

A Report to

Business New Zealand



Australia's Carbon Pricing Policy – what does it mean for New Zealand Business?

Prepared by:

Stuart Frazer – *Frazer Lindstrom, Wellington*

Alex Sundakov – *Castalia, Sydney*



Issued: Wednesday, 27 July 2011

Reliance and Disclaimer

The professional analysis and advice in this report has been prepared by Frazer Lindstrom and Castalia for the exclusive use of the party or parties to whom it is addressed (the addressee) and for the purposes specified in it. This report is supplied in good faith and reflects the knowledge, expertise and experience of the consultants involved. The report must not be published, quoted or disseminated to any other party without Frazer Lindstrom and Castalia's prior written consent. Frazer Lindstrom and Castalia accepts no responsibility whatsoever for any loss occasioned by any person acting or refraining from action as a result of reliance on the report, other than the addressee.

In conducting the analysis in this report Frazer Lindstrom and Castalia has endeavoured to use what it considers is the best information available at the date of publication, including information supplied by the addressee. Unless stated otherwise, Frazer Lindstrom and Castalia do not warrant the accuracy of any forecast or prediction in the report. Although Frazer Lindstrom and Castalia exercises reasonable care when making forecasts or predictions, factors in the process, such as future market behaviour, are inherently uncertain and cannot be forecast or predicted reliably.

Frazer Lindstrom and Castalia shall not be liable in respect of any claim arising out of the failure of a client investment to perform to the advantage of the client or to the advantage of the client to the degree suggested or assumed in any advice or forecast given by Frazer Lindstrom and Castalia.

Frazer Lindstrom Limited
Level 1, BERL House
108 The Terrace
Wellington 6011
New Zealand

Tel +64 (4) 499 7179

www.frazerlindstrom.com

Castalia
36 - 38 Young Street
SYDNEY
NSW 2000
Australia

Tel: +61 (2) 9231 6862

www.castalia-advisors.com

0 Executive Summary

On Sunday 10 July 2011, the Australian Government released details of the Clean Energy Future Plan (CEFP). The key element of the CEFP is the carbon pricing scheme combined with a comprehensive assistance and compensation package. The pricing scheme starts with a fixed price/unlimited quantity of permits in the first three years and automatically progresses in 2015 to a fixed quantity/flexible price (with a price floor and ceiling until 2018 on current plans). The compensation package includes offsetting tax reductions for the majority of households, free allocations of permits to trade-exposed high emitters, direct compensation to coal-fired power generators, further support to affected businesses and up to \$AUD10 billion¹ to be spent on clean energy.

Overall, spending under various programs within the CEFP is expected to exceed government revenues from the sale of permits by approximately \$4 billion over the next 4 years.² In essence, the scheme is targeted at supporting the transition from coal-fired to gas-fired electricity generation, with any further reductions in greenhouse gas emissions continuing to rely on direct government support.

This report considers what Australia's new scheme means for New Zealand businesses. We conclude:

Investment certainty in Australia is undermined by the political risks and design of the scheme.

Whether the Australian scheme is legislated and its longer term durability is far from certain. Even if durable, the structure of the scheme is more heavily reliant on carbon revenue being raised, which increases the on-going risk of Government intervention through price controls, changes to shadow carbon pricing in the transport sector, and other mechanisms.

Simplistic comparisons of stringency based on carbon price alone are inappropriate.

Due to its narrow coverage and high compensation, the Australian scheme is likely to have a lower impact on business competitiveness and or on business practices compared to its New Zealand counterpart. This lower cost impost is, in turn, likely to have a limited impact on rectifying the competitive disadvantage currently faced by New Zealand businesses trading into Australia, though a more detailed sector and firm-level analysis is required to determine the precise impact.

New Zealand and Australian Schemes require different corporate risk management approaches.

The differences in the schemes present a challenge for New Zealand businesses with Trans-Tasman operations or those who are looking to invest in Australia. Corporate risk management approaches in respect of trading mandates, regulatory requirements and economic evaluations will need to be differentiated.

New Zealand needs to retain full control of its NZETS and take into account broader international policy than that of Australia.

Any integration of the New Zealand and Australian schemes by bilateral trade of fungible units—as long as the basic design elements of each scheme remain as at present—would disadvantage New

¹ All monetary references in this report are to Australian dollars unless otherwise stated.

² Securing a Clean Energy Future: The Australian Government Clean Energy Plan, p131

Zealand businesses relative to their Australian counterparts. For the Australian businesses, access to the New Zealand ETS is likely to create opportunities for a greater range of permits to be imported, and hence, lower the cost of compliance. By contrast, for New Zealand businesses, integration with the Australian market could lead to higher prices (because of increased demand) without any offsetting benefits of the kind enjoyed by the Australian firms, or environmental benefits.

Given that the Australian policy is continuing to evolve on an almost daily basis, including demands from various State Premiers for more compensation, it is hard to draw firm conclusions about the effects on New Zealand businesses. However, on current design, it appears that the announced Australian scheme makes integration with the New Zealand ETS less likely.

