

A Durable Climate Change Strategy for New Zealand

Why do we need an alternative approach?

New Zealand's current climate change policy path is one developed by and for other countries. The economic and social risks from adopting these policies, but finding they are wrong for us, are excessive. The global recession dramatically increases these risks.

Our existing climate change policies have been adopted from regions with large markets that import and consume primary resources. As one of the world's most efficient producers and exporters of primary resources, our economy is radically different and unique, and our climate change strategies must reflect this.

This paper set out a straightforward climate change strategy that is 'made in New Zealand, made for New Zealand'. The strategy contains several integrated policy elements that allow us to meet all our objectives and international obligations - beginning now, and out to the very long-term future. It is based on New Zealand's unique geography, climate and economic mix. It works with, rather than against, our international competitive advantages.

The strategy is complete, clear and simple. It is unquestionably workable and policy details will be easy to enact. It does not punish our industries irrespective of global realities and economic and social consequences. It supports our unique economic position and our best role in global climate change action. The strategy allows New Zealand to achieve the most significant medium-term reductions in net greenhouse gas emissions of any country. It positions us as an unquestioned leader among similar nations in future international climate change negotiations. Yet it also allows us to maintain and maximise our future economic growth and social prosperity, without significant penalty or risk.

At this time of unprecedented global economic crisis and uncertainty New Zealand really is "the lucky country". We did not participate in creating the financial crisis, we are positioned well to mitigate its effects, and we have good opportunities to come out faster and stronger than most other countries. Our challenge is to get our decisions right. These decisions, including on climate change policy, will affect our economic prosperity and social wellbeing for decades into the future. They will be judged accordingly by future generations of New Zealanders. The **Durable Climate Change Strategy for New Zealand** described in this paper solves one critical part of this challenge. It is the best and the right climate change strategy for New Zealand.

Objectives (that a NZ strategy *must* achieve)

1. Meet our Kyoto commitments for the first commitment period to 31 December 2012.
2. Meet our likely climate change commitments in the medium-term from 2013 to 2030-40.
3. Establish a net emissions path towards a long-term goal appropriate for our unique economy, allowing NZ to take an international leadership position by demonstrating that we can and will meet this goal, and signalling to all parties in NZ the actions required to support this path and achieve the goal.

Principles (that a NZ strategy *should* achieve)

1. Achieve real net global emissions reductions, don't just transfer NZ emissions offshore.
2. Maximise opportunities, and minimise cost and risk, for our unique economy. Support NZ becoming the world's most productive, emissions-efficient primary product exporting economy. Don't disincentivise future growth, especially where NZ is an efficient producer, or transfer NZ economic activity overseas for no environmental or economic gain.
3. Don't impose costs on business that will simply be directly transferred to end consumers and households who have little ability to affect business decisions.
4. Maintain sovereign control over carbon prices and economic impacts on New Zealand.
5. Maximise flexibility to respond to future uncertainties: in our economy; in availability and costs of technology; and in the policies of our major trading competitors and partners. Allow the most flexible and beneficial response to our obligations under future international agreements that may eventually include a comprehensive global climate change agreement, probably including a globally linked emissions trading system.
6. Maximise efficiency, ease and speed of implementation. Minimise compliance costs, and value transfer from producers to other parties who play no value-adding role in reducing net emissions. Minimise distortionary economic effects that add no value, such as unnecessary price rises for electricity and windfall profits for existing power generation.
7. Be incentivising, not punitive, to individual emitters. Provide fair, consistent and equitable obligations on all emitters and sectors, considering economic impacts, international competitiveness, technology options, existing capital stock and turn over rates, etc. Allow maximum flexibility for emitters to meet their obligations in the way most cost-effective for them provided overall economic costs for New Zealand are minimised. Focus on changing, and rewarding or penalising future decisions and investments, not on rewarding or penalising past decisions and investments.
8. Be fiscally neutral to Government (i.e. taxpayers) over time.
9. Be politically durable with regulatory independence to minimise the likelihood that future governments will need or want to change the overall strategy or policy details.
10. Link our domestic policies and our international negotiating position directly and explicitly. Position NZ credibly to play a leading role in negotiating international climate change agreements, and our commitments within them, particularly in areas uniquely important to our economy such as agriculture and food production, forestry and land use management.
11. Achieve the six "key principles" for climate change policy stated by the Government.

