

**CLIMATE CHANGE**

*Statement*

**HON LOUISE PRATT (East Metropolitan)** [10.07 pm]: I rise this evening to briefly draw the attention of the house to an emerging consensus among climate change scientists that current models of climate change have dramatically underestimated the extent to which global warming will raise temperatures. This means that the existing predictions are inaccurate and will have to be revised upwards by as much as two degrees Celsius. The world could be looking at a two degree Celsius change, which could mean a change of up to 7.7 degrees Celsius by the year 3000, which would be very dramatic. Currently, much of the world's consensus is that we should look at reducing carbon dioxide levels or preventing them from rising above 450 000 parts per million, which would equate to an increase of about two degrees Celsius. However, what is now emerging in the scientific consensus is that if the world were to warm more than this, more carbon dioxide would be released into the atmosphere from the environment itself. If the world were to warm by more than two degrees Celsius, many of the world's fragile ecosystems would be pushed too quickly beyond their capacity to evolve and beyond a tipping point. It would trigger what has been coined runaway global warming, because there would be a collapse of some of the world's ecosystems, such as vegetation, which in turn would trigger the release of more carbon dioxide into the atmosphere.

This flaw came to light during a study of the effects of global surface temperature on atmospheric carbon dioxide levels. As we know, scientists have long known that greenhouse gases raise temperatures by insulating the planet. A less well known mechanism is that as the world gets warmer, more carbon dioxide is released naturally into the atmosphere from both the soil and the oceans. A large amount of the carbon dioxide that is produced globally is absorbed by and dissolved into the oceans; in fact, the oceans absorb about 80 per cent of the carbon dioxide released at the moment. It is also tainting the pH levels in our oceans. The result is a mechanism in which carbon dioxide in the atmosphere creates warming, which causes the release of even more carbon dioxide.

**Hon Bruce Donaldson:** Do you think we need nuclear energy to stop the greenhouse gas emissions?

**Hon LOUISE PRATT:** No, I do not. I believe that renewable sources of energy are available. Nuclear energy is not greenhouse neutral; it is reasonably greenhouse intensive. Also, nuclear energy takes a few years to come on line, and we must bring on alternative renewable sources sooner rather than later.

A recent report by the Intergovernmental Panel on Climate Change found that carbon dioxide levels are already likely to double pre-industrial levels by 2050. The latest research by Geophysical Research Letters pushes temperature increase estimates to between 1.6 degrees Celsius and six degrees Celsius.

An interesting conclusion is that while all this scientific prediction is taking place, the real issue is that in order to predict the future, we have to predict how much carbon dioxide levels will increase, and that depends on the biggest uncertainty of all; namely, what the human race does to manage the issue and whether it is prepared to lower its carbon dioxide emissions.

*House adjourned at 10.10 pm*

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