

Canberra's Climate Strategy to Net Zero Emissions

An aerial photograph of Canberra, Australia, showing the city's layout with its central government precinct, Lake Burley Griffin, and surrounding green spaces and hills. The city is nestled in a valley, with the lake in the center and hills in the background. The foreground shows the Parliament House and other government buildings, surrounded by lush greenery and parks. The lake is a prominent feature, with a bridge crossing it on the left side. The overall scene is a mix of urban development and natural beauty.

Geoffrey Rutledge
Deputy Director-General
ACT Government
Resilient Cities, Bonn
27 April 2018

Canberra, Australia's National Capital



Canberra.

CANBERRA'S CLIMATE IS ALREADY CHANGING, AND IN FUTURE THE ACT CAN EXPECT MORE EXTREME



HEATWAVES will become hotter, more frequent and last longer.



DROUGHTS will increase in severity and frequency as temperatures continue to rise and reliability of rainfall decreases.



MORE INTENSE STORMS will result in flash flooding as well as wind, hail and rain damage to homes, trees and infrastructure.



DANGEROUS BUSHFIRE weather is increasing due to hotter and drier conditions.

Even with our efforts to reduce emissions, a certain amount of warming is already 'locked in'. We are committed to working with the community to ensure Canberra is able to adapt to climate change and remain a great place to live.

Observed impacts – 2003 fires



International and subnational commitments



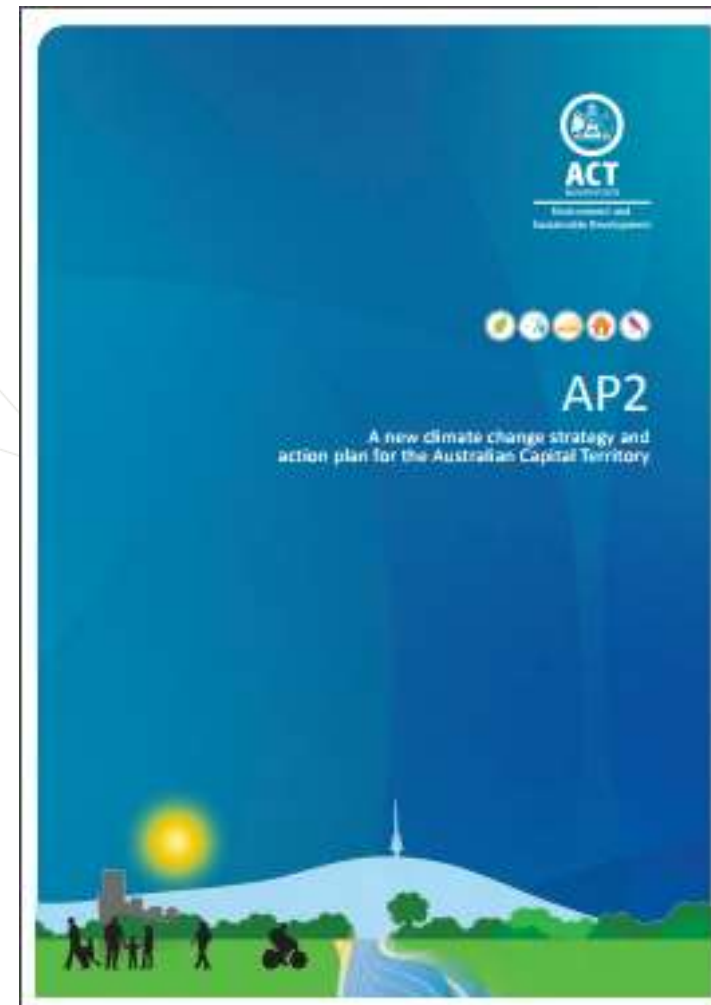
I.C.L.E.I Local Governments for Sustainability



Where are we now? - Mitigation

Legislated targets informed by IPCC are being met:

- Target of 40% emissions reductions on 1990 levels by 2020
- 100% renewable electricity by 2020
- Energy efficiency and community focussed actions; and
- In accordance with the Paris Agreement net zero emissions by 2050 at the latest.