Other Options (why they are not appropriate)

1. Emissions Trading System (ETS)

An ETS is an important part of NZ's long-term climate change policy portfolio that will be useful and effective when international preconditions are met. However if implemented earlier it will simply transfer NZ wealth (and emissions) overseas and prevent economic growth due to the high cost of marginal emissions. An ETS in a small, imperfect market like ours is a "blunt" and inefficient instrument that will maximise, not minimise, costs. It will create value for some by extracting it from others through trading and compliance activities.

The current ETS confuses NZ's short, medium and long-term objectives and does not achieve its own stated principles. It commits NZ's economy to punitive short-term cost and risk, and major long-term constraints, yet before 2012 most of NZ's trade competitors will impose no costs on emissions, and many countries with Kyoto obligations look increasingly unlikely to meet them. Compliance cost impacts alone will exceed \$100M pa. Its technical flaws or gaps make it unworkable without major redevelopment or changes.

It is appropriate to develop a flexible, NZ-specific ETS that can eventually play a significant role in our policy portfolio, and to identify the international preconditions for implementation. These will not be met, and an ETS should not be implemented, before 2013 at very earliest.

Implementing an ETS, changed or unchanged, in the period to 2012 is the worst of all near-term climate change policy options for New Zealand.

2. Carbon Tax

A carbon tax on 'marginal' emissions is economically similar to an ETS. It is not true that "business didn't want a carbon tax; now they don't want an ETS". An ETS sets an emissions cap and the market sets the price; a carbon tax sets a price and the market determines emissions reductions. A carbon tax adjusted to achieve specific emissions reductions is even closer to an ETS. Some unproductive economic activity associated with an ETS is eliminated, but much remains and compliance costs remain high.

Implementing a carbon tax on marginal emissions in the period to 2012 is, second only to an ETS, the worst of near-term climate change policy options for New Zealand.

3. Ignore our Kyoto CP1 obligations to 2012

Ironically, most countries are, in effect, taking this approach. None of China, India, US, Asia or South America has Kyoto CP1 targets. Japan, Canada and many European countries are not on track to meet their targets through domestic emissions reductions and may only be able to meet them through economic decline, or by purchasing credits offshore – an increasingly unpalatable political option in the global recession. NZ could also ignore our CP1 obligation, or hope the economic downturn reduces our emissions, entrusting a positive emissions result to a negative economic outcome. This would not meet stated intentions, would not comply with our objectives, and would position NZ poorly to negotiate future agreements and our commitments under them.

Ignoring our Kyoto commitment to 2012 or trusting the economic downturn to address our short-term emissions is a poor option unless many other countries state that they will not meet their own obligations and are taking the same approach.

None of these options is likely to achieve most of the objectives and principles for a durable climate change strategy for New Zealand. As a result none of these options is right for us. We need an alternative.

A Durable Climate Change Strategy for NZ

The strategy transitions smoothly from CP1 (2008-12) through the period 2013 to 2030 and beyond). It contains two components: the strategies to achieve NZ's international net emissions obligations, and domestic measures to support these.

The strategy for CP1: 2008-2012

- 1. *Establish a low-cost path to meet future obligations and NZ-specific targets***
- 2. *Mandatory emissions reporting***
- 3. *Commence an extensive afforestation and land-use management programme***
- 4. *Direct measures to accelerate targeted efficiency improvements***
- 5. *Commence a long-term R&D programme to reduce our unique net emissions profile***
- 6. *Emissions levy \$1/t across all emissions***
- 7. *Modify the NZETS to provide support for the NZ-specific strategy***
- 8. *Achieve an optimal NZ-specific outcome from post-2012 negotiations***

Kyoto "rules" and NZ's obligation are explicit. The latest "Net Position" report suggests we can meet our CP1 obligation easily. If our CP1 surplus reverses as our economy grows we should, like others, purchase lowest cost Eastern European AAUs. These are Kyoto compliant and represent real emission reductions. Paying a higher price for 'greened' AAUs is not required to meet our Kyoto obligation, or to achieve our climate change principles.