Contents

0	Executive Summary.....	3
1	Introduction	6
2	Australia's Greenhouse Gas Challenge	6
3	Uncertain Times	8
3.1	Domestic Uncertainty	8
3.2	International Uncertainty	8
4	Key Design Elements of the CEFS.....	9
4.1	Sectoral Coverage	9
4.1.1	Stationary Energy	9
4.1.2	Transport.....	9
4.1.3	Agriculture and Land Use Change (Deforestation)	10
4.1.4	Synthetic Gases	10
4.1.5	Waste	10
4.2	Pricing and Unit Linking	11
4.3	Support Mechanisms	13
4.3.1	Broad Economy	13
4.3.2	Free Allocation of Units.....	14
4.3.3	Direct Support Mechanisms.....	16
5	Conclusions for New Zealand businesses	17

1 Introduction

On Sunday 10 July 2011, the Australian Government released details of the Clean Energy Future Plan (CEFP). The key element of the plan is the carbon pricing scheme – the Clean Energy Future Scheme (CEFS) - progressing from a fixed price/unlimited quantity of permits in the first three years to fixed quantity/flexible price (with floor and ceiling) afterwards. There are currently no price floors and ceilings after 2018.

The CEFS is the latest in a history of attempts to introduce a carbon price into the Australian economy. It replaces the formerly proposed Carbon Pollution Reduction Scheme (CPRS) that was shelved in April 2010. The overarching CEFP also incorporates a raft of direct measures and specific support policies (such as funding for clean energy projects) alongside the carbon price. In this respect, the Australian approach is fundamentally different to the New Zealand model, where substantial direct supports are generally unavailable.

This report considers what Australia's new scheme means for New Zealand businesses. The Australian scheme may affect New Zealand businesses in three ways:

- Affecting the Australian market for New Zealand firms through macroeconomic effects on Australia
- Changing relative competitiveness of Australian and New Zealand businesses
- Influencing the future evolution of the New Zealand ETS.

2 Australia's Greenhouse Gas Challenge

Australia's greenhouse gas emissions profile is dominated by fossil fuel use, with 73% of emissions being carbon dioxide.³

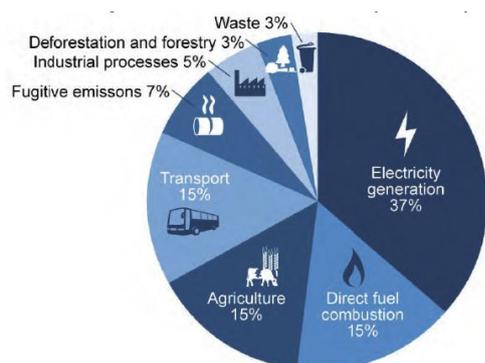


Figure 1 - Australia's Greenhouse Gas Emissions Profile

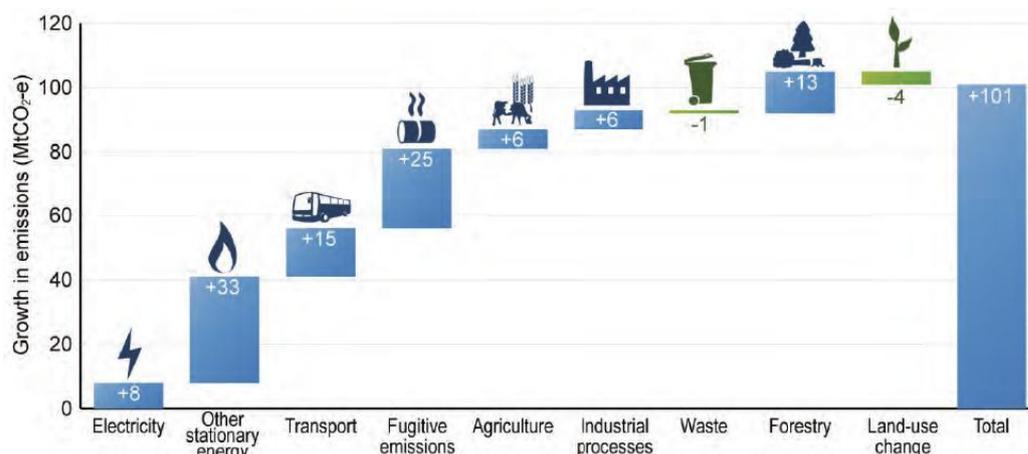
Reflecting the availability of cheap and abundant coal, electricity generation is Australia's largest source of carbon emissions. Electricity generation is responsible for just over a third of Australia's total carbon emissions. Direct fuel combustion — reflecting the use of gas and other fuels in industry and homes — accounts for another 15 per cent. Transport and agriculture each contribute around another 15 per cent.

