



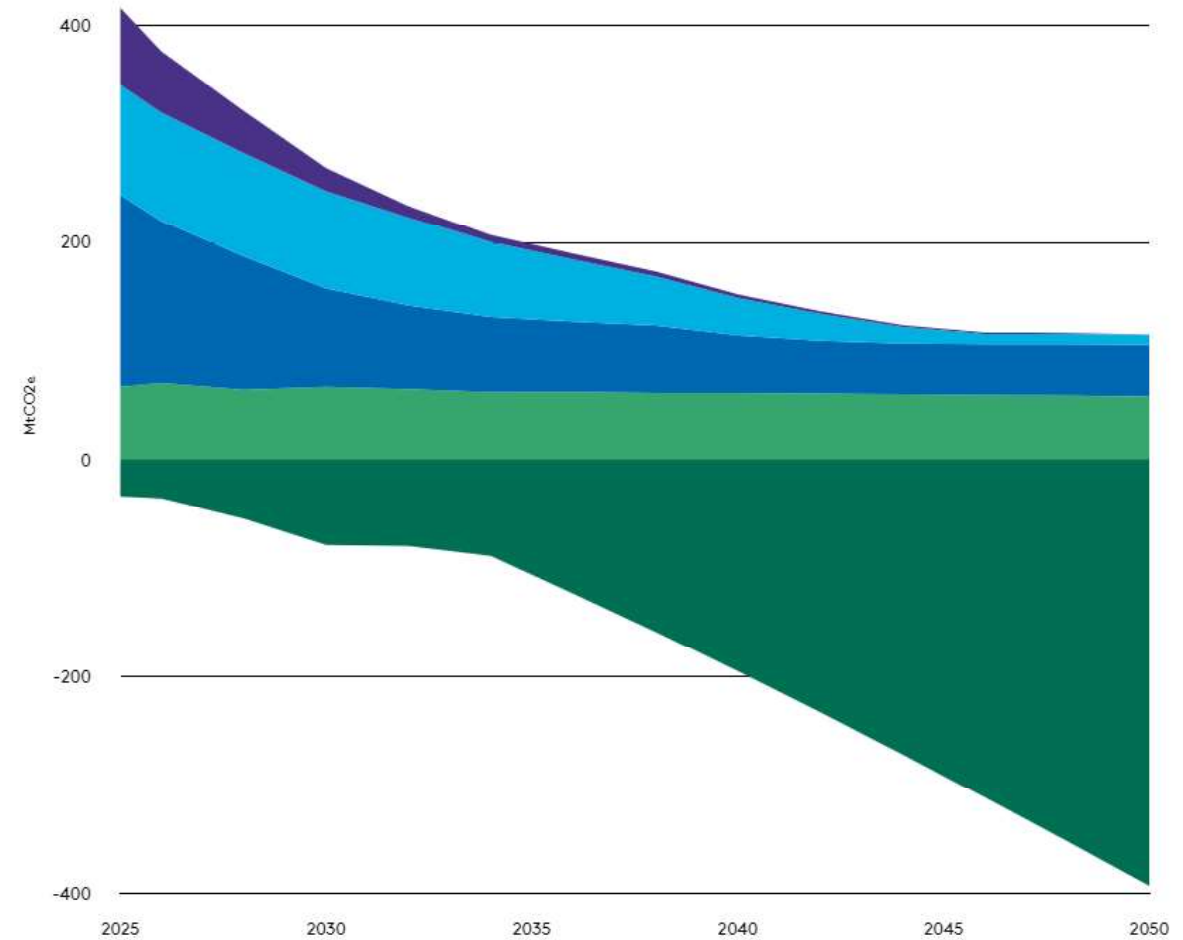
The need for speed

**10 critical years of transition
in the built environment**

Bruce Precious
Principal Consultant
Six Capitals Consulting

