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Scheduled ISU Talks for Prof. Hirokazu Okumura Spring ISU visit (March 19-23, 2012)

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SHORT BIO

Prof. Hirokazu Okumura is Project Professor at the Graduate School of Public Policy, University of Tokyo, Japan, a position he has held since 2005 (with one month intermission). He is also the former Director-General of the Public Utilities Department at the Ministry of International Trade and Industry (MITI), which regulates electricity and gas markets in Japan. During his tenure at MITI he directed early efforts to deregulate these markets. Following the earthquake and tsunami that struck Japan in March 2011, he has become involved in renewed efforts to restructure the Japanese electric power industry to help ensure more efficient and reliable operations. During his visit to the US he is investigating ongoing efforts to restructure US electric power markets, including the use of agent-based modeling to explore alternative restructuring proposals through systematic computational experiments in advance of implementation.

BACKGROUND MATERIAL FOR TALKS

An investigation by the <u>Rebuild Japan Initiative Foundation</u>, a new private policy organization, offers one of the most vivid accounts yet of how Japan teetered on the edge of an even larger nuclear crisis than the one that engulfed the Fukushima Daiichi Nuclear Power Plant. A team of 30 university professors, lawyers and journalists spent more than six months on the inquiry into Japan's response to the triple meltdown at the plant, which followed a <u>powerful earthquake and tsunami</u> on March 11 that shut down the plant's cooling systems. The English translation of the *Report* will be published in summer 2012. In the meantime, please refer to the summary of the Final Chapter of the *Report*, which is a contributed journal article to Bulletin of the Atomic Scientists, published by SAGE, titled "Fukushima in review: A complex disaster, a disastrous response".

The article is freely available to public at SAGE's website. http://bos.sagepub.com/content/early/2012/02/29/0096340212440359.full.pdf+html

TALK TITLES AND ABSTRACTS

1. EPES Seminar (March 20, 1-2pm, Coover Hall, Room 2222)

"Deregulation of the Japanese Electricity Market"

Since the mid-1990s, the Japanese government has been slowly reorganizing the Japanese power industry from a strict regional monopoly regime with ten vertically integrated utilities (private companies) to an open electricity market. This movement started with the introduction of independent power producers, followed by a decision to permit access by power producers and suppliers to monopolized transmission lines in order to encourage the development of competitive wholesale and retail markets for big and mid-sized consumers. However, since the great earthquake disaster in March 2011, many opinion leaders in Japan have been urging stronger deregulation measures, including the unbundling of the vertically integrated utilities. In this talk I will speak about my experiences as a participant in this ongoing debate concerning the deregulation of the Japanese electricity market and discuss possible future directions these deregulation efforts could take.

2. Economics Department Seminar (March 22, 3:40-5, Heady Hall, Room 368A)

"Can Renewable Energy Substitute for Nuclear Energy in Japan?"

Nuclear energy has been an alternative source of fossil fuel energy in Japan since the 1970s, triggered mainly by the oil price shocks of 1973 and 1979. After the Fukushima Daiichi nuclear disaster in Japan in March 2011, however, renewable energy sources such as wind and photovoltaic (solar) power have been encouraged as substitute energy sources. For example, last summer the Japanese Diet introduced a new act forcing utility companies to buy electricity generated by renewable energy sources. In this talk I will address whether renewable energy sources can substitute for nuclear energy, given various unresolved economic and institutional barriers. I will also discuss broader possible solutions for the Japanese power industry, including the development of a deregulated electricity market permitting consumer choice among multiple electricity generation sources.