In contrast only 47% of New Zealand's gross emissions are carbon dioxide. Of New Zealand's total emissions, electricity generation is responsible for just 8.5%, transport for just under 20% and direct fuel combustion for just 9%. Agriculture in New Zealand accounts for 46.5%.⁴

³ Australian emissions data and figures sourced from "Securing a clean energy future, The Australian Government's climate change plan". <http://www.cleanenergyfuture.gov.au/clean-energy-future/our-plan/>

Australian government modelling shows that Australia's emissions will continue to grow even with the scheme in place. Australia's current emissions are approximately 578 million tonnes per annum. On the business as usual projections, these emissions are expected to increase to 679 million tonnes by 2020. With the proposed scheme, emissions are forecast to grow to 621 million tonnes.

On the business as usual basis, Australia's growth in emissions over the next decade is expected to be dominated by emissions associated with the extraction and processing of energy resources, driven by strong export demand.



Source: Treasury modelling, 2011 (medium global action scenario).

Figure 2 – Business-as-Usual Forecast Sectoral Emissions Growth 2010 to 2020

The Australian Government has committed to reduce carbon emissions by 5 per cent from 2000 levels by 2020, irrespective of what other countries do, and by up to 15 or 25 per cent depending on the scale of global action. These targets will require cutting expected emissions by at least 23 per cent in 2020.

The Australian Government's own modelling shows that actual emission reductions of this magnitude are not viable. Rather, the emission reduction targets will set the limit for the domestic issue of emission permits, with the balance of emissions being covered from the import of international emission permits. The viability of the Australian scheme is critically predicated on the existence of the sufficient supply of Kyoto-compliant permits (or permits of a similar environmental standard).

The Australian Government has also committed to a new 2050 target to reduce emissions by 80 per cent compared to 2000 levels.

⁴ New Zealand emissions data sourced from New Zealand's National Inventory Report for 2009. <http://www.mfe.govt.nz/publications/climate/greenhouse-gas-inventory-2011/greenhouse-gas-inventory-2011.pdf>

3 Uncertain Times

Despite the release of the CERP, significant uncertainty over the future of Australia's carbon pricing policy remains.

3.1 Domestic Uncertainty

The primary domestic uncertainty is political: whether the legislation will be passed, and if passed, how durable it will be. The Julia Gillard (Labor) led Government is dependent on the Green Party and 3 Independent MPs for support. Opinion polls indicate that the carbon pricing policy remains deeply unpopular. The Labor Party has dropped to record low levels of support, with the analysts largely attributing the drop to the carbon pricing package. The release of the household and industry compensation packages has had no apparent positive effect on the Government's position in the polls.

The fragility of the Government lends itself to further demands from the minority partners to the deal as draft legislation gets finalised. Already there are published elements of the Government's plan that were not agreed by the Multi-Party Climate Change Committee (MPCCC) which are left as "intentions", among them the introduction of a carbon price on heavy on road transport and a support package for the steel industry.

The Tony Abbot led opposition has gained significant traction on an anti- Carbon Tax campaign and has vowed to overturn the legislation should it be passed. From a technical point of view it would be feasible to reverse the scheme after the next election, but more difficult once there are significant private holdings of emission permits.

3.2 International Uncertainty

It is now widely acknowledged that UN talks have run out of time to meet a December 2012 deadline to put in place a binding successor to the Kyoto Protocol on curbing greenhouse gases.

A gap period between the end of the 1st commitment period of the Kyoto Protocol and the commencement of a future binding agreement (if any) is now certain.

The lack of international consensus on tackling climate change creates further challenges to the durability of the Australian scheme:

- The acceptance by the Australian public of fixed carbon prices set well above current international prices in the absence of an international agreement during the first 3 years of the scheme; and
- The availability of acceptable international units to manage the gap between realistic emission reductions in Australia and the scheme's reduction targets. Restricted availability of international "offsets" would markedly increase the domestic carbon price, making the economic impact of the scheme politically unsustainable.

In Summary

The scheme faces heavy domestic and international weather, making it difficult to predict whether it will survive at all, let alone in its current form. New Zealand firms selling to or investing in Australia should prepare themselves for a significant period of uncertainty.

4 Key Design Elements of the CEFS

Although elements of the proposed scheme have been drawn from the prior CPRS policy, much has changed. In this section we seek to highlight these differences and place them in a New Zealand context.

4.1 Sectoral Coverage

Table 1 presents an overview of which sectors are required to surrender units in the NZETS (as currently legislated) and in the CEFS.

Table 1 - Overview of Unit Surrender Obligations by Sector

Sector	New Zealand ETS	Australian CEFS
Stationary Energy	Yes	Yes
Transport	Yes	No [shadow pricing on some users through fuel tax credits or excise]
Deforestation	Yes [with some exemptions]	No
Agriculture	Yes [from 1 January 2015]	No
Synthetic Gases	Yes [from 1 January 2013]	No [shadow pricing through existing levies]
Waste	Yes [from 1 January 2013]	Yes

These sectors are discussed in more detail below:

4.1.1 Stationary Energy

The coverage of the stationary energy sector is similar, albeit with differences in which parties are liable. Whereas the NZETS favours an upstream point of obligation (miner/importer), the CEFS (with the exception of gas retailers) favours a downstream emitter point of obligation on emitters of 25,000 tCO₂e or more. Miners are responsible for fugitive emissions (methane and CO₂).

