

## Submission on the Garnaut Emission Trading Scheme Discussion Paper (March 2008).

### An alternative option for allocating restricted rights to emit greenhouse gases. Roger M. Gifford

#### *Introduction*

This submission argues a case, and suggests some implementation options, for allocating emission permits at the individual citizen level rather than via auction to corporations. The argument is underpinned by five important considerations.

1) ***Permission to change climate.*** The *raison detre* of an emission trading scheme is the belief that it is unacceptable for mankind to change the global climate for future generations. The idea that climate change becomes “dangerous” only when the global average increase reaches 2°C above the pre-industrial value is merely a device to focus policy attention on a risky process which in reality falls on a continuum of level of risk and impacts. Impacts of global greenhouse gas-induced climate change are already being experienced and it is felt that further human induced change should be minimized because of the risks that it will produce – risks to human economy, to natural biodiversity and to integrity of “free” ecosystem services. Thus the concept of supplying permits to emit greenhouse gases can be viewed as one of government permission to contribute to the (essentially<sup>1</sup>) permanent alteration of the global climate thereby jeopardising the well-being and economies of future human generations and many other species indefinitely.

2) ***Distribution of rights to change climate.*** There is no argument presented in the Discussion Paper favouring wealthy people having a greater right to jeopardize the climate of future generations than poor people. I can see no moral or ethical argument for such a notion. Therefore a system of allocating permission to jeopardize the future should spread that permission equally to everybody to meet Principle 3 (Credibility) by being credible and trusted by the community. The proposal to compensate poor people, for whom the increase in costs deriving from the proposed ETS are relatively higher than for the rich, is an acknowledgement that the scheme, without the added rule, would not allocate permission to jeopardize the future equally. However, such government-allocated compensation is a blunt-instrument for achieving that objective.

3) ***Simplicity.*** As observed in Principle 4 (Simplicity) of the Discussion Paper, rules should not be contradictory. “*Where the creation of a rule necessitates the creation of*

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<sup>1</sup> Given that the fraction of the carbon dioxide emitted into the atmosphere, which is not initially absorbed by the well-mixed surface ocean and the terrestrial biosphere, will remain airborne for many thousands of years, the climatic impact of GHG emission is essentially permanent. Be aware that the nominal 100-year atmospheric “residence time” for emitted CO<sub>2</sub> used in calculations of the global warming potential, is simply an arbitrary place-holder to assist with equating the unequatable – namely the warming effect of methane, which would decline to background levels within months if enhanced methane emissions ceased, with that of carbon dioxide, which would take many thousands or tens of thousands of years to decline to background levels as it gradually equilibrates with the relatively unmixed deep ocean waters. In addition, certain atmospheric CO<sub>2</sub>-enhancing changes precipitated by the atmospheric CO<sub>2</sub> increase and warming such as melting of the Arctic ice, oxidation of the tundra peat, saturation of the terrestrial and ocean sinks, and ocean acidification leading to carbonate dissolution, will also take thousands to tens of thousand years to reverse if cooling back towards “pre-greenhouse” climate finally occurred.

*another rule to ameliorate unwanted consequences, the former rule is probably sub-optimal*". And so it is with the proposed ETS: special rules are required to compensate those for whom incomes are reduced excessively by the operation of the scheme. This is a complex, ponderous government-heavy and probably unfair way of dealing with acknowledgement that there is no reason why the wealthy should be permitted to damage climate more than the poor. The proposed government-managed compensation process represents a high transaction cost. The amount and distribution of the compensation will inevitably become entangled over time with party politics and the short term "electorate-bribery" process that tends to occur as elections approach. The procedure is likely to become politically charged and socially divisive.

4) ***Internationalization.*** When the time comes (probably soon) to integrate with international markets (Principle 5 – Integration with other markets), it is virtually certain that the issue of equity of right to damage the global environment will be paramount in the negotiations with the emerging-economy nations. To reach agreement, countries with low per capita incomes will almost certainly insist on equal *per capita* rights to damage global climate as the rich countries. Hence, to be able to globalize the arrangements in due course, it is important to put in place a system that is overtly compatible, in its core design, with that requirement for *per capita* equality of imposition on greenhouse gas emission.

