

Beyond a carbon price: a Low Carbon Incentive Scheme, to accelerate next generation power and transport development (DRAFT)

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This paper is in response to Issues Paper 4 of the Garnaut Review, Research & Development: Low Emissions Energy Technologies.

Specific Expertise: Barriers to innovation, Diffusion of Innovation, Consumers role in innovation, Value and its relation to Innovation. I am writing my PhD currently on Innovation, and this submission will form a part of the Implications Chapter.

I intend to make two submissions. This one a draft, and a final on 11 April, including detailed innovation references, largely in response to the Foxon (2003), and Issues Paper 4. This draft is to allow other submissions to take into account my position.

Policy Summary:

Goals to transition to a low Carbon (C) economy:

□ - low C transport □ - low C power □ - low C exports □ - low C workforce □ □

The emission trading scheme (ETS) is a good start to get C prices into products, but greater incentive is needed to encourage success in low C technology, if we want to do so fast. The ETS is likely to take perhaps some 10-15 years to achieve this. □ □

Some problems exist with the ETS encouraging low C technology. Firstly, the ETS will encourage incremental innovation in power stations, and transfer from coal to gas, however it will not encourage radical or disruptive innovation, which is likely to come from small firms operating outside of the power and car/oil industries. Disruptors who do not hold C certificates have less incentive from the ETS to innovate. □ □

Secondly, disruptive innovation can decrease the value of C certificates, giving certificate holders an incentive to resist such technology to protect the value of their investment in C certificates. □ □

Thirdly, oil companies who purchase certificates, rather than petrol consumers, to keep the ETS simple, are more likely to pass C prices onto consumers, than to create or buy low C technology, which is outside their competencies, and would reduce their profits. □ □

Fourthly, to protect their C lock in, the coal and oil industries have incentive to undermine the processes, and distract funding away from other low C technologies eg QLD \$900M clean coal investments vs \$26M Centre for Low Emission Technology, VIC \$187M Energy

technology innovation strategy (including \$103.5M clean coal) vs \$12M for renewable energy support fund, □ □

Therefore, to avoid these ETS problems, I suggest a Low C Incentive scheme, which collects funds and pays low C users and producers to encourage such use and production. Funding should be not at the expense of other government services (revenue neutral), and should encourage market solutions to low C needs. But the incentive should be paid 50% to producers and 50% to consumers to reward both parties. □ □

Funds could be raised through a levy on petrol prices, and electricity bills. But consumers have told me, during a process of consultation, that this could place too heavy a burden on already stressed households. This could be a transitional arrangement (say two years) to be replaced by a broad ranging, but small, consumption tax. A level of 2%, added to GST, and collected in the same way, and with the same rules, could be collected by the ATO, then forwarded to the Carbon Bank (see Garnaut) for distribution to low C users and producers. Low income families would be protected as food would not be levied. And at a low 2% the impact would be slight on individual transactions. Also, business would not be levied, only consumers, reducing political issues, in selling the scheme to business. At 2%, funds of around \$1B per month could be raised. Significantly ahead of Victoria's \$200M action plan or Qld \$900M investment in clean coal over ten years. □ □

A 2% extra Low CARBON levy on GST would raise \$1 billion per month.

Payments should be made for results, not for R&D, so low C MWh of electricity would be paid from the fund, up to 50% of capital costs. Low C vehicles would be paid for out of the fund eg Toyota Prius, if they save 50% over normal vehicles. □ □ □

Each month, receipts would be balanced with payments, so the fastest developers of low C technology were paid, starting a low C development race - a gold rush. Unspent receipts, would go to other C offset, such as planting trees, a portion could be saved (say 40%) for low C loans to buy solar heating, or fund low C R&D. A small proportion could fund R&D alone (say 20%), and administration (say 5%). □ □

Funding could also come from sales of C certificates. □ □

The fund should be spent on low C power (1/3), low C transport (1/3) and compensation to workers transitioning from high C to low C jobs(1/3). An incentive to leave high C jobs (say \$10,000 per year of service, payable from fund in month of leaving or pro rata from funds available) and for employers to take on workers from high C jobs (say \$10,000, payable half on hiring, and half on one year anniversary), into low C industries (ie receiving incentive payments).

Consultation for policy development:

I have consulted mainly with consumers (final submission will contain 20-30 responses to this scheme from consumers) which are generally supportive of the scheme, but distrustful of government spending funds as they were intended. Two extensions, to the scheme can help with this:

- (1) Management of funds raised by the Carbon Bank, and
- (2) Time limiting the scheme – say five years, with five year extension, if required.

Further specific consultation with Union movement is scheduled before final submission.

Preliminary consultation for comment has also taken place with Innovation and Sustainability academics, Industry – eg Holden, Toyota, Electric Vehicles designer, Kleiner Perkins Venture Capital, the Victorian and Qld governments (seeing final submission only), at the Victorian Climate Change Summit (04.04.08). Their comments as received will be included in the final submission.

Further comments accepted online at <http://www.valman.blogspot.com>, before Garnaut submission date of 11 April, 2008.

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07.04.08

Reference:

Foxon, TJ (2003) Inducing innovation for a low-carbon future: drivers, barriers and policies, The Carbon Trust, available online at
[[http://www.garnautreview.org.au/CA25734E0016A131/WebObj/InducingInnovationforalowcarbonfuture-drivers,barriers,andpolicies/\\$File/Inducing%20Innovation%20for%20a%20low%20carbon%20future%20-%20drivers,%20barriers,%20and%20policies.pdf](http://www.garnautreview.org.au/CA25734E0016A131/WebObj/InducingInnovationforalowcarbonfuture-drivers,barriers,andpolicies/$File/Inducing%20Innovation%20for%20a%20low%20carbon%20future%20-%20drivers,%20barriers,%20and%20policies.pdf)]