

Key Points of Outlook for 2009

## **Nuclear Power Generation in the World and in Japan**

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While the roles that nuclear energy play in preventing global warming and stabilizing electricity supply were reaffirmed in 2008, the year saw a credit squeeze under a global financial crisis and a sharp crude oil price decline that could impede the development of new energy and nuclear power generation. The business environment surrounding nuclear power generation was complicated further in the year.

In the United States, electric utilities planning to build new nuclear plants may face unfavorable developments including the inauguration of the Obama administration known for its cautious stance against nuclear power generation, growing fund-raising risks under the financial crisis, and rising nuclear plant construction costs amid personnel and material shortages. In contrast, China and India have continued smooth progress in building new nuclear power plants. Particularly, the United States, France and Russia have stepped up support for nuclear power plant construction and nuclear fuel supply in India on the Nuclear Suppliers Group's approval of nuclear exports to India in September 2008 and the U.S. Congressional approval of the U.S.-India nuclear cooperation agreement. In addition to Russian nuclear reactors under construction, some projects may emerge in 2009 for construction of new light-water reactors designed by the United States and France.

In its nuclear energy white paper in 2008, United Kingdom put forward a nuclear plant construction initiative for the first time in some 20 years, prompting such nuclear industry players as Areva, Westinghouse and EDF to open offices in that country. Among them, EDF has positioned the United States, China, Britain, Italy and the Middle East as its key markets. We are paying attention to how EDF would develop its footholds in these markets through cooperation with Constellation Energy of the United States and British Energy which EDF acquired last year.

Japan amended a nuclear reactor regulation ordinance in August last year to

implement a modified periodic inspection system in April 2009. This is part of the efforts Japan is making to respond to aging of nuclear plants and improve their capacity/utility factor. No definite schedule has been made for restarting of the Kashiwazaki-Kariwa nuclear power station that has been suspended since the Niigataken Chuetsu-oki Earthquake in 2007. Japan's nuclear plant capacity/utility factor will remain low this year. While it has grown more important for the Japanese nuclear industry to integrate nuclear fuel supply and plant construction for supporting and taking part in new overseas nuclear plant projects, the industry is required to make steady progress in the development of nuclear fuel cycle technologies. Attracting attention in this respect are the pending resumption of the Monju fast breeder reactor's operation, a project for disposal of high-level radioactive wastes, the planned startup of the Rokkasho nuclear fuel reprocessing plant's operation, and the introduction of new centrifuges.

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