



Climate Protection Plan
Green Party policy paper

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Preface by Dr Russel Norman

Climate change is the most challenging issue of our time. How we respond to it will define us, and determine the kind of future our children inherit.

There are many voices that say that New Zealand must not act because we are too insignificant and it's too hard, or because there may be costs involved.

The Green Party says we must act. We have a moral responsibility to do so. But this is not just a question of morality. Taking action on climate change presents a unique opportunity to transition our economy to a smarter, cleaner, more prosperous future.

The Green Party will tackle climate change in a fair and responsible way.

We are proposing a suite of measures that will put New Zealand on track to being carbon neutral by 2050. Such a goal is not only necessary but also achievable. We can secure a safe, stable climate and, in the process, create new jobs in a smart green economy.

This is what responsible governments do when faced with the climate change threat.

The current Government has consistently downplayed the threats we face, saying we're too small to make a difference. But it's not in our national character to sit on the fence and watch others get the job done. We're known for our innovation and for our big-heartedness; for embracing the big vision, and working out the means to get there. When we follow others, we feel insignificant; when we stand up for something, we can inspire the world.

Climate change will define us as a people, just like being nuclear free did in the 1980s or standing up against apartheid did in the 1970s. We can do it again, this time on the climate.



A handwritten signature in black ink that reads "Russel".

Dr Russel Norman

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Summary

*“Those who would have us delay have to argue they’re confident the risks are small. It would be an astonishing statement to make in light of all this **evidence.**”*

- Lord Stern

The Green Party’s Climate Protection Plan

- 1 Set New Zealand on the path to be carbon neutral by 2050.
- 2 Establish a Climate Commission to provide expert and independent advice to the government on: carbon prices, carbon budgets, and complementary measures to achieve carbon neutrality by 2050.
- 3 Phase out the failed Emissions Trading Scheme and set an initial price on carbon: \$25 per tonne on CO2 equivalent emissions for all sectors except agriculture and forestry. Dairy emissions will pay \$12.50 per tonne. Forestry will be credited at \$12.50 per tonne.
- 4 Recycle all revenues raised from a carbon charge back to families and businesses through a \$2,000 income tax-free band and a one percent company tax cut. A Climate Tax Cut. Households will be better off.
- 5 Introduce a suite of complementary measures to support the rapid transition to a carbon neutral economy.

The biggest challenge of our time

The Earth's climate is changing. Human emissions of greenhouse gases for the past two centuries have caused an increase in the concentration of gases in the atmosphere, resulting in an increase in global temperatures, more frequent and intense storms and droughts, and a rise in sea levels. The first report of the UN's climate-science panel in 1990 drew these conclusions with a confidence level of 90 percent. In its most recent fifth report in 2013, that confidence level increased to 95 percent.¹

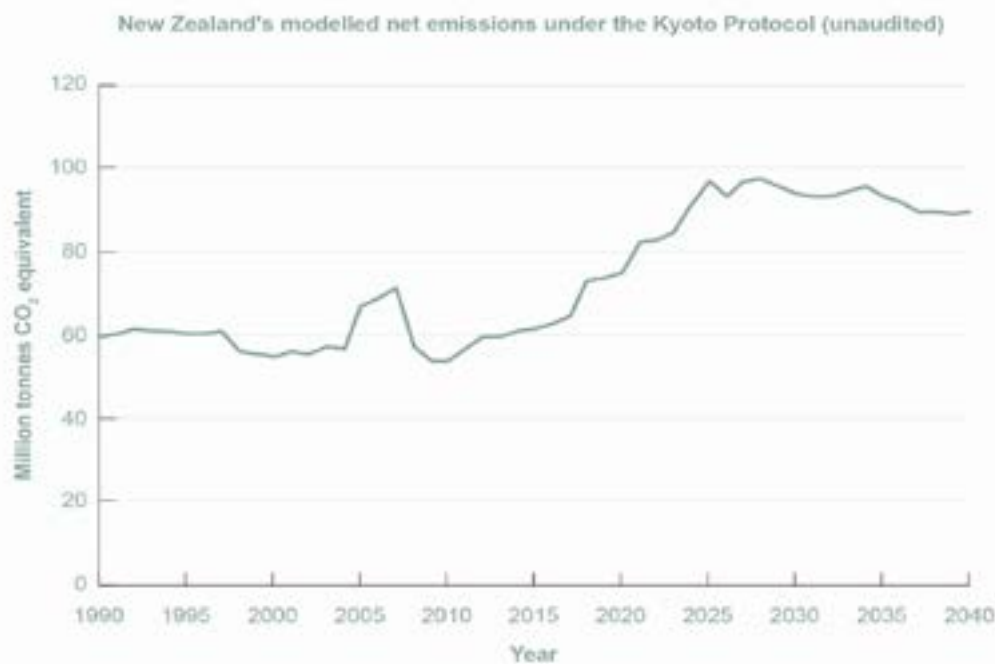
The temperature rise to date has been 0.85°C.² The extreme weather events we are seeing around the world – Hurricane Sandy in New York, Typhoon Haiyan in the Philippines, the forest fires in Australia and Russia – are going to become more frequent as a result of these modest temperature increases. If we continue on our current path, we can expect mean temperature rises of between 1.0°C and 3.7°C by 2100.³ The international scientific community has specified 2.0°C as

