

# ACT Climate Change Strategy Energy and Transport emissions

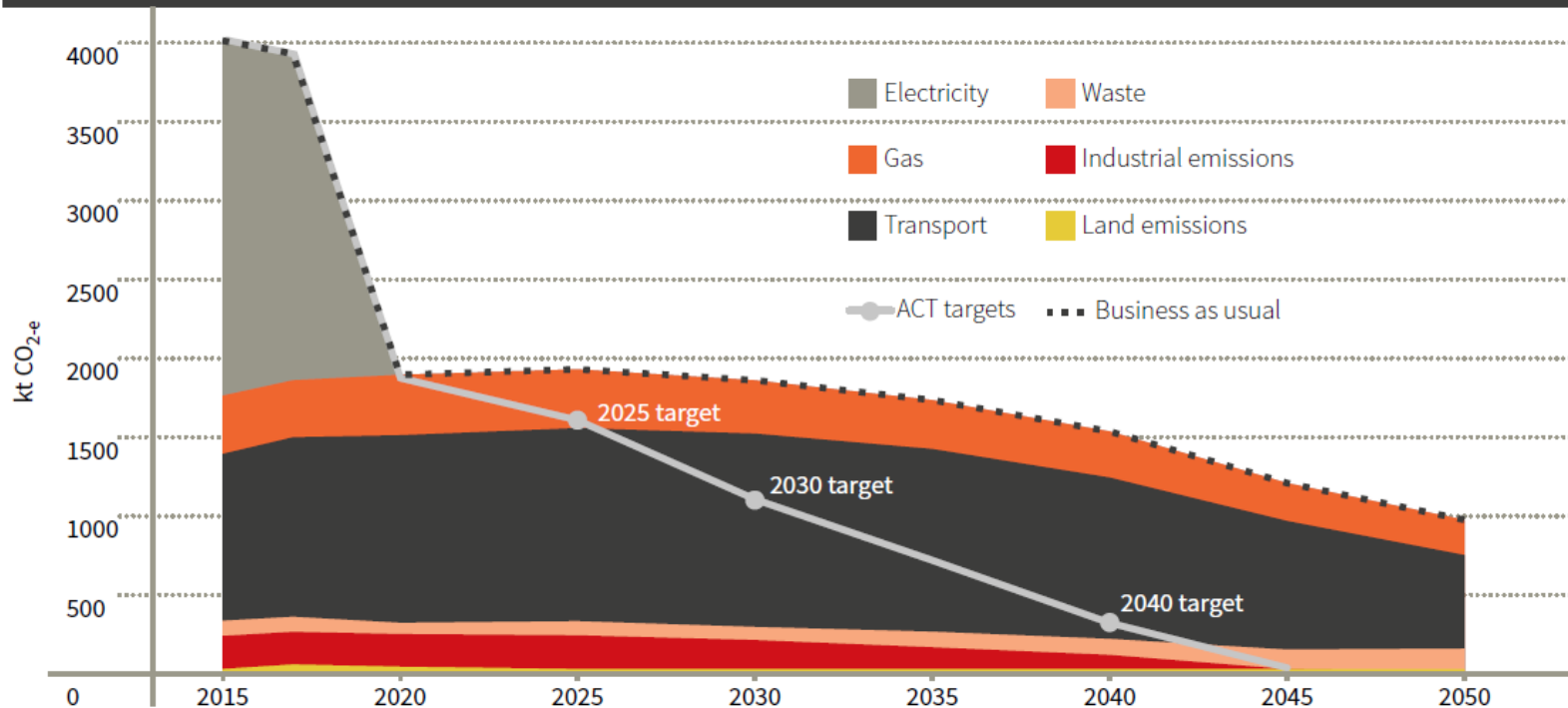
Dr Matthew Stocks

RE100 Group

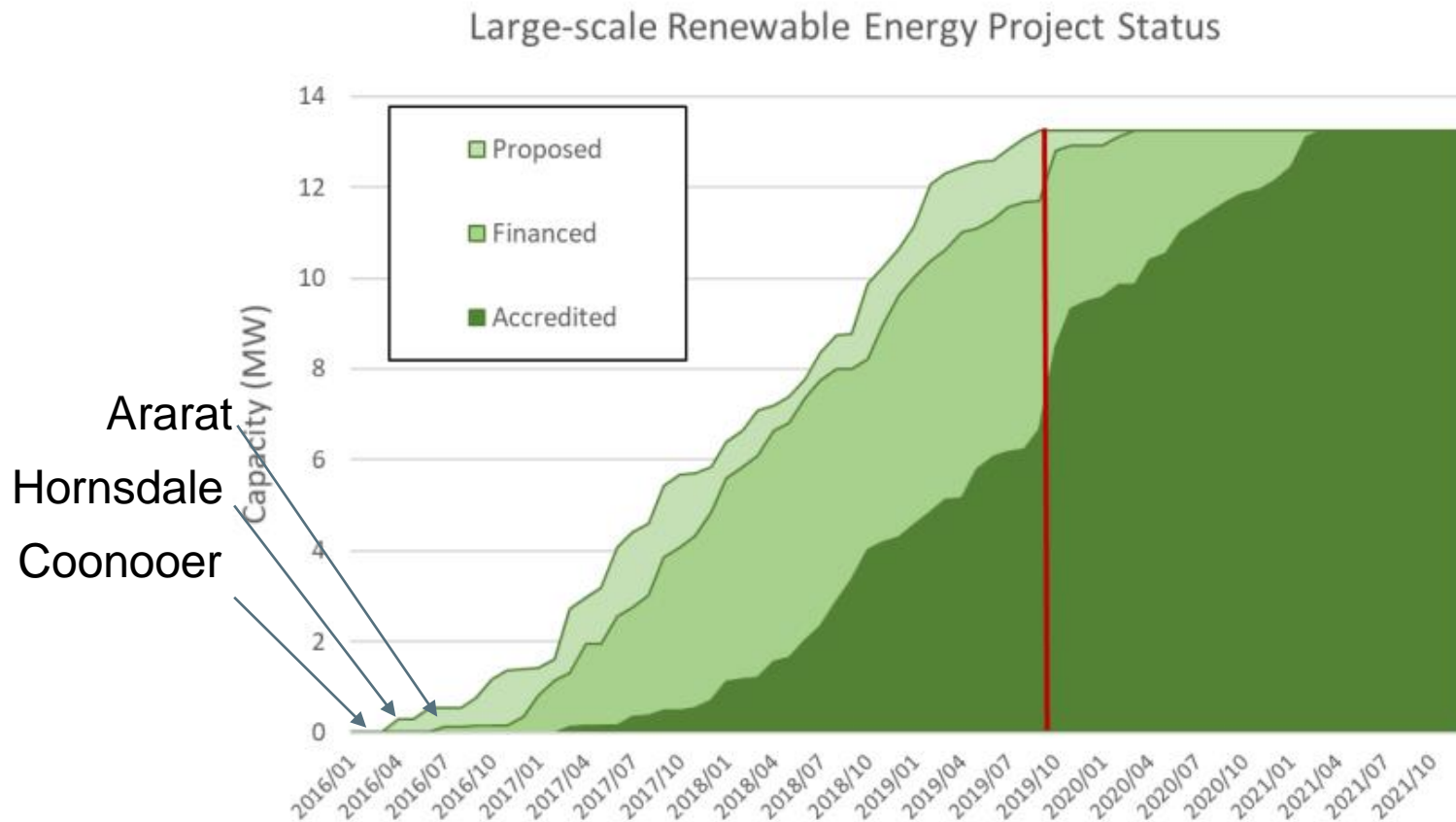
Research School of Electrical, Energy and Materials Engineering

# Current and projected emissions

**Figure 5: Business as usual ACT greenhouse gas emissions to 2050 with no further Government intervention.**  
 The legislated emission reduction targets are shown at their lowest level of ambition (i.e. for the 50–60% interim reduction target in 2025, the white dot represents a 50% reduction from 1990 levels). Source: ACT greenhouse gas emissions modelling 2018



