SEMINAR SERIES

International Institute for Carbon-Neutral Energy Research
Kyushu University

Title Renewable Energy Policy (Barriers and Motivation): Perspectives on Progress in Japan, Germany/EU, and the U.S.

Speaker Dr. Monterey R. Gardiner
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Date & Time Friday, June 1, 2012 4:00p.m.

Place INAMORI Hall, Ito campus, Kyushu University

Abstract

Energy policy in Japan has changed rapidly over the last year since 311. To promote a shift to renewable energies (RE), the Japanese Diet in 2011 passed a Feed–in-Tariff (FIT), to encourage investment through guaranteed income to RE providers and access to the electrical transmission grid. After two decades, Germany's FIT has lead to 20% RE. Furthermore, the European Commission put strong RE targets at the forefront of their 2020 and 2050 energy roadmaps. U.S. President Obama directed the U.S. Department of Energy to focus technology development towards electrifying transportation and to achieve the goal, that 80% of U.S. electricity will be clean by 2035.

Renewable energy growth supported by a nation-wide energy policy can satisfy concerns associated with the 3Es: energy supply, economic growth, and environmental impact. An effective policy portfolio would include: guaranteed grid connections and market for sales. The most strategic element would have RE sold before fossil electricity (FE). These policy mandates joined with a transparent wholesale electricity market facilitate large-scale penetrations of RE which; 1. is domestic and regional, with "fuel costs" fixed for the life of the RE infrastructure; 2. has a lower energy density and distributed generation ensures that local workforce and economic developments are regional rather than directed to the small foot print of FE or NE; 3. reduces CO_2 and other pollution. Strong, clear government policy accelerates the resolution to the unique challenge that the 3Es present. Within the next decade RE will be cost competitive (grid parity) with most FE for those countries that make it a policy priority.

About the Speaker

Monterey R. Gardiner, is a Technology Development Manager at the U.S. Department of Energy. Currently he is engaged in a two year Mike Mansfield Fellowship. He has spent the last year working at METI, NEDO, and spent time at the Japanese Diet learning about the government policy-making process, with a focus on energy topics. At DOE, Dr. Gardiner managed hydrogen storage and delivery research projects while setting long-term cost and efficiency program targets. In 2004, Dr. Gardiner started working at the California Fuel Cell Partnership. As the safety engineer he developed local, state, national, and international collaborations in the areas of hydrogen safety and public outreach, while training first responders. He then managed Hyundai's Northern California fleet of fuel cell electric vehicles, while tracking changes in the California Air Resources Board's vehicle regulations such as the Zero Emission Vehicle mandate.

Host: Professor Yukitaka MURAKAMI

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