

ETS Review 2011

Submission by the Greenhouse Policy Coalition

Copies of media articles referred to in the submission

The following articles are those cited to in our submission. They are presented in the order in which they are referred to in the submission covering letter.

1. NZ Herald, [23 December 2010](#), *ETS review will check scheme's goals, Minister says.*
2. Point Carbon, [15 February 2011](#), *EU eyes 'setting aside' phase two surplus: draft.*
3. Bloomberg, [22 September 2010](#), *European Union carbon prices may triple by 2013 as gas recovers, UBS says.*
4. Reuters, [21 January 2011](#), *EU bans disputed carbon offsets from May 2013.*
5. ABC, [2 April 2011](#), *Carbon tax could cost households \$860.*
6. Reuters-Point Carbon, [17 February 2011](#), *California 2020 carbon price seen \$75: Point Carbon.*
7. Point Carbon, [2 March 2011](#), *China ETS unlikely even in long term: panel.*
8. Reuters, [28 December 2010](#), *Japan shelves carbon emissions trading scheme.*
9. Reuters, [25 February 2011](#), *South Korea to start cap-and-trade from 2015: reports.*
10. Reuters, [1 March 2011](#), *States in CO₂ pact invest US\$404 million in efficiency.*
11. *The Australian*, [26 March 2011](#), *Productivity Commission chief turns up the heat on carbon tax debate.*
12. *Sydney Morning Herald*, [15 February 2011](#), *Climate cash goes up in smoke.*
13. NZ Herald, [18 November 2010](#), *Farmers may win ETS reprieve.*
14. NZ Herald, [22 January 2011](#), *Drawing a line on climate commitment.*
15. Point Carbon, [28 March 2011](#), *IEA rounds on NZ carbon scheme.*

Also attached is a copy of [Parliamentary Question for Oral Answer 7](#), asked by National MP Hekia Parata to the Minister of Climate Change Issues, Nick Smith, 16 November 2010.

Article 1

ETS review will check scheme's goals, Minister says

NZ Herald

Thursday December 23, 2010

The Emissions Trading Scheme (ETS) is to be reviewed next year and Climate Change Minister Nick Smith says he wants to make sure it is achieving its goals of reducing emissions with the least possible cost to consumers and businesses.

The ETS makes industries pay for some of their emissions and it is being introduced in stages.

Dr Smith announced today the review panel would be headed by former Labour cabinet minister David Caygill, and would consider future design settings for the ETS.

Transport fuels, electricity production and industrial processes came under the regime in July this year. Agriculture is due to come under it in 2015.

"We are encouraged by the results of the last six months that have seen a shift in investment, particularly in the electricity and forestry sectors," Dr Smith told NZPA.

"There has been more resource consents for renewable electricity than in any six-month period in New Zealand's history and there has been a switch from deforestation over to a small amount of afforestation this year."

Dr Smith said the review panel would consider whether the ETS should continue to be scaled up to full obligation.

"When we introduced it on July 1 we only provided for half obligation - that means they only have to pay for one in two tonnes of emissions that they put out," he said.

"That halved the cost to consumers, which is why we did it, but the current legislation moves to full obligation - meaning that 50 per cent discount comes off - in January 2013."

Another issue for the panel would be whether the waste and refrigerant gas sectors came under the scheme on that date as well, which is due to happen under the legislation.

Dr Smith said there would be "some debate" around agriculture but he didn't think it would be the most contentious issue because there would be another review in 2014 - before it is due to come under the scheme.

"The key issue in introducing agriculture is whether the scientists have by that time developed affordable and practical technologies that will allow farmers to reduce their emissions," he said.

"The purpose of the ETS isn't just to impose a price, but to encourage the implementation of technologies that will reduce emissions."

The review panel will be taking a careful look at progress other countries are making with their climate change policies.

"We need to keep a close eye on international developments and how the ETS is working in New Zealand to ensure we keep doing our fair share on climate change at least cost to consumers and businesses," Dr Smith said.

Other members of the panel are chartered accountant Julia Hoare who specialises in carbon markets; Chris Karamea Insley, a company director with forestry and Treaty of Waitangi knowledge; dairy farmer and chancellor of Lincoln University Tom Lambie, former Consumers' Institute boss David Russell; lawyer Geoff Thompson, and former diplomat Dr John Wood who is Canterbury University's pro-chancellor.

The public will be able to make submissions to the panel.

The Green Party said the panel wasn't balanced.

"There is not a single representative of the environment but the polluting industries are well represented," co-leader Russel Norman said.

"It's inevitable an already weak ETS will be weakened further as a result of this review - not a happy Christmas present for our kids who will inherit the climate chaos left by the Government."

Dr Norman said the review would also create uncertainty for businesses.

"Businesses work best with certainty. The uncertainty created by this review will see decisions involving major levels of capital investment simply postponed," he said.

- NZPA

http://www.nzherald.co.nz/nz/news/article.cfm?c_id=1&objectid=10696255

Article 2

EU eyes 'setting aside' phase two surplus: draft

Point Carbon

15 February 2011

The EU could reserve up to 800 million EUAs to boost carbon prices, an EU draft paper said

The draft, seen by Point Carbon News, suggests a surplus of 500-800 million CO₂ permits from the second phase of the cap-and-trade scheme could be taken out of the market from 2013 in a bid to spur low carbon investment.

"Setting aside an equivalent number of allowances during the period 2013-2020 in phase three would restore the originally foreseen overall allowances budget for the next decade," said the European commission document.

The paper, called "A roadmap for moving to a low carbon economy in 2050", analyses how the 27-nation bloc should prepare to reduce domestic emissions 80 per cent by 2050 compared to 1990.

Under EU rules, companies can bank surplus allowances from phase two of the scheme into the third phase, which starts in 2013.

With the total cap for phase three around 15.25 billion tonnes of CO₂ and as many as 800 million surplus allowances in phase two, withholding the surplus could cut the supply of EUAs by up to 5 per cent in the 2013-2020 trading phase.

This would boost carbon prices, said Trevor Sikorski, an analyst at UK bank Barclays Capital, suggesting that many power companies are relying on the phase two surplus to hedge forward electricity sales.

"The market at the moment is relying on this length to help create the hedges that the power sector is likely to want prior to the release of phase three EUAs by the EC," he said.

"It is unclear to me if those volumes would be cancelled or if they would be released back into the market when prices go higher," Sikorski added.