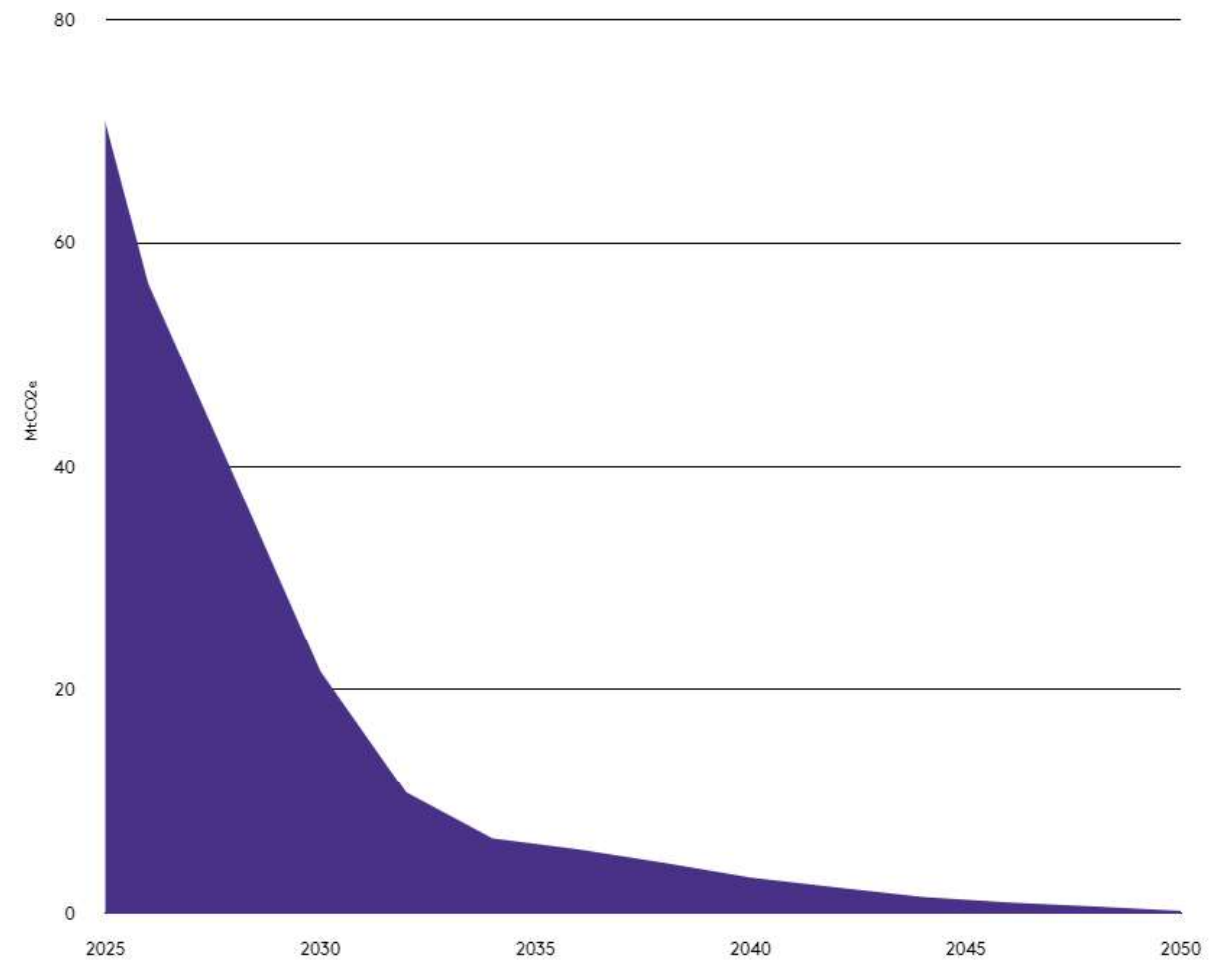
Net Zero
2050

Choose scenario **1.5°C** well-below-2°C All sectors ▼



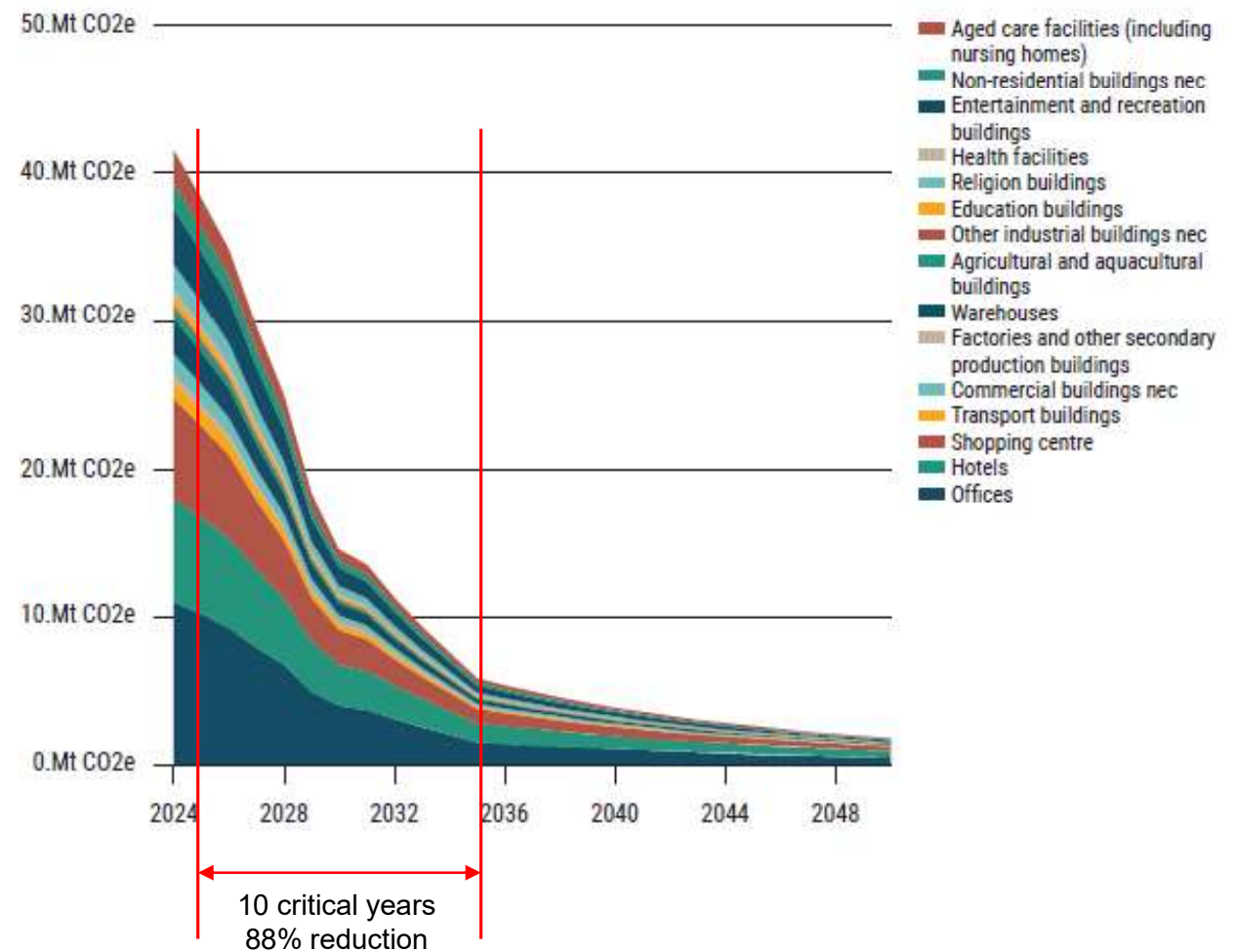
Built environment

