



ACT
Government

2022–23 Minister's Annual Report

under the Climate
Change and Greenhouse
Gas Reduction Act 2010



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Acknowledgement of Country

The ACT Government acknowledges the Ngunnawal people as traditional custodians of the ACT and recognises 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.

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Minister's Foreword

The ACT is recognised nationally and internationally for its climate leadership and 2022-23 was another good year in our climate leadership journey.

This Annual Report showcases significant achievements made by the ACT Government and the ACT community in responding to climate change in 2022-23. It also demonstrates our commitment to transparency and accountability for the work we do to reduce emissions in a cost-effective manner.

In 2022-23, we brought our emissions down to 47% below 1990 levels. For the fourth year in a row the ACT was powered by 100% renewable electricity supplied by 12 large feed-in tariff supported projects. We will continue to maintain our 100% renewable electricity supply into the future and focus our attention on addressing the remaining sources of emissions.

Our biggest challenges are to reduce our emissions from transport and gas, which together account for around 87% of the ACT's remaining emissions, excluding Land Use, Land Use Change and Forestry (LULUCF). 2022-23 saw significant progress made towards reducing emissions from these sectors, for example, the ACT launched the [ACT's Zero Emissions Vehicles Strategy 2022-30](#) in July 2022, setting an ambitious target for 80-90% of new light vehicle sales in the ACT to be zero emissions vehicles (ZEVs) by 2030 and to phase-out light internal combustion engine vehicles from 2035. The ACT Government offers incentives to encourage the uptake of ZEVs including free registration, stamp duty exemptions and zero interest loans. The ACT currently has the highest uptake of ZEVs in Australia per capita, which will help develop the second-hand ZEV market over time. The government is also rolling out additional public electric vehicle (EV) chargers across the Territory and encouraging multi-unit developments to become EV-ready.

The ACT Government announced its intention to electrify the city in August 2022 and phase out fossil-fuel gas by 2045. Recognising that the pathway to decarbonisation in the ACT would be through electrification. We have successfully amended the [Climate Change and Greenhouse Gas Reduction Act 2010](#) to allow a future regulation to be made to prevent new fossil fuel gas network connections in prescribed circumstances. This regulation is expected to commence in late 2023.



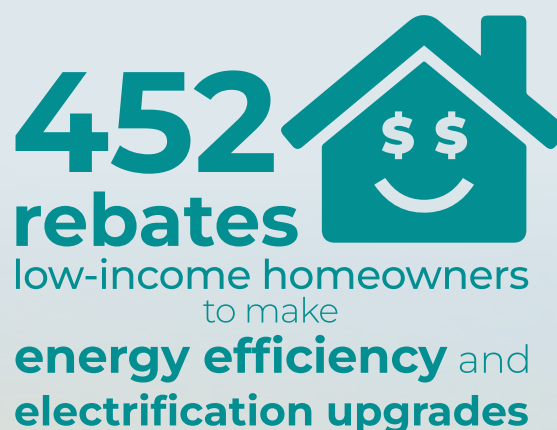
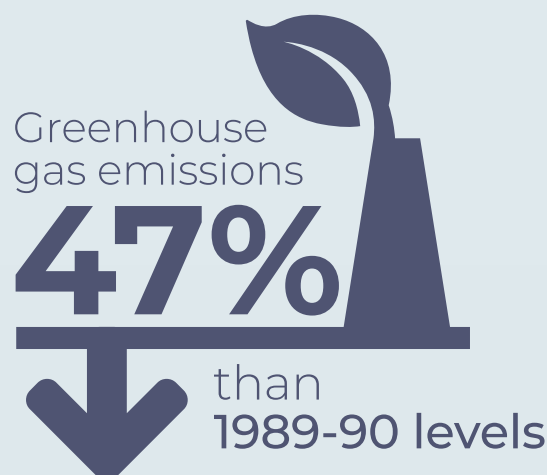
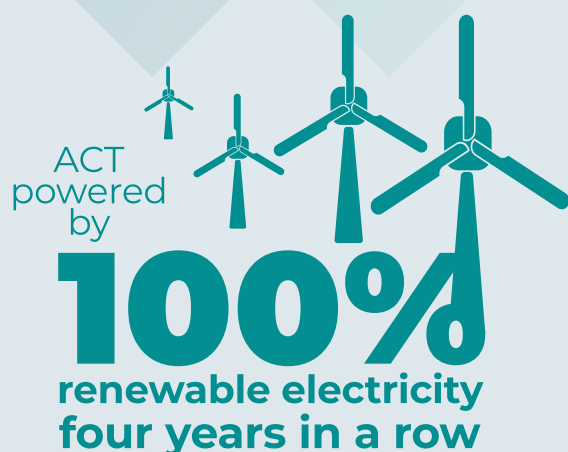
We introduced a new minimum standard for ceiling insulation in rental properties in April 2023, requiring all rental properties in the ACT, including public and community housing, to have a minimum level of ceiling insulation. This will help people to keep their homes warm in winter, cool in summer, and save on energy bills. We have continued providing financial incentives and support through different programs to improve energy efficiency and sustainability in social and public housing, for low-income homeowners, and in the lowest performing rental properties.

We continue to prioritise these actions to transition towards a climate smart and resilient community, and I look forward to future reports detailing how our community is successfully making the net zero transition.

Shane Rattenbury MLA,
Minister for Water, Energy and Emissions Reduction



2022-23 AT A GLANCE



New minimum
ceiling
insulation
standards
introduced



for **all rental properties**,
including **public** and
community housing

Launch of new

ZEV strategy

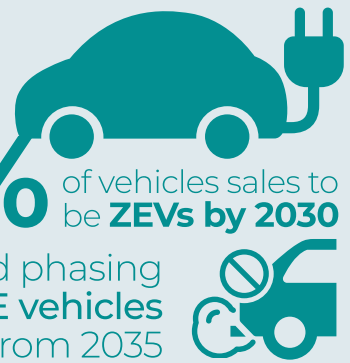
with aim of

**80-
90%**

of vehicles sales to
be **ZEVs by 2030**

and phasing

out **light ICE vehicles**
from 2035



Continued work to

**reduce
emissions**

and support

**urban
climate
adaptation**



SLA leading

**sustainable
developments**

in
Whitlam and North Wright
through improved

water

efficiency and **quality**,
reduced emissions, and **innovative
housing**



Program to

electrify

ageing ACT
Government
assets



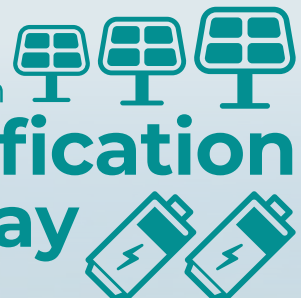
ACT
announces an

**electrification
pathway**

and will

**transition off
fossil-fuel gas**

by 2045





Introduction

In 2010, the ACT Legislative Assembly passed the *Climate Change and Greenhouse Gas Reduction Act 2010* (the Act). The purpose of the Act is to promote the development of policies and practices to address climate change, to set targets to reduce greenhouse gas emissions and to provide monitoring and reporting in relation to the targets. For each financial year, the Minister must prepare a report on:

1. The actions taken during the year to exercise the functions required of the Minister under the Act;
2. The effectiveness of government actions taken to reduce greenhouse gas emissions; and
3. The findings of a cost-benefit analysis of any government policies or programs implemented to meet the targets.

This report outlines the ACT Government's actions against the requirements of the Act for the 2022-23 financial year.

Part A: Actions taken in 2022-23

Renewable electricity supply

The ACT continues to be powered by 100% renewable electricity and has been since 2023, with 12 large feed-in tariff supported projects completed.

The latest wind farm, Berrybank Stage 2 wind farm on Victoria's Western Plains, started to generate electricity in August 2022 and was fully operational from late May 2023. The 13th supported project, Neoen's Goyder wind farm in South Australia, is expected to be completed and commence generating in mid-2024. These facilities will ensure that the ACT's electricity supply remains 100% renewable into the future.

The Large-scale Feed-in Tariff Scheme has largely protected the ACT community from the extreme price volatility in wholesale electricity prices that other jurisdictions have faced and in 2023-24 will return approximately \$142 per households to ACT electricity consumers based on average electricity consumption.

Population growth across the city, as well as the ACT Government's policies promoting the uptake of electric vehicles and transitioning away from fossil fuel gas use, is likely to result in increased electricity consumption. This will be monitored to ensure the ACT maintains its 100% renewable electricity supply.

Delivery of the Big Canberra Battery Project

The Government is delivering the [Parliamentary and Governing Agreement](#) for the 10th ACT Legislative Assembly commitment for large-scale batteries. [The Big Canberra Battery Project](#) will support reliable and affordable electricity supply for the ACT as we transition to net-zero emissions.

The Government has [partnered with Eku Energy](#) to deliver a 250-megawatt, 500 megawatt-hour battery energy storage system in Williamsdale for Stream 1 of the project. The battery will improve energy security for Canberrans, create a revenue stream for the Territory, and grow jobs in our renewable energy sector. Construction will start in late 2024 with completion expected in 2025.

For Stream 2 of the project, contracts have been signed for the delivery of batteries at 11 ACT government sites, including Mount Stromlo High School and a number of depots. These batteries will help to reduce site electricity bills by storing excess solar electricity for use when the sun is not shining and will support higher rooftop solar uptake in their local areas. Two of these batteries will be significantly larger than household batteries and will be the first of their kind in the ACT. These batteries will be installed by early 2024.

Supporting Canberrans to improve household energy efficiency

Sustainable Home Advice Program

The [Sustainable Home Advice Program](#) provides ACT residents free, independent guidance on how to access ACT Government rebates to reduce utility bills, minimise emissions, and improve household comfort. During the year, residents received advice via email, phone and in-home energy assessments on 2,834 occasions. The program delivered 43 free workshops to 1,280 attendees. Workshop topics included solar for your home, understanding electric vehicles, transitioning from gas to electric homes, staying warm and staying cool for less. The workshops also supported participants of the [Sustainable Household Scheme](#) and [Home Energy Support Program](#) to make informed purchasing decisions on energy efficient products.

Wood Heater Replacement Program

The ACT Government recently announced it will investigate options to phase out wood heaters by 2045. The [Wood Heater Replacement Program](#) will continue to help support this phase out. The Program aims to improve Canberra's air quality and reduce greenhouse gas emissions by helping residents replace their wood heater with a more energy efficient heater. Approximately 1,280 wood heaters have been removed since the program started in 2004, with 33 removed in 2022-23.

Renters' Home Energy Program

The [Renters' Home Energy Program](#) provides free in-home or phone-based energy assessments for renters in the ACT. The energy assessments are conducted by an independent expert who provides tailored advice on how to make cost-effective changes that improve thermal comfort while also reducing energy bills and emissions. In 2022-23, 153 assessments were delivered to renters across the ACT. The Renters' Home Energy Program also provides an online home energy self-assessment webtool. In 2022-23, the [webtool](#) was used by 744 ACT households, including 427 rental households, 296 owner occupiers and 21 rental property owners.



Canberra is electrifying

An electrification pathway for the ACT

In August 2022, the Government released a position paper, [Powering Canberra: Our Pathway To Electrification](#) which detailed the preferred pathway and how the decision was made, including the release of detailed independent economic modelling. Following this announcement, the government hosted an Industry Forum in October 2022 to gauge insight and feedback from key stakeholders on priority areas for future work. This work will inform the development of the Integrated Energy Plan, which will set the policy and regulatory settings required to achieve the transition off fossil fuel gas. Adopting a coordinated and staged approach will maintain a secure, affordable, and reliable energy supply and a fair and equitable transition for our community, industry and business.

Options to prevent fossil-fuel gas network connections

Our commitment to phase out fossil fuel gas means that we need to prevent, where practical and feasible, new connections to the fossil fuel gas network well in advance of 2045. Prevention of new fossil fuel gas connections will help the Government to minimise transition impacts, avoid locking in future emissions and ensure that infrastructure is built ready for an all-electric future. In March 2023, an [Issues Paper](#) outlining potential options and scope of a future regulation to prevent new fossil fuel gas network connections was released for public consultation.

In June 2023, the ACT Government amended the [Climate Change and Greenhouse Gas Reduction Act 2010](#) to allow a future regulation to be made to prevent new fossil fuel gas network connections in prescribed circumstances. The Government undertook public consultation in March-April 2023 on the potential scope of a future regulation to prevent new gas connections, which is expected to commence in late 2023.

The Government is actively encouraging all new developments to be all electric. This is being done through the provision of information and guidance material to proponents of new developments, as well as updated communications materials and information on Government websites.

Gas Transition Utility Impact Statement

In August 2022, the [Gas Transition Utility Impact Statement](#) was released. The Statement outlines the ACT Government's position on expected network impacts of the current transition pathway and indicates government expectations that may be placed upon Evoenergy.

Targeted household support to lower energy bills and lower emissions

Home Energy Efficiency Program

The Home Energy Efficiency Program, delivered under contract by, St Vincent de Paul, provides free education and practical support to help vulnerable and low-income households reduce their energy and water bills while improving thermal comfort in their homes. In 2022-23, 675 households were supported through home energy assessments. The program provides participants with draught proofing, curtain installation and other energy saving materials.

Minimum energy efficiency standards

2023 saw the ACT Government introduce a new minimum standard for rental properties in the ACT. The standard requires all rental properties in the ACT, including public and community housing, to have a minimum level of ceiling insulation. This will help to keep homes warm in winter and cool in summer. As homes will require less energy to maintain a comfortable, healthy temperature, the standard will also result in savings on energy bills. The requirement to meet the standard is staggered, with properties needing to meet the standard within 9 months of signing a new lease and all rental properties in the ACT expected to comply by the end of 2026. For safety reasons, only certified installers may undertake upgrades and electrical safety inspections are required.

Home Energy Support Program

The [Home Energy Support Program](#) is a \$50 million commitment over four years to improve building energy efficiency and sustainability for social and public housing, low-income owner occupiers and low performing rental properties. A further \$3.1 million has been committed to provide financial support for low-income homeowners to install rooftop solar.

Since March 2022, eligible homeowners have had access to a rebate of up to \$2,500 to install rooftop solar (Category A). In September 2022, an additional rebate of \$2,500 was introduced for eligible homeowners to install efficient electric appliances including reverse-cycle heating and cooling, hot water heat pumps and electric stove tops/ovens (Category B). In 2022-23, 272 rebates for rooftop solar and 189 rebates for energy efficient appliances were delivered to the community. Ceiling insulation was included as an additional product under Category B in April 2023.

Under the scheme, the Government has also delivered ceiling insulation and gas to electric appliance upgrades to 112 public housing properties within the financial year. This project is being delivered in collaboration with the Office of Climate Action and the Community Services Directorate.

