

**An exchange of letters between
IEAust National President Rolfe Hartley and
E.C. “George” Fox**

Prefatory Note:

This file contains letters from two eminent engineers. From this correspondence we can appreciate the state of confusion which exists in the minds of many senior advisers in the public service and in the various state and federal governments. The consequences for Australia if the wrong policies are implemented, in a futile attempt “to stop climate change”, will be serious and long lasting.

Ray Evans
Secretary
Lavoisier Group



OFFICE OF THE NATIONAL PRESIDENT

1 May 2007

Mr E C Fox AM, FIEAust
PO Box 6004
Pymble NSW 2073

Dear George

Thank you for your letter of 4 March with regard to the facts about climate change.

I understand that you believe that carbon dioxide is not a pollutant, as you expressed in your statement to the annual general meeting in 2006. However, I disagree with your view that anthropogenic emissions of CO₂ are unsupported by the known facts.

As I have indicated to other members who have written on this subject, over the past few years, Engineers Australia has received a clear message from our members that climate change exists and must be dealt with. This is also the view of the Australian population and of the vast majority of scientific research and peer reviewed reporting on this issue. While the exact magnitude and nature of climate change impacts may still be a matter for conjecture and further research, I believe that the overwhelming weight of scientific evidence is that there is a significant impact.

Ever since the Brundtland Commission Report of 1987, "Our Common Future", the Precautionary Principle has been a keystone of our approach to sustainability issues. "When there is a reasonable suspicion of harm, lack of scientific certainty or consensus must not be used to postpone preventative action". To my mind, this is part and parcel of sound science and engineering.

The policy position of Engineers Australia is, and will continue to be, that action is needed to combat global warming. I believe that this position is supported by scientific evidence and is accepted by the overwhelming majority of our membership.

This view has also been strongly supported by a resolution of College and society chairs, which was put to National Council to endorse. The resolution is as follows:

"Engineers Australia believes that Australia must act swiftly and proactively in line with global expectations to address climate change as an economic, social and environmental risk. Our role has been, and will continue to be, in leading capacity building to innovate for more sustainable, eco-efficient and less polluting outcomes in engineering practice. We believe that addressing the costs of atmospheric emissions will lead to increasing our competitive advantage by minimising risks and creating new economic opportunities."

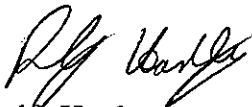
Council considered this at its meeting of 22 February and also made a decision that together with the resolution, the following world form Engineers Australia's policy statement on climate change and energy.

"Engineers Australia:

- Believes the Australian Government should ratify the Kyoto Protocol.
- Strongly encourages the direction of energy policy reform, recognising that there is some way to go before achieving the stated policy objectives of: providing efficient, reliable and competitively priced energy; responsibly developing Australia's energy resources, technology and expertise; and mitigating environmental impacts of energy production, transformation, supply and use.
- Strongly encourages actions to address the on-going growth in energy demand. It is essential that the rate of growth is minimised, if not reversed, and clearly linked to improvements in efficiency and demand management.
- Agrees with the position taken by the Stern Review that climate change is an economic, social and environmental problem.
- Believes that it is in Australia's interests to move quickly to limit greenhouse gases.
- Strongly urges the Australian Government to move quickly to introduce a carbon trading scheme, including the use of appropriate penalties, so that emissions of greenhouse gases are no longer costless and that the costs of greenhouse gas emissions be borne by emitters of greenhouse gases in proportion to their relative discharge.
- Believes that energy policy should favour as wide a portfolio of measures as possible. Market forces should determine the most effective measure for particular situations in most cases. Where market forces are not a complete answer to the choice of climate mitigation options, government should assist newer options to develop their maturity through regulation and other non-market activities.
- Believes that it is vital that the potential for synergy between emerging energy options that can be deployed in Australia and the development of new export markets should be thoroughly explored."

Again, I would like to thank you for taking the time to correspond. It is important that the organisation gathers as many of its member's views as possible, even if those views are not eventually adopted by council as the view of the organisation.

Yours sincerely



Rolfe Hartley
FIEAust CPEng FEIANZ FIPENZ
National President

Telephone (02) 9449 8536
International +61 2 9449 8536
Facsimile (02) 9449 6170

E.C.F. ENGINEERING PTY LTD
ABN 21 000 894 904

Postal Address:
P O Box 6004
Pymble NSW 2073
Sydney
Australia

Director
Eur Ing E.C. Fox AM
BSc, BE, FIEE, FIMechE,
FIE (Aust), FAICD, FAIM, FCILT.

