2xEP
Doubling Australia's Energy Productivity

A2EP – 2xEP Energy Productivity Summit
04-05 April, 2017
Australian National Maritime Museum
Darling Harbour, Sydney

Session 07
2xEP by 2030: How? Why?
2xEP and net zero emissions
Paul Graham
Shauna Coffey > presentation follows
Alan Pears
Gordon Weiss
Chair: Amandine Denis

AUSTRALIAN ALLIANCE FOR ENERGY PRODUCTIVITY
Doing more. Using less.

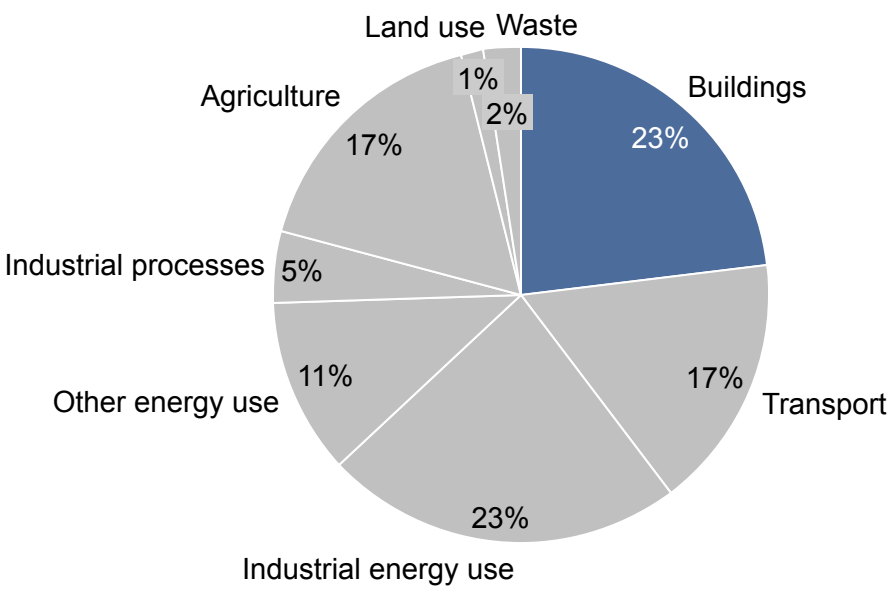
AUSTRALIAN SUSTAINABLE BUILT ENVIRONMENT COUNCIL