Government launched a Chronic Health Conditions pilot program to support Canberrans who live with chronic health conditions. The program offers up to \$10,000 to install electric appliances and ceiling insulation. Participants are still being identified through referrals from health and energy hardship programs.



Reduced emissions through engagement initiatives

Community Partnerships

The ACT Government funds three organisations with a particular focus on reducing emissions (Canberra Environment Centre, SEE-Change and Conservation Council ACT Region) to engage the community on a range of environmental and sustainability issues, initiatives, policies and programs.

Renewable Energy Innovation Fund (REIF)

To date, the REIF has provided funding support for local start-ups, research organisations such as the Australian National University Battery Storage and Grid Integration Program, and renewable energy innovation ecosystems such as the [ACT Renewables Hub](#).

REIF was established in 2016 with \$12 million in funding from the successful proponents in past ACT renewables auctions. Additional funding was secured as part of the ACT Renewables Auction 5 which was completed in 2020. A new REIF Board was appointed in July 2023 to guide the development of the new REIF funding streams and the ACT's renewable energy industry innovation strategy.

In 2022-23, REIF Round 3 grants totalling \$1.2 million were awarded to support a range of new and emerging renewable energy technologies, ventures, and activities for the ACT. Projects supported by REIF Round 3 grants will drive a variety of advancements in solar panel technology, on-site and on-demand green hydrogen production and developments to unlock battery system constraints.

Next Gen Program

The [Next Generation Energy Storage Program](#) was established with \$25 million funding from the 2016 reverse auction proponents. The program was designed to stimulate the rollout of distributed solar energy storage in the ACT, assist the development of an ACT energy storage industry, research and training, and extend the ACT's national leadership position in renewables. The program has been an overwhelming success, with the local industry growing from 4 to over 24 installers operating in the ACT. In December 2022, the program reached the target of 5,000 batteries installed and ceased accepting applications. The ACT now has one of the highest concentrations of household batteries in Australia.

Canberra Institute of Technology (CIT) Renewable Energy Centre of Excellence

The CIT Renewable Energy Centre of Excellence commenced as a project funded by a previous renewable energy auction. It continues to be a national centre of excellence in training for wind, solar and battery maintenance, and operations. In 2021-22, CIT launched a new electric vehicle (EV) training lab and began training mechanics and emergency responders in handling EVs. In 2022, CIT delivered the following short courses to 75 students:

- A two-unit safety course (AURETH101 Depower and reinitialise battery electric vehicles and AURETH102 Inspect and maintain battery electric vehicles).
- The Battery Electric Vehicle Inspection and Servicing Skill Set (AURSS00064)—includes the units below:
 - AURETH101 Depower and reinitialise battery electric vehicles,
 - AURETH102 Inspect and maintain battery electric vehicles,
 - AURETH103 Diagnose and repair high voltage rechargeable energy storage systems in battery electric vehicles,
 - AURETH107 Diagnose and repair system instrumentation in safety interlocks in battery electric vehicles.

CIT will be one of the first Registered training organisations in Australia to deliver the new Cert III in Electric Automotive Vehicle Technology to a cohort of apprentices in 2023.



The Battery Storage Grid Integration Program

The [Battery Storage Grid Integration Program](#) (BSGIP) at the Australian National University celebrated its five-year anniversary in June 2023 and marked the occasion with a release of a 5 Year Impact Report [ANU-64009-BSGIP-Report-Typeset-FINAL.pdf](#) detailing the Program's significant achievements in Australia and internationally in supporting the energy transition and helping to achieve economy-wide decarbonisation.

BSGIP, which received seed funding through the Renewable Energy Innovation Fund (REIF), continued to be a leading source of research, technical and policy advice on storage systems and their use in a modern electricity system during 2022-23.

Vehicle to Grid (V2G)

The [Realising Electric Vehicle-to-grid Services](#) (REVS) trial is ongoing. The world-leading trial is a collaboration between ACT Government, ActewAGL, Evoenergy, Nissan, SG Fleet and Jet Charge, and the Australian National University, with funding from the Australian Renewable Energy Agency (ARENA).

The trial, which includes the installation of 50 V2G chargers to support 50 ACT Government Nissan Leaf electric vehicles (EVs), will test V2G reliability and viability to support the grid in the transition to EVs.

Data will be collected for three years to help better understand how V2G services can support the grid and provide a financial return to EV owners.

Support to community clubs

The [Community Clubs Program](#), launched in October 2021, provides eligible clubs with access to \$75,000 through the Building Energy Efficiency Upgrade Fund. Eligible clubs can access rebates for energy efficiency appliance upgrades, installation of solar and energy storage systems and upgrading the energy efficiency of their building. A total of 20 clubs registered for the program and received onsite energy assessments. Eight clubs received rebates through the program in 2022-23. As part of a new EV charger incentive, clubs that have taken part in the program are eligible to receive funding for the installation of two EV chargers. This initiative supports the publicly accessible charging network across Canberra.

Supported ACT Government agencies to transition to zero emissions operations, with a focus on reducing emissions from gas and transport

Zero emissions vehicle fleet

ACT Government continued the government passenger fleet transition to Zero Emissions Vehicles (ZEVs), with almost 100 new ZEVs entering the fleet in 2022-23. This will result in a reduction in emissions of approximately 200 tonnes of greenhouse gas emissions annually.

To support ACT Government ZEVs, a total of almost 400 electric vehicle chargers at ACT Government sites are installed, with around 100 more to be installed in the remainder of 2023.

In May 2023, the ACT Emergency Services Agency (ESA) took receipt of a plug-in hybrid electric fire truck—the first of its kind in Australia. The fire truck will significantly reduce emissions associated with firefighting, with the vehicle forecast to reduce diesel fuel consumption by about 185,000 litres over a 10-year period.

Gas assets replacement / Zero Emissions Facilities

- Funding of \$85 million was secured to support the 'Electrifying Government Buildings' program. This is a centrally managed program to electrify government owned and operated buildings when gas assets are at end of life. The comprehensive program of work will help deliver the ACT Government's target of net zero government operations by 2040.

The Social Cost of Carbon Fund

The Social Cost of Carbon Fund allocated \$3,210,000 of funding to emissions reduction projects in government assets in 2022-23. This is based on the interim price of \$20 per tonne of CO2 from government operations. The funds are used in projects, such as the electrification of gas heating and hot water systems. Three building-based projects commenced under the fund in 2022-23 to remove fossil fuel gas assets from government facilities:

- **Aranda Fire and Rescue Station** – Domestic hot water electrification
- **CIT Bruce** – Glasshouse heating electrification
- **Woden Police Station** – Full electrification.

Supporting the uptake of Zero Emissions Vehicles (ZEVs)

ACT's Strategy

With transport emissions now the ACT's single largest source of greenhouse gas emissions, the [ACT's Zero Emissions Vehicles \(ZEV\) Strategy 2022-30](#) launched in July 2022 aims to reduce our emissions from transport. The Strategy is an ambitious plan to support the ACT community's transition to ZEVs with the aim that, in 2030, 80-90% of new light vehicle sales in the ACT will be ZEVs and the phase out of light internal combustion engine vehicles will commence from 2035.

To support the transition, the Strategy commits to a range of actions including making ZEVs more affordable, expanding the EV charging network, supporting, and informing uptake, demonstrating ACT government leadership, and updating relevant policies. The 2022-23 year has focussed on the following actions:

Community Partnerships

- The ACT Government sponsored the Canberra Electric Vehicle Expo 2022, which was hosted by the Australian Electric Vehicle Association (AEVA) on 5-7 August 2022. The event included an Electric Vehicle (EV) Conference which featured presentations and discussions on topics such as EV trends, safety, the role of government and future technologies.
- The EV Expo was free to the public and had an estimated attendance of just under 10,000 people over the two days. It featured 34 exhibitors and provided attendees with the opportunity to experience and learn more about EVs and charging, attend a workshop and go for a test drive.

Support and informing uptake

The [Business Fleet Advisory Service](#), launched in April 2022, supports Canberra businesses and community organisations to transition their vehicle fleets to ZEVs. The service provides independent, targeted information and advice on EV purchasing and leasing options, EV charging and infrastructure needs, administrative and procurement advice including business case development, vehicle total cost of ownership calculations, and fleet data collection and tracking. In 2022-23, 31 businesses received detailed support.

Making ZEVs more affordable

The ACT now offers a number of incentives to encourage the uptake of ZEVs including stamp duty exemptions for new and used ZEVs (including electric scooters, motorbikes and trikes), two years free registration, and \$15,000 zero-interest loans for ZEVs and charging equipment. Supporting early uptake of ZEVs will help develop a strong second-hand market for ZEVs sooner, making ZEVs more affordable for the community. As of 30 June 2023, 4,931 newly registered vehicles in the ACT were ZEVs. The ACT community continues to lead the country in the transition to ZEVs and, as they become more affordable and supply improves, this trend is set to continue.

Expanding the public EV charging network

Increasing access to public EV chargers for ACT residents and visitors is critical to reducing range anxiety and increasing demand for ZEVs in the Territory. In 2022-23, projects commenced to install the first tranche of EV chargers under the [Electric Vehicle Charging Infrastructure Grants Funding Program](#). As of 30 June 2023, 7 public chargers (2 high-speed direct current and 5 slower speed alternating current) were installed under this program.



Collaboration to reduce emissions and advance action on climate change

Climate Change Council

The [ACT Climate Change Council](#) (the Council) is an advisory body to the Minister for Water, Energy and Emissions Reduction on matters relating to reducing greenhouse gas emissions and addressing and adapting to climate change.

The Council plays an important 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 by 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.

During 2022-23, the Council members were Professor Mark Howden (Chair), Dr Paul Bannister, Associate Professor Chris Brack, Ms Sophia Hamblin Wang, Dr Tom Longden, Dr Arnagretta Hunter, Ms Mia Swainson, and Associate Professor Aparna Lal. The Council had two observers from the Dhawura Ngunnawal Caring for Country Committee: Ms Roslyn Brown and Mr Djibin Mudford.

Council members have a diverse range of skills and experience in areas such as climate change science, environmental management, built environment, energy efficiency, community, health, business and economics.

Over the 2022-23 reporting period, the Council held eight formal meetings and provided climate change advice to the Minister for Water, Energy and Emissions Reduction as well as the Directorate and the ACT Government as a whole. This included advice on the implementation of the National Construction Code and on Emissions Forecasting Modelling. The Council also developed a Community Engagement Strategy to guide future engagement with the Canberra community to ensure the views of community and business are reflected in the advice the Council provides to the Minister.

The Council prepared specific advice related to hydrogen, biogas, biomethane and the use of microplastics in road surfaces. The Council also presented climate change advice across portfolios, including to the Climate Action Subcommittee of Cabinet. Topics covered included the 'Climate Ready Built Environment' and 'Apartments and Sustainable Infrastructure'. The Council provided a submission to the Standing Committee on Education and Community Inclusion's inquiry into the Future of School Infrastructure in the ACT.

Further information on the work of the Council, including their Annual Report, is available on the [Council's webpage](#).





Sustainable Schools Program

There is a free, opt-in program that specialises in providing practical support to all ACT school communities to better manage energy, water and waste, increase and protect biodiversity, make cost savings, reduce greenhouse gas emissions, integrate sustainability into the curriculum and share learnings beyond the school gate.

The Sustainable Schools Program is working in partnership with Sustainability Victoria to utilise their award-winning program across ACT schools, including the launch of the Sustainable Schools Program Online Portal. This evolution in the program enables schools to access best practise processes to track their hard work and future proof their sustainability actions.

The Schools Climate Action Conference brought together over 80 students and teachers from 12 high schools and Colleges to learn about the current work taking place in the ACT around climate action. Presenters included Professor Lachlan Blackhall, Entrepreneurial Fellow and Head, Battery Storage and Grid Integration Program at The Australian National University and Brook Clinton, founder and operator of Capital Scraps Composting.

The program collaborated with ACT Education Directorate Academy of Future Skills to deliver an interactive networking event for teachers to learn about energy efficiency. The program worked with the ACT Education Directorate and the Australian Curriculum, Assessment and Reporting Authority to deliver teacher professional learning to increase their knowledge and skills about education for sustainability.

The inaugural 2022 Climate Choices Schools Awards recognised and celebrated the sustainability initiatives taking place across ACT schools. The special guest was ACT Australian of the Year, Olympia Yarger, founder and CEO of Goterra. Majura Primary School was awarded the Sustainable School of the Year. Leaps and Bounds Awards went to Canberra Montessori School and Canberra Grammar School.



Supporting Climate Action in the Community

The ACT Government delivered a range of programs for households to improve energy efficiency and sustainability as well as reduce energy bills and emissions. Programs, targeting homeowners, renters, and households experiencing disadvantage, supported 7,896 households through energy assessments, energy efficiency upgrades, rebates, education workshops and support via a phone and email service.

In 2022-23, 513 businesses received assistance under the [Sustainable Business Program](#) through recycling accreditation, energy and water assessments, commercial solar advice and through the [Lighting Efficiency Webtool](#).

In July 2022, [*Gawari Ngilanmanyin*](#) (pronounced ga-wa-ri nillan-man-nyin), a climate-wise landscape guide for the ACT, was published to support industry professionals as well as homeowners in creating climate-wise landscapes and progressing towards the 30% urban canopy cover target by 2045. The title of the guide, '*Gawari Ngilanmanyin*', means 'remembering the bush'.

The Climate Choices business awards recognise the achievements of Canberra businesses and public event organisers who are making an outstanding contribution to sustainability and climate action in our community. The [2023 Climate Choices business awards](#) was held on 25 May 2023 and received a record 79 nominations. The strong field of winners included Car Mechanical Services for Sustainable Small Business of the Year award, Urban Education Early Learning Centre for Corporate Climate Leader and the [RUC Turner Bowls Club](#) for the Energy Star award. A full list of winners is available on the [Everyday Climate Choices website](#).



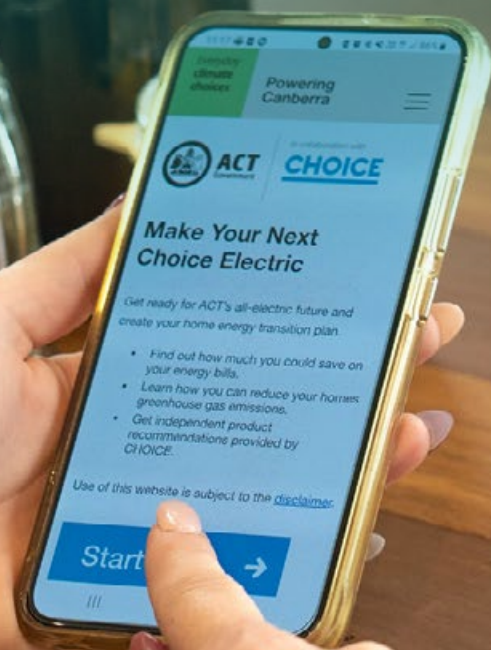


Canberra's pathway to electrification

The ACT continued its work towards electrifying Canberra by encouraging households and businesses to start thinking about what the transition will mean for them over the long-term. Electrifying Canberra homes, businesses, city infrastructure and transport will be a significant change for the whole ACT community, and the transition needs to occur well in advance of 2045.

