

Briefing Paper 1

Peers and Partners: How Australia compares on climate policy

October 2015

Executive Summary

This briefing paper compares what the Australian government is doing on climate change with the countries most relevant and important to Australia: allies and trading partners.

The paper looks at China, the UK, South Korea, and the US. Examining what peers and partners are doing on climate policy gives a practical sense of how Australia compares with the countries most critical to its future.

Key findings:

- Major trading partners and allies are doing more on climate change policy than Australia, taking a more comprehensive and innovative approach and showing more vision
- Australia is lagging behind on policy areas such as energy efficiency, vehicle emissions and carbon pricing, and is not showing leadership
- In the countries examined, climate policies have often been implemented by conservative parties
- Durable, stable climate policies tend to have bipartisan support.

Introduction

It is sometimes claimed that Australia is doing the same as, or more than, key countries on climate change. The view has been regularly expressed that Australia would be 'out in front' if it did more on climate policy.¹ This paper examines the evidence on how Australia compares.

While some compare Australia with world's best practice – Denmark, Costa Rica or Bhutan – this paper takes a pragmatic, practical approach in examining some of the countries most important to Australia's economic and political future. Who does Australia usually look to on major issues? Which countries are in a similar situation? And what are they doing on climate change?

The focus here is on national government policy. Four 'relevance' criteria were used to select four countries:

- Largest export markets
- Strongest political / diplomatic allies
- Countries with large coal reserves, like Australia
- Countries with similar political systems.

This paper briefly describes Australia's climate policies, and then looks at China, the UK, South Korea, and the US. The paper looks at:

- a) Why each country matters to Australia
- b) Climate policies
- c) The politics behind those policies.

This paper aims to provide an up-to-date, evidence-based introduction to these countries' climate policies. It does not describe them in depth.

AUSTRALIA

Australia is the 13th largest emitter of greenhouse gases. Emissions per person are among the world's highest.²

The current Coalition government has committed to reduce emissions:

- By 5% by 2020, based on 2000 levels
- By 26 to 28% by 2030, based on 2005 levels.

The government's main policy, Direct Action, allocates funds to businesses to reduce emissions. This is done via a \$A2.55 billion Emissions Reductions Fund, which is operating. The ERF uses a 'reverse auction' method.

Direct Action will include safeguards on emissions, which have not yet begun operating. The government has released draft rules on how this would work. Critics say the draft rules are weak.³

There is a nationally legislated Renewable Energy Target (RET), which was reduced in 2015. It will now see 23.5% of electricity come from renewables in 2020. There are indications some in the government would have liked to reduce the RET by more,⁴ but the administration of new Coalition Prime Minister Malcolm Turnbull, which began in September 2015, has flagged greater interest in renewables.

There is a program on adapting to the effects of climate change,⁵ although this is less comprehensive than elsewhere. A \$A700m Green Army programme pays a stipend to young people to work on environmental projects.

Australia had a carbon price from 2012. This was removed by the Coalition government in 2014.

There was funding for Carbon Capture and Storage projects (which capture emissions from power stations and factories and bury them), but it has mostly been removed.

The Coalition government unsuccessfully sought to disband the Climate Change Authority (which advises on climate policy) and the Clean Energy Finance Corporation (the government's green bank). The CEFC now appears safe.

Australia does not have CO₂ emission standards for cars (80% of the world's cars are sold into markets which have established or proposed such standards).⁶ Australia's cars are rated 'far less efficient than those in most developed economies'.⁷ The Turnbull government has flagged increased interest in public transport.

Australia does not have a national energy efficiency scheme. There was interest in this but it appears to have ceased.⁸ There are some state-level schemes.

Australia does not have carbon budgets. The national government has not set targets for states, industries or coal-fired power stations to reduce emissions. It is not planning to remove fossil fuel subsidies (for example, tax credits for diesel fuel for mining companies).

CHINA

a) Why does China matter to Australia?

China is the world's largest economy when purchasing power is factored in.⁹ China is Australia's largest trading partner and largest export market.

