

# 2022 TAG Meeting: Oil and Gas/Industrial Sector

March 30, 2022

All Sector-Specific Meetings will take place from 1:00 – 4:00 pm MT

## Join by Zoom

<https://cbuilding.zoom.us/j/95190047848> | Meeting ID: 951 9004 7848

Dial by your location

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## Materials

- [Climate Equity Guiding Principles](#)
- [RMI Slides from Kickoff Meeting](#)
- [CAT Slides from Kickoff Meetings](#)
- [Industrial Sector Brief](#)

## Agenda

### Part 1: Quick Review & Prioritize Discussions

#### 1:00 Welcome, Opening

- Reconnect – Opening – Small Group
- Ground in Climate Equity Guiding Principles
- Announcements and Updates

#### 1:15 Review: Sector Goals & Implementing Actions, ask questions

Sandra Ely/NM Agency Staff

### Part 2: Small Group Work

#### 1:40 Small Group Work: In Depth Discussion of Oil and Gas Goals & Proposed Implementing Actions

- Reminder: purpose & outcomes for conversations
- Walk through conversations – ask for alternates to let me know who they are sub'ing for
- We will check in as a full group at 2:30 and take a ten-minute break.
- Each group will be asked to cover 1-2 Goals and prioritize additional goals for discussion to ensure coverage

### Part 3: Debrief & Wrap UP

#### 3:30 Report Back, Debrief

#### 3:55 Wrap Up, Next Meeting

**Industrial and Oil & Gas Sector Emission Reduction Goals**  
**New Mexico Climate Change Task Force**  
*Technical Advisory Group*

**Summary**

The main overarching goals for the Industrial and Oil and Gas Sector is to reduce emissions in the Oil and Gas Sector because this is the largest source of greenhouse gas emissions in New Mexico. Three of the goals represent ways to dramatically reduce emissions in this sector and one proposes to reduce emissions in hard to decarbonize industries using hydrogen.

**Issues**

- The Oil and Gas Sector represents the largest source of greenhouse gas (GHG) emissions in New Mexico and 53% of state emissions.
- The major greenhouse gas emissions in this sector are carbon dioxide from combustion and methane from venting, flaring, and leaking equipment.
- Two recent rulemakings will greatly reduce methane emissions from oil and gas production and processing. The Oil Conservation Commission adopted Energy, Mineral, and Natural Resources Department (EMNRD) rules in 2021 to prevent energy waste and requires 98% gas capture by 2026. The Environmental Improvement Board is expected to adopt the New Mexico Environment Department's (NMED) Ozone Precursor rules in April 2022, which are expected to achieve a 50% reduction in methane emissions by minimizing equipment leaks.
- Reducing energy waste and air pollution in this industry will improve public health by reducing ambient ozone concentrations and is anticipated to increase royalty collections by the state.
- Newly proposed federal rules to reduce pollution at new and existing oil and gas sources may also provide additional methane emission reductions.
- New Mexico state agencies, Sandia National Laboratories, and Los Alamos National Lab entered into a Memorandum of Understanding (MOU) to facilitate the development of sound science, advance technologies and inform policy to enable a path for zero carbon hydrogen.
- Governor Michelle Lujan Grisham entered into a MOU with the Governors of Colorado, Utah and Wyoming to establish a framework for developing a regional clean hydrogen hub as contemplated by the 2021 Infrastructure Investment and Jobs Act.
- Governor Michelle Lujan Grisham issued an executive order to establish clean hydrogen development for New Mexico.

**Recommendations**

**Goal 1:** Reduce the operational intensity of methane and carbon dioxide emissions from oil & gas production and processing by 60% from a 2020 baseline by 2025

**Possible implementing actions:**

- a. Implementation and adoption of EMNRD waste and NMED VOC rules

**Rationale:** The oil and gas sector is the largest source of GHG emissions in the state. Innovate rules for reducing this type of pollution and waste will not only reduce emissions in state but serve as a model for emission reductions in this sector in other jurisdictions. While methane is an extremely potent greenhouse gas, it is short-lived in the atmosphere compared to carbon dioxide. Reducing the atmospheric methane concentration now can slow temperature rise through mid-century.

**Caveats:** Measuring the reduction in operational intensity will be difficult since oil and gas greenhouse gas emissions inventories have historically been inaccurate, and the state has not yet established a 2020 GHG baseline.

**Recommended Resources:**

- **OCD Rules:** <https://www.emnrd.nm.gov/ocd/ocd-outreach-and-public-engagement/>
- **NMED Rules (EIB 21-27):** <https://www.env.nm.gov/opf/docketed-matters/>

**Questions for the TAG to consider:**

1. What additional innovate ways can the state employ to achieve additional methane emission reductions in the oil and gas industry?
2. The state's focus has been on reducing volatile organic compounds/methane emissions. What suggesting do you have for reducing carbon dioxide emissions in this sector?

