



Australian Carbon Tax

Abstract

This white paper focuses on the carbon tax policy initiatives announced in July 2011 in Canberra, Australia. The paper highlights how carbon tax will affect future sustainable growth in the Australian economy. It also discusses the implementation strategy and impact of carbon tax in Europe.

Australian Carbon Tax Policy

Due to fossil fuel burning, carbon dioxide is released into the atmosphere. A greenhouse gas, carbon dioxide forms a layer in the atmosphere preventing the re-radiation of heat reflected from the Earth's surface, thereby resulting in global warming. On the other hand, the use of alternative non-combustible energy sources such as wind, solar, hydro energy does not release carbon dioxide.

Australia is one of the top polluters per capita due to its heavy use of coal-fired power, which accounts for some 75% of electricity output. Recognizing this, Australia ratified the Kyoto Protocol in 2007. Ever since, efforts have been made to identify methods to reduce carbon emissions and thus, a carbon pollution reduction scheme was proposed.

In order to curtail carbon emissions, a carbon tax system was proposed on Sunday, July 10, 2011 in Canberra, Australia. This is a market-based mechanism that looks to overcome the negative cost of pollution by placing a price on carbon from the burning of fossil fuels.

Despite speculations before implementing the carbon tax due to various levels of implementation and economic complications, the Government has announced that the 500 largest polluters in Australia would be taxed. Two years after the global Copenhagen summit, Australia has taken a big step to tackle global carbon emission. This will be effective from July 1, 2012 before moving to a carbon-trading system in mid-2015.

According to this announcement, the price will be initially set at A\$23 per ton of carbon dioxide and subsequently increased at the rate of 2.5% per year till 2015. Post this, a carbon trading scheme would be set in place so as to meet Australia's global emissions target. It is expected to cut carbon pollution by 5% in 2020 or by 80% in 2050 of the 2000 baseline (Figure 1). However, this does not include agriculture and fuel usage by passenger and light commercial vehicles (each accounting for 15% of Australia's emissions).

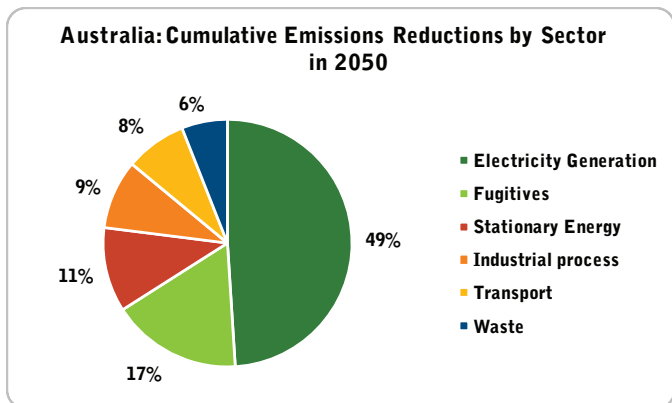


Figure 1: 2050- Expected sector wise emission reduction scenario in Australia *excluding agriculture, forestry and fisheries

Simultaneously, the Government will provide compensation equivalent to 94.5% and 66% of the industry's baseline emissions for heavy and lower level trade exposed polluters respectively, with the compensation level reducing by 1.3% per year till 2015.

The top 500 polluters would mostly be from the energy sector, air transport and construction materials industry. The initiatives would force these companies to lower pollution by shifting to cleaner operation/production measures.



Benefits of Implementing Carbon Tax

1. National employment is expected to increase up to 1.6 million by the end of 2020.
2. Along with employment, the gross national income (GNI) per capita is projected to rise to 16.1% by 2019-2020.
3. Total renewable production will comprise around 40% of electricity generation in 2050 (Figure 2).
4. Gas-fired electricity will increase to 200% of its current usage by 2050.

Negative Impacts of Implementing Carbon Tax

Even supporters of carbon tax admit that there are barriers to implementing a carbon tax, particularly on a national and international level.

1. Carbon pricing uncertainty exist post 2015 carbon trading scenario.
2. There are concerns that the carbon tax structure would impact commodity pricing. Furthermore, the consumer price index (CPI) is likely to increase by 0.7% during 2012-13.



Economic Impact of Carbon Tax

Carbon emissions are becoming an additional factor investors cannot ignore. The sector and stock selection will have a huge impact on the investors; also in the longer run, carbon tax will be in favor of businesses which are carbon neutral and adopting to clean energy sectors. It would also create economic incentives for the business by investment in lower polluting technologies.

This policy will be a boon for cleaner energy providers and bane on coal based energy providers. In this way, the transformation of the economy will progress towards a clean energy future.