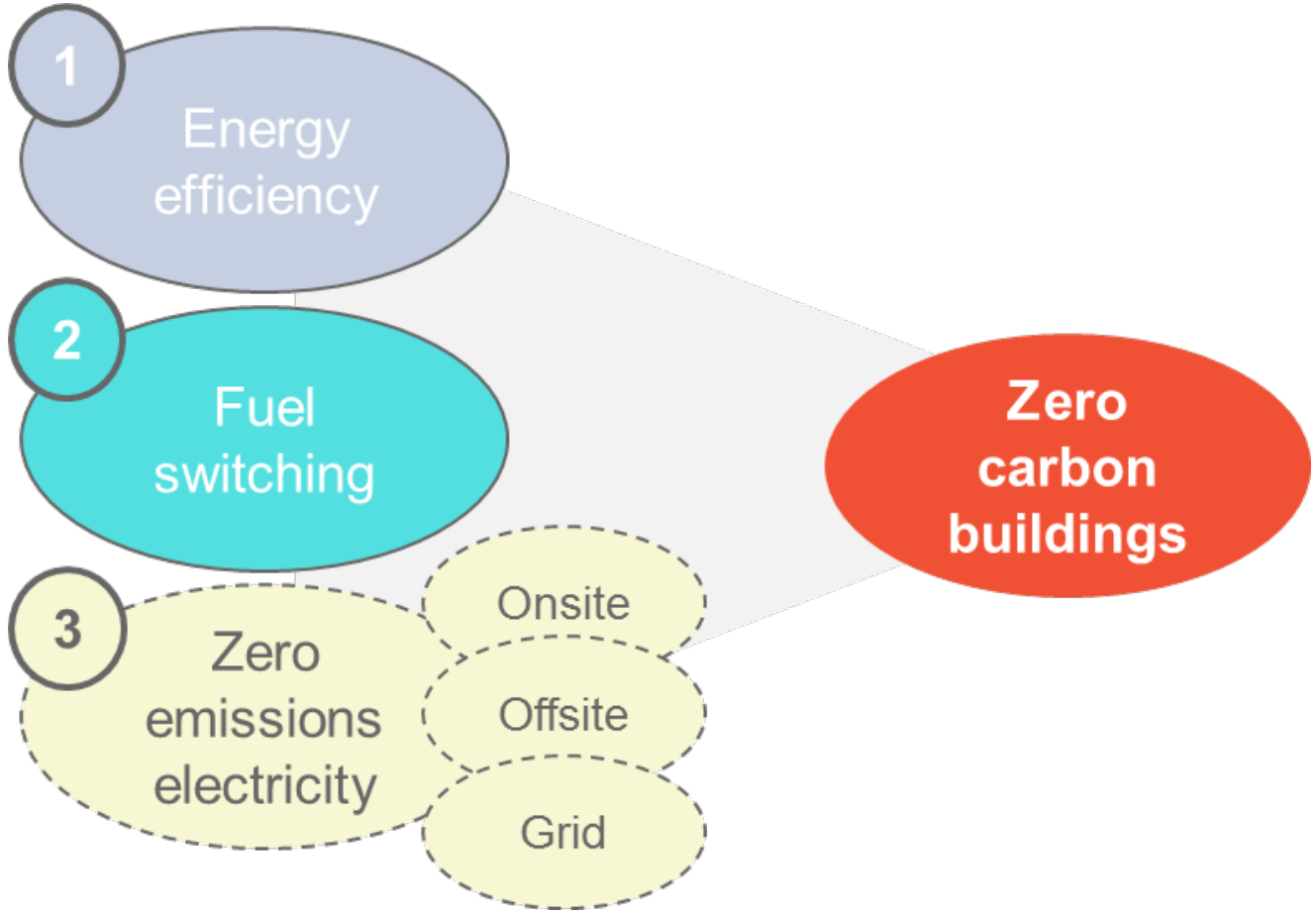
ClimateWorks AUSTRALIA

LOW CARBON, HIGH PERFORMANCE

How buildings can make a major contribution to Australia's emissions and productivity goals

Buildings currently account for almost one quarter of national emissions, but can reach zero carbon through three key measures

