

ACT Climate Change Council

Annual Report 2022-23





Acknowledgment to Country

Yuma
Dhawura Nguna Dhawura Ngunnawal
Yanggu ngalawiri dhunimanyin
Ngunnawalwari dhawurawari
Nginggada Dindi yindumaralidjinyin
Dhawura Ngunnawal yindumaralidjinyin

Hello,
This is Ngunnawal Country
Today we are meeting on Ngunnawal country
We always respect Elders, male and female
We always respect Ngunnawal Country

We acknowledge the Ngunnawal people as traditional custodians of the ACT and recognise any other people or families with connection to the lands of the ACT and region. We acknowledge and respect their continuing culture and the contribution they make to the life of this city and this region.

Produced by the ACT Climate Change Council and the Environment, Planning and Sustainable Development Directorate

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Letter of Transmittal

Mr Shane Rattenbury MLA
Minister for Water, Energy and Emissions Reduction
ACT Legislative Assembly
GPO Box 1020
CANBERRA ACT 2601

Dear Minister Rattenbury,

It is my pleasure to present to you the Annual Report (Report) of the ACT Climate Change Council for the financial year ending 30 June 2023.

The Council was established under Section 16 of the [Climate Change and Greenhouse Gas Reduction Act 2010](#) (the Act) to advise you, as Minister, on matters relating to reducing greenhouse gas emissions, and addressing and adapting to climate change.

This Report has been prepared pursuant to Section 19 of the Act and outlines the Council's activities during the 2022-23 financial year, the advice given, and the recommendations made to you as Minister. Subsection 19(3) of the Act provides that within 21 days after receiving this report, it must be presented to the Legislative Assembly.

The Council is committed to providing rigorous expert advice on tackling climate change to the elected government of the ACT, through yourself as Minister and through the Climate Action Cabinet Subcommittee. The Council has had an active and productive year providing advice and submissions and engaging directly with various stakeholders including the Canberra business community and the First Nations peoples of the ACT and also in building more effective interactions with the ACT Public Service. We aim to increase engagement with the Canberra community over the forthcoming year through the implementation of our Community Engagement Strategy to further reflect the views of community and business in our advice.

In presenting this Report, I thank my Council colleagues for their continued energy, professionalism and dedication. I also thank you for your direction, to the Environment, Planning and Sustainable Development Directorate for providing the Council Secretariat and the Directorate itself, for its support and dedication to action on climate change.

Yours sincerely,



Professor Mark Howden
Chair, ACT Climate Change Council
SEPTEMBER 2023

Introductory note from the 2022-23 Chair

The past 12 months of average temperatures and well above-average rainfall in the ACT linked to the extended La Niña is likely to change with the emergence of a combined El Niño and an Indian Ocean dipole positive event. Such situations in the past have increased the likelihood of above average temperatures and fire risk and below average rainfall in this region. This is a scenario much more akin to what is being experienced right now in many other parts of the world, with record land and marine temperatures and consequent extraordinary heatwaves, droughts and fires as well as worryingly rapid declines in sea ice and ice-sheet volumes amongst many other things. The rationale for taking rapid, substantial and sustained climate change action has never been more clear.

And yet, global greenhouse gas emissions keep increasing and the economic and political forces behind this continue largely unabated. As documented exhaustively by the recent IPCC Assessments, this commits us to further, large and overall damaging climate changes which add to the difficulties of equitable sustainable development. Consequently, increasing climate impacts also commits us to increased innovation and implementation of more effective climate adaptation strategies. It is pleasing to see the ACT Government taking firm steps on this path – a path which extends out to the foreseeable future.

However, there are some changes that provide hopeful prospects. In Australia, enhanced emission reduction targets which, while short of those which the science says are needed to keep global temperatures to below 1.5°C above pre-industrial levels, are nevertheless much more aligned with this ambition. We also have new policy frameworks which will push down on emissions from the largest sources, develop sectoral decarbonisation plans, enhance the mainstreaming of climate responses throughout government, integrate a well-being framework into economic decision-making, increase the interaction with our neighbours in the Asia-Pacific region and ramp up our membership in significant international alliances on climate action.

Importantly, in addition to policy action, there is the emergence of the new international sustainability accounting standards which tighten up transparency and accountability and reduce the opportunity for greenwashing and for over reliance on offsets. The regulators are also pushing back on greenwashing. There is also an expectation of increased inclusion of Scope 3 emissions (i.e., those embedded along the value chain) so as to inform more effective decision-making to choose a low-GHG future.

Many of the above changes are already reflected in existing or developing ACT Government policy. This policy leadership continues to deliver dividends for the ACT. For example, similar to what occurred last year, the ACT's foresight in moving to renewable electricity has moderated electricity price rises, with recent rises in the ACT being just one-fifth of those in the other mainland States on the National Energy Market grid. Similarly, the positive stance in the ACT on electric vehicles has result in the ACT being the national hotspot for EV ownership with the proportion of new car sales now being three times the national average. Nevertheless, there is still much more to be done.

Across all of these issues and more, the ACT Climate Change Council will build its engagement with ACT businesses and the community on implementing more effective climate responses. The Council will continue to provide evidence-based advice to the Minister on climate adaptation and emission-reduction activities in the ACT so as to maintain our wellbeing, way of life, economy and our natural and built environments.