Beyond 20%

A spokesman for European climate action commissioner, Connie Hedegaard, declined to comment on the details of the draft proposal, which is set to be finalised and published next month.

“All I can say is that with the existing domestic policy framework and additional measures in energy efficiency, the EU will move well beyond the 20 per cent target,” Isaac Valero Ladron told Point Carbon News.

He stressed that the proposals were not about setting new targets, but rather a modelling exercise about what is economically feasible using existing policies with additional measures.

EU legislation already obliges the bloc to cut its greenhouse gas emissions 20 per cent below 1990 levels by the end of the decade, possibly rising to 30 per cent under a broader international climate change agreement.

Energy efficiency

But member states are at odds over whether to take on tougher targets in the current economic climate.

The commission paper avoids setting a new 2020 cap, but states that the most cost-efficient way to slash emissions 80 per cent is to make sure the EU cuts pollution 25 per cent by the end of the decade.

The EC says it can get to a 25-per cent cut if nations meet energy efficiency improvements and the EU “strengthens” its EU ETS to halt any subsequent price slide in the face of lower energy use.

“For the ETS to play this role, both a sufficiently strong carbon price signal and long term predictability are necessary,” the document said.

Pragmatic

The move is viewed by some in the market as a practical way for the commission to get member states to move to a deeper target without changing the emissions trading directive.

In a paper published in May last year, the commission suggested building up a “set-aside” of some 1.4 billion auctionable allowances over the 2013-2020 period which could later be cancelled.

By keeping the 1.4 billion EUAs aside, the commission would be able to implement a 30 per cent target without having to change the directive, according to Emmanuel Fages, an analyst at Societe Generale.

If the EUAs are not used by the end of the phase, one can suppose they would be cancelled or auctioned, Fages said.

“It’s no secret that the EC wants to move beyond 20 per cent and are looking for practical ways to implement it,” said Stig Schjoelset, a senior policy analyst at Thomson Reuters Point Carbon.

He said a reduction in the auctioning volume can be done through an amendment of the auctioning regulation in the climate change committee, viewed as more a more streamlined process than a full amendment.

“But this will at some stage have to be confirmed by a corresponding amendment of the EU ETS directive. There is no easy way (to move to a deeper target),” he said.

Higher price

“It is a set-aside not a cancellation as I read it,” Tomas Wyns, a policy analyst at Climate Action Network Europe said, referring to the 500-800 million EUAs mentioned in the draft document.

“Achieving the full energy efficiency potential in Europe will require the introduction of binding nation-wide targets and a higher carbon price,” he said in an email.

Wyns added: “The latter implies cutting the number of allowances under the EU ETS to ensure that more energy savings measures are realised in the power and industrial sectors.”

Sanjeev Kumar, a senior associate at non-profit organisation E3G, said one way to tweak the system would be to retire allowances for auctioning.

“This way you don’t need to change the ETS directive in terms of its structure and also it puts the focus on the power sector, which is what we want,” he told Point Carbon News.

Article 3

European Union carbon prices may triple by 2013 as gas recovers, UBS says

By Catherine Airlie and Lars Paulsson

Bloomberg, September 22, 2010

UBS AG, the biggest Swiss bank, said European Union carbon permit prices may almost triple by as early as 2013 as natural gas recovers.

“UBS expects the gas oversupply to be gone by 2013,” UBS analyst Per Lekander in Paris said today in an e-mailed report. “Should the gas price then revert to oil indexation parity we could see a carbon price in excess of 40 euros a ton, almost three times the current level.”

The price of emission permits is driven by so called fuel switching, where generators produce electricity from either natural gas and coal, depending on which is most profitable, according to the report. A gas market recovery by 2013 may boost the price of the commodity by 16 percent, leading to a fuel switching cost of 42 euros a ton, Lekander said.

The expected higher emissions price will impact power markets and prices may rise 15 euros (\$20) a megawatt-hour if gas markets fully recover, he said. The 2013 contract in Germany, Europe’s biggest market, traded at 54.45 euros yesterday, 5.05 euros more than the next-year contract, according to broker prices on Bloomberg.

Coal and gas forwards indicate that carbon prices could double by 2014, assuming “no recovery at all in gas prices until 2013,” Lekander said. “The reason for this anomaly is lack of liquidity in the CO2 forward curve beyond 2011.”

EU permits for December rose 8 cents, or 0.5 percent, to 14.99 euros a metric ton at 11:35 a.m. on London’s European Climate Exchange. The EU trading program is the world’s largest.

UBS said Fortum Oyj, Finland’s biggest utility, and Electricite de France SA are the “likely main winners” from rising emission and power prices because they generate virtually all their electricity from fossil-free generation. Public Power Corp., Greece’s biggest power company, may be “the largest loser.”

<http://www.bloomberg.com/news/2010-09-22/ubs-says-eu-carbon-price-may-double-by-2014-triple-by-2017.html>

Article 4

EU bans disputed carbon offsets from May 2013

By Nina Chestney and Pete Harrison

Reuters, London/Brussels

21 January 2011

The European Commission will ban the most common type of carbon offsets, mostly from China and India, for use in the EU emissions trading scheme (EU ETS) from the start of May 2013, it said on Friday.

"Essentially, the ban means that companies will be able to use these credits for 2012 compliance under the EU ETS until April 30, 2013, but not thereafter," the Commission said in a statement.

Under the scheme, the emissions of power plants and factories are capped and carbon permits are traded between participants.

In an unrelated development, the Commission on Wednesday halted spot trade on the EU ETS for one week to improve security after the theft from national carbon registries, at least partly by computer hackers, of emissions permits worth up to 30 million euros (\$40.6 million).

A committee made up of representatives from the 27-nation bloc voted on Friday in favor of the ban that would block factories and power plants from meeting emissions targets by paying for cuts in greenhouse gases from big industrial projects in China and India.

The Commission originally proposed that from January 1, 2013 it should exclude from its scheme offsets from the potent greenhouse gas hydrofluorocarbon-23 (HFC-23) and nitrous oxide credits from the production of adipic acid, an industrial chemical used to produce nylon.

The projects have drawn criticism for awarding excessive profits and crowding out others, such as projects favoring renewable energy.

The offsets, called certified emissions reductions (CERs), are generated under a U.N. scheme, which rewards companies investing in clean energy projects in developing countries. A certain number of CERs can be used to comply with the EU's emissions targets in the ETS.

The benchmark CER contract rose nearly 0.50 percent to 11.00 euros (\$14.89) a tonne at 9:17 a.m. EST.