To help households start to plan their own switch from gas appliances, the ACT Government partnered with CHOICE to create an online tool – [Make Your Next Choice Electric](#). The online tool helps Canberrans to develop their own energy transition plan, including providing information on when gas appliances will need to be swapped out, showcasing the latest energy efficient appliances on the market, and providing estimated emissions savings and savings on bills as a result of upgrades. As at July 2023, Since it was launched it has had almost 19,000 visits and over 4,400 transition plans have been created by households.

An 8-week community education campaign was also launched over May-June to increase awareness of the ACT's pathway to electrification and ask Canberrans to consider making their next choice electric when the time comes for them to replace an old or broken gas appliance. The message has been promoted through targeted advertising, stakeholder communications and event activities. Since its launch, the campaign has received over 3 million impressions and over 11,000 website clicks (data as of July 2023).



Suburban Land Agency (SLA) Sustainable Civil Works Framework

The Sustainable Civil Works Framework is now being trialled at two sites in Jacka and Lawson. The Framework draws on current best practice and recommends actions to improve the sustainability performance of civil works on SLA sites, including reducing scope 3 emissions.

The Framework provides a practical guide aimed at achieving sustainability initiatives and targets, including water use and water quality, circular economy of materials and waste, minimising impact on the natural environment, and reducing greenhouse gas (GHG) emissions from SLA civil work activities.

SLA Innovation Precinct in Whitlam – This demonstration housing for multi-generation and low carbon living showcases recycled and low carbon building materials, such as recycled and carbon-neutral bricks, 30% recycled content and a recycled pod system in concrete floors. These low carbon materials in combination with tested airtightness of the building envelope, all-electric and passive solar design and renewable energy generation is achieving a low to net-zero carbon footprint of all four dwellings. Life cycle assessment undertaken demonstrates that the carbon saved across all life stages equals more than 9000 trees planted.

North Wright Compact Housing – This SLA demonstration housing project of 43 ‘missing-middle’ townhouses is currently in the design phase. Once constructed, it will showcase net zero housing through compact floorplans, low carbon and recycled materials, superior insulation and airtightness, rooftop solar and battery storage, and a cooling microclimate through a minimum of 30% tree canopy and landscaping.

Changes to the National Energy Objective

The ACT initiated a piece of national energy policy work proposing to include emissions reduction in the national energy objectives, which includes the National Electricity Objective, the National Gas Objective and the National Energy Retail Objective. This was agreed and work has commenced on implementation. An amendment Bill was drafted for consideration by the South Australian parliament to bring these changes into effect. This means that market regulators will have to consider potential emissions reductions alongside other objectives of price, quality, safety and reliability of supply when considering new electricity and gas projects.

International Engagement

The ACT continues to engage with other jurisdictions on a national and international scale, through partnerships such as the [Under 2 Coalition](#), the [Powering Past Coal Alliance](#) and the [Council of Capital City Lord Mayors](#).

The ACT publicly reports its climate change actions and greenhouse gas emissions annually through the international Carbon Disclosure Project (CDP). CDP is a not-for-profit charity that runs the global disclosure system for investors, companies, cities, states and regions to manage their environmental impacts. This initiative provides a transparent, global picture of efforts to tackle climate change by reporting organisations, while increasing accountability and encouraging more ambitious action. The ACT reports its climate change progress on emissions reductions and adaptation each year through the Carbon Disclosure Project's reporting platform. We report under two different streams – as a *City* and as a *State and Region*. Based on the quality of our answers, we receive a rating for our action on climate change, thus demonstrating our global climate leadership. In 2022, the ACT received an A rating, which is the highest rating.

We also continue to look to innovative solutions developed through collaboration and knowledge-sharing with our neighbouring cities, states and countries. In 2022, Singapore International Energy Week (SIEW) provided a great opportunity to strengthen our position as a leader and partner for climate action in the Asia Pacific.

In October 2022, the Minister and ACT Government representatives were joined by five Canberra renewable energy organisations, Ardexa, ANU Battery Storage and Grid Integration Program, JLL, Neoen Australia and the Smart Energy Council, in a delegation to the Singapore International Energy Week – an annual event for energy professionals, policy makers and commentators to share best practice and solutions within the global energy space.

Minister Rattenbury met with Singaporean Government representatives and spoke at the Singapore International Energy Agency Ministerial Roundtable on Energy Security in a Low Carbon World. ACT Government representatives helped to facilitate meetings between the ACT delegates and potential collaborators and investors in the climate change and renewable energy sectors. Events for the ACT delegation included a roundtable event, networking, site visits, and 1-1 business meetings. The ACT delegation also had a conference booth at the Asia Clean Energy Summit as part of Singapore International Energy Week.

Part B: Effectiveness of Government actions

ACT Greenhouse Gas Inventory

The ACT's total net greenhouse gas emissions in 2022-23 were 1,622 kilotonnes of carbon dioxide equivalent (kt CO₂-e), compared to 1,435 kt CO₂-e in 2021-22. Since the ACT's baseline year (1989-90) the Territory's population has grown 67% from 279,000 to 464,600 whilst total emissions have fallen 47% from 3,041 kt CO₂-e to 1,622 kt CO₂-e. The key driver of this outcome continues to be the emission reductions associated with 100% renewable electricity generation, which Canberra has maintained for the fourth year in a row. Per capita emissions for 2022-23 were 3.5t CO₂-e per person, which represents a 68% reduction on baseline per capita emissions.

The major source of emissions was transport including aviation (64.5%) and stationary energy (22.5%) consisting of natural gas combustion (19.9%), fugitive gas emissions (1.8%) and other stationary fuels (0.7%). The actions delivered under the *ACT Climate Change Strategy 2019–2025* play an important role in helping Canberra to achieve its renewable electricity and greenhouse gas reduction targets. These actions are listed in greater detail in the sections below.

Agency specific performance

Government aims to demonstrate leadership in the transition to zero emissions.

Achieving Government's 100% renewable electricity target in 2020 saw Government emissions cut by around 60%. Efforts to achieve zero emissions from government operations are now focussed on replacing fossil fuels, such as petrol and gas, with renewable electricity. Key measures supporting the government transition to zero emissions are:

- Zero-emission transition plan for Transport Canberra which outlines the approach to a zero-emissions bus fleet by 2040;
- ACT Zero Emissions Vehicle Strategy which outlines the transition of the Government's passenger fleet to ZEVs;
- 'Electrifying Government Buildings' is a centrally managed program to electrify government owned and operated buildings when gas assets are at end of life. The comprehensive program of work will help deliver the ACT Government's target of net zero government operations by 2040.

Table 1: Shows each directorate's 2022–23 (financial year) performance against the baseline.

Directorate	Baseline Emissions (tCO ₂ -e)	2022-23 emissions (tCO ₂ -e)	Emissions as a percentage of baseline
Canberra Health Services	10,323	7,842	-31.6%
Chief Minister, Treasury & Econ Dev Directorate	4116	6,455	+36.2%
Community Services Directorate	598	531	-12.7%
Education Directorate	6,621	6,570	-0.8%
Environment, Planning and Sustainable Development	788	699	-11.29%
Health Directorate	374	437	+14.4%
Justice and Community Safety Directorate	3,543	3,303	-7.3%
Major Projects Canberra	18	64	+71.7%
Transport Canberra and City Services Directorate	39,035	40,144	+2.8%
Total	65,416	66,045	+0.96%

Data extracted on Friday, 28 July 2023.

The calendar year 2019 baseline figure has been adjusted to include refrigerant emissions as a result of reporting improvements. Therefore, the baseline figure presented above may differ from earlier reports.

In 2022-23 ACT Government emissions increased by 0.96% above the baseline levels. The increase in emissions from the Chief Minister, Treasury and Economic Development Directorate and Major Projects Canberra is largely due to the acquisition and occupancy of new facilities. The significant reduction in emissions from Canberra Health Services is largely due to the divestment of existing buildings at the Canberra Hospital.

ACT Renewable Energy Target Compliance

The ACT Government committed to deliver 100% renewable electricity for the Territory from 2020 under the Climate Change and Greenhouse Gas Reduction Act 2010. In 2022–23, the ACT Government successfully met its target to source 100% of the Territory's electricity from renewable sources for the fourth consecutive financial year. This means voluntarily surrendering 2,200,993 large-scale generation certificates (LGCs) to the Clean Energy Regulator on behalf of all ACT electricity users.

The ACT Government published a methodology ([the acquittal methodology](#)) for assessing compliance with this 100% renewable electricity target. It should be noted that LGCs are surrendered based on an estimate of the ACT's electricity consumption each financial year (see Table 2). Any discrepancy between LGCs surrendered and ACT electricity consumption is reconciled at the end of that financial year. If too many certificates have been surrendered, the excess LGCs are carried forward to the following year.

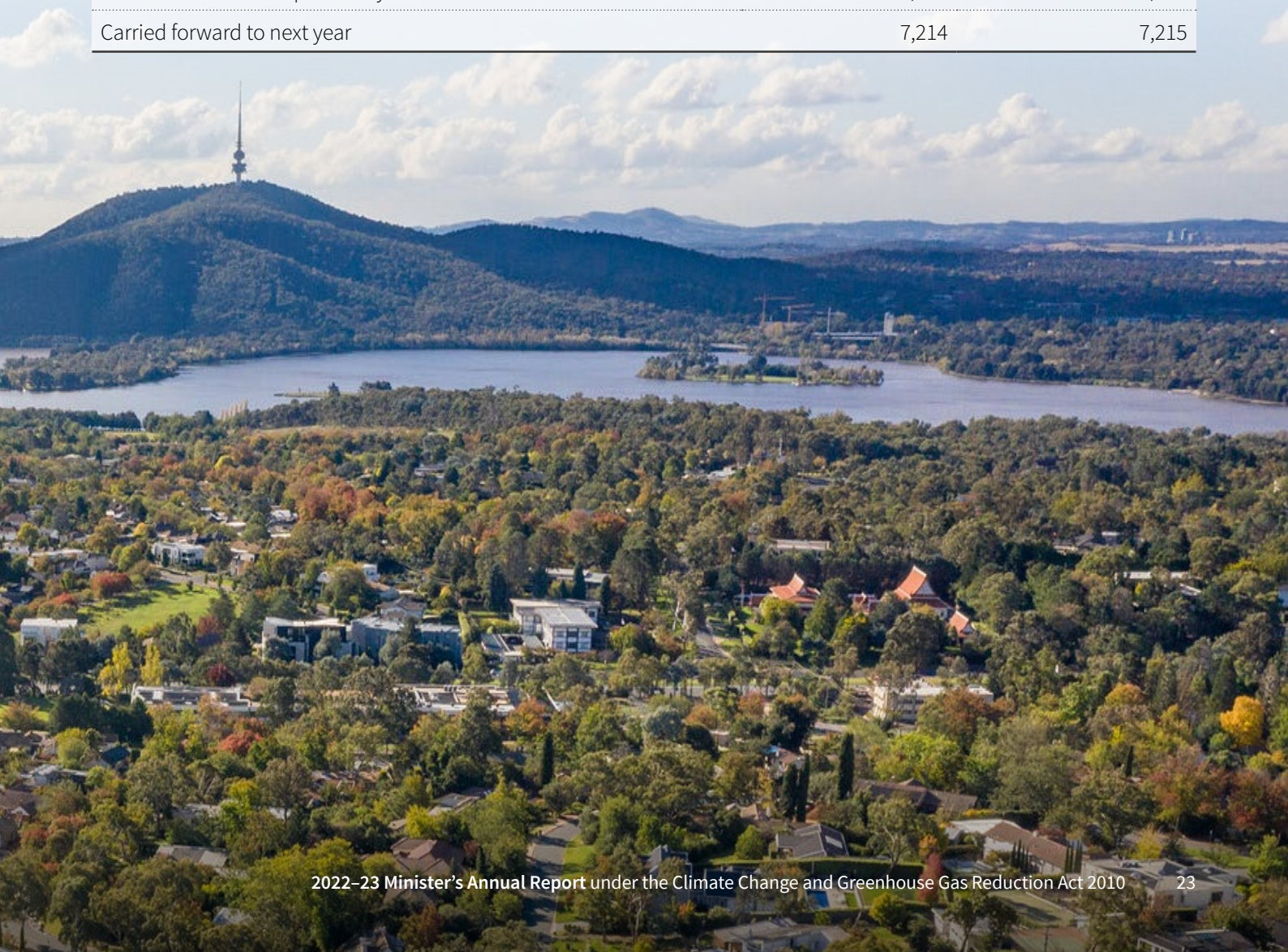
Consideration is being given to an alternative methodology for calculating LGCs. This is also provided in Table 2. This alternative methodology has a different approach to the treatment of landfill gas and ACT grid solar and may be used in future years.

The newly released market-based method prescribed in the National Greenhouse Accounts Factors does not account for the renewable energy associated with the ACT share of below baseline renewable generation or electricity generated by renewable sources in the ACT (small-scale solar PV). Green Power and Climate Active also refer to the Accounts Factors method which results in a difference of 7%. The ACT Government method used in meeting the 100% renewable electricity commitment is robust and reflects best practice standards.



Table 2: 100% Renewable electricity target acquittal.

2022-23	Current methodology	Alternative methodology
Electricity received from the NEM	2,719,849	
Electricity supplied to ACT customers		3,071,480
Greenpower purchases in the ACT		
ACT's share of below baseline NSW region NEM re-newable generation	92,013	92,013
ACT's share of Commonwealth Policies (LRET)	511,332	511,332
Electricity generated by renewable sources in the ACT and exported to the distributor		252,597
Total supply other than LGCs	603,345	855,942
ACT grid-scale solar generation	66,050	
ACT landfill gas generation	32,985	
Additional LGCs to surrender	99,035	
LGC's to be surrendered	2,215,539	2,215,538
Actual LGCs surrendered	2,200,993	2,200,993
Carried forward from previous year	21,760	21,760
Carried forward to next year	7,214	7,215



Part C: Cost Benefit Statement

Climate change policy costs and benefits

Government actions to reduce emissions are designed to benefit industry, households, businesses and the community. For example, the Energy Efficiency Improvement Scheme is continuing to deliver energy and cost savings for participating ACT households and small to medium businesses for the lifetime of installed technologies. Other programs have delivered additional savings for households and businesses, and the ACT’s large-scale feed-in tariff system has provided support to the renewable energy industry while also delivering substantial emission reductions for the ACT. Together, the Energy Efficiency Improvement Scheme (EEIS), the Small and Medium Feed-in-Tariff Scheme and the Large-Scale Feed-in-Tariff Scheme, are estimated to have cost an average ACT household around \$292 in 2022-23, which is around 20% less than ACT Government scheme pass through costs in 2021-22. The majority of this cost (approximately \$235) is due to reduced pass-through costs associated with the Large-Scale Feed-in-Tariff. This cost is forecast to reduce further in 2023-24.