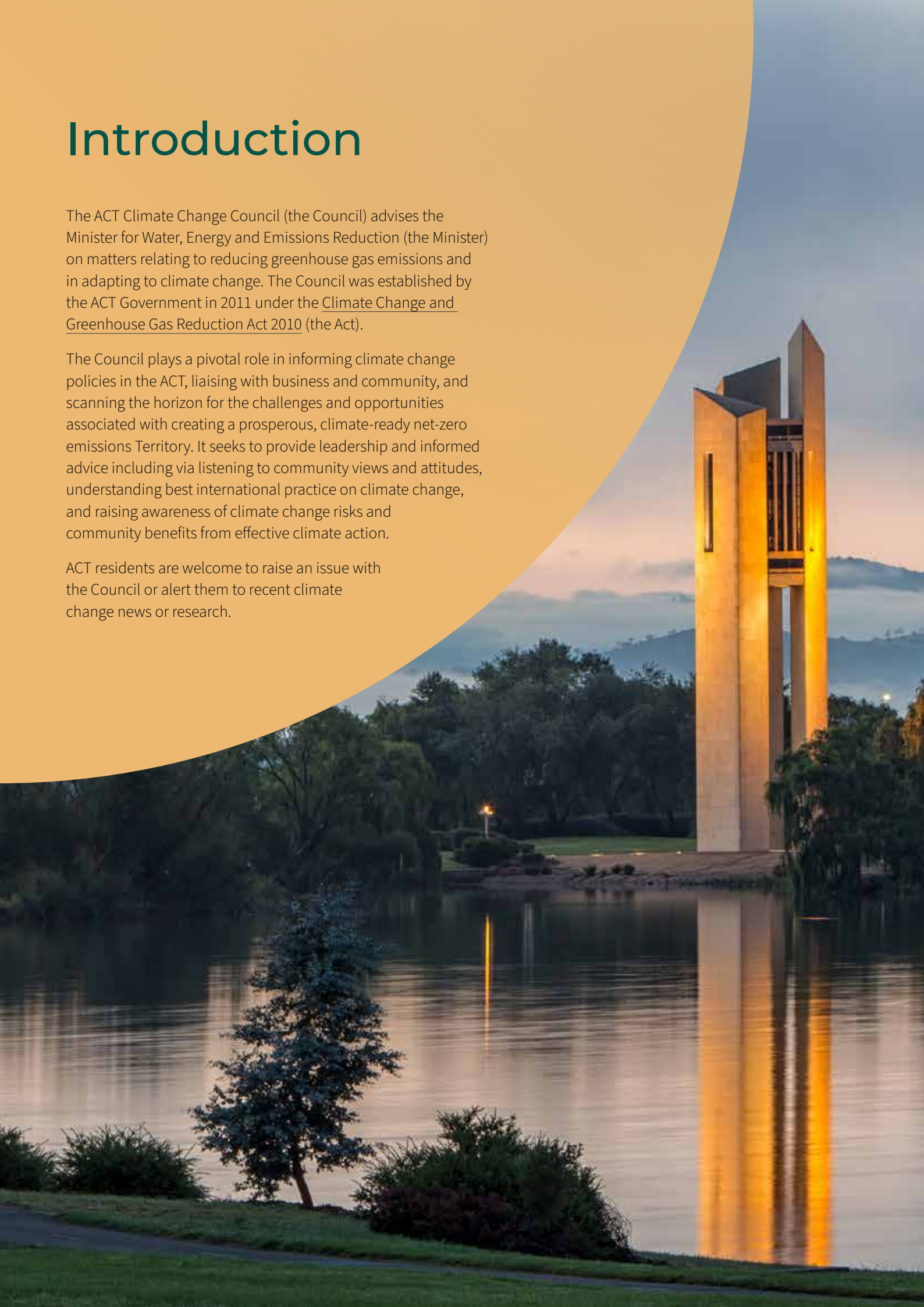
Professor Mark Howden
Chair, ACT Climate Change Council

Introduction

The ACT Climate Change Council (the Council) advises the Minister for Water, Energy and Emissions Reduction (the Minister) on matters relating to reducing greenhouse gas emissions and in adapting to climate change. The Council was established by the ACT Government in 2011 under the Climate Change and Greenhouse Gas Reduction Act 2010 (the Act).

The Council plays a pivotal role in informing climate change policies in the ACT, liaising with business and community, and scanning the horizon for the challenges and opportunities associated with creating a prosperous, climate-ready net-zero emissions Territory. It seeks to provide leadership and informed advice including via listening to community views and attitudes, understanding best international practice on climate change, and raising awareness of climate change risks and community benefits from effective climate action.

ACT residents are welcome to raise an issue with the Council or alert them to recent climate change news or research.





Statutory obligations

The Council is established under Part 4 of the Act, which also sets out the functions of the Council and outlines how they are to be exercised.

The main function of the Council is to advise the Minister on matters relating to reducing greenhouse gas emissions, addressing and adapting to climate change. In exercising its functions, the Council must try to consult with representatives from business and the community, including environmental and conservation entities, on matters relating to climate change. The Council must also make efforts to provide information to private entities to encourage action to address or adapt to, climate change.

In exercising a function under the Act, the Minister must consider any relevant advice given by the Council. Section 19 of the Act requires the Council to provide an Annual Report about the Council's activities during the financial year, including any advice or recommendations made to the Minister. The Council must give the report to the Minister within three months after the end of the financial year.

The Act can be found at:
<https://www.legislation.act.gov.au/a/2010-41>

Administration

Remuneration

Remuneration for the Council is set by the ACT Remuneration Tribunal and reviewed annually. Members were remunerated according to the relevant Remuneration Tribunal Determination. This was initially Determination 13 of 2021, which provided a per diem rate of \$570 for the Chair and \$490 for members. Commencing 1 November 2022, members were remunerated in accordance with Determination 13 of 2022, which provided a per diem rate of \$590 for the Chair and \$505 for members.

