

**BIEE SEMINAR: 'JAPAN'S ENERGY NEEDS POST-FUKUSHIMA'
Chikako Ishiguro, Senior Researcher and Analyst, Osaka Gas
Meeting Notes**

Two years after the Fukushima earthquake, only 2 out of 52 nuclear reactors are operational in Japan. Chikako Ishiguro, Senior Researcher and Analyst at Osaka Gas, presented her views on the implications at a BIEE event held on 18th March 2013 at the London Business School.

Chikako is a member of the Energy Resources and International Business Unit of Osaka Gas. She is a co-author of several Oxford Institute of Energy Studies papers: 'Pricing and Demand for LNG in China' (2006), 'A New Paradigm for Natural Gas Pricing in Asia: A Perspective on Market' (2009) and 'A realistic perspective on Japan's LNG Demand after Fukushima' (2012).

While efficiency measures have reduced Japan's electricity demand significantly from pre-Fukushima levels, declining nuclear output has left a growing gap to be filled by thermal power generation – using LNG in particular. Some nuclear power plants are expected to return to operation from this autumn, but output is likely to remain below pre-Fukushima levels for the next two decades at least.

Policy is evolving and the new Japanese government has yet to set concrete measures. Uncertainty remains and results of the Upper House election in August 2013 will be important.

Profound change is under way, according to Chikako Ishiguro. Japan's electricity companies are in poor financial state as fuel input costs have soared by over 30% over the last five years and most companies have yet to secure approval for retail price rises. Making the necessary future investments will be challenging for these companies and government scrutiny over price hikes is increasing.

The government is aiming to deregulate Japan's electricity market, which could be achieved over the medium-term. Unbundling generation and transmission is likely over the 2018-2020 time period. Greater power market competition will ensue.

The current gas pricing structure is unsustainable, Chikako concluded. Japan's economy cannot sustain remaining the premium LNG market worldwide, given high long-term LNG needs. An Asian spot LNG price may not emerge, but a domestic Japanese spot gas price is attainable once the domestic market is liberalised, which is likely to follow electricity market liberalisation. In addition, Russian pipeline gas is attracting attention again as an alternative source of supply. Commercial development of Japan's methane hydrates is far away.

BK March 21st 2013