The price of electricity in Australia is expected to rise substantially in the coming years—by as much as 30% depending on assumptions about future gas prices. However, it is important to note that Australian wholesale electricity prices have generally been lower than in New Zealand in recent years, taking advantage of cheap coal-fired generation, so that the expected increases will place power prices on a similar level to New Zealand.

4.1.2 Transport

In the NZETS, oil companies have a unit surrender obligation in respect of liquid fossil fuels imported or lifted from the refinery, effectively covering all domestic emissions from transport.

The CEFS has no such unit surrender obligations. Instead, a shadow carbon price is to be applied through fuel tax credit or excise adjustments for those fuel users for whom a carbon price will apply. These are shown in Table 2

Table 2 - Overview of Transport Sector Coverage in Australian CEFS

Included Transport	Excluded Transport
<ul style="list-style-type: none"> • domestic aviation • domestic shipping • rail transport • off road transport fuel use 	<ul style="list-style-type: none"> • fuel used by households for transport • light on-road commercial vehicles • off road fuel used by agriculture, forestry and fishing industries • heavy on-road transport until 1 July 2014⁵

The very limited coverage of transport emissions in the CEFS is an important consideration when assessing the relative economic impact against the NZETS. For example, primary industry's (agriculture, fishing and forestry) use of diesel is covered by the NZETS while excluded in Australia.

Perversely the carbon price application seems to be geared against those transport modes for which environmental benefits are commonly claimed, namely domestic shipping and rail. From the perspective of New Zealand businesses, exports to Australia should become more competitive relative to the Australian produced substitutes, particularly once the heavy on-road transport is included.

4.1.3 Agriculture and Land Use Change (Deforestation)

There is no surrender obligation for agricultural emissions or deforestation emissions in the CEFS. Instead, a previously announced policy, the Carbon Farming Initiative (CFI), provides incentives through the issue of units for emissions abatement activities. Carbon sinks from forestry are included among the CFI activities, yielding Kyoto compliant Australian Carbon Credits Units (ACCU) which are eligible during the fixed-price and flexible price periods.

4.1.4 Synthetic Gases

High global warming potential synthetic greenhouse gases (with the exception of perfluorocarbons from aluminium smelting) will not be included in the CEFS carbon pricing mechanism, but will be subject to an equivalent carbon price using existing import and manufacture levies under the Ozone Protection and Synthetic Greenhouse Gas Management legislation.

The treatment of synthetic gases in the NZETS is under review.

4.1.5 Waste

Landfill facilities are included in the CEFS however they will not be liable for emissions that arise from (legacy) waste deposited prior to the scheme start date.

New Zealand landfill operators who currently have responsibilities under the Waste Disposal Levy will also be mandatory participants in the NZETS. Unit surrender obligations start from 1 January 2013.

In Summary

The sectoral coverage of the CEFS differs substantively from the NZETS. With the focus on large emitters and the exclusion of road transport fuels, the scheme is more aligned with the EU ETS.

⁵ The Government intends to apply a carbon price on heavy on-road transport from 1 July 2014. This measure was not agreed by the Multi-Party Climate Change Committee.

For households and below-threshold emitting businesses, exposure is largely restricted to carbon price pass through on gas, domestic air, rail and sea transport, and electricity costs (i.e. the industrial process is not captured). However, it is difficult to assess the net impact on different groups, since the compensation packages are complex and all encompassing. For example, while steel process emissions are in the CEFS, the competitiveness support package for the steel industry is likely to offset the exposure to the carbon price. For below-threshold businesses, changes in tax write-offs and direct supports for manufacturing businesses may offset the indirect effects of the carbon price, although the exact effects on each business may be difficult to measure.

The differences in obligations and scheme rules between Australia and New Zealand will preclude a single approach to managing carbon liabilities for trans-Tasman companies.

4.2 Pricing and Unit Linking

The Australian CEFS will operate as a fixed price scheme for the first three years. Surprisingly, the start price has been set at A\$ 23, well above the current international price of carbon as reflected in the secondary CER market.⁶ However, as we explain below (refer section 4.3), the apparent high price obscures the effects of the compensation package, making the overall impost on business costs in Australia under the CEFS lower than the impost under the ETS in New Zealand, despite a much lower effective New Zealand price once the current 1:2 surrender ratio is taken into account.

After the first three years the scheme moves into a flexible pricing mode albeit with a floor price and a capped price for the period from July 2015 to June 2018. From July 2018 all price controls are planned to be removed.

Table 3 presents an overview of the price controls and contrasts it with the transition period price controls of the NZETS.