the threshold for averting 'dangerous' climate change.⁴

We *can* leave our children a planet with a safe, stable climate. To achieve it, we must reduce our annual global emissions and stabilise the atmospheric concentration of carbon at a safe level.

To stay within the 2°C threshold, the world needs to stay within a 500 billion tonne global carbon budget.⁵ This will require massive reductions in emissions, especially from developed countries like New Zealand.

We have a responsibility to play our part. But New Zealand's greenhouse emissions have increased by 25 percent between 1990 and 2012 – a period when they should have been declining.⁶ Even worse, under a National-led government, the Ministry for the Environment projects that New Zealand's net emissions will increase by 50 percent by 2020.⁷



New Zealand's leadership role

To date, New Zealand has failed to commit to our fair share of emissions reductions globally. Our record is not a proud one. We are one of a small group of developed countries that have refused to commit to the Kyoto CP-2 framework for negotiating a binding international agreement on climate change. We are now no longer part of the solution; we are part of the problem.

The Green Party in Government will return to the negotiating table and work tirelessly to achieve a workable, binding global agreement on climate change. Our bargaining position around that table will be enhanced by our own commitments made here at home – commitments to live within a carbon budget that secures a stable global climate.

At present New Zealanders are amongst the highest per capita emitters in the world. On average, each one of us emits about 17 tonnes of greenhouse gases per year.⁸ Doing nothing will, at the very least, leave New Zealand with a huge carbon liability to pay to offset our emissions.

The world is moving to put a price on carbon and nations will be responsible for their net emission increases. Treasury estimated that the 2009 changes to weaken the ETS would cost New Zealand around \$900 million per year by 2030.⁹ If New Zealand continues on its current trajectory of big increases in net emissions above 1990 levels then, when a global agreement on carbon pricing is agreed, the cost to New Zealand will be large. We

estimate the cost at \$1.1–\$6.3 billion per year from 2020, rising to \$2.7–\$8.0 billion per year from 2030.¹⁰

The current Government policy of doing nothing to cut emissions will become very expensive for everyday New Zealand families and businesses.

We need to establish a credible action plan to dramatically lower our emissions – one that will demonstrate our collective commitment to rising to the climate challenge. The Green Party in Government will ensure that New Zealand will play a leading and constructive role in achieving a fair, effective, and binding agreement.

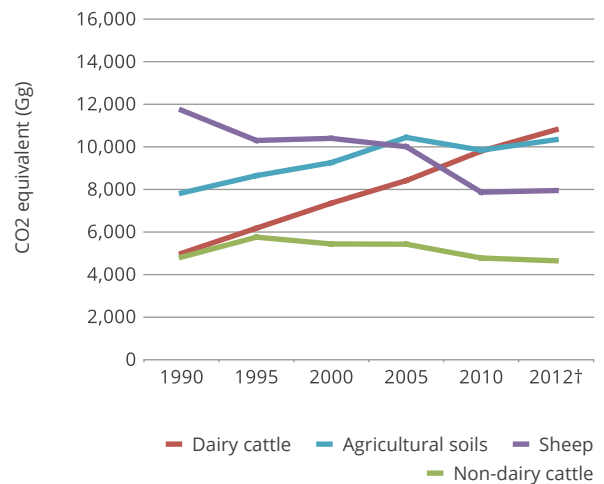
The Climate Protection Plan

The Green Party has a strategy and action plan to transition our economy to a (net) zero-emission economy by 2050.

