



CO2 Group Limited Submission to Senate Select Committee on Climate Policy

Summary

CO2 Group Limited is strongly supportive of the introduction of a national emissions trading scheme as soon as practicable. A cap-and-trade based scheme, underpinned by meaningful mandatory caps, will be critical to driving the substantial private sector investment required to lower Australia's emissions profile.

An emissions trading scheme is economically more efficient than a tax (which has previously been dismissed by the Shergold Report).

Scientific Context

CO2 Group recognises and accepts the science of climate change as assessed by the Intergovernmental Panel on Climate Change. We note the most recent evidence from the scientific community indicates that climate change is proceeding at a rate at the high end of the Intergovernmental Panel on Climate Change projections. This highlights the urgency of immediate action rather than further delay.

Economic Context

The international global recession clearly provides challenges to all companies at present. However, we note the assessment by Professor Garnaut delivered at the "Greenhouse 2009" Conference in Perth on March 26, 2009, that from an economic point of view a structural adjustment such as an emissions trading scheme is often best to occur during times when there are multiple drivers for economic reform. Professor Garnaut noted that it is the political economy rather than economic science that makes introduction of a scheme challenging.

Most importantly there is overwhelming evidence that delaying emissions reductions is very costly to the economy.

Profile of CO2 Group Limited

The profile of CO2 Group Limited is relevant to the Senate Select Committee on Climate Policy as a Case Study that demonstrates the economic benefits, including job creation that can be attained through an emission cap-and-trade scheme. Such benefits are not available through taxation schemes.

CO2 Group Limited is a public company listed on the Australian Securities Exchange. It has developed and commercialised low-cost carbon sequestration through the planting of native Australian eucalyptus trees (mallees).

Our plantings have been integrated within productive agricultural enterprises. In addition to low-cost carbon storage our plantings offer significant co-benefits:

CO2 Australia Limited

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- Reduction in the risk associated with wind erosion (in parts of Australia climate change itself increases the risk of soil erosion, with hotter, drier conditions and changes in windspeed);
- Improvement in biodiversity outcomes;
- The ability to reduce the risk of soil salinisation;
- Improved agricultural productivity in degraded agricultural landscapes;
- Assistance with climate adaptation.

The Group has relationships with more than 500 Australian farming families. Where we have lease agreements with landowners our plantings provide an economic return to the landowner and diversify on-farm income. The Group directly employs more than 30 people with approximately an additional 250 jobs created as a result of the CO2 Australia™ Carbon Sequestration Program.

We do not plant in high rainfall zones and our plantings are not logged or harvested. In contrast to other plantings carbon sinks do not need to be located close to ports or transport infrastructure. This means that they are spread across the landscape and do not have to be closely located in relatively small areas. Our carbon sinks support the requirements of regional catchment management plans and other local and State environmental policies.

CO2 Group offers its services to clients whose activities (mining, electricity generation, gas production and processing, transport) underpin the Australian economy. The company's carbon sequestration plantings deliver a low-cost carbon abatement solution ideally suited to the Australian environment.

The Group has operations in NSW, WA and Victoria. The company's carbon sequestration program delivers regional employment opportunities. The company's business model is to support local contract businesses (seedling nurseries, plantation contractors, plant operators) strengthening the economic fabric in those parts of rural Australia where we operate.

CO2 Australia a wholly-owned subsidiary of the group has significant commercial relationships with:

- Woodside Petroleum
- Newmont Mining
- Inpex / Total-Browse JV
- Eraring Energy
- Origin Energy
- Kansai Electric Power
- Wannon Water
- Newmont Mining

Stalling or slowing progress towards emissions trading will provide a major disincentive to those companies that have already shown a willingness to invest.

Specific Responses to Selected Inquiry Terms of Reference

the choice of emissions trading as the central policy to reduce Australia's carbon pollution, taking into account the need to:

- i. reduce carbon pollution at the lowest economic cost;***
- ii. put in place long-term incentives for investment in clean energy and low-emission technology, and***
- iii. contribute to a global solution to climate change.***

The CO2 Group regards the proposed Carbon Pollution Reduction Scheme as the key plank in Australia's response to Climate Change. The proposed Scheme has several features that we believe are important:

- Broad coverage – the proposed scheme is broader than emissions trading schemes introduced in other jurisdictions. This design feature is important in enabling the market to find the lowest cost abatement within a broad range of economic activity.
- Reforestation – permitting reforestation and enabling forestry to 'opt-in' is a key and significant design feature, enabling Australia to benefit from this comparative advantage. CO2 Group has commercialised one reforestation solution demonstrating that it is possible for reforestation to compete with other abatement options on a commercial basis. Reforestation is a proven low-cost solution with ancillary benefits.
- The cap-and trade design – specifying an emissions cap is the most straightforward method of producing an emissions outcome. Taxation methods are less direct and baseline-and-credit trading schemes (such as the scheme proposed in Canada) have produced many credits but, in some cases, uncertain abatement.
- Permit allocation arrangements – CO2 Group supports the intention to embrace full auctioning of permits within the constraints of meeting other policy objectives (e.g. reducing the risk of carbon leakage, energy security).
- The soft-start – building the institutional arrangements and developing a genuine working model will be a challenge for both government and the market. The Climate Change Regulatory Authority, reporting of emissions under the NGERs, establishing a functioning registry, administration of the IETE and ESAS arrangements, and operating a new set of the regulations will all need to be achieved within a relatively short period. The soft-start will enable effective functioning of these institutional arrangements with lower risk.