An earlier Commission statement, saying the ban would start in January 2013, was made in error, but prompted a 10 per cent spike in the price of CERs for 2013 delivery.

LOBBYING

Some EU countries, such as Italy, Germany, France, Britain and Poland, had lobbied hard for the start date to be pushed back to May 2013 or later, under pressure from energy firms who wanted to protect their investments.

Companies were worried that a January ban would make carbon offsets dated from 2012 invalid, as most do not submit allowances until the following April, in 2013 in this case.

A May start date would allow around 30 million to 40 million extra offsets to be used for compliance, according to analysts.

Those who had lobbied for the postponement welcomed the change of date.

"The change of entry into force (...) will allow market participants to honor contracts for delivery of offsets even in the face of U.N. issuance delays," the International Emissions Trading Association said in a statement.

Both Italy and Britain said the compromise decision was an improvement on the original proposal.

However, environmental group CDM Watch said it was unfortunate that member states bowed to pressure from investors.

"Delaying the entry into force of the ban will open the door to an additional 52 million credits, equating to 676 million euros," said Natasha Hurley, CDM Watch EU Policy Advisor.

The European Parliament now has three months to comment on the proposal, after which the Commission will formally adopt it.

<http://www.reuters.com/article/2011/01/21/us-eu-offsets-climate-idUSTRE70K37L20110121>

Article 5

Carbon tax could cost households \$860

April 2, 2011

ABC

The Federal Government says it is too early to speculate how much the proposed carbon tax would increase household expenses, after Treasury documents revealed it may add almost \$900 a year to bills.

Treasury documents released under Freedom of Information laws yesterday predict a carbon price would push up bills by \$860 a year, or \$16 per week, under a \$30 per tonne carbon tax.

Broken down, the figures show electricity prices would rise by \$218.40 annually for the average household, gas by \$114.40, petrol by \$187.20 and food by \$88.40.

In a joint statement, Federal Treasurer Wayne Swan and Climate Change Minister Greg Combet said the Government had not made final decisions on the starting price or how much people will be compensated.

"No final decisions on the starting price or assistance have been taken and therefore it is far too early to speculate on any potential price impacts," the statement said.

"Until the final design and modelling have been settled, anyone who uses these figures to scare families about prices is engaging in a dishonest, misleading scare campaign.

"The Government has committed to use every cent raised by the carbon price, which will be paid by the biggest polluters, to support households, support jobs and tackle climate change.

"We will continue to consult with the community over the development of the carbon price."

But the Federal Opposition has seized on the figures and finance spokesman Andrew Robb says they are a major blow to households.

"It is a real stab in the heart to many families who are trying to make ends meet," he said.

"Many households won't receive any compensation."

Independent MP Tony Windsor, who sits on the Multi-Party Climate Change Committee, is calling for some perspective.

He says lower income earners will be compensated and the Government should not be rushed into announcing the details.

"The net effect on families in certain income ranges could be zero," he said.

"I think it's all part of the debate; I wouldn't be spooked into making a decision one way or another on the back of these numbers.

"I think we've just got to work out whether it's worth doing and work out the cheapest way of doing it."

But a peak welfare group says it is not concerned about how much the carbon price will add to household bills.

Cassandra Goldie from the Australian Council of Social Service says it has been made clear families will be supported.

"We are very assured by the statements once again from the Government that they fully intend to provide adequate assistance for households, particularly those on lower and middle incomes," she said.

The documents also show a carbon tax will not guarantee that any emissions outcomes will be reached, possibly forcing the Government to buy international permits in order to meet its national commitments to cut carbon emissions by 2020.

<http://www.abc.net.au/news/stories/2011/04/02/3180492.htm>

Article 6

California 2020 carbon price seen \$75: Point Carbon

Reuters, San Francisco

17 February, 2011

(Reuters) - California begins a market for greenhouse gases next year and prices will rise several times over between 2012 and 2020 under the plan to address climate change, Thomson Reuters research firm Point Carbon forecasts in a new report.

It forecast the price of carbon would rise from about \$13 per metric ton in 2012 to \$75 per ton in 2020.

California aims to give away many of the permits to emit carbon dioxide to factories and utilities early in the program, but prices will rise as state giveaways slow and because of a likely shortfall in offset credits for projects which soak up carbon, Point Carbon said.

For a special report on California's carbon market in multimedia PDF format, click here:

link.reuters.com/byw97r

<http://www.reuters.com/article/2011/02/17/us-california-carbon-report-idUSTRE71G3GY20110217>

Article 7

China ETS unlikely even in long term: panel

Point Carbon

2 March 2011

China's carbon target for the next five years could spur the development of provincial offsetting schemes, but experts say a national trading system is unlikely before 2020.

Several domestic carbon crediting mechanisms could emerge in China by 2015 as the country strives to cut its carbon intensity by 16-17 per cent, an official with the Chinese Academy of Social Sciences told a conference in Amsterdam on Wednesday.

"(The regional schemes) may be credited at home first, a link with other carbon markets could come later, and (a national scheme) has a long, long way to go," he said at a panel discussion at Carbon Market Insights 2011.

The Chinese government has been debating whether for the first time to establish a carbon intensity goal in its five-year economic plan in a bid to help it meet a similar, longer term target submitted to the UN under the Copenhagen accord.

The world's largest emitter has pledged to cut carbon emissions per GDP unit by 40-45 per cent compared to 2005 by the end of this decade and it is due to publish its next five-year plan later this month.

Garth Edward with state-owned oil company Petrochina told the conference that any regional offsetting schemes in China are widely expected to be intensity-based mechanisms, unlike the EU cap-and-trade scheme, which has an absolute emission cap.

But despite being separate systems, Edward believes the schemes can link to provide a common carbon price.

Such schemes are expected to be based on so-called low-emission programmes, such as energy efficiency or carbon intensity standards in the building sector – a move away from the project approach to cutting emissions used in the UN's clean development mechanism (CDM).

"Over the past year low-carbon programme was the buzzword and not CDM as before," Stuart Cerne with China-based project developer Enecore added.

But the panel said that the emergence of regional trading schemes in China did not necessarily spell bad news for the CDM, despite the EU banning its companies from using most credits to meet caps after 2013.

Yuxia Liu with utility China Datang International Power Generation said the domestic initiatives will be able to coexist with the CDM over the next five years and China will continue to generate certified emission reductions under the UN-backed programme despite the lack of European demand.

However, the panel agreed it was uncertain where demand for any offsets from the regional schemes will come.

