

From: [Fiona Montgomery](#) on behalf of [Ministerials](#)
To: [Andrea Speir](#)
Subject: 14-M-00881 Understanding Nuclear Energy
Date: Monday, 19 May 2014 5:07:23 pm
Attachments: [LovelockExcerpts.doc](#)

Hi Andrea

Re Ministerial response 14-M-00881 (think you got the folder today)
See Matts suggestions

Cheers
Fiona

From: Matthew Smith [mailto:xxxxxxx.xxxxx@xxxxxxxxxxx.xxxx.xx]
Sent: Tuesday, 13 May 2014 2:10 p.m.
To: Ministerials
Subject: FW: Understanding Nuclear Energy

Hi folks

Can you please draft up a response to this Ministerial? It's nominally climate change. Might be worth saying that with our high use of renewables we don't need nuclear generation. Could then use the paragraph that the Govt is acting where we can most difference and go to agriculture and the GRA.

Cheers

Matt

From: Bibiana Marsh
Sent: Tuesday, 13 May 2014 9:44 a.m.
To: Matthew Smith
Subject: FW: Understanding Nuclear Energy

Hi Matt – is this for FYI only?

Cheers

Bibiana Marsh
Office of Hon Tim Groser
Minister of Trade | Minister for Climate Change Issues
Associate Minister of Foreign Affairs
Parliament Buildings | Private Bag 18041 | Wellington 6160 | New Zealand

From: 9(2)(a)
Sent: Sunday, 11 May 2014 11:28 a.m.
To: Ian McKelvie Feilding Office; Scott Simpson; Hon. Kate Wilkinson; N Smith; Hon. Todd McClay; Dr Cam Calder MP - Manurewa Office; Tim Macindoe; T Groser (MIN); Colin King; Maggie Barry; Chris Auchinvole
Subject: Fw: Understanding Nuclear Energy

Dear Bluegreens

The Keeling Curve attached on 14th April indicates how rapidly the atmospheric changes are now happening. This accelerating stage of climatic *equilibrium* is vital to understand. The hourly line on the 14th hit 404 ppm: it was during the Pacific storms and the instruments were stopped. Storms bring down stratospheric Sulphates captured in the atmosphere. Sulphates can cool the earth for a short time as it deflects the sun and conceals the buildup of other light pollutants. The Sulphates are absorbed by the sea which makes it acidic and the chemistry ruins coral which is the beginning of the food chain for fish. It also acidifies the forests which slowly kills trees. After this flushing of heavier atmospheric pollutants the true trend of the heating of the planet starts to show up. Officially and this includes over half of all the Nobel Prize winners in Science who are still alive today have been saying that we may have at most ten years to turn things around and 400 ppm was the number they had to keep in mind as the tipping point. This was reached May 9th 2013 – the hourly rate of the curve has settled now but the upward trend as at May 2014 is above 401 ppm and rising.

Now, Russian fires are auto lighting from methane captured over eons of time and exposed by the melting permafrost. This is contributing atmospheric Sulphates to the amount countries that are still burning coal for energy such as Australia Germany, China India - Refer Keeling Curve and Scribblers Group 1, below.

During the last 2 weeks while researching this letter I became aware of Greenpeace funding via WWF and the line back to the Koch brothers – Tea Party Republicans plus alarmingly religions who have their money in Coal, Oil & Gas. Their methods to fight their only real competition – new generation nuclear energy- are insidious and the technique at times, Hitleresque. Globally we have been duped. Refer Group 1 ATMOSPHERE. For instance, right now their technique is to suggest the earth is cooling The Sulphates will do this for a time but the trend is upwards. More research shows a scientist in the Antarctic doing Ice Cores comes from a university funded by O&G.

At this point we need the hope that peer reviewed scientists, CERN AND ITER research might bring, but the science as yet is unproven and well down the track. It might also be a realistic means to develop Carbon capture methods but again decades away. Thorium technology is close to 40 years away from being up and running but uranium has 50 years more commercial experience.

97% of scientists qualified in the field point out our immediate hope will be to understand and use new generation nuclear energy – it is the one

technology advanced enough to use immediately. Some units are small, plug into existing grids when needed and can be at sea on a barge or installation that would ride the swell at sea caused by a tsunami and if they sink they would do little or no damage.

I was struck by an illness that needed a cat scan. I had the usual fear and lack of radiation knowledge of the average NZ'er and refused the scan. I now know that the radiation level for health and dentistry is centrifuged to the same 4% level as for nuclear reactors for energy. At each centrifuge stage gas is taken off and reprocessed until the 4% purity is achieved. An explosion is impossible at this level either in a hospital or a reactor. The gas is formed in small pockets which are stored in glass beads and then kept in metal rods. A scientist gave me this analogy to explain the gap between health and a reactor... 'Think of a hand held torch for Health and one of those big yellow torches used for outside purposes, for reactors'. The waste for reactors these days is valuable and reused. Weapons grade has to be 96% pure and the centrifuge procedure is complicated involving huge numbers of technicians, generators to purify the gas at each stage and which goes to 96% purity.

