

### Update of IGCC Roadmap Development

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R&D roadmaps are critical to prioritizing research efforts. While sub-critical pulverized coal combustion technology is already in the mature status, IGCC is at the last stage of demonstration step and just entering the deployment stage. IGCC will be connected to CCS (Carbon Capture & Storage) in the near future to cope with the CO<sub>2</sub> reduction obligation in the coal power industries. In the talk, IGCC with CCS technologies are evaluated for each new technology development by R&D. Candidate technologies that are considered for reducing the COE consist of new oxygen separation technology, new H<sub>2</sub> separation membrane, H-class gas turbine, J-class gas turbine, and other new technologies. In total, 64 technology development ideas were generated for IGCC R&D. The study shows the significant potential for IGCC plant cost and performance improvement. Given the limited research funding, evaluating and prioritizing R&D areas are critical.