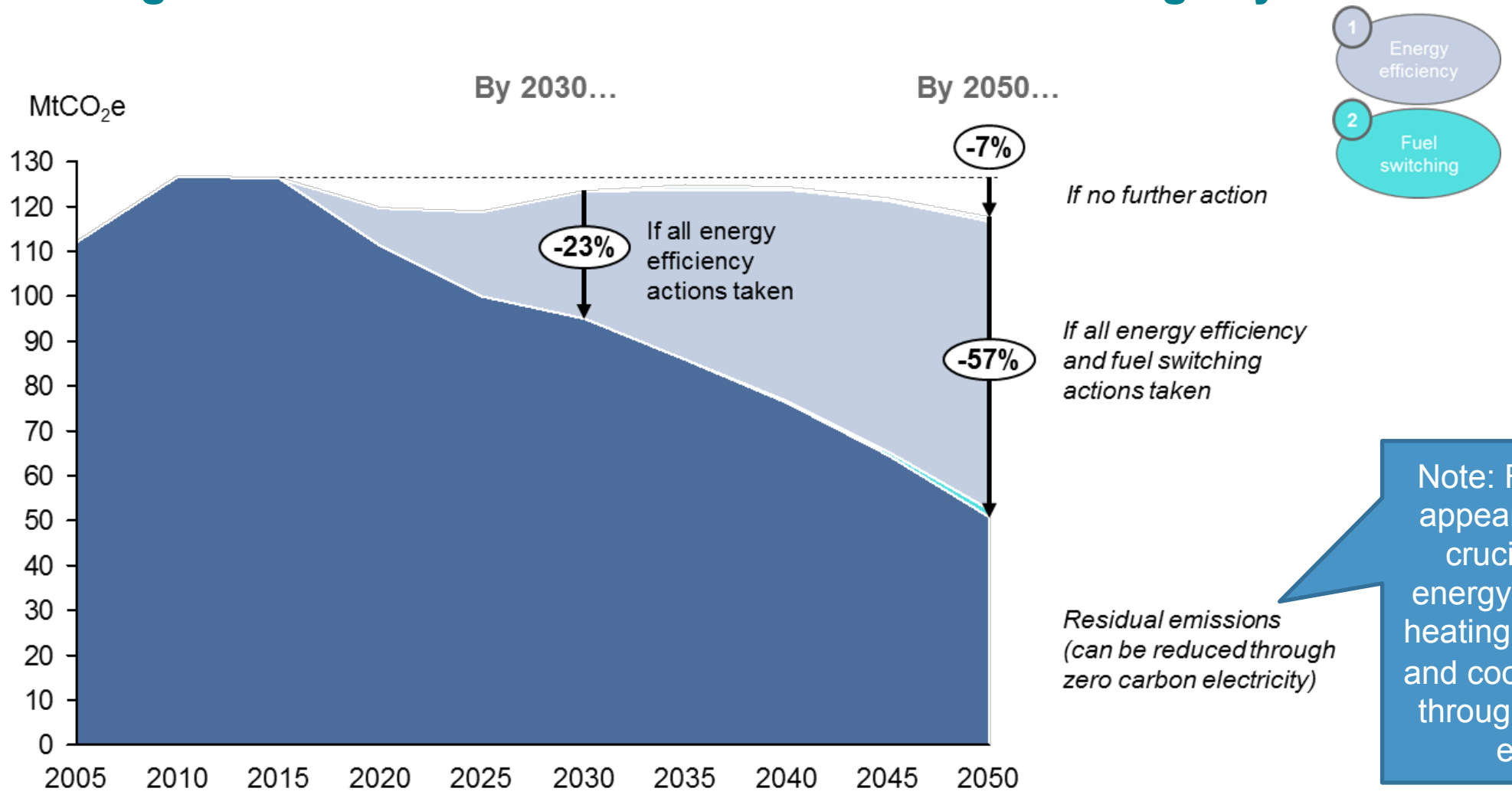




Source: ClimateWorks Team Analysis based on Department of Industry, Innovation and Science, 2013 and Energy Supply Association of Australia, 2015

**Offsets could also contribute towards achieving zero carbon buildings, but were not a focus of this report*

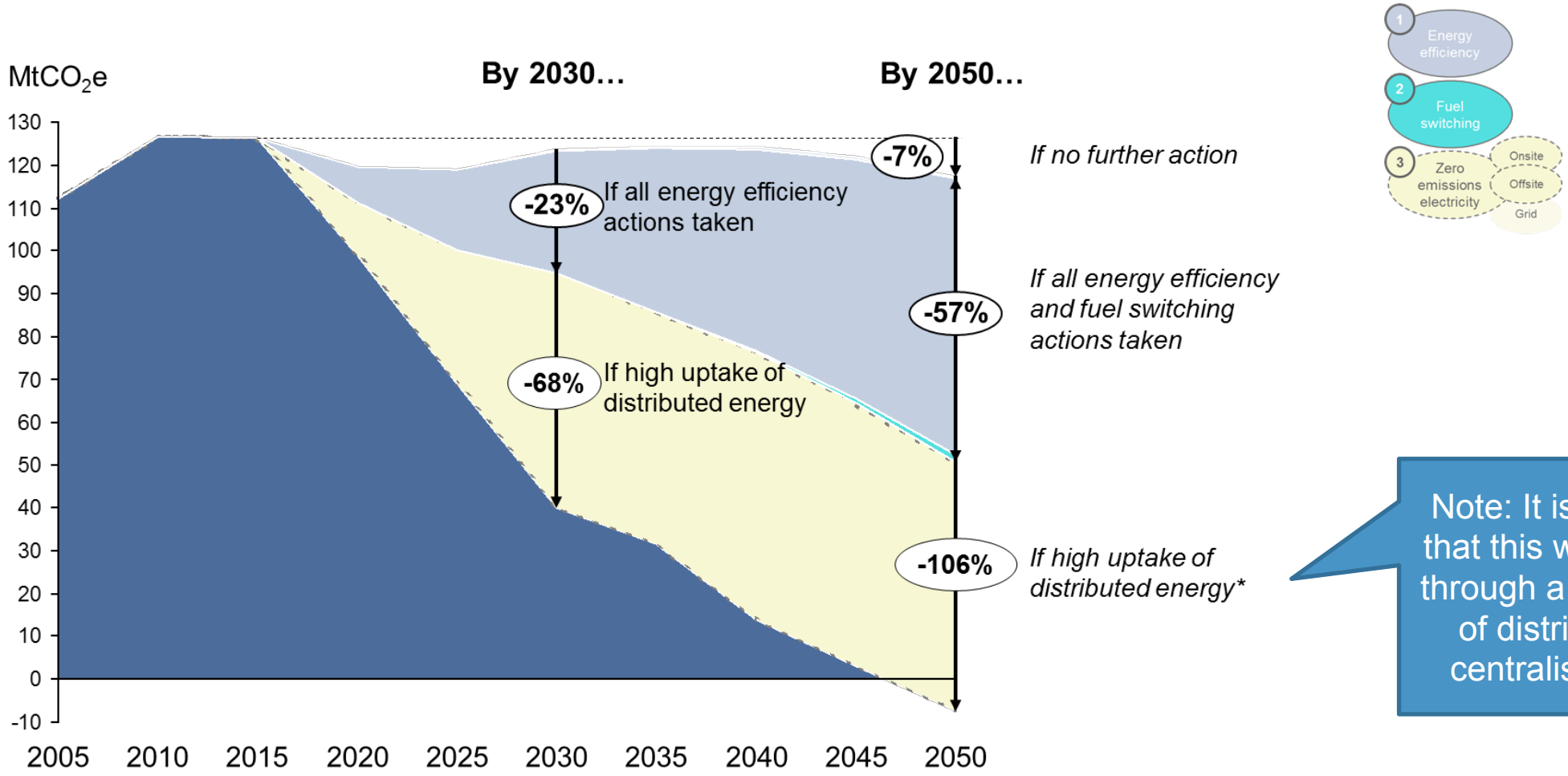
Modelling shows that if barriers can be overcome, energy efficiency and fuel switching could more than halve emissions from buildings by 2050



Note: Fuel switching appears small but is crucial to enable energy use for space heating, water heating and cooking to be met through zero carbon electricity

