

# Back from the dead? Australia's climate policy

Public Policy Seminar

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# Labor governments, 2007-13





Tony Abbott

# Tony Abbott says 'coal is good for humanity' while opening mine

'Coal is vital for the future energy needs of the world, so let's have no demonisation of coal' says PM

Gabrielle Chan

@gabriellechan

Monday 13 October 2014  
05.39 BST

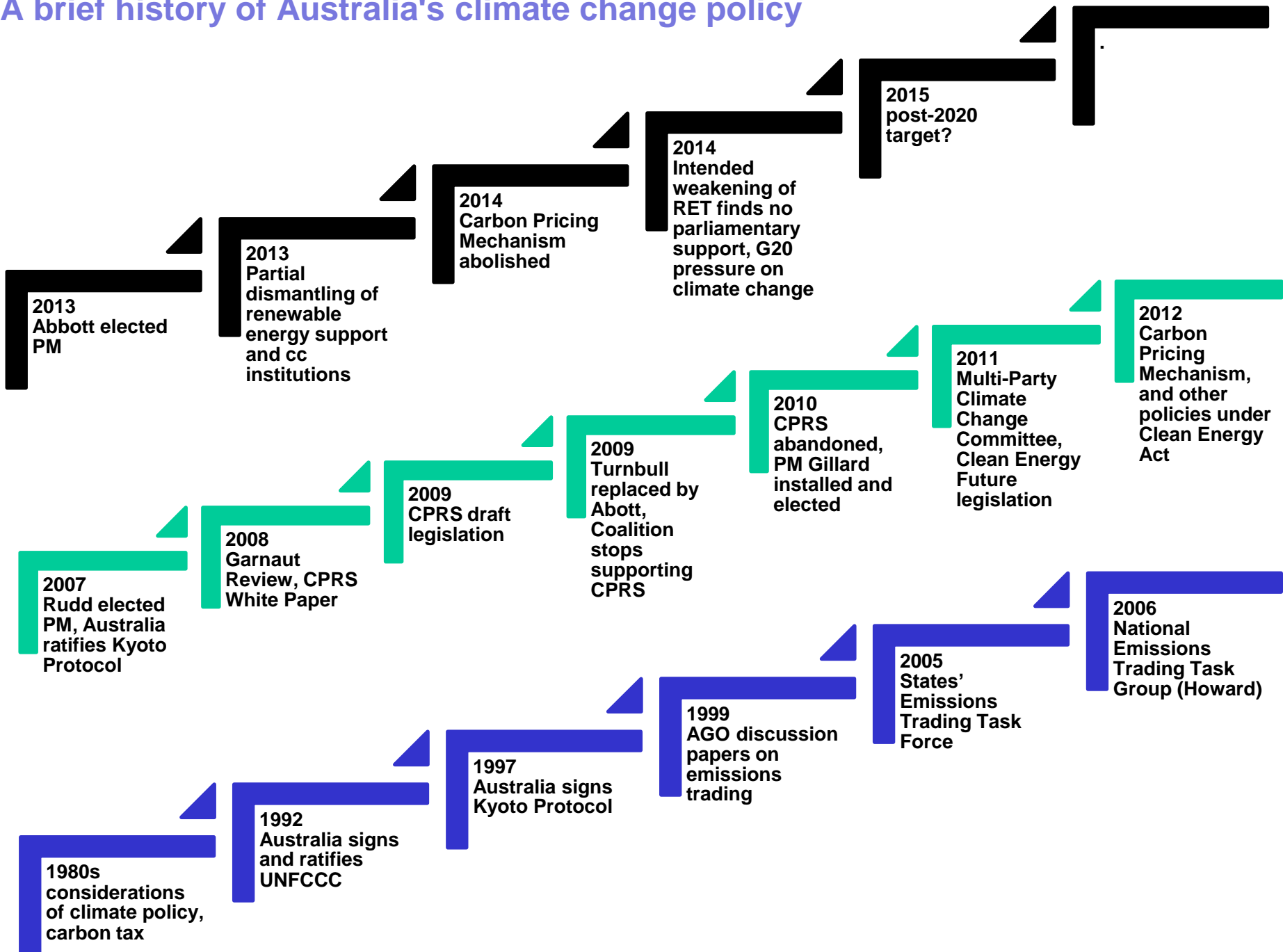


Shares 32k  
Comments 797





# A brief history of Australia's climate change policy



## Carbon pricing mechanism

Started July 2012, abolished July 2014

Fixed price A\$23/t, rising annually

EU ETS link was planned from mid-2015, with flexible price

- ½ of permits sold; income tax cuts to lower and middle income households, higher transfer payments

## Emissions Reductions Fund

Evolving from Carbon Farming Initiative

Legislated 2014, first auction to be held 2015

Effectively an abatement subsidy scheme

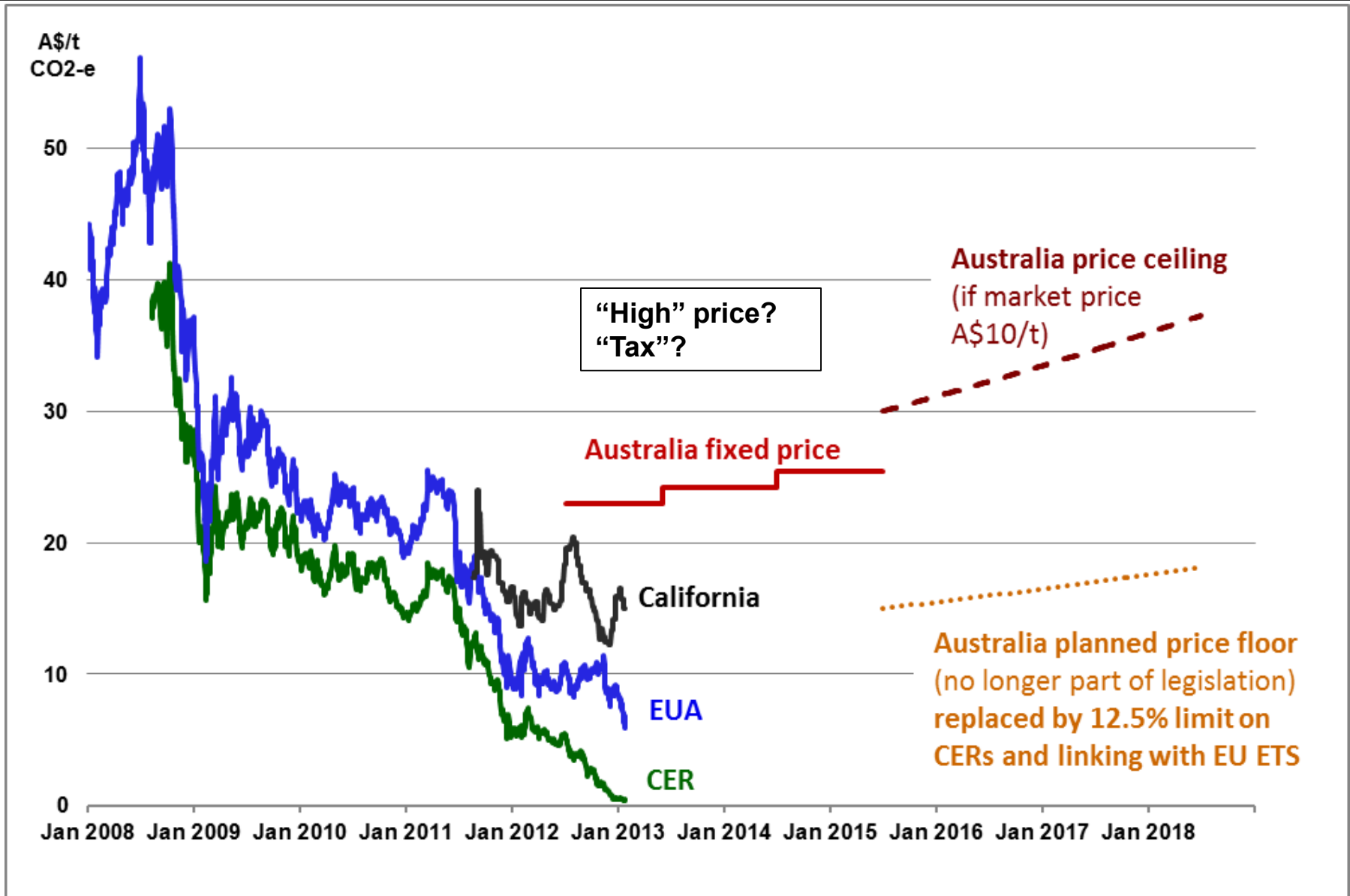
## Other climate policy instruments/institutions

