



EFFICIENT, EFFECTIVE AND FAIR CLIMATE POLICY: SUMMARY

OVERVIEW

- Climate change is a global challenge that poses highly damaging and enduring risks to Australia's health, community, economy, and environment.
- For at least 15 years, Australia has been seeking to identify, obtain wide support for and implement policies to reduce emissions. The actions to date do not add up to a strategy that is comprehensive, coherent and that will lead to the necessary fall in emissions in a way that minimises the costs to the economy and society. We can do much better.
- The most efficient, effective and fair policies to reduce emissions will deliver the lowest costs of adjustment and the greatest chance of prospering as a nation during the transition. This can be achieved with smart policy design.
- Such policies would include using the powerful efficiency attributes of property rights, prices and markets.
- A price on emissions, combined with a well-designed market administered by strong and trustworthy institutions, are essential to reduce emissions at the lowest cost and greatest benefit to society.
- An example of how this can be achieved, the Climate Asset Liability Mechanism, is outlined.

*THIS IS A SUMMARY OF A DISCUSSION PAPER PRODUCED BY THE ACADEMY OF THE SOCIAL SCIENCES IN AUSTRALIA, WHICH IS AVAILABLE FOR REVIEW AND FEEDBACK.

THE SCIENTIFIC AND MORAL CASE FOR CLIMATE ACTION

Earth's climatic systems are changing at a rapid rate, primarily because of the greenhouse gases produced by human activity. Australia is one of the highest per capita greenhouse gas emitters in the world, and one of the most vulnerable to the damaging impacts of climate change. Our continent, already hot and dry, will be especially impacted by the increased frequency and intensity of droughts, bushfires, rainfall and floods, loss of ecosystems and marine life and rising sea levels caused by climate change. The changing global climate has already impacted our health, our environment, and our economy. These impacts will worsen over time.

The 2015 Paris Agreement, to which Australia is a signatory, seeks to limit average global temperature increases to between 1.5°C and 2°C above preindustrial levels. There is broad consensus that the impacts of 2°C of warming would be much greater than would 1.5°C. It has become clear since 2015 that the world must take stronger action than currently planned if we are to limit global warming to this range. Current commitments are likely to result in warming of around 3°C, resulting in severe or catastrophic environmental, social and economic consequences.

It is in Australia's national interest, especially because of its vulnerability to climate change, to use all its abilities, underpinned by exemplary policy, to stimulate global action on mitigation.

There is also a strong moral case for Australia to take action. Climate change imposes disproportionate risks and harms across society, especially vulnerable people, and the environment. Actions that impose serious risks on others are negligent and reckless. Our leaders and institutions have a clear moral responsibility to reduce such risk of harm.

Without focused action, further impacts will occur to future generations, who have played no role in producing them. We should work to leave positive rather than negative legacies for future generations. As a member of the global community, Australia has a responsibility to contribute at least an equitable share of the collective international effort to manage and

mitigate climate risks and harm. The failure to do so amounts to unfairly free-riding. This is especially so because of the substantial benefits we have derived from emissions-producing development, and our comparative capacity, as a wealthy nation, to take action.

AUSTRALIA'S OPPORTUNITY

Australia has an abundance of renewable energy resources as well as the human and technological capacity to deploy them. This gives an unprecedented opportunity to transition to a low carbon economy. What we do not have are the appropriate economic incentives to further adopt and develop our low emissions capacities.

Australia is not fully in command of the circumstances in which it adjusts to a low emissions economy. Climate actions by other countries, leading to a fall in demand for Australian fossil fuels, are likely to have a large impact on our economy. It is profoundly in Australia's national interest to effectively prepare for this transition. To be on the front foot, we need a smart and comprehensive set of policies to drive the transition: policies that minimise the costs and maximise innovation and the adoption of low emissions ways of production and consumption.

Australia does not have a comprehensive, coherent national policy on emissions reduction. Many options have been developed, some have been implemented, fewer have been retained. We can do much better.

EFFICIENT, EFFECTIVE AND FAIR CLIMATE POLICY

Australia's policy approach to reducing greenhouse gas emissions can and should be efficient, effective and fair; giving the lowest costs of adjustment along with the greatest chance of prospering as a nation during the transition.

"Carbon pricing doesn't have to be a tax."

Professor Warwick McKibbin FASSA. Australian Financial Review. 24 February, 2020

Environmental and economic success over the long-term will depend on implementing first-best policies that draw on market-based mechanisms. A central part of these policies must be a price of some sort on the emission of greenhouse gases. This approach is becoming increasingly common around the world, with 20% of global greenhouse gas emissions now covered by some form of emissions pricing policy.

The steps involved in creating an efficient, effective and fair policy framework are as follows:

1. Create a property right to emit greenhouse gases.

A first step is to prohibit the emission of greenhouse gases unless you have the right to do so. Only a government has the power to do this, and it can do so in one of two ways: either putting a tax on emissions, or creating a right to emit that can be allocated to individuals and businesses and then traded across the economy. Each approach has its own advantages; we focus on the benefits of using tradeable permits.