Table 3 - Overview of Price Controls

New Zealand ETS	Australian CEFS												
<p>1 Jul 2010 to 31 Dec 2012</p> <ul style="list-style-type: none"> Fixed Price option of NZ\$25/unit Surrender obligation of 1 unit for 2tCO₂e for Liquid Fossil Fuel, Stationary Energy and Industrial Processes participants. <p>1 Jan 2013 -</p> <ul style="list-style-type: none"> Current legislation - no price controls. <i>National led Government is signalling extension of price controls.</i> 	<p>1 July 2012 to 30 June 2015</p> <ul style="list-style-type: none"> 3 Year Fixed Price Period <table border="1"> <thead> <tr> <th>Period</th> <th>Price per tCO₂e</th> <th>Price at NZ\$/A\$ 0.80</th> </tr> </thead> <tbody> <tr> <td>2012-13</td> <td>A\$ 23.00</td> <td>NZ\$ 28.75</td> </tr> <tr> <td>2013-14</td> <td>A\$ 24.15</td> <td>NZ\$ 30.12</td> </tr> <tr> <td>2014-15</td> <td>A\$ 25.40</td> <td>NZ\$ 31.75</td> </tr> </tbody> </table> <p>1 July 2015 to 30 June 2018</p> <ul style="list-style-type: none"> Emissions trading scheme with price controls for the first three years: <ul style="list-style-type: none"> A cap set at A\$20 above the expected international price for 2015-16, rising at 5% per annum thereafter; and A floor set at A\$15 for 2015-16 rising at 4% per annum thereafter. <p>1 July 2018 –</p> <ul style="list-style-type: none"> Emissions trading scheme with no price controls. 	Period	Price per tCO ₂ e	Price at NZ\$/A\$ 0.80	2012-13	A\$ 23.00	NZ\$ 28.75	2013-14	A\$ 24.15	NZ\$ 30.12	2014-15	A\$ 25.40	NZ\$ 31.75
Period	Price per tCO ₂ e	Price at NZ\$/A\$ 0.80											
2012-13	A\$ 23.00	NZ\$ 28.75											
2013-14	A\$ 24.15	NZ\$ 30.12											
2014-15	A\$ 25.40	NZ\$ 31.75											

An overview of unit eligibility and linking is provided in Table 4.

⁶ CERs for December 2012 delivery are currently trading at € 10, i.e. A\$ 13.25 (NZ\$ 12.60).

Table 4 - Overview of Unit Eligibility and Linking

New Zealand ETS	Australian CEFS
<p>Domestic Unit: NZU</p> <p>Kyoto Unit Linking:</p> <ul style="list-style-type: none"> • In price control period only forestry NZUs may be converted to AAUs for export • CERs, ERUs (except from nuclear) • NZ sourced AAUs <p>No quantitative limits on units.</p> <p>Linking to other domestic schemes is to be considered.</p>	<p>Domestic Unit: AEU</p> <p>In 3 Year Fixed Price Period:</p> <ul style="list-style-type: none"> • Only, Carbon farming Initiative (CFI) Australian Carbon Credit Units (ACCU) that are Kyoto-compliant (e.g. afforestation) can be used up to a 5% quantitative restriction. <p>Kyoto Unit Linking:</p> <p>In the Flexible Price Period (from 1 Jul 2015):</p> <ul style="list-style-type: none"> • CERs and ERUs other than those from HFC₂₃ and N₂O (adipic acid) projects, nuclear and large hydro projects may be used (broadly consistent with post 2012 EU ETS restrictions) and RMUs – (removal units) • A quantitative limit of 50% of surrender obligation is in place until 2020, but subject to the 2016 review <p>Linking to other domestic schemes (e.g. EU ETS and NZETS) is to be considered.</p>

The Australian CEFS has followed the lead of the EU ETS in banning CERs (and ERUs) from HFC₂₃ and N₂O projects on the grounds of environmental integrity. New Zealand has yet to take decision on whether to ban these units which to date have been the major source of CERs traded.

Unusually, and perhaps mistakenly RMUs are allowed from 2015, although under the Kyoto mechanism these are typically issued in arrears at the end of the commitment period. The NZETS addresses this issue through the issuance of AAUs (in exchange for NZUs for forestry) in anticipation of RMUs being subsequently received from the UN.

These considerations on Kyoto units may be moot should international agreements not be reached, or should Kyoto compliant unit precedents not be carried forward into a less formal network of domestic trading schemes with common recognition of international offsets.

In Summary

The prospects for linking New Zealand and Australian schemes through the mutual acceptability and trading of units are slim in the near and medium term:

- Linking in the first three years is not possible as the Australian scheme is operating under a fixed price.
- In the second three-year period to mid-2018, the presence of price controls in the Australian scheme, unless mirrored in the NZETS, is a significant barrier to full two-way linking.

Similarly the presence of price controls in the Australian scheme would rule out full linking to the EU ETS, most likely until after the completion of the EU ETS Phase III (2013-20).

While price controls are introduced with good intentions their presence can lead to significant arbitrage opportunities or market distortions:

- A price cap in the form of a fixed price option can operate successfully as demonstrated in the NZETS, with restrictions on export of domestic (non-forestry) NZUs, and acceptance of inbound CERs/ERUs.
- A price floor as proposed in the CEPS presents more of a challenge, as although simplistically it is stated that the “carbon price cannot fall any lower than \$15 a tonne in 2015-16”, this could only be mandated to apply to domestic units issued/auctioned. International units, if priced lower than the floor price, could still enter the scheme up to the quantitative limit, yielding significant returns.

