

NMED's Greenhouse Gases Reporting Workshop

Presented by:
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Agenda

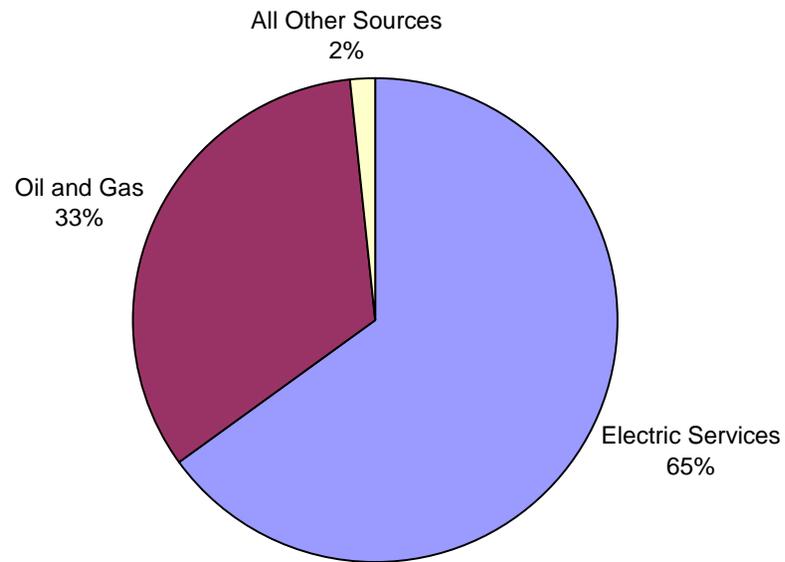
- 2008 GHG Emissions Inventory results.
- 2009 GHG Emissions Reporting requirements and process.
- 2010 GHG Emissions Reporting Requirements.
- Questions/Comments.

2008 GHG EI Results

- CO₂ emissions data from Title V Sources.
- Received 135 reports (24.2 MMT).
- 65% of emissions from Electric Services.
- 33% of emissions from Oil and Gas.
- 2% from all others.

2008 GHG EI Results

2008 CO2 Emissions Reported by NM Title V Sources



2008 GHG EI Results

- 25 Highest emitting sources contributed 90% of emissions.
- Sources emitting 25,000 metric tons or more contributed 96.7% of emissions.
- 26 entities/companies (63 sources) represent 96.7% of emissions.
- 100 Sources emitted 10,000 metric tons or more & contributed 99.3% of emissions.

2008 GHG EI Results

- Data Caveats:
 - Primarily combustion CO₂.
 - Incomplete Vented CO₂ data set.
 - Overall contribution from Oil and Gas skewed by limiting data set to CO₂.
 - Does not include emissions from Tribal Land or Bernalillo County.

2009 GHG Reporting Requirements

- Title V sources must report direct CO₂ & CH₄ emissions.
- Direct emissions do not include emissions from motor and non-road vehicles.
- Petroleum Refiners, and Electric Utilities (>25 MW) report pursuant to 20.2.87 NMAC.
- All other Title V sources report pursuant to 20.2.73 NMAC.
- Reporting pursuant to 20.2.87 NMAC is optional for non-required sources.

2009 GHG Reporting Requirements

- Any source may voluntarily report GHG emissions to The Climate Registry (TCR).
- 20.2.73 NMAC GHG reporting deadline is 05/14/10.
- 20.2.87 NMAC reporting deadline is 06/30/10.
- Sources voluntarily reporting GHG emissions to TCR shall submit Emission Reports by 06/30/10.

2009 GHG Reporting Requirements

- 20.2.87 NMAC additionally requires reporting of Indirect Emissions.
- Indirect GHG emissions are from all electricity, steam, and heat purchased and consumed at the facility.
- GHG emissions during regular operation, maintenance, start-up, shutdown, upset and malfunction shall be aggregated and reported at the Subject Item (“SI”) level.

2009 GHG Reporting Process

- Emissions Year 2009 GHG reporting procedures.
- http://www.nmenv.state.nm.us/aqb/ghg/ghgrr_index.html
- Sector specific methods & reported data.
- Use AEIR tool for submitting data.
- Include electronic calculation (i.e. Excel spreadsheet) attachment with your submittal as outlined in the procedures.

2009 GHG Reporting Process

- Each SI tab has CