

The Hon Ian Macfarlane MP  
Minister for Industry  
Parliament House  
Canberra ACT 2600

3 September 2014

Dear Mr Macfarlane MP,

CC The Hon Scott Morrison MP; The Hon Greg Hunt MP

**RET Scheme Is Reliant On Demonstrably Suspect and Unsubstantiated Science**

It is six months since I last wrote to you on 3<sup>rd</sup> March "*The Abbott Government Now Has the Authoritative Information Needed to Responsibly Rescind All Anti-Greenhouse Gas Policies*".

To refresh the matter I have summarised below the conclusion and key points that I have made to you, as the responsible Minister.

Conclusion

Global evaporative cooling will limit global warming caused by man-made emissions of CO<sub>2</sub> to less than 1-degree.

For man-made emissions of CO<sub>2</sub> to cause potentially dangerous global warming the global water cycle (evaporation, condensation and precipitation) would have to do the impossible and behave like a form of perpetual motion machine. As the surface cools and less and less energy is fed into the global water cycle it would have to speed up more and more, then as the surface warms and more and more energy is fed into the global water cycle it would have to slow down more and more.

Discussion

Predictions of dangerous global warming rely on the scientifically counter intuitive and unsubstantiated proposition that the global water cycle slows down substantially as the surface warms.

This proposition is counter intuitive because as the surface warms more energy is fed into the global water cycle, and we confidently expect the additional energy to make the global water cycle speed up.

This proposition is unsubstantiated because there is no credible\* published research based on observational data that shows the global water cycle in the real world did slow down during the recent global warming.

The global water cycle starts with the evaporation of water, mainly from the oceans, and this cools the earth's surface (NB The oceans cover 70% of the earth's surface).

Global evaporative cooling is so strong that it will limit global warming due to man-made emissions of CO<sub>2</sub> to well under 1-degree, unless we accept the bizarre proposition that the global water cycle slows down as more energy is fed into it.

There is much talk about the positive feedback from water vapour but no mention is ever made about the major positive feedback in the CSIRO and other climate models, being the slowing down of the virtual global water cycle. The slowing down of the virtual global water cycle more than triples the temperature increase predicted by the climate models from less than 1-degree to over 3-degrees.

As already noted, there is no credible\* published research based on observational data that substantiates the scientifically counter intuitive proposition that the real world global water cycle did slow down during the recent global warming.

The proposition that the global water cycle slows down during warming phases, when the surface warms and more energy is fed into the global water cycle is scientifically counter intuitive to the point of being bizarre.

The unavoidable scientific corollary is that during historical cooling phases the global water cycle went faster and faster as less and less energy was fed into it. This is pretty much the description of a perpetual motion machine. Nonetheless, in their climate models mainstream climate scientists have programmed the virtual global water cycles, so that they behave like a form of perpetual motion machine.

\*It is a matter of fact that some published peer reviewed research papers, while they were approved for publication by a selected peer review panel, are subsequently found to contain significant errors in fact or methodology, when subjected to scrutiny by the wider scientific community. A credible research paper, having for example been cited by the CSIRO's senior management as a significant paper, would be able to survive scrutiny by the wider scientific community.

### Analysis

For those who would like to see some numbers, straightforward calculations show that man-made emissions of CO<sub>2</sub> cannot cause potentially dangerous global warming, unless we accept the bizarre proposition that the global water cycle slows down as more energy is fed into it.

The earth's surface is warmed by solar radiation. It is cooled by net upward thermal cooling radiation, convective cooling and evaporative cooling.

(see NASA Schematic on page 3 @ <http://dannavale.com/doc/131205-LBCtoIM.pdf>)

At present the four surface energy flows are in balance at an average global surface temperature of around 15-degrees.

The following estimates are accepted by most climate scientists:

1. A doubling of atmospheric CO<sub>2</sub> would decrease the net upward thermal cooling radiation at the surface by around 3.7 watts per square metre (W/sqm).
2. As the surface warms there would be a further decrease in net upward thermal cooling radiation of around 1.0 W/sqm per degree of surface warming.
3. As the surface warms there is little change in convective cooling.
4. As the surface warms evaporative cooling increases by around 6.0 W/sqm per degree of surface warming, provided feeding more energy into the global water cycle doesn't have the bizarre effect of causing it to slow down.

Therefore, simple arithmetic shows that an increase of around 0.8-degrees in surface temperature would be sufficient to bring the four surface energy flows back into balance following a mooted doubling of atmospheric CO<sub>2</sub>.

The reduction of around 4.5 W/sqm (3.7 plus  $1.0 \times 0.8^\circ$ ) in net upward thermal cooling radiation would be balanced by the increase of around 4.8 W/sqm in evaporative cooling ( $6.0 \times 0.8^\circ$ ).

In further confirmation it is obvious from the graphs in Fig. 1 in Andrews et al. (2009) "*A Surface Energy Perspective on Climate Change*" that a real world increase in evaporative cooling of around 6 W/sqm per degree of surface warming limits the predicted global warming to less than 1-degree. However, graphs of the outputs from CSIRO and other climate models show a much lower increase in virtual evaporative cooling of around 2.25 W/sqm per degree. This reduction in virtual evaporative cooling from an expected 6 W/sqm/degree to 2.25 W/sqm/degree is achieved by slowing down the virtual global water cycle by around 5% per degree of surface warming or around 15% for a predicted 3-degrees of global warming.

#### There is no consensus

CSIRO may seek to dismiss the above discussion and analysis by claiming that there is a consensus and 95% of scientists agree that man-made carbon dioxide will or might cause potentially dangerous global warming.

However any such claim is now demonstrably false.

A recent statement by the Geological Society of Australia is symptomatic of the current state of affairs in the scientific community.

In a recent quarterly newsletter the Geological Society of Australia, our peak body of earth scientists, said that it was unable to publish a position paper on climate change because there were deep divisions among its members.

The American Meteorological Society recently released the results of a survey of their members, which shows that only 52% agree with the "consensus". The survey finds "members of this professional community are not unanimous in their views of climate change, and there has been tension among members of the AMS who hold different views on the topic."

Questions for the CSIRO

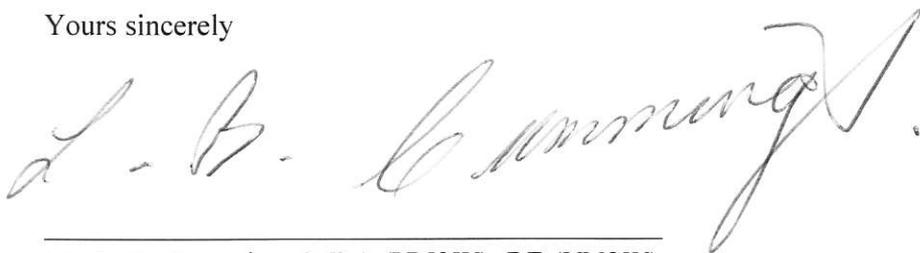
- A. Is CSIRO aware of a credible\* published research paper in which the authors analyse observational data that shows the global water cycle did slow down substantially during the recent global warming and if so please provide a reference?
- B. I would appreciate it if you could have the CSIRO confirm or correct estimates '2', '3' and '4' above. CSIRO confirmed estimate '1' above in previous correspondence.

**If CSIRO is still unable to provide the scientific reference requested in Question A above and does not make significant corrections to Estimates '2', '3' and '4' the RET Scheme is demonstrably reliant on suspect and unsubstantiated science**

I am confident that as the responsible Minister you will keep Parliament and the Australian people, including the wider Australian scientific community properly informed, so that there can be a fully informed debate on the need for the RET Scheme.

I trust the CSIRO's answers to the above questions will be provided in a timely manner.

Yours sincerely



Mr. L. B. Cummings MBA (UNSW), BE (UNSW)