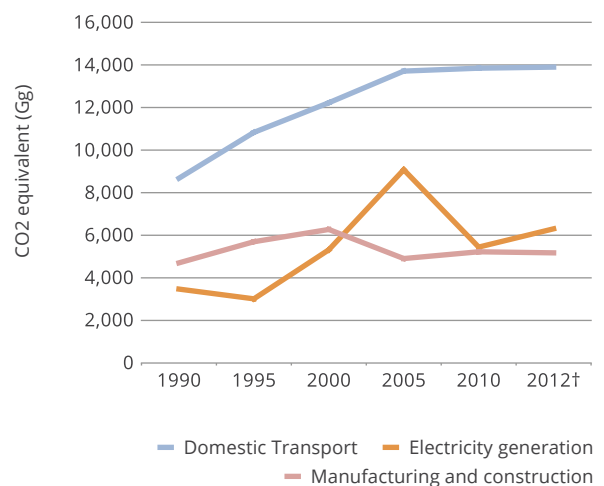
New Zealand has a unique carbon profile in the developed world. Agriculture accounts for half of our emissions, with the dairy sector being the main driver of agricultural emissions growth. Dairy emissions have more than doubled since 1990. Transport fuels and deforestation are the other two key drivers of emissions growth here.

However, every country faces a unique set of emissions challenges and opportunities. We can no longer continue to use our 'uniqueness' as an excuse to opt out. We must transition our economy to become much more carbon efficient by, amongst other things, adapting our farming practices, our transport networks, and our forestry settings to address climate change.

Largest generators of agricultural emissions in New Zealand



Largest generators of non-agricultural emissions in New Zealand



Step 1

*“Whatever policy mix we cook up, it has to be one that leads to the **complete** elimination of emissions to the atmosphere from the combustion of fossil fuels in the second half of the century.”*

- OECD Secretary-General,
Mr. Ángel Gurría

The New Zealand Climate Commission

The Green Party will establish an independent Climate Commission, composed of recognised experts on the subject of climate change and macro-economic policy. The Commission will become New Zealand’s foremost authority on climate change.

The Commission’s role will be to advise government on:

- 1 The emission targets for 2020, 2030, and 2040;
- 2 A National Carbon Budget, its component five-year budgets, and the amount that can be carried over between them;
- 3 The price and price path settings for carbon;
- 4 Complementary measures designed to reduce domestic emissions; and
- 5 A national adaptation strategy.

Like the Parliamentary Commissioner for the Environment, the Climate Commissioner will advise government through annual reviews and self-initiated reports.

The Climate Commission will cost \$2 million to establish and can be easily funded from the \$19 million yearly administrative savings made from phasing out the ETS.¹¹

Step 2

*“Without placing a clear and explicit price on emissions we are, as they say, just ‘pushing at a piece of string’ when it comes to **changing** consumer, producer and investor behaviour.”*

- OECD Secretary-General,
Mr. Ángel Gurría

The Climate Tax Cut – a revenue neutral carbon tax

Credible and consistent carbon pricing must be the cornerstone of government actions to tackle climate change, according to the OECD.¹² Carbon pricing gives firms, farms, and households clear signals around their emissions and the ways to reduce them.

New Zealand’s primary mechanism for addressing climate change – the Emissions Trading Scheme (ETS) – has failed to drive a significant shift to a low-carbon economy. In the words of New Zealand’s first climate change ambassador, “The ETS was designed to incentivise emission reductions, investment in clean technology, and the planting of trees...it is doing none of these things.”¹³

The absence of agriculture in the ETS, a one-for-two surrender obligation, the gifting of free allocations of NZUs (New Zealand carbon credits) to industry, and the lack of limits on cheap foreign credits, have all undermined the ETS and resulted in deforestation and projections of a dramatic rise in emissions in the short-to-medium term.