26 May 2007

Mr Rolfe Hartley FIEAust, CPEng, FEIANZ, FIPENZ
National President
The Institution of Engineers, Australia
11 National Cct,
Barton
ACT 2600

Dear Mr Hartley,

Thank you for your letter of May 1 last.

I was interested to note that you have written to other members on this subject in similar terms to the letter which you have sent to me.

It is apparent that you accept the IPCC's predictions of anthropogenically induced global warming, rising sea levels, species loss, increasing malaria, etc etc, as trustworthy. There are many reasons for scepticism of the IPCC's predictions but one in particular is devastating in its implications. The carbon dioxide molecule resonates in a narrow bandwidth centred at 15 microns, and this means that the impact which increasing concentrations on CO₂ in the stratosphere have on the radiation balance declines logarithmically. Thus most of the greenhouse effect of CO₂ is achieved at 200 ppmv, and further doubling (to 400 ppmv) and doubling again (to 800 ppmv) has minimal affect. Thus in moving from 400 to 800 ppmv the effect on global temperatures, *cet par*, is less than 0.8 deg C.

Recent research has demonstrated the link between sunspot activity, cosmic rays, and cloud formation, something discussed in the Great Global Warming Swindle which I'm pleased to learn will be shown to Australian TV audiences in July. So we now have a much better understanding of the correlation between sunspot cycles and the periods of intense cold such as the Maunder Minimum (1660 - 1690) and the Dalton Minimum (1790 - 1820). Solar activity has been intense during the last 30 years and may well explain at least some of the warming we have experienced since 1976.

In former years Australia's engineers were instrumental in developing Australia and building great industries and infrastructure. The Snowy Mountains scheme; the iron and steel industry; the mining industry; dams for irrigation, flood control and hydro power; many noteworthy

bridges; pipelines; power stations; distribution systems; and so on and so on, are the legacy they bequeathed to us.

Your deference to the Precautionary Principle, as articulated in the Brundtland Report of 1986, is alarming. If the PP had had the elevated status in the 18th century that you seek to bestow upon it today, then Australia would not have been settled. If it had gained currency during the 20th century none of the developments upon which our current prosperity and living standards are based would have occurred. The PP is a doctrine developed by the European Greens to enable them to block any development of any kind anywhere. The fact that it has been incorporated into the European Constitution (which has singularly failed to gain the assent of the various peoples of Europe) is one element explaining Europe's continuing economic and political malaise.

To use the PP to justify wholesale decarbonisation of our economy on the grounds that anthropogenic CO₂ may be causing global warming is to select one current Green scare and to elevate it above all the other much more immediate problems we face nationally and internationally.

You legitimise the policy stand you have adopted by reference to Council support at a meeting on Feb 22 last and I will comment in some detail on that policy statement below. But I first wish to make the point that at the many meetings I have attended in Sydney in recent years I have found that there is a significant number of engineers, both retired and practising, who regard the anthropogenists' claim that the earth's climate can be controlled, or even more bizarre "that climate change can be stopped", by reducing anthropogenic emissions of carbon dioxide, as nothing more than superstition.

I do not know what percentage of the IEAust membership are sceptics concerning doctrines of anthropogenic global warming, but it is noteworthy that the membership has never been asked., and that there has not been a wide ranging and uninhibited debate within the Institution as a whole, on this issue.

The statement adopted by the Council on Feb 22 is highly politically partisan, more in accord with the position of the Greens than any other political party; it is scientifically and economically contentious; and if it were taken seriously and implemented by an Australian government, would lead to a massive reduction in Australian living standards; particularly for the lowest income groups within Australian society.

I now comment on the points in detail.

1. Ratifying the Kyoto Protocol.

Talks currently underway in Bonn demonstrate, again, what has been obvious for some years, that the Kyoto Protocol is dead. Only two parties to the KP, the UK and Switzerland, will meet their 2012 targets. The developing nations, notably China and India, are adamant they will not stifle economic growth in order to satisfy Green demands from the West that they desist from building coal-fired power stations. But it is not only developing countries that have declined to give up coal. Germany has just announced the commissioning of 26, repeat 26, new brown coal power stations in the Ruhr Valley. This policy switch is the consequence of Russia's interdiction of gas

supplies to Estonia in recent weeks, and German hostility to nuclear energy. If Germany of all countries should abandon decarbonisation, why should Australia now jump on what is very clearly a dead horse?

2. Energy Policy Reform.

Implied in this statement is the idea that governments should make all decisions concerning the gas industry, the electricity supply industry, the coal industry, and so on. Lip service is paid to competitiveness and reliability. But we do not need governments to achieve these goals. Indeed experience shows that the private sector is much better at meeting energy needs efficiently and reliably than governments. The problem we have today with the electricity supply industry in particular is that urgently needed private investment in base load power stations cannot be made because of the sovereign risk which now attends any investment in coal fired power stations. This sovereign risk is something to which the IEAust is contributing significantly.

3. Reduction in energy demand.

The Greens demand (and by implication it appears that IEAust concurs), that Australia should decarbonise its economy by taxing coal-based electricity out of existence and rely on windmills and solar panels in its place. The Greens, of course, rule out nuclear as a substitute for coal. The Greens also urge the phasing out of air travel and serious increases, via taxation, in the price of petrol; all of these measures justified as necessary to “stop climate change”.

The Institution has supported nuclear energy for Australia but has not discussed the cost implications of replacing coal based power generation with nuclear. However, the nuclear option is conspicuously absent from the Feb 22 statement.

Why Australians should consume less energy in their daily lives is unexplained. Is air-conditioning a bad thing? Is making economically rational or aesthetically motivated decisions to use tungsten filament lamps rather than high efficiency fluorescent substitutes such a sin? Efficiency is not an end in itself but a means to living more abundantly, and that necessarily means using more energy.

4. The Stern Review has been discredited by every economist with expertise in the field - notably Professor Richard Tol of Hamburg and Carnegie Mellon Universities. Sir Nicholas drew exhaustively in his Review on Tol's work in the field of mitigation of future climate change, and Tol's extremely damaging critique of the Stern Review should have caused the immediate withdrawal of the Stern recommendations.

5. Why is it in Australia's interests to limit greenhouse gas emissions? Should this policy be pursued regardless of cost? Are there any limits to the economic damage which would ensue from shutting down our coal-fired power stations, for example, which the IEAust would regard as contrary to our interests?

6. Carbon emissions cap and trade scheme. The US CBO has just released a study of the consequences of a cap and trade scheme for the US and has found, not

surprisingly, that such a scheme will result in a massive transfer of wealth from the poor to the rich. What is true for the US is highly likely to be true for Australia. If one were to accept the doctrines of the anthropogenists concerning climate change and anthropogenic carbon dioxide, then the only fair policy (as the Indians and Chinese maintain) is to allow a carbon dioxide quota for every person on the globe. No doubt in a perfect world such CO2 rations could be traded on the internet but how they could be enforced is for the realms of science fiction. Cap and trade is a policy for the banks and the brokers, not for ordinary Australians concerned with educating their children and securing an economy in which jobs will be plentiful.

7. Although lip service is paid to market forces the thrust in this paragraph is for command and control machinery. The clear implication is that governments must impose a decarbonisation program by legislative fiat. Although the statement implies that this should be carried out at least cost, there is no thought given to the costs of decarbonisation v. any benefits which might flow to Australians.

8. Emerging energy options. No one can predict how the energy needs of the world's peoples will be met a century from now. But unless we find ourselves involved in wars and political upheavals bringing our civilisation to an end, it is likely that global energy consumption will then be at least 100 times greater than it is today. The history of technological change informs us that breakthroughs in science and technology are not the result of government policy but of individuals pursuing their inquiries and research interests in institutions free from government control and interference. Likewise, the development of trade links with other countries is best left to private companies and individuals pursuing their interests as they perceive them.

Australian exports of coal are now worth more than \$40 billions and will probably increase in the decades ahead. Does the Institution seriously wish to curtail this trade? If so, what criteria should be used for satisfying markets in say China, as opposed to markets in other parts of the world?

Australia's engineers used to be proud of their achievements in nation building in this great continent. With a population of only 20 millions and an abundance of natural resources, particularly energy resources such as coal and nuclear, there is still much nation building to do. If we as the current custodians of these resources don't accept the challenge and move forward without hesitation in increasing our population and developing our resources, then others will push us aside and accept the challenge. It is only 65 years since Australia was in very real danger of invasion. We seem to have forgotten the lessons of the 1940s.

I would hope to see the IEAust pick up the challenges we face in building this nation. The Precautionary Principle cuts no ice in China or India. It should have no place in the lexicon of the IEAust., whose engineers have successfully overcome the unforeseen contingencies which any great project must include.

Yours faithfully,

A handwritten signature in black ink, appearing to read "George Fox". The signature is written in a cursive, somewhat stylized script.

E.C. "George" Fox AM, FIEAust.