

# United States Coal Sector Update to the 20th Session of the Global Methane Initiative (GMI) Coal Subcommittee

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**22 October 2014**

**U.S. Environmental Protection Agency**



# United States Coal Sector Update

## ■ U.S. Coal Sector Trends

- Coal production decreased from 921 MMt in 2012 to 891 MMt in 2013 (-3%)
- Number of underground mines dropped from 488 in 2012 to 395 in 2013 (-19%)
- Number of surface mines dropped from 719 in 2012 to 637 in 2013 (-11%)
- CMM emissions decreased slightly from 2012-2013
- Greenhouse Gas Reporting Program
  - Directed by Congress in 2008 Appropriations Act
  - Reporting only, no control or use requirements
  - Data is available at <http://www.epa.gov/ghgreporting/reporters/subpart/ff>



# United States Coal Sector Update

- **2013 trends in the energy sector**
  - Slight increase in natural gas consumption (+2%)
  - Natural gas prices continue to rebound (+30%)
  - Coal consumption up modestly (+4%) following 2012 decrease (-15%)
  - Coal prices decreased slightly (-1%)
- **Implementation of national plans/directives**
  - June 2013, President Obama issued Climate Action Plan that included:
    - Steps to cut greenhouse gas pollution
    - Steps to prepare US for impacts of climate change
    - Continue US leadership in international efforts to combat climate change
  - Under Step 1: Interagency Methane Strategy
    - EPA, USDA, DOE, DOI, DOT were directed to develop a comprehensive methane strategy (March 28, 2014)
    - Takes into account data on where methane pollution is coming from
    - Builds upon best practices and activities under way to tackle methane waste
- **Regulatory update**
  - April 2014, BLM issued Advanced Notice of Public Rulemaking for Waste Mine Methane Capture



# CMM Project Outlook

- **Challenges to emission reduction projects in the United States:**
  - A lack of infrastructure (e.g., pipelines) in certain regions of the country (i.e. particularly in the west) to move CMM from mines to natural gas markets.
  - Low electricity prices in all major coal mining states, and low gas prices in mountain west make CMM energy projects unattractive from an economic perspective.
- **Approaches to overcoming challenges**
  - Voluntary and compliance carbon markets
  - State alternative energy and renewable energy programs
  - State capital investment, loans, and tax benefits and credits
  - Support for technology demonstration projects



# CMM Project Outlook (2)

- **New incentives supporting CMM projects**
  - July 2013: State of Colorado included CMM as a renewable energy source in the state's renewable portfolio standard (RPS) to meet its 2020 goals
    - 3 MW CMM Power Plant eligible for Colorado RECs
  - July 2014: New project opportunities presented by California Air Resources Board inclusion of CMM as compliance offset source (Mine Methane Capture protocol)
    - Early action projects from CAR and VCS can qualify
    - \$8-\$9/tCO<sub>2</sub>e price may spur new VAM project activity
    - Increased activity for AMM projects



# United States Coal Sector Methane Action Plan

- **Priorities:**
  - Reduce GHG emissions
  - Promote use of clean energy source
  - Achieve profitable recovery of CMM
- **Activities to Promote Methane Mitigation and Abatement**
  - Between 1994 and 2012, U.S. CMM emissions reductions have effectively removed the equivalent of more than 326 MMtCO<sub>2</sub>e from the atmosphere
  - U.S. identifies, evaluates and promotes CMM recovery and use opportunities; provides support for technology demonstration projects; and develops technical documents, tools and resources
  - International activities under the auspices of GMI
    - CMM/CBM Clearinghouses; pre-feasibility and feasibility studies
    - UNECE *Best Practice Guidance for Effective Methane Drainage and Use in Coal Mines*, technical seminars
    - Technical resources; tools; policy white papers
    - CMM Finance Guide and CMM Financial Model: updates in progress; will assist with international CMM project development

Updated online at <https://www.globalmethane.org/coal-mines/index.aspx>



# Contact Information and Announcements

## USEPA Coalbed Methane Outreach Program

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Announcement:

**US CMM Conference 18-20 November, 2014 in  
Pittsburgh, PA**