- Two-way trade was \$A142 billion in 2014
- Australia exported \$A90 billion to China in 2014 (mainly iron ore, coal and gold)
- More than one-third of Australia's exports go to China
- The countries recently signed a Free Trade Agreement
- China is Australia's largest source of overseas students.

Australia and China both have very large reserves of coal (in the top four in the world). China is the largest producer of coal; Australia is one of the largest coal exporters. Both also have substantial reserves of natural gas.

China is the world's largest emitter of greenhouse gases, therefore its climate targets and policies are important – for Australia and for other countries.

b) China's climate policies

Targets

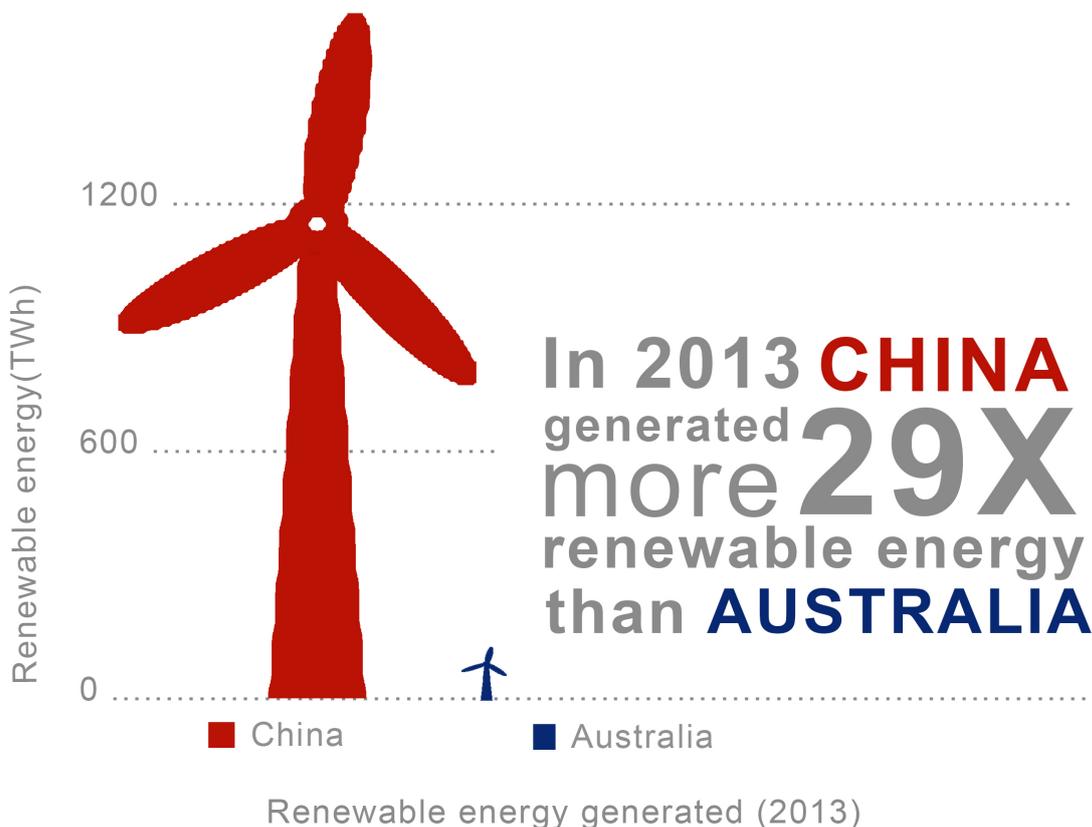
- China has pledged to peak its emissions around 2030 and to make its 'best efforts' to peak earlier. This formed part of a climate agreement with the US which the countries' leaders announced together in Beijing in 2014. Some experts predict emissions will peak by 2025,¹⁰
- China has promised to cut CO₂ emissions per unit of GDP by 60 to 65% by 2030, on 2005 levels.

Smog poses major health problems in China and these targets partly aim at addressing that.

Beijing city will close all its coal-fired power plants by 2016

Reducing coal use

The government says it will cut coal consumption by 160 million tonnes between 2015 and 2020. The government has issued targets to reduce emissions for provinces, and



for industrial sectors.¹¹ Construction of coal-fired power plants in some coastal provinces is banned and some provinces have a 'coal consumption cap'. Beijing city will close all its coal-fired power plants by 2016. It is understood the national government is investigating peaking coal consumption by 2020.

The government regularly closes high-polluting factories and mines. More than 2000 smaller coal mines have been slated for closure. Coal-fired power units, iron smelters and steel, aluminium and cement producers have been shut. In 2014 China's coal consumption dropped and imports fell 45%.¹²

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Renewable energy

China has the world's largest renewable energy system, 'by far'.¹³ It spends more on renewables each year than any other country.

In 2013 China generated 29 times as much renewable energy as Australia. China generated 21% of its electricity from renewables compared with 15% for Australia. Over the next three years China is expected to install enough solar power to power Australia.¹⁴

China has progressively increased its targets for renewable energy. The current Five-Year Plan sets a goal of 20% of electricity from renewables by 2015. It also set a goal of 700 GW of renewable capacity in 2020, and committed \$US290 billion to clean energy.¹⁵

The government began introducing Mandatory Market Share for renewables in 2007, which sets targets for power generators and grid companies. Managers are evaluated by the government against these targets. There are also tariff-based support mechanisms for renewables, and two national solar PV subsidy programs.

Emissions trading

China plans to start a national Emissions Trading Scheme in 2017. This will cover sectors like iron, steel, power generation, chemicals, building materials and paper-

making. Experts have analysed the impact of an ETS on China's energy-intensive, trade-exposed industries, which may be prone to carbon leakage to countries without a carbon price.¹⁶

China already has seven Emissions Trading Schemes, each covering carbon dioxide in a city or region, including Beijing, Shanghai, and Guangdong. These pilot schemes affect more than 1900 companies. More than 260 million people live in regions with an ETS. Companies that do not comply can be fined and named publicly. The Beijing scheme covers everything from Microsoft to Xinhua news agency, universities, schools, and government agencies.¹⁷

Other

China has tax exemptions and subsidies for electric and hybrid cars, up to \$A13,200 per vehicle. It has a target of five million electric vehicles on the road by 2020. China has introduced CO₂ emissions standards for cars and is tightening these. The next stage of fuel efficiency standards for heavy vehicles will be implemented in 2019. The government has a target for public transport to make up 30% of motorised travel in larger cities by 2020. China's cars emit less pollution on average than Australia's.¹⁸

China has designated 10,000 low-carbon communities, affecting planning, construction and 'lifestyle'. China has six low-emission provinces and 36 low-emission cities. Green buildings will make up half of all new buildings in cities and towns by 2020.

China recently committed \$US3 billion to help developing countries address climate change.

c) China's climate politics

China is a one-party state and has a federal system. It has a national Parliament; in practice only members of the Chinese Communist Party and approved organisations are elected. Market-based economic arrangements are increasingly used.

The leadership team is usually appointed for 10 year-periods. The current leaders were appointed in 2013. This system has led to continuity in climate policy. It is to be expected that announced climate policies and targets will mostly be implemented and remain in place.

UNITED KINGDOM

a) Why does the UK matter to Australia?

The UK is one of Australia's closest allies. The two have a long history of co-operating over diplomacy and defence.

Australia and the UK have similar 'Westminster' political systems, so Australia can look to the UK for how to institute policies. This system is one of parliamentary democracy which is adversarial, favours two-party contests, and concentrates power on the winning party. The two main parties often don't work together on major issues.

Australia and UK greenhouse emissions levels are similar. The UK has 65 million people while Australia has 24 million.

b) The UK's climate policies

Targets

The UK has binding targets to cut emissions:

- By 50% by 2025, on 1990 levels
- By at least 80% by 2050, on 1990 levels.