But it gets worse.

Energy companies have been caught out charging their customers a carbon charge of \$25 per tonne of carbon dioxide equivalent (CO₂e) while actually paying considerably less.¹⁴ Even the Government’s own review of the ETS found that firms have been charging customers a much higher carbon price than the firms themselves are having to pay under the ETS.¹⁵

The lack of transparency around the ETS means that consumers are being forced to pay a carbon charge which polluting firms have been profiting from.

Likewise, some foresters have been gaming the system too.

Questions in Parliament have confirmed that other firms are using the price difference between NZUs and questionable offshore carbon credits to effectively get paid to pollute via the ETS, courtesy of the New Zealand taxpayer.¹⁶

Those closely involved in the ETS question its validity. Not one forester recently surveyed believed that the ETS drives any new planting; two thirds of carbon traders believe the ETS does not help New Zealand to reduce its overall emissions; and two thirds of emitters said that the ETS had caused no emission reductions in their company to date.¹⁷ The survey could not find a single trader or emitter who thought the ETS was helping New Zealand transition to a greener economy in the future.

The Emissions Trading Scheme no longer has integrity or legitimacy. It is time for a clean start.

Phasing out the ETS and dealing with existing carbon credits

To ensure a clean start to the carbon tax shift, the Green Party will ensure that current holders of NZUs are treated fairly and transparently.

From June 1, 2014, industrial NZUs will be treated separately from forestry NZUs. NZUs will no longer be able to be traded across sectors.

Industrial NZUs can be used to pay for carbon emissions redeemable at the current market price of \$5 per tonne of CO₂e. We estimate the redemption of industrial NZUs will reduce the amount of carbon tax revenue by \$98 million in the early years, so we will introduce a mechanism to stagger the surrender of NZUs.

Forestry NZUs can continue to be traded within the sector and be redeemed on a tonne-for-tonne basis to offset future carbon emissions from deforestation, effectively valuing them at \$12.50 per tonne of CO₂e.

Again, to manage any immediate risk of deforestation, we will negotiate a fair mechanism with the sector to discourage hasty cutting. For example, this could include an NZU redemption moratorium or a phased price transition from the current \$5 unit value to \$12.50.

Forestry NZUs currently represent a \$469 million liability on the Government's books. The Green Party will unwind this obligation in a progressive way so that future generations are not left with a potentially unaffordable liability.

The Green Party believes a revenue-neutral carbon tax is a more credible and transparent way to price carbon. We will transition from an ineffective Emissions Trading Scheme to an effective carbon tax that provides a greater degree of certainty over the price on emissions, creates improved transparency, and provides far stronger incentives for emissions reduction.

The charge on carbon will:

- 1 Send a consistent price signal to consumers and businesses to encourage them to reduce their carbon footprint;
- 2 Send a transparent pricing signal;
- 3 Ensure that polluters pay;
- 4 Reward businesses and households that are carbon efficient;
- 5 Drive innovation, making low-carbon clean technology alternatives more attractive financially;
- 6 Generate revenue that will be recycled into income tax cuts to ensure that households are better off financially; and
- 7 Generate revenue that will be recycled into company tax cuts to enhance productivity and competitiveness – the ‘double dividend’ of environmental tax shifts.¹⁸

While the Climate Commission will be responsible for the ongoing review of carbon prices, New Zealand’s elected leaders must take political responsibility for setting the initial prices on polluting.

The Green Party’s policy is to set the price of carbon at \$25 per tonne of CO₂e emissions excluding biological emissions (methane and nitrous oxide) and forestry.

For biological emissions, we will set the starting price at \$12.50 per tonne CO₂e initially only covering dairy. This would be matched by a forestry sequestration credit of \$12.50 per tonne of CO₂e with a tax of \$12.50 per tonne for deforestation.