The attendance of members at Council meetings during the reporting period is provided at Appendix A and a summary of expenditure is provided at Appendix B.

Gender report

The gender balance of the Council is taken into consideration when members are appointed. Over the 2022–23 reporting period, membership included four male and four female members.

Freedom of information

No freedom of information (FOI) applications specifically relating to the Council were received during 2022–23. Two FOI disclosures contained minor reference to the Council.

Accountability and secretariat

The Climate Change Policy Branch within the Environment, Planning and Sustainable Development Directorate (EPSDD) provides Secretariat support to the Council. Further information on the work of the Council is available at <https://www.climatechoices.act.gov.au/climate-change/act-climate-change-council>.



Professor Mark Howden

● CHAIR 1 July 2021- 30 June 2025

Professor Mark Howden was appointed to the Council as a member to represent climate change science and appointed as Chair in 2021.

Professor Mark Howden is Director of the Australian National University (ANU) Institute for Climate, Energy & Disaster Solutions. He is also an Honorary Professor at Melbourne University and a Vice Chair of the Intergovernmental Panel on Climate Change (IPCC) Working Group II. He was on the US Federal Advisory Committee for the 3rd National Climate Assessment and contributes to several major national and international science and policy advisory bodies. Professor Howden has worked on climate variability, climate change, innovation and adoption issues for over 30 years in partnership with many industry, community and policy groups via both research and science-policy roles. Issues he has addressed include agriculture and food security, the natural resource base, ecosystems and biodiversity, energy, water and urban systems. Professor Howden has over 430 publications. He helped develop both the national and international greenhouse gas inventories that are a fundamental part of the Paris Agreement and has assessed sustainable ways to reduce emissions. He has been a major contributor to the IPCC since 1991, with roles in the Second, Third, Fourth, Fifth, Sixth and now Seventh Assessment Reports, sharing the 2007 Nobel Peace Prize with other IPCC participants and Al Gore.

Membership

Members are appointed under the Act, which prescribes that the Council must comprise at least five, but not more than nine, members appointed by the Minister. The Minister must, to the greatest extent practical, ensure the Council includes people with a broad range of skills and knowledge relating to mitigating or adapting to climate change.

During the 2022-23 financial year, the Council consisted of members with a diverse range of skills and experience in areas such as climate change science, energy efficiency, the built environment, community, health, business, transport and economics.



Dr Paul Bannister

Dr Paul Bannister was appointed to the Council for his expertise in energy efficiency and the built environment.

Dr Bannister has expertise in the field of commercial and institutional building energy efficiency. He had a central role in the development of major energy efficiency innovations such as the NABERS Energy and water ratings and the redevelopment of Section J (Energy Efficiency) of the Australian Building Code (2019 Edition). One of Dr Bannister's particular specialities is the optimisation of building controls, which he has been able to use to create significant improvements in building performance on a wide range of sites. Dr Bannister is a well-known speaker on energy efficiency issues both nationally and internationally, having presented at numerous conferences within Australia and overseas. He has published well over 80 papers on energy efficiency related issues. Dr Bannister has strong networks in the building and property industry, from government through to builders and from industry associations through to individual property managers.



Associate Professor Cris Brack

Associate Professor Cris Brack was appointed to the Council for his expertise in environmental management.

Associate Professor Cris Brack (Honorary) has close to 30 years of experience in natural resource measurement and management at the ANU Fenner School of Environment and Society. This experience includes researching, teaching and developing best practices in urban forestry, publishing 12 peer reviewed articles on urban forests and green spaces, and another 70 papers on carbon sequestration, natural resource assessment and management.

Associate Professor Brack won an Australian Museum Eureka Award for Environmental Science for his work on the National Carbon Accounting System (NCAS), which was developed to support national policy development on climate change mitigation. He has extensive skills and experience working with ANU and the ACT Government on the planning and management of Canberra's urban forest, including street trees and the National Arboretum. His recent research has focused on sustaining a vibrant and healthy urban forest in the presence of increasingly harsh climate scenarios.



Ms Sophia Hamblin Wang

Ms Sophia Hamblin Wang was appointed to the Council for her expertise in business.

Sophia Hamblin Wang is the Chief Operating Officer of MCI Carbon, an Australian technology platform transforming CO₂ emissions into building materials and other valuable industrial products. Showcasing MCI's technology at the Australia Pavilion at COP26, Sophia won First Place in the NZTC COP26 Pitch Battle in Glasgow. Sophia is co-founding Director of CO₂ Value Australia and a board member of the Climate Ready Initiative.

A strong voice for climate action and cleantech, Sophia has been featured in *ABC TV's Q&A*, *The New York Times*, *Time Magazine*, *TEDx*, *The Australian's Top 100 Green Power Players 2021 and 2022*. Ms Hamblin Wang was a delegate at the WEF Annual Meeting 2020, WEF Pioneers of Change Summit 2021 and the UN Youth Climate Summit in New York 2019. Sophia recently completed a Harvard Kennedy School Executive Education is also WEF Young Global Leader 2022.



Ms Mia Swainson

Ms Mia Swainson was appointed to the Council for her experience as President of the Canberra Environment Centre, Chair of Zero Waste Revolution, and leader of an environmentally and socially responsible consultancy business.