The UK is part of the European Union (EU), which has binding targets to cut emissions:

- By 20% by 2020, on 1990 levels
- By at least 40% by 2030, on 1990 levels.

Carbon budgets

The UK has legally-binding five-year carbon budgets that set a cap on emissions. These are legislated until 2027.

The independent Committee on Climate Change makes recommendations on how those emissions should be carved up between different sectors, covering everything from electric cars to wind power and the electricity market. Some commentators say these carbon budgets and plans provide more certainty for business.

Emissions trading

The UK is part of the European Union Emissions Trading Scheme. This covers 28 EU countries plus three others. It includes emissions from power and heat generation, oil refineries, steelworks, production of iron and aluminium, and aviation. It is the world's largest ETS, covering

more than 11,000 power stations. The UK added a 'carbon price floor' to the ETS to improve price stability (the carbon price has regularly been very low, hampering its effectiveness).

Renewable energy

Almost 35% of the UK's electricity is low-carbon. There is a national Renewables Obligation scheme, similar to the RET, which obliges electricity suppliers to purchase renewable energy.¹⁹ There are also Feed-in Tariffs, currently under review, for households that generate electricity from solar PV, hydro, wind, anaerobic digestion etc. In addition, the Electricity Market Reform program sets guaranteed prices for low-carbon power ('contracts for difference'). This promotes emerging technologies.

Energy efficiency

Under the Energy Company Obligation scheme, electricity and gas suppliers must deliver energy efficiency improvements to households (for example, insulation or replacing old boilers). There is a requirement to help low-income areas. Also, a Climate Change Levy is placed on most businesses, with a discount for improving energy efficiency.

Fossil fuel subsidies

The UK government says it does not subsidise fossil fuels.²⁰ It is one of 12 countries that recently signed a communique calling for faster action to eliminate fossil fuel subsidies.²¹ The group includes the US, France and New Zealand, but not Australia.

Other

The UK has adopted EU emissions standards for vehicle emissions, which will tighten to 95g/km of CO₂ in 2020. The government has allocated £1 billion in capital funding for commercial-scale Carbon Capture and Storage projects and is working on barriers to CCS. The government's UK Green Investment Bank has committed £2 billion.

c) The UK's climate politics

The major political parties broadly agree on climate change policy. The Labour government passed the *Climate Change Act* in 2008, setting emissions cuts and carbon budgets, and established the Climate Change Committee. The following Conservative government has

continued this approach.

Before the 2010 election the three biggest parties (Conservatives, Labour, Liberal Democrats) competed to be the most ambitious on climate policy.²² Conservative Party leader David Cameron wanted to modernise his party and appeal to new voters. He went to the Arctic Circle with a team of huskies to witness global warming, and adopted the slogan 'Vote Blue, Go Green'. Critics, however, have accused him of green-washing.

“As Prime Minister, I pledged that the government I lead would be the greenest government ever. And I believe we’ve kept that promise.”

David Cameron, Conservative Prime Minister, 2014

Cameron went on to form government with the Liberal Democrats in 2010. A cross-party consensus emerged on climate. The government accepted the fourth carbon budget.

Before the 2015 election the leaders of the three major parties signed a joint pledge on climate change. They agreed it was a serious threat to economic prosperity, pledging 'to work together, across party lines'. They pledged to accelerate the shift to a low-carbon economy, and to 'end the use of unabated coal for power generation'.

David Cameron won the election outright.

SOUTH KOREA

a) Why does Korea matter to Australia?

South Korea is Australia's third-largest export market. Exports were \$A20 billion in 2014, mainly iron ore, coal and beef. Korea and Australia recently signed a Free Trade Agreement.

Korea and Australia are democracies, US allies, and have similar-sized economies (Australia is the 12th largest economy, Korea 13th). As significant middle powers in the Asia-Pacific they exert a similar influence on economic and diplomatic matters.

b) Korea's climate policies

Targets

The UN's climate change body classifies countries as developed or developing (which has become problematic). Developed countries are supposed to lead on reducing emissions. South Korea, rated as a developing country, was not expected to curb its emissions early - however it did.