Choose scenario **1.5°C** well-below-2°C Buildings ▼



10 critical
years

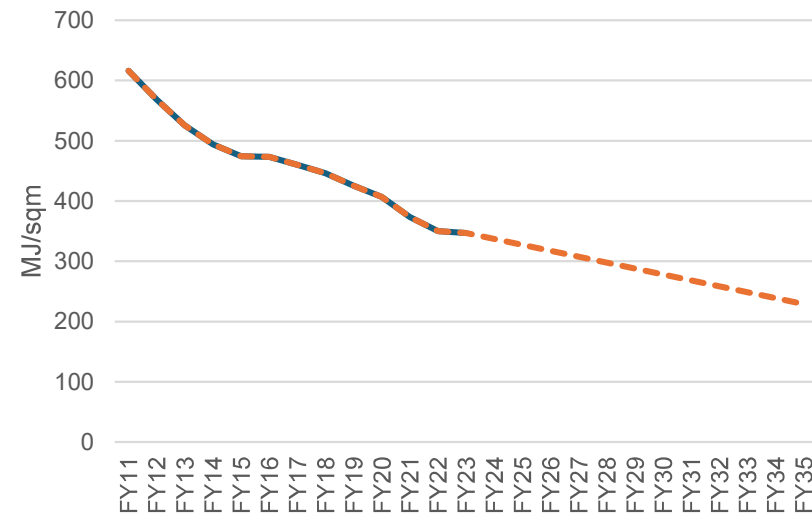
FIGURE 24:
Non-residential buildings sectoral emissions budget⁹⁹