Another consideration when evaluating linking is the risk of the domestic NZETS price being driven upwards through linking to (significantly) larger markets with non-aligned scheme stringency, price controls, unit eligibility rules and quantitative limits.

- The significant volatility of the CER price in the past 12 months has been driven by EU ETS market sentiment. The presence of a fixed price option in the NZETS has prevented this volatility passing through fully to the New Zealand economy.
- Direct linking with Australia would yield similar concerns, especially if Australia sticks to an unconditional reduction target which directly influences the CEFS scheme cap despite the limited supply of internationally fungible units.

4.3 Support Mechanisms

4.3.1 Broad Economy

In the NZETS, the primary support mechanism to reduce the impact on the economy is the transition phase from July 2010 to December 2012, with a fixed price option of NZ\$25 and a surrender ratio of only one NZU for every two tonnes of emissions for the energy, industrial and liquid fossil fuel sectors. In effect, the New Zealand Government has taken on the responsibility for half the emissions to reduce the effect on consumers in the short term.

The Australian Government has taken a different approach in the CEFS. The scheme raises significant revenue, about 50% of which is to be redistributed to households in the form of tax cuts, higher family payments and increases in pensions and allowances, yielding net tax benefits for the majority.

The exemption of much of the transport sector from the scheme further shields households and businesses from costs.

Further direct support for business is provided through a series of “supporting jobs” programmes including funding for manufacturing jobs, changes to tax arrangements and free allocation of units for trade exposed sectors. Small business instant asset write-off and regional assistance programs together will amount to about \$300m over the first three years of the scheme. Table 5 below summarises the overall fiscal impact of the scheme.

Table 5 – Fiscal Impact of CEFP including CEFS and Support Measures

	Fiscal Impact (\$m)				Forward estimates
	2011-12	2012-13	2013-14	2014-15	
Revenue from sale of permits	0	7,740	8,140	8,590	24,470
Revenue from application of carbon price via other measures ¹	0	290	320	320	930
Fuel tax credit reductions ²	0	570	620	670	1,860
Household assistance measures	-1,533	-4,196	-4,802	-4,825	-15,356
Assistance for low- and middle-income households	-1,470	-4,096	-4,671	-4,700	-14,937
Increases in transfer payments ³	-1,470	-746	-2,301	-2,380	-6,897
Tax reform	0	-3,350	-2,370	-2,320	-8,040
Low Carbon Communities - redesign and extension	-5	-33	-78	-84	-200
Other household energy efficiency measures ⁴	-7	-13	-15	-13	-48
Household assistance implementation	-51	-54	-39	-28	-172
Support for Jobs	-26	-3,017	-3,475	-3,773	-10,291
Jobs and Competitiveness Program	0	-2,851	-3,059	-3,312	-9,222
Clean Technology Program ⁵	-19	-142	-245	-312	-717
Increased small business instant asset write-off	0	0	-100	-100	-200
Regional structural adjustment	0	-10	-50	-30	-90
Other business energy efficiency measures ⁶	-7	-15	-21	-19	-62
Clean Energy Finance Corporation ⁷	-2	-21	-467	-455	-944
Energy security and transformation ⁸	-1,009	-1	-1,003	-1,042	-3,054
Land and biodiversity measures	-69	-131	-506	-489	-1,194
Carbon Farming Initiative	0	-47	-65	-81	-193
Biodiversity Fund	-37	-35	-250	-251	-572
Carbon Farming Futures Program	-31	-30	-113	-102	-276
Carbon Farming Initiative Non-Kyoto Carbon Fund	0	-1	-50	-47	-97
Regional Natural Resource Management Planning	0	-13	-23	-4	-40
Other land and biodiversity measures ⁹	-1	-5	-5	-4	-16
Governance	-78	-90	-106	-107	-382
Clean Energy Regulator	-68	-68	-61	-59	-256
Coverage of synthetic greenhouse gases	-1	-2	-26	-31	-60
Climate Change Authority	0	-6	-9	-9	-25
Productivity Commission reviews	-4	-4	-5	-5	-18
Other governance	-5	-9	-5	-4	-23
Total Impact	-2,716	1,144	-1,279	-1,110	-3,961

Source: The Australian Government

4.3.2 Free Allocation of Units

In the NZETS, free allocation of units to assist businesses facing the cost of the scheme are provided for the fishing industry (one off), pre-1990 forestry, agricultural emissions and Emissions-Intensive Trade-Exposed (EITE) activities.

In Australia, with the more limited sectoral coverage of the CEFS, no allocation is required for the fishing, forestry or agricultural emissions as no direct costs are imposed on them.

Allocation provisions for the Australian EITE sector have been carried forward from the former CPRS policy and are therefore broadly comparable to those of the NZETS. Both schemes apply an intensity based allocation, where the number of units issued for an activity is determined from the amount of prescribed product produced from that activity, the sectoral average emissions intensity of the product, the Allocative Baseline, and the level of assistance. The simplified formula is shown below:

$$\text{Allocation} = \text{Production Quantity} * \text{Allocative Baseline} * \text{Level of Assistance}$$

However, despite the common underlying approach, the CEFS differs from the NZETS. For example, the level of assistance is higher (94.5% and 66% vs 90% and 60%), the CEFS allows for the inclusion of transport fuel used in the production of stationary energy in eligibility and allocation calculations, and eligibility criteria are wider with the inclusion of a value add test.

Table 6 presents a comparison between the NZETS and CEFS provisions.

Table 6 - Overview of Emissions-Intensive Trade-Exposed (EITE) Allocation

	New Zealand ETS	Australian CEFS
Eligibility Test for Assistance:	Highly EI: Emission intensity of <ul style="list-style-type: none"> at least 1600 tCO₂e/NZ\$m revenue Moderately EI: Emission intensity of <ul style="list-style-type: none"> between 800 and 1599 tCO₂e / NZ\$m revenue; 	Highly EI: Emission intensity of <ul style="list-style-type: none"> at least 2000 tCO₂e / A\$m revenue; or at least 6000 tCO₂e / A\$m value add Moderately EI: Emission intensity of <ul style="list-style-type: none"> between 1000 and 1999 tCO₂e / A\$m revenue; or between 3000 and 5999 tCO₂e / A\$m value add
Included Emissions from:	Coal, natural gas, geothermal fluid, used oil or waste oil, industrial process emissions, and in-direct electricity.	Coal, natural gas, geothermal fluid, used oil or waste oil, industrial process emissions, in-direct electricity, and transport fuel used in stationary energy.
Level of Assistance:	Highly EI 90% Moderately EI 60%	Highly EI 94.5% Moderately EI 66%
Phase Out Rate:	1.3% per annum from 1 Jan 2013	1.3% per annum from 1 Jul 2013

The NZETS was originally to adopt the CPRS design of the Australian scheme for EITE allocation because implementing the Australian allocation methodology was expected to bring about benefits from reduced transaction costs for businesses operating across the Tasman and reduced trans-Tasman competitiveness distortions, particularly for emissions-intensive companies. The design of the CEFS now entrenches these costs and distortions. This entrenchment of distortions now provide a basis for the New Zealand firms, which were disadvantaged when the CPRS failed to pass, to approach the New Zealand Government for comparable treatment to avoid permanent disadvantage. While the arguments advanced in favour of alignment with CPRS were always debatable, the permanent mis-alignment as a result of CEFS may require corrective action.

For individual EITE firms, comparison of the allocation provisions of the two schemes requires a detailed case by case assessment taking into account potential differences in activity definitions, allocative baselines, electricity allocation factors and other variables:

- In many cases, activity definitions developed for the CPRS were found to be inappropriate for New Zealand located firms. Reasons included differences in product type (e.g. the pulp and paper sector where New Zealand firms produce an intermediate product, market pulp, for export), and differences in raw materials (e.g. steel making from iron sands rather than ore). The NZETS has also led to the development of activity definitions that were not envisaged in the CPRS (e.g. the horticulture sector).
- Allocative baselines reflect the emissions intensity of a product and are determined as an average across all sites producing that product. In the NZETS allocative baselines were based on New Zealand located sites only, often a single site. Australian allocative baselines will differ, not only because of a different sample of sites but also because of the inclusion additional fuel types (liquid fuels) and differences in primary energy mix (e.g. greater reliance on coal). Where activity definitions differ no direct comparison can be made.
- Both schemes provide an allocation in respect of indirect emissions (and associated cost pass through) from electricity. With their very different generation mixes, it is appropriate that Australia and New Zealand have different Electricity Allocation Factors (EAFs);

1 tCO₂e/MWh in Australia and 0.52 tCO₂e/MWh in New Zealand. Whether the EAF is set at an appropriate level continues to be the source of much debate in New Zealand. In Australia, the use of a national average figure across all States regardless of their differing generation mixes may lead to locational distortions in the true level of assistance.

- Other variables to be taken into account in a true firm by firm comparison include differences in the emissions cost exposure that is outside the EITE activity definition e.g. on road distribution costs and off-road use of diesel as highlighted in Section 4.1.2.

4.3.3 Direct Support Mechanisms

In addition, the Australian Government has set aside considerable funds to compensate coal-fired generators for the destruction of their existing value. Further funding will be provided for clean energy investments in the form of an A\$10 billion fund. Overall, the fiscal cost of the assistance and support package under the scheme (both for businesses and households) substantially exceeds the initial revenues from the scheme. Once price becomes flexible, depending on the evolution of the scheme, revenue from the sale of permits could over or under-shoot the level of compensation payments. The ability of the companies to meet up to 50% of their surrender obligations through the import of international permits, thereby reducing the level of demand for domestically auctioned units, could compromise Government revenues. To deal with this additional fiscal risk (which could be in the billions of dollars a year), the Government may need to sell the international permits surrendered to it back into the international markets. This will force the Government into the role of a global permit trader, for which it is likely to be ill-suited.