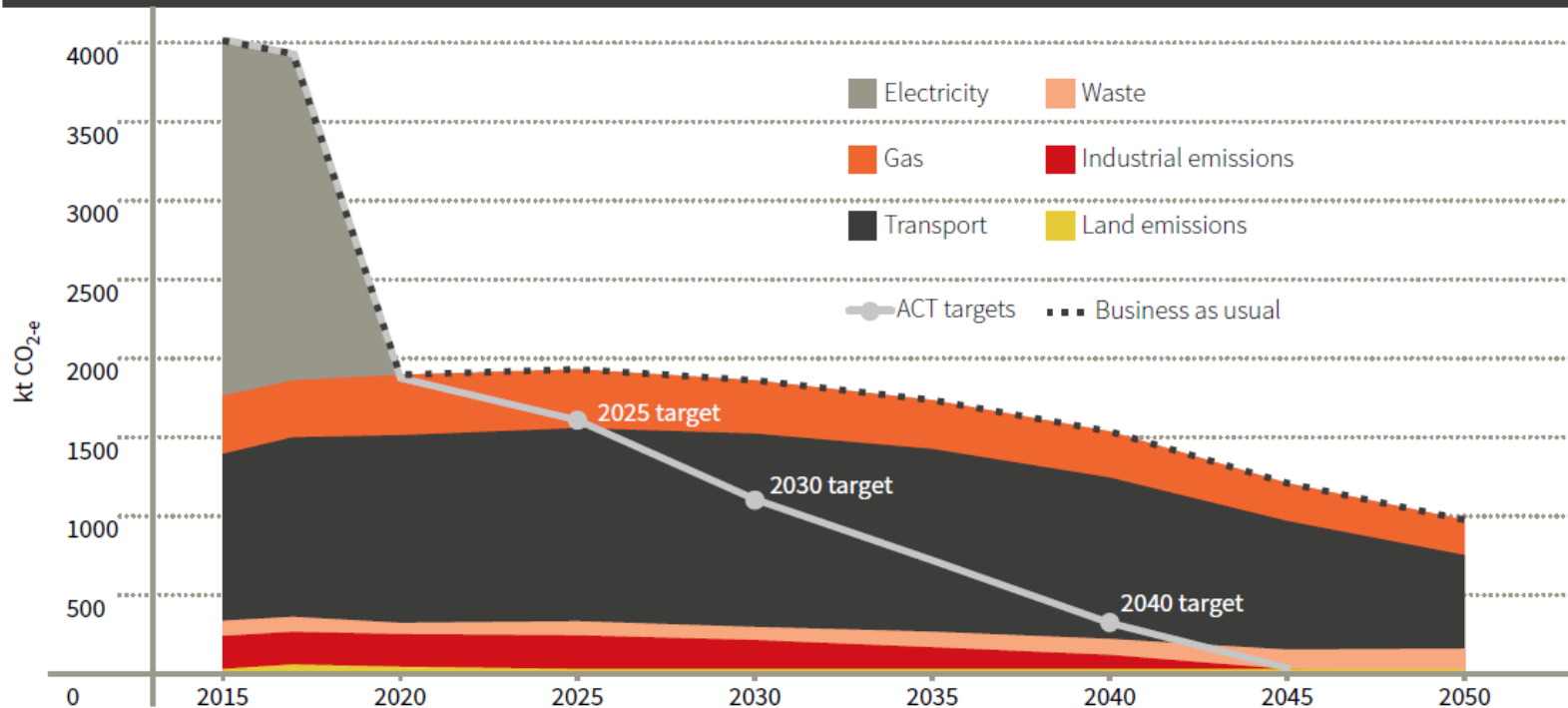
# ACT reverse auctions helped kick off boom



