

CO₂ SEQUESTRATION HEAT CALCULATIONS – THE NEXT FOLLY

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When the Kyoto Protocol was signed in late 1997 the representation of global temperature included a cold period called The Little Ice Age (LIA). The world has been warming from this naturally at about 0.5°C/century, but in the last 150 years this has increased to 0.6°C/century.

*This additional warming of 0.1°C/century has been attributed to human CO₂ emissions by assumption only, **with no direct physical connection other than the correlation that both increased over the same time frame.***

It is very difficult to promote the necessity of reducing fossil fuel consumption based on just 0.1°C/century, but the IPCC were able to avoid this by adopting the MBH98 temperature proxy of one of their own lead authors, also known as the "hockey stick", that effectively removed the LIA, and allowed the IPCC to claim that the entire observed 0.6°C/century was "likely" from human sources in their 2001 science report, which the media took as "definitely" from human sources.

The IPCC incorporated this relationship in their climate models as a forcing parameter for CO₂ and made predictions of a minimum of 3°C of warming from a doubling of CO₂.

The Earth only radiates a limited amount of energy in the 13.5 to 15 micron band that CO₂ can capture, and at least 85% of this has been captured already. The maximum warming that is physically possible due directly to a doubling of CO₂ to 770 ppmv is less than 0.3°C.

The MBH98 temperature proxy was officially discredited by the Wegman report in 2006 and the Little Ice Age was returned to the temperature profile.

The 2007 IPCC report reverts back to the original temperature profile but makes absolutely no mention of changing from the erroneous temperature proxy that all of the IPCC models are based on.

The adoption of the MBH98 temperature proxy and basing the verification of the AGW premise on this proxy and then abandoning the proxy but maintaining the verification based on it, violates the science mandate under which the IPCC was formed. APEGGA is bound by the same scientific mandate and therefore cannot ascribe authority of scientific validation to a body that has violated this mandate.

On February 2, 2007 the IPCC released the Summary for Policy Makers (SPM) for the Fourth Assessment Report (which was released about three months later). This summary report is not bound by the same protocol as the science report and stated that it was "unequivocal" that warming "is" continuing at an alarming rate, and that the IPCC was 90% certain that it was from human sources.

On the date that this was published, the globe had cooled from the previous year and this cooling trend went back to at least 2002 indicating that the IPCC misrepresented the temperature trend in this SPM. On this same date the global CO₂ emissions were over 31,000 megatonnes/year, up from 30,576 megatonnes of the previous year and the 29,856 megatonnes of the year before, thus indicating that the IPCC misrepresented the relationship of CO₂ and global temperature in this SPM as well.

The government programs on climate change, including CO₂ sequestration, are based solely on the dictates of the IPCC, *but this body reported that the globe was warming when in fact it was cooling, and stated a 90% certainty of human cause when in fact there is none.*

Public opinion has been directed to believe that sequestration of CO₂ is a good idea, even if it is just a small step in the right direction; scientific fact states the opposite.

The Canadian proposal to sequester 5 megatonnes of CO₂ requires that this CO₂ be compressed to 30 atmospheres of pressure. This will require the equivalent energy of 25,722 barrels of oil which will add 13 tonnes of additional CO₂ to the atmosphere; but more importantly will add 3.75×10^{10} kcal of heat energy to the atmosphere.

The IPCC states that global warming from the 31,000 megatonnes of global human emissions causes 0.006°C of warming each year, so by their estimate the sequestration of 5 megatonnes would reduce warming by $5/31,000 \times 0.006 = 0.000000968^\circ\text{C}$ per year.

Physics dictates that the possible warming from CO₂ emissions is less than 1/10th of what the IPCC models predict, and the actual IPCC prediction should be based on 0.1°C/ century not the 0.6°C prediction based on the MBH98 proxy.

The 5 megatonnes of sequestered CO₂ should therefore be based on a $5/31,000 \times 0.0001^\circ\text{C}/\text{year}$ of cooling or just 0.000000016°C per year. Does this justify the \$2billion expense or the 25,722 barrels of oil equivalent expended to complete this process?

Furthermore the 3.75×10^{10} kcal of heat energy transferred to the atmosphere will warm the 10 km of the lower troposphere by 0.000000009°C, cutting the net benefit of the sequestration to just 0.000000007°C/year.

Our small step will take 142,857,143 years to reduce warming by just one degree C and by that time the Earth will have likely gone through several ice ages without our help in cooling it.

To my mind the money would be better spent supporting food banks to compensate for the rise in food prices that resulted from the biofuel initiatives of the Kyoto Protocol that has food crops competing with biofuel crops and has caused a world food crisis.

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