



HOKKAIDO UNIVERSITY

Title	Preface to the English-Language Edition : The feasibility of preventive measures designed to combat global warming while accelerating the process of denuclearization
Author(s)	Yoshida, Fumikazu
Relation	Lecture on Envireonmenal Economics , pp.i-iii
Issue Date	2012
Doc URL	https://hdl.handle.net/2115/53449
Type	book part
File Information	reface(E).pdf



Preface to the English-Language Edition

The feasibility of preventive measures designed to combat global warming while accelerating the process of denuclearization

In this newly written preface to the English edition, I suggest that in response to the Great East Japan Earthquake of March the 11th, 2011, Japan needs to rethink its energy policy and must address the following points when reconsidering its energy policies.

- Japan must immediately proceed with a comprehensive safety check of all operating nuclear power plants, and must take countermeasures to protect all such plants against potential damage from earthquakes and tsunamis, while establishing sources of backup power and determining where these new suppliers of energy are to be located.

- If necessary, Japan must shut down and dismantle existing nuclear reactors while freezing nuclear fuel recycling policies; the government must also take immediate and urgent measures to review the appropriateness of those existing public administration guidelines that relate to nuclear safety.

- Japan must re-convene a Nuclear Safety Commission that has real authority and will function independently of the Ministry of Economy, Trade and Industry and the Agency of Natural Resources and Energy.

- Japan must work to achieve energy savings by reducing energy consumption in very possible way, and specifically by placing controls on the consumption of electricity. The government must introduce a variety of policies to reduce the intensity of peak-loads by such measures as the placing of restraints on the demand for air-conditioning in summer, by instituting long-term vacations in summer, by implementing daylight saving time, and other policies of a similar sort.

- Japan must change its base-load of generated electricity from nuclear energy to fossil fuels that cause less damage to the environment, such sources of energy as LNG, LPG and other gas-fuelled or gas turbine power generators. Power supplied by Tokyo Electric Power Co., Inc. (TEPCO) peaked in 2001, and when record-keeping irregularities came to light in the April of 2003 all seventeen TEPCO nuclear power plants were stopped; yet even with the

demands of air-conditioning it was possible during that summer to supply sufficient power for the consumers' needs.

- Japan must expand her range of renewable energy supplies to include solar energy, wind power, biomass, geothermal power and small scale hydropower plants, while promoting the drastic decentralization of energy generation. Indeed, on the day of the great East Japan earthquake, a Cabinet meeting approved a motion to work for the full-scale operation and improvements of the Feed-in-Tariff (FIT) systems for renewable energy. We can provide sufficient finances to realize these improvements if we re-allocate the funds derived from the power resources development tax and the reserves set aside for reprocessing nuclear fuel that are at present channeled into the nuclear power industry. More specifically, the Tohoku region, which is a center for the semiconductor industry, has rich resources in wind power and biomass, and the region must be restored to full working order as one of Japan's centers for the production of renewable energy.

- Japan must strengthen collaboration in all regions between electric power companies, gas companies, and the appropriate official bodies so as to promote co-generation through the integration of heat and electric power.

- While encouraging new participants to enter the electric power energy market, Japan must reinforce and reconfigure the national grid and strengthen management by official bodies by investigating ways to liberalize the electricity market; Japan must also think about separation of the generation and transmission sectors of electric power generation and supply.

- Japan's energy conservation policies must encourage the wider use of public transportation so as to reduce the density of vehicular traffic and thereby control the amount of petroleum consumed by automobiles.

- Japan must introduce a global environment tax and a domestic emissions trading system in order to promote energy conservation and reduce fossil fuel consumption.

Acting on the assumption that the Great East Japan Earthquake of March 2011 will have made it impossible for Japan to fulfill the goals stipulated by the Kyoto Protocol, the Japanese Ministry of the Environment has requested that Japan should be excused the imposition of over-hasty penalties and has proposed a review of the reduction target of 25% by 2020. This proposal is not appropriate, however. Rather, the Ministry of the Environment should take drastic steps, such as Germany has already done, to speed up denuclearization of the power supply and increase the generation of renewable energies by taking the sectors of renewable energy and the regulations for nuclear safety

out of the hands of the Ministry of Economy, Trade and Industry.

If we wish to establish policies that will enable us to take appropriate steps for controlling global warming that will work in harness with denuclearization, we have to take a broad view. And if we are indeed able to do this, we should also be able to turn the crisis of the Great East Japan Earthquake into an opportunity to make short-, mid- and long-term restoration plans that will ensure safe and sustainable energy supplies not only for Japan but also for the international society so that everyone around the world can live at peace in the 21st century.

Finally, I wish to thank the copy-editor (who wishes to remain anonymous) of this translation into English of the original Japanese text of this book.

November, 2011

Fumikazu Yoshida