Renewable energy target (portfolio standard)

Clean Energy Finance Corporation, R&D support for renewables

Climate Change Authority

# Australia's carbon price in comparison



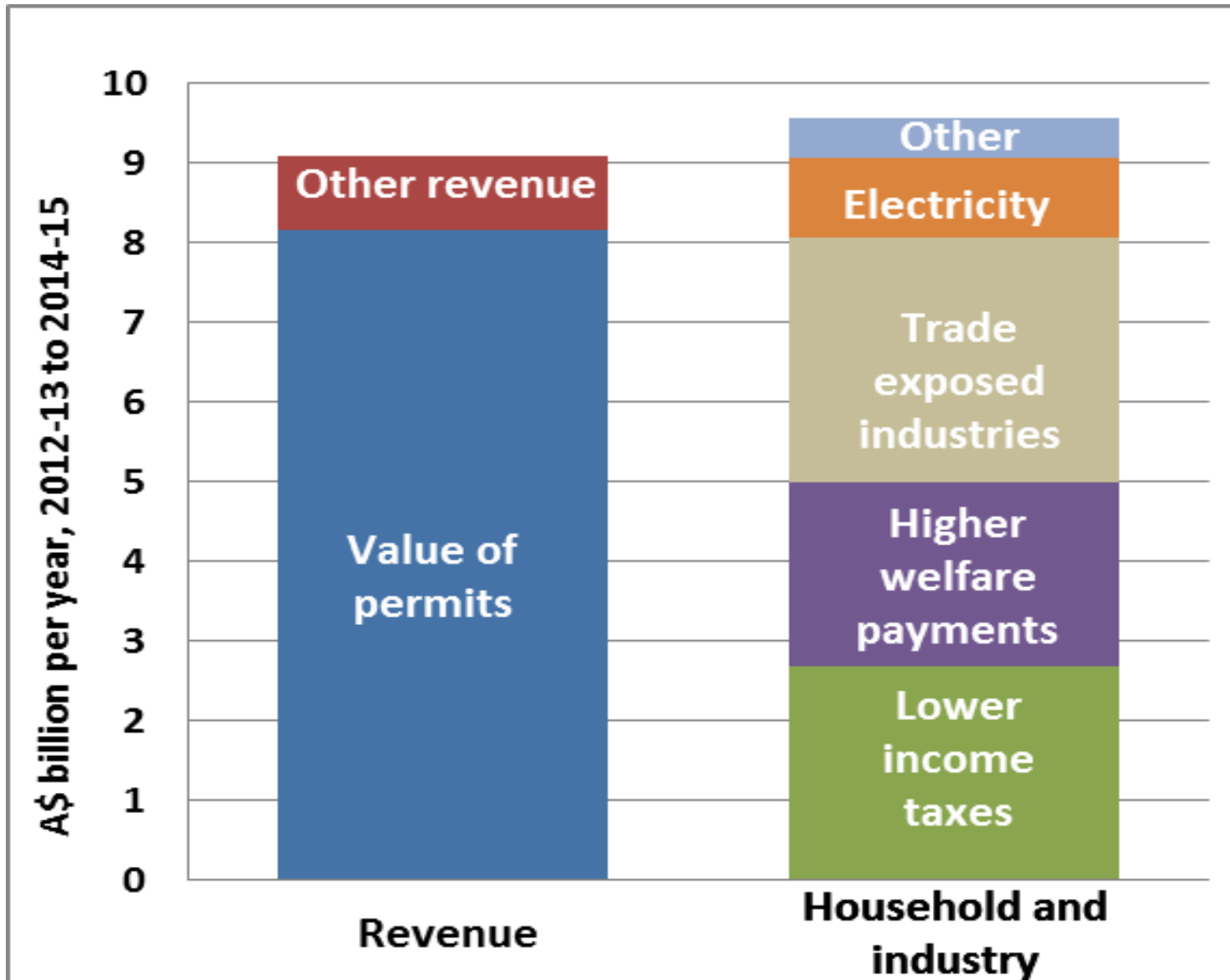
Is it a tax? Is it a trading scheme?

A permit scheme where for the first three years government sells permits at a predetermined price, without a cap -- *“acts like a tax”*

- No int'l trading, no banking/borrowing
- Instruments and legal structure of permit trading – easy transition
- Industry assistance as free permits – like tax thresholds (NOT tax exemptions)
- From 2015, cap and variable price, linking to EU ETS planned



# Australia's revenue recycling



## Industry assistance

- *A political compromise with phase-out provisions*
- Fixed payments to the most emissions intensive power producers, limited to 5 years
- Production-indexed payments to emissions-intensive trade-exposed industries
- Regular assessment and review; reductions possible