**Goal2:** Remediate all existing abandoned infrastructure by 2030 (half by 2025)

**Possible implementing actions:**

- a. Implementing Infrastructure Investment and Jobs Act funding in New Mexico over the next ten years
- b. Increased Oil Rec Fund, bonding amounts to ensure remediation of newly abandoned infrastructure begins within 12 months of abandonment

**Rationale:** New Mexico has approximately 1700 orphaned wells on state and private land, each costing approximately \$150,000 to plug and remediate properly. Plugging and remediating orphaned wells sites can have immense environmental and safety benefits including protecting groundwater and ensuring that no natural gas is escaping to the surface. As part of the federal Infrastructure Investment and Jobs Act (Division D, Title VI, Section 40601) signed into law last year by President Biden, the Department of the Interior (DOI) has been appropriated \$4.677 billion between now and September 30, 2030 to implement a nationwide program targeting orphaned wells and facilities on private, state, tribal, and federal mineral leases. Funding is divided into three phases: initial grants, formula grants, and performance grants. Our eligibility for the initial grant is \$25 million which we expect to receive in June 2022. For the Formula grant New Mexico is one of 26 states who have submitted a notice of intent to participate in that program. Our eligibility for formula grant funding as currently projected by the DOI is an additional \$72.26 million but subject to change and final approval by DOI in response to our application, which has not yet been submitted. There are separate funds provided to the BLM for orphan wells on federal and tribal lands under the bill. The parameters for funding under

the performance grant portion of the program are yet to be fully determined, but matching funds will be required in specific instances.

**Caveats:** Measuring emission reductions from orphan wells is a relatively new concept with most methods still in the development phase. Additionally, because these are recent developments, most plugging contractors are not familiar with the methodologies and do not have the technology to measure emissions from orphan wells.

**Recommended Resources:**

- **Fact Sheet on the Bipartisan Infrastructure Bill:**  
<https://www.whitehouse.gov/briefing-room/statements-releases/2021/11/06/fact-sheet-the-bipartisan-infrastructure-deal/>
- **IOGCC Idle and Orphan Oil and Gas Well: State and Provincial Regulatory Strategies 2021:**  
[https://iogcc.ok.gov/sites/g/files/gmc836/f/iogcc\\_idle\\_and\\_orphan\\_wells\\_2021\\_final\\_web.pdf](https://iogcc.ok.gov/sites/g/files/gmc836/f/iogcc_idle_and_orphan_wells_2021_final_web.pdf)

**Questions for the TAG to consider:**

1. What opportunities are there to build the workforce to allow for more plugging and reclamation work?
2. What opportunities are there to identify previously unknown orphan infrastructure?
3. Are there opportunities to quantify emissions from orphaned wells?

**Goal 3:** Achieve 50% reduction of Industrial/O&G CO<sub>2</sub> by 2030 (based on 2018 inventory) through carbon capture and sequestration

**Possible implementing actions:**

- a. Apply for and use Class VI primacy in order to regulate carbon capture & storage (CCS)
- b. Clarifying ownership of pore space and CO<sub>2</sub> injected for CCS. Will likely require Oil and Gas Act updates.

**Rationale:** Carbon capture and sequestration is one avenue to reduce millions of tons of CO<sub>2</sub> emissions from power generation and industrial sources globally and in New Mexico. CCS entails capturing carbon dioxide from an industrial activity, transporting it and then storing it underground. In the case of carbon capture and utilization, carbon dioxide is re-used in industrial processes rather than stored underground.

**Caveats:** Site location for large scale geologic storage must be carefully selected to ensure permanent sequestration. The location must be also be well designed, operated and appropriately monitored.

**Recommended Resources:**

1. Clean Air Task Force webpage: <https://www.catf.us/work/carbon-capture/>

2. Intergovernmental Panel on Climate Change: <https://www.ipcc.ch/report/carbon-dioxide-capture-and-storage/>

**Questions for the TAG to consider:**

1. What opportunities does New Mexico have to effectively sequester carbon dioxide?
2. What issues and challenges must be addressed in developing a regulatory framework for effective carbon sequestration?
3. What questions and concerns to you have regarding the geologic sequestration of carbon?

**Goal 4:** Create one clean hydrogen hub in New Mexico by 2028

**Possible implementing actions:**

- a. Pass and Implement the Hydrogen Hub Act to create a clean hydrogen economy to accelerate decarbonization of industrial fuels.

**Rationale:** Certain industries and modes of transportation are difficult to decarbonize, such as cement manufacturing, mining, heavy duty truck transport and aviation.

**Caveats:** Calculating lifecycle emissions of hydrogen production and use is important to fully understanding emission reductions. Currently most hydrogen is produced using methane. Producing clean and zero carbon hydrogen may take considerable investment.

**Recommended Resources:**

- MOU between the state agencies and national labs: [https://www.env.nm.gov/wp-content/uploads/2022/01/2021-01-11\\_-\\_Zero\\_Carbon\\_Hyd-Fully-Executed.pdf](https://www.env.nm.gov/wp-content/uploads/2022/01/2021-01-11_-_Zero_Carbon_Hyd-Fully-Executed.pdf)
- MOU between states: [https://www.governor.state.nm.us/wp-content/uploads/2022/02/FINAL-Western-Inter-States-Hydrogen-Hub-MOU-V5\\_022322.pdf](https://www.governor.state.nm.us/wp-content/uploads/2022/02/FINAL-Western-Inter-States-Hydrogen-Hub-MOU-V5_022322.pdf)
- Executive Order: <https://www.governor.state.nm.us/wp-content/uploads/2022/03/Executive-Order-2022-013.pdf>

**Questions for the TAG to consider:**

1. What issues and challenges should the state address in developing a framework that supports clean hydrogen production and use in New Mexico?
2. What are some innovative ways that clean hydrogen can be used to reduce greenhouse emissions in New Mexico?

**Contact**

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