Article 8

Japan shelves carbon emissions trading scheme

By Risa Maeda

Reuters, Tokyo

28 December 2010

Japan postponed plans for a national emissions trading scheme on Tuesday, bowing to powerful business groups that warned of job losses as they compete against overseas rivals facing fewer emissions regulations.

The government has submitted a climate bill to parliament that includes a one-year deadline to design a national trading scheme. After Tuesday's delay, that bill faces revisions in the next parliamentary session that begins in January.

The decision is a blow to the European Union's hopes that other top greenhouse gas polluters will introduce emissions trading schemes and follows setbacks to similar efforts in the United States and Australia.

A U.N. meeting in Cancun, Mexico, this month failed to clear uncertainty over a global climate framework beyond 2012. This is likely to cause some big emitters to take their time in rolling out tougher greenhouse gas regulations, particularly for carbon dioxide (CO₂) from burning fossil fuels such as coal and oil.

Neighboring South Korea has delayed the introduction of its emissions trading laws into parliament until February because of business concerns.

Japan's National Strategy Minister, Koichiro Gamba, who was appointed to review the government's core green policy steps, said the trading scheme needed further careful study, indicating that it had effectively been shelved.

He stressed, however, that it had not been scrapped entirely.

"Overseas circumstances have changed. Our views on emissions trading schemes have also changed," Gamba said, referring to developments including U.S. and Australian moves since the government approved its draft climate bill in March.

"But we haven't given up on plans to introduce an emissions trading scheme," Gamba told a news conference after ministers in charge of climate issues met on Tuesday morning.

TIMING AND DESIGN

Japan, the world's fifth-biggest greenhouse gas emitter, had been expected to launch a trading scheme that would curb companies' emissions from as early as 2013, after principles for the plan had been discussed within the government.

Earlier this month, however, the ruling Democratic Party said an emissions trading scheme could hamper investments in key industries.

Gemba said it was important to get the timing of the launch right, while the design of the scheme would depend in part on businesses' requirements. He said he no longer believed that forcing companies to accept allocated emission caps, as in Europe, would work in Japan.

Tokyo is expected to seek other ways to bind companies to emissions goals so the country can meet an ambitious pledge to cut greenhouse gas emissions by 25 percent by 2020 from 1990 levels.

Japan's emissions reduction target, one of the toughest among major emitters, would be virtually impossible to meet without deeper emission cuts by manufacturers, power generators and offices and commercial operations, which together account for 60 percent of the country's emissions.

Japan also has a longer-term target to cut carbon dioxide from fossil fuels by 30 percent from 1990 levels by 2030.

Tokyo remains committed, however, to levying a new tax on CO₂ in October next year and to expand a pilot plan floated last year for increased renewable sources of electricity, with related bills to be submitted in the next parliamentary session.

Japan has been holding bilateral talks with developing nations to transfer clean-energy technologies and receive emissions offsets to meet its 2020 goal.

Subsidies of 5.2 billion yen (\$63 million) are budgeted for companies to carry out feasibility studies on such bilateral offsets in the next fiscal year, more than six times this year's spending.

Tokyo's top priority is to have budget-related bills passed by the end of the current fiscal year to March 31, followed by fiscal and social welfare reforms.

<http://www.reuters.com/article/2010/12/28/us-climate-japan-idUSTRE6BR06120101228>

Article 9

South Korea to start cap-and-trade from 2015: reports

25 February 2011

Reuters

South Korea will start carbon emission trading from January 1 of 2015, local media said on Saturday quoting senior government officials, while industry still strongly opposes the plan.

A presidential secretary told Reuters this month South Korea, OECD's fastest-growing carbon polluter, would start cap-and-trade between 2013 and 2015 after strong opposition from industry to the government's initial plan to start in 2013.

Powerful export-led conglomerates in Asia's fourth-largest economy have been pushing for a delay given competitor nations such as Japan and the United States have delayed or shelved emissions trading schemes for now.

Industries want to discuss carbon trading in 2015 and onward, head of a taskforce for climate change at the Korea Chamber of Commerce and Industry said last month.

"The revised bill increased percentage of free carbon allowances to reduce burdens on companies," the Korea Economic Daily quoted the prime minister's office as saying.

Under the revision, yet to be approved by parliament, the percentage of free carbon allowances is over 95 percent, up from the original over 90 percent. The remainder was set to be auctioned.

Earlier in the month, major business groups filed a petition to the government calling for a moratorium on the plan, arguing that full-fledged trading could cost up to 14 trillion won (\$12.43 billion) to South Korean manufacturers if 100 percent of credits were eventually provided at a cost via auctioning.

Emissions from South Korea's economy have doubled since 1990, are slightly larger than Australia's nearly 600 million metric tons and, on a per-capita basis, are on a par with some European nations.

The government aims to reduce greenhouse gas emissions by 30 percent from projected levels by 2020. Under emissions trading, a government sets a cap on carbon pollution and relies on an ever-decreasing supply of permits for each metric ton of emissions to push companies to become more efficient.

<http://www.reuters.com/article/2011/02/26/us-emission-korea-idUSTRE71P0CJ20110226>

Article 10

States in CO₂ pact invest \$404 million in efficiency

1 March 2011

Timothy Gardner, Reuters

Ten eastern states in a greenhouse gas reduction program have invested more than half of their carbon permit auction proceeds, or about \$404 million, in energy efficiency, the group said on Monday.

New York, Massachusetts, Maryland and seven other states on the East Coast belong to the Regional Greenhouse Gas Initiative, or RGGI, which aims to trim carbon dioxide output from the area's power plants 10 percent by the end of 2018.

To meet that goal, RGGI holds quarterly auctions of permits that let the plants emit carbon dioxide. Some investors also buy the credits in the cap-and-trade program, believing their value will rise as RGGI gradually lowers the emissions cap.

Recent auction prices have sunk to less than \$2 a short ton, however, as prospects for a national climate market have faded, the tough economy has pushed emissions down, and as plants switched from coal to cleaner-burning natural gas.

Still, since 2008, RGGI auctions have raised nearly \$780 million.

"RGGI is helping to improve air quality in Delaware, while also helping make our economy more competitive," said Collin O'Mara, secretary of Delaware's Department of Natural Resources and Environmental Control.

About 80 percent of the proceeds have gone to programs that aim to cut energy demand, foster the growth of alternative energy, and to help the poor pay energy bills.

