

CDM COAL MINE GAS PROJECTS – RUJIGOU, CHINA

Objective: Avoidance of methane emissions

The project aim is to reduce methane emissions resulting from the mining of coal.

Background:

Mine gas, consisting mainly of methane (CH₄), is released as a by-product of coal mining. The gas is dangerous for the mine workers because, depending on the methane concentration, the mixture can be highly explosive. The methane concentration in the gas produced in the mining process ranges between 30% and 40%. This methane is vented unfiltered to the atmosphere.

Project description

- > In order to reduce methane emissions from coal mining, RWE Power – through its subsidiary Ningxia Antai New Resources – has developed a CDM project in the underground mine of Rujigou in China.
- > During the preliminary stages of mining the methane is extracted out of the coal seams and transported through a drainage system out of the mine. The extracted mine gas will be burnt in gas engines and converted into electric power. Rujigou has an installed capacity of 16 MW.
- > 24,000 tonnes of methane emissions are avoided from this project per year. With a Global Warming Potential (GWP) of 21, methane is 21 times more harmful to the environment than CO₂.



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Benefits: Annual reduction of 500,000 tonnes of CO₂e and power generation from coal mine methane

- > As a result of the project 500,000 tonnes of CO₂e per year will be avoided. In total about 5,000,000 tonnes CO₂e will be avoided up to 2020.
- > The majority power in China comes from old inefficient coal power stations. The implementation of this project will result in the avoidance of further emissions through the displacement of power generated from less efficient power stations with power from this project.

- > The working safety of the mines will be significantly improved through the controlled capture of the mine gas.
- > Further coal mine methane projects will be developed and implemented.



Project title	Ningxia Rujigou Coal Mine Methane Power Generation Project
Project type:	Coal mine methane avoidance
Host country:	China
Project status:	Registered as CDM project activity at UNFCCC since December 16th, 2010
Crediting period:	10 years Start: December 16th, 2010
Emission reduction start:	January 1st, 2010
Average Emissions reductions p.a.:	500,000 t CO ₂ e