



ACT CLIMATE CHANGE STRATEGY ADVICE DOCUMENT

This document highlights some of the opportunities for the natural, social, economic, and built environment sector, along with the health, energy and transport sector to support the ACT's goal of a just transition to net zero emissions. Identifying and capitalising on the links between how our region is planned, designed and delivered, with community quality of life and sense of well-being will be critical to achieve a just transition which will leave no one behind.

This document intends to inspire extended dialogue on the following main themes.



1. REVITALISE CLIMATE CHANGE ADAPTATION ACTION

- a. Embed equity into implementation of all policies and programmes.
- b. Increase resilience of urban biodiversity and ecosystem services.
- c. Promote green-blue space considerations as nature-based solutions to reduce flood risk and urban health island effect and encourage social cohesion.
- d. Develop early warning systems that inform local climate action plans
- e. Construct climate adapted infrastructure



2. STRENGTHEN EXISTING MITIGATION ACTIONS

- a. Assess appropriateness and performance of emissions reduction targets, and interim targets against the existing Strategy.
- b. Encourage zero emissions vehicle uptake through increased EV specific charging facilities and parking spaces.
- c. Implement and incentive energy efficiency for high-density residential and commercial buildings
- d. Advance the de-gasification of ACT government buildings



3. INTEGRATE DIVERSE COMMUNITY VOICES

- a. Work with non-English-speaking communities and community organisations to improve communication of ACT Climate Strategy
- b. Commit to culturally aware practice based on Aboriginal and Torres Strait Islander knowledge systems
- c. Increase the involvement of, and communication with youth and schools.
- d. Support the development of community-led action in all these groups.



4. PRIORITISE FLEXIBLE ADAPTATION-MITIGATION MEASURES THAT INCORPORATE UNCERTAINTY

- a. Analyse the shortfall in relation to climate risks in the ACT (lack of information on impact of storms, floods compared to Black Summer fire and smoke, hail, heatwaves, drought)
- b. Identify, incorporate and evaluate the health and well-being benefits of policy options



5. REINFORCE THE CO-BENEFITS OF CLIMATE ACTION

- a. Encourage active transport through increased investment in cycling infrastructure and subsidies for e-bikes
- b. Improve waste management by implementing FOGO recycling throughout ACT



6. INCLUSIVE LEADERSHIP AND GOVERNANCE

- a. Implement a Scope 3 emissions reduction program for ACT Government
- b. Establish a cross- Directorate body
- c. Enable cross-border sharing of knowledge and resources



7. MONITORING, EVALUATION, REPORTING AND IMPROVEMENT FOR TRANSFORMATIONAL CHANGE

- a. Capitalise on the academic expertise available to drive research-policy partnerships
- b. Invest in education (skills and training) required to achieve net zero and intergenerational well-being.



REVITALISE CLIMATE CHANGE ADAPTATION ACTION

A. EMBED EQUITY INTO IMPLEMENTATION OF ALL POLICIES AND PROGRAMMES

Implementation can and should advance equity. To date, a large number of climate actions taken by ACT government focus on and measure the equity of targets. Climate extremes in the ACT and globally will disproportionately impact populations that are socially, materially and economically disadvantaged (hereafter referred to as ‘priority populations’). Embedding equity in implementation should start with a broader understanding of inequities building from just income-related disparities. This will ensure that program design and delivery can be targeted to priority populations that suffer compounding disadvantage (e.g. newly arrived refugees or migrants may not be know about or be eligible for referral systems into energy efficiency programs).

B. MANAGE URBAN BIODIVERSITY AND ECOSYSTEMS

There should be active management of the “natural areas” to reduce the impact of fire or other natural disasters and possibly reconstruct the more resilient pre-1970’s Canberra environment. In relation to fire management in the ACT, in particular, there is scope for the following:

- a. **Support for Cultural Burning.** Acknowledge cultural burning as a legitimate practice and empower Indigenous custodians to lead landscape management efforts.
- b. **Urban-Forest Interface Management.** Prioritise asset protection and human safety through assessment of innovative approaches, such as mechanical biomass removal for biochar production.
- c. **Forest Management.** Develop comprehensive strategies for reducing the likelihood of large fires, including ecological thinning, rapid response systems and restocking initiatives.
- d. **Public Education.** Promote public awareness and understanding of fire ecology and of fire and smoke risks and adaptive responses to foster community capacity and cooperation in fire management efforts.

C. DEVELOP AND IMPLEMENT BLUE-GREEN SPACE CONSIDERATIONS

Combining blue and green infrastructure offers a wide range of benefits including improved cooling and mitigation of the urban heat island effect and the better-known ecosystems services such as water quality improvement and flood management. New high density dwelling areas, such as Belconnen and the Northbourne corridor appear to have been developed without any provision for additional greenspace for the recreation of residents or the mitigation of urban heat island effects. Understanding the health and well-being benefits and risks of blue-green space in the ACT are in their infancy and an improved planning strategy is needed to address this deficiency.