RGGI said in a draft report on Monday (which can be seen at www.rggi.org) that 52 percent of the proceeds have gone to programs to improve energy efficiency, such as replacing boilers and caulking windows at homes and businesses.

It called those programs the most cost-effective tool for reducing emissions of gases blamed for global warming.

About 14 percent of the proceeds went to help poor families with heating bills, and 11 percent went to help speed the deployment of renewable-energy programs.

Not all of the proceeds are going to energy programs. New York and fellow RGGI member New Jersey have recently targeted tens of millions of dollars of their proceeds to help ease huge budget deficits.

Last week, New Hampshire's House of Representatives voted to pull out of RGGI. The bill will soon be considered by the state's Senate.

<http://planetark.org/wen/61347>

Article 11

Productivity Commission chief turns up the heat on carbon tax debate

Michael Stutchbury, Economics editor

The Australian

26 March 2011

UNTIL now, the Productivity Commission has been excluded from Australia's climate change debate. Now he has been let in, Gary Banks has thrown a hand grenade into Julia Gillard's rush to bed down a carbon tax by mid next year.

As "no carbon tax" protesters were rudely attacking "Ju-liar" outside Parliament House, the Productivity Commission chairman suggested inside that Australia's "efficient carbon price" would be less than what other countries were charging.

"It's common sense that achieving any given level of [emissions] abatement is likely to be costlier in a country with a comparative advantage in fossil fuels," Banks says.

In contrast to Labor's rhetoric, he cautions that no other country now imposes an economy-wide carbon tax or emissions trading scheme. And he dismisses estimates that Australia is falling behind because countries such as the US, Britain and China are putting a higher price tag on emissions.

Rather than promoting "green jobs", Banks suggests a carbon tax would be akin to import protection in imposing "sacrifice" on miners and on efficient manufacturers squeezed by the high dollar.

Trumping Ross Garnaut's "diabolical" depiction, Banks calls Australia's climate change dilemma "wicked". One of his staff suggests that "this stuff is doing my head in": not a ringing endorsement that we're ready to go.

After the late 2009 Copenhagen climate change summit dashed hopes for a post-Kyoto global emissions deal, Gillard's new carbon price push maintains that Australia still needs to keep up with the unco-ordinated action by key nations.

Jumping too far ahead would hit our miners and manufacturers while shifting emissions to competitors offshore. But falling behind would lock us into an uncompetitive, dirty economy that would not generate the "green jobs" of the future, Labor argues. A carbon price would drive a "sweeping technological reform" comparable to the information technology revolution, Gillard suggests.

The reform would be as far-reaching as the Hawke-Keating government's dismantling of import protection for manufacturing a generation ago, the Prime Minister argues. It even would allow Australia to "regain comparative advantage" in "good ideas" rather than in mining.

Of course it was the Productivity Commission that, from the 1960s, did the politically challenging job of leading the intellectual case against Australian protectionism that finally was taken up by Bob Hawke and Paul Keating in the 80s. So it's likely to be wary of glib claims about the benefits from reimposing a cost burden on Australia's natural advantages in mining and processing powered by cheap fossil fuels.

Yet to get the crucial backing of country independent MP Tony Windsor after the deadlocked election in August last year, Gillard promised an independent review of the "effective carbon price" in key competitor countries.

The job went to the Productivity Commission, not the Treasury, the Department of Climate Change or Garnaut, who suggests that Australia needs to set a carbon price "commensurate" with the rest of the world.

This has let the commission into the debate. Announcing the six-month review in November, Wayne Swan said other countries were putting a price on carbon, with explicit taxes and permit trading schemes or implicitly through renewable energy targets and subsidies for clean technologies such as solar power. The Productivity Commission would compare effective carbon prices in Australia, Britain, the US, Germany, New Zealand, China, India, Japan and South Korea.

"Australia can't afford to be left behind," the Treasurer said.

Three months later, however, Gillard and Climate Change Minister Greg Combet surprised by announcing their carbon tax framework with the Greens, insisting that "right now, Australia is at risk of falling behind the rest of the world".

Yet the implicit message in the commission's technical working paper is that Australia may not be falling behind and needs to be cautious about setting its carbon price.

To be clear, the Productivity Commission endorses Labor's rationalist rhetoric that putting a price on carbon emissions - through a tax or an ETS - is the least costly way to reduce them. It will not back the Coalition's "direct action" alternative.

But Banks's address to a Parliament House forum hosted by the Business Council and the Australian Industry Greenhouse Network reveals that calculating "effective" carbon prices in our competitor countries is "highly problematic", "very challenging" and no "walk in the park".

The commission has identified 230 emissions-reducing policies in Australia, more than 300 in the US and more than 100 in Britain.

The myriad taxes, carbon permit quotas, subsidies and energy efficiency rules work to raise the effective price of carbon-intensive production (such as coal-fired electricity), so discouraging consumer demand and subsidising "cleaner" alternatives.

Just as an import tariff protects higher-cost local production, a carbon tax encourages less polluting but costlier production. Both penalise Australia's comparative advantage in cheap fossil fuels.

Boiling these all down into an effective carbon price is tricky. Renewable energy mandates may subsidise wind or solar power. But that could simply displace higher-cost gas-fired or hydro power rather than cheaper but dirtier coal. The net reduction in emissions could even be zero, Banks says.

Similarly, Germany's subsidies to solar and wind power may simply raise the cost of emissions cuts that would have happened anyway under the European Union's ETS.

Germany's feed-in tariff may produce zero emissions cuts at an "infinite" abatement cost.

This means the Productivity Commission can only try to measure how much different countries lift the price of their carbon-polluting production.

But Banks says this does not measure "equivalent" carbon prices or the carbon price in each country that would reduce global emissions most cheaply.

First, countries that employ inefficient abatement policies would be credited with a higher carbon price. It would make no sense for Australia to aim for such a high-cost benchmark.

Second, a high apparent carbon price does not indicate the effort required to cut emissions.

As a carbon-intensive economy, it costs Australia more to cut emissions.

Kevin Rudd's proposed ETS allowed businesses to buy emissions credits generated more cheaply offshore. According to Treasury modelling, much of Australia's contribution to combating global warming would come through buying foreign permits to pollute.

That would lessen the hit to Australia while reducing global emissions more efficiently. But this is not allowed under the carbon tax that would apply for three to five years under Labor's deal with the Greens, who want to "decarbonise" Australia's economy.

Banks takes aim at the low estimates of Australia's effective carbon price commissioned from the London-based Vivid Economics by the Climate Institute.