In Summary

For the majority of households and many businesses, the net impact of the introduction of carbon pricing is lower in Australia than it is in New Zealand, despite the higher carbon price.

The Australian CEFS approach of raising revenue and then redistributing it contrasts with the NZETS focus of devolving the Crown's Kyoto liability. The initial re-distribution packages have already generated expectations of possible further government support and compensation payments. As a result, the CEFS poses significant fiscal risks for the Australian Government, which may lead to on-going design changes.

Risks of the Australian approach to moderating the scheme's impacts are:

- On-going fiscal imbalances and pressure to increase spending
- Likely inability to moderate emission growth, leading to a permanent dependence on imported permits.

The Australian Treasury modelling predicts significant increases in payments to foreign producers of emission permits. Such payments—effectively a direct tax transfer abroad—may not be politically sustainable.

5 Conclusions for New Zealand businesses

Investment certainty in Australia is undermined by the political risks and design of the scheme.

Whether the Australian scheme is legislated and its longer term durability is far from certain. Even if durable, the structure of the scheme is more heavily reliant on carbon revenue being raised, which increases the risk of Government intervention through price controls, changes to shadow carbon pricing in the transport sector, and other mechanisms.

The currently announced Australian scheme may not provide full compensation to trade-exposed small and medium-sized businesses. This may help the relative position of their New Zealand competitors. Despite the announced assistance, it will also result in a significant write-down of the values of the existing coal-fired generation assets. Both of these factors will generate on-going pressure for additional assistance. Job losses in small and medium-sized businesses will receive a high political profile, and are likely to induce further funding. Similarly, the need for reliable electricity generation investment is likely to lead to further public funding being directed to the electricity sector. Overall, we expect that the recently announced scheme will set off multiple rounds of fiscal injections into the Australian businesses. This will distort the competitive environment and is likely to pose risks to New Zealand exporters from the Australian companies which may be “over-compensated”.

Simplistic comparisons of stringency based on carbon price alone are inappropriate.

Although the NZETS was modelled on the former Australian CPRS policy, the latest Australian carbon pricing policy is substantively different in terms of sectoral coverage, pricing and unit linking, and support mechanisms for the broad economy.

Currently for the majority of households and business:

- The NZETS is a wide coverage low price scheme; while
- The CEFs is a narrow coverage, higher price but highly compensated scheme.

As a result, it is extremely difficult to calculate the effects on relative competitiveness of New Zealand businesses from the head-line changes in relative prices.

Overall, the Australian scheme appears to be carefully designed to have the least possible impact, either from the economic or the environmental point of view, apart from supporting the transition from coal to gas-fired generation. Any further reductions in emissions will continue to rely on direct government programs, including the proposed funding of clean energy projects. However, the industry assistance package appears to have high administration costs, and may become mired in complex procedures. This should provide New Zealand firms with a competitive edge if their Australian competitors are distracted by their engagement with the Government or if various supports they receive fail to offset the impact of the scheme on their competitiveness.

The rising costs of electricity in Australia, combined with growing uncertainty about the reliability of the Australian power system, should also create opportunities for New Zealand to attract businesses with significant need for reliable and reasonably priced electricity inputs, which may have previously

preferred locating in Australia. New Zealand investment in and/or development of renewable energy across the Tasman will also benefit from the Australian government funding.

New Zealand and Australian Schemes require different corporate risk management approaches.

The differences in the schemes present a challenge for New Zealand businesses with Trans-Tasman operations or those who are looking to invest in Australia. Corporate risk management approaches in respect of trading mandates, regulatory requirements and economic evaluations will need to be differentiated.

However, since both Australia and New Zealand will be reliant on imports of emission permits from overseas, both markets will face significant risks from the international developments.

The implementation of the Australian scheme will also create exchange and interest risks, particularly during the introductory period and again during transition to flexible prices. Businesses operating on both sides of the Tasman will need to ensure that they maintain appropriate hedging strategies.

New Zealand needs to retain full control of its NZETS

Although Australia is New Zealand's major trading partner, we should take a cautious approach to adjusting the NZETS to better align with the Australian proposal. The removal of price controls in the Australian scheme is not until July 2018. We have plenty of time to assess Australia's progress and more importantly that of the rest of the world in pricing carbon.

Any integration of the New Zealand and Australian schemes—as long as the basic design elements of each scheme remain as at present—would disadvantage New Zealand businesses relative to their Australian counterparts. For the Australian businesses, access to the New Zealand ETS is likely to create opportunities for a greater range of permits to be imported, and hence, lower the cost of compliance. By contrast, for New Zealand businesses, integration with the Australian market could lead to higher prices without any offsetting benefits of the kind enjoyed by the Australian firms.

The current design of the Australian scheme, rather than being the first step towards eventual integration, cements an on-going distinction between the two markets. Trans-Tasman businesses will therefore be subject to higher compliance costs, through the need to respond to two non-aligned schemes, and differing carbon price impacts on the competitiveness of their Australian and New Zealand operations, the analysis of which is complex.