5) ***Intervention via production or consumption?*** Greenhouse gas emissions occur because end users consume fuels, goods and services that commit gas emission somewhere in the supply chain. While the proposed ETS focuses emission reduction on producers of goods and services, it is community consumption that is the primary driver and hence, to be efficiently targeted, should be the primary focus of the permit system. Targeting emissions committed by consumption helps with reinforcing the educational message, for which other policy is also important, that in the end the solution to the global problem lies with modifying personal choices in consumption.

### **Implications**

The above five considerations, individually and collectively, argue for an alternative approach to emissions trading, discussed further below, in which capped-permits exchangeable for greenhouse gas emissions are allocated without charge equally to all individuals rather than by auction to firms. For babies, children and adolescents lower annual personal allocations, perhaps tiered, may be appropriate.

This proposal is not necessarily a complex system with high transaction costs. Nationally-networked electronic allocation and point-of-sale accounting facilitates the approach considerably. There are several potential arrangements for personal permits to be utilised by individuals. These range from very tight coupling of individual economic activity to meeting the national trajectory for GHG emission reduction to much less tight individual coupling and greater utilization of markets to increase flexibility of personal options.

At the tight individual-coupling extreme, permits could not be traded for money, but used as personal ration-coupons forfeited with each purchase according to the embodied greenhouse emission footprint of the product purchased. The tightest implementation of this approach would involve expiry of the permit validity after one year. Longer term or indefinite validity are alternative options. The embodied GHG emission would be indicated alongside the dollar price for each item purchased. Calculating the embodied GHG footprint of each item would require a standard methodology encoded in user-friendly software that would be used by producers of good and services. An authority would be needed to develop and distribute the methodology and software. The authority could also approve the calculated values assigned to each product, perhaps product-by-product for high emission-intensity items like fossil fuels and aluminium, but on a spot-check basis for the long tail of minor items and services. There is well-established parallel experience in the field of energy analysis for such calculations in determining the embodied energy of products. This approach would involve transaction costs associated with running the authority, but would solidly uphold the principle that the rich should not damage the global climate more than the poor may.

At the other end of the spectrum of personal-permit deployment options, the individually allocated free permits would not be directly exchangeable for end-consumption by individuals. Rather they would be tradable for money. Only firms that emit measurable GHGs directly, or who prepare secondary energy products that consumers burn producing GHGs directly (eg refined petrol) or indirectly (eg electricity), would be able to forfeit them at scheme-specified “points of obligation” in the supply chain. Individuals could sell permits to each other or to firms or to brokers who accumulate them to sell to firms. Probably a GHG Permit-Exchange would develop spontaneously. It may be necessary, for meeting the time-varying national emission target trajectory, for permits to have an expiry date after which they are valueless (eg perhaps 5 years, but longer for children’s smaller allocations). In essence this system would have the effect of allowing money-poor consumers at their own individual discretion to allocate some of their share of GHG emission to money-rich consumers in exchange for money. This comes closer to the ETS system proposed in the Discussion Paper, but avoids the ponderous and credibility-draining effect of government processing and re-allocation of, what could become, the vast revenue stream associated with government-auctioned permits. It allows individuals to make their own personal decisions as to their balance between GHG emission and cash-in-hand. This proposal is more consistent with the modern-day ideal of light-handed government –the ideal of emphasizing markets rather than government mandates in deciding the distribution of wealth and consumption. Governments would gain a share of the permit-trading revenue-stream to help pay for GHG-free technology RD&D through the income tax on the proceeds of personal permit sales. Since the income tax arrangements are already progressive, the additional taxation of the income received for the sale of personal permits would automatically benefit the poor relative to the rich.

There is the option of in-between schemes combining aspects of the two above extreme possibilities for expenditure of personal emission permits. For example, the points of obligation could be just at end-point final consumption (ie for private purchases, but not

for for-profit ABN entities), but the permits would be tradable for money among individuals. For schemes involving direct exchange of permits for GHG emission by individuals, some arrangements would have to be made to deal with emissions by public sector activities including parliamentary and defense activities. However, where the scheme is for individuals to sell their permits to designated upstream “points of compliance” (eg oil importation, coal mining) public sector services (government activities) would automatically be involved by paying for goods and services under the increased cost-structure throughout the economy arising from the point of compliance transactions involving forfeiture of permits purchased from the public. The revenue from income taxation on the sale of permits would contribute to paying for the increased public sector costs.

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