D. DESIGN EARLY WARNING SYSTEMS TO INFORM CLIMATE ACTION PLANS

The ACT Government can strengthen climate adaptation and community engagement through participatory development of local climate plans that incorporate nature-based solutions and heatwave preparedness programs. As communities use and value natural spaces differently, it is critical that diverse voices inform planning and implementation.

E. CONSTRUCT CLIMATE ADAPTED INFRASTRUCTURE



STRENGTHEN EXISTING MITIGATION ACTIONS

A. ASSESS APPROPRIATENESS AND PERFORMANCE OF EMISSIONS REDUCTION TARGETS, AND INTERIM TARGETS AGAINST THE EXISTING STRATEGY.

B. ENCOURAGE ZERO EMISSIONS VEHICLE UPTAKE INCREASING INSTALLATION OF EV CHARGING FACILITIES, INCLUDING LOWER CAPACITY CHARGERS AND EV-SPECIFIC PARKING SPOTS.

The general availability of charging stations in locations like shopping centres, car parks and on the street is still poor and inadequate to support EV owners who may not have EV charging infrastructure at home (including renters and apartment dwellers). Type 2 (7kW) chargers provide adequate capacity for casual use and the support of EV drivers who cannot charge at home. These can be installed at street level or at destination level; furthermore, when managed *en masse*, such chargers provide a discretionary load that can be managed to the benefit of the national grid.

C. IMPLEMENT AND INCENTIVISE ENERGY EFFICIENCY FOR HIGH-DENSITY RESIDENTIAL AND COMMERCIAL BUILDINGS AND RENTAL PROPERTIES

- a. **Require provision of Type 2 (7kW) chargers in all new apartment car parks.** Type 2 chargers should be provided to a significant proportion of car parking spaces in new apartment buildings, with infrastructure for such chargers being provided so enable eventual provision of chargers to all car parking spaces.
- b. **Prohibit measures banning of EV charging from enclosed car parks.** A number of buildings have, or are claimed to have, banned EV charging (even at 10A) from car parks due to fears of fire danger. However, such measures are not based on credible empirical evidence, as identified in work conducted for the Australian Building Codes Board (which is working towards requirement for EV charging in buildings' car parks). See [ABCB EV Guidance Document June 2023.pdf](#)
- c. **Develop and implement degasification strategy for high-density dwelling areas.** Existing high-density dwellings are challenging to degasify, both technically and institutionally. A strategy is required to address the needs for this sector. This may include: (a) The provision of centralised infrastructure serving multiple buildings in some cases, as often rooftop space is limited, or (b) The use of strong incentives or regulations to require upgrades, in order to motivate action by body corporates.
- d. **Ban gas from new commercial buildings.** It has already been established that all-electric commercial buildings are practical, and although the NCC does not yet mandate this, it is heading in that direction. To stay ahead of the market, the ACT should require all new commercial construction to be all-electric, via DA conditions.
- e. **Impose ahead-of-the-curve restrictions on high greenhouse gas intensity refrigerant use in commercial cooling and refrigeration equipment.** Refrigerant emissions policy is determined and implemented at a national level and consists of an overall market-based mechanism plus limitations on refrigerant GHG intensity for certain forms of residential air-conditioners. There is potential for the ACT to enforce (via DA requirements) additional restrictions, particularly focused on the commercial refrigeration and cooling sectors, where low GHG refrigerant options are more widespread. It is noted that emissions reductions

achieved by such mechanisms may not be able to be measured and reported in the ACT Greenhouse Gas inventory without the introduction of new measurement methods. Implement light-roof policies for residential buildings to reduce urban heat island effects.

- f. **Incorporate construction embodied emission requirements into DA requirements.** NABERS has launched NABERS Embodied Carbon which provides a standardized and simplified method for the measurement of embodied carbon in construction, applicable to most building types. It is recommended that DA requirements should be expanded to include, initially, reporting of the achieved NABERS Embodied Carbon rating for new construction, with a view to introducing minimum rating requirements in the future.
- g. **Develop and implement incentives via land tax rebates, penalties or similar for landlords to upgrade energy efficiency, install PV and degasify rental properties.** A sliding scale of incentives and penalties should be developed and based on the presence of features, noting that PV and degasification are easier to measure than energy efficiency (but care would be required to ensure that a property that has had its gas heating removed has a suitable electric replacement).
- h. **Advance the degasification of ACT government buildings.** ACT Government still operates a number of gas-intensive facilities. The degasification of these should be brought forward.
- i. **Develop rates-based financing to enable landlords to improve energy efficiency, install PV and transition from gas in rental properties.** The capital cost of these measures is a significant barrier for landlords, who receive none of the direct benefits of these investments. In combination with other measures that encourage (via stick or carrot) such investment, a system that allows the capital cost of upgrades to be financed on the rates (or land tax) bill for the property carries significant potential to motivate investment in this area, to the benefit of tenants and the environment alike.
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- k. **Potential for gas-death spiral.**
- l. **Develop low emission buildings (in both construction and operation).** Passive House domain as an example.