The strategy beyond 2012

- 9. *Follow our low-cost path to meet international obligations and NZ-specific targets***
- 10. *Mandatory emissions reporting***
- 11. *Continue extensive afforestation and land management programme***
- 12. *Direct measures to accelerate targeted efficiency improvements and implement technology developed and adapted specifically for our niche production***
- 13. *Emissions levy \$1/t across all emissions (until ETS implemented)***
- 14. *Implement comprehensive, globally linked ETS when preconditions are met***

We can reduce our net emissions at costs far below most other countries. The best use, commercially and environmentally, for 2 - 3 million hectares of marginal, low value land is forest. Highly erodable hill country will gain substantially from afforestation or reforestation. Enhanced biodiversity is a substantial co-benefit, and pest control in existing forests offers multiple further benefits at low cost. Large areas are in Crown ownership; DoC has already done extensive work partnering with the private sector, and is ready to proceed. More than 1 million hectares of non-Crown land, from large contiguous blocks to small isolated areas such as hill gullies and shelter belts, are also suitable for afforestation. Afforestation can be managed by DoC on Crown land and contracted by a Crown-owned company ("KiwiForest") on private land.

Planting 1 million hectares of new exotic and indigenous forest over 20 - 30 years, combined with pest control and good land management, can offset emissions growth far beyond 2050 at costs \$2 - 15/t. This is far below the global price of carbon and will remain within our control. We will be able to grow our economy strongly, meet our climate change obligations, and show global leadership in agriculture, forestry and land-use management policies and technologies. At the same time we should implement "low-cost" emissions reductions, and develop and adapt technologies needed to achieve deeper long-term emissions reductions in our unique economy.

A simple, universal emissions levy at \$1/tCO₂ would fund the national elements of this strategy. This levy would transition to the ETS when international preconditions are met. This levy is affordable for most emitters. It raises required revenue but does not disincentivise new economic growth or cause economic leakage, the two fundamental issues with an ETS or marginal carbon tax, and has negligible compliance costs or undesired economic impacts.