Activities completed under the Energy Efficiency Improvement Scheme in 2022-23 offset this impact, with millions of dollars in lifetime energy bill savings delivered across participating ACT households and businesses. Retailers pass through compliance costs of the Energy Efficiency Improvement Scheme to customers through their electricity bills. In 2022-23, the average pass-through cost of compliance for a representative household is estimated to be \$19.76 per annum, which is lower than that was in 2021-22 at \$20.73.

In recent years, the costs of meeting our 100% renewable electricity target have been lower than originally anticipated, due to higher wholesale electricity prices. The average small-scale Feed-in-Tariff (FiT) scheme pass-through costs for an average household consuming 6,499 kWh annually in 2022–23 was around \$37.43. The large-scale FiT scheme pass-through costs for an average were around \$235 in 2022-23, which is \$65.86 below the 2021-22 average cost of \$300.86. ACT electricity prices remain competitive with other jurisdictions, even while delivering 100% renewable electricity.

Table 3: Climate change policy cost impact per representative household in year 2022-23, compared to 2021-22.

	Average large-scale and small-scale FiT pass-through costs	Average EEIS pass through costs	ICRC Standing Offer / Average annual electricity bill
2021-22	\$344.51	\$20.73	\$ 1,829.27
2022-23	\$272.24	\$19.76	\$ 1,806.40

Based on a representative household consuming 6,499kWh of electricity annually.

Energy Efficiency Improvement Scheme

In June 2023, the Minister for Water, Energy and Emissions Reduction published scheme settings for the EEIS for 2024. These targets continue to deliver more benefits at no greater cost to ACT consumers than in previous years of the EEIS.

The Energy Efficiency Improvement Scheme delivers energy efficiency benefits to households and businesses. This supports the ACT by reducing emissions associated with energy use as well as reducing energy use and costs. Over 1.4 million energy saving items have been installed since the scheme commenced in 2013. The following eligible activities were undertaken in ACT Households in 2022-23*:

- Ceiling insulation was upgraded in 72 properties.
- 1,1182 energy efficient space heating and cooling activities were installed.
- 711 efficient hot water systems were installed.
- 610 inefficient refrigerators or freezers were decommissioned and disposed.

Delivery of activities under the EEIS is complemented by ACT Government programs like the Sustainable Household Scheme. ACT Government energy efficiency initiatives are working together to help the ACT reduce energy consumption and meet emissions reduction targets.

Emission reductions and industry development

Under the *Electricity Feed-in (Large-scale Renewable Energy Generation) Act 2011*, and through five rigorous and competitive reverse auctions, the ACT Government has contracted 13 solar and wind projects which secure 841MW of renewable electricity capacity per year.

Under the large-scale FiT scheme, the ACT electricity distributor, on behalf of ACT consumers, make FiT support payments to generators for the eligible electricity they generate and sell on National Energy Market (NEM). In return, the ACT Government receives Large-scale Generation Certificates (LGCs) and voluntarily surrenders them to meet the Territory's commitment for 100% renewable electricity. The large-scale FiT scheme aims to provide security and stability for investment in the renewable industry. In addition, it helps offset the impact of fluctuating wholesale prices on Canberra consumers. This means that when the wholesale prices fall under the agreed FiT price, the ACT consumers pay a proportionately higher amount on their electricity bills to compensate the FiT support payment. Conversely, when wholesale prices are above the agreed FiT price then generators pay the difference back to ACT electricity consumers.

The ACT small-and-medium scale FiT scheme supports the generation of electricity by eligible solar systems with less than 200 kW capacity. A total of 9,954 solar systems were registered as FiT generators in 2022-23, with a total generation of 41,065 GWh from combined capacity of about 34.6MW. Similar to large scale FiT scheme, the small-scale FiT scheme contributes to the ACT's 100% renewable electricity target.

Households and Businesses

The cost impact of climate change measures, while being marginal on the community as a whole, may have disproportionate impacts on lower income households. To address this, a number of Government policies are in place to help low-income households suffering financial stress due to energy bills, helping to reduce costs and improve thermal comfort.

These include ACT Government partnerships with community organisations and retailers to support vulnerable households to access concessions, rebates, and energy support programs.

The Energy Assistance Community Partnership, or [Home Energy Tune Up](#), initiative provided \$220,000 to enable St Vincent de Paul and Care Financial to increase capability to support vulnerable energy consumers in the ACT with energy advice while increasing access and visibility of energy concessions and rebates. In late 2022, the program launched its new website and has supported 86 low-income households through offering free financial capability counselling appointments. In 2023, Care Financial has issued 225 Energy Support Vouchers. The program has run two workshop sessions for 28 community service workers and volunteers as well as meeting with a range of organisations to promote the [Home Energy Tune-Up](#) initiative with a focus on making the initiative more accessible to typically hard to reach cohorts.

The team has attended 15 community events, including the Seniors Week Expo, pop-ups at food pantries across Canberra and hosted “Bring Your Bills” stalls at Yeddung Mura, a non-profit organisation dedicated to supporting and empowering Aboriginal detainees released from prisons and courts. In 2023, Care Financial has received 59 referrals from other community organisations and utility providers.

[Utilities Concessions are available to qualifying customers providing some relief on electricity bills.](#)

The Energised Consumers Project is a grant from the Directorate to Energy Consumers Australia. This grant helps fund the ACT Council of Social Services to deliver energy advocacy services. In 2023, the Energised Consumers project focused on representing the experiences and needs of low income households in planning for the just transition off fossil fuel gas. The project includes bi-monthly meetings with community organisations to increase the Environment, Planning and Sustainable Development Directorate’s understanding of hard-to-reach households.



Monetary savings and environmental benefits will accrue from the EEIS expenditure for many years and are difficult to quantify until monitoring results are available. Benefits in terms of community engagement can be summarised in terms of the number of residents and businesses accessing each program in 2022-23, as detailed in the table 4 below:

Table 4: Household and business programs.

Program	Focus	Benefits
Sustainable Business Program	Recycling accreditation, energy and water assessments, commercial solar advice and through the Lighting Efficiency Webtool .	513 businesses supported.
Sustainable Home Advice Program	Guidance on how to access ACT Government rebates to reduce utility bills, minimise emissions, and improve household comfort.	During 2022/23, support provided by email, phone and in-home energy assessments on 2,834 occasions. The program also delivered 43 free workshops to 1,280 attendees. Workshop topics included understanding solar for your home, understanding electric vehicles, transitioning from gas to electric homes.
Wood Heater Replacement Program	Rebates for replacing wood heaters with an efficient electric heating system, or permanently closing off and removing a wood heater	33 Wood Heaters were removed.
Renter's Home Energy Program	Cost-effective assessment and advice that improve comfort while reducing energy bills & emissions.	153 Assessments were delivered to renters across the ACT. 427 rental households, 296 owner occupiers and 21 rental property owners used the webtool.
Home Energy Efficiency Program	Free education and practical support to help vulnerable and low-income households reduce their energy and water bills while improving thermal comfort in their homes.	675 households supported.
Home Energy Support Program	Energy efficiency upgrades, rooftop solar PV, efficient electric appliances, heat pumps, insulation.	461 rebates (272 rebates for rooftop solar and 189 rebates for energy efficient appliances) delivered to low-income households. 112 Housing ACT properties received ceiling insulation and efficient-electric appliance upgrades.
Make your next choice electric tool	Online tool, in collaboration with CHOICE, enabling household electrification plans.	4,400 households have completed plans using the tool.
Community Clubs Program	Rebates for energy efficiency upgrades, solar energy & energy storage systems.	20 clubs registered; 8 clubs received rebates.

Appendix A – Progress on actions




 Delivered/BAU	The initiative has been completed and/or is now ongoing	 Work progressing	Work on this initiative has begun	 Yet to Commence	Work on this initiative has not yet commenced
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The majority of actions in the ACT Climate Change Strategy 2019-25 are *Work Progressing* (37) or *Delivered /Business As Usual (BAU)* (46) which includes those actions that are now integrated into business-as-usual operations.






Similarly, the majority of actions in the Living Infrastructure Plan are integrated into business-as-usual operations, or *Work Progressing* (8) and *Delivered /BAU* (7)






Further, the majority of action in the ACT's Zero Emissions Vehicle Strategy 2022-30 are and *Work Progressing* (18) and *Delivered /BAU* (10)







ACT Climate Change Strategy 2019-25




Code	Action description	Status	Update for 2022-23
1.01	Expand the scope of the Community Zero Emissions Grants to support community projects that reduce emissions and / or increase resilience to climate change and prioritise projects that offer replicable solutions.	 Delivered/BAU	<p>The ACT Government has committed \$600,000 over four years (2021–22 to 2024–25) for the grant program that is available to eligible not-for-profit organisations and individuals to support community action on climate change.</p> <p>The latest recipients were announced in May 2023. Six projects were funded totalling \$155,219.83 and included Asthma Australia, Food Co-operative Shop, Canberra Environment Centre, Canberra City Farm, the Australian National University and St Clare's College.</p>
1.02	Support and enable community action on climate change by providing tools and resources and recruiting a dedicated climate change community liaison in the Environment, Planning and Sustainable Development Directorate.	 Delivered/BAU	<p>This work is embedded across the programs and policy branches of Climate Change and Energy in Environment, Planning and Sustainable Development Directorate. Each team that works on community programs, for example the schools, business and households teams, is a point of contact for the community on that issue. The Everyday Climate Choices website has a range of free tools and resources to support the community to take small steps, make informed choices and engage with the range of sustainability programs.</p> <p>Home - Climate Choices (act.gov.au).</p>
1.03	Deliver the Actsmart programs to encourage and support community efforts to reduce emissions and improve sustainability outcomes.	 Delivered/BAU	<p>The Everyday Climate Choices program (which includes the previous Actsmart programs) continues to enable community action on sustainability and to reduce emissions, including through home and business assessments, tailored advice, education workshops and financial support/incentives. In 2022-23 the Climate Choices teams and web tools engaged with 7,900 households and over 400 businesses. The Sustainable Schools Program partnered with Sustainability Victoria and launched their award-winning program that includes an online platform across ACT schools.</p>








Code	Action description	Status	Update for 2022-23
1.04	Enable community members to share ideas for ongoing improvements to the strategy via Government digital platforms.	 Delivered/ BAU	A Community Projects online portal about local projects that are making a big contribution to our environment, was launched on 12 July 2023. The online portal showcases climate action projects being delivered by community organisations and everyday Canberrans. The case studies feature climate mitigation or adaptation activities located in the ACT using an interactive map.
1.05	Work with the ACT Climate Change Council to encourage community participation in climate change initiatives.	 Delivered/ BAU	The ACT Climate Change Council continues to be a strong advocate for engagement with the Canberra community and business groups so that their views are reflected in the Council's advice to the Minister to allow for more informed decision making. In December 2022, the Council finalised their Community Engagement Strategy to continue this work. The ACT Government works closely with the Council to encourage community participation in efforts to reduce emissions and build resilience to climate impacts.
1.06	Work with the local Traditional Owners and the Aboriginal and Torres Strait Islander community to integrate traditional knowledge into landscape management.	 Delivered/ BAU	The Dhawura Ngunnawal Caring for Country Committee engages, connects, and works to identify, guide, and inform cultural understanding within the Environment, Planning and Sustainable Development Directorate (EPSDD). The Committee provides direction and decisions to EPSDD on environmental and land management matters including land, fire, air, and water to better co-manage Ngunnawal Country.
2.01	Partner with community service organisations to identify vulnerable and disengaged sectors of the community and implement measures to support their participation in shifting to net zero emissions.	 Work progressing	<p>A range of work is underway to support vulnerable and disengaged sectors of the community to support their participation in shifting to net zero emissions. For example, the ACT is working with a number of referral partners, such as ACT Civil and Administrative Tribunal (ACAT), St Vincent de Paul and Care Financial to deliver a pilot Chronic Health Conditions program and with several local Community Housing providers to deliver energy efficiency upgrades not-for-profit owned and managed community housing properties.</p> <p>The Energy Assistance Community Partnership or Home Energy Tune Up initiative provided \$220,000 to enable St Vincent de Paul and Care Financial to increase capability to support vulnerable energy consumers in the ACT with energy advice while increasing access and visibility of energy concessions and rebates.</p> <p>The Utilities Hardship Fund provides support to qualifying customers in the form of \$100 vouchers off the customer's electricity bill. Four retailers are currently participating in the initiative.</p> <p>The Energised Consumers Project is a grant from the Directorate to Energy Consumers Australia. This grant helps fund the ACT Council of Social Services to deliver energy advocacy services.</p>
2.02	Engage with industry and workers to identify sectors likely to be affected by the transition to a net zero emissions economy and support re-training of workers where needed.	 Work progressing	<p>The Integrated Energy Plan, due for public release in early 2024, includes consideration of policy directions for supporting a just transition for sectors likely to be affected.</p> <p>The Canberra Institute of Technology delivers a range of short courses related to renewable energy and electric vehicles and is one of the first Registered Training Organisations (RTOs) in Australia to deliver the new Cert III in Electric Automotive Vehicle Technology to a cohort of apprentices in semester two, 2023.</p>





Code	Action description	Status	Update for 2022-23
3.01	Expand the Actsmart Home, School and Business programs to include travel choices and integrate with the work of the Active Travel Office.	 Delivered/ BAU	The Climate Choices programs, that have replaced the Actsmart programs, include information about travel choices. The Canberra Electric Bike Library loans bikes to community members for two-weeks and promotes utility cycling, where people not only use an electric bike to transport themselves but also carry additional cargo like their children, shopping or deliveries for businesses. The Business Fleet Advisory Service, launched in April 2022, supports Canberra businesses and community organisations to transition their vehicle fleets to Zero Emissions Vehicles. The Sustainable Schools Program provides resources to support schools to embed sustainable travel actions across their community.
3.02	Explore options for implementing a reward scheme for community members who increase their use of public transport and/or active travel.	 Delivered/ BAU	In 2019-20 the Australian National University delivered a report exploring options to reward active travel. The report identified several challenges with implementing such an approach, including privacy concerns, technical limitations, and potential high resourcing requirements. While there are no plans to implement a reward scheme at this time, ways to increase the rates of active travel and public transport usage will continue to be prioritised through the Active Travel Plan and Design Guide, which the ACT Government is finalising. Community and stakeholders were invited to provide feedback on the draft Active Travel Plan through interactive cycle and walking area maps, a community survey and via written submissions from 14 July to 24 August 2022. The Design Guide was open to community and stakeholder consultations from 5 May to 2 June 2023.
3.03	Plan for a compact and efficient city with improved access to sustainable transport options by delivering up to 70% of new housing within our existing town and group centres and along key transit corridors.	 Delivered/ BAU	Information on this work is available at: Compact and efficient city - ACT Planning Strategy
3.04	Prioritise improving public transport services and supporting infrastructure, including buses, light rail stage two and connecting services.	 Work progressing	Transport Canberra continues to progress future light rail planning and is working with Major Projects Canberra on the delivery of Light Rail Stage 2. Work to progress Transport Canberra's Zero Emissions Transition Plan is also progressing with work underway to build the Woden Bus Depot, which will be futureproofed to house a portion of the announced fleet of battery electric buses.
3.05	Maximise accessibility to the rapid bus and light rail networks through feeder services and expanding the Park and Ride network.	 Work progressing	Transport Canberra continues to plan future bus and light rail networks and is supporting feeder public transport services and other multimodal connectivity (including, but not limited to, park and ride, bike and ride) to provide continued service improvements and enhanced customer experience.

