Everyday
climate choices

Sustainable Apartments Pilot

The Sustainable Apartments Pilot provided pathways for the electrification of seven apartment buildings in Canberra.

Across the sites that participated, there was a variety of building typologies, age, gas infrastructure, and mixed-use aspects.

The Site

At the Central Canberra site, the Pilot investigated options to replace existing gas assets with electric alternatives, including the integration of solar and electric vehicle charging infrastructure. The Pilot also included energy efficiency measures, emissions reductions, implementation plans and upgrade cost estimates.

Building Characteristics:

- Built in 1985
- Low rise, 2 buildings, 3 storey, 20 units

Gas Systems:

- Individual gas space heating and gas cooking

Location:
Central Canberra

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Existing Equipment and Replacement Options

The study outlined a range of electric equipment options available to replace existing gas assets. Proposed options for this site

Existing Systems	Electric Alternatives
Individual gas heating	Split System Air Conditioner
Gas cooktops & ovens	Induction cooktops and electric oven

Additional Recommendations

Solar Photovoltaic (PV) system
Maximum available roof area PV system

Electric vehicle (EV) charging facilities
Individual Level 2 fast chargers

Challenges

This Central Canberra apartment building has limited roof access to install pipes and ducts due to shallow ceiling spaces. This could make installation work expensive and time consuming.

There is limited available outdoor space at the site for electric central hot water or heating systems which could result in complex and costly design solutions.

The apartment building carpark is shared and managed by two body corporates. Shared infrastructure such as solar or batteries for an EV charging system may be a challenge for strata management, owners and infrastructure connections as they require agreement on cost-sharing, ownership, and maintenance.

The site is in a residential area, so managing noise from heat pumps could be an issue. Soundproofing or acoustic covers may be required.

Opportunities

Energy efficiency reduction measures such as double glazed windows or external wall insulation could be considered to reduce heating and cooling loads and reduce electrical demand.

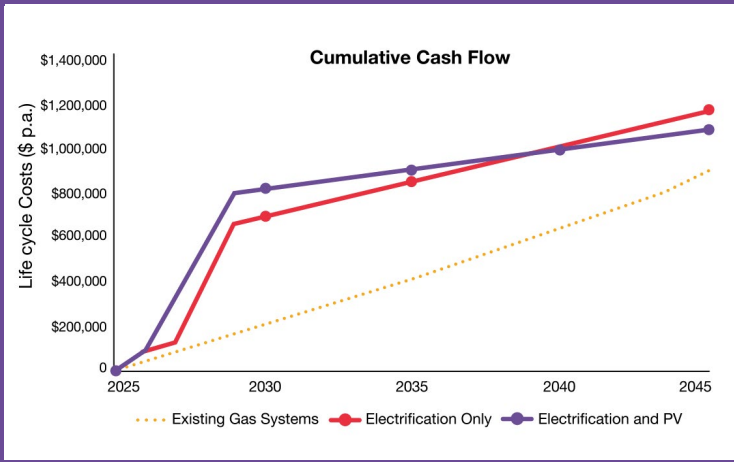
Some apartment owners in this site have already switched to electric systems, transitioning their individual apartment off gas completely. This sets a precedent for similar upgrades in the building.

Estimated Cost and Payback

Based on the study, the cost to implement electrification at this site, including EV charging infrastructure and a solar photovoltaic system, has been estimated at $832,000.

Estimated costs as at November 2025

Pre-works Planning	$33,000
Photovoltaic System	$128,000
Split Air Conditioning Units	$158,000
Residential Cooktops	$116,000
Decommissioning of Gas Supply	$61,000
Electric Vehicle Chargers	$73,000
Total cost including labour	$832,000



The above cumulative cash flow graph presents the following two scopes:

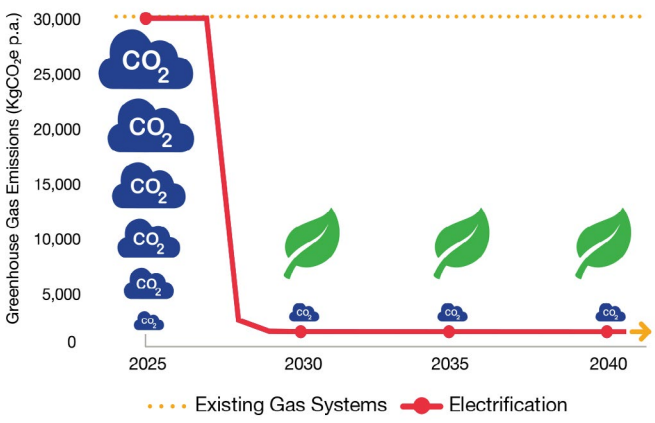
Electrification scope only: includes space heating, hot water and cooking equipment electrification works and gas supply decommissioning.