INTEGRATE DIVERSE COMMUNITY VOICES

A. WORK WITH NON-ENGLISH-SPEAKING COMMUNITIES AND COMMUNITY ORGANISATIONS TO IMPROVE COMMUNICATION OF ACT CLIMATE STRATEGY

During the past two terms of the ACTCCC, the issue of poor information and communication in relation to non-English-speaking communities has come up several times. It is essential that these communities are not left out from the transition. Regular invitations to the Ministerial Advisory Council for Multiculturalism to better understand Canberra's culturally and linguistically diverse communities would be a useful first step.

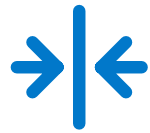
B. COMMIT TO CULTURALLY AWARE PRACTICE BASED ON ABORIGINAL AND TORRES STRAIT ISLANDER KNOWLEDGE SYSTEMS

C. INCREASE THE INVOLVEMENT OF, AND COMMUNICATION WITH YOUTH AND SCHOOLS

Expanding climate education, storytelling initiatives, through better engagement with existing School and youth initiatives is necessary. The Sustainable Schools program networks and events should be used to enhance awareness of the ACT Climate Change council's activities. Biennial events such as the Youth Assembly for 12–25-year-olds can be used to foster exchange of ideas. Mechanisms to facilitate cross-pollination of issues and innovation across the ACT Youth Advisory Council and the ACT Climate Change Council need to be established. Support the development of community-led action in all these groups.

D. SUPPORT THE DEVELOPMENT OF COMMUNITY-LED ACTION IN ALL THESE GROUPS

Funding uncertainty undermines the capacity of community organisations to meet community needs. Committing to on-going funding for at least 12 months for community groups and services is necessary.



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REINFORCE THE CO-BENEFITS OF CLIMATE ACTION

IMPLEMENT FOGO RECYCLING THROUGHOUT ACT.

While garden waste recycling is in place, food scrap recycling provisions in the ACT now lag many other jurisdictions (including Queanbeyan). Implementation of this needs to be accelerated.



INCLUSIVE LEADERSHIP AND GOVERNANCE

IMPLEMENT A SCOPE 3 EMISSIONS REDUCTION PROGRAM FOR ACT GOVERNMENT.

While policy for managing territory-wide Scope 3 is potentially challenging, it is very practical to consider the opportunity to develop and implement a Scope 3 emissions reduction program for government operations. This should include

- Procurement policies targeting reporting and minimization of procured product emissions intensity
- Measurement and reporting

CROSS DIRECTORATE BODY TO ENSURE STRATEGIC ALIGNMENT OF COLLECTIVE VISION



MONITORING, EVALUATION, REPORTING AND IMPROVEMENT FOR TRANSFORMATIONAL CHANGE

- A. **INSTALL A NETWORK OF MEASUREMENT STATIONS** covering temperature/humidity (for urban heat island monitoring), pollutants (for assessment of positive impacts from electrification, measurement of smoke levels during bushfire events) and CO₂. Climate change is creating a range of new challenges and opportunities for air quality in the ACT. Urban heat island (UHI) effects manifest most strongly in overnight temperatures in urban areas but these are weakly monitored, and the last UHI assessment (that this author is aware of) was via satellite (and of limited insight as a result). Furthermore, it should be expected that increased use of EVs (and other Government transport policy initiatives) will produce some air-quality benefits near main roads, which would be beneficial to monitor. In addition, the Black Summer bushfires showed that the network of PM₁₀ measurement sensors in Canberra is insufficient to provide air-quality information in a timely manner to enable action by sensitive individuals. Such sensors have become relatively cheap, so establishment of a network with live reporting is not necessarily a particularly expensive exercise.
- B. **LINK MONITORING TO ACTION PLANS – E.G. A HEATSTRESS RESPONSE PLAN, A SMOKE PLAN ETC**

The ACT has been world-leading in its approach to climate action and continues to be a remarkable environment for new approaches and ideas. Over the past decade Australians have faced unprecedented temperatures, fires, smoke and rainfall events. There is a real benefit to explicitly encompass both science and imagination. Science, reflecting decades of accurate projections of the impacts of climate change, and imagination for new ways of approaching problems in an increasingly unpredictable environment. Similarly, we can extend prior mitigation-focussed thinking by embedding our thinking in a continuum from mitigation to adaptation. When considering climate change and our future it is helpful to consider how we care for people and place and with an intergenerational lens, understanding what we have learnt and considering where our future generations might land. These three elements: science and imagination, the continuum of mitigation to adaptation, and caring for people and place with an intergenerational lens, are broad brush approaches that can inculcate across the updated ACT Climate Change Strategy.