In setting these prices, we considered international comparisons as well as asking economic consultancy BERL to model a variety of scenarios for us. BERL’s full final report can be found on our website at:

www.greens.org.nz/climateplan

Table 1. Prices in existing carbon pricing schemes

Country	Scheme	USD/tCO ₂	NZD/tCO ₂ *
Sweden	Swedish carbon tax	168	201
Japan	Tokyo Cap-and-Trade	95	114
Norway	Norwegian carbon tax (upper)	69	83
Switzerland	Swiss carbon tax	68	81
Finland	Finnish carbon tax	48	57
Denmark	Danish carbon tax	31	37
Canada	British Columbia carbon tax	28	33
Ireland	Irish carbon tax	28	33
Australia	Australia Carbon Pricing Mechanism (CPM)	22	26
UK	UK carbon price floor	16	19
USA	California CaT	11	13
China	Shenzhen Pilot ETS	11	13
France	French carbon tax	10	12
Iceland	Icelandic carbon tax	10	12
China	Guangdong Pilot ETS	10	12
Canada	Québec CaT	10	12
China	Beijing Pilot ETS	9	11
EU	EU ETS	9	11
South Africa	South African carbon tax	5	6
China	Shanghai Pilot ETS	5	6
Mexico	Mexican carbon tax (upper)	4	5
China	Tianjin Pilot ETS	4	5
Norway	Norwegian carbon tax (lower)	4	5
USA	Regional Greenhouse Gas Initiative (RGGI)	3	4
Japan	Japanese carbon tax	2	2
Mexico	Mexican carbon tax (lower)	1	1
New Zealand	New Zealand ETS	1	1

*1 NZD = 0.8362 USD (March 2014 quarterly average).

Source: World Bank. 2014. State and Trends of Carbon Pricing 2014. Washington, DC: World Bank.

BERL found that, after recycling some of the carbon tax revenue into income tax cuts, households will be better off as a result of the carbon tax. "Households will pay more for some of the commodities they consume, but income tax reductions would more than compensate for any price rises." The average household will be better off by \$319 per year, on average.

Table 2. Summary of the carbon tax shift for households

Household increase in after tax income	\$420
Increased household costs	\$101
Net increase in household income	\$319

Not only will the carbon tax shift benefit families, the climate will be better off too. Studies in 2009 have estimated that a \$25 per tonne carbon tax would reduce emissions by 5.5 percent across the whole economy.¹⁹ This figure did not account for the additional impact of complementary measures in reducing emissions. The results in British Columbia have been similar.

BERL's analysis showed that the resulting increase in the costs of fuel and electricity will likely be passed on to consumers with little impact on the bottom lines of these industries.

Carbon tax shift in British Columbia

OECD Secretary-General, Mr. Ángel Gurría, described the implementation of British Columbia's carbon tax "as near as we have to a textbook case, with wide coverage across sectors and a steady increase in the rate".

British Columbia's centre-right political party, the Liberal Party, implemented a broad-based low rate carbon charge in 2008 of C\$10 per tonne of CO₂e emissions. (The proposal took only four months to implement in law.) The rate has increased annually by C\$5 per tonne until reaching its final rate of C\$30 per tonne in 2012.

The tax is revenue neutral, meaning every dollar collected is returned to British Columbians through reductions in other taxes and tax credits. This amounted to a C\$1.2 billion redistribution in 2013/14.

British Columbia's carbon tax shift was reviewed in 2013 to consider the impact the charge was having on the economic competitiveness of the state, especially on agriculture and food production. The charge was found to have had a small negative impact on GDP. The review, however, confirmed the current policy settings would remain.²⁰

How effective has the charge been? British Columbia's consumption of petroleum fuels has fallen by 16.4 percent compared to the rest of Canada's since 2008. Per capita greenhouse gas emissions have fallen 5.3 percent faster than in the rest of Canada. Economically, British Columbia has slightly outperformed the rest of Canada.

Ongoing polling shows the charge has remained popular. No major political party now opposes the tax shift.

However, the carbon tax will have a more significant impact on agriculture, even after some of the revenue is recycled into a reduction in the company tax rate. A carbon tax set at half the price that households are paying recognises this fact.