Code	Action description	Status	Update for 2022-23
3.06	Expand and promote the Active Travel Office and schools-based active travel initiatives.	 Work progressing	<p>The ACT Government continues to deliver the Active Travel Office and the schools program, including the Ride or Walk to School (Safe Cycle) and It's Your Move Safe Cycle programs (School programs - Transport Canberra (act.gov.au)), which will make walking and cycling to school safer and easier. It will commence other initiatives that encourage the switch to active travel including travel planning in workplaces and general education initiatives. A wayfinding strategy is being rolled out that includes maps, signage and pavement markings that make using the integrated network more seamless and intuitive.</p> <p>A new Road Safety Action Plan will explore slower speed limits in residential areas and the expansion of the community-led Slower Streets initiative will make local streets friendlier and more conducive to active travel. Development of the ACT Road Safety Action Plan 2024-25 is a key priority and will build on the achievements of the current action plan and seeks to align the priority actions with the strategic aims of the ACT Road Safety Strategy 2020-25 and national road safety framework.</p>
3.07	Finalise an active travel strategic plan and update the Active Travel Framework to provide coordinated active travel networks across the Territory.	 Work progressing	<p>The ACT Government is committed to finalising the Active Travel Plan including the strategic cycle network and priority walking areas, by the end of 2023.</p> <p>https://yoursayconversations.act.gov.au/active-travel-plan</p>
3.08	Implement the Municipal Infrastructure Standards for Active Travel and develop best practice guidance for industry and stakeholders to inform better design outcomes for active travel infrastructure.	 Delivered/BAU	<p>Lessons learned from active travel projects were incorporated in to ACT Standard Drawings in early 2021. Transport Canberra and City Services (TCCS) has released a draft Design Guide to improve urban intersections for active travel, which will be finalised by the end of 2023.</p> <p>MIS 05 Active Travel Facilities Design was published in September 2021.</p>
3.09	Prioritise walking and cycling and enhance active travel infrastructure to improve safety and connectivity of the active travel network.	 Work progressing	<p>The ACT Government is committed to finalising the Active Travel Plan, including strategic cycle network and priority walking areas, by end of 2023. In 2019-20, the ACT Government allocated \$24.9m to active travel infrastructure projects and a further \$11.1m in 2020-21 including economic stimulus funds. This investment is delivering strategic cycle network improvements, footpath upgrades and town centre improvements in Woden, Tuggeranong and Belconnen. It is also delivering age-friendly improvements in Aranda, Campbell, Holt, Isabella Plains, Narrabundah and Stirling and two new 'Bike and Ride' facilities.</p>
3.10	Support bike share schemes and other measures to improve the effectiveness and accessibility of cycling as a 'last kilometre' solution.	 Delivered/BAU	<p>Dockless bikes and e-scooters operate in town centres under public land use permits. An internal review will inform ongoing regulatory and transport planning decisions including consideration of whether to expand operation in other parts of Canberra.</p>







Code	Action description	Status	Update for 2022-23
3.11	Finalise and implement the End-of-Trip Facilities General Code to encourage improved bicycle parking and end-of-trip facilities in commercial developments.	 Delivered/BAU	<p>The ACT Government has finalised Variation 357 – End-of Trip Facilities General Code (V357) to vary the Territory Plan. V357 replaces the Bicycle Parking General Code of the Territory Plan by introducing an End-of-Trip Facilities General Code.</p> <p>On 4 August 2022, the Minister for Planning and Land Management, approved Variation 357. The variation commenced on 21 October 2022 and applies to development applications lodged for completeness check from 30 November 2022.</p>
3.12	Trial and evaluate innovative approaches to planning and development that prioritise active travel and public transport.	 Work progressing	<p>The new planning system will deliver better outcomes for communities, the environment and people across Canberra, including consideration of strategic movement to support city growth. Further information is available: Planning System - Environment, Planning and Sustainable Development Directorate - Planning (act.gov.au)</p>
3.13	Implement car free days and consider car free areas, shared zones and traffic calmed streets.	 Work progressing	<p>Work is progressing on a car free event to be held in November 2023 to showcase sustainable, zero emissions travel options.</p>
3.14	Support car share schemes and transport-on-demand solutions across the ACT region.	 Delivered/BAU	<p>Two car share providers commenced services in the ACT in 2018. One operator has withdrawn from the market while the other continues to provide services in the ACT in a parking arrangement with the ACT Government. A peer-to-peer service also operates in the ACT as part of the sharing economy but is not subject to any regulatory oversight.</p>
3.15	Investigate and implement options for encouraging a shift to public transport and active travel through planning and a smarter approach to parking.	 Work progressing	<p>The ACT Multimodal Network Plan (MNP) is being developed to enable the objectives of the ACT Transport Strategy 2020 to be achieved. The MNP will guide the ACT Government in its transport planning activities over the next twenty years to assist in achieving the vision set by the Transport Strategy. It will include a staging and prioritisation plan of integrated infrastructure and non-infrastructure initiatives across all transport modes, including private vehicles, light rail, bus, walking, cycling, micro-mobility and freight.</p> <p>e.g shared e-scooters - https://www.transport.act.gov.au/travel-options/e-scooters/shared-e-scooters</p>
3.16	Explore and implement new approaches to improving the productivity of key transport corridors through prioritisation of public transport and/or active travel.	 Work progressing	<p>Transport Canberra is continuing investigations to improve customer information and passenger services, a Public Transport customer strategy, as well as data analytics and surveys.</p> <p>The ACT Movement and Place Framework is being developed to provide a tool for assessing the dual function of roads – moving people and goods and enhancing the places they connect and pass through. The Framework will assist in establishing appropriate modal priorities in identified key corridors and significant areas using the Movement and Place principles.</p> <p>ACT Transport Strategy 2020</p>





Code	Action description	Status	Update for 2022-23
3.17	Improve efficiency and usability of public transport through the adoption of emerging smart cities technologies such as smart street lights, congestion monitoring, real time data and optimisation of timetables to reduce journey times.	 Work progressing	Transport Canberra and City Services (TCCS) is working on the strategic optimisation of the public transport network including by delivering Closed-circuit Television (CCTV), variable message signs and blue tooth journey time monitoring and has augmented the Traffic Management Centre to provide improved traveller information for the public and for TCCS operations.
3.18	Investigate options for dedicating a greater proportion of road space and public realm space to sustainable transport modes.	 Work progressing	<p>The ACT Transport Strategy 2020 was released in August 2020. The strategy includes a network structure that identifies central corridors where prioritising public transport, walking and cycling will move people and goods more efficiently.</p> <p>Following an independent review of shared micro mobility (e-scooters) in 2021, the ACT Government commenced refining and expanding services, first in the Bruce precinct in April 2022 and then planning for Canberra-wide expansion by the end of 2022 and the inclusion of e-bikes. Shared micro mobility supports people with first and last mile solutions to connect to public transport, particularly high frequency rapid services.</p> <p>The ACT Government also undertook preparatory work to review the active travel strategic cycle network and priority walking areas and to update the Active Travel Framework. This also includes the development of best practice infrastructure guidance for intersections and quick build infrastructure such as protected cycle lanes and place-making, to make streets more people friendly. The final plan is expected to be completed by 2023 and will assist in informing a pipeline of investment of supportive infrastructure such as paths, quick build interventions, shade and seating that will make active travel more attractive because it is safer, and more connected and comfortable.</p> <p>The ACT Government continues to deliver the schools program which makes walking and cycling to school safer and easier. It will commence other initiatives that encourage the switch to active travel including travel planning in workplaces and general education initiatives. A wayfinding strategy is being rolled out that includes maps, signage and pavement markings that make using the integrated network more seamless and intuitive. A new Road Safety Action Plan will explore slower speed limits in residential areas and the expansion of the community-led Slower Streets initiative will make local streets friendlier and more conducive to active travel.</p>
3.19	Consider options for reforming car registration fees to incentivise efficient road use.	 Work progressing	Development of an Emissions Registration Scheme with initial actions for eligible Zero Emissions Vehicle (ZEV), Plug-in Hybrid (PHEV), and Hydrogen Electric Vehicle (HEV) discounts commenced from 25 May 2023. From 1 July 2023 eligible PHEVs and HEVs receive 12 months registration and stamp duty discount; offset by stamp duty on high emissions vehicles. Work on implementation of the scheme for full introduction in 2024 has commenced.





Code	Action description	Status	Update for 2022-23
3.20	Explore and trial financial incentives such as increased registration discounts, rebates and low interest loans to encourage the uptake of zero emissions vehicles and electric bikes.	 Delivered/ BAU	The ACT's Zero Emissions Vehicles Strategy 2022-30 includes a range of incentives that benefit business and the community sector including extending the stamp duty waiver to used ZEVs and electric motorbikes, funding for public EV charging, incentives for charging in multi-unit developments and streamlining land access processes for public EV charging on Government land. The Zero Emissions Vehicles Fleet Advisory Service has begun working with businesses and community organisations. The program was launched in April 2022. Financial incentives for Community Organisations to participate in the Sustainable Household Scheme to support the purchase of EVs commenced in 2022.
3.21	Implement the Zero Emissions Vehicles Action Plan 2018-2021 and explore ways to encourage investment in public EV charging stations, identify new actions to support the uptake of zero emissions vehicles from 2021 onwards.	 Delivered/ BAU	2018-21 ACT's transition to zero emissions vehicles - Action Plan was delivered and the ACT's Zero Emissions Vehicles Strategy 2022-30 sets out a range of actions that will make owning a Zero Emissions Vehicle a more affordable and accessible option for all Canberrans.
3.22	Amend Road Rules to facilitate the safe use of new sustainable personal mobility options, such as electric scooters	 Delivered/ BAU	The Road Transport (Road Rules) Regulation 2017 was amended in December 2019 to provide for a broad range of devices, including e-scooters to be used in the ACT.
3.23	Investigate regulatory options to drive the transition to zero emissions commercial vehicle fleets.	 Delivered/ BAU	Changes have been made to the registration fees for private and business registered light (<4.5t) passenger and goods carrying zero emission vehicles from 25 May 2023 and introduce new concessions of 40% and 20% for plug-in hybrids and hybrids respectively from 1 July 2023.
4.01	Legislate a 100% renewable electricity target from 2020 onwards.	 Delivered/ BAU	The Climate Change and Greenhouse Gas Reduction (Renewable Electricity Target) Amendment Bill was tabled in 2020 to amend the Climate Change and Greenhouse Gas Reduction Act 2010 to legislate an ongoing 100% renewable electricity target post 2020.
4.02	Develop and implement a Sustainable Energy Policy 2020-25 that sets out actions to deliver sustainable, affordable and reliable energy to the Territory and drives the continued development of the renewable energy industry in the ACT.	 Work progressing	Work is progressing through development of the Integrated Energy Plan as the ACT's electrification pathway. Further information is available: Canberra is Electrifying Our Pathway to Electrification.
4.03	Amend planning regulations to remove the mandating of reticulated gas in new suburbs.	 Delivered/ BAU	This item was delivered in 2020, with planning regulations updated.






