

## **SOME RECENT ESTIMATES OF THE COSTS ASSOCIATED WITH GREEN POWER AND EMISSIONS TRADING LEGISLATION**

### **A. OVERSEAS**

1. Aid and compensation is being demanded by China/India of 1% of the developed world's GDP (more than \$300 billion for Group of 7 countries): it is estimated that this will cost each US family US \$1,900/yr (Wall St. Journal, April 3: [http://online.wsj.com/article/SB123871985916184973.html?mod=googlenews\\_wsj](http://online.wsj.com/article/SB123871985916184973.html?mod=googlenews_wsj)).
2. On top of China and India's demand for aid and compensation, Africa has recently issued a similar estimate, of \$267 billion/yr by 2020, and South America and others are sure to follow. (Reuters, 21 April 2009: <http://planetark.org/wen/52528>).
3. President Obama's intended carbon dioxide cap and trade bill is now estimated to now cost \$1.9 trillion (up from \$646 billion): this is an additional US \$4,500 extra costs/family/yr. (The Washington Times, March 18: <<http://www.washingtontimes.com/news/2009/mar/18/obama-climate-plan-could-cost-2-trillion/>>).
4. In the U.K., the range of estimated costs of their new Climate Change Bill is GBP 324-404 billion: this is GBP 16,000-20,000/family/yr. (Peter Lilley, U.K. MP, Letter to the U.K. Secretary of State for Energy and Climate Change, at: <<http://climateresearchnews.com/2009/04/letter-to-secretary-of-state-for-energy-and-climate-change/>>).
5. Spanish study shows that since 2000, each job created in the alternative energy industry has been accompanied by the loss of 2.2 other jobs, and cost US \$774,000 to create. (Bloomberg, March 27: <http://www.bloomberg.com/apps/news?pid=newsarchive&sid=a2PHwqAs7BS0>).

### **B. NEW ZEALAND**

Assuming a BAU estimate of 78 Mt for NZ carbon dioxide emissions, in the first year after the introduction of an ETS, a population of 4 million people, and a carbon dioxide tax level of \$30/t of carbon dioxide on introduction, and of \$250/t later when the "floating price" (after Garnaut) is reached, then the following costs can be calculated will be imposed on the taxpayer:

1. For \$30/t – an amount of \$2,340/family-4/yr; rising progressively to
2. For \$250/t – an amount of \$19,500/family-4/yr

To these figures needs to be added an estimate of the economic growth that will be foregone as a result of the introduction of an ETS. Australia's treasury has estimated this may be manifest by a reduction of GNP per capita of 1.8% in 2020, increasing every year thereafter.

Applying this estimate to NZ, for \$139.7 billion GNP disposable income (2007-08 year), a 1.8% reduction represents \$1.4 billion, i.e., about \$350/person/yr, or \$1,400 /family-4/yr

## C. CLIMATIC BENEFIT

DICE (dynamic integrated model of climate and the economy) modelling for the U.K. indicates that a reduction in emission of ~1 billion tonnes of carbon dioxide by 2030, as targeted by British climate policy, might result in a reduction in temperature by 2100 of 0.00038 deg.

([http://www.timesonline.co.uk/tol/comment/columnists/quest\\_contributors/article4849167.ece](http://www.timesonline.co.uk/tol/comment/columnists/quest_contributors/article4849167.ece))

The U.K.'s share of global fossil fuel emissions in 2007 was ~1.7% of the total; New Zealand's is ~0.1% (CDIAC: <[http://cdiac.ornl.gov/trends/emis/meth\\_reg.html](http://cdiac.ornl.gov/trends/emis/meth_reg.html)>).

Therefore, the possible effect of N.Z. cutting even all of its emissions is a theoretical reduction of global temperature of less than 1/10,000 of a degree.

## D. OVERALL COST-BENEFIT -- WILL THERE IN FACT BE ANY?

Mr Ed Milliband, the British Minister for Energy and Climate Change, recently released an updated Impact Assessment of the U.K. Climate Change Act, asserting that *"I have read the Impact Assessment and I am satisfied that, given the available evidence, it represents a reasonable view of the likely costs, benefits and impact of the leading options"*.

Here, I compare the original costs:benefits estimated when the Act was tabled, and the new estimates just released by Mr Milliband which apply to the Act as amended.

1. TABLED - 60% reduction by 2050: Costs GBP 205 billion; Benefits \$110 billion
2. AMENDED - 80% reduction by 2050: Costs GBP 404 billion; Benefits GBP 1.024 billion

Thus an initial benefit of roughly 50 p for every 100 p invested, has changed to a benefit of more than 200 p for every 100 p invested. The "benefits" calculated in the revised Impact Assessment mainly represent the avoided imputed damages that would be caused by allowing carbon dioxide to increase on a BAU path. Instead, the MARKAL model used assumes emissions limitation to no more than 450 ppm globally.

The many flaws in the U.K. Impact Assessment have been discussed by Dr. Roger Pielke (Jr.), who estimates that even using the most benefit-favourable estimates, the likely benefit: cost ratio to the British taxpayer of the Climate Change Act is 0.06 and that even that tiny and doubtful benefit is dependent upon the world (not the UK alone) achieving a 450 ppm emissions stabilisation scenario. See:

<http://sciencepolicy.colorado.edu/prometheus/the-uk-climate-change-committee-illustrates-how-not-to-do-cost-benefit-analysis-of-climate-policies-5118>.

Finally, it should be noted that the new British Impact Assessment estimates appear to exclude transitional costs (which could amount to 1% of GDP up to 2020), ignore the cost of driving British firms overseas, and assume that all businesses identify and immediately apply the most carbon efficient technology available.