For the dairy sector, a \$12.50 per tonne CO₂e price is the equivalent to a reduction in the Fonterra pay-out of 8 cents per kilogram of milk solids. While this is significant, it pales in comparison with the fluctuations in the pay-out price due to other factors.

While the dairy sector has been enjoying bumper pay-outs, BERL found that even a levy set at \$12.50 per tonne CO₂e would have a significant economic impact on sheep and beef farms. Given this impact, and the fact that sheep and beef greenhouse gas emissions are below 1990 levels, we have decided to temporarily exempt all other biological emissions from the levy except for dairy emissions.

The agriculture sector has some options for reducing biological emissions, in ways that are sustainable, many of which are also cost effective for farmers. The Green Party believes that there should be an early and measured phase-in of a levy on greenhouse gas emissions for the whole sector. This will ensure that the market rewards those farmers who actively reduce their emissions and are more efficient.

A recovery in the profitability of the beef and lamb sector could be one trigger for bringing in sheep and beef. The Climate Commission will make a recommendation for when all biological emissions will come into the scheme.

To help farmers manage the transition, a system of certification will be developed to provide incentives for on-farm mitigation, forest management and, in future, other

forms of on-farm sequestration. Fencing and riparian planting done to a certain standard will also be eligible for carbon payments to the extent that they sequester carbon at the same rate as forestry.

Emissions intensive trade exposed businesses believing they are in need of a subsidy will be considered on a case-by-case basis. Any resulting subsidy will be transparent, unlike those issued under the current ETS.

What does a carbon tax mean for a farmer?

Green innovation on the New Zealand farm will be one of our most valuable contributions to global emissions reduction. Nearly half of our greenhouse gases come from agriculture.

To ignore agriculture's contribution to climate change would be irresponsible. Putting a price on carbon is in line with Fonterra's recent commitment to biodiversity, as restoring biodiversity on farms is one of the mechanisms available to farms to reduce their net emissions.

We recognise many beef, sheep, and deer farms are financially fragile and have therefore left it to the Climate Commission to give advice on when to bring this group into the system. (The Climate Commission will have agricultural expertise on it.) We have also recognised that farmers compete internationally and can't pass on increased costs.

Therefore we have set the agricultural rate at half the base rate faced by other polluters.

Currently there is little farmers can do to cut methane emissions from cows, but there are measures farmers can take with feedstock, manure control, stocking intensities, and riparian planting to lower their carbon footprint.

We will reward farms that have taken mitigating actions through a certification scheme. The Ministry of Primary Industries will independently certify low emission farmers enabling them to claim a tax rebate.

The carbon tax will lower the average dairy farm pay-out by 8 cents/kg of milk solids. Dairy NZ's analysis shows the profitability of low intensity farms is highest due to lower input costs.²¹ With a carbon tax, that trend will become stronger, driving better environmental outcomes on our farms and cleaner rivers and lakes as a result. Furthermore, a price on carbon emissions will nudge the dairy sector towards a more value added strategy and away from a simple volume strategy.

All revenues to be recycled

To ensure the carbon tax benefits are shared fairly, all revenue raised will be returned to households and businesses through tax adjustments. No household will be financially worse off as a result of the levy while businesses will receive the benefits of a company tax cut to help them better adjust to a price on carbon.

Households will be significantly better off.

Businesses will enjoy a tax-cut and low-carbon businesses will enjoy a competitive advantage over their high-carbon competitors who will face increased costs under the plan.

With a carbon tax set at \$25 per tonne of CO₂e (\$12.50 per tonne for dairying), BERL forecasts a likely initial revenue stream of \$1.1 billion. After adjusting for forestry credits, enough revenue will be available to introduce a new income tax-free threshold of \$2,000 and provide for a one percent cut in the company tax rate.

Table 3. Summary of revenue implications

Carbon tax revenues	\$1,141M	
Less forestry credits		\$186M
Company tax rate cut		\$250M
Income tax cut (\$2,000 tax-free)		\$641M ²²
TOTALS	\$1,141M	\$1,077M²³

The Green Party will establish a transparent Climate Fund to ensure all revenues from the carbon tax are recycled into income tax reductions for all taxpayers and businesses. The Climate Commission will regularly review the tax-free threshold settings to ensure it is commensurate with the revenues being generated from the carbon tax.

