

# United States Country Update, 2019

Volha Roshchanka

GMI Coal Mines Subcommittee Meeting 7 November 2019



# Coal Sector Overview

- Reduced demand for coal & low coal prices
- Poor financial position and restructuring of coal companies
- Number of mine closings outpaced the reduction of CH<sub>4</sub> emissions in US underground coal industry
  - Number of operating underground mines dropped 41% between 2008 and 2017 (EIA, 2019)
  - CH<sub>4</sub> emissions dropped 21% during the same period (EPA, 2019)



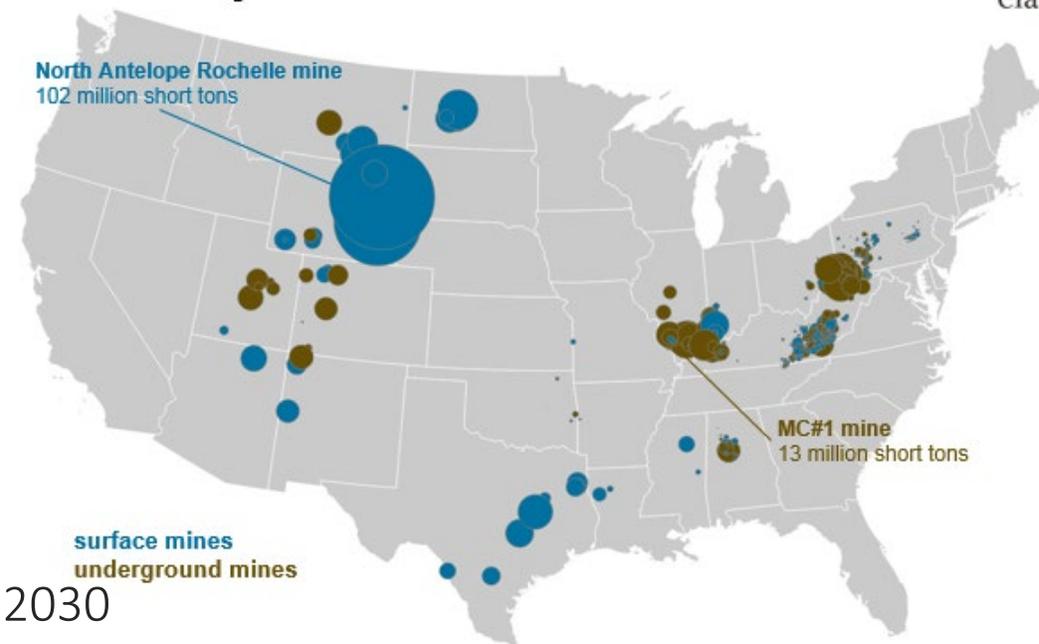
**Source:** U.S. Energy Information Administration, 2019.  
<https://www.eia.gov/todayinenergy/detail.php?id=38172>

# CMM Outlook

## Recent decline in CMM project development

- Greenhouse gas reporting requirement for mines
  - Subpart FF. Facilities that liberate > 17,525 tCO<sub>2</sub>e
- CMM ownership on Federal lands remains unclear
- State-level incentives in CO, IN, OH, PA, UT
- Carbon prices are mixed
  - In 2017, California legislators extended cap-and-trade to 2030
  - CARB adopted Compliance Offset Protocol Mine Methane Capture (MMC) Projects in 2014
  - CA Carbon Offset prices range from \$14.50-\$15.00/tCO<sub>2</sub>e
  - CA market expansion with linkage to Ontario cap-and-trade ended abruptly in July 2018
  - Gas pipeline projects not eligible in CARB and must still use voluntary markets
  - Weak market demand for voluntary carbon credits, so prices remain quite low (\$1-\$2 per ton CO<sub>2</sub>e).

Surface and underground coal mines in the United States



# CMM Projects in the United States, 2017

Mine Type	Number of Mines with Projects	Number of Projects	Use in Pipeline	Use in Electric Generation	Use in Heaters	Use in Boiler/Dryer	Flare	VAM
Active underground	13	19	11	0	1	1	2	1
Abandoned underground	51	20	15	3	0	0	2	0

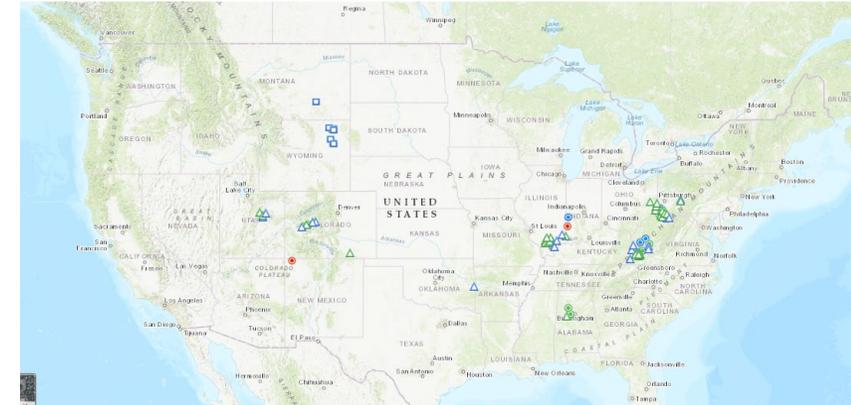
Source: U.S. EPA, 2019.



- Example: Marshall County Mine Ventilation Air Methane Project, WV
  - Generated 1.47 million credits thru 2018

# U.S. Technical Assistance: Coalbed Methane Outreach Program

- U.S.-focused resources published in 2019:
  - Online [map](#) of US CMM Opportunities
  - [Coal Mine Methane Developments In The U. S. \(PDF\)](#)
  - [Coal Mine Methane \(CMM\) Finance Guide \(PDF\)](#)
  - [State Renewable Energy Programs \(PDF\)](#)
  - [Emerging Financial and Regulatory Incentives for CMM Emission Reduction Project Development \(PDF\)](#)
  - [U.S Coal Mine Methane Project Cash Flow Model](#)
  - Webinar “Abandoned Mine Methane as an Energy Source” (slides to be posted soon).



Visit: [epa.gov/cmop](https://epa.gov/cmop) for more information

# U.S. Activities in Support of GMI

- Co-Chairing the Coal Subcommittee
- Coal Subcommittee meeting in September 2018, planning for March 2020
- Updating key GMI coal sector documents
- Collaboration with and support for UNECE
- Supporting work of the GOE on CMM that furthers the dissemination of best practices, through 2019
- Collaborating on development of AMM Best Practices Guidance Document
- Pre-feasibility studies for India and Colombia (*completed in 2019*)
- Pre-feasibility study training for China ICE (*completed in 2019*)
- VAM Expert Dialogue in cooperation with CSIRO (Australia) (*completed in 2019*)

# Contact Information

Volha Roshchanka

U.S. Environmental Protection Agency

[roshchanka.volha@epa.gov](mailto:roshchanka.volha@epa.gov)

+1 (202) 343-9160

Co-Chair, GMI Coal Mines Subcommittee

[globalmethane.org](http://globalmethane.org)