the relative contributions to overall emission reduction targets from complementary measures such as renewable energy feed-in laws, energy efficiency and the protection or development of terrestrial carbon stores such as native forests and soils;

CO2 Group makes no comment on matters relating to renewable energy or energy efficiency; however we offer the following observations on future developments associated with 'protection or development of terrestrial carbon stores such as native forest and soils'.

The CPRS could be modified at a later date to enhance terrestrial carbon stores however we submit that any changes would need to be based on principles including:

- (i) sound science;
- (ii) transparency;
- (iii) efficiency;
- (iv) neutrality.

Permanent mallee plantings in agricultural landscapes have been shown to improve biodiversity outcomes. Additional biodiversity benefits arising from multi-species plantings could be recognised through a complementary 'biodiversity credit' scheme.

There are several significant factors that interact and limit Australia's ability to deploy large-scale bio-diverse plantings (that is tens of thousands of hectares per annum rather than hundreds or thousands of hectares). The first is that the planting technologies and supply chains have not yet been scaled-up to deliver. The second is that a commercial driver for bio-diverse plantings does not exist. As a result bio-diverse plantings will continue to occur on the basis of volunteerism, where landholders perceive the benefits for bio-diverse plantings to be worth the additional effort and cost, or where there are government payments (subsidies, rebates or grants) that in effect pay for the additional biodiversity. This lack of a commercial driver partly explains the lack of scale in bio-diverse plantings. The third factor at play is the uncertainty associated with climate change itself. CO2 Group plants species that are known to perform and tolerate a wide range of environmental conditions including variable rainfall, high temperatures and desiccating conditions. Our species are also fire tolerant. These are not universal characteristics of Australian plants and there is little doubt that climate change will change the composition of Australian plant communities, co-planting a range of species that are expected to remain in place over 100+ years adds risk to revegetation success.

Beyond the creation of a biodiversity credit scheme the proposed Carbon Pollution Reduction Scheme could be extended to include the concept of 'negative stumpage'. Negative stumpage essentially enables credits (or in this case permits) to be created through decisions to retire forests managed for timber and forest products from harvest cycles. Units are created for the average difference in carbon between harvested and unharvested forest estates. Professor Garnaut estimated that 136 Mt CO_{2e} per year could be stored by forests established before 1990. This assumes that current carbon stocks are 40% lower than carrying capacity (Table 22.2 p. 542-543 Garnaut report). There are several advantages in including negative stumpage within a cap-and-trade scheme, as opposed to introducing complementary measures such as harvesting regulations. First holders of harvesting rights would be compensated as a result of a regulatory approach, negative stumpage enables the holder of the harvesting right to make a decision based on the relative economic merits of wood products and carbon. Second, since the Scheme Cap follows a long-term trajectory, the scheme cap could be tuned to enable such innovations within a consistent policy framework.

Complementary measures should only be considered where there is demonstrated market failure or where it is not possible to accommodate desired measures within the Scheme.

There is strong scientific evidence that the past 200 years of changes in land-use and land management have depleted the carbon in Australia's soils. Therefore, in theory significant storage of carbon in Australia's soils is possible. We note that there continues to be significant scientific debate regarding a number of issues in relation to soil carbon such as: the length of time different carbon compounds remain in which parts of the soil profile, the carbon and energy balances associated with additives (e.g. biochars) intended to increase soil carbon and the interactions between soil management and climatic variability. We note that CSIRO, Rothamsted Research and the University of Newcastle collaborated to produce a timely and relevant review of this subject¹.

Thus in our view:

- the existing arrangements and architecture of the Scheme are suitable at this commencement stage;
- the existing Scheme could be extended later to include a broader range of activities relevant to the land-based sectors, particularly forested lands; complementary (i.e. regulatory) measures are not required to achieve a policy outcome of enhanced storage of terrestrial carbon in forests, if that is the desired result;
- soil carbon offers potential additional abatement opportunity provided uncertainties associated with the science can be resolved.

whether the Government's Carbon Pollution Reduction Scheme is environmentally effective, in particular with regard to the adequacy or otherwise of the Government's 2020 and 2050 greenhouse gas emission reduction targets in avoiding dangerous climate change;

CO2 Group's comments on the CPRS are confined to the design elements of the scheme as opposed to the numerical targets that are proposed. We note that the numerical target is only one, albeit important, component of the architecture that needs to be considered.