# Current and projected emissions

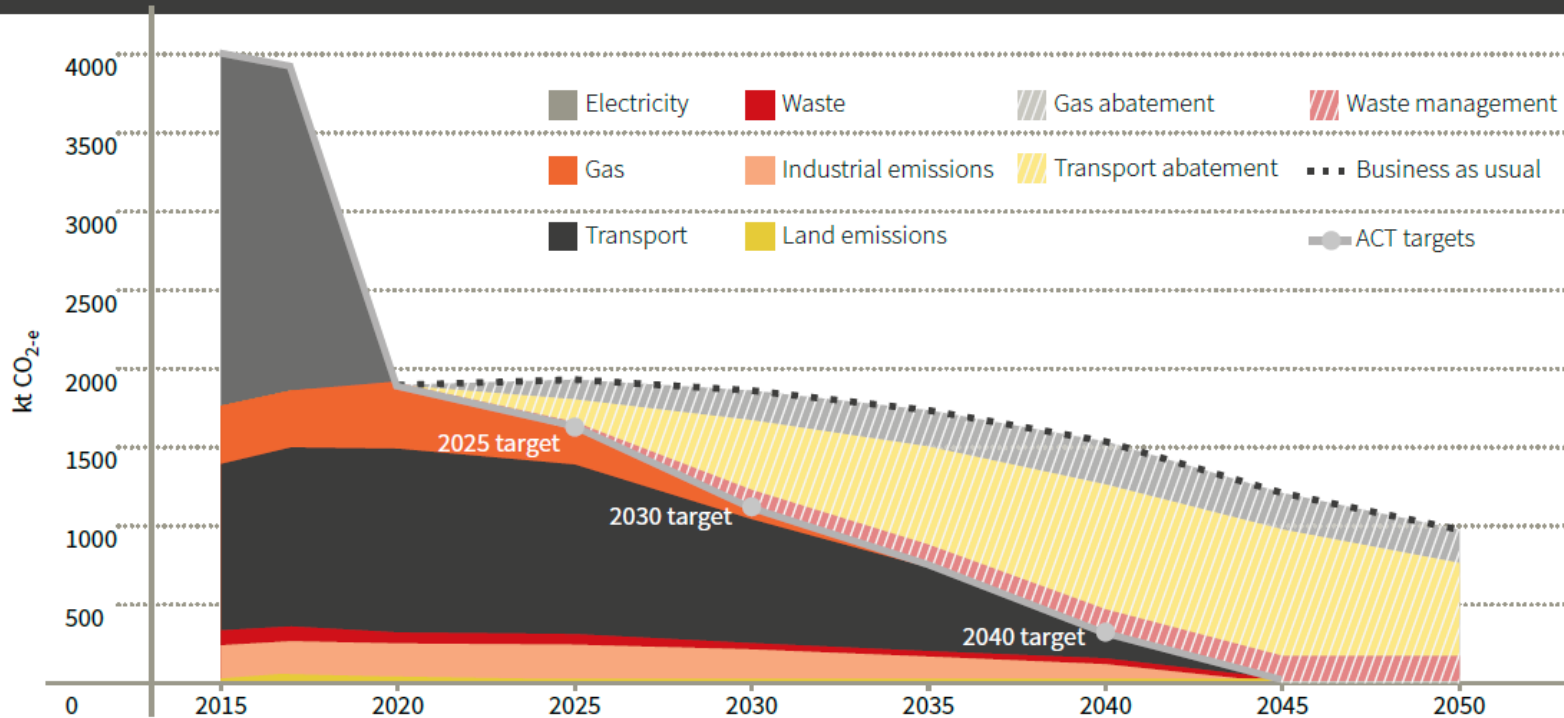
**Figure 5: Business as usual ACT greenhouse gas emissions to 2050 with no further Government intervention.**

The legislated emission reduction targets are shown at their lowest level of ambition (i.e. for the 50–60% interim reduction target in 2025, the white dot represents a 50% reduction from 1990 levels). Source: ACT greenhouse gas emissions modelling 2018



# Current and projected emissions

Figure 6: A potential pathway to achieving interim targets and net zero emissions by 2045.  
Source: ACT greenhouse gas emissions modelling 2018.

