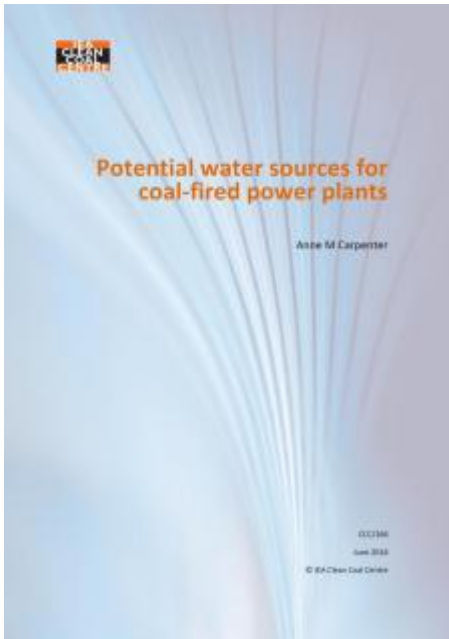


Potential water sources for coal-fired power plants_ccc266

[1]




Abstract

Global energy demand is rising, while water is becoming a scarcer commodity in many parts of the world due to overexploitation, droughts, heat waves, and other factors. Meeting the growing demand will place increasing stress on limited fresh water resources. The power generation industry is typically the largest industrial user of fresh water in a country. Consequently, the vulnerability of the power generation industry to constraints in water availability can be expected to increase. Hence non-fresh water sources will become increasingly important. This report examines the availability and use of potential non-fresh water sources in China, India, South Africa and the USA. These are the four top thermal coal consuming countries in the world. The alternative sources are municipal waste water, brackish and sea water, mine water, produced water from oil and gas wells (including coalbed methane wells), and water extracted from deep saline aquifers during CO₂ storage. In certain cases, and with suitable design of the on-site water treatment plant, a coal-fired power plant could become a supplier of both energy and fresh water, instead of a water consumer.

Attachment

Size

 [Potential water sources for coal-fired power plants - ccc266.pdf](#)^[2]

3.14 MB

Report Group:
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