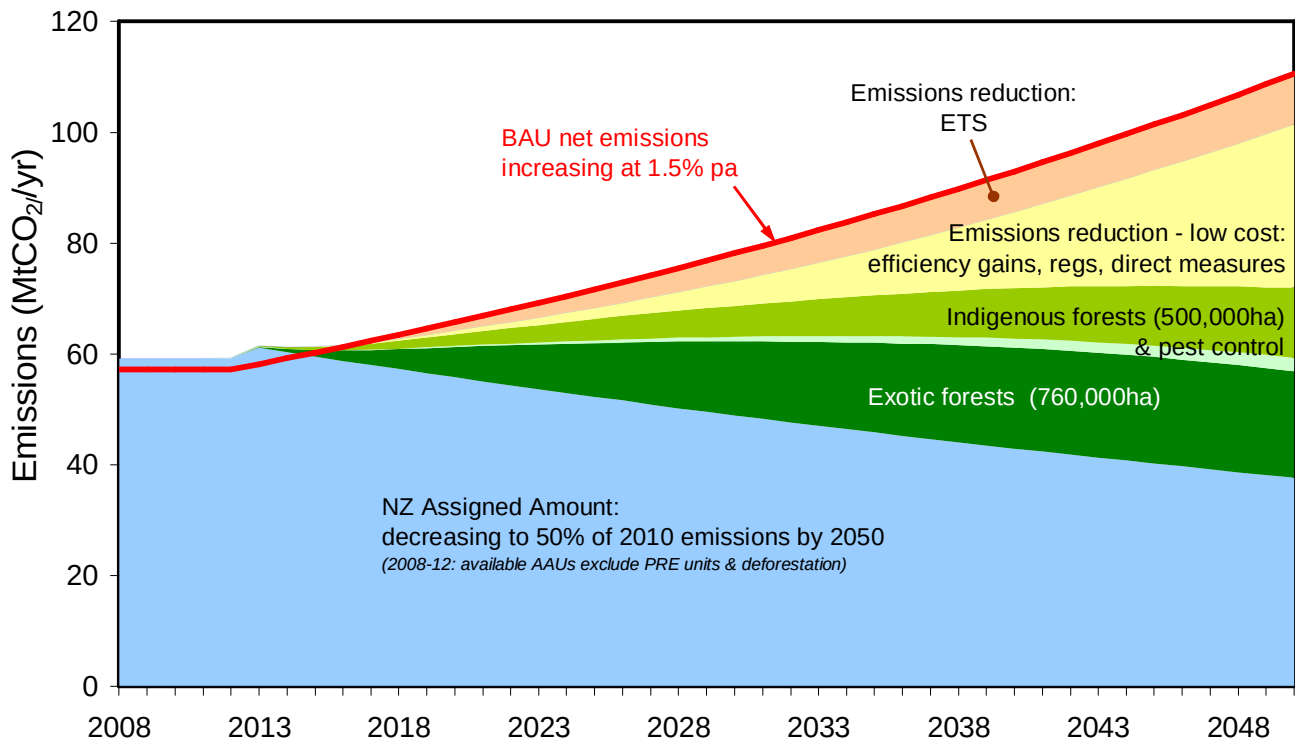
Key Strategy Components

Period	Primary Objectives	International obligations	Domestic measures
Kyoto CP1 2008 - 2012	Meet CP1 obligation at minimum cost Establish and commence optimal net emissions reduction path with NZ-specific targets Create best position for NZ in international negotiations and NZ's subsequent obligations	None based on latest net position report If required, AAU purchase by NZ Govt at lowest cost	Emissions Levy from 2010 to fund national elements of the strategy including afforestation, technology R&D • CO₂, CH₄, NO_x & smelting PFCs • All sectors including deforestation • \$1.00 /tonne CO₂-e Mandatory emissions reporting for larger emitters Regulations, guidelines, MoUs & targets for energy & emissions efficiency (eg buildings, vehicles, waste, other gases) Start afforestation on Crown land and establish CROC to contract afforestation on private land Start technology R&D programme in NZ-critical emissions reduction technologies Redevelop a durable ETS covering all sector and all gases over time to be ready to implement when international preconditions are met
Post 2012	Meet obligations under international agreements Follow a path to reduce long-term net emissions	Net emissions reduction from forestry, land-use, regulations, technology deployment Internationally-linked emissions trading when preconditions are met	Emissions Levy to fund afforestation and technology R&D • \$1.00/tonne CO₂-e Mandatory emissions reporting for all significant emitters Regulations, guidelines, MoUs for energy & emissions efficiency (eg buildings, vehicles, waste, other gases) Afforestation & pest control on Crown land and contract afforestation on private land Technology R&D in NZ-critical emissions efficiency improvement technologies with incentives for pre-commercial technology deployment Implement ETS when international preconditions of a comprehensive, globally linked ETS are met

Net Emissions Reductions and Investment Costs

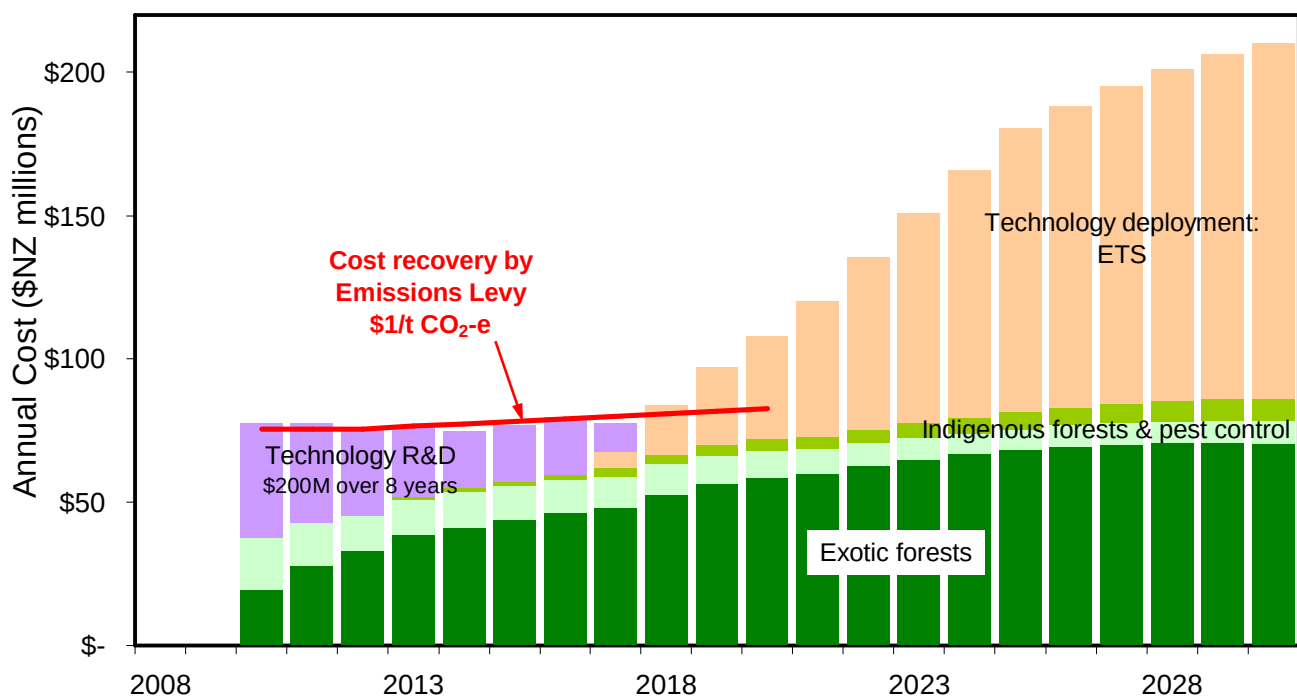
Net emissions reductions to 2050 under the strategy demonstrate the benefit of the extensive afforestation and land use management strategy ...