South Korea has targets to cut emissions:

- By 30% by 2020, on business-as-usual projections (equivalent to a 5% absolute reduction, similar to Australia's target)
- By 37% by 2030, on business-as-usual projections.

National climate plan

The government has a national vision for 'Green Growth' including a 2050 strategy. Korea has a national roadmap for emissions which sets out reductions for each sector (transport, power, agriculture etc). There are also targets for individual businesses, government agencies, hospitals and universities. A group of more than 180 trained examiners monitor these.

The government has a strategy to create green jobs, from monitoring emissions to renewables to new technologies.

Emissions trading

South Korea has an ETS. Modelled on the EU scheme, it started in January 2015. It covers 525 companies, including power generators, steel producers, car makers and airlines, accounting for 68% of national emissions.

Renewable energy

Korea has a Renewable Portfolio Standard obliging electricity suppliers to use renewable energy, with a target of 10% in 2022. It also pays half the cost of a household installing solar, geothermal or wind. Some local governments have schemes to promote renewable energy. Expanding renewable energy capacity, however, has been challenging.

Reducing coal use

South Korea plans to progressively replace coal power with nuclear and gas, partly for environmental reasons, partly for energy security (Korea imports coal). In 2015 the government dropped plans for four coal-fired power plants, opting for two nuclear plants.

Vehicle emissions

Korea has a CO₂ emission standard for cars to emit 97g/km in 2020, one of the world's tightest. Australia, which does not have a standard, has average emissions of 188g/km. Korea has tax reductions for electric and hybrid vehicles.

Adapting to the effects of climate change

Korea has a National Climate Change Adaptation Plan out to 2030, covering health, disasters, agriculture, water management, etc. There are measures to help the elderly and chronically ill with climate-related health hazards. Local governments are required to have adaptation plans.

Other

Korea has a Carbon Sink law to fund the management of forests to store carbon.

The UN's Green Climate Fund, which helps developing countries with climate change, is located in Korea. Korea has pledged \$US100m to the fund.

c) Korea's climate politics

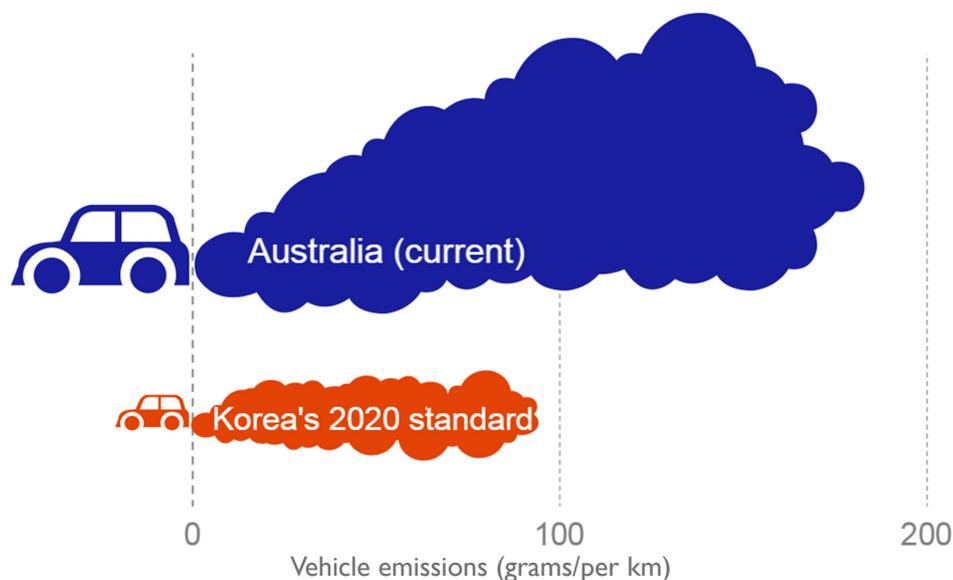
Korea's climate policies have been implemented by conservative leaders.

