

A risk look at energy development

The rainbow energies refer to a spectrum of seven kinds of energies, which all have strengths and weaknesses in terms of their efficiency, safety, reliability, environmental impact, reserves and economic value. Fossil fuels remain the world's dominant energy source, accounting for around 65%. Coal, the main culprit for greenhouse gas emissions, represents 43% of fossil fuels, and causes seven million deaths a year, according to the United Nations. At the same time, 30% of the world's population has no, or extremely limited, electricity resources, and yet this segment of the global community has to bear the consequences of any energy combinations adopted by the rest of the world.

Life has many risks: air pollution, auto accidents, terrorism, cybercrimes and system failures, among others. But the biggest risk today resides in energy and energy safety. The use of fossil fuels, and the climate change resulting from global warming, is affecting the future of our planet. Only a rational analysis of the relationship between energy and the environment will give us a clearer picture. No discussion of energies today can neglect the balance of the rainbow energies, including the nuclear energy as a key base-load power.



Prof. Way Kuo

President and University
Distinguished Professor, City
University of Hong Kong

(Biographical information)

Way Kuo is President at City University of Hong Kong. He is a Member of the US National Academy of Engineering and Academia Sinica of Taiwan, and a Foreign Member of the Chinese Academy of Engineering and Russian Academy of Engineering.

Before joining CityU, he was part of the senior management team at Oak Ridge National Laboratory and Dean of Engineering at the University of Tennessee. He is renowned in design for the reliability of electronics systems and nuclear energy. His book *Critical Reflections on Nuclear and Renewable Energy* has been published in six languages in Taiwan, Hong Kong, mainland China, US, Japan, France and Russia.

He was the first foreign expert invited to discuss nuclear safety following the Fukushima incident. He argues that a holistic view of energy development is required, one that prioritises the production and use of reliable energy sources over that of polluting and volatile ones.