SOURCE: ClimateWorks analysis

Net zero by 2050 via distributed energy

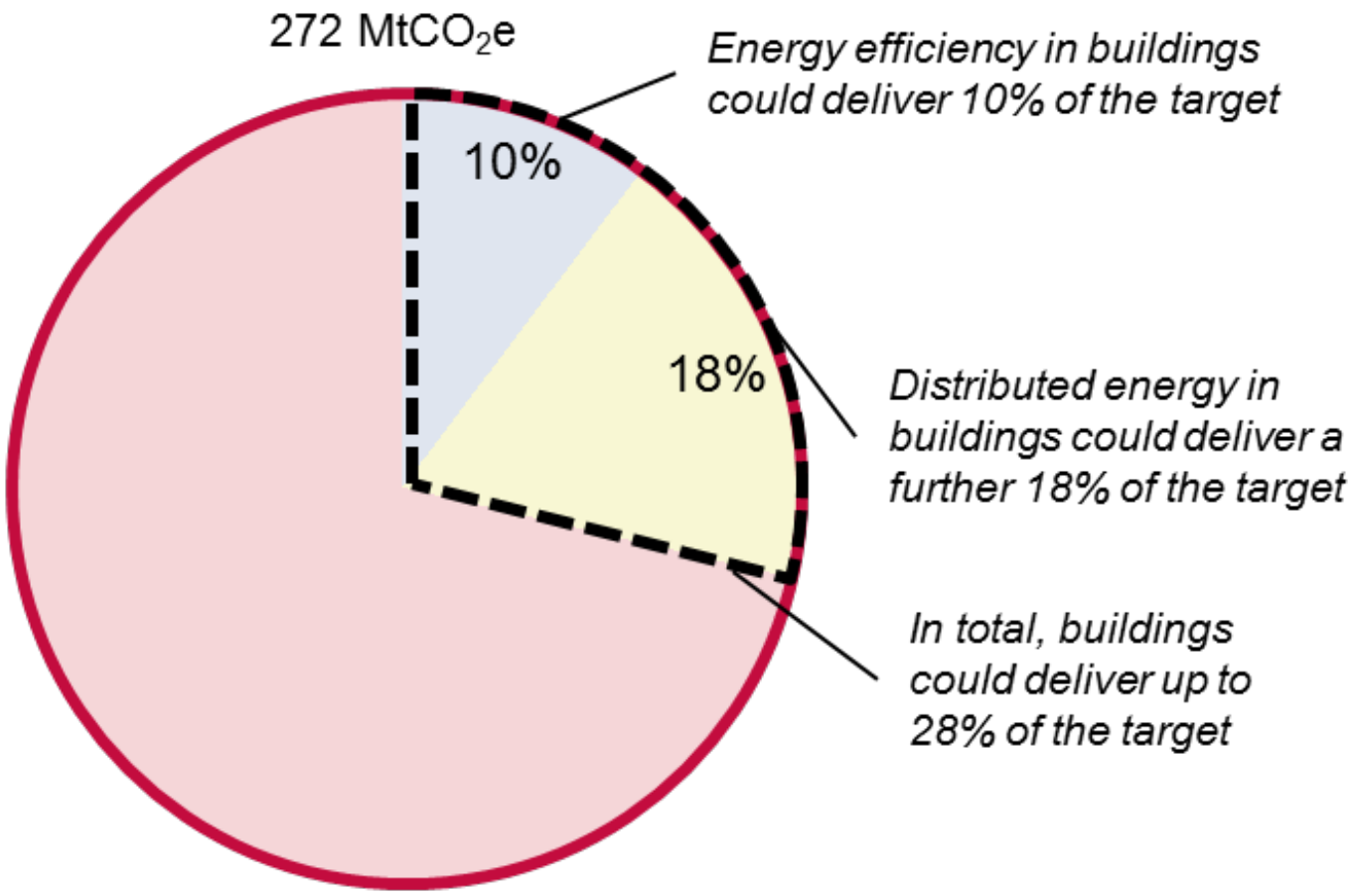


Note: It is more likely that this would be met through a combination of distributed and centralised energy

* Distributed energy potential presented in this chart is based on the modelled potential uptake of distributed solar PV from the Future Grid Forum *Rise of the Prosumer* scenario (Graham et al, 2015).

SOURCE: ClimateWorks analysis

Implementing all of these opportunities could deliver up to 28% of the national emissions target



