattenbury	Minister for Water, Energy and Emissions Reductions
Mark Howden	Current chair of the Climate Council
Sophia Wang	Member of the Climate Council

Table 5 Documents list included to inform the review

Document supporting evidence
Review of the Climate Change and Greenhouse Gas Reduction Act 2010
The legislative assembly for the Australian Capital Territory (2016) (Review of the CC and GG Reduction Act 2010)
Greenhouse gas emissions that are reported every financial year
National Electricity Market offsets (Canberra 100% Renewable: Leading innovation with 100% renewable energy by 2020)
Climate change council annual reports, terms of references, and reports
Ministers Annual Climate Change Reports (2011 - 2012) to (2019 - 2020)
Previous climate change strategies and reviews
ACT Auditor-General's report, ACT Government's Vehicle emission s reduction activities
ACT Greenhouse Gas Emissions Inventory Report (2019 - 2020)
ACT Climate Change Strategy (2019 - 2025)
Review of AP2 (2015 - 2017)
Electric vehicles in the ACT 2020
Stakeholder engagement standard 2015
ACT's Climate Strategy Community engagement report July 2018
Review of Renewables Auction 5 (Summary Report) ACT
The Forth Carbon Budget Review (UK)

Table 6 Legislation included to inform the review

Act under review	Jurisdiction
Climate Change and Greenhouse Emissions Reduction Act 2007	South Australia
Climate Change Act 2017	Victoria
Climate change (Emissions Reductions Targets) (Scotland) Act 2019	Scotland
Environment (Wales) Act 2016	Wales
Climate Change Act 2008	UK
Victoria's Climate Change Strategy Economic Analysis	Victoria

Act under review	Jurisdiction
Assembly Bill 32 (Air pollution: greenhouse gases: California Global warming Solutional Act of 2006)	California
Senate Bill 32 (California Global Warming Solutions Act of 2006)	California

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