

Potential Power Sector Scenarios for India
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As the world's fifth largest emitter of CO₂, India needs to develop a balanced portfolio of responses that will help it to effectively participate internationally to address climate change concerns and to propose concrete technological responses. The primary objective of this presentation is to propose a portfolio of carbon dioxide abatement options in the power sector. This presentation also analyzes India's existing energy consumption pattern and considers long-term energy projections up to 2047 based on various GDP growth rates. Three scenarios were proposed for analysis using a simple model and to look at the climate forcing scenarios including carbon dioxide geological sequestration and to propose appropriate strategies. The geological sequestration options are further segregated into early opportunity options and advanced long-term options. The three scenarios are (a) The business-as-usual scenario; (b) Adoption of advanced power generation technologies like IGCC, ultra supercritical power plants, etc; (c) The case of aggressive nuclear development as per the Government of India's plans. Results of recent two studies are also presented.