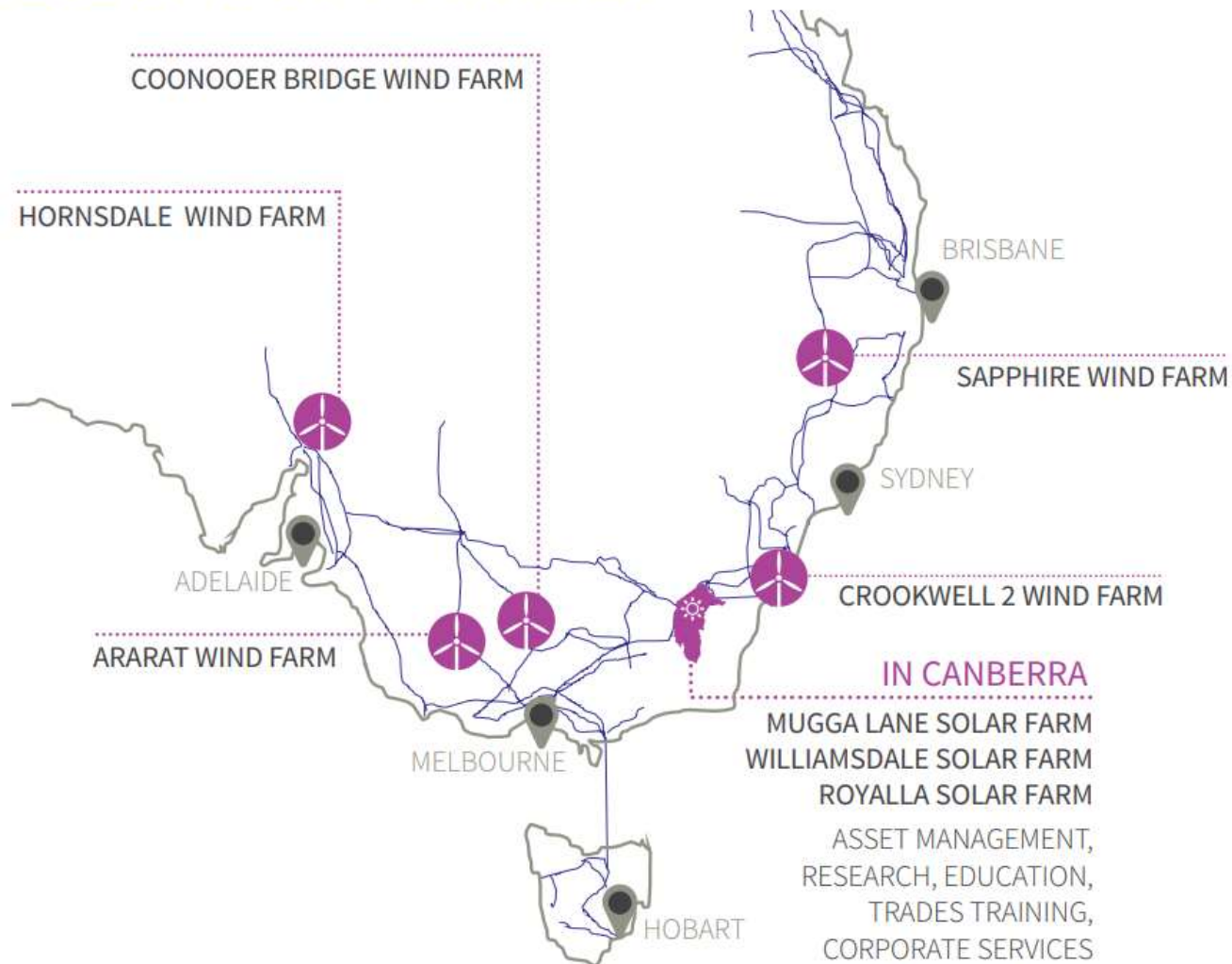


100% Renewable Electricity

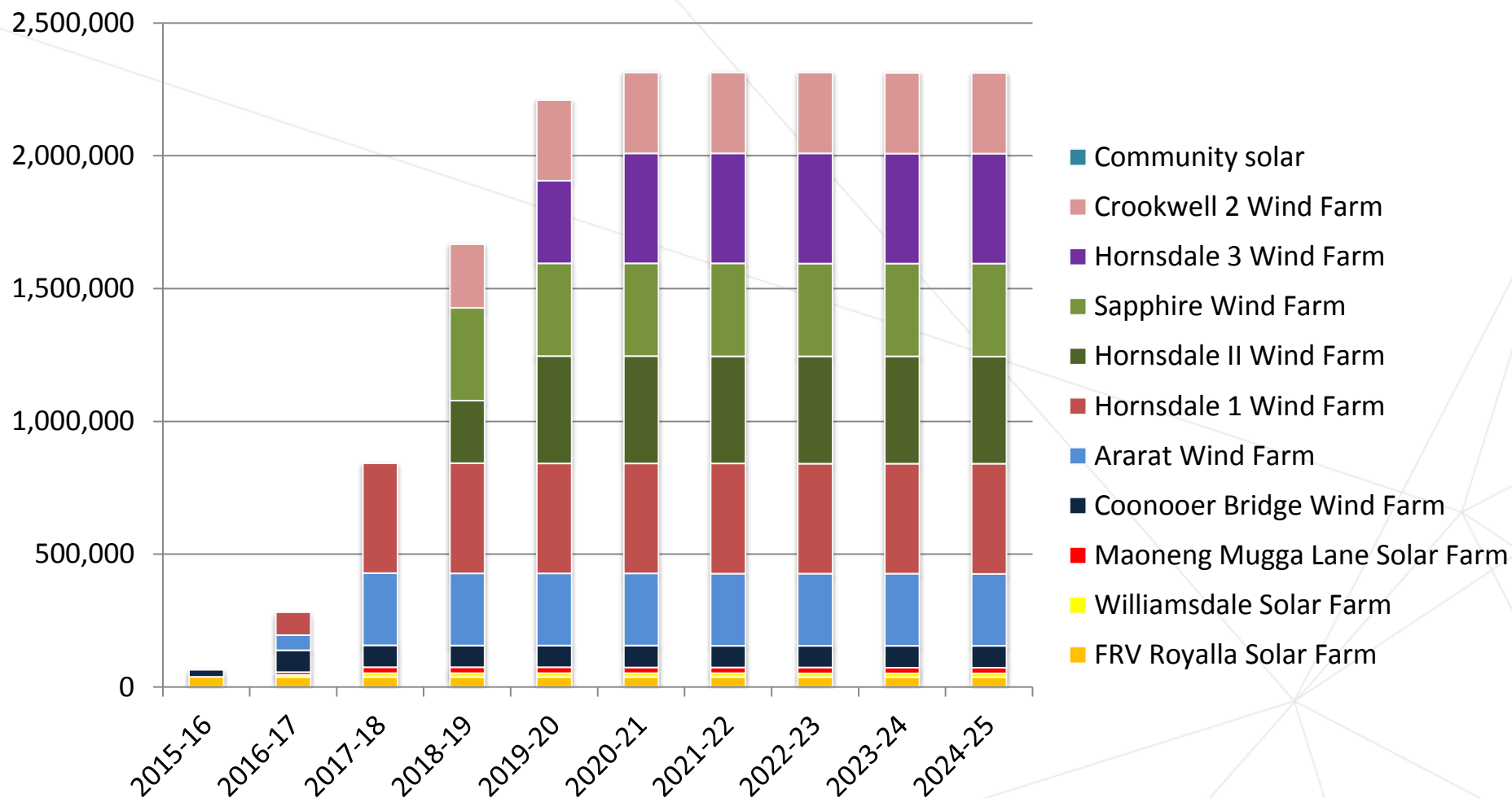


4 solar farms in ACT
Royalla Solar Farm – 20 MW
Mugga Lane Solar Farm – 13 MW
Majura Road Solar Farm – 2.3 MW
Williamsdale Solar Farm – 7 MW

