



If Not Led by Technology, a Decarbonized Society Can Never be Realized

Yumi Akimoto, Former Chairman
Mitsubishi Materials Corporation

The issue of global warming has attracted worldwide attention. Last year, the IPCC pointed out in its Fourth Assessment Report that global warming caused by human factors has advanced so far as to threaten the survival of civilization. Former U.S. Vice President Al Gore promoted a rather obsessional campaign toward enlightenment and, together with the IPCC, was awarded the Nobel Peace Prize.

In order to peak out and then reduce greenhouse gasses emissions which are increasing at an accelerated pace year by year, it is an essential element to drastically change lifestyles on a global scale. However, it discomforts me to see that the international debate is overheated departing from primary purposes, and has developed into political shows in which unreasonably high emission reduction targets have been paraded without confirming the ground we are standing on, or which campaign is being run as much as to say that a country would be environmentally-disqualified if it failed to accept the EU style emissions trading system.

First, for the realization of a decarbonized society, it is essential to intensively develop and widely disseminate the technology which is efficient enough to support such a society. What Japan now needs most will be rational and steady development of a policy that develops environmental infrastructure technology further having lead thus far, and guides the world to build a consensus based on such technology.

For a decarbonized society, the active utilization of powerful non-fossil energy, i.e. nuclear energy is obviously an essential choice because of its unrivaled high power density and energy production efficiency. Furthermore, the practical application of technology for Carbon dioxide Capture and Storage (CCS) which enables gradual transition from an era of fossil fuels to an era of decarbonization preventing the accumulation of carbon dioxides into the atmosphere is an important challenge. Without networking all of the high-efficient clean energy measures by, for example, development and diffusion of plug-in hybrid cars and heat pump houses using highly decarbonized electricity is a "carbon dioxide emission reduction by half-society" which was called for in the Gleneagles Summit in 2005 will be a pie in the sky.

Due to reckless policies, Biomass which comprises the essential components of renewable energy sources often results in the loss of activity and diversity of ecosystems in many places. There is an urgent need to restore the function of the ecosystem to self controlling the climate which has been deteriorated due to the folly of civilization over the years. In the medium- and long-term, it will become important to breed and diffuse plant species which have high capability to absorb carbon dioxide and may respond to future climate change as well as to develop highly-efficient energy conversion measures so as to increase the utilization of biomass while fitting into the rhythms of ecosystems.

The Research Institute of Innovative Technology for the Earth (RITE), since its foundation in 1990, has been squarely working on the development of various technologies necessary for the realization of a decarbonized society and has been steadily and continuously achieving results. Such steady efforts which are not affected by the trends of the day are key to succeed the realization of a decarbonized society. Expecting and looking forward to greater progress in the future, I would like to send out a great cheer to RITE.