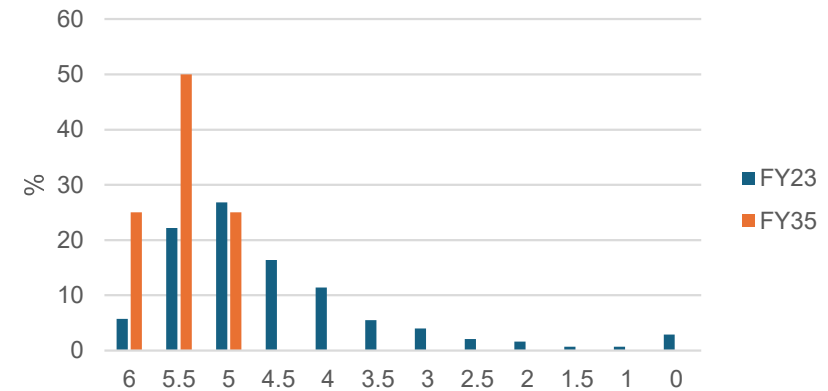
NABERS

(Office)

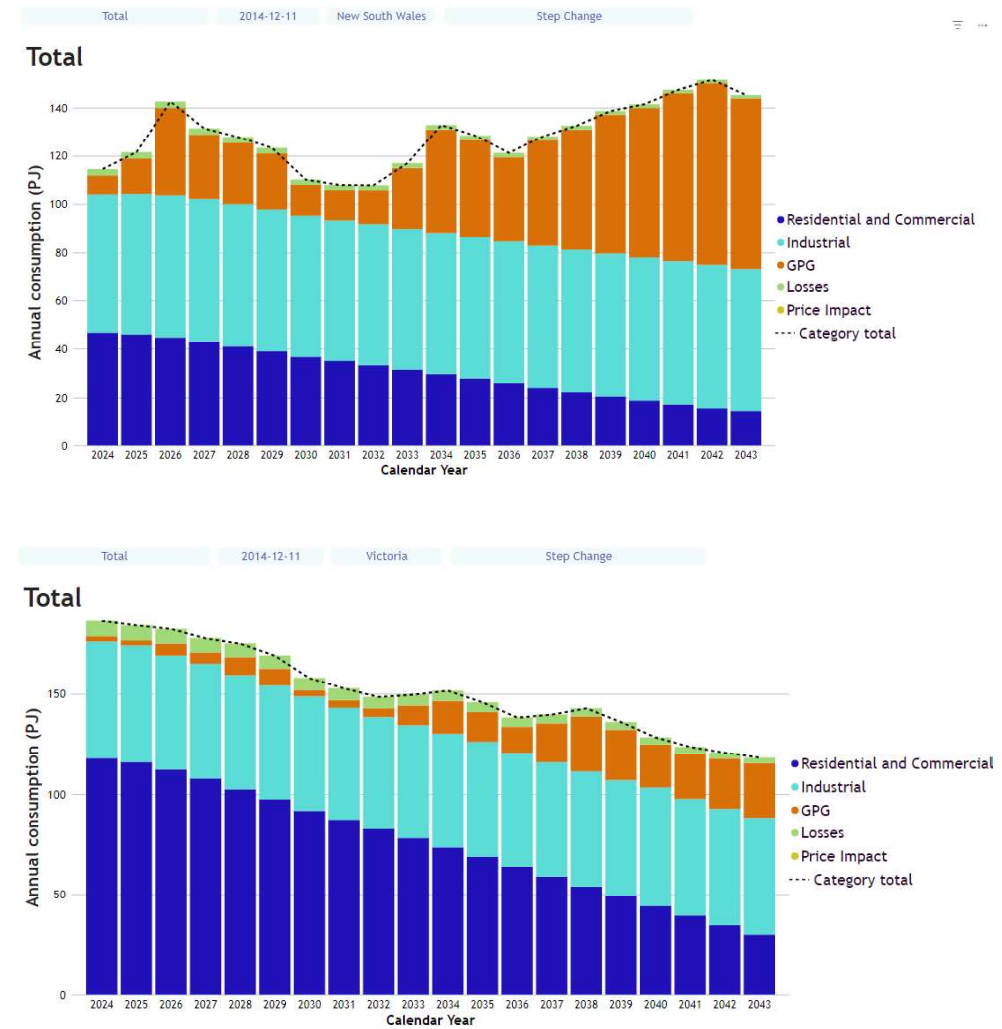
NABERS Office - energy intensity



NABERS Office - energy
Ratings distribution

