

Progress of Gwangyang Coal Gasification SNG Project

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Korea imports natural gas in LNG form, and thereby the unit price (US\$10-14/MMBtu) is highest in the world with similar situation in Japan. Considering the recent cheap NG price in US due to shale gas at US\$4-4.5/MMBtu, Korea is in niche market regarding the SNG, and requires a cheaper version of NG as well as a diversification of energy imports. POSCO has decided to construct the synthetic natural gas(SNG) plant based on the coal gasification. The plant will produce 500,000 ton-SNG/year from the gasification of 5,500 ton/day sub-bituminous coal. Three Conoco-Phillips coal gasifiers of each 2,500 TPD capacity are installed and two gasifiers will be in service while one is in stand-by. Rectisol process for the acid gas removal and CO₂ separation is provided by Linde in Germany, while the methanation process comes from Haldo-Topsoe. Project has commenced from November 2011 to finish by December 2013, which is a tight schedule. Groundbreaking ceremony has done in June, 2011 and currently is ready to install main equipments. The Gwangyang SNG project is expected to lead other SNG projects in Korea. Already 2-3 SNG projects are in development by Korean power producers.