## Household assistance

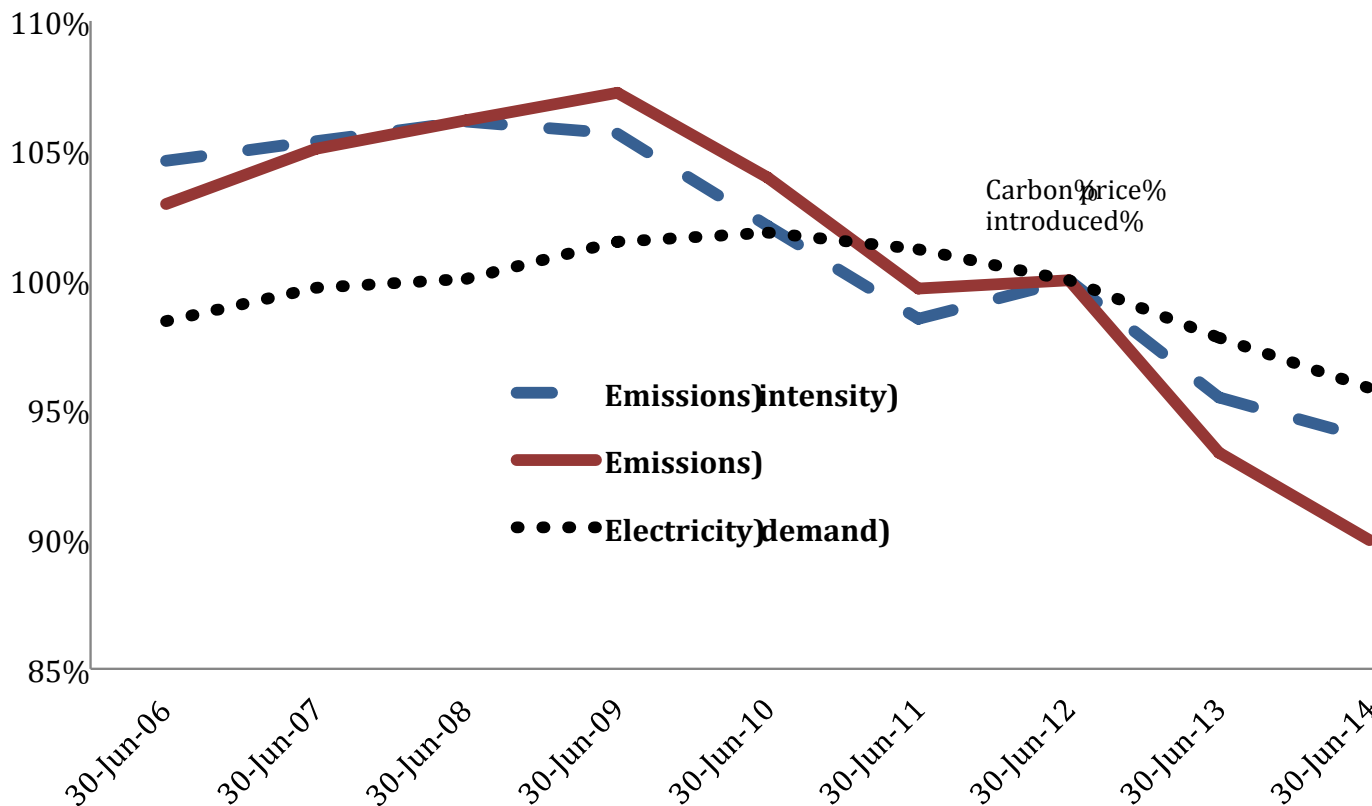
- *Calibrated for political acceptability*
- Income tax reductions at lower to middle incomes
  - ... better workforce participation incentives
- Higher welfare payments
- Large majority of households better off
  - ... but a majority *think* that they are worse off as a result of carbon price



# Has the carbon price been successful? Electricity supply and demand

Figure 2: Electricity demand, emissions intensity of supply and emissions, 2005/6 to 2013/14

Index, 2011/12 = 100%



### Demand:

#### Retail price increases

Eg NSW 2008-09 to 2012-13 +81%

- Network costs +44%
- Retail costs +16%
- Generation costs +11%
- Carbon costs +10%

#### Salience of costs due to “carbon tax” debate?

Industrial closures (not due to c-price)

### Supply:

RET continuously increases share of renewables

Carbon price causes load shifting – but little or no investment effect



# Has the carbon price been successful? Electricity supply mix

## 6: Change in composition of electricity generation after introduction of the carbon price

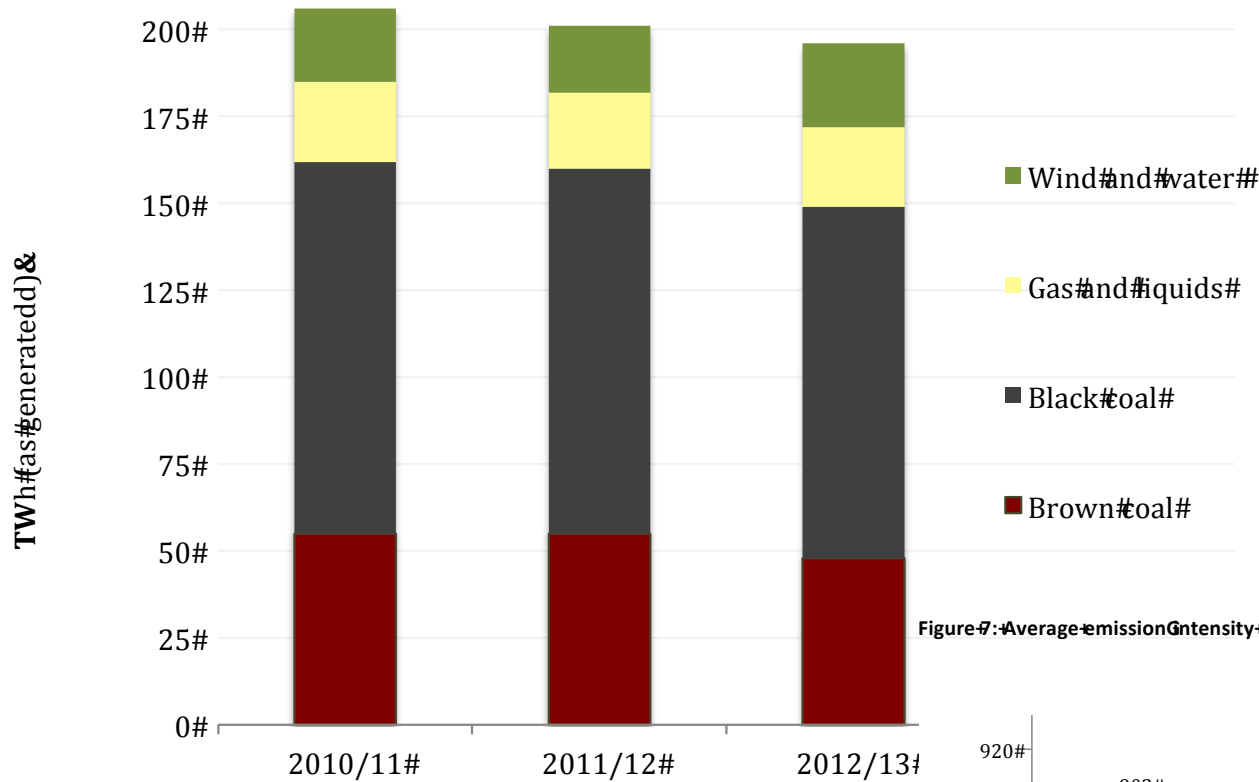
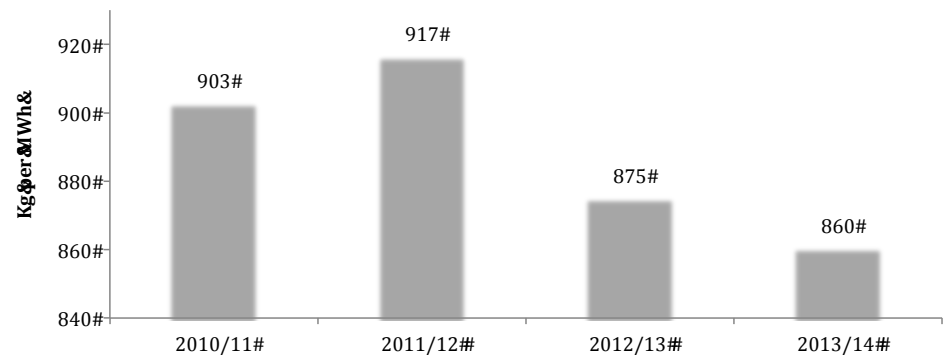