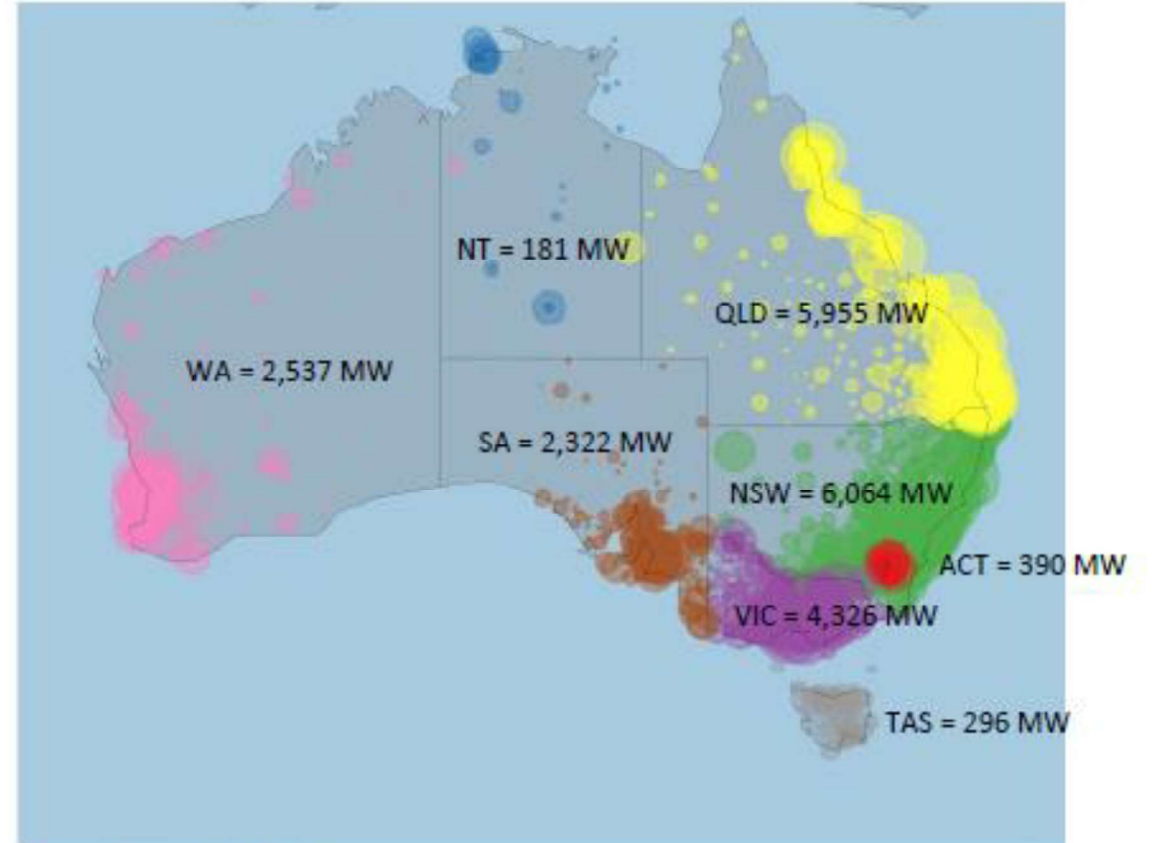


Natural gas in the built environment



<https://aemo.com.au/energy-systems/gas/gas-forecasting-and-planning/gas-forecasting-data-portal>