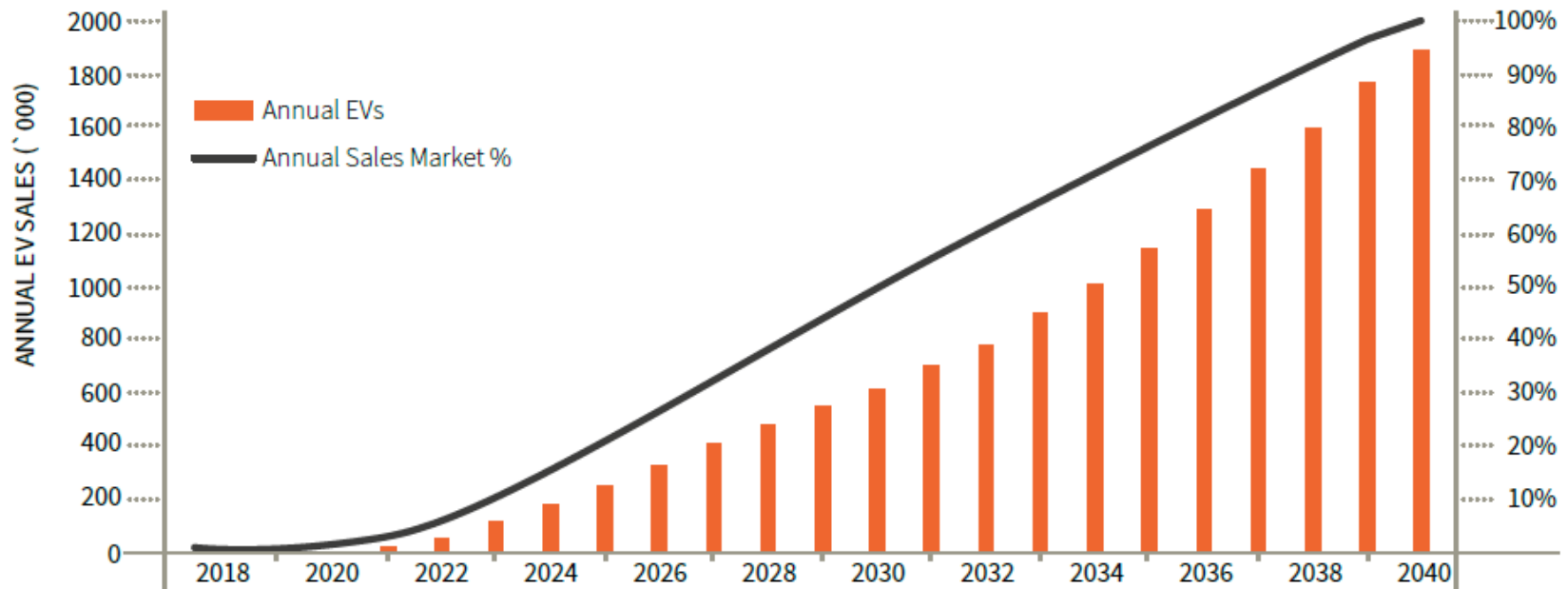


# EV sales projections

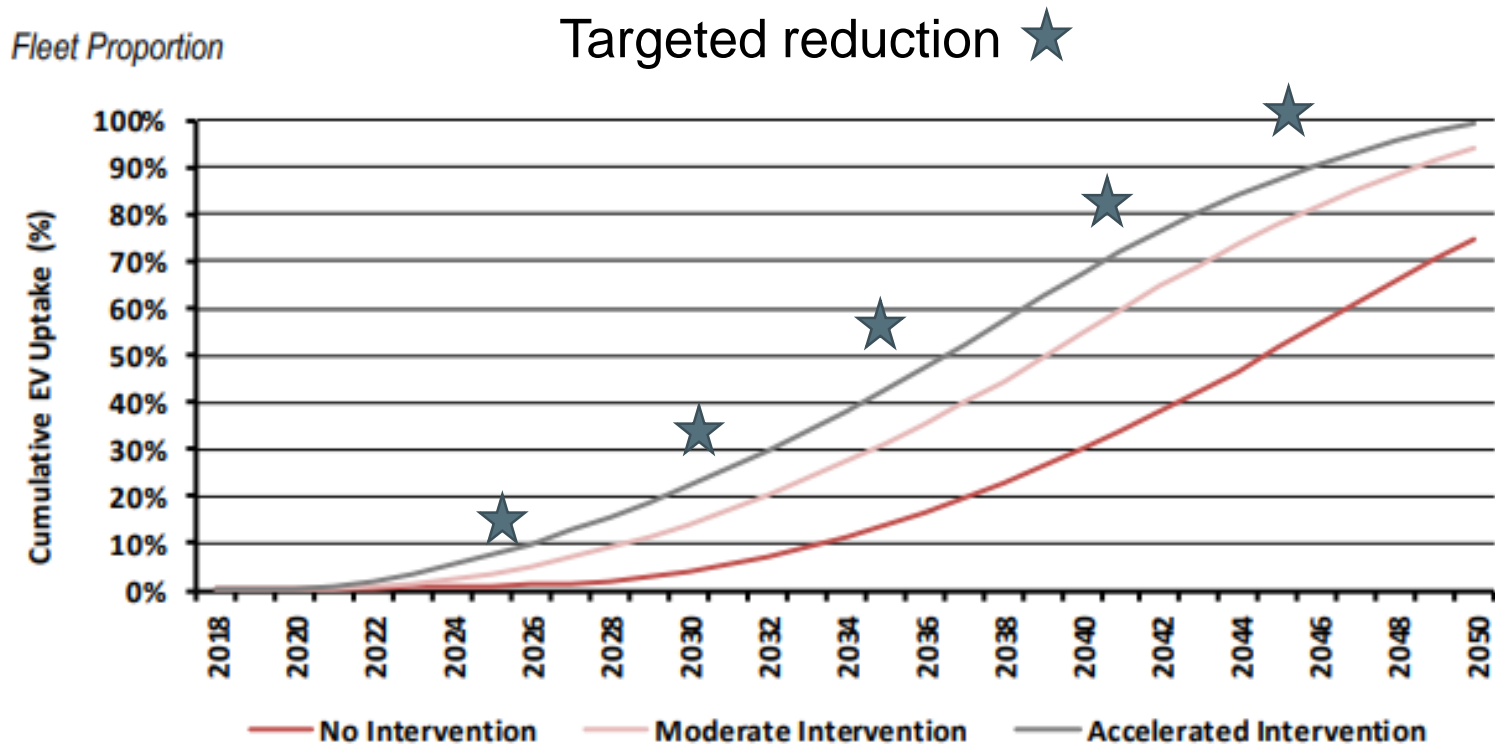
## – moderate intervention

Figure 7: Projected annual electric vehicle (EV) sales in Australia.

Source: Australian Electric Vehicle Market Study, Prepared by ENERGEIA for the Australian Renewable Energy Agency and the Clean Energy Finance Corporation, May 2018