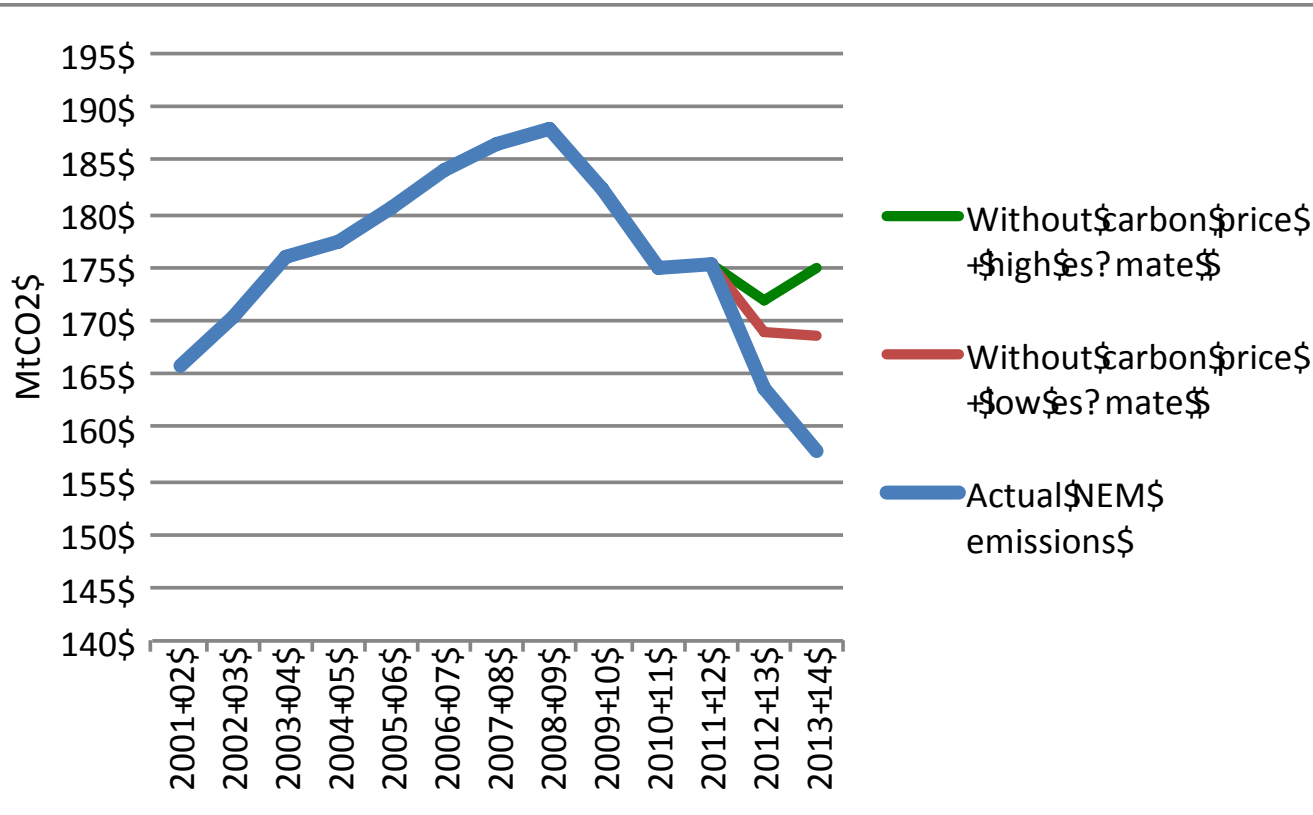
Figure 7: Average emission intensity of the National Electricity Market pre and post carbon price





# Has the carbon price been successful? Electricity supply mix

Figure 11: NEM emissions - Actual and scenarios without estimated effect of carbon price



We estimate that these shifts in the supply mix resulted in a 16 to 28kg CO<sub>2</sub>/MWh reduction in the emissions intensity of power supply in the NEM, a reduction between 1.8 and 3.3 per cent. The combined impact attributable to the carbon price is estimated as a reduction of between 5 and 8 million tonnes of CO<sub>2</sub> emissions (3.2 to 5 per cent) in 2012/13 and between 6 and 9 million tonnes (3.5 to 5.6 per cent) in 2013/14, and between 11 and 17 million tonnes cumulatively.

Source: Scenarios without carbon price: authors' calculations; actual emissions: AEMO 2001, AEMO 2002, AEMO 2003, AEMO 2004, AEMO 2005, AEMO 2006, AEMO 2007, AEMO 2008, AEMO 2009, AEMO 2010b, AEMO 2011, AEMO 2012b, AEMO 2013a, AEMO 2014b



## Emissions Reduction Fund

Project-based emissions reductions credits

Evolves from “Carbon Farming Initiative” offset mechanism

Broader sectoral coverage

No emissions market: government as buyer of emissions reductions

## Opportunities

Communication: Contrast to “carbon tax”...

Activities that aren’t accessible to carbon pricing, esp agriculture

## Problems

Offset problems: limited coverage, baselines, additionality...

