



## CO<sub>2</sub> Storage Against Greenhouse Gases

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A new assessment report finalized by the Intergovernmental Panel on Climate Change (IPCC) concludes that capturing and storing CO<sub>2</sub> produced by power plants and factories before it enters the atmosphere could play a major role in minimizing climate change.

According to the scenario studies, CO<sub>2</sub> capturing and storing (CCS) could lower the costs of stabilizing CO<sub>2</sub> concentrations by 30% over the next 100 years.

By using many of the technologies that have been developed by the oil and gas industry, the capture and storage of CO<sub>2</sub> in geological formations could account for 15 - 55% of all emission reductions needed between now and 2100 for stabilising greenhouse gas concentrations in the atmosphere. Ocean storage of captured CO<sub>2</sub> or its fixing in inorganic mineral carbonates could also be useful, but the required technologies are still in the research phase.

For the same level of electricity production, a power plant with CO<sub>2</sub> capture would require 10-40 % more energy than a plant without capture which would lead to an increase in electricity production cost of about 0.01 – 0.05 US\$/ kWh. However, the future costs of CCS could decline up to 30% in the next decade assuming sustained research and deployment.

However, the potential of CO<sub>2</sub> capture and storage could be limited by several important non-technology constraints. The report highlights some of the key health issues, safety, environmental, economic and legal concerns related to CSS.

Increasing knowledge and experience would reduce uncertainties and thus facilitate decision-making regarding deployment of CCS for climate change mitigation.

**For more information:** <http://www.ipcc.ch/>

**Theme(s):** Climate Change & Energy