Code	Action description	Status	Update for 2022-23
4.04	Conduct a campaign to support the transition from gas by highlighting electric options and savings opportunities to the ACT community.	 Delivered/BAU	<p>To help households start to plan their own switch from gas appliances, the ACT Government partnered with CHOICE to create an online tool – Make Your Next Choice Electric.</p> <p>The online tool helps Canberrans to develop their own energy transition plan, including providing information on when gas appliances will need to be swapped out, showcasing the latest energy efficient appliances on the market, as well as providing estimated emissions savings and savings on bills as a result of upgrades. Since it was launched it has had almost 19,000 visits and over 4,400 (data as of July 2023) transition plans have been created by households.</p> <p>An 8-week community education campaign was also launched over May-June. Since its launch the campaign has received over 3 million impressions and over 11,000 website clicks (data as of July 2023).</p>
4.05	Develop a plan for achieving zero emissions from gas use by 2045, including setting timeframes with appropriate transition periods for phasing out new and existing gas connections.	 Delivered/BAU	<p>The Climate Change and Greenhouse Gas Reduction (Gas Transition) Bill passed the assembly in June 2023. This will allow a future regulation to be made that will prevent new gas connections in prescribed areas. Public consultation on the scope of a future regulation occurred during March and April 2023 and planning is underway to enact a regulation preventing new fossil gas network connections in prescribed circumstances in late 2023.</p> <p>An Integrated Energy Plan that will outline a future pathway for the energy transition is expected to be released in early 2024.</p> <p>Canberra is Electrifying Our pathway to electrification (act.gov.au).</p>
4.06	Introduce mandatory disclosure of energy performance for all rental properties	 Delivered/BAU	<p>The ACT has the world's oldest Energy Efficiency Rating Disclosure Scheme (the scheme). The scheme applies to properties being sold and when being leased. The Residential Tenancies Act 1997 applies to rental properties and mandates that an energy efficiency rating must be declared when leasing a residential property, where the property already has an energy efficiency rating that is not false or misleading. The ACT is supporting the Commonwealth's work on a National Disclosure Scheme and will consider updates to the ACT Scheme on finalisation of the national scheme.</p>
4.07	By 2021 introduce legislation for staged minimum energy performance requirements for rental properties to come into force in 2022-23.	 Delivered/BAU	<p>2023 saw the ACT Government introduce a new minimum standard for rental properties in the ACT. The standard requires all residential rental properties in the ACT, including public and community housing, to have a minimum level of ceiling insulation. This will help to keep homes warm in winter and cool in summer. Because homes will require less energy to maintain a comfortable, healthy temperature, the standard will also result in savings on energy bills.</p> <p>The requirement to meet the standard is staggered, with properties needing to meet the standard within 9 months of signing a new lease. For safety reasons, only certified installers may undertake upgrades and electrical safety inspections are also required. All rental properties in the ACT are expected to comply by the end of 2026.</p> <p>Minimum energy efficiency standards for rental homes - Justice and Community Safety Directorate (act.gov.au).</p>







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4.08	Expand the Actsmart Household Energy Program to provide free, tailored in-home energy assessments for renters.	✓ Delivered/BAU	The Renters' Home Energy Program provides free in-home or phone-based energy assessments for renters in the ACT. The Renters' Home Energy Program also provides an online home energy self-assessment webtool. Renters' Home Energy Program - Climate Choices (act.gov.au) .
4.09	Continue to upgrade to efficient-electric appliances in existing public housing properties where technically feasible and assess the cost and benefits of shifting to all-electric public housing.	✓ Delivered/BAU	The first 112 Housing ACT properties received ceiling insulation and efficient-electric appliance upgrades in 2022-23, with an additional 40 properties to receive upgrades in early 2023-24. The Government will continue to support Housing ACT stock to meet the new minimum standard for ceiling insulation in rental homes, with a small portion used for efficient-electric appliance upgrades.
4.10	Ensure all newly constructed public housing properties are all-electric (fitted with electric appliances) from 2019.	✓ Delivered/BAU	The Public Housing Design Brief requires that electricity will be the primary energy source for all new public housing dwellings. All fittings, fixtures and appliances are specified as electrical.
4.11	Continue to deliver the solar for low-income program and investigate options for providing solar to public housing.	✓ Delivered/BAU	<p>The Home Energy Support Program launched in March 2022, with rebates of up to \$2,500 available for Australian Government Pensioner Concession Card or a Department of Veterans' Affairs Gold Card holders to install rooftop solar. In 2022-23, 272 rebates were provided to eligible homeowners. Participants can access an optional zero-interest loan through the Sustainable Household Scheme to further reduce the remaining upfront costs.</p> <p>In 2020-21, a trial of solar in public housing occurred in two multi-unit complexes, totalling 100 units to use innovative technology that allowed each unit to benefit from solar rather than common areas only. This technology has also been incorporated into the build of the new Common Ground affordable housing complex in Dickson which was officially opened in October 2022.</p> <p>Home Energy Support: Rebates for Homeowners - Climate Choices (act.gov.au).</p>
4.12	Trial facilitating access to interest free loans or other innovative finance for gas to electric upgrades and deep retrofits of low-income homes.	✓ Delivered/BAU	<p>The Sustainable Household Scheme provides zero-interest loans of up to \$15,000 for households and not-for-profit community organisations to assist with the upfront costs of investing in: rooftop solar panels; household battery storage; zero emission vehicles and efficient electric appliances.</p> <p>The Home Energy Support Program: Rebates for Homeowners provide rebates of up to \$5,000 for eligible concession card holders to install solar, ceiling insulation and electric energy efficient products.</p>
4.13	Provide information and training tailored to first home buyers, homeowners and owner-builders to support higher awareness of zero emissions, climate-wise homes.	✓ Delivered/BAU	<p>Workshops are provided to support participants of the Sustainable Household Scheme, Sustainable Home Advice Program and Home Energy Support Program to make informed purchasing and home design decisions. Workshop topics included understanding solar for your home, understanding electric vehicles, transitioning from gas to electric homes, staying warm and staying cool for less. Households can access take-home energy action kits via ACT Libraries and various website resources/materials.</p> <p>Sustainable Home Advice Program - Climate Choices (act.gov.au).</p>






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4.14	Facilitate demonstration projects showcasing zero (or negative) emissions climate-wise homes.	 Delivered/ BAU	<p>Suburban Land Agency Innovation Precinct in the Whitlam Display Village demonstration low-carbon and multi-generational living has been completed - Whitlam Display Village (act.gov.au).</p> <p>North Wright Compact Housing precinct demonstrating low to net zero “missing middle” housing is in design stage - Suburban Land Agency North Wright compact housing. Modelling the lifecycle carbon performance of the buildings are conducted in addition to energy efficiency performance.</p>
4.15	Design, and commit to a timeframe for implementing, higher minimum energy performance and climate resilience standards for new buildings that will deliver efficient, zero emissions buildings.	 Work progressing	The ACT Government is adopting new energy efficiency provisions in the National Construction Code from 1 October 2023. The Minister for Sustainable Building and Construction has commenced national discussions through the Building Ministers Meeting in relation to measuring carbon emissions in the building and construction industry. The ACT Government continues to participate in national discussions through the Australian Building Codes Board on the inclusion of building resilience provisions in the NCC to address future weather events and climate risks.
4.16	Provide information and facilitate education and training of developers and design and construction practitioners in zero emissions technologies and systems and climate-wise design.	 Work progressing	The Government has commenced policy research and analysis work on development of a 10-year pathway to shift to world’s best practice on climate-ready and environmentally sustainable buildings.
4.17	Develop a new residential energy assessment tool that adequately assesses the year-round thermal performance of buildings in the Canberra climate.	 Work progressing	The National Residential Efficiency Scorecard has been trialled as a residential assessment tool for the ACT. Trials have been undertaken through the Sustainable Household Scheme with over 100 assessments completed and trials are also currently underway in the Home Energy Support Program. The Environment, Planning and Sustainable Development Directorate is engaging closely with inter-jurisdictional colleagues through the Nationwide House Energy Rating Scheme (NatHERS) Steering Committee to have the Scorecard accredited under NatHERS.
4.18	Trial incentives and other measures to encourage all-electric, high efficiency apartment and commercial buildings.	 Work progressing	The Suburban Land Agency (SLA) is coordinating 45 staff from Environment Planning and Sustainable Development, Parks and Conversation and SLA to take part in a Molonglo vision workshop. The outcomes of which will then guide community engagement, future urban development strategy and estate development planning for Molonglo.
4.19	Expand the Energy Efficiency Improvement Scheme to increase support for low-income priority households and further encourage a shift from gas to high efficiency electric appliances.	 Delivered/ BAU	<p>Since the Energy Efficiency Improvement Scheme started in 2013, over 1.4 million energy saving items have been installed.</p> <p>The Priority Household Target for retailers to achieve was increased from 30% in 2022 to 40% in 2023 to support a larger number of low-income households with the transition from gas to electric.</p>




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4.20	Encourage the use of smart financing by medium and large businesses and organisations to support energy efficiency improvements, space heating upgrades and zero emissions vehicle fleets.	 Work progressing	Work is underway to develop factsheets on innovative ways to finance sustainability-oriented upgrades for medium-large businesses including energy efficiency improvements, space heating upgrades, solar panel installation and shifting to electric vehicle fleets.
4.21	Review planning regulations and identify opportunities to require sustainable, climate-wise built environment and landscaping including through developing a Climate-wise Code.	 Delivered/BAU	<p>The review of planning regulations was completed in 2020 by the Centre of Urban and Regional Futures at the University of Canberra. The review identified many opportunities across the Territory Planning and Development Act in areas such as living infrastructure, building design and natural hazards.</p> <p>The new Territory Plan contains zone assessment outcomes that require developments to provide deep soil zones, canopy trees and planting area, reduce hard surfaces, minimise stormwater run-off and maintain ecosystems. Developments are also required to minimise threats to biodiversity and address other site constraints and environmental risks. These outcomes (that are required to be met for a development application) replace the need for a separate climate-wise code.</p> <p>The new planning system introduces Housing Design, Urban Design Biodiversity Sensitive Urban Design Guide that provides guidance on building for climate resilience, creating healthy and sustainable environments, minimising resources and protecting natural values, including biodiversity and ecological connectivity.</p> <p>The new Territory Plan also includes requirements for new multi-unit residential and commercial buildings to have electric vehicle charging infrastructure provided in car parking areas, as well as preventing gas connections to new residential blocks.</p> <p>The Climate Change and Greenhouse Gas Reduction (Natural Gas Transition) Amendment Bill 2022 was passed in the Legislative Assembly in June 2023. The Bill provides for a regulation-making power to prevent new fossil fuel gas mains connections in the ACT in prescribed circumstances.</p>
4.22	Implement Canberra's Living Infrastructure Plan to achieve 30% urban canopy cover, increase surface permeability, account for the value of living infrastructure and assess local needs for managing heat.	 Work progressing	A range of work is underway to implement Canberra's Living Infrastructure Plan – as detailed below. One example in 2022-23 is a project that investigated how to optimise the Municipal Infrastructure Standards (MIS) and the Municipal Infrastructure Technical Specifications (MITS) to best contribute to the ACT Government's 30% tree canopy cover targets, permeable surfaces target, and the reduction of urban heat.
5.01	Reflect climate change projections and risk vulnerabilities in disaster and emergency prevention, preparedness, response and recovery, particularly for extreme heat, bushfire and flash flooding.	 Delivered/BAU	The ACT is an active member in the NSW and Australian Regional Climate Modelling (NARCLiM) project. This project models future climate scenarios at a regional level to help governments, industries and communities to plan for the anticipated impacts of climate change. NARCLiM informs ACT Government policies, program and disaster and emergency response planning. Work is also underway to investigate ways to embed natural hazard risks in the new planning system. This will improve the resilience of Canberra's built environment against the natural hazards expected as a result of climate change.







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5.02	Encourage community preparedness for climate risks through targeted Emergency Services Agency outreach and the Actsmart sustainability programs.	 Work progressing	<p>Environment, Planning and Sustainable Development Directorate delivers a range of programs that support households and businesses to adapt to, and be resilient to the effects of climate change. Strategies include energy education to prompt behaviour change and financial incentives to make energy efficiency upgrades.</p> <p>Communications and messaging on how to access these programs will be ramped up over the 2023-24 summer to support community resilience to the impacts of high temperatures.</p>
5.03	Reduce staff travel needs by co-locating staff in centralised offices, providing facilities for teleconferencing, exploring co-working hubs and supporting flexible work arrangements and explore incentives to support staff use of public transport and active travel.	 Delivered/BAU	<p>Activity based workspaces are available for staff to access across the Canberra region. Flexible work arrangements are available if required.</p>
5.04	Implement a user-friendly sustainable procurement approach for goods and services and capital works that ensures greenhouse gas and adaptation outcomes are considered in all procurement decisions.	 Work progressing	<p>The ACT Government's Government Procurement (Charter of Procurement Values) Direction 2020 includes the Environmental Responsibility Value. This value can be met through the Sustainable Procurement Policy 2015 which requires the consideration of sustainability impacts that should be considered during the procurement process.</p> <p>In the 2022-23, 23% of all procurements conducted considered the Environmental Responsibility Value. Guidance on how to apply the values can be found in the Procurement Values Guide.</p> <p>The charter applies to all procurements but doesn't require all values to be considered - only that it should be reported which values were considered.</p> <p>Procurement ACT continues to work with Major Projects Canberra and the Environment, Planning and Sustainable Development Directorate regarding sustainability in design in construction to identify ways to reduce carbon emissions and consider the use of recycled content in construction.</p>
5.05	Ensure the social cost of carbon and climate change adaptation outcomes are considered in all ACT Government policies, budget decisions, capital works projects and procurements.	 Work progressing	<p>Advice from the ACT Climate Change Council and a report on A Social Cost of Carbon for the ACT has been considered in support of embedding climate change considerations in Government decisions. Work is ongoing in implementing this action. The Government is examining tools and guidance material to support ACT Government decision making in the development and assessment of emission reduction proposals. The Government is also involved in cross-jurisdictional work on valuing emissions reduction in decision making. The ACT Government has also developed guidance which provides information that should be considered in the development of new business cases under the Capital Framework. It identifies how climate risks can be assessed using ACT climate scenarios and, where the risks are considered significant, how business case managers can ensure their projects are adaptive and resilient.</p> <p>Guidance has been made available: Considering Climate Change Impacts in Business Cases 2022.pdf.</p>

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5.06	Ensure all new Government capital works projects with a budget of more than \$10 million either seek or are consistent with an independent sustainability rating such as an Infrastructure Sustainability rating from the Infrastructure Sustainability Council of Australia (ISCA), or a Greenstar rating from the Green Building Council of Australia or equivalent, and review ratings at least every five years.	 Delivered/ BAU	Major Projects Canberra's (MPC) designated projects seek an environmental rating and MPC procurement templates have been updated to refer to this requirement.
5.07	Foster partnerships with sub-national governments and non-government organisations locally, nationally and internationally to promote climate action and increased ambition.	 Delivered/ BAU	The ACT Government is currently a member of a number of national and international reporting and knowledge sharing networks. Participating in these groups promotes the ACT on the world stage and creates opportunities for knowledge sharing and partnerships. The ACT Government is also engaging with the Commonwealth and other states and territories through various inter-jurisdictional working groups to collaborate on key climate change issues.
5.08	Join the Global Green and Healthy Hospitals network to improve sustainability performance and reduce emissions from ACT health facilities.	 Delivered/ BAU	<p>The ACT Government is a member of Global Green and Healthy Hospitals (GGHH)- an international network of hospitals, health care facilities, health systems, and health organizations dedicated to reducing their environmental footprint and promoting public and environmental health.</p> <p>About GGHH (greenhospitals.org).</p>
5.09	Develop and implement a roadmap for transitioning Transport Canberra buses to zero emissions by 2040 at the latest while continuing to improve service levels, and review progress every five years.	 Delivered/ BAU	Work has continued on implementing the Zero Emission Transition Plan (ZETP) for Transport Canberra including procurement of 12 Battery Electric Buses (BEBs) which are now in service and the procurement of a further 94 BEBs finalised with delivery expected between end of 2025-26. Transport Canberra is also undergoing a review of its current ZETP and roadmaps for release in 2024.
5.10	Establish and implement a pathway to a zero emissions ACT Government health sector by 2040 informed by an assessment of all current and planned public health facilities	 Work progressing	Upgrades to existing facilities, and construction of new facilities, will be carried out iteratively over the coming years. ACT Health has assessed the status of current assets - particularly around their emissions profile - and is considering which assets to prioritise, noting that upgrades/new builds are dependent on budget funding.