Scale, predictability, investment incentives

Budget-financed subsidies! Fiscally unsustainable, revenue outflows

Budgetary cost \$3 billion (?) over several years

Carbon pricing would bring in net ~ 2 billion per year to budget

## What is an adequate post-2020 emissions target for Australia?

A rich country, high per capita emissions, big opportunities for reductions

But the politics... and fossil fuel industry interests

US -26% to 28% by 2025 (cf 2005)

Doubling annual reduction rate in 2020s compared to 2005-2020

EU -40% by 2030 (cf 1990)

China peak CO<sub>2</sub> by 2030

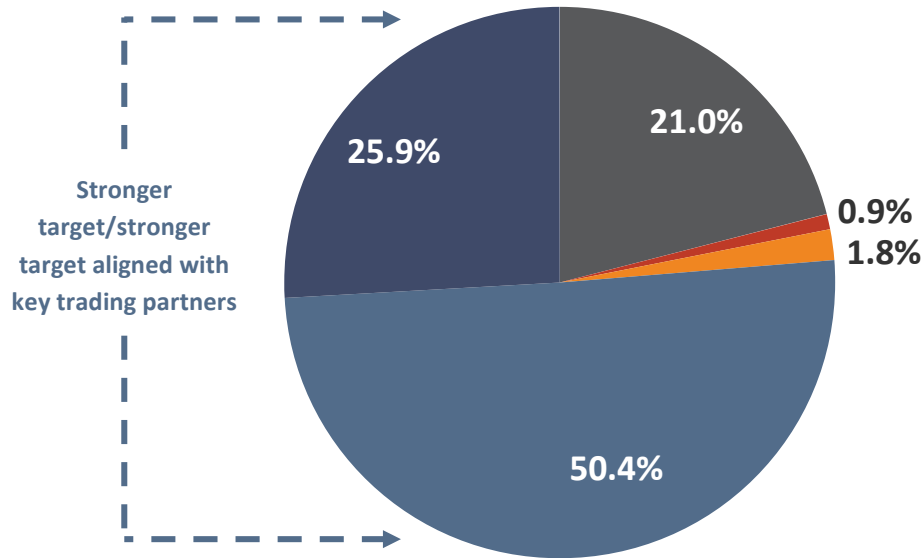
Peak coal probably soon





# Business views a survey of Australian businesses, Oct 2014

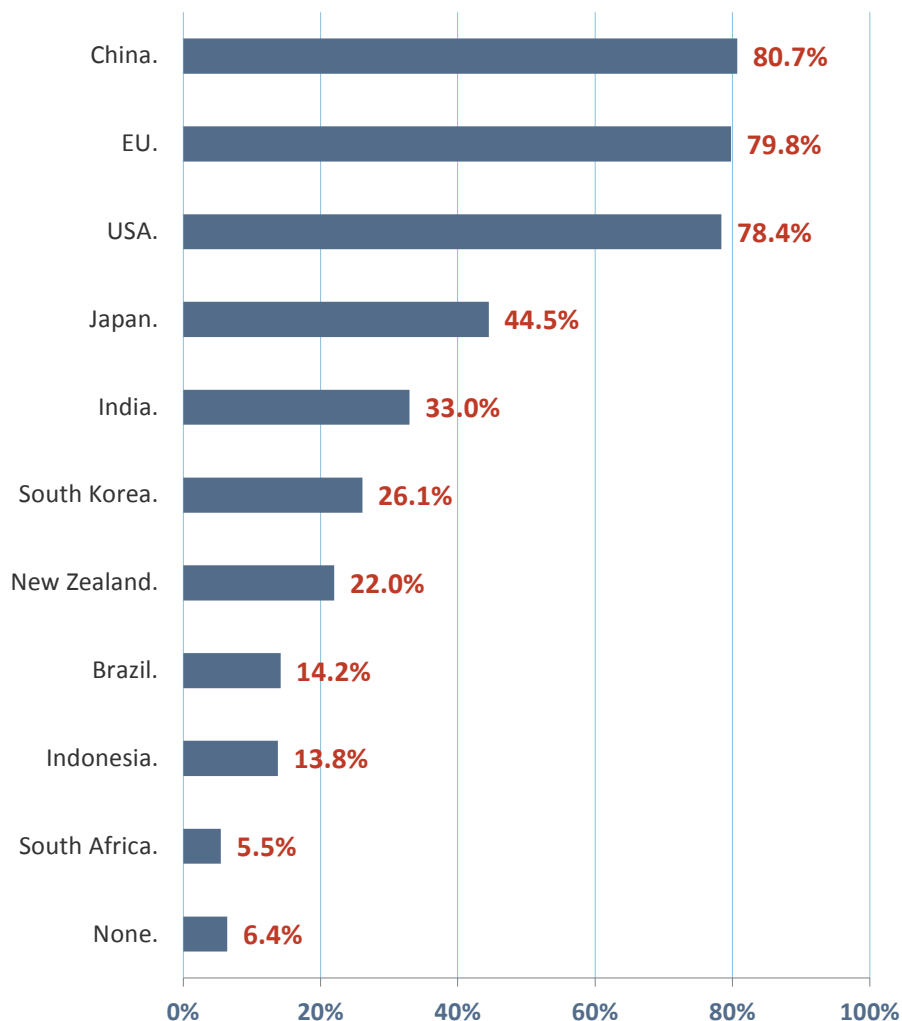
Regarding Australia's 2020 emissions reduction target, in your view, given international developments, Australia should:



- Have a stronger target.
- Have a stronger target, but only if it aligns with targets of key trading partners and/or major countries.
- Maintain our existing target of a minimum 5% emissions reduction by 2020 on 2000 levels.
- Have a weaker target than 5%.
- Have no target.

# Business views a survey of Australian businesses, Oct 2014

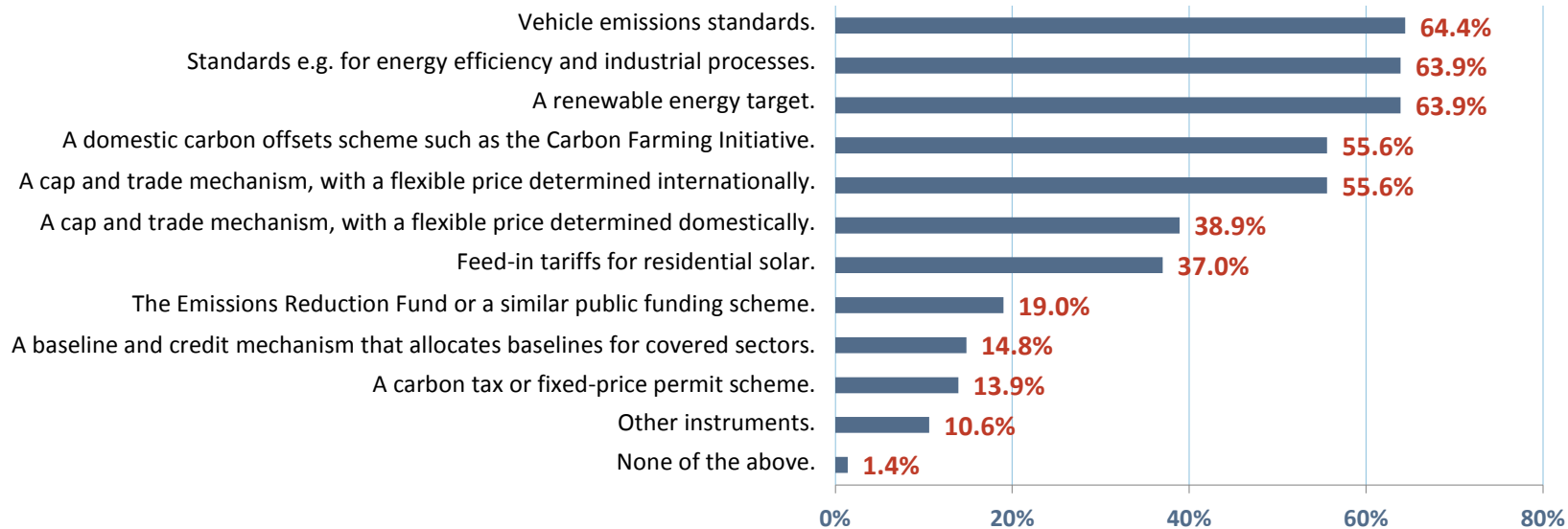
If Australia's post-2020 target is calibrated with reference to targets and actions by other countries, which countries should Australia look to as a priority?