These claim China already has imposed a price tag on reducing carbon emissions from electricity generation that is more than eight times higher than Australia's. "There is absolutely no danger of Australia leading on pollution pricing - we have already been overtaken by competitors including the UK, China and the USA," the Climate Institute claims.

But Banks suggests the Vivid Economics carbon price measure for Australia is technically biased downwards for Australia because the denominator simply reflects our dependence on fossil fuels. It gets technical, but he says the number cannot be converted to a comparable effective carbon price.

"Crucially - and this point seems not to be widely understood - it will not be efficient from a global perspective (let alone a domestic one) for a carbon-intensive economy such as ours to abate as much as countries that are less reliant on cheap high-emission energy sources," Banks says.

The commission's technical paper points to estimates that Australia's "efficient" carbon price in a world without a global carbon scheme would be less than one-third of western Europe's. Even then, the hit to Australia's economy would be one-third bigger.

Importantly, the Productivity Commission's brief excludes the issue of compensation for so-called emissions-intensive trade-exposed industries. But its first foray into the field damns the high cost of Australia's existing climate change policies, such as the requirement that 20 per cent of electricity be generated by high-cost renewables by 2020. With a carbon tax, this mandate should be ditched.

"Replacement of high cost by lower-cost schemes domestically has the potential to reduce impacts on business costs and production processes, irrespective of the policy settings in competitor countries," Banks says.

And the commission's early work poses the question of why some international body - such as the Organisation for Economic Co-operation and Development - is not already calculating "effective" and "efficient" national carbon prices in the absence of a global deal.

If it stands up, the idea that Australia's efficient carbon price is lower than offshore poses a tough political task, notes Tim Wilson from the Institute of Public Affairs. It may not generate a domestic carbon price high enough to shut down coal-fired power stations in favour of cleaner combined cycle gas investment, a big potential source of emissions cuts.

Instead, opposition finance spokesman Andrew Robb wickedly suggests that our comparative advantage in cheap fossil fuels means Australia "would be one of the last countries to transition away from coal for electricity generation" under a global carbon tax or emissions trading scheme.

<http://www.theaustralian.com.au/business/opinion/productivity-commission-chief-turns-up-the-heat-on-carbon-tax-debate/story-e6frg9p6-1226028337294>

Article 12

Climate cash goes up in smoke

Mark Davis and Lenore Taylor

Sydney Morning Herald

15 February 2011

MORE than \$5.5 billion has been spent by federal governments during the past decade on climate change programs that are delivering only small reductions in greenhouse gas emissions.

An analysis of government schemes designed to cut emissions by direct spending or regulatory intervention reveals they have cost an average \$168 for each tonne of carbon dioxide abated.

While some have reduced emissions cost-effectively, many of the more expensive schemes are exorbitant ways of tackling climate change, costing far more for each tonne of carbon avoided than any mooted emissions trading scheme or carbon tax.

The worst offenders have included the Labor government's rebates for rooftop solar panels, which cost \$300 or more for every tonne of carbon abated, and the Howard government's remote renewable power generation scheme, which paid up to \$340 for each tonne of carbon.

By contrast, the proposed emissions trading scheme blocked by the Coalition and the Greens in the previous Parliament was expected to put a price on carbon of \$20 to \$25 a tonne in its early years.

According to Rod Sims, chairman of NSW's independent energy pricing tribunal and expert adviser to Parliament's multi-party committee on climate change, the bad policies are eroding public support just when it is needed to finally establish a price on carbon.

"Some of these schemes were dreamed up because we weren't doing the substantive things but some are amazingly expensive, and when we feel the pain of power price rises it lessens the public willingness to accept a sensible and efficient carbon price," Mr Sims said.

"We've drawn down on our political capital with little to show for it and it's going to make sensible action harder."

The analysis of 17 federal programs with a total cost of \$5.62 billion shows many of the schemes implemented by both sides of politics are at odds with the policy goal of tackling climate change at the lowest cost to the economy.

An investigation estimated the fiscal abatement cost of each scheme - the amount of government funds spent for every tonne of carbon abated.

This measure is designed to show how much environmental "bang for the taxpayer buck" each program delivers. It does not include the costs or savings to households, businesses and other non-government players in the economy.

Fiscal abatement costs ranged from less than \$1 a tonne for regulations phasing out greenhouse-intensive hot water systems and incandescent light bulb, to a high of \$400 a tonne or more for tax breaks and production subsidies for ethanol introduced by the Howard government.

The Rudd-Gillard government's household insulation program cost \$172 a tonne, its rooftop solar panel rebates cost \$300 or more a tonne, and its collapsed Green Loans program cost \$120 a tonne. The Howard government's remote renewable power generation program cost as much as \$340 a tonne.

The weighted average fiscal abatement cost of all 17 programs examined came to \$168 a tonne.

They will will deliver about 25 million tonnes of carbon abatement in 2020 - less than a tenth of the total abatement needed to meet the government's target of reducing emissions in 2020 by 5 per cent on 2000 levels.

By comparison, the main existing market-based scheme, the renewable energy target, will deliver more greenhouse gas reductions in 2020 than all 17 spending programs combined, with an estimated implicit carbon price of \$38 a tonne.

The associate director of the Australian National University's centre for climate law and policy, Andrew Macintosh, said: "Market-based measures like a carbon price will be far more effective than this sort of scattergun approach."

He called on the government to release its own estimates of the cost-effectiveness of climate change programs.

"The government is in a superb position, with the resources of Treasury and the Department of Climate Change, to calculate the marginal carbon abatement costs of its programs," he said.

"They should publish those costs and, where the estimates are high, they should justify why we are investing in those programs."

<http://www.smh.com.au/environment/climate-cash-goes-up-in-smoke-20110214-1atnh.html>

Article 13

Farmers may win ETS reprieve

NZ Herald

By Adam Bennett

Thursday, November 18, 2010

New Zealand farmers are unlikely to be brought into the emissions trading scheme in 2015 unless scientific advances are made in reducing animal emissions and our trading partners make giant strides in putting a price on carbon, the Government says.

Speaking at the Federated Farmers National Council yesterday, Climate Change Minister Nick Smith noted the Government had already said it would not proceed with the inclusion of agriculture and other sectors until it sees comparable progress from other countries.

The entry of the agricultural sector into the emissions trading scheme (ETS) has been delayed once - from 2013 to 2015 - and the Government has also increased measures to shield the sector from the full impact of the scheme once it does enter.