Solar
contributes
to the
decline of
gas



Source: AEC, 2024 with data from CER, 2024

Solar
contributes
to the
decline of
gas





Energy ▼ NEM ▼



1D

3D

7D

30D

1Y

ALL ▼

Month

Season

Quarter

Half Year

Fin Year

Year

Energy GWh/year

200,000

150,000

100,000

50,000

0

Av. 192,879 GWh/year

FY99

FY00

FY01

FY02

FY03

FY04

FY05

FY06

FY07

FY08

FY09

FY10

FY11

FY12

FY13

FY14

FY15

FY16

FY17

FY18

FY19

FY20

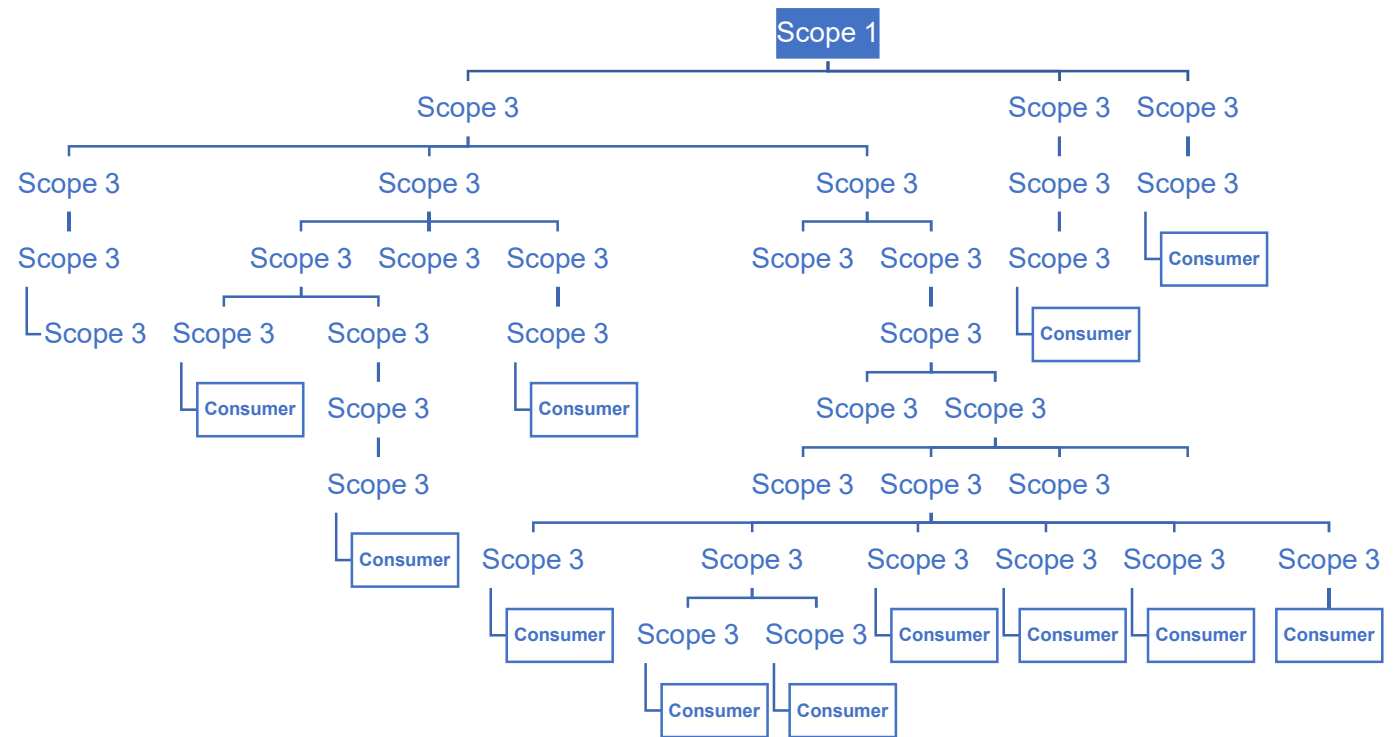
FY21

FY22

FY23

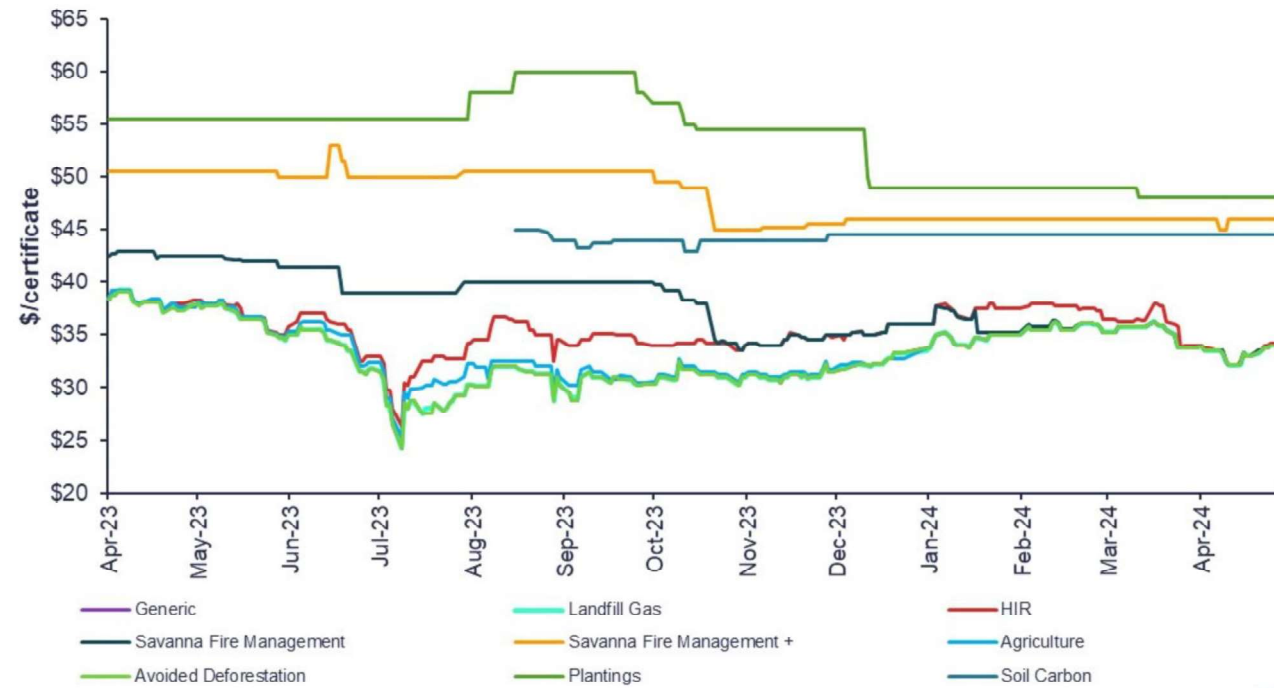
FY24

Scope 3 – supply chain emissions



Internalising a cost of carbon

Historical ACCU Pricing by Method Type



Internalising
a cost of
carbon

Table 1: Interim values of emissions reduction (\$/tonne CO2-e)

Year	Average IPCC & ACCU (using official IPCC) AUD2023	Year	Average IPCC & ACCU (using official IPCC) AUD2023
2023	66	2037	181
2024	70	2038	194
2025	75	2039	207
2026	80	2040	221
2027	84	2041	236
2028	89	2042	252
2029	95	2043	268
2030	105	2044	286
2031	114	2045	305
2032	124	2046	325
2033	135	2047	346
2034	146	2048	369
2035	157	2049	393
2036	169	2050	420

This guidance will continue to apply unless we vary or revoke it.

Internalising a cost of carbon

Carbon emissions value for the purpose of preparing a CBA