LOCATION OF CANBERRA'S WIND AND SOLAR FARMS WITHIN THE NATIONAL ELECTRICITY MARKET

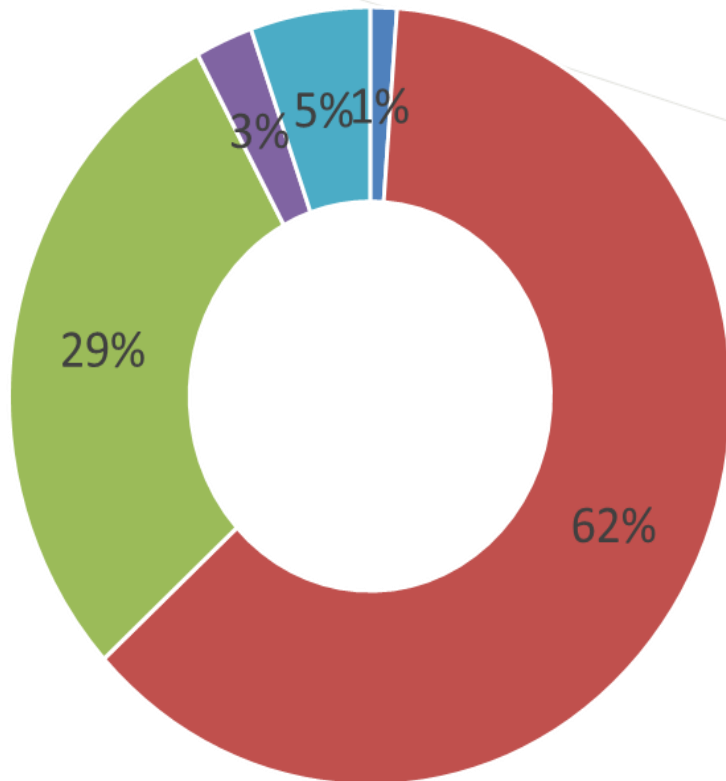


100% Renewable Electricity



ACT Emissions Profile - 2020

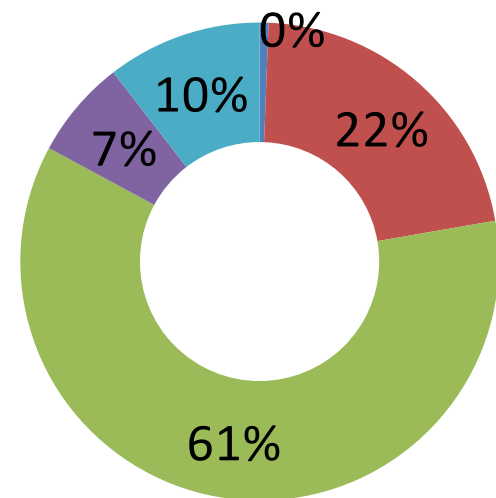
Actual emissions 2016-17



40% below
1990 levels

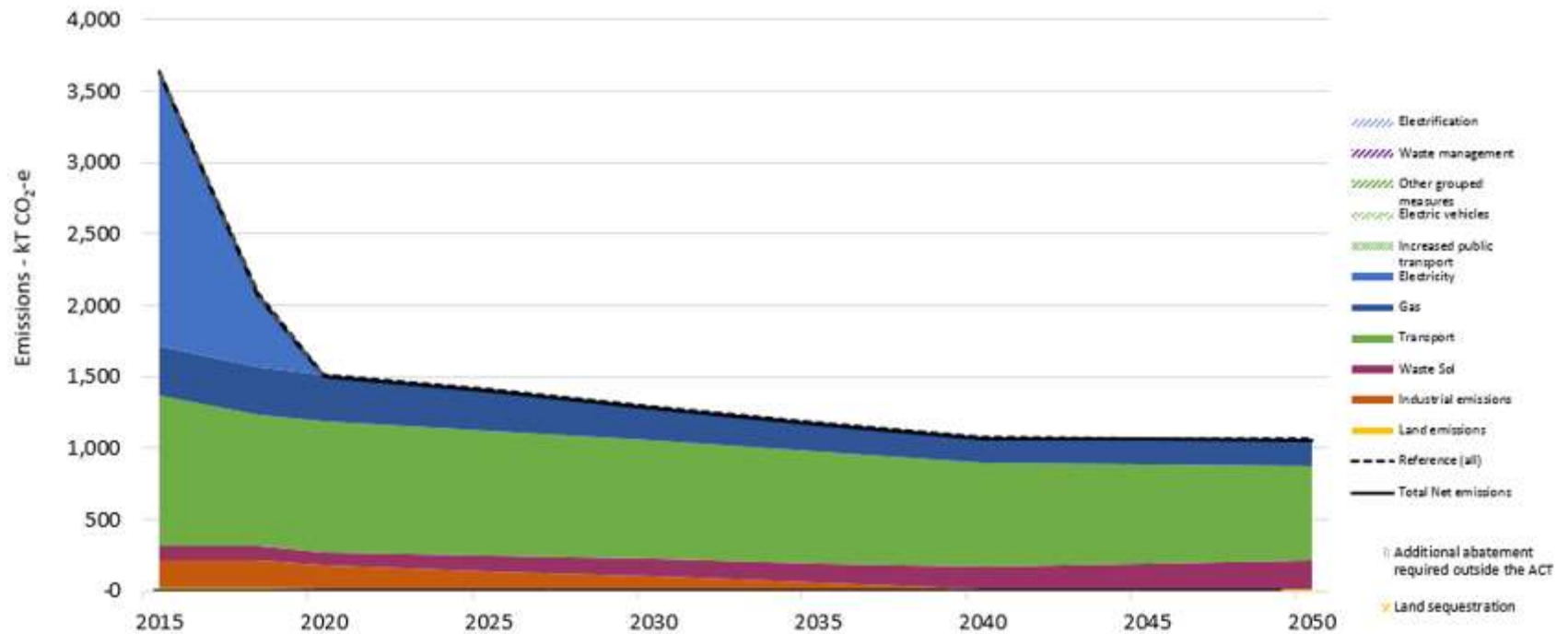
2020 emissions

- Land use
- Energy
- Transport
- Waste
- Industry

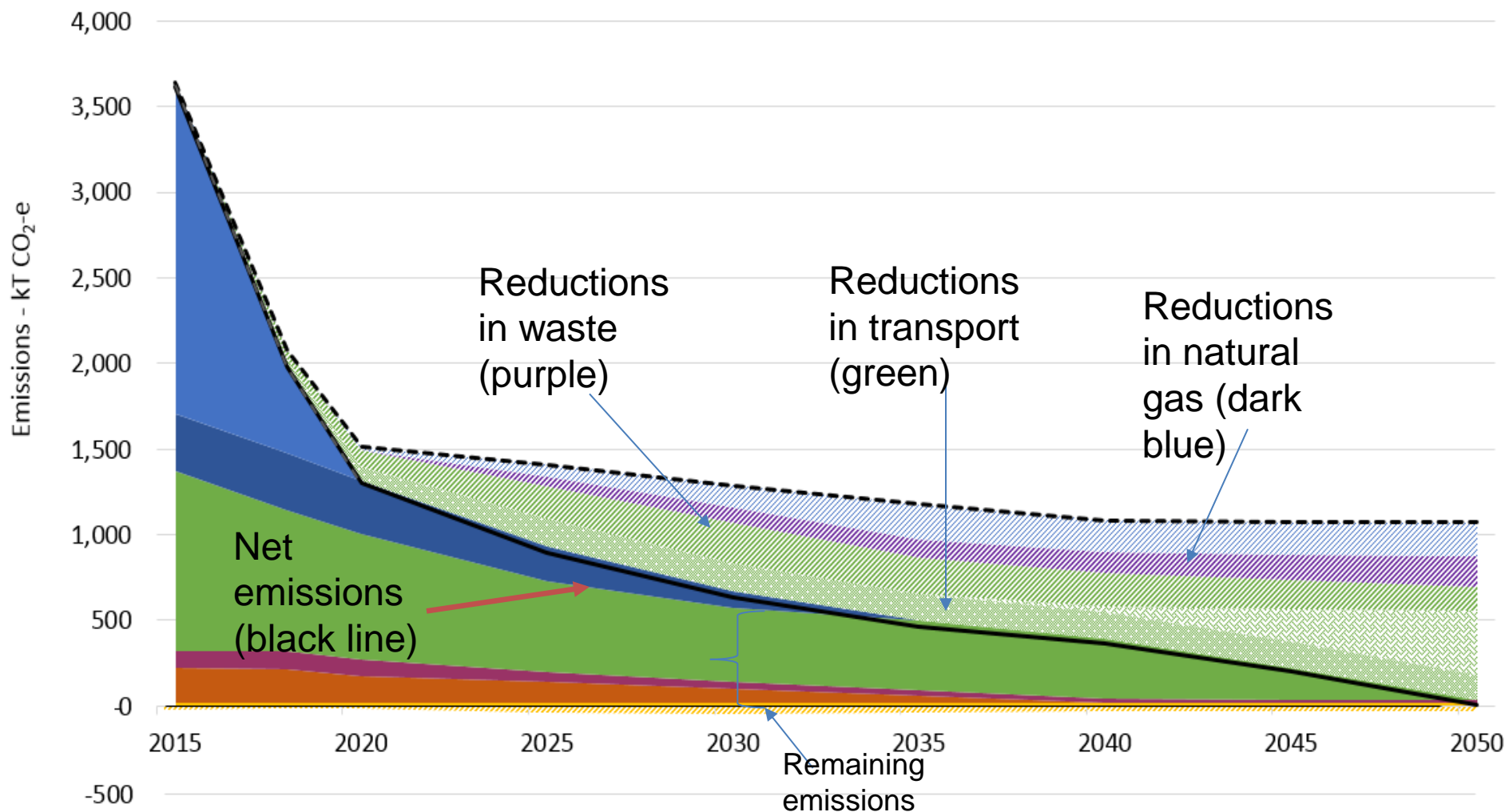