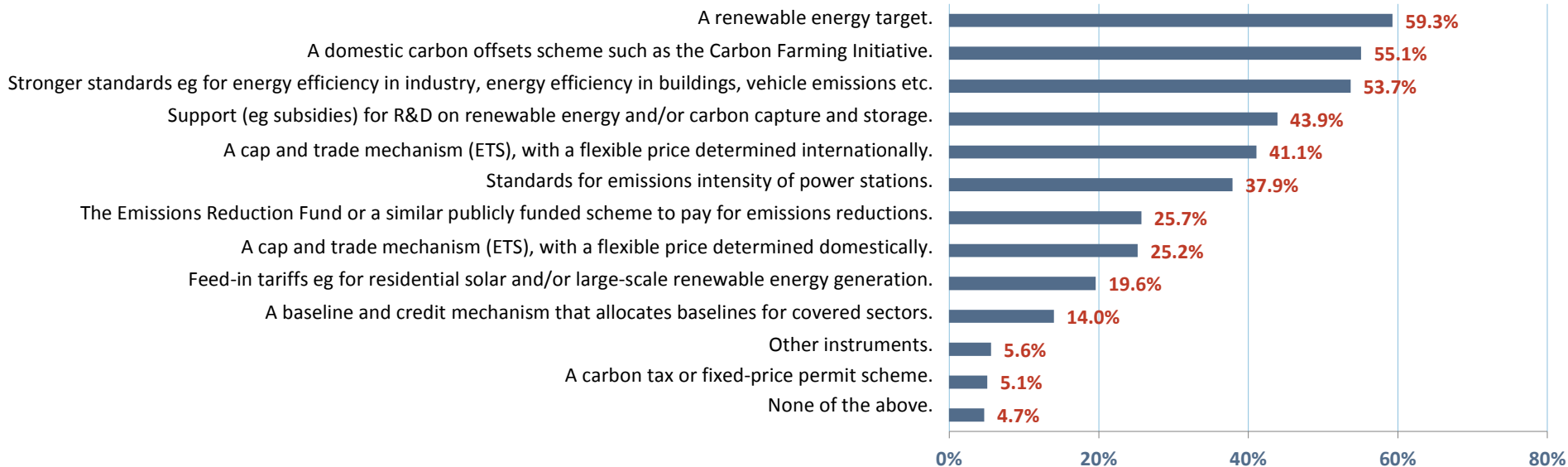
# Business views a survey of Australian businesses, Oct 2014

What policy instruments or mix of instruments should Australia have for reducing greenhouse gas emissions?



# Business views a survey of Australian businesses, Oct 2014

Looking ahead to 2020, which of the following policy instruments do you expect will be in place in Australia nationally by 2020?





# PATHWAYS TO DEEP DECARBONISATION IN 2050

HOW AUSTRALIA CAN PROSPER  
IN A LOW CARBON WORLD



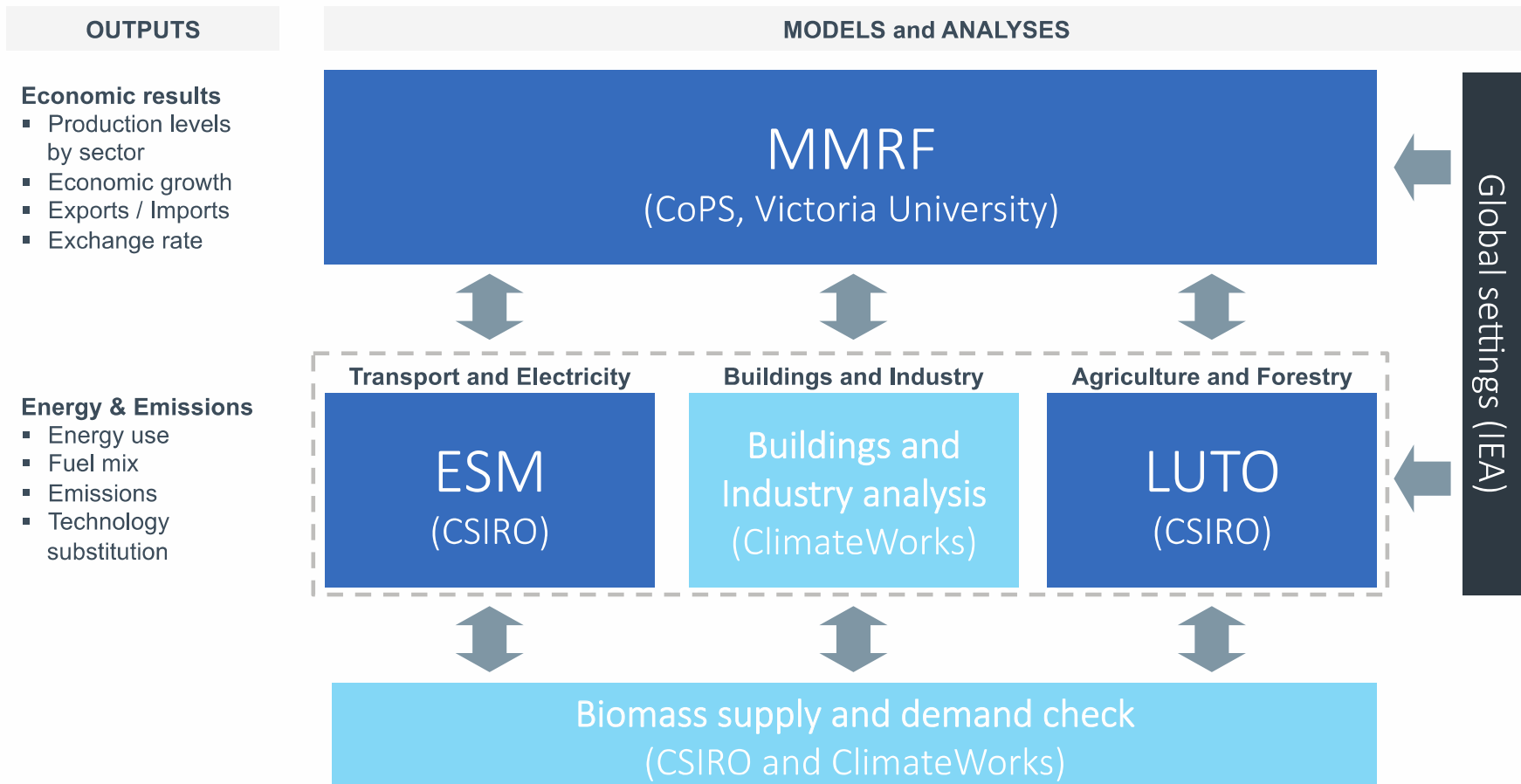
INITIAL PROJECT REPORT

SEPTEMBER 2014



# Long-term opportunities: “Deep Decarbonisation”

■ Economic modelling    ■ Technology analysis    ■ External input





# Long-term opportunities: “Deep Decarbonisation”

Figure 12 - Greenhouse gas emissions trajectory, MtCO<sub>2</sub>e, 1990-2050 (DOE 2014)

