

Key Points of Outlook for 2009

International Developments Involving Carbon Capture and Storage

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Carbon capture and storage (CCS) had been expected to be approved as subject to the Clean Development Mechanism at the U.N. Climate Change Conference in Poland in December 2008. Eventually, however, CCS was sent back to the CDM Executive Board for another year of discussions. Then, a decision on the treatment of CCS will be made at the next U.N. Climate Change Conference that will take place in Denmark in December 2009. Although two years have passed since the CDM Executive Board sent the matter to the conference, Saudi Arabia, which strongly supports CCS for the CDM, has had a serious conflict with Brazil which has been reluctant to have its existing CDM deals affected. The conflict has thus forced the decision on CCS to be postponed for one year. CCS's contributions to achievements of greenhouse gas emission reduction goals under the Kyoto Protocol are limited, while the commitment period for the protocol has started. Given an international framework after the Kyoto Protocol, however, the postponement is expected to have grave effects.

In discussions on the energy and climate change policy package that the European Union announced in January 2008 and finally adopted in December 2008, the EU made a proposal to limit the unit carbon dioxide emissions to 500 g/kWh for thermal power plants to be built in or after 2015. The proposal, which has not been agreed on finally, means that a project to construct any new coal thermal power station in or after 2015 should be accompanied by some CCS or purchases of EU emissions allowances. We must pay attention to whether these kinds of regulations could spread in the world in the future.

In Japan, the Ministry of Economy, Trade and Industry released an interim report by a research panel on carbon dioxide capture and storage in October 2007, calling for large-scale demonstration tests. In fiscal 2008, the panel launched discussions on legislative actions for such large-scale demonstration tests. The New

Energy Development Organization started a feasibility study on an emission-free coal gasification power generation system to separate, capture and store carbon dioxide emerging from coal thermal power generation. An integral system has been designed to separate and store carbon dioxide in the IGCC (integrated gasification combined cycle) power generation system. Preparations are going on for the system's demonstration tests.

The need for CCS as a medium to long-term measure is being recognized. Whether the planned CCS projects in the world would be implemented on schedule will also attract attention. As noted on Page 7, CCS applications for existing coal thermal power plants may have great technological and economic risks. In this sense, we may have to remember the cautious views against excessive expectations with regard to CCS.

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