Electrification & PV: includes all works per above with the addition of a PV system.

Current 2025 emissions **30,000** $kgCO_2e$ p.a.

Electrification reduces operational emissions to near zero.

Emissions are measured as $kgCO_2e$ p.a. (annual greenhouse gas emissions)

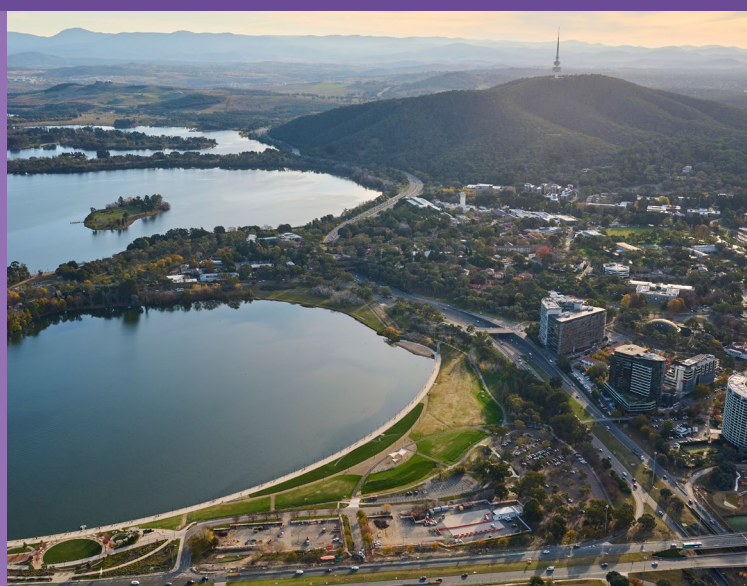


Energy and Emissions Outcomes

The proposed electrification works for this site are expected to provide a significant saving in energy consumption (approximate reduction of 45%).

The energy impacts with the proposed PV installation are expected to reduce energy consumption by approximately 70%.

Greenhouse gas emissions reduce significantly as part of the electrification works.



Phased Implementation Strategy

The phased approach to implementation has been developed to spread the costs over multiple years, reduce the intensity of construction impacts and prioritise works in a practical manner.

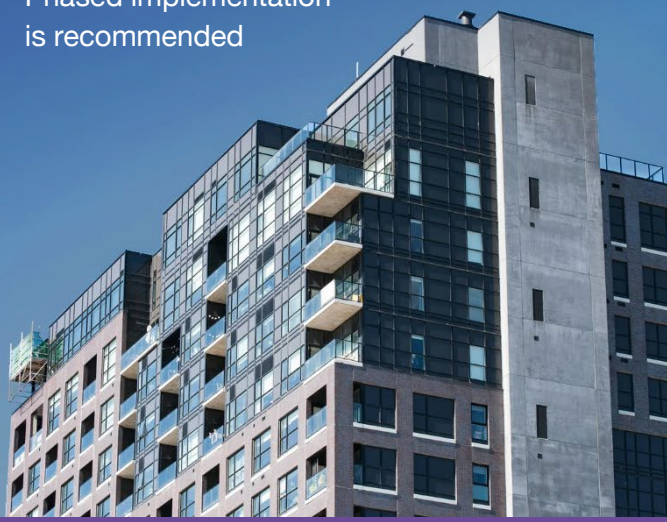
1. Pre-works preparation
2. Photovoltaic Systems
3. Space Heating
4. Cooking
5. Decommissioning of Gas Supply
6. Electric Vehicle Charging

Pre-works preparation involves consultation with your owners corporation and strata manager, understanding strata rules and regulations, monitoring energy use, engagement with engineer to provide a site specific, detailed design and electrification report.

For guidance on understanding the Unit Titles Management Act and navigating consultation with your body corporate visit: **act.gov.au/housing-planning-and-property/housing/owning-a-unit**

Common findings across the Pilot

- Electrification is achievable at all sites, involving replacement of gas systems, integration of solar PV, and EV charging infrastructure
- Existing gas systems are oversized — reassessing equipment size is essential to optimise and reduce energy consumption
- Electrification costs ranged from approximately $1 to $7 million per site
- Payback periods ranged from 2 to 22 years depending on scope
- Phased implementation is recommended



For guidance and next steps for apartments buildings in Canberra
Scan the QR code or reach us at **sustainablebusiness@act.gov.au**

ACT Government