Ms Mia Swainson has an environmental engineering qualification and experience in business strategy and leadership with government and non-government organisations. Ms Swainson's consulting services include strategy, stakeholder engagement, facilitation and executive coaching. Ms Swainson is President of the Canberra Environment Centre (since 2018) and has significant experience engaging with a large variety of ACT stakeholders across the public, private and community sectors. This has included contribution to the development of community environment education programs in the ACT. Ms Swainson is also the Chair of Zero Waste Revolution looking at innovative ways for the ACT to reach zero waste.



Dr Arnagretta Hunter

Dr Arnagretta Hunter was appointed to the Council for her expertise in health and climate change research.

Dr Arnagretta Hunter has been a consultant physician and cardiologist since 2008. Dr Hunter is an academic and advocate working across clinical medicine, health research and advocacy in public policy to address complex challenges particularly relating to climate change. She has skills across medicine, political science and communications. Dr Hunter has made many public presentations as well as publishing articles and academic papers on climate and health issues since 2008.

Dr Hunter is dedicated to understanding the health impacts of climate change, the advantages of working with communities on complex problems and the co-benefits of social change. Dr Hunter won the Sydney Sax medal (AHHA) as chair of Bushfire Impact Working Group in 2020 for contributions to public health in Australia and Physician Educator of the Year in 2018. Dr Hunter was also a co-coordinator of a Breakfast Series for Women in Climate Change, an ongoing series of events bringing together ACT community and leaders to discuss impacts and solutions to climate change and environmental challenges.



Associate Professor Aparna Lal

Associate Professor Aparna Lal was appointed to the Council for her expertise in environmental impacts and health outcomes for communities.

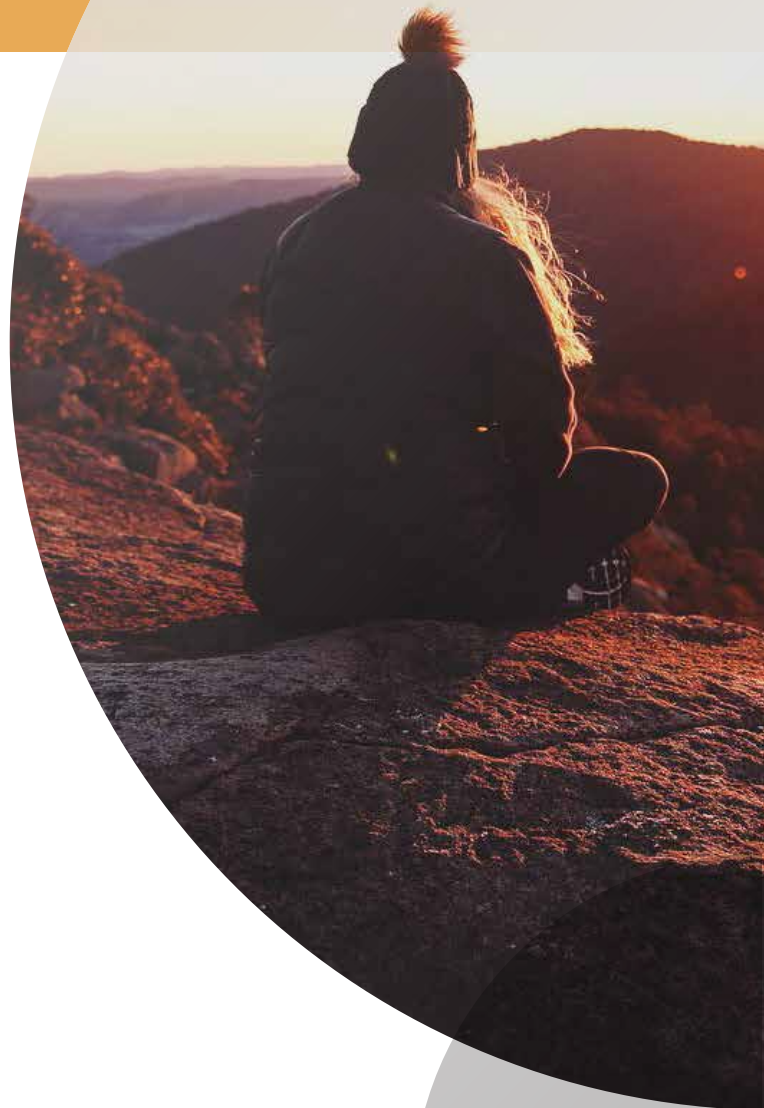
Dr Aparna Lal has a multidisciplinary science background, with two postgraduate degrees in Wildlife Science and Ecology, a PhD in Public Health and qualifications in Environmental Law and Zoology. A large part of Dr Lal's current work focuses on populations that are disproportionately vulnerable to a variety of health impacts associated with climate change. In Australia, these include Indigenous and rural communities. Dr Lal has published numerous studies on the health impacts of droughts and floods, and has written on the health impacts of bushfires, including relating to air quality issues. Dr Lal also brings expertise in high level statistical modelling and best-practice open science to her work that considers how a focus on human well-being can improve outcomes of ecological restoration. Her current Australian Research Council Fellowship brings together her expertise in environmental science and public health to design evidence-based, fit-for-purpose solutions to climate change led by communities and decision makers.



Dr Thomas Longden

Dr Thomas Longden was appointed to the Council for his expertise in environmental economics.