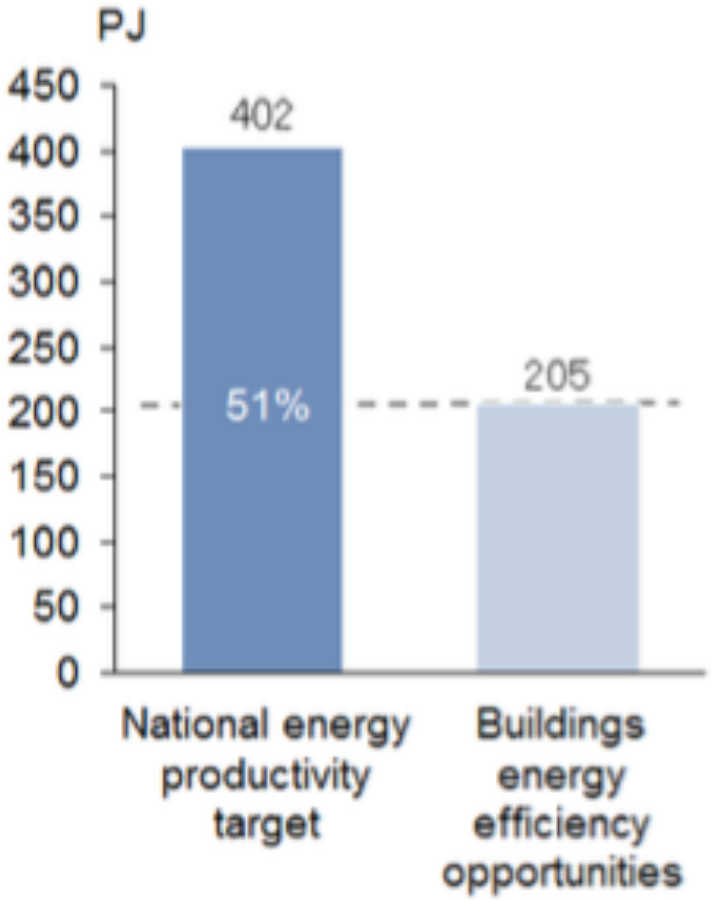
… while also delivering over

$20 billion

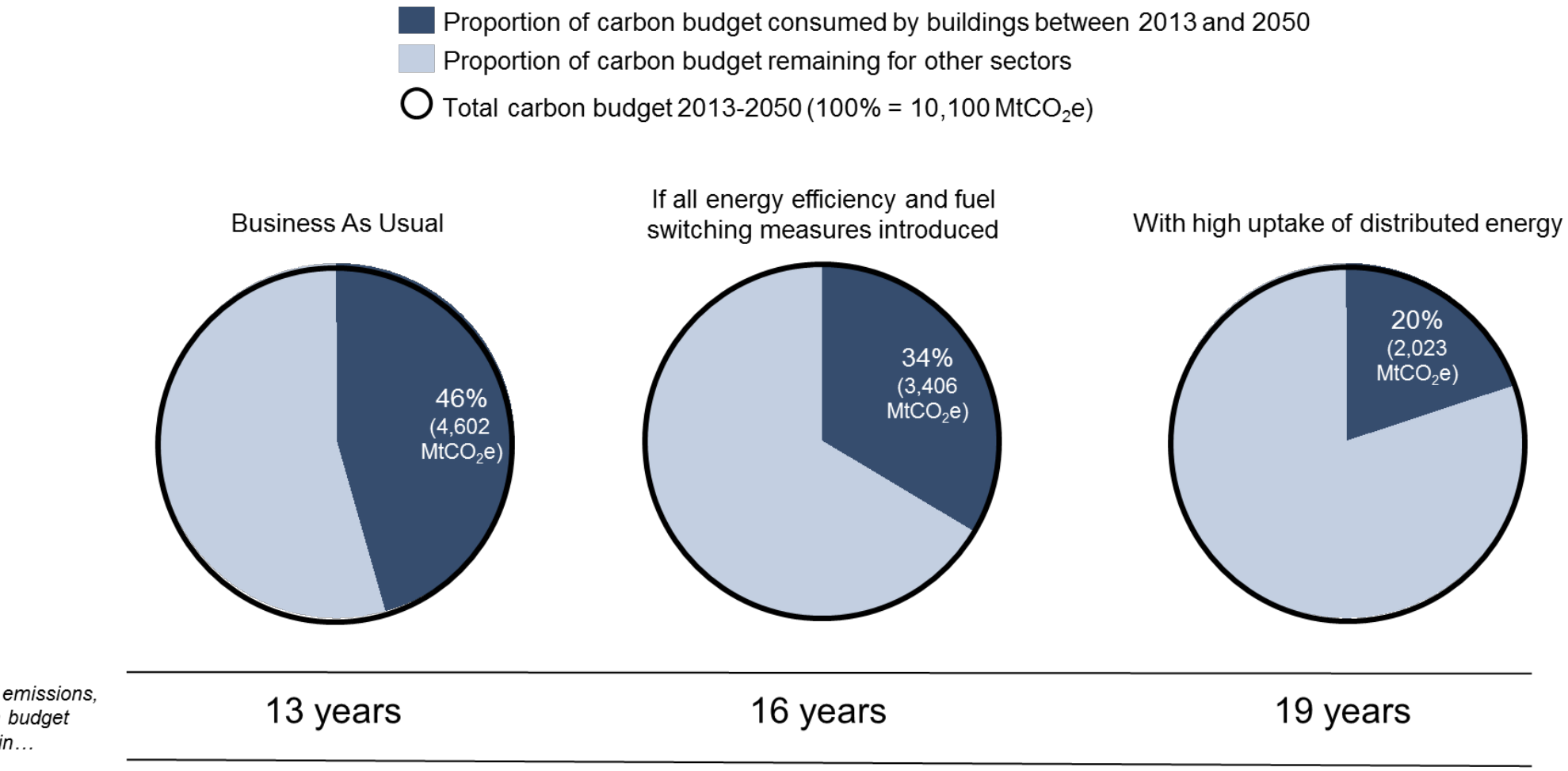
in energy savings

SOURCE: ClimateWorks analysis

And more than 50% final energy equivalent