ACT Emissions – Business as Usual to 2050

Reference (BAU) - medium emissions scenario.



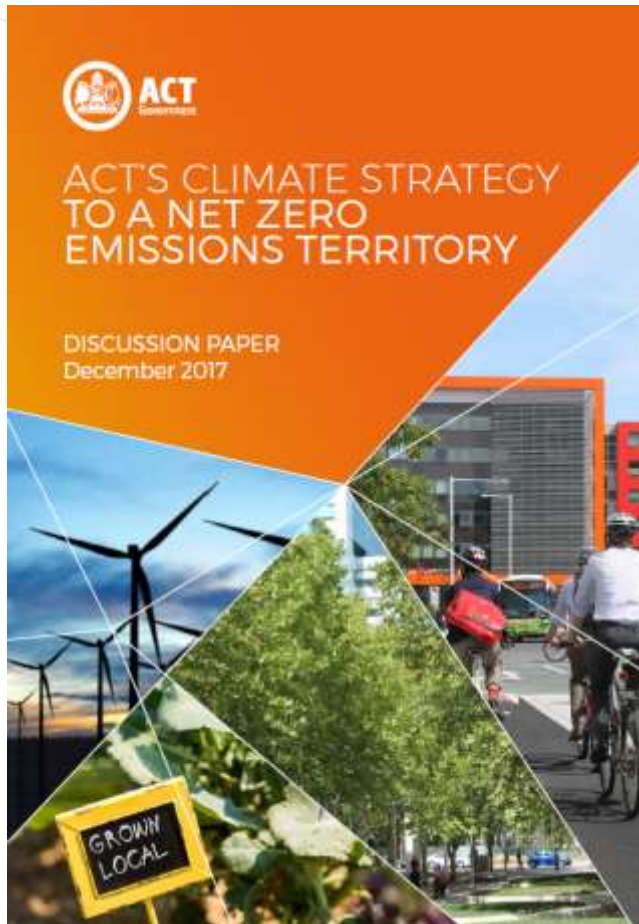
Emissions Pathway to Neutrality – an example



Where to from here?

- Net zero emissions by 2050 (2045) at the latest is a target that requires early and sustained action
- Behaviour change with effective partnerships with the community is key to success
- Collaboration and innovation is key to our continued success