Dr Longden holds a PhD in environmental economics and has expertise in energy, transport and health. His research focuses on applied economics, which has included energy economics, health economics and environmental health. His publications have focused on the diffusion of electric vehicles, the cost and emission intensity of hydrogen, temperature-related mortality, and temperature-related energy insecurity. This work has also included assessments of the relationship between health, housing, energy and extreme temperatures. A recent example was published in *Nature Energy*. Dr Longden also contributed to two chapters of the Intergovernmental Panel on Climate Change (IPCC) report *Climate Change 2014: Mitigation of Climate Change*.



Observers (Dhawura Ngunnawal Caring for Country Committee members)



Ms Roslyn Brown

Ms Roslyn Brown is a Ngunnawal woman. Among numerous cultural advisory roles, Ms Brown is co-founder and serves as Co-Chairperson of the United Ngunnawal Elders Council, founder and co-chair of the Ngunnawal Bush Healing Farm. Ms Brown has a strong Cultural commitment to reconciliation and improving the status and capacity of Aboriginal and Torres Strait Islander people in the ACT region and advocates for the awareness and continuance of Aboriginal cultural practice and protocols. Through her various roles she has advocated for Aboriginal and Torres Strait Islander peoples on issues such as housing, justice, caring, disability and health and successfully lobbied to establish holistic health care, training opportunities and support structures for Indigenous people in the ACT. Ms Brown is employed as Elder in Residence at the University of Canberra, a member of the CIT Aboriginal and Torres Strait Islander Advisory committee and was an inaugural elected member of the ACT Indigenous Elected Body (ACTIEB). As a representative and advocate for many in the community, she has demonstrated her commitment to the Ngunnawal Land, Culture and the spirit of the People.



Mr Djibin Mudford

Mr Djibin Mudford is a Ngunnawal man who loves getting out on Country. He has lived in Canberra for forty years and can remember when he first came here to visit one of his sisters and just felt like he was home spiritually. Living in Canberra he spent thirty-six years with ActewAGL and its predecessors as a Linesman, Leading Hand, Foreman and Manager looking after the Canberra community's electricity supply. Working in his role allowed him to be on Country and to look after Country through some of the work he did around the asset management of power poles and vegetation particularly in more sensitive areas such as National Parks and Reserves. He is very passionate about caring for Country and being a voice for the Ngunnawal People as part of the Dhawura Ngunnawal Caring for Country Committee.



Activities and changes

Over the 2022-23 reporting period, the Council held eight formal meetings (six Council meetings, one Council planning meeting and one joint workshop between the Council and the Dhawura Ngunnawal Caring for Country Committee). Two Observers from the Dhawura Ngunnawal Caring for Country Committee (DNCCC) were invited to attend Council meetings.

The Council provided advice to the Minister, EPSDD and the Climate Action Subcommittee of Cabinet. The Council prepared advice on various issues relevant to emissions reduction and adapting to climate change, with more information provided throughout this Report.



Council Meetings

The Council formally met eight times in the 2022-23 reporting period in addition to progressing work through informal and out-of-session Council meetings and continued consultation with representatives from business and the community on climate change matters.

Monday 8 August 2022

This was the first meeting for the 2022-23 financial year.

The Council reviewed its workplan and identified actions to be taken to progress the 'Day in a Life of Canberra in 2050' exercise, their presentation to the Climate Action Subcommittee on 'a climate ready built environment through planning and building systems', the Community Engagement Strategy and the Workplan Strategy Day.

The Climate Change and Energy Division delivered a presentation that summarised the response to the launch of the ACT's Zero Emissions Vehicles Strategy 2022-2030 and Powering Canberra: Our Pathway to Electrification.

Minister Rattenbury and the Council discussed the transition off gas and the uptake of Zero Emission Vehicles in Canberra and also explored options for including an Aboriginal or Torres Strait Islander person in the Council.

Thursday 10 November 2022

This was the second meeting for the 2022-23 financial year.

The Council reviewed its draft Engagement Strategy and identified presentation topics for the Climate Action Subcommittee.

The Planning Division presented on the National Construction Code 2022 that requires all new homes built in the ACT to have seven-star energy efficiency from 1 May 2023. The Climate Change and Energy Division delivered a presentation on the Minimum Energy Efficiency Standards that will require rental properties to have R2-R5 ceiling insulation and will apply to public and private rentals from 1 April 2023.

Minister Rattenbury and the Council discussed the Integrated Energy Plan Industry Forum and the support for vulnerable households to make the transition. The Council sought feedback from the Minister on its draft Engagement Strategy.

Wednesday 14 December 2022

This was the third meeting for the 2022-23 financial year.

The Council endorsed its Engagement Strategy and agreed with the Minister the topics to present to the Climate Action Subcommittee in 2023.

The Council acknowledged Dr Bannister's paper on the use of microplastics in road surfaces. The paper explains that the use of recycled plastic in bitumen mixes in roads has minimal net impact on microplastic pollution. Tyre rubber is the major source of microplastic pollution from roads, but standard bitumen mixes with or without plastic additives also produce microplastics. The substitution of recycled plastic for virgin material in such mixes does not make the release of microplastics from the road surface worse and indeed may have net benefit if the alternative disposal paths permit plastic waste to enter the environment.

Dr Hunter briefed the Council on the proposed scope of the project 'A Day in the Life of Canberra in 2050'. Dr Hunter reflected on the preparation for extreme weather events and the unprecedented impacts on energy, water supply and health amongst many others. The purpose of this project would be to develop scenarios that explore the full range of options including by using imagination to consider out-of-the-box situations and responses.