Table 1 shows carbon emissions values for the purpose of preparing a CBA. Values (in 2022 dollars) are calculated using the method set out below for all years from 2023 onwards. These values will be update biannually.

Table 1: AUD Carbon emissions value (per tonne) for the purpose of preparing a CBA (in 2022 dollars)

FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030	FY2031	FY2032
\$123	\$126	\$128	\$131	\$134	\$137	\$140	\$144	\$147	\$150

“Valuing emissions reduction: AER draft guidance” March 2024

Technical note to NSW Government Guide to Cost-Benefit Analysis TPG23-08

Internalising a cost of carbon

Table 1 – Recommended carbon values per tCO₂-e emissions (AUD \$2023)

Year	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030	FY2031	FY2032
Low	44	56	62	69	76	87	107	124	144
Central	56	66	76	88	104	123	148	171	192
High	66	77	95	107	132	152	180	210	227

Year	FY2033	FY2034	FY2035	FY2036	FY2037	FY2038	FY2039	FY2040	FY2041
Low	159	166	172	184	191	193	206	210	212
Central	209	222	234	244	254	264	273	282	291
High	258	262	280	293	308	319	329	340	351

Year	FY2042	FY2043	FY2044	FY2045	FY2046	FY2047	FY2048	FY2049	FY2050
Low	215	228	246	267	272	274	276	284	287
Central	300	309	318	326	335	344	354	363	377
High	361	370	375	380	403	421	429	437	469

<https://www.infrastructureaustralia.gov.au/publications/valuing-emissions-economic-analysis>