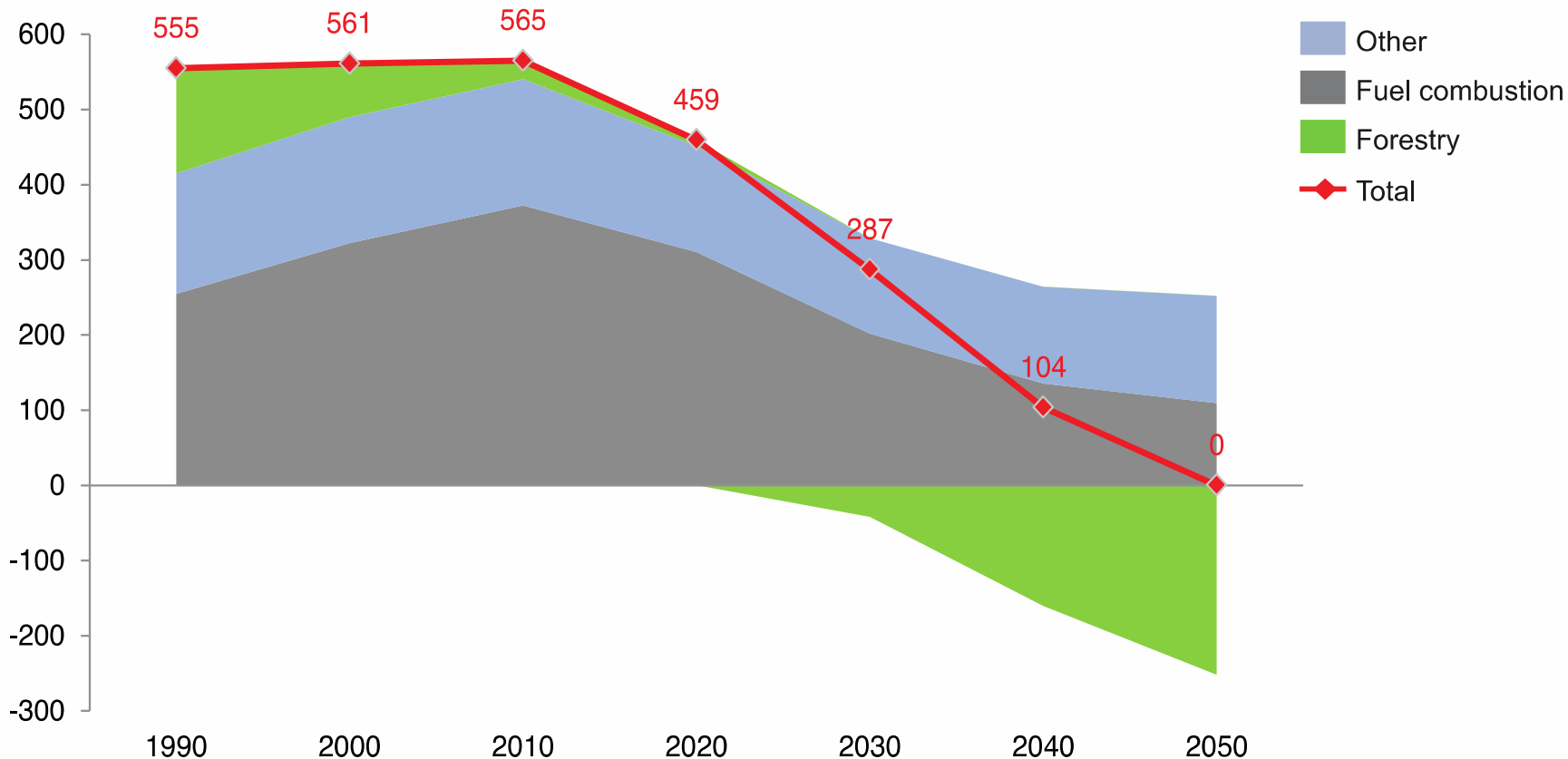




Figure 3 - Energy emissions per capita by sector, tCO<sub>2</sub> per capita, 2012 and 2050

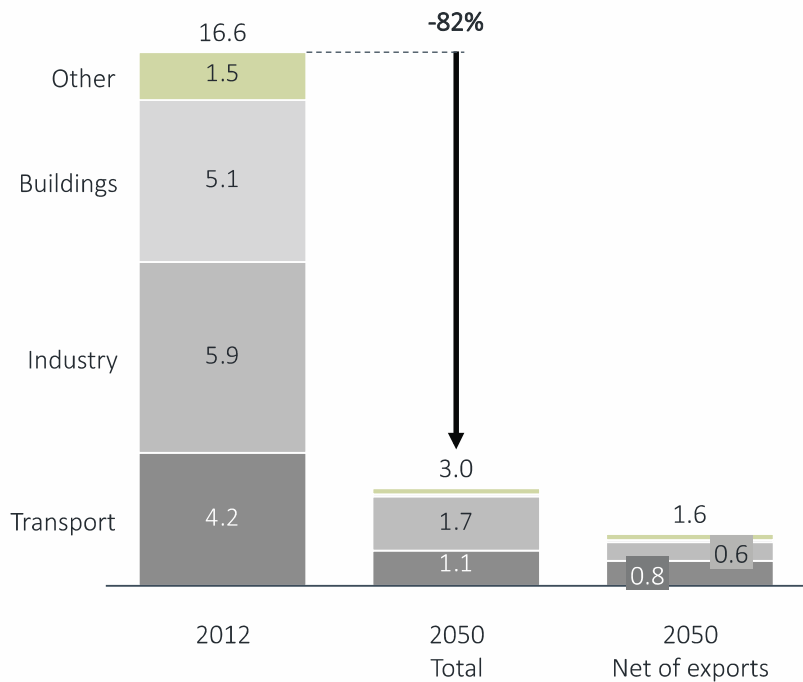


Figure 4 - Greenhouse gas emissions per capita by source, tCO<sub>2</sub>e per capita, 2012 and 2050

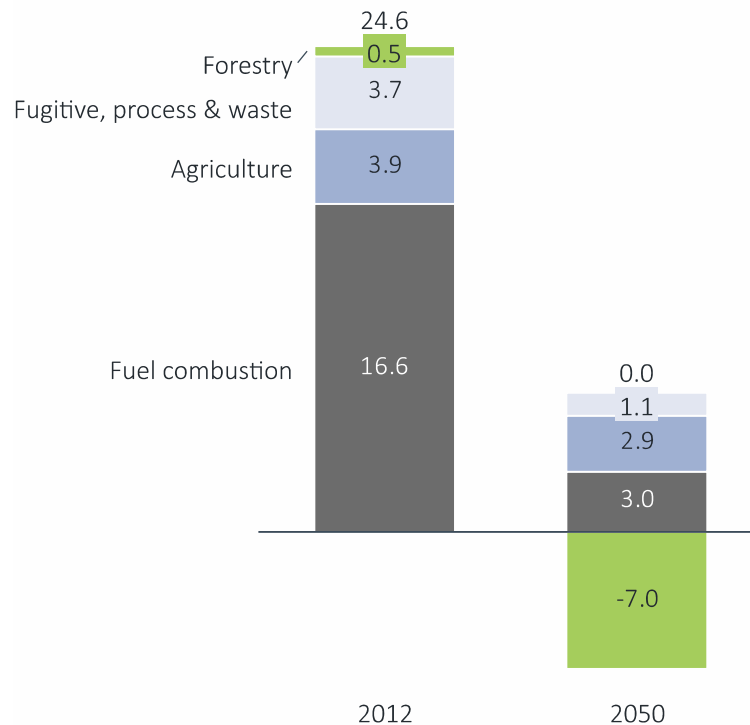
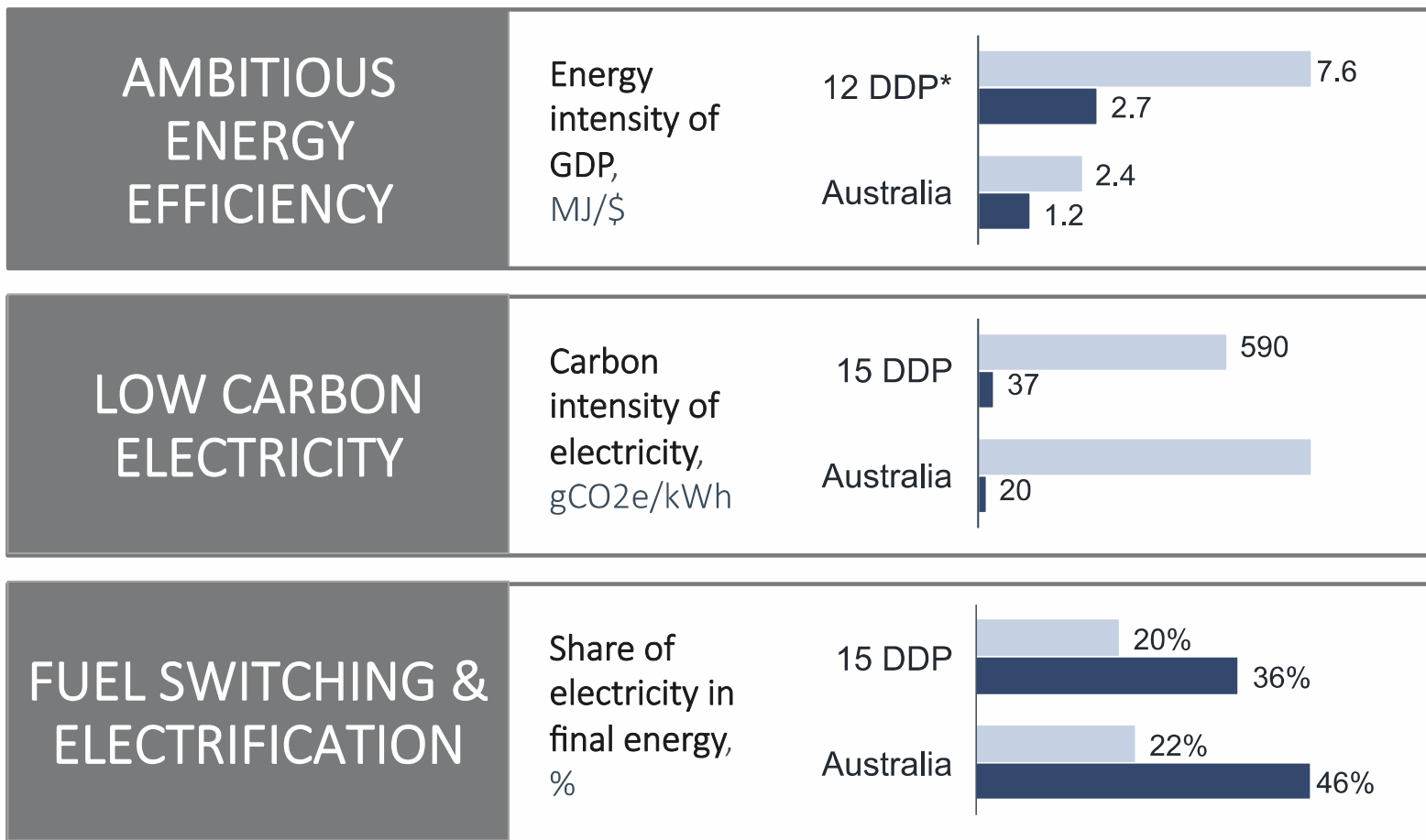




Figure 9 - Energy system decarbonisation pillars for the 15 DDPs (SDSN & IDDRI 2014)



\* Based on complete country chapters, excluding India, Brazil and Germany; \*\* 2012 for Australia, 2010 for DDP countries



# Long-term opportunities: “Deep Decarbonisation”

	Annual average growth		Annual average growth relative to reference case		Economic parameters at 2050, compared to reference case			Emissions level relative to reference, 2050		Emissions reductions from 2000 to 2050	
	GDP	GNI per person	GDP	GNI per person	GDP	GNI per person	PFC	Domestic emission	Net emissions	Domestic emissions	Net emissions*
DDPP scenario	2.4%	1.1%	-0.19%	-0.12%	-6.6%	-4.6%	-4.9%	-100%	-100%	-100%	-100%
2011 Treasury “high price” scenario	2.5%	1.0%	-0.21%	-0.19%	-4.7%	-7.1%	-8.3%	-66%		-42%	-80%
2008 Treasury “Garnaut 25” scenario	2.2%	1.1%	-0.14%	-0.17%	-5.8%	-6.7%	-6.5%	-83%		-69%	-90%



**Perhaps the world's best designed carbon pricing policy**  
... and probably the shortest lived one

## **Politics trumps policy**

... communicating the benefits of sound economic policy

Can we really leave the explaining to the politicians?

... dealing with vested interests in democratic processes

Take a more gradual approach if governments are not firmly in control?

<b>Prime Minister at Next Election</b>	
January 2016 1:30 AM	<b>Win</b>
Malcolm Turnbull	<b>1.40</b>
Tony Abbott	<b>3.00</b>
Julie Bishop	<b>3.75</b>

Betting odds on Centrebet, 7 Feb 2015



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