Minister Rattenbury and the Council discussed the recruitment of a First Nations Council Member. The [Climate Change and Greenhouse Gas Reduction Amendment Bill 2022](#) requires that the Council includes 'an Aboriginal or Torres Strait Islander person'. Following discussion, the Minister and Council agreed that the recruitment process should be an open application process to enable a wide range of applicants. The Secretariat is to commence the recruitment process in February 2023.

Friday 10 February 2023

This was the fourth meeting for the 2022-23 financial year.

The Chair advised that progressively, jurisdictions have signed up to the Paris Agreement to go Net Zero by 2050 and the ACT has taken on a leadership position by going to Net Zero by 2045. Five years later, the world has continued to produce record levels of emissions with the consequence that the time to when we need to go to Net Zero has come forward to about 2040. A role for the Council is to provide to the Minister and the Government revised information as to emission-reduction targets and the various challenges.

Minister Rattenbury and the Council discussed the recruitment of a First Nations Council Member. The [Climate Change and Greenhouse Gas Reduction Act 2010](#) was amended in 2022 and requires that the Council includes 'an Aboriginal or Torres Strait Islander person'. After consultation with Traditional Custodians new details have risen on cultural appropriate requirements. Following discussion, the Minister agreed to explore options to optimally accommodate Traditional Custodian Council membership.

Associate Professor Brack briefed the Council on his work on (high density) apartments - also referred to as "Vertical Suburbs" due to the number of residents and commercial activity. He explained that new apartments are more energy efficient than the equivalent low density suburban dwelling and most are built along major arterial transport routes so transport costs can be reduced substantially. Despite improvements per capita, apartments still increase the Territory's total greenhouse gas emissions footprint and power usage. Infilling low density areas with large high-density precincts can also create challenges for planning, public transport capacity and providing adequate green/open spaces for the increased number of residents. There also are issues for the pre-existing apartments as new sustainability initiatives are introduced, including Zero Emission Vehicle charging facilities/safety issues with underground charging and electrification of gas-based water and mass heating.

Thursday 2 March 2023, Council Workplan Strategy Session

This was the first additional formal meeting of the Council in the 2022-23 financial year. The meeting consisted of a planning session to help develop clear goals for the Council's future workplans. The sessions also focused on building stronger relationships between Council members to enable more effective delivery of activities in the context of hybrid working arrangements. The Council identified and prioritised workplan activities and discussed their approach to operationalise the workplan including resourcing. Parcels of work described during the session included: Electrification and Pathways for Sectors, Apartments and Sustainable Infrastructure; Emissions Reduction Targets; Offsets; and a 'Horizon Paper' related to climate adaptation in the face of unprecedented extreme weather events.

Tuesday 11 April 2023

This was the fifth meeting for the 2022-23 financial year.

The Council reflected on its workplan strategy session, including the value of connecting and engaging with each other and EPSDD. Council members agreed to hold a yearly work planning session to promote creativity and strategic ideas. The Council and EPSDD discussed various other opportunities for collaboration between the Council and ACT Government going forward.

Minister Rattenbury and the Council discussed challenges affecting climate change mitigation and adaptation strategies related to transport, electrification, waste, Scope 3 emissions, and canopy cover. The Council outlined the need for pre-planned and unique electrification solutions for high-density residential structures and equity considerations relevant to the rollout of solar photovoltaic and electric vehicles. Ms Swainson also provided the Minister an update on the development of the Council's Business Plan for the implementation of its Engagement Strategy.

The Council discussed its recent submission to the Inquiry into the Future of School Infrastructure in the ACT. Ms Swainson spoke to the Council's recommendations for consideration by the Standing Committee on Education and Inclusion and the merits of the collaborative drafting process used.

Tuesday 13 June 2023

This was the sixth, and final, meeting for the 2022-23 financial year.

The Council discussed Scope 3 emissions, including reduction opportunities arising from market pressure, reform in the health sector, circularity and waste. Discussions included the importance of a multi-stage approach to reducing Scope 3 emissions involving both government and industry pressure. Council members spoke in support of robust and standardised reporting for Scope 3 emissions.

The Council discussed its 2023-24 Business Plan for the implementation of its Community Engagement Strategy and agreed roles. The Council and the Directorate discussed opportunities for coordination and collaboration in terms of engagement and data collection. The Council endorsed the Business Plan and presented it to the Minister.

The Council reflected on its joint workshop with the Dhawura Ngunnawal Caring for Country Committee held on 8 May 2023, including the value of the conversation and next steps. The Council shared their reflections with the Minister.

Minister Rattenbury and the Council discussed upcoming presentations from the Council to ACT Government on electrification and the ACT's emissions reduction targets. This included electrification lessons learnt from the Victorian Healthy Homes Program, and the need to consider the current emissions reduction targets in the context of the evolving science.

The Directorate presented on the current work of the Climate Change and Energy Division and the significance of the latest Commonwealth Budget including synergies. The Council and the Directorate discussed the development of the Council's 2022-23 Annual Report.



Advice and recommendations

The Council provides advice to the Minister and the ACT Government. The Council has also provided advice to the Climate Action Subcommittee of Cabinet.

In 2022-23, key advice to Government is outlined below.

Submissions

The Council prepared a number of submissions and general advice during the year.

Submission into the Future of School Infrastructure Inquiry

The Council prepared a formal submission to the Standing Committee on Education and Community Inclusion's inquiry into the future of ACT school infrastructure. Future school infrastructure will need to provide refuges for all students under extreme weather or environmental conditions (heat, cold, smoke/air quality), which could also serve the wider community outside school hours.