Tools

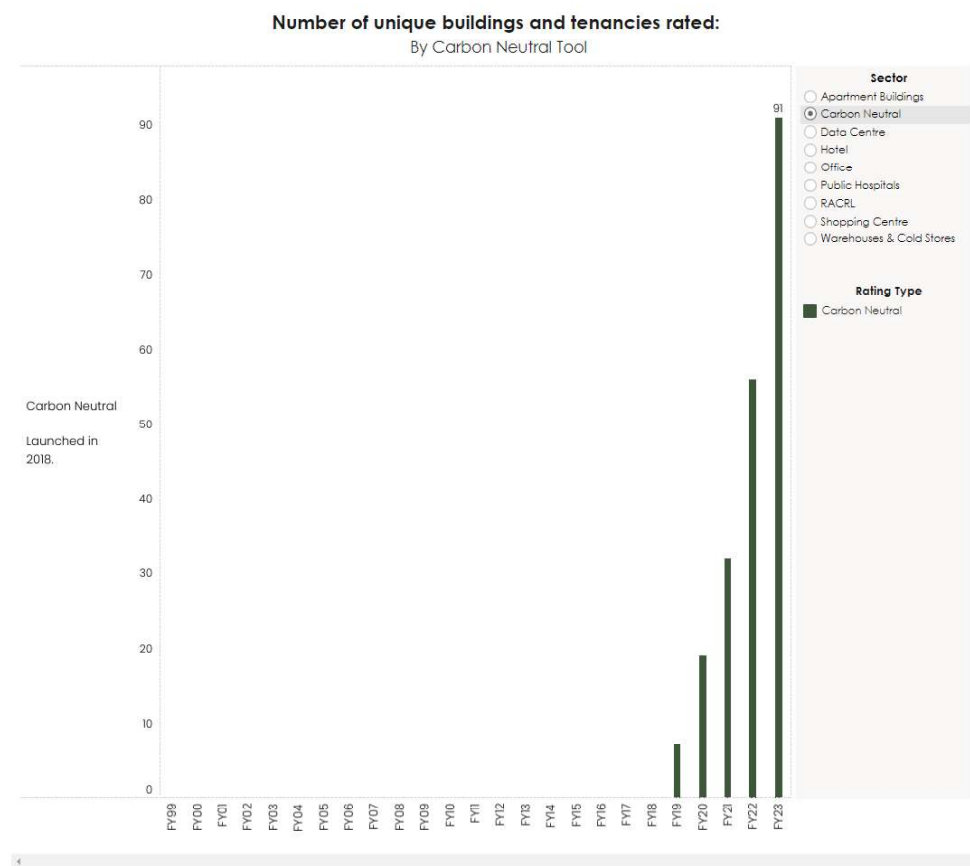
- Energy efficiency
 - NABERS – all building types
 - CBD – expand disclosure to other buildings types
 - Electrification – heat pumps incentives
 - NCC updates
 - Cost of carbon – enhanced business cases
- Renewable electricity
 - Cheaper solar
 - Cheaper batteries
 - Thermal storage
 - Flexible demand systems
- Embodied emissions
 - NABERS Embodied Emissions Database
 - Cost of carbon – making the business case
- Electrification
 - Heat pump incentives
 - Better Building Partnership - guides



Tools

- Climate Active – carbon neutral standards

Life of Program Statistics



NABERS Public Report

Climate Active Carbon Neutral certification

Public Disclosure Statement

NABERS Climate Active

THIS DOCUMENT WILL BE MADE PUBLICLY AVAILABLE

Responsible entity name: The GPT Group

Building / Premises name: Workplace 6

Building owner: The GPT Group

Building Address: 48 Pirrama Road, Pyrmont NSW 2009

Corresponding NABERS Energy Rating number: OF29757

This building Workplace 6 – 48 Pirrama Rd, Pyrmont has been Carbon Neutral Office (Base Building) NABERS against the Australian Government's Climate Active Carbon Neutral Standard for Buildings (the Standard) for the period 18/12/2023 to 17/12/2024.

Total emissions offset	292 tCO2-e
Offsets bought	100% VCU's
Renewable electricity	100% of electricity is from renewable sources

Emissions Reduction Strategy

Workplace 6 – 48 Pirrama Rd has achieved a NABERS Energy rating of 5.5 stars without GreenPower.

Expires 17/12/2024.



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0418 430 586

Thank you !