Step 3

*“A purely market-driven process will not be able to deliver the changes **needed** at the scale and speed demanded by the climate crisis.”*

- United Nations
Environment Programme

Complementary Measures

To help accelerate the technological change required by farmers, businesses, and consumers to adapt to a low-carbon future, we will implement a suite of complementary measures to ensure we meet our emission reduction targets.

Many of these measures will have far-reaching co-benefits in terms of job creation, human health, business innovation, and environmental remediation.

The Green Party will introduce the following measures to complement a price on carbon:

1. Green Energy

- Set a renewable electricity generation target of 100 percent by 2030;
- Introduce **NZ Power** to lower household electricity prices by \$300 per year and progressive pricing giving a low-cost block of electricity to households each month, while retaining the marginal retail price signal for energy efficiency;
- Through our **Solar Homes** plan, offer households low-cost loans from the government to pay for solar power installation, to be repaid via their rates, enabling them to enjoy free, sustainable power for decades;
- Require electricity retailers to pay a fair price for those feeding-in electricity with grid-connected renewable generation;

- Create incentives to help the fledgling biofuel industry develop its \$6.1 billion economic potential sooner;²⁴
- Strengthen the Resource Management Act so that no new coal mines will be permitted. (Existing coal mines can run their course.); and
- Extend the *Heat Smart* home insulation programme to a further 200,000 homes.

How will power prices change for the average New Zealand household?

NZ Power savings	\$300.00
A \$25 price on carbon	-\$ 28.80
<hr/>	
Overall yearly savings	\$271.20

2. Green Transport

- Reprioritise transport spending to low-carbon alternatives like fast and reliable buses and trains and safe, separated walking and cycling facilities;
- Remove the regulatory barriers to high quality, compact urban development;
- Set average fuel-economy standards for light vehicles entering New Zealand;
- Introduce a 'feebate' market mechanism to make it more affordable to buy electric and hybrid cars, which are cheaper and cleaner to run;
- Invest in low carbon freight transport infrastructure, increasing the competitiveness of rail and coastal shipping to move goods; and
- Support alternative fuels for trucks and smart operational management tools that increase the efficiency of freight moved by road.

3. Green Finance

- Establish the *Green Investment Bank* to partner with the private sector to accelerate the funding and investment in low carbon, resource efficient projects;
- Remove National's current subsidies for oil and raise oil drilling royalty rates to international averages;
- Green government procurement and certification processes to drive the rapid commercialisation of clean technologies and manufacturing processes; and
- Boost government funding for R&D.

4. Green Farms & Forests

- Introduce a certification system for on-farm mitigation of agricultural emissions and associated environmental farm improvements enabling farmers to claw back some of the costs arising from a carbon tax;
- Credit back the carbon captured from riparian planting and fencing on farms done to a national standard. Planting and fencing our rivers and streams will have significant co-benefits for water quality, biodiversity protection, and erosion control;
- Negotiate a special agreement with the Iwi Leadership Forum to strengthen the financial base for forestry schemes established under Treaty of Waitangi settlements;
- Strengthen the East Coast Forestry Project, the Afforestation Grants Scheme, and the Permanent Forests Incentive Scheme; and
- Enhanced financial support for pest control schemes in native forests.

A carbon certification scheme for farms

The biological emissions levy on dairy production will impact on the net profit of dairy farmers.

For simplicity, the levy is likely be applied at the processor level rather than the farm-gate, meaning that the individual farmer will face the \$12.50 per tonne CO₂e levy in proportion to the amount of milk solids produced irrespective of good farm practice.

To ensure the levy incentivises on farm emission reductions, the Green Party will establish an on-farm certification scheme designed to allow income-tax credits for innovative green dairying practices and techniques. That way, good farmers can claw back a part of the levy.

Riparian planting, better manure management, better fertiliser application, reduced nitrate run-off, improved feedstock practices, and lower more profitable stocking rates are examples of what might qualify for credit under the certification scheme.

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