savings needed for 40% EP target

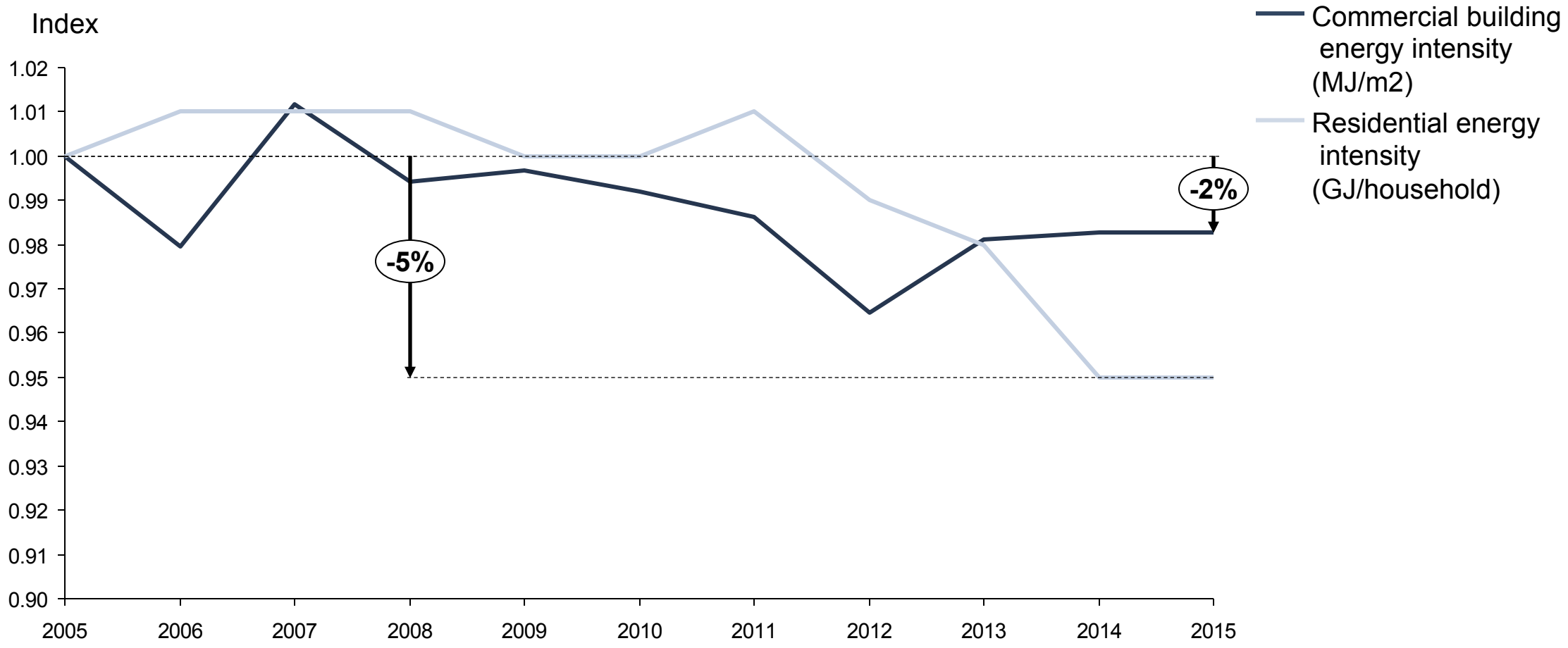


Taking action in buildings is necessary in order to achieve a smooth transition to net zero emissions nationally within our carbon budget