2. Create a market for trading rights to emit.

Once the emissions certificates exist, and have been allocated in some way, then a market in these certificates can be created. This market allows the certificates to be bought and sold by anyone who places a value on them. This would include producers who generate emissions in their production processes, such as cement factories and coal or gas fired power stations. It could also include community groups or individuals who want to accelerate the reduction in greenhouse gas emissions; they could buy the certificates and not use them.

The price of these certificates would be determined by the interaction of the number of certificates supplied by the government and the number demanded by producers and other groups. This economy-wide price signal will encourage everyone to search for low-cost ways to reduce their greenhouse gas emissions. This includes end-users, who will have an incentive to switch to less emissions-intensive products, new or old. Importantly, it will also allow adjustment between sectors, as sectors and production methods that can reduce

emissions at low-cost grow, and sectors and production methods that find it particularly costly to reduce emissions shrink.

A market in emissions certificates would create new opportunities for innovation and profitable investment in technologies and processes that reduce greenhouse gas emissions. This is especially the case when the policy approach is expected to be stable because it locks in a framework that is politically difficult to change. There would be economy-wide opportunities to profit from reducing emissions by finding ways to reduce the need to buy certificates, or by selling certificates already held. This will cause enterprises to search continuously for new low emission technologies and new ways to apply existing technologies. They will find innovations that governments and planners would not have imagined.

This stimulus to innovate does not require any formal coordination or government agency or funding. The profit motive would impel the search for, and adoption of, new ways to reduce greenhouse gas emissions. Anyone who can develop a more cost-efficient way of reducing emissions is rewarded by the market for doing so. Once a binding reform pathway is locked in, businesses would be encouraged to innovate and when they think they have found a profitable way to reduce emissions, to invest.

Well-designed market mechanisms with good regulation and clear policy give us the best chance of reducing emissions at the lowest cost and greatest benefit to society. Attention to detail, however, is critical. Badly designed policies implemented in poorly designed markets can lead to very expensive outcomes. As a guiding rule, any adverse impacts on particular regions or households are more cost-effectively and more equitably dealt with using separate mechanisms designed for this purpose.

To ensure Australia maximises the opportunities and minimises the impacts of reducing greenhouse gases, the Academy considers any policy must be based on the following principles:

1. Address the economic, social and environmental costs of emissions based on scientific evidence
2. Utilise market-based mechanisms that

minimise cost, encourage and reward innovation, and promote investment

3. Enable businesses and consumers to invest with confidence, through policy certainty
4. Support an adjustment process that is fair to Australian households
5. Be mindful of regional impacts and consider place-based policies.

It is profoundly in Australia's national interest to be an energetic part of a cooperative global approach to reducing emissions. To do this, we must first get our own house in order.

ONE WAY FORWARD: THE CLIMATE ASSET AND LIABILITY MECHANISM (CALM)

To make these principles concrete, and as the basis for discussion on policy design, the Academy invites careful consideration of one way forward. Developed by Academy Fellows Richard Holden, Warwick McKibbin and Mike Young, the Climate Asset and Liability Mechanism (CALM) is a market-based approach that meets the key principles set out above. The fundamental idea is to combine the best aspects of carbon pricing and emissions trading.

CALM creates assets and liabilities related to the emission of greenhouse gases in the Australian economy. Emissions cause a cost to the environment and, in this scheme, become liabilities of whomever is emitting. The assets are the right to emit. The assets created by the policy should be owned by all Australians. The emitting activities should incur the liabilities. The Australian Government would set the national emissions targets for each year until, say, they are net zero in 2050. It would then create an independent Australian Climate Bank.

The Australian Climate Bank would administer the system in a manner that locks Australia into a predictable policy process and gives it integrity and authority. The Australian Climate Bank would:

- Issue annual emissions certificates (emissions assets) that give a right to emit

a defined amount, for each year until, say, 2050. A declining number of emission certificates would be created for each year, to achieve zero net emissions at 2050

- Record the annual emission liabilities of all large emitters
- Require all large emitters to hold annual certificates equal to their liabilities from emissions in each year
- Bundle annual certificates into an emissions bond: this bond is a collection of annual certificates of different dates and different emissions
- Allocate all certificates in the form of emissions bonds at the start of the program
- Sell additional certificates, valid only for the current year, at a fixed price, to avoid excess volatility in the short-term market.

The Australian Climate Bank would create and manage a market in which the emissions bonds could be traded. The trading of these assets in a market would lead to a price in the current period and over every year into the future. This would inform current and future investment. What matters for the development and adoption of low emissions forms of production is not the price of emissions today, but the price that is expected over the life of any investment.

Ownership of emissions bonds would create a constituency that is financially driven to resist any subsequent unwinding of the policy, and thus makes it more credible. Further, the sale or other allocation of the bonds would increase the wealth of many households.

Market-based mechanisms would not provide a complete solution. Direct regulation support for research can have a cost-effective role to play in setting minimum standards and expediting progress. But a cost for emitting, and trading in the right to emit, are an essential part of any low-cost strategy that maximises the role played by ingenuity, new technologies and a drive for efficiency.