Cap-and-trade schemes in general are considered to be more environmentally effective and economically efficient than the alternatives. CO2 Group does not support a carbon tax above an emissions trading scheme. Demand for many of the products and services that generate significant greenhouse gases are price inelastic. A carbon tax incentivises tax avoidance at the cost of emissions abatement. Emissions trading schemes provide incentives for a range of participants in the market beyond those entities that are liable. This produces innovation across many sectors of the economy significantly reducing the cost of abatement. The gateway concept provides useful signals to the market about future abatement requirements.

In some jurisdictions emissions trading has occurred within a baseline-and-credit (such as that proposed in Canada), rather than a cap-and-trade approach. For example, the Clean Development Mechanism operates as a baseline-and-credit system in which credits (CERs) are issued on the basis of additional investment that produces enhanced

¹ Sohi, S., Lopex-Capel, E., Krull, E. And Bol, R (2009) Biochar, climate change and soil: A review to guide future research. CSIRO Land and Water Science Report 05/09, CSIRO, 55pp

abatement. In practice, setting the baseline has been problematic; requiring either judgement or regulation as to what the 'baseline' is. This is especially difficult because few baselines are static; they change over time due to continuous improvement and innovation. Forecasting the rate of efficiency or improvement in the baseline is especially difficult and has led to debates over whether the activity or investment is in fact 'additional', or will continue to be additional.

Some emission trading schemes internationally are based on reducing emissions intensity, that is a reduction in emissions per unit of output. The problem with this metric is that in nearly all economies emissions intensity has been reducing but the absolute level emissions continues to rise. This phenomenon has been well-documented by the scientific community as part of the Global Carbon Project. Setting an emissions cap provides the greatest market transparency (all market participants and potential market entrants know the cap) and relates directly to the environmental outcome being sought provided both emissions leakage and abatement leakage are managed.

The reforestation provisions of the CPRS adequately deal with 'additionality' because the 'land cleared prior to 1990' requirement limits the activity to limited parts of the landscape where carbon had been depleted. When opting-in managers of harvested forests undertake to manage the forests as a carbon pool (an additional requirement) in addition to being managed as a wood/fibre resource.

whether the design of the proposed scheme will send appropriate investment signals for green collar jobs, research and development, and the manufacturing and service industries, taking into account permit allocation, leakage, compensation mechanisms and additionality issues;

As indicated in the introductory material to this submission, CO2 Group Limited has commenced creating green-collar jobs. The existence of a stable emissions trading scheme is a threshold issue for the continued development of a sustainable economy. Delay in introducing an emissions trading scheme would extend current uncertainty and would be more damaging to prospects in the 'green economy' than the commencement of an imperfect emissions trading scheme.

In our assessment the prospects for enhancing Australian jobs would be enhanced by capping the ability of liable Parties to use CERs and other international units. Unlimited use of international units brings about the prospect of 'abatement leakage', in other words emissions abatement activities and associated investment occur off-shore rather than within Australia. CO2 Group favours international linkage and open trade in emissions reductions; however the trade needs to be open, as we stated in our original submission to the Green Paper:

"Abatement credits, or 'offsets', generated from international sources should not be recognised and traded under an Australian CPRS unless formal bilateral, or multilateral, agreements are entered into under which comparable credits generated in Australia can be sold to participating international partners. It makes no economic sense to limit Australia to a position of being an offset credit importer when we have substantial potential to be a major offset exporter. The pursuit of such bilateral arrangements is to be encouraged and efforts should be made to ensure there is consistency between the CPRS and the major

international trading frameworks, particularly the Kyoto Protocol and its Joint Implementation and Clean Development Mechanisms.”

As such, the combination of free permits for Energy Intensive Export Exposed Industries, unlimited use of CERs and the ban on hosting Joint Implementation Projects constitutes a policy trifecta that does limit the economic benefits available through introduction of an emissions trading scheme.

The prospect of an emissions trading scheme has already created investment in R&D. As discussed with the company's shareholders, the company's commitment to continuing research and development is significant for a company of our size. During the 2007/2008 year we invested some \$750,000. This investment is increasing as we develop further species and investigate additional landscapes to further scale our business.

Reforestation activities in Australia are modest at present. Reforestation under the CPRS offers the opportunity to enhance the quality of Australia's landscapes, particularly the sheep/wheat zone where in some cases landscape remediation is required. Emissions trading offers a stronger private investment signal than has hitherto existed.

Additional investment in emissions abatement could be achieved by enabling voluntary actions to interact with the CPRS so that liable parties are not free-carried

The draft legislation and material released in support of the drafts suggests that voluntary activity to reduce emissions will only operate through the voluntary surrender of permits acquired as a result of voluntary activity meeting a Standard that has yet to be defined. For a number of reasons, including interactions in the Scheme with the price cap mechanism and the ability to purchase unlimited CERs, the proposed approach serves to move abatement 'downstream' in the supply chain and will not serve to further reduce Australia's emissions. The effect is to 'free-carry' liable parties.

The solution is simple. Accredited voluntary activity should be certificated and surrender of voluntary certificates should be used by the regulator to adjust the overall scheme cap. This does not change the level of obligation by liable parties, but would enable volunteerism to produce a national mitigation outcome greater than that required under the Scheme.