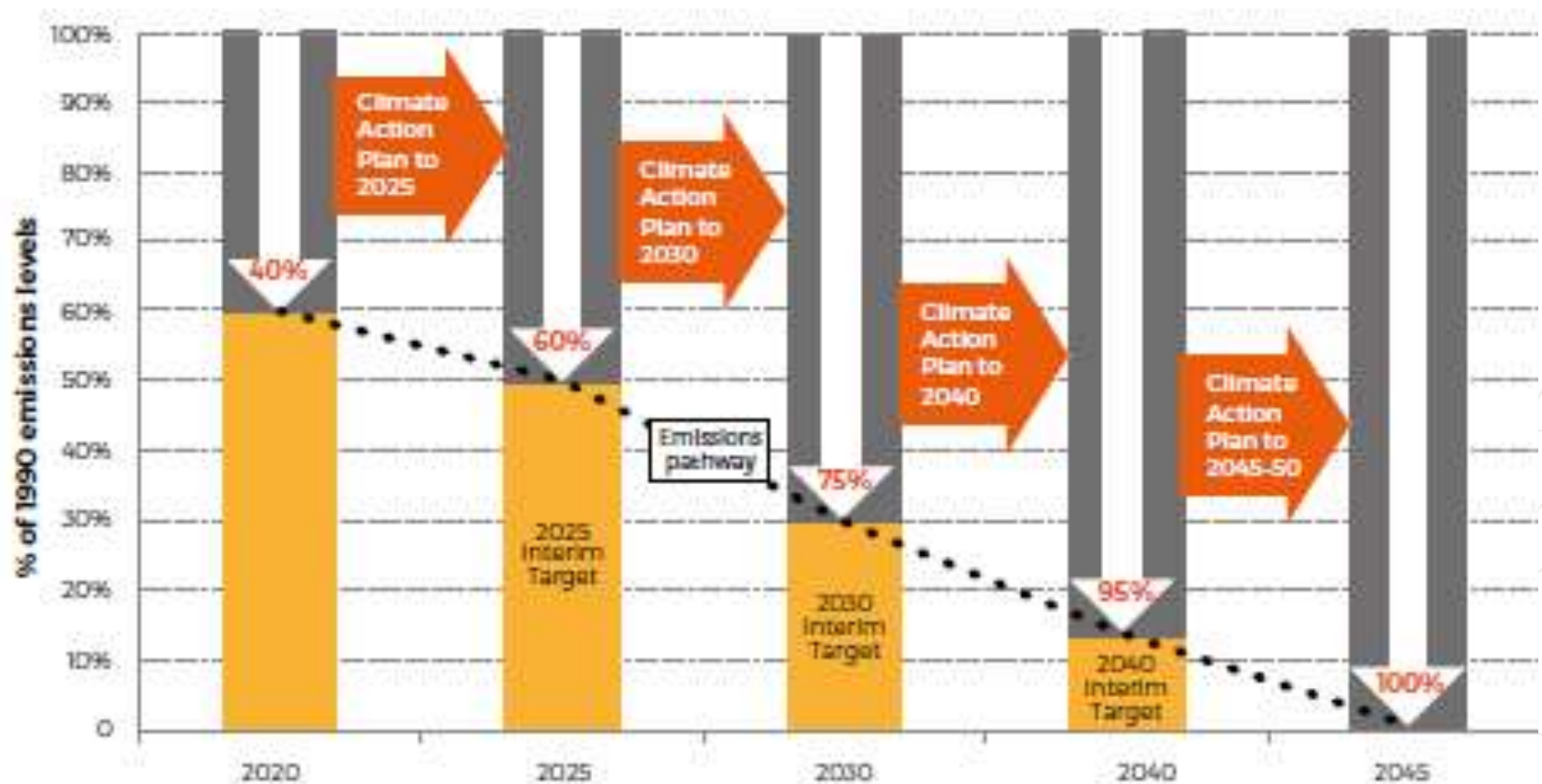
'Net Zero Emissions' Discussion Paper



- Emission reductions and climate adaptation
- Sectoral approach
 - Transport
 - Gas (for stationary heating)
 - Waste
 - Land use

Proposed New Targets – 5 year Action Plans

Figure 2: Pathway to net zero emissions showing potential interim targets and climate action plans to 2050 at the latest



Transport

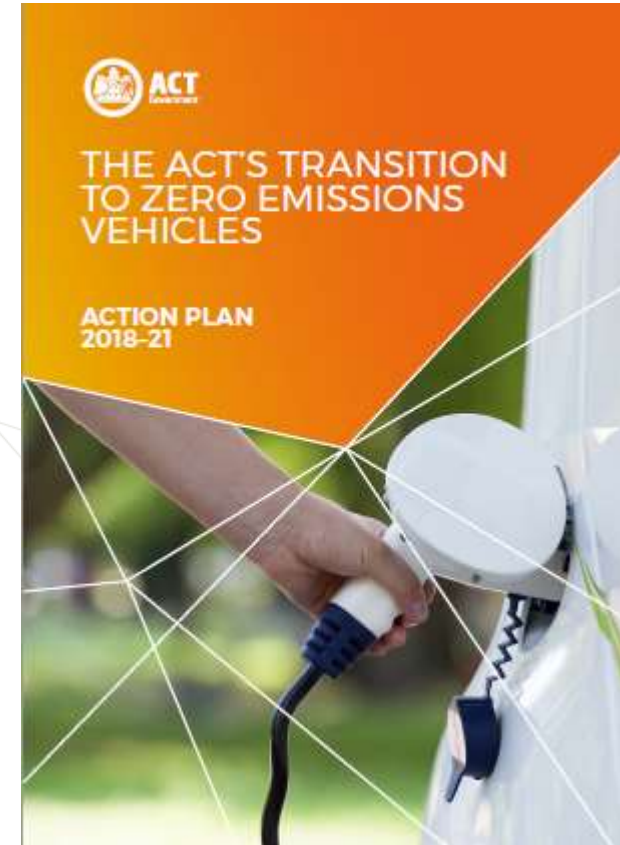


Zero Emissions Vehicle Action Plan

Sets out the next step towards net zero emissions:

1. ZEV charge points required in all new multi-unit and mixed use developments
2. Facilitating the installation of charging infrastructure in the ACT and along major travel routes
3. 20% off vehicle registration and zero stamp duty
4. Encouraged use of electric bikes and active travel
5. Transit lane access for ZEVs until 2023
6. All Government leased passenger vehicles to be ZEVs by 2020/21

The ACT Government continues to lead Australia in the the inevitable transition to electric transport



New Challenges – Improving our built form

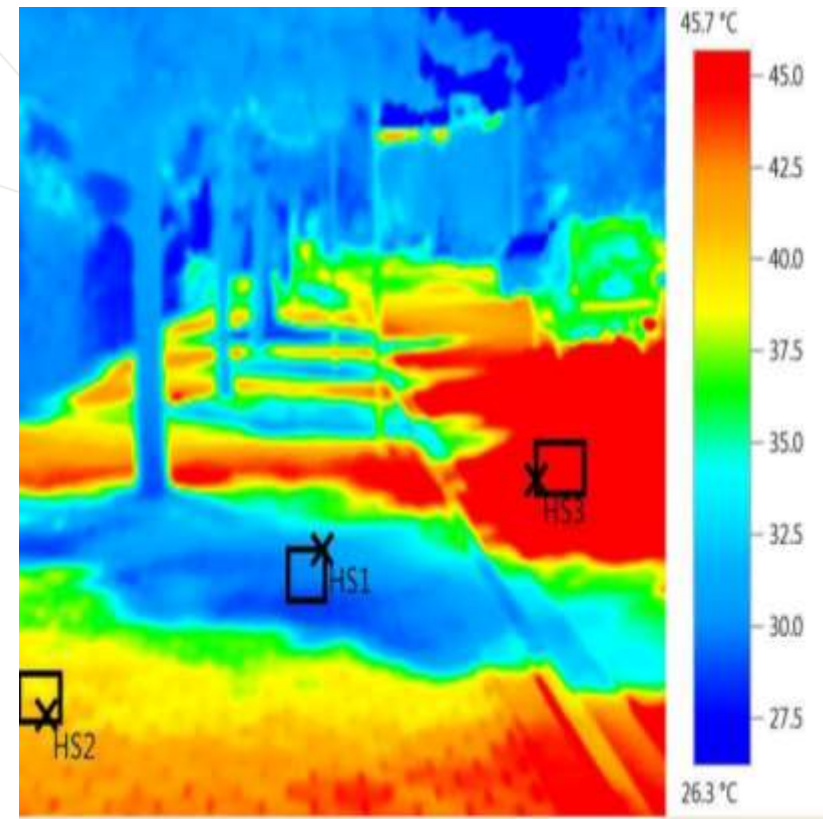
- Embedded renewables and storage
- Passive designs – higher building code standards
- Living infrastructure (inc. green roofs and green walls)
- Energy efficiency
- All solar households



New Challenges - Land use

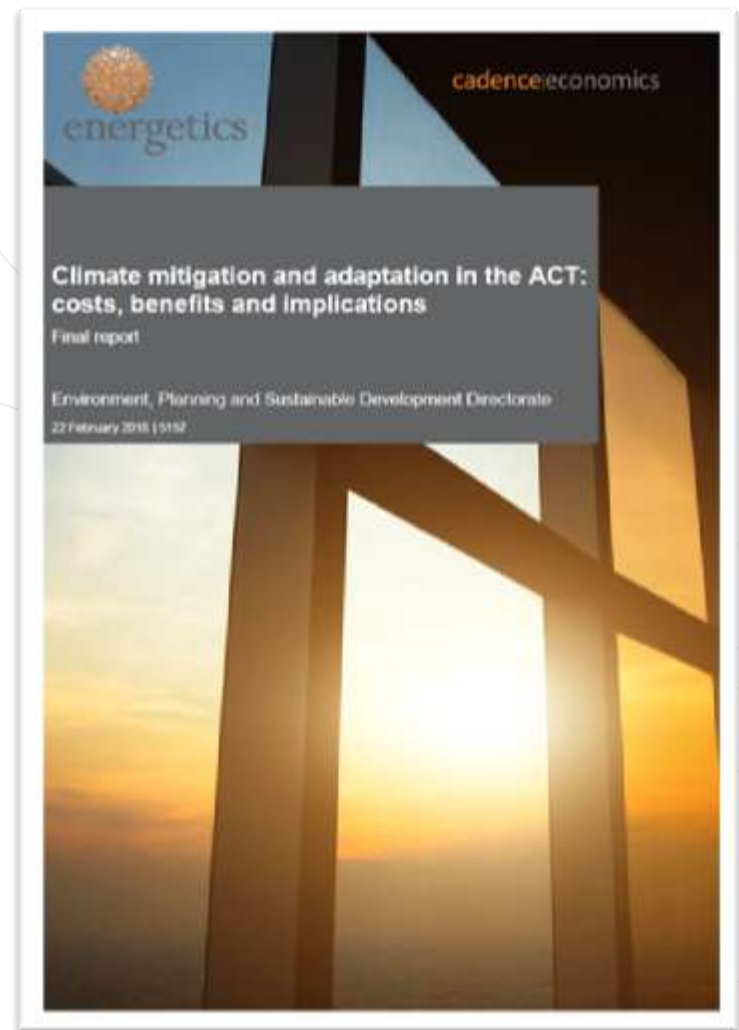
Compact city = supports emissions reductions