Korea is a democracy. The president, who is the head of the government, is elected by popular vote. The major parties are the conservative Saenuri Party and the liberal NPAD.

Lee Myung-bak from the Saenuri Party was president from 2008-13. The former Hyundai CEO, multi-millionaire and conservative politician was active on climate change and adopted the 'Green Growth' slogan. His government promoted green industries and clean tech to grow its share of the global green market.

There was significant opposition to the proposed ETS by business. However, observers say there was a 'widely recognised consensus' that the ETS would promote green growth.²³ In 2012 the National Assembly passed the ETS laws 148 votes to 0. Both major parties supported the laws.²⁴

In 2013 Lee was succeeded by Park Geun-hye from the Saenuri Party. She implemented the ETS.



UNITED STATES

a) Why does the US matter to Australia?

The US is Australia's closest ally on foreign policy and security. It is a superpower, a key driver of the global economy, and a very significant military presence.

The US has a similar political system to Australia's; an adversarial federal system dominated by two major parties. Like Australia, it has very large coal reserves.

b) US climate policies

The US has targets to cut emissions:

- By 17% by 2020, on 2005 levels
- By 26 to 28% by 2025, on 2005 levels
- By 80% or more by 2050.

The Obama government says it wants to 'lead international efforts to address global climate change'.

The US has taken a regulatory approach to climate policy. Some policies are based on the legislated *Clean Air Act*. The US has tax concessions for renewable deployment, and emission standards for cars and trucks. It has energy standards for appliances and equipment. The government has installed renewable energy on public housing and public land, and conducted energy efficiency upgrades on two million homes. It has targets for government departments to cut emissions.

The government recently released the Clean Power Plan to reduce emissions from power plants by 32% by 2030. The plan allows states, which are responsible for compliance, the latitude to generate equivalent reductions from other sectors.

Many states have renewable energy targets, energy efficiency targets and building energy codes.

The US does not have a national carbon price (some states do). Nationally, the Republicans oppose much of the Democrats' climate agenda.

c) Focus on California

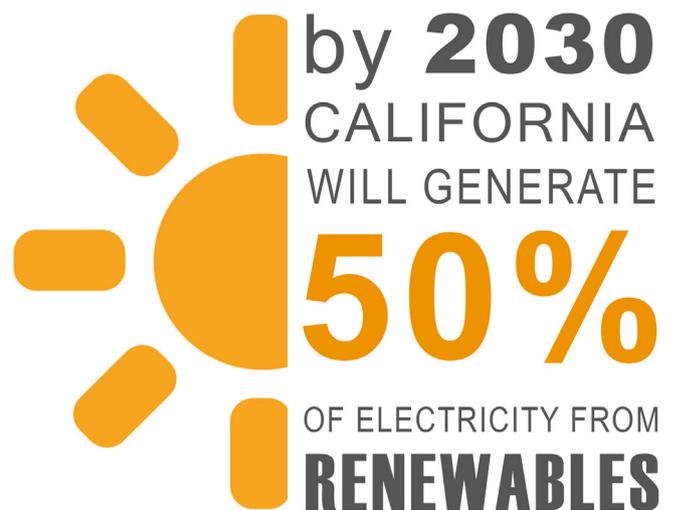
This section examines California as an example of what a state can do on climate policy in a federal system. California has a larger economy and population than Australia.

In 2006, then-Republican Governor Arnold Schwarzenegger introduced the *Global Warming Solutions*

Act, which mandated that the state reduce its emissions. An ETS was developed. In 2010 a formal bid, known as Prop 23, was launched by some sections of business to cease these policies. Republican and Democrat leaders opposed this and Prop 23 was defeated.