This submission is available at https://www.parliament.act.gov.au/__data/assets/pdf_file/0003/2205741/Submission-004-ACT-Climate-Change-Council.pdf

Microplastics Briefing Note

Dr Bannister prepared a paper on whether the use of post-consumer plastic in road surfaces creates an increased risk of microplastics in the environment. The paper concluded that the net impact of the practice is likely to be marginally beneficial as the levels of microplastic emissions from the roads are similar with and without the plastics and the diversion of plastics to road surfaces is likely to reduce microplastic release by other routes.

This paper is published on the Council's webpage at <https://www.climatechoices.act.gov.au/climate-change/act-climate-change-council#Council-publications>

Hydrogen Briefing Note

This paper discusses the viability of hydrogen and key issues for the ACT, such as whether hydrogen will be widely used to decarbonise buildings and transport, the status of pilot projects, the NSW Hydrogen Strategy and implications for the ACT, how energy losses impact cost-competitiveness and recent studies focused on the global warming potential of hydrogen. Overall, electrification is a more viable option for the ACT.

This paper is published on the Council's webpage at <https://www.climatechoices.act.gov.au/climate-change/act-climate-change-council#Council-publications>

Biogas and Biomethane Briefing Note

This paper provides a summary of selected resources that focus on biogas and biomethane. This includes a focus on the options relevant to the ACT (converting solid waste or wastewater into methane) and related issues, such as emissions and cost. Most biogas and biomethane projects are costly and abatement costs are high. Very large-scale projects and/or subsidies are needed for cost-competitiveness.

This paper is published on the Council's webpage at <https://www.climatechoices.act.gov.au/climate-change/act-climate-change-council#Council-publications>

Refrigerants Briefing Note

Dr Bannister prepared a briefing note on the opportunities for the ACT Government to institute policies beyond the national HFC phase down to assist in the achievement of its emissions target. A number of opportunities were identified, but it was also noted that the current accounting of refrigerant emissions for the ACT's emissions inventory would not capture the impact of local initiatives. As a result, national advocacy was identified as possibly being one of the more effective routes available.



Engagement

Council members organised and participated in a range of engagements during the year, including forums, briefings and presentations.



Joint Council and Dhawura Ngunnawal Caring for Country Committee Workshop

Date: Monday 8 May 2023

This was the second additional formal meeting of the Council in the 2023-23 financial year. The meeting consisted of a joint workshop between the Council and the Dhawura Ngunnawal Caring for Country Committee (DNCCC) to start to build a deeper connection and understanding between the Ngunnawal community and the Council. The joint workshop was focused on further opportunities for Ngunnawal knowledge to help inform long-term Council projects and advice. The Council and DNCCC discussed fire, renewable energy, biodiversity conservation, extreme events, culture, carbon abatement opportunities and Ngunnawal priorities. Three key focus areas for Council action were identified: bureaucracy; research and monitoring; and resourcing.

Climate Action Subcommittee

The ACT Government established the Climate Action Subcommittee of Cabinet in 2021. The Subcommittee and Council are developing an ongoing relationship. The Council presented to two Subcommittee meetings, in August 2022 and April 2023, on the following topics:

Climate Ready Built Environment through Planning and Building Systems


The Council presented various opportunities and strategies to improve climate adaptation and emissions reduction relevant to urban planning and the built environment. The Council raised considerations for mixed density, transport, green and blue infrastructure, passive housing, waste, low-emissions construction and carbon sinks for discussion.

Apartments and Sustainable Infrastructure

The Council presented on the positives of high-density living and the challenges and issues that must be addressed in planning for more high-density housing in the ACT. The projected massive growth in Canberra's population in conjunction with the limitations on greenfield development mean that high density residences - also known as Vertical Suburbs - will become home for an increasing number of Canberrans. A coherent and integrated policy package is needed to address the many overlapping issues from climate change greenhouse gas emissions reduction and adaption and realise the environmental and social benefits that can be achieved by vertical suburbs.

Community Engagement Strategy

The Council developed and endorsed a Community Engagement Strategy. The purpose of the Council's Community Engagement Strategy is to engage with the Canberra community and business groups so that their views are reflected in the advice that Council provides to the Minister and so that they are better positioned to make more informed decisions relating to climate change. Development of the strategy involved a desktop analysis, engagement with stakeholders and research. Council members met with more than 30 stakeholders, including representatives from environmental NGOs, the ACT Council of Social Services, Engineers Australia, Senior Officials from across the ACT and Commonwealth governments and the Commissioner for Sustainability and the Environment.



The Community Engagement Strategy has three streams of work:

- **Objective 1.** The Council, community and business stakeholders listen to each other. Implementation is through a climate futures engagement program, aiming to engage with key stakeholders at least every six months.
- **Objective 2.** The Council creates the space for practical community and business adaptation. Implementation is through a climate adaptation workshop series to commence early in 2024.
- **Objective 3.** Strengthen community conversation on climate action. Implementation is through broad community engagement on climate change mitigation and adaptation. Implementation to include an annual town-hall style meeting at an appropriate date.

The Community Engagement Strategy was adopted at the Council's December 2022 meeting, with implementation to commence from 1 July 2023. A summary of the Strategy is available to the public on the Council's webpage at <https://www.climatechoices.act.gov.au/climate-change/act-climate-change-council#Council-publications>

Community

Sustainability Panel Speaker to ActewAGL

Council member Ms Mia Swainson participated in a virtual panel on sustainability held by ActewAGL for their staff on 24 May 2023. Ms Swainson spoke to how individuals and businesses can play a role towards sustainability.