NZ Climate Change Strategy: component contributions



Strategy component costs are fundable by a flat emissions levy at \$1/tCO₂e ...

NZ Climate Change Strategy: annual costs & recovery



Cost Impacts: Emissions Levy vs ETS

	Emissions Levy		ETS [assuming no assistance or compensation]					
	\$1.00/t CO ₂ -e		\$15/t CO ₂ -e		\$25/t CO ₂ -e		\$50/t CO ₂ -e	
Households								
Increase in household expenditure (pa)	\$7-\$15 pa		\$100-\$200 pa		\$170-\$330 pa		\$330-\$660 pa	
Approx % total household expenditure	0.02-0.04 %		0.3-0.5 %		0.5-0.8 %		1-1.6%	
Liquid Fuels (transport)								
Petrol c/L inc GST (% over curr price)	0.25c	0.2%	3.7c	2.5%	6.1c	4%	12.2c	8%
Diesel c/L inc GST (% over curr price)	0.3c	0.3%	4.0c	4.0%	6.7c	7%	13.3c	14%
Electricity								
Wholesale c/kwh (% inc over BAU)	0.05c	0.6%	0.7c	9%	1.4c	19%	2.9c	37%
Retail c/kwh inc GST (% inc over BAU)	0.07c	0.3%	1.0c	5%	2.0c	10%	4.0c	20%
Other Fossil Fuels								
Wholesale gas \$/GJ	\$0.06	0.8%	\$0.80	11%	\$1.40	18%	\$2.60	35%
Retail gas \$/GJ (GST incl.)	\$0.05	0.8%	\$0.80	11%	\$1.70	4%	\$2.80	6.5%
Wholesale coal \$/GJ	\$0.10	3%	\$1.50	40%	\$2.50	67%	\$4.90	134%
Agriculture (methane and nitrous oxide emissions only)								
Dairy: reduction in payout if facing full cost (relative to pay-out \$4.56 kg/ms)	-0.25%		-3.5%		-5.9%		-11.8%	
Beef: reduction in payout if facing full cost (rel to current payout)	-0.4%		-6.3%		-10.4%		-20.9%	
Sheep meat: reduction in payout if facing full cost (rel to current payout)	-0.7%		-10.1%		-16.9%		-33.8%	
Venison: reduction in payout if facing full cost (rel to current payout)	-0.9%		-12.8%		-21.4%		-42.8%	

Note: ETS price changes from p29 (Explanatory Note) of Climate Change (Emissions Trading and Renewable Preference) Bill, December 2007

Achievement of Objectives and Principles

Ability of each option to meet the objectives and principles for a durable climate change strategy for New Zealand

	ETS	Carbon tax	Ignore CP1 obligations	Proposed Strategy
Objectives				
Meet Kyoto CP1 commitments	Yes	Yes	X	Yes
Meet commitments post-2012	Yes	Yes	n/a	Yes
Path to long-term goal	?	?	n/a	Yes
Principles				
Genuine global emissions reductions	X	X	X	Yes
Maximise economic opportunities	X	X	Yes	Yes
Avoid cost transfer direct to consumers	X	X	Yes	Yes
Sovereign control over carbon price	X	Yes	Yes	Yes
Maximise future flexibility	X	X	Yes	Yes
Maximise efficiency, minimise costs	X	X	Yes	Yes
Incentivising, equitable, flexible	X	X	?	Yes
Fiscally neutral to government	X	Yes	Yes	Yes
Regulatory independence & durability	X	X	X	Yes
Position for international negotiations	Yes	?	X	Yes
Observe Government's "6 key principles"	?	?	X	Yes
Overall achievement	Very poor	Very poor	Poor	Very good