- But urban intensification can make Urban Heat Island worse



Economic Modelling for our pathway

- Testing the pathway to net zero emissions for its economic impacts – this report to 2030.

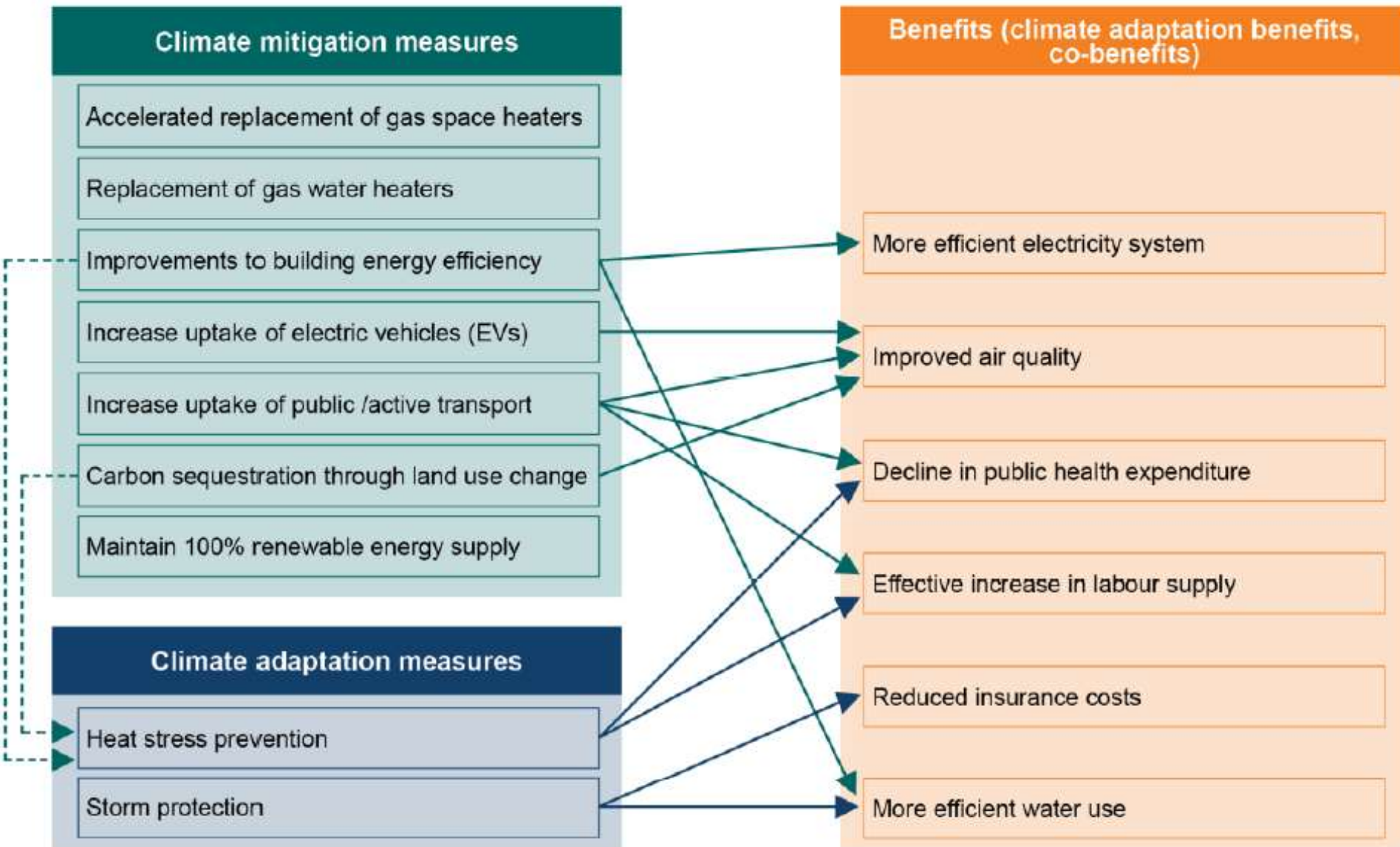


Findings

- The 65% emissions reduction target can be met by:



Co-benefits costing



Next Steps

- Canberra is a national (and International) leader in climate change and renewable energy policy
- Collaboration and innovation is key to our continued success
- Finding lasting solutions will depend on behaviour change
- Establishing networks, locally and globally will support sharing of experience



CANBERRA

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