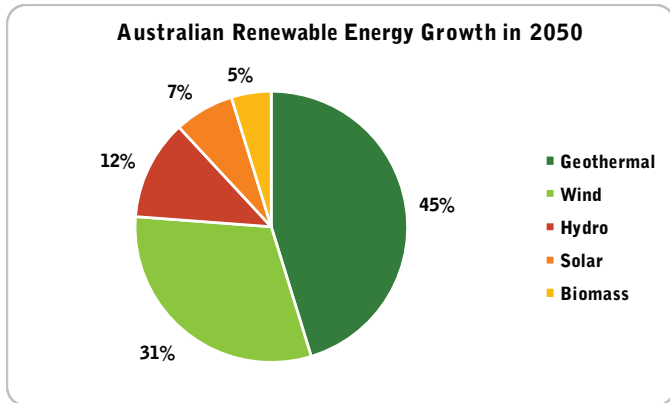


Figure 2: Growth in Renewable Energy from 2010 baseline

Views in Australia on the New Scheme:

Tony Abbott, Opposition Leader

"Millions of Australians will be worse off. And we will not actually cut emissions. This is a labour-Green carbon tax; it will drive up prices, threaten jobs, and do nothing at all for the environment. This tax is going to go up and up and up as time goes by. I think this package is going to compound the trust problem that has dogged the prime minister. This package certainly sets up the next election to be a referendum on the carbon tax."

Nathian Fabian, Investor Group on Climate Change in Australia

"This is a transparent carbon pricing framework for the long term and we welcome it. The addition of the independent Climate Change Authority to recommend targets will ensure the science and economics get a fair hearing in future. Investors also wanted to see a certain transition to a flexible price phase and this has been delivered."

Case Study: Sweden

Sweden was the one of the early countries to enact a tax on carbon emissions in 1991. In doing so, the Swedish government has pushed industries to choose green solutions. Over the years, the tax has slowly increased, transitioning their fossil fuel driven economy to cleaner and greener economy.

In 2008, the government hiked carbon tax by 2.6% to 2.34 kronor per liter fuel used for passenger vehicles. For industries, a 15% CO2 tax has been levied with combined and heat and power facilities; however, other industries are taxed at 94% (2010). This drives individuals and industries to switch to clean energy sources and cleaner production technology, respectively.



The most interesting element to such stringent framework is the impact on the Swedish economy. Critics argue that there is no need to tax a commodity which is already priced high, as this would thwart the economic growth.

On the contrary, Sweden has witnessed substantial economic growth along with significant CO2 emission reduction. In fact, carbon tax has placed Swedish industries in a unique leadership role and developed a niche global market.

The tax impacted several areas of emissions reductions by promoting technology and financially viable energy saving products and promoted the use of renewable energy sources.

Conclusion: Lessons from Europe to the World

Post carbon taxation in many European countries, there has been no significant impact on the competitiveness of energy-intensive industries except that it prompted companies to reduce their energy consumption and encouraged other productivity improvements. The experience in Europe demonstrates that it is crucial carbon tax be introduced in a revenue neutral-manner by recirculating it into the economy.

For example, when Denmark introduced carbon tax in the early 1990s, there was a concurrent reduction in payroll tax. Furthermore, tax generated revenue was recycled into the economy through a range of measures including revenue being returned to companies who achieved emissions reduction targets. This was a key factor in ensuring revenue neutrality. In addition, the government made considerable investments in renewable energy (wind power). As a result, companies were rewarded for moving to low-carbon energy choices. This led to the success of the carbon tax policy.

Also, carbon tax can be implemented for energy intensive industries alone. In the UK, 52 industrial sectors have individually negotiated targets and 65-80% allowance has been given to energy intensive companies that met the set targets. In this case, allocating carbon tax specific to industries was performed after negotiation with each industrial sector.

Thus a carbon tax is not the complete solution; it must be supplemented by carefully aimed economic policies.



Sources:

Data and Information from Australian Treasury Department and Department of Climate Change and Energy Efficiency. Report published by Kansas Energy Council on Policy and Economics of carbon tax, by Trisha Shrum.

Article published by AMP Capital Investors on Australian carbon tax impact. http://www.ampcapital.com/K2DOCS/site_ampci/0C547A12-B252-4131-B484-B37B5199F1A5/2011-Jul-15-Olivers-Insights-Impact-of-the-carbon-tax-on-the-Australian-economy-and-markets.pdf?DIRECT

http://news.xinhuanet.com/english2010/world/2011-07/10/c_13976205.htm

<http://www.environmentalleader.com/2011/07/11/australia-to-tax-carbon-emitters-at-25-a-ton/?graph=full&id=1>

http://www.blakedawson.com/Templates/Publications/x_publication_content_page.aspx?id=60163

<http://www.reuters.com/article/2011/07/10/us-australia-carbon-analystview-idUSTRE7690HM20110710><http://www.foxbusiness.com/markets/2011/07/09/australia-to-price-carbon-in-push-toward-cleaner-energy/>

<http://online.wsj.com/article/SB10001424052702303544604576436983431590282.html>

http://www.norway.or.jp/Global/SiteFolders/webtok/PDF/20_Years_of_CO2_Taxation_in_Sweden.pdf

<http://www.guardian.co.uk/environment/2008/apr/29/climatechange.carbonemissions>

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