Council Chair Prof Mark Howden gave a presentation to a range of farming and conservation groups at the Cuppacumbalong Homestead in October 2022 on opportunities and challenges for farming in the ACT region to 2050. This covered climate change projections and impacts as well as adaptation strategies and also opportunities and cautions associated with emission reductions.

ACT Government

National Construction Code

Dr Bannister met with Dr Burton from the Building Reform team at ESPDD to discuss the implementation of the changes to energy efficiency measures to National Construction Code (NCC) 2022. Discussions covered the immediate changes in Code and their impacts as well as ACT Government plans for reform with respect to building sector environmental performance beyond the domain of the National Construction Code.

Evaluation of Business Sustainability Programs

Ms Mia Swainson reviewed the draft evaluation outcomes and recommendations for various business sustainability programs and provided feedback.

Draft ACT Zero Emission Vehicle Strategy

Dr Longden and Professor Howden provided further feedback on key elements of the Draft ACT Zero Emission Vehicle Strategy.



Emissions Reduction, Negative Emissions Technology and Offsets

Dr Longden, Sophia Hamblin-Wang, Dr Bannister, and Associate Professor Brack provided consolidated feedback on work being undertaken by the Emissions Reduction Policy team in EPSDD. The input received from the Council helped to develop and refine the work towards tracking progress towards ACT emission reduction targets. Further, Prof Mark Howden, Mia Swainson, Associate Professors Cris Brack and Thomas Longden, and Sophia Hamblin-Wang met with the Emissions Reduction Policy team in EPSDD to discuss negative emission technology (NET) and offset options for the ACT. NETs capture and store carbon dioxide away from the atmosphere by various means. The benefits, drawbacks, and issues for deployment of key technologies were discussed, along with how their relative strengths will change over time and under different scenarios. The discussion provided insights from the Council member's industry, electricity system and research expertise and is assisting EPSDD in ongoing policy research into NETs and offsets. This policy research supports delivery of Action 10.1 of the ACT climate Change Strategy 2019-25 "Investigate opportunities for implementation of negative emissions technologies in or supported by, the ACT."

Climate Choice Business Award Judging

Ms Swainson represented the Council as a judge in the 2023 ACT Climate Choices Business Awards.

Stakeholder Workshop on the Regulation to Prevent New Gas Connections in the ACT

Council member Associate Professor Brack participated in a stakeholder roundtable on the gas network held by the Integrated Energy Policy Team of ACT Government on 3 April 2023. Associate Professor Brack spoke to the current use of gas in high-density buildings and the lack of current feasible alternatives and the implications of loss of value as more discerning buyers realise the potential cost of getting off gas water heating.

Panel Member for ACT Government Webinar on Regulation to Prevent New Mains Gas Connections

Dr Tom Longden joined an expert panel for a public webinar that discussed a new regulation to prevent new gas network connections. The target group was the ACT community and a recording of the webinar is available at <https://yoursayconversations.act.gov.au/pathway-to-electrification/help-inform-regulation-prevent-new-gas-connections>

Council members also met with EPSDD representatives to discuss vertical suburbs in April 2023 and electrification and equity in June 2023. The Chair of the Council also met with the ACT Coordinator General for Climate Action in May 2023 to enable over-the-horizon climate policy conversation.

Meetings with ACT Ministers

Council met with the following ACT Government Ministers with portfolio responsibilities that relate to climate change: Minister Rattenbury, Minister Vassarotti and Minister Stephen-Smith addressing a range of topics including agriculture, environmental conservation, health, energy and engagement with the First Nations groups in the ACT.

Contact the Council

The community and stakeholders are invited to contact the Council via the Climate Change Council Secretariat.

Email: ClimateChangeCouncilSecretariat@act.gov.au

Telephone: 13 22 81 (Access Canberra)

Post: GPO Box 158 Canberra ACT 2601

Connect with the Council online

The Council maintains a presence on Twitter and LinkedIn and invites the community to connect with them through social media.

X (Twitter): [@act_ccc](https://twitter.com/act_ccc)

LinkedIn: [ACT Climate Change Council](https://www.linkedin.com/company/act-climate-change-council)

Website: <https://www.climatechoices.act.gov.au/climate-change/act-climate-change-council>

Appendix A: Meeting attendance

The Council formally met eight times in the 2022-23 reporting period.

- Monday 8 August 2022
- Thursday 10 November 2022
- Wednesday 14 December 2022
- Friday 10 February 2023
- Thursday 2 March 2023
- Monday 8 May 2023
- Tuesday 11 April 2023
- Tuesday 13 June 2023

Number of council meetings attended by council members:

Member	Number of meetings held during member's tenure	Number of meetings attended
Professor Mark Howden (Chair)	8	8
Dr Thomas Longden	8	8
Dr Paul Bannister	8	8
Dr Cris Brack	8	8
Ms Sophia Hamblin Wang	8	5
Ms Mia Swainson	8	8
Associate Professor Aparna Lal	8	6
Dr Arnagretta Hunter	8	8
Ms Roslyn Brown (Observer)	-	1
Mr Stephen Mudford (Observer)	-	3

Appendix B: Expenditure

Climate Change Council	Totals 2022-23
Remuneration	\$64,090
Meeting Costs (Supplies & Services)	\$4,628
Total (excluding GST)	\$68,718

The totals listed here relate to meetings and activities remunerated in the 2022-23 financial year. Remuneration for Council members is determined by the ACT Remuneration Tribunal.