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5.11	Invest an interim price of \$20 per tonne of emissions from Government operations into measures to meet the Zero Emissions Government target from 2020-21 and arrange for an independent body to develop a social cost of carbon for application from 2025.	 Work progressing	<p>The Social Cost of Carbon Fund was established in 2021. In October 2021, through the 2021-22 budget process, the ACT Government announced a new initiative on the Social Cost of Carbon (SCC). From 2021-22 a \$20/tonne SCC has been applied for each tonne of emissions from Government operations.</p> <p>In 2022-23 the Social Cost of Carbon Fund supported the following projects:</p> <ul style="list-style-type: none"> → Full electrification of heating and hot water at Woden Police Station - \$2,525,000. → Electrification of failing glasshouse boiler at CIT Bruce - \$600,000. → Electrification of failing domestic hot water at Aranda Fire and Rescue - \$85,000.
5.12	Establish a pathway to zero emissions ACT Government schools supported by an interim emissions reduction plan to 2025.	 Work progressing	The Government will commence a whole-of-government gas to electric asset replacement program to support the transition to net-zero emissions from ACT Government operations by 2040. Over the next 15-20 years, the program is expected to replace and electrify over 1,000 heating and hot water gas assets across 170 ACT Government owned and operated sites, including schools.
5.13	Ensure all newly built or newly leased Government buildings and facilities are climate-wise and all-electric (where fit for purpose).	 Delivered/BAU	ACT Property Group has developed guidelines to ensure new leases are for fossil fuel gas free buildings or that those buildings will transition to fossil-fuel free when practicable. These guidelines were agreed by Cabinet Subcommittee in May 2022.
5.14	Replace all space and water heating systems in Government facilities with electric systems at the end of their economic lives (where fit for purpose).	 Work progressing	The ACT Government is developing a program of works to replace aging gas assets with all electric options, to be delivered by Major Project Canberra. This action is further supported by the Zero Emissions Government and Social Cost of Carbon Funds.
5.15	Ensure all newly leased ACT Government passenger fleet vehicles will be zero emissions vehicles from 2020-21 (where fit for purpose).	 Delivered/BAU	<p>The ACT Government is leading by example with one of the largest passenger ZEV fleets in Australia. In 2022-23, there were 88 new ZEV leases, making up 100% of new passenger leases where a fit-for-purpose ZEV was available.</p> <p>The ACT Government Fleet Procurement and Management Policy (FPMP) has been updated and from 1 January 2023, plug-in hybrid vehicles will no longer be considered zero emissions vehicles.</p> <p>Currently, non-passenger vehicles are exempt from the policy, the FPMP has been amended to encourage fleet managers to procure zero emissions non-passenger vehicles where fit for purpose.</p>
5.16	Investigate the use of innovative finance options such as Energy Performance Contracting as a method of reducing costs and emissions in Government assets.	 Delivered/BAU	Environment, Planning and Sustainable Development Directorate (EPSDD) in collaboration with Justice and Community Safety (JACS) commissioned a review into the suitability of Energy Performance Contracting (EPC) and the findings were presented to the Asset Management Working Group. Broader principles are being considered for JACS asset management upgrades. Further discussion is underway to consider the potential to set up EPC specialisation for Government operations.







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6.01	Support food rescue organisations to avoid food waste.	 Work progressing	<p>The ACT Circular Economy Bill 2023, passed in October 2023, will, amongst other things, phase out single-use plastics and require businesses to have a separate collection for co-mingled recycling and organic waste collection and a food waste reduction plan from 2023. As part of delivering on this commitment the ACT Government will release the ACT Circular Economy Strategy, along with the development of legislation in late 2023.</p> <p>Food rescue organisations, such as OzHarvest, are promoted through the online 'Recylopaedia' as alternatives to disposing of food waste in rubbish bins in the ACT.</p>
6.02	Implement the Actsmart programs and household waste education programs to reduce waste generation and increase recycling.	 Work progressing	<p>Following the loss of the Recycling Discovery Hub in the Hume fire in 2022, work is underway to deliver more waste reduction and enhanced recycling education via alternate methods such as: website improvements, online education videos, train the trainer resources and digital assets. Waste education programs are delivered to businesses, schools and public events throughout the ACT to increase recycling and reduce waste generation. This education is delivered through face to face and online training, resources, etc.</p>
6.03	Introduce a food and garden waste collection for all households (including multi-unit dwellings) from 2023, and support with an education program from 2020.	 Work progressing	<p>ACT NoWaste will continue the Food Organics and Garden Organics (FOGO) pilot currently underway in Belconnen to ensure the optimisation of the future FOGO collection service. Those in the pilot area will continue to be engaged with, via a variety of proven and measured methods. Additional programming is required to support Multi Unit Development participants.</p> <p>The FOGO Facility Initial Environmental Impact Statement (EIS) public consultation has been conducted. The FOGO facility, expected to be delivered in 2026, is necessary for the city-wide roll out of FOGO. The introduction of the city-wide FOGO collection service will be delivered through two parallel arrangements - a waste collections contract and a contract for the construction and operations of a new FOGO Facility.</p>
6.04	Develop and consult on a scheme for requiring large organic waste producers such as hospitality and food retail businesses to have a separate organic waste collection.	 Work progressing	<p>The ACT Circular Economy Bill 2023, passed in October 2023, will require food businesses to have a separate collection for organic waste and to develop a food waste reduction plan from 2023. Work continues on the planning and procurement for a Food Organics and Garden Organics (FOGO) facility. The draft ACT Circular Economy Strategy 2022-25 was released in October 2022 and public consultation was undertaken for 6 weeks between 27 October 2022 and 8 December 2022.</p>
6.05	Identify opportunities to reduce emissions from organic waste treatment including sewage such as through the use of anaerobic digestion and composting and investigate potential sites for organic waste processing.	 Work progressing	<p>Work continues on the planning and procurement for a Food Organics and Garden Organics (FOGO) facility. Although anaerobic digestion may be offered by tendering parties for the design and construction of a FOGO processing facility, the current preferred processing technology for processing of FOGO is in-vessel composting. Further opportunities to reduce emissions from sewage process will be considered in future.</p>







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7.01	Identify opportunities to increase resilience of terrestrial and aquatic habitats at risk from climate change and implement land management changes and relevant on-ground works with delivery partners.	 Work progressing	<p>The ACT Ecological Network Dashboard was launched which presents a series of mapping layers of potential urban habitat and ecological fragmentation for seven key species groups across the ACT.</p> <p>Climate suitable provenance and species selection are considered in all restoration works undertaken within the Molonglo Strategic Assessment Area. By selecting provenances or species that occur in areas that have similar climatic conditions to the future climate scenario in the ACT (e.g. western slopes of NSW) we can increase ecosystem reliance to climate change. Significant threat abatement works (including weed and pest management) are undertaken through the MSA. To maximise the evolutionary potential of native biodiversity to adapt to climate change, it is essential that threats other than climate change are effectively managed.</p>
7.02	Ensure action plans for threatened species and communities consider the impact of climate change.	 Delivered/BAU	<p>Climate change, including the presence of climate refugia in the ACT, remains routinely considered in developing and reviewing action plans for threatened species and communities. As part of woodland restoration, climate ready species are considered, for example white box is increasingly being incorporated in the planting list, and provenance is increasingly used to guide restoration efforts (e.g. plants from the areas to the north west of the ACT).</p> <p>A project to explore ways of securing threatened species in a changing climate was undertaken in collaboration with the University of Queensland. The work focused on developing an approach to guide on-ground actions that would better enable climate change adaptation for two threatened bird species: the Gang Gang and Glossy Black Cockatoos.</p>
7.03	Identify suitable sites in the ACT for 'carbon sinks' and develop a plan for planting trees or using soil carbon in these areas to sequester carbon with consideration of biodiversity outcomes and competing land uses.	 Delivered/BAU	<p>The Strategic Plantation Management Plan 2017-2022 identifies goals and objectives for forestry operations. The objective for Climate Change and Carbon is to 'Maximise carbon stocks within ACT plantations and ensure clear felled areas are re-established as plantations, continuing the cycle of carbon sequestration'.</p> <p>The ACT government currently owns and manages 11,632 hectares of land called the total area of management unit. Within this management unit 8,327 hectares of land are designated permissible land for pine plantation. 7,838 hectares of this area is planted with Pinus, 490 hectares are fallow comprising of recent clear felled stands undergoing site preparation for second rotation planting. There are smaller patches of plantable land that sit within current mid-rotation stands that will remain fallow until larger harvesting and replanting activities are undertaken.</p> <p>The production forest area includes 50 hectares of other Pinus species planted in arboreta trials between the 1920s and 1960s. The Forestry team continues to explore modelling to understand and inform the abatement potential of suitable planting sites across the Parks and Conservation Service (PCS) Estate.</p> <p>During 2022-23, 365,000 new seedlings were planted across 331 hectares of second rotation plantation.</p>








Code	Action description	Status	Update for 2022-23
7.04	Encourage sustainable farming practices which are fit for the current and future climate and enhance soil and water quality, and work with farmers to identify opportunities for net zero emissions farming and innovation to increase resilience.	 Work progressing	<p>ACT Natural Resources Management continued to work with the ACT rural community supporting them in the adoption of sustainable farming practices that improve and increase resilience to farm businesses, ecosystems, soils, pastures, landscape and stock health and personal health and wellbeing. This was achieved by providing an extensive suite of opportunities to engage in training, workshops, webinars, peer to peer Grazing Groups, access to several funding programs such as the ACT Rural Resilience Grants, Australian Governments National Landcare Program and participation in soil acidity trials and demonstrations.</p> <p>Four ACT rural landowners took up the opportunity to undertake a nine-month individual personal coaching program in strategic farm business management, farm risk management and decision-making. This program, funded through the Australian Governments Future Drought fund will continue with another cohort of farmers beginning in August 2023. Over ten landowners in the Naas and Gudgenby catchments have undertaken riparian protection, enhancement and bank stabilization in targeted hotspots to improve the health of the riparian zones and limit the amount of sediment flowing into the Murrumbidgee River. Further opportunities to support the ACT rural community will continue to be developed with and for the rural community and associated stakeholders over the 2023-24.</p>
8.01	Work with industry to support innovation, research and partnerships that will enable and accelerate the transition to a net zero emissions economy.	 Delivered/BAU	In 2022-23 the Renewable Energy Innovation Fund (REIF) Round 3 grants totalling \$1.2 million were awarded to support a range of new and emerging renewable energy technologies, ventures, and activities in the ACT. Projects supported by REIF Round 3 grants will drive a variety of advancements in solar panel technology, on-site and on-demand green hydrogen production and developments to unlock battery system constraints.
9.01	Improve data capture, integration and sharing across Government to enable accurate tracking and reporting of progress.	 Delivered/BAU	The Government is committed to full transparency and maintaining a rigorous approach to reporting on emissions from government operations. In 2022-23, the Government's data for 2019 to 2023 has been amended to include emissions from refrigerants. The current emissions data in the Enterprise Sustainability Platform (ESP) is a complete representation of a directorate's actual emissions baseline. The ESP continues to track emissions from Government operations accurately.
9.02	Collect and report ACT travel data at least every two years on a range of journey types.	 Delivered/BAU	The Household Travel Survey was undertaken in 2022. Results are available at https://www.transport.act.gov.au/planning-for-the-future/household-travel-survey .
9.03	Collect and report data to monitor progress against resilience indicators, including continuation of the longitudinal survey and climate-related health impacts and costs.	 Work progressing	The second instance of the 'Living well with a changing climate' ACT longitudinal survey on climate change is being delivered with the second instance occurring five years on from the initial survey. The longitudinal survey seeks to measure and assess community resilience as an outcome of adaptation over time. The survey provides insights into community sentiment and challenges affecting the resilience of groups within the community. The survey findings will enhance the ACT Government's understanding of community vulnerability to climate impacts and assist in the targeting of future policy and programs.
10.01	Investigate opportunities for implementation of negative emissions technologies in, or supported by, the ACT.	 Work progressing	Research and analysis of Negative Emission Technologies for ACT has commenced. Further analysis of negative emission technology options and emissions mitigation options in the Land Use, Land-use Change, and Forestry Sector in the ACT will be completed in late 2023.

ACT's Zero Emissions Vehicles Strategy 2022-30






Code	Action description	Status	Update for 2022-23
1	Aim to achieve 80-90% of new light vehicle sales in the ACT being ZEVs in 2030.	 Work progressing	Zero emissions vehicles (ZEV) have accounted for around 20% of all new vehicle registrations in the ACT in 2023 as ZEV uptake accelerates.
2	Phase-out light internal combustion engine vehicles from 2035.	 Work progressing	The ACT has the highest uptake of zero emissions vehicles per capita in Australia.
3	Prohibit onboarding of new ICE vehicles to rideshare and taxi networks by 2030.	 Work progressing	ACT Government will work with rideshare and taxi operators to ensure fleets transition to zero emissions vehicles as soon as is practicable.
4	Provide two years free registration for battery electric and fuel cell electric vehicles and investigate potential for future reforms.	 Delivered/BAU	Owners of new or used zero emissions vehicles (ZEVs) in the ACT purchased or acquired between 24 May 2021 and 30 June 2024 are eligible to receive two years of free registration. To be eligible you must hold an ACT Driver Licence and garage the vehicle in the ACT. Motor vehicle registration and renewal (act.gov.au) .
5	Provide stamp duty exemption for new zero emissions vehicles.	 Delivered/BAU	In the ACT, the following vehicles receive a motor vehicle duty (stamp duty) exemption: → new or used zero emissions vehicles (ZEVs) including electric motorbikes → new plug-in hybrid vehicles (PHEVs) and hybrid vehicles (HEVs) purchased or acquired from 1 August 2022 → used HEVs and PHEVs purchased or acquired from 1 July 2023. Motor vehicle registration and renewal (act.gov.au) .
6	Expand the stamp duty exemption to include used battery electric and hydrogen fuel cell vehicles (includes electric scooters, motorbikes, trikes)	 Delivered/BAU	See response to action 5. The stamp duty exemption and free registration were extended to used ZEVs in July 2023.
7	Offer \$15,000 interest-free loans for zero emissions vehicles and charging equipment and installation.	 Delivered/BAU	Interest-free loans of up to \$15,000 is available to eligible homeowners to invest in a range of sustainable products for their homes, including new and used zero emissions vehicles and household zero emissions vehicle charging infrastructure. Motor vehicle registration and renewal (act.gov.au) .
8	Introduce incentives to encourage the uptake of electric bikes, motorbikes and trikes.	 Delivered/BAU	In the ACT, the stamp duty exemption is now provided to new and used electric motorcycles from August 2022. Electric motorbikes are now available under the Sustainable Household Loan Scheme. Motor vehicle registration and renewal (act.gov.au) .
9	Develop streamlined license applications for EV charging stations on public land.	 Delivered/BAU	The Electric Vehicle Charging Infrastructure Operational Policy was released in July 2023. The purpose of this document is to provide guidance on the requirements for proposals seeking to locate EV charging infrastructure on ACT Government land.