Democrat Governor Jerry Brown took over in 2011 and continued these policies. The ETS began operating in 2012. It covers utilities, manufacturers, refineries, food processors etc. California's ETS is linked with Quebec's ETS and there have been discussions about linking with British Columbia's scheme.

Under California's Renewable Energy Standard, 33% of electricity must come from renewables by 2020. In September 2015 California's parliament passed a law requiring utilities to purchase at least 50% of their electricity from renewable sources by 2030.



On transport, fuel refiners must blend in fuel from renewable sources and there is a rebate for electric vehicles.

A scheme to provide incentives for households and businesses that install solar panels has a \$US2.2 billion budget; this was a Republican vision continued by the Democrat leadership.²⁵ Also, the Self Generation Incentive Program provides incentives for energy storage (for example batteries) for households and businesses, in keeping with California's goal to have 1.3GW of storage by 2024.

The *Clean Energy Jobs Act* changed the income tax system

for corporates, to fund clean energy projects. It's expected to transfer \$US2.5 billion over five years. The funding goes to new lighting systems, energy-efficient windows and solar panels for schools.

California has a strategy for adapting to the effects of climate change.

In 2015 Governor Brown issued a new target to reduce emissions by 40% by 2030, while the parliament passed a bill requiring public employee pension funds to divest from coal by 2017.

California's climate policies have received support from some of the state's biggest employers such as Google, eBay, electric-car maker Tesla, and solar power company SolarCity.

The Californian parliament now requires public employee pension funds to divest from coal by 2017

Key point: Border Tax Adjustments

Countries that implement a carbon price could levy a Border Tax Adjustment (BTA, sometimes called a 'carbon tariff') on Australian goods. BTAs are permitted under international trade law (GATT, Article II 2a). A BTA would involve a country with a carbon price levying that price on Australian goods at the border, while imports from countries with a carbon price would not pay. Similarly, a country with a carbon price could provide a rebate to its exporting industries.

Carbon BTAs have been discussed in the EU and the US, with *The New York Times* recently calling for widespread carbon taxes with BTAs.²⁶ There are suggestions China is considering such a move.²⁷ However, critics say BTAs would be hard to implement and could be subject to legal challenges.

Of the countries examined here, Korea and the UK have a carbon price, and China is launching a carbon price in 2017. Australia's exports to Korea, China and the EU were \$A122 billion in 2014. The possibility of carbon Border Tax Adjustments being placed on these markets could damage Australia's economic prosperity and merits consideration by policymakers.

Conclusions

Australia is not displaying vision or leadership on climate policy, one of the major challenges of the 21st century. Here is how Australia's government compares with key peers and partners on climate policy.

Australia is ahead when it comes to directly funding businesses to reduce their emissions.

Australia's actions are comparable on renewable energy (although China and California have increased their targets while Australia cut its target), on incentivising household solar power, and on funding Carbon Capture and Storage.

Australia is behind:

- On targets to reduce emissions, when compared to developed nations such as the US and UK
- On carbon pricing. The UK, Korea and some US and Chinese states already have an ETS, while China will introduce a national scheme in 2017
- On energy efficiency (the UK and US have significant national programs)
- On vehicle emissions - the US, UK, Korea and China have vehicle emissions standards
- Australia does not have a plan to cut coal consumption, unlike China and Korea
- Australia has not set targets for states or industries to reduce emissions (China and Korea have, and the US is seeking to do so)
- Australia does not have a strategy to grow green markets and green jobs (China and Korea do)
- Australia does not have carbon budgets, like the UK
- Australia is not removing fossil fuel subsidies.

Australia risks facing carbon Border Tax Adjustments ('carbon tariffs') on its exports to some markets, because it is behind on climate policy.

While the UK, Korea and California have **achieved bipartisan support** for some climate policies, leading to relatively stable medium-term policies and a more predictable environment for business, Australia has not. This raises the prospect of climate policy changing with the government, which can be every three to six years. Given that key peers and partners have bedded down core elements of climate policy, Australia's partisan reversals on climate policy may place it at an economic, geopolitical and reputational disadvantage.

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