

Coal Bed Methane (CBM) Market by Technology, Geography, Application, Regulation, Market Trends & Global Forecasts (2011 – 2021)

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Abstracts

Coal bed methane (CBM) is an unconventional natural gas found adsorbed in coal seams. It is primarily extracted from bituminous and sub-bituminous coals. The gas is stored in the coal matrix through adsorption. Coal seam methane can be extracted before, during, or after coal mining operations take place; based on which it can be classified as CBM, coal mine methane (CMM) or abandoned mine methane (AMM). In this report, we have only covered CBM. In Australia, the methane thus extracted is called coal seam gas (CSG). The top six countries with the largest CBM resources are Russia, China, U.S., Canada, Indonesia, and Australia.

CBM can be used as a substitute for conventional natural gas in a wide variety of consumer and industrial applications. The porosity of coal bed reservoirs is usually very small, ranging from 0.1 to 10%. Coal bed methane is used to heat homes, propel vehicles, generate electricity and as feedstock in industries, such as for the manufacture of ethylene. The widely used technology for CBM production is multistage hydraulic fracturing combined with horizontal drilling. The report covers the trends and forecasts for 2009-2011, 2016 and 2021 in terms of production and consumption of CBM, along with production costs and average selling prices, and regulations affecting the sector in key geographies. As of 2010, CBM is mostly exploited in North America and Australia, with pilot production planned in China, India, and Indonesia.

Currently, horizontal drilling, combined with hydraulic fracturing is the predominant technology used for CBM extraction. The combination of these technologies has played a key role in increasing the production of unconventional gas in North America. However, some concerns have been raised regarding these technologies. A typical CBM well utilizes about thousands of gallons of water per day, and a CBM well's life

can be as long as 50 years. In addition, the water used in the hydraulic fracturing is said to contain chemical additives; which may sometimes leach into underground water resources through permeable rock pores. The fracturing fluid injected into deep rock formations may sometimes return to the surface. Such fluids may contain significant amounts of hazardous chemicals, including benzene, toluene, and glycol ethers, which can cause health disorders.

Total costs of the well vary with geologic rock formations and depth of the coal seam. Enhanced Coal Bed Methane (ECBM, currently in the pilot testing phase) could affect CBM economics by enhancing methane flow and providing operators an opportunity to earn carbon credits.

This report estimates the CBM market size in terms of volumes and value. The market has been further segmented on the basis of applications such as commercial, and industrial, as well as by technologies such as hydraulic fracturing and horizontal drilling. The details are given for major regions and key countries in those regions. Market drivers, restraints, challenges, and opportunities and challenges have been discussed in detail. Market players are also entailed in the report. We have also profiled leading players of this industry including BG Group, Origin Energy, Santos, and others.

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