



Carbon Capture & Storage Related Activities in Korea

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1. Introduction

Energy more than 97% is imported in Korea. Korea ranks the 9th largest green house gas emitter in the world in 2003. Being aware of the seriousness of global warming, Korea has already joined United Nations Framework Convention on Climate Change and has actively involved in international conference, policy groups and development of technologies.

2. Korean Government Efforts

To actively pursue the Climate Change Convention and Kyoto protocol, Korea built "Inter-ministerial Committee for Climate Change" with the prime minister being appointed as a chair in April 1998 and established "The 1st National Initiative for Addressing Climate Change" in February 1999. In September 2001, "Climate Change Convention Response Committee" with the prime minister being appointed as a chair was inaugurated and the relevant regulations were established. The committee is a government-level organization in which the 14 ministries and offices, private groups and government-invested R&D institutes participate. "The 2nd National Initiative for Addressing Climate Change" in March 2002 and "The 3rd National Initiative for Addressing Climate Change" in March 2005 were established and pursued so far. The National Initiative was to pursue various projects such as status and prospect of greenhouse gas emission, greenhouse gas reduction plan, development and supplying of renewable energy, establishment of partnership with the industries and privates. The Ministry of Commerce, Industry and Energy (MOCIE), the Ministry of Science & Technology (MOST), the Ministry of Maritime Affairs & Fisheries (MOMAF) and the Ministry of Environment (MOE) are funding and supervising various kinds of R&D programs. The results will contribute to greenhouse gas reduction efforts to be made in the future.

3. R&D Efforts

Korean efforts in R&D consists of three major technology routes. One route is energy saving and efficiency increase. The second route is new and renewable energy including hydrogen. The third route is carbon capture and sequestration. In 2004, Korean government had funded about 420 billion Korean won for the research, development and dissemination of these three options. Especially in the third route, laboratory or pilot scale researches are doing in chemical looping combustor, absorption process by wet absorbent, CO₂ recycle in PFBC, CO₂ capture by dry sorbent, adsorption by PSA, and membrane. Korea wants to join current CSLF on-going projects actively and wants to contribute to achieve the purpose of the CSLF.