Talking to reporters later, Smith said the Government would act on a review of the scheme next year before deciding whether agriculture's entry would be delayed.

"Part of the review will be looking at what progress has been made in comparable countries.

"Unless there is progress from other significant trading partners then a National Government would be unlikely to proceed with the inclusion of agriculture."

However, ahead of next month's climate change summit in Cancun, Mexico, prospects of any carbon pricing regime in the United States or Australia have deteriorated.

Australian Prime Minister Julia Gillard in August abandoned plans for a European-style ETS and has a committee looking at whether to proceed with an ETS, a carbon tax or a hybrid.

US President Barack Obama parked his plans for an ETS after the Republicans took control of the House of Representatives at the midterm elections and has adopted only modest goals for Cancun.

"There's a real question mark as to whether the Gillard Government is going to be able to make progress in getting a carbon price into their economy. I'm more pessimistic about the US," said Smith yesterday.

Another big factor in the Government's decision over agriculture was whether a "technological breakthrough that we really need" could be found enabling farmers to reduce animal emissions.

Smith said the third important consideration was the economy.

"When the economy is just recovering as it is at the moment, we are hesitant of adding additional costs."

Smith's comments were welcomed as "fantastic" by Act deputy leader John Boscawen. "[Agriculture] shouldn't have been there in the first place. We're the only country in the world to have agriculture in an ETS and the sooner the Government announces it is taking it out the better."

Green Party co-leader Russel Norman said New Zealand risked getting left behind if it delayed agriculture's entry into the scheme.

"If we want our agriculture and other sectors of the economy to be technological leaders rather than being dragged behind then we need to give prices signals that reward good practice."

http://www.nzherald.co.nz/business/news/article.cfm?c_id=3&objectid=10688316

Article 14

Drawing a line on climate commitment

NZ Herald

By Brian Fallow

22 January 2011

Where do we draw the line? Where does New Zealand doing its fair share on climate change end and futile self-sacrifice begin?

Those are key questions facing the panel set up to review the emissions trading scheme, and its terms of reference make clear that central to the answers has to be what is happening in the rest of the world.

The review, to be chaired by David Caygill, is a statutory requirement. It is expressly not to revisit the issues, debated at tedious length for at least the past decade, about whether New Zealand should be taking action on climate change at all or whether an emissions trading scheme is the most appropriate response.

"We accept the science," says Climate Change Issues Minister Nick Smith.

"We want to reduce emissions. We want to do that in the most efficient way possible and we want to try and do in a way that is fair between different sectors of the economy. And what's more we have an overall objective of New Zealand doing its fair share on climate change."

On what constitutes a fair share of the global effort, Smith said New Zealand had to acknowledge it was a developed country whose per capita emissions were 11th highest globally.

On the other hand, New Zealand tends to rank in the bottom third of the OECD by most measures of economic performance and has an emissions profile that is unusual for a developed country in that nearly half of it arises from the bodily functions of livestock, while the electricity sector is predominantly renewable already.

The Labour Government passed an ETS into law in its last few days in office and the incoming National Government watered it down.

One was to push back to 2015 the extension of the scheme to agricultural emissions.

Another was a half obligation - buy one, get one free - under which oil and power companies only have to buy and surrender to the Government carbon credits to cover every other tonne of carbon emissions. Together with a price cap that effectively imposes an upper limit of \$12.50 a tonne on their emissions until the start of 2013.

The terms of reference require the review to consider the timetable for extending the coverage of the scheme to agriculture "taking into account the domestic actions of key competitors".

Smith said the Government had no interest in simply imposing an additional cost on the most important export industry. "We are only interested in a pricing instrument if there are going to be practical ways in which farmers can respond to that price and reduce emissions."

But the minister denies that he is signalling that the 2015 date is likely to be pushed back.

"I don't want to pre-empt the decision of the review and 2015 is four years away and a lot can happen in four years," he said.

"I would want to signal that a National-led Government will not be including agriculture unless there are practical technologies that farmers can employ to reduce their emissions and there has been significantly greater progress than we have seen to date by our key trading partners in pricing emissions."

The geopolitics of climate change are more than usually vexed.

It is not clear the Kyoto Protocol will survive beyond 2012. Its largest non-European members, Japan, Russia and Canada, have indicated they are not interested in continuing in an agreement which does not include the United States.

The Obama Administration has acknowledged that a national cap-and-trade (emissions trading) scheme is a non-starter for at least the next couple of years. Japan has shelved its plans for an ETS. Climate policy in Australia remains up in the air.

And the major emerging country emitters, including China, have been very clear that whatever action they take to restrain the growth in their emissions, economic development is their overriding priority.

In light of this uncertainty Smith said it would not surprise him if the review panel's recommendations were conditional.

"They may say New Zealand should take this next step until this test is met internationally."

Labour's climate change spokesman Charles Chauvel said agriculture needed to come into the scheme no later than 2015.

"Otherwise the message to the biggest emitting sector is that they can just continue as they are because there is going to be no discipline."

Smith said that the most important sector for changing the track of emissions is electricity.

"It is the sector which has had the biggest increase - a doubling of emissions since 1990. It is also the one where New Zealand has the most opportunities, between geothermal, wind, hydro and tidal, to find alternatives to coal or gas-generated power," he said.

"Seventy per cent of the generation built during the Clark years was thermal. Since the ETS was passed we have had over 85 per cent renewables, especially geothermal. In the last six months of 2010 over 2000MW of renewable projects have been approved. I'm hugely encouraged," he said.

"One of the key questions for the ETS review is whether the practical price of \$12.50 for the electricity sector is going to be enough to continue to drive that renewable investment or whether we need to step it up to \$25 in 2013 as proposed."

Chauvel said the half-obligation blunts the price signal and the scheme should be scaled up to full obligation immediately.

"Having served on Meridian Energy's board for four years I know that the generators factored in the likelihood of an ETS into their investment decisions years ago," he said.

"The fact that we have seen a lot more consenting of renewable generation has a lot more to do with the renewables preference, which the present Government repealed, and the fact that we brought in the original ETS. These are not decisions boards make in six months. They are lumpy investments with long lead times."

Smith also points, as evidence the scheme is working, to a turnaround in forest planting.

Forestry was the first sector included in the scheme.

"In 2009 we saw a weak increase in the size of the forest estate, but a switch from the substantial deforestation in 2008. The provisional figure for 2010 is an increase of 8000 hectares and the projection for 2011 is a 14,000ha increase," he said.

