Submission to Productivity Commission Topic: Energy Efficiency and the Environment. Date: Monday, November 22nd, 2004. From: Murray Rowden-Rich, Ph.D., Consulting Engineer and Glaciologist

PREAMBLE: There is no doubt that normally operating economic forces shall force greater energy efficiency on the electricity industry, with the normal drive for cost-cutting with technology changes and development. This has been a feature of industrialized economies for at least several hundred years now.

There is an inexorable law of economics, which dictates that technology, and its handmaidens, the engineers and scientists, will enhance progress of our society.

RADICALISM, CONSERVATISM, AND ECOPHILOSOPHY:

It is important not to confuse the notions of radicals, and their academic compatriots on the left of the broader conservation groups, with the real world.

The present drive of the U.K. Government to boom global warming should be seen as a means of beating the "greenies" about the head to soften their opposition to nuclear power. The fallacy of this line of politics will be revealed.

Caution must be exercised in accepting the flood of material on global warming and its dire effects propagated by the radicalized environmental movement.

There is nothing that has been scientifically proven about the enhanced greenhouse effect and resulting traction with global warming. The IPCC is not a learned scientific society in the traditional sense and its assertions are not tested by the rigorous, and, at times robust, challenging of scientific method.

SHADES OF IMPERIAL DOMINATION BY THE BRITISH IN EXPORT OF THE GREENHOUSE MYTH:

Much of the present impetus to make changes in energy supply patterns comes from the imperative of the British economy in the face of determined green resistance to embrace the further expansion of nuclear powered electricity generators.

This make sense for the British economy but it is a nonsense for the case of Australia which has large reserves of high quality coal which can be strip mined. Why should Australia react to the economic dilemmas of the British?

CLIMATE CHANGE AS A DRIVER FOR ACHIEVING GAINS IN ENERGY EFFICIENCY:

There is no doubt that the energy efficiency driver reacts to climate change. In discussing climate change it is important to screen out, if at all possible, the role of anthropogenic greenhouse gases from factors of natural variability.

WHAT IS KNOWN FROM SCIENCE ABOUT PAST AND FUTURE CLIMATE CHANGE?

There is no doubt that climate change exists. The world has come and gone from ice ages for the last 7-8 hundred thousand years when carbon dioxide levels in the atmosphere slowly subsided to allow the cooling which causes ice-sheets.

Furthermore, ever since the last ice age, about 12,000 years past, the world has oscillated between warm periods and intermittent cold periods on scales of thousands of years. Interspersed as the fine grain on this thermal structure were periods denoted as Little Ice Ages. The time scale of these occurrences marked by famine drought plague and severe cold, is hundreds of years.

CLIMATE CHANGE AND SOLAR GEOMAGNETIC CORRELATIONS:

I table papers by Theodor Landscheidt, formerly Caltech and Max Planck Institute, entitled, "New Little Ice Age NOT Global Warming" (Energy and Environment, 2003), and David Wojick, "IPCC Artful Bias", E & E, 2003.

The paper outlines the 166-year frequency Gleissberg cycles, which are induced by movement of the center of mass of the solar system. Inertial effects are generated on the sun resulting in solar flares and the well known 11-year sunspot cycle. Geomagnetic phenomena correlate with weather patterns on earth.

These correlations have been known for centuries; in fact, they were one of the topics of investigation when the Royal Society in Great Britain was established. Landscheidt (2003) has taken the study to a new height of insight and accuracy.

The abstract of the paper referred to above predicts a return to Little Ice Age conditions, as deep or colder than the Mediaeval Little Ice Age(s) by 2030.

The next decades will be marked by much colder temperatures, with increased demand for energy, particularly from coal as liquid fuels slowly deplete.

In the face of this downturn in temperature from these solar geomagnetic effects, which is already being observed, it is unlikely that the signal from the greenhouse effect will be sufficient to mask this natural climate variation.

COLDER WEATHER CONDITIONS WILL DICTATE GREATER CONSUMPTION OF ENERGY:

It is important to understand that, if the much heralded disasters from the greenhouse effect and associated global warming, do not eventuate, in the next fifty years, then it is even more important to maintain the drive for securing greater efficiency in energy use, for the reason that much more coal-based energy, industrially and domestically, will be used to keep the human race warm.

The Commission should be aware that the much publicized effect of greenhouse induced global warming is in fact much weaker than projected owing to serious deficiencies in the present level of development of general circulation models of the atmosphere (GCM's). These models at present are quite imperfect and erroneously are based on energy balance whereas a more sophisticated and more accurate approach is to use total energy flow, which allows heat transfers. The continued propagation of these well-known errors by IPCC is deceitful.

IMPACT OF THE COMING LITTLE ICE AGE ON WATER SUPPLIES:

There is one more aspect of ensuing colder temperatures for the next fifty years and that is there will be pressure on rural and urban water supplies.

Desalination is energy intensive. There should be a study undertaken to harvest icebergs from the Antarctic ocean by using polar class nuclear powered tugs of 40,000 SHP and upwards, combined with the use of smaller collector vessels.

This would be a method of reducing total energy consumption and thus energy efficiency in the total sense, by shifting a good proportion of energy use which will, in the future, be used to furnish water in a drying continent, away from that generated by conventional power stations. The use of nuclear power to provide for the increasing demand for water supplies in a colder and dryer Australia would be a means of avoiding this confrontation. There should be little opposition to offshore nuclear ships by mainstream political parties.