Code	Action description	Status	Update for 2022-23
10	Deliver more than 70 publicly accessible electric vehicle charging stations across Canberra in 2022-23.	 Work progressing	Grants supporting the installation of public charging infrastructure have been awarded to two providers. Installation is underway and due to be concluded by the end of 2023 as part of this process. As of September 2023, there are over 100 public electric vehicle charging stations in the ACT.
11	Expand the public EV charging network to ensure there are at least 180 publicly available charging stations in the ACT by 2025.	 Work progressing	Further grants rounds will be launched in the future to ensure there are at least 180 publicly available charging stations in the ACT by 2025 to enable continued adoption of electric vehicles by the public and businesses.
12	By 2023 at the latest, enact regulation in the Territory Plan to require electric vehicle charging infrastructure for new multi-unit residential and commercial buildings.	 Work progressing	The revised ACT Territory Plan, which comes into effect in November 2023 requires all newly built multi-unit residential buildings to be EV charging ready. Building Ministers have tasked the Australian Building Codes Board to work with other relevant agencies to make sure that future buildings are ready to support the energy transition by making electric vehicle charging easy and safe, enabling further uptake of distributed energy resources like solar and battery storage within multi-unit buildings. This will be coupled with the introduction of the energy efficiency provisions in the 2022 edition of the National Construction Code, which commences on 1 October 2023. These requirements are mirrored in the ACT Planning System Review and Reform Project and the new Territory Plan.
13	Continue cross-jurisdictional engagement to make EV chargers available on common interstate, long distance transit routes.	 Work progressing	ACT Government continues to work with State and Federal governments to ensure sufficient public charging infrastructure is being deployed on interstate routes.
14	Provide information to unit titles and apartment building owners on EV charger installation at apartment buildings, including build to rent.	 Delivered/BAU	Advice for residents and owners of units in apartment buildings and townhouses is available on the Everyday Climate Choices website. The advice will assist owners and owners corporations to install electric vehicle charging infrastructure in a safe, efficient and equitable manner.
15	Introduce \$2,000 incentives for installation of EV charging in multi-unit buildings.	 Work progressing	A program to encourage the installation of EV charging in multi-unit buildings is under development and due to be released in the second half of 2023.




Code	Action description	Status	Update for 2022-23
16	Deliver a community education and promotion program on zero emissions vehicles.	 Work progressing	<p>Education programs, webinars and content have been developed to assist the public and businesses with planning for the transition to zero emissions vehicles.</p> <p>To assist businesses and the community to fully understand the costs involved with electric vehicle (EV) ownership, ACT Government has made a total cost of ownership tool available at no cost. The simple tool allows users to understand the upfront and ongoing costs of an EV compared to a petrol or diesel vehicle, based on driving and charging habits, energy prices and charging with solar energy where possible, as well as maintenance costs and expected resale value.</p> <p>The ACT Government sponsored the Canberra Electric Vehicle Expo 2022, which was hosted by the Australian Electric Vehicle Association (AEVA) on 5-7 August 2022. The event included an Electric Vehicle (EV) Conference which featured presentations and discussions on topics such as EV trends, safety, the role of government and future technologies. The EV Expo was free to the public and had an estimated attendance of just under 10,000 people over the two days. It featured 34 exhibitors and provided attendees with the opportunity to experience and learn more about EVs and charging, attend a workshop and go for a test drive.</p>
17	Deliver the Zero Emissions Fleet Advisory Service to assist businesses and organisations.	 Work progressing	The Fleet Advisory Service offers free advice to ACT businesses and community organisations on shifting to a zero emissions vehicle (ZEV) fleet. This includes planning for charging infrastructure, determining fit for purpose ZEV vehicle models and evaluating the total cost of ownership.
18	Continue to advocate for strong national policy to support the zero-emissions vehicle transition including vehicle emissions standards.	 Work progressing	The ACT Government continues to advocate for the introduction of a strong fuel efficiency standard (FES) to support the uptake of zero emissions vehicles. The ACT Government welcomes the Commonwealth Government's commitment in the National Electric Vehicle Strategy to introduce a FES.
19	Continue to ensure that 100% of all newly leased government passenger vehicles are zero emissions where fit for purpose.	 Work progressing	<p>The ACT Government is leading by example with one of the largest passenger ZEV fleets in Australia. In 2022-23, there were 88 new ZEV leases, making up 100% of new passenger leases where a fit-for-purpose ZEV was available. The ACT Government Fleet Procurement and Management Policy (FPMP) has been updated and from 1 January 2023, PHEVs will no longer be considered zero emissions vehicles. The passenger fleet of 562 vehicles includes 108 battery electric vehicles, 20 fuel cell electric vehicles and 114 plug-in hybrid electric vehicles.</p> <p>Currently, non-passenger vehicles are exempt from the policy, the FPMP has been amended to encourage fleet managers to procure zero emissions non-passenger vehicles where fit for purpose.</p>
20	Develop a strategic plan for long term (post 2030) charging needs for the ACT fleet (excluding buses).	 Work progressing	Planning for the passenger fleet transition is largely complete and planning for the ACT Government commercial vehicle fleet will continue through 2023-24.
21	Deliver the next stage of ACT Government fleet vehicle charging infrastructure.	 Work progressing	Charging infrastructure continues to be rolled out to support the ACT Government passenger fleet transition.

Code	Action description	Status	Update for 2022-23
22	Deliver a demonstration project for zero emissions commercial vehicles.	 Work progressing	<p>An electric tipper truck will enter the ACT Government fleet in late 2023 as more affordable electric commercial vehicles become available to the Australian market. The vehicle will rotate across multiple business areas to evaluate its viability as a replacement to diesel alternatives and to familiarise fleet users with electric commercial vehicles with users.</p> <p>The Business Zero Emissions Vehicle Grants Program offered grants to local businesses and community organisations in the ACT to accelerate the adoption of commercial vehicles in the ACT and create real world case studies. Two vans and two small electric buses will be on the road in the ACT in the second half of 2023.</p>
23	Update the definition of zero emissions vehicle for the Government fleet to exclude plug-in hybrid electric vehicles (PHEVs).	 Delivered/BAU	The ACT Government Fleet Procurement and Management Policy (FPMP) has been updated and from 1 January 2023, Plug-in Hybrid (PHEV) will no longer be considered zero emissions vehicles.
24	Continue to provide information and support for Government fleet drivers.	 Work progressing	Advice continues to be made available to fleet drivers as an increasing proportion of the Government fleet transitions to zero emissions vehicles.
25	Implement a pathway towards a transition to zero emission waste trucks by the mid-2030s.	 Work progressing	ACT NoWaste continue to explore avenues for the adoption of a zero-emissions waste collection fleet by the mid-2030s.
26	Explore opportunities to replace government commercial and heavy vehicles with ZEVs as models become available.	 Work progressing	Zero emissions commercial vehicles have begun to enter the ACT Government fleet including the Australian-first hybrid electric fire truck, electric lawn mowers and light trucks.
27	Reform parking regulations to enable enforcement of parking in EV only parking spaces.	 Delivered/BAU	Changes were made to the Road Transport (Road Rules) Regulation 2017 (the Regulation) in April 2022 to enable enforcement of parking in Electric Vehicles-only parking spaces. The relevant sections of the Regulation are 203B and 203C. Section 203B makes it an offence for the driver of a non-electric powered vehicle to stop in a parking area designated for electric powered vehicles. The maximum penalty for this offence is 20 penalty units. Section 203C makes it an offence for the driver of an electric powered vehicle to stop in the parking area designated for charging of electric-powered vehicles and not have the electric powered vehicle plugged in to an external source of electricity. The maximum penalty for this offence is also 20 penalty units.
28	Investigate enabling zero emissions vehicles in the 'one-off' driver's test.	 Delivered/BAU	<p>Zero Emissions Vehicles (ZEV), as well as many newer model Internal Combustion Engine vehicles come fitted with Electronic Park Brakes. Access Canberra amended its policy to allow for vehicles with Electronic Park Brakes (which by default captures zero emissions vehicles) to be used for 'one off' driver licence tests. This policy change occurred in June 2022.</p> <p>Vehicles with Electronic Park Brakes (including ZEVs) are still to be subject to existing requirements and assessment vehicle pre-checks. If a vehicle's Electronic Park Brakes is in the foot well or somewhere else beyond the reach of the driver licence examiner, the assessment will not proceed. This is to ensure the safety of Access Canberra driver licence examiner staff.</p>

Canberra's Living Infrastructure Plan: Cooling the City

Code	Action description	Status	Update for 2022-23
1	Complete inventory and mapping of living infrastructure and expand the public urban infrastructure asset management system to include urban living infrastructure to inform investment decision making, whilst investigating steps to implement an accounting framework, such as the United Nations System of Environmental Economic Accounting (SEEA), to value urban living infrastructure.	 Delivered/BAU	Transport Canberra and City Services (TCCS) updated and completed the urban tree asset register to identify all public urban street and open space trees on the TCCS estates, unleased land and residential verges, with 823,768 registered tree assets listed as of 2022-23.
2	Achieve 30% tree canopy cover (or equivalent) and 30% permeable surfaces in Canberra's urban footprint by 2045.	 Work progressing	In 2022-23, over 12,000 trees were planted by Transport Canberra and City Services in the urban environment to increase tree canopy cover. Environment, Planning and Sustainable Development Directorate is undertaking further analysis on how to appropriately measure tree canopy cover equivalence and surface permeability for the ACT's urban footprint.
3	Prepare a Microclimate Assessment Guide and mandate its use to inform policy and forward planning studies for centres, urban renewal projects and urban intensification precincts, with initial assessment of priority locations to inform a city cooling works program.	 Work progressing	The Microclimate Assessment Guide is currently being updated to incorporate new learnings from recent microclimate assessment projects around Australia. The updated guide is expected to be published in the next 12 months.
4	Introduce requirement(s) for microclimate assessments of significant developments located in centres, urban renewal projects and urban intensification precincts, to assist with development assessment.	 Delivered/BAU	The range of requirements that could be considered for microclimate assessments are being investigated further through Living Infrastructure Plan (LIP) Action 6.
5	Prepare a guide for use by the community and built environment professionals to support effective landscape plans, and increase the opportunity for healthy, climate resilient and biodiverse gardens and public lands.	 Delivered/BAU	The Gawari Ngilanmanyin: Remembering the Bush climate-wise guide is available on the Everyday Climate Choices website .

Code	Action description	Status	Update for 2022-23
6	Require multi-dwelling, mixed use and commercial development applications (DA) to have landscape plans that demonstrate how surface treatments and tree canopy cover targets will be met, and change the processes for certification of DA compliance accordingly.	 Work progressing	Planning controls for living infrastructure and urban heat are being incorporated into the planning system in stages. A range of new tree canopy cover and surface permeability requirements for residential, commercial and community facility zones have been implemented through the 2023 Territory Plan.
7	Expand Actsmart web-based information and programs to incorporate the Climate-wise Landscape Guide to encourage and support community efforts to improve sustainability outcomes.	 Work progressing	With the Gawari Ngilanmanyin: Remembering the Bush guide now publicly available, a range of options are now being examined on how the guidance can be communicated in a user-friendly format to a greater cross-section of the community.
8	Review and update the ACT Tree Protection Act 2005 to ensure consistency with the objectives of the Plan and suitability to Canberra's changing climate.	 Delivered/BAU	The Tree Protection Act has been reviewed and replaced by the Urban Forest Act 2023, which was passed in the Assembly in March 2023 and will commence on 1 January 2024.
9	Develop a strategic plan for the public urban forest that outlines how the urban forest can be maintained and enhanced to improve amenity in a changing climate and deliver biodiversity outcomes.	 Delivered/BAU	The Urban Forest Strategy 2021-2045 was launched in March 2021. The Strategy outlines the key objectives and the actions needed to overcome the challenges of species diversity, an ageing tree population, climate change and urban heat island effect.
10	Trial city cooling initiatives in high priority locations.	 Work progressing	The Suburban Land Agency (SLA) is currently reviewing living infrastructure and Water Sensitive Urban Design measures from past SLA or Land Development Authority (LDA) developments to help inform living infrastructure trials that could improve cooling initiatives in upcoming SLA urban and suburban developments over 2023-25.
11	Trial local park upgrades in high priority locations including watered grass, trees, seats, lights and drinking fountains.	 Delivered/BAU	In 2022-23, Transport Canberra and City Services supported 26 community led projects through the Adopt-a-Park program, which supports landscape regeneration, enhancement and placemaking in urban open spaces, including the installation of shrub beds, interpretive signage and weed control.
12	Support the amenity and safety of active travel on trunk cycle and pedestrian routes with tree canopy shade and water points at key destinations.	 Work progressing	Transport Canberra and City Services' Urban Treescapes team have been planting trees along cycle and pedestrian routes as part of the Shade-ways Program, with the tree canopy shade and water points supporting the amenity of active travel around Canberra.

Code	Action description	Status	Update for 2022-23
13	Showcase best practice climate-wise design through display houses and exhibition sites in Government projects.	 Delivered/ BAU	The Whitlam Living Infrastructure Demonstration project was completed in June 2022 by Suburban Land Agency in partnership with Transport Canberra and City Services and Environment, Planning and Sustainable Development Directorate. The trees and plants in the garden beds are growing well, with passive irrigation supporting this growth through the three types of gutter treatments and 4 permeable driveways designed to redirect water into the gardens.
14	Support trials and demonstration projects to retrofit infrastructure to allow hydration of open spaces using stormwater.	 Work progressing	The Healthy Waterways program has been implemented to improve the quality of water entering our lakes and waterways and flowing downstream into the Murrumbidgee River system. The program supports the construction of infrastructure such as wetlands, ponds, and channel naturalisation to improve the quality of the ACT's stormwater.
15	Investigate ways to encourage and incentivise living infrastructure on existing and future buildings in Canberra.	 Work progressing	Environment, Planning and Sustainable Development Directorate is commencing a study into the options for encouraging existing and new buildings to address urban heat in locations like town centres, which will help to identify innovative cooling solutions for community and industry. The Nature in the City Program, which will be commencing a new funding round in 2024, provides funding for community-led projects that provide innovative cooling solutions within our urban footprint.