SOURCE: ClimateWorks analysis

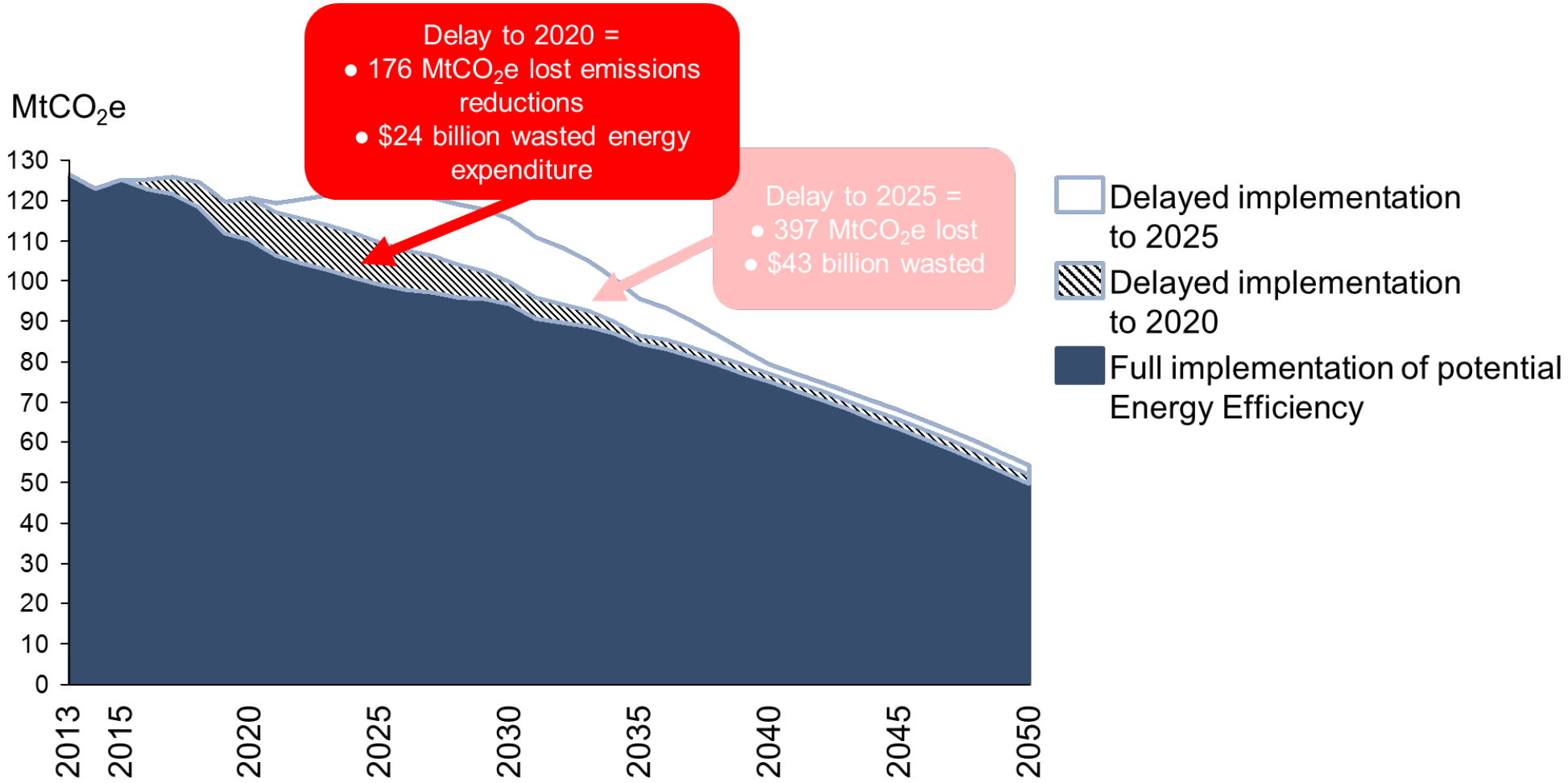
It isn’t all kittens and roses



Five key policy solutions have been identified to drive emissions reductions in the built environment

1. **National plan** with strong governance to coordinate action
2. **Mandatory minimum standards with forward trajectory** to provide a regulatory signal
3. **Targeted programs and incentives** to stimulate the market
4. **Energy market reform** to provide a level playing field
5. **Data, research, information, education and training** to enable effective action

The task is urgent - Just five years of delay in implementing these opportunities would lead to over 170Mt of lost emission reduction opportunities and over $24 billion in wasted energy expenditure



Source: CWA Team Analysis

FOR FURTHER INFORMATION

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