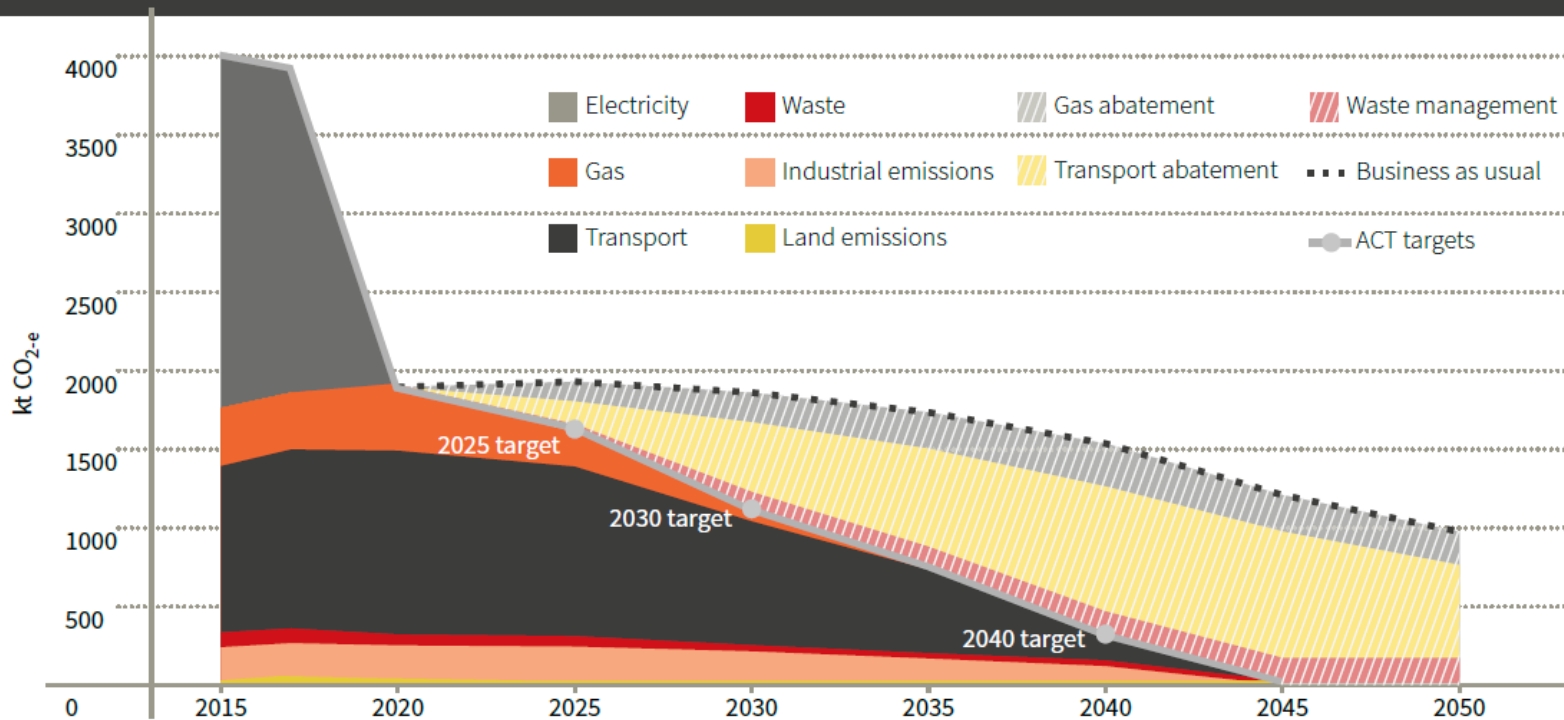
# Fraction of total fleet electric



Source: Energeia Modelling

# Current and projected emissions

Figure 6: A potential pathway to achieving interim targets and net zero emissions by 2045.  
Source: ACT greenhouse gas emissions modelling 2018.





# Displace gas with renewable electricity

- No gas in new suburbs
- Displace existing gas with heat pumps
  - ✓ Bonus its cheaper
  - x Long lived asset



Ducted reverse cycle air conditioning

Upgrade your ducted gas heating system to a ducted reverse cycle air conditioning.

- Save \$2,000 off the purchase and installation costs and a 2 year rebate off your ActewAGL electricity account of up to \$3000\*.
- Innovative insulated ducting will increase performance and minimise heat loss for further energy savings.
- Finally, a ducted all-in-one heating and cooling solution—all year round!



Reverse cycle air conditioning

Upgrade a flued gas heater to a reverse-cycle heating and cooling appliance.

- Save up to \$2500\*.
- Finally, an all-in-one heating and cooling solution—all year round!



Hot water heat pump

Upgrade a hot water heater to an innovative Stiebel Eltron Hot Water Heat Pump.

- Save up to \$1200\*.
- Active defrost function ideal for Canberra.
- Latest technology enables integration to a solar PV system.