"In our view expanding the forest estate will be one of the cheapest ways of meeting current and any future international obligations."

Another question for the review is whether to include refrigerants - which are especially potent greenhouse gases if they escape to the atmosphere - in the scheme from 2013 as planned.

"They make up less than 1 per cent of New Zealand's emissions and all of them are also ozone-depleting chemicals for which we already have a regulatory framework. The key issues are around the maintenance of refrigeration plant, making sure they don't leak, and the collection of the gases at end of life," he said.

"The Australians have decided to go down the regulatory path. We need to do a cost/benefit analysis and not be religious about having an ETS which includes all sectors and all gases."

http://www.nzherald.co.nz/business/news/article.cfm?c_id=3&objectid=10701192

Article 15

IEA rounds on NZ carbon scheme

Point Carbon

28 March 2011

New Zealand would be more likely to meet its climate targets if its carbon scheme had a firm cap and no fixed price, the IEA said.

The International Energy Agency (IEA) found Monday that the current design of New Zealand's emissions trading scheme does not guarantee the country will meet its domestic targets of a 10-20 per cent emission cut under 1990 levels by 2020 and 50 per cent by 2050.

New Zealand allocates permits under its ETS based on efficiency criteria, meaning that scheme participants can increase their emissions and still meet targets if their production also increases.

"If a high target is adopted and the ETS does not deliver sufficient domestic emissions reductions, the government will have to meet the shortfall by purchasing international offset credits," the Paris-based agency said in a review of New Zealand's energy policy.

"It may be wiser for the government to clearly establish an emissions cap on the sectors covered by the NZ ETS in order to deliver great levels of certainty and set emissions on a path towards meeting long-term reduction targets for 2050," the IEA added.

Coal phase-out

Currently, New Zealand firms can choose whether to pay NZ\$25 for every second tonne of CO₂ they emit, or buy permits in the market.

The IEA said the price would need to be greater than NZ\$25 in order to phase-out the use of carbon-intensive coal in its electricity generation by 2021.

Referring to the government's own modeling carried out by the Ministry of Economic Development (MED), the agency said the country could meet all its electricity needs by that date using gas-fired and renewable generation.

"The modelling shows demand growth being met primarily by geothermal and wind generation, made economic by the carbon price," the report said.

Review process

A review committee is currently considering whether to remove a number of transitional measures for the ETS from 2013, including the fixed price.

The government has said decisions over whether to scale up domestic effort on emissions largely hinge on international progress on climate action.

The IEA said that with recent ambitious policy targets announced by China, India and South Africa, international pressure will mount on NZ to take on tough targets.

The report commended New Zealand for setting a target to generate 90 per cent of all electricity from renewable sources by 2025.

But, the agency urged the government to deploy additional policies to boost clean generation as it was uncertain that the current ETS would be sufficient.

New Zealand's emissions from power generation and transportation have increased by 123 per cent and 63 per cent since 1990, respectively, the IEA report pointed out.

Parliamentary Question for Oral Answer
No.7
16 November 2010

HEKIA PARATA (National) to the Minister for Climate Change Issues:
What reports has he received on New Zealand's climate change initiatives, particularly the ETS and the global alliance for research into cutting agriculture emissions, and how have those influenced New Zealand's role in the international negotiations of a new climate change deal, post-Kyoto?

Hon Dr NICK SMITH (Minister for Climate Change Issues) : The reports indicate a high level of respect for the progress New Zealand has been able to make on climate change, in sensibly implementing a moderate emissions trading scheme and launching the Global Research Alliance on Agricultural Greenhouse Gases. The Minister responsible for International Climate Change Negotiations, Tim Groser, chaired discussions in Mexico City on how countries' pledges to reduce emissions can work best, and consequently he has been invited to the Major Economies Forum on Energy and Climate this week in Washington. That reflects the international respect for Tim's work as a negotiator, as well as his work in climate change, and New Zealand's proactive role on the issue of climate change. I also note that this year New Zealand's former Climate Change Ambassador, Adrian Macey, was elected to a key role in the post-Kyoto negotiations, again reinforcing the constructive role New Zealand is playing in these difficult negotiations.

Hekia Parata: Has the Minister seen the UMR Research report, published yesterday, on public attitudes to climate change and the emissions trading scheme, and what conclusions does he draw from that report?

Hon Dr NICK SMITH: Yes, I have seen the report, and it is very encouraging, because it reinforces the approach the Government is taking. A very clear majority of people in New Zealand want to reduce our emissions, but they are also cognisant of the costs, as consumers, and of the impacts on jobs. On the question of the emissions trading scheme, a minority of 23 percent want the scheme scrapped altogether, whereas a similar number of 25 percent want us to go harder and be more demanding in reducing emissions. It is also interesting to note that over the last year there has been an increase in the proportion, now up to 52 percent, of the public who back the need to provide support for businesses that are trade exposed. The poll indicated a very polarised position on the inclusion of agriculture in the emissions trading scheme, with 48 percent being opposed and 45 percent in support. That reinforces the cautious position the Government has taken on the inclusion of agriculture in the emissions trading scheme.

Hekia Parata: What reports has the Minister seen on how the emissions trading scheme is helping New Zealand reduce emissions?

Hon Dr NICK SMITH: There are two areas where the scheme is having a very positive impact. The first is in respect of forestry. In the years 2005 to 2008 we had the highest level of deforestation since records began in the 1930s; that has been reversed, with plantings now exceeding felling in both 2008 and the projected

figures for 2009. I am also encouraged by reports from nurseries that the forward orders for 2011 are the most positive for more than a decade. The second positive result is the switch of investment in electricity generation. Over the last decade more than 60 percent of new generation has been thermal, and that has resulted in a decline in the proportion of our power that is renewable.

I am further encouraged by the fact that over 80 percent of new resource consents for electricity generation are now for renewable power, and that is exactly where New Zealand needs to head.

Hon John Boscawen: Can he confirm that his emissions trading scheme will cost the good people of Mana \$20 million over the next 3 years, and if he does not think it will cost \$20 million, how much does he think it will cost?

Hon Dr NICK SMITH: The costs for the people of Mana would be substantially more if we put our heads in the sand and pretended there was not an issue in relation to climate change. I would also note that there are a number of significant forestry areas in the area of Mana, and our very capable candidate, Hekia Parata, has discussed with me the encouragement that is going on in forestry. Seeing new trees being planted in that electorate is something I think most members of this Parliament would welcome.