We have been drip feed misinformation by the well-financed coal, oil and gas industries with the encouragement of their unions, for decades - they employ sophisticated advertising agencies as did the Tobacco industry and the result is insidious. They fund relevant departments in Universities, media outlets where people are muted by their pay packet. The Senate in USA are mainly Republicans with their money making ability in oil wells, gas and fracking. The term LNT (Linear No-Threshold) is a low level of radiation set in another age that is now used to create fear- most of us don't understand levels of radiation measurements in Becquerel's, mille and micro Sieverts, Sieverts, Joule, Gray and this has given the oil & gas industries a field day so far. Scientists, our dentists and doctors know the truth. The UN controls the LNT level and Republican representatives have voting power there. In Britain Whitehall has top business men as non-executives to give civil servants business nous and BBC is a branch. Check the background of Lord Browne on Wikipedia and decide whether you think he'd remain - arms- length where BBC reporters are concerned.

NZ according to Prof. James Lovelock - excerpts attached above - said we are going to be one of 4 surviving countries and food bowls of the globe as the continents become deserts, but we can't be complacent. The Himalayas observed in photos of the recent accident have lost snow which supplies artesian water to many countries including China - the water goes under the

Gobi. The snow won't come back to where it was. This will happen to our Alps and means less water in the Manapouri a lake we rely on. Lovelock points out we will get rain because we have the mountains to precipitate it. My observation is that a bulk of it is going out to the narrow West Coasts then out to sea. I feel we need to find means to capture it actually in the mountains up and down the country. Irrigation plans we have now probably won't be enough...we may need to store water on the West Coasts and plan the energy to pump it?

NZ's other main source of power is geothermal. Most of us are not mindful of the fact Hamilton already has 80% of arsenic removed out of the drinking water. The water is clean at Taupo then at Waireke the waste arsenic and mercury from the geothermal procedure leaches into the river.

I found when I went onto talkback with the information in the Lovelock Excerpts that my call was followed up by 5 farmers at 4.30 am one morning. I hope you swat up and speak out about new generation nuclear as the ray of hope for as you notice from the references below there are top scientists trying to reach out to you. Their budget has never been as large as the coal oil and gas industries that early realized that nuclear was their only real competitor. The majority of the scientists are parents and more particularly grandparents. It is those children that will be facing the aftermath of what we have allowed to happen to this planet. Sincerely.

9(2)(a)

GROUP 1. THE ATMOSPHERE

<http://keelingcurve.ucsd.edu/> Note on 14th April during storms in the Pacific the hourly average reached 404 ppm at which point the instruments were closed down.

Scroll down to 'Why Don't Global Surface Temperatures Trends Match Atmospheric CO2 Increases.' A highly relevant question...Scroll down further - I made a Comment 5th down, giving a NZ perspective and importantly a segment of Natalia Shakhova's work on gas hydrates and methane gas suspected trapped beneath

permafrost region now burning in the Arctic region.

<https://www.youtube.com/watch?v=kx1Jxk6kjbQ> Natalia Shakhova YouTube Published July 2013

<http://www.amazon.com/EXTINCTION-The-Climatic-Time-Bomb-ebook/dp/B00E70CI6S> Go to 'Look Inside' on book displayed there is a good analogy of *Equilibrium* – scroll down free sample chapter..

<http://guardianlv.com/2014/02/is-lovelock-a-seer-and-world-catastrophe-inevitable-update/> Lovelock wrote when ppm settled at 400. Dated 19th Feb. 2014

<https://robertscribblers.wordpress.com/2014/03/05/a-faustian-bargain-on-the-short-road-to-hell-living-in-a-world-at-480-co2e/> I found graph on Nitrous Oxide interesting in this – scroll down to his N₂O Nitrous Oxide graph....

<https://robertscribblers.wordpress.com/> Russian fires

<https://www.youtube.com/watch?v=tqXzAUaTUSc> What the Aussies think of their own kind.

<http://theenergycollective.com/robertwilson190/328841/why-germanys-nuclear-phase-out-leading-more-coal-burning> German thinking on coal

<http://www.ft.com/cms/s/0/e6470600-77bf-11e3-807e-00144feabdc0.html#axzz2zepQCjju> German coal use highest since 1990

<http://nofrackingconsensus.com/2013/12/02/independent-greenpeace-never-mind/> Koch and Greenpeace funding.

GROUP 2 – SCIENTIST CONTACTS.

<http://radiationeffects.org/> Scientists for Accurate Radiation Information. Within this page you'll find vital knowledge to understand. The LNT hypothesis is flawed. Do we abandon it? Who will lead the political effort - Nuclear industry or the medical establishment?

<http://www.radiationandreason.com/>

Emeritus Prof .Wade Allison. You will also find up to date material on his Twitter page. A little nuclear radiation is quite harmless and in a world of other dangers -- social and economic instability, global warming, population growth, shortages of power, food and water -- the pursuit of the lowest possible radiation levels is in nobody's best interest. Levels should be permitted as high as is relatively safe (AHARS). Radiation, far from being a major cause of cancer, is one of its major cures through radiotherapy applied in every major hospital.

<http://radiationeffects.org/> S.A.R.I. Scientists for Accurate Radiation Information

<http://www.powerengineeringint.com/articles/2014/04/japan-opts-to-reactivate-nuclear-power-plants-and-expand-thermal-capacity.html> - 11th March Japan reactivating

reactors also developing use of thermal potential of reactors. Japan reuses nuclear waste.

atomicinsights.com Rod Adams Pro-nuclear advocate with extensive small nuclear plant operating experience.

<http://www.gridwatch.templar.co.uk/> UK energy grid.

http://en.wikipedia.org/wiki/Big_Lie I found this helpful in understanding the O&G propaganda techniques

www.pandoraspromise.com Robert Stone DVD available in NZ or for hire.

<http://www.martinboroughstar.co.nz/?p=2590> Geoff Sleeman wrote Extinction: The Climatic Time Bomb/Kindle download, in NZ at same time as Robert Stone began his film in USA – both influenced by Wade Allison work.

EXCERPTS FROM:
“THE REVENGE OF GAIA” BY JAMES LOVELOCK
Published by Penguin in 2006

From Chapter 1

....”Some parts of the world may escape the worst. The northern regions of Canada, Scandinavia and Siberia, where not inundated by the rising ocean will remain habitable and so will oases on the continents, mostly in mountain regions where snow and rain still fall. But the more important exceptions to this planet-wide distress will be the island nations of Japan, Tasmania, New Zealand, the British Isles and numerous small islands. Even in the Tropics, global heating may not disable island communities such as those on the Hawaiian Islands, Taiwan or the Phillipines. The British Isles and New Zealand will among the least affected by global heating. Their temperate oceanic position is likely to favour a climate able to sustain abundant agriculture. They will be among the lifeboats for humanity. For the nations that occupy the continents, all may depend on their population density.....

.....I hope that the Green Movement and their attendant lawyers do not continue their mistaken opposition to nuclear energy. Most of it is irrational and based on an unsustainable concatenation of mistakes and misinformation that are amplified by the media. It would be good if journalists and editors tempered their desire to tell a scary story with the reality that without an ample supply of nuclear energy life on our islands may in one or two decades decline to a state of poverty. By putting humanity first, and neglecting Gaia too many Greens have sown the seeds of their own destruction and, if they persist, ours as well; they could mitigate their error by dropping their delaying tactics against nuclear energy more importantly they would be helping to power the lifeboat not, as now, sabotaging its engine.

.....It is absurd to think that we in the UK can alter the earth’s response in our favour by using wind or solar voltaic energy. A wind farm of twenty 1MW turbines requires over 10,000 tonnes of concrete. It would require 200 of these wind farms covering an area the size of Dartmoor to equal the constant power output of a single coal-fired or nuclear power station. Even more absurd, a full sized nuclear or coal fired power station would have to be built for each of these monster wind farms for the 75% of time when the wind was either too high or too low. As if this were not enough to damn wind energy, the construction of a 1GW wind farm would use a quantity of concrete 2 million tonnes, sufficient to build a town for 100,000 people living in 30,000 homes. Making and using that quantity of concrete would release about 1 million tons of carbon dioxide into the air.....”

9(2)(a)

Dear 9(2)(a)

Thank you for your email of 11 May 2014 regarding climate change and nuclear energy.

The Government considers that climate change is a serious issue and that significant and timely action is warranted in order to mitigate its effects. The best option is climate change mitigation – reducing our emissions of greenhouse gases – and the Government is working with other countries to develop an international agreement to achieve this.

Nuclear energy has the potential to help reduce greenhouse gas emissions globally but its applicability varies between countries, depending on their national circumstances. Last month the Intergovernmental Panel on Climate Change (IPCC) released their Fifth Assessment Report on climate change mitigation. According to this report, nuclear energy could make an increasing contribution to low carbon energy supply, but a variety of barriers and risks exist.

New Zealand is fortunate to have an abundance of renewable resources that we can use to generate electricity, making nuclear energy less relevant in our country. Currently around 75 percent of New Zealand's electricity supply is renewable and the New Zealand Energy Strategy 2011-2021 includes a target of 90 percent by 2025. Further to these policies, the Energy Efficiency and Conservation Authority has a range of programmes to improve energy efficiency. These include assisting businesses to save energy or move to renewable technologies, providing fuel economy advice and training to drivers of heavy vehicles, and subsidising home insulation.

New Zealand also takes a leading role internationally where it believes it can make the greatest contribution to mitigating climate change. Most notably, this includes an on-going commitment to exploring innovative and technical solutions to reduce greenhouse gas emissions from agriculture (our largest source of emissions). New Zealand spearheaded the development of the Global Research Alliance on Agricultural Greenhouse Gases, and has committed \$45 million dollars towards its research.

Yours sincerely

Hon Simon Bridges
Acting Minister for Climate Change Issues