

1 Climate Change and Global Warming Risks and Responses

by John La Roche

Engineers for Social Responsibility and the Sustainable Energy Forum are concerned about the consequences of human-induced climate change and global warming and the need for widespread understanding of the facts and underlying science.

Engineers for Social Responsibility Inc.(ESR) is an independent group of engineers who consider that being knowledgeable in the field of technology means that they also have a special obligation to the public at large. This includes raising the awareness of the engineering profession to the consequences of its activities and explaining to and discussing with the public the ramifications of developments in engineering and engineering works.

The Sustainable Energy Forum (SEF) is a group of individuals and corporate organisations promoting information and supporting action which will help move New Zealand towards a sustainable energy future. The object of SEF is to promote the transition towards a sustainable energy system in New Zealand. SEF defines a sustainable energy system as being "the sourcing, transformation, use and management of energy in a manner which improves social well-being, while conserving physical resources, maintaining the integrity of ecosystems, and avoiding the transfer of costs to future generations."

Our combined organisations have prepared a series of discussion sheets and further papers will be published soon. Each paper is peer reviewed by top professionals with specialist knowledge about the topic being described.

The implications of global warming as the result of increasing CO₂ level in the atmosphere are very serious and we believe that New Zealand should be doing far more to change from burning fossil fuels to using renewable energy sources. We believe there is a need for a carbon tax that reflects the external environmental cost of carbon emissions. Our emissions target for 2020 should be a reduction of 20% below 1990 levels, not the present target of 5%. Liquid fuels using sustainable sources should be encouraged. There should be tight controls and reducing reliance on the use of coal and oil for energy.

Each sheet will be prepared in both paper and electronic form and will be made available to a wide range of New Zealanders with the intention of providing scientifically verified information and predictions to better inform as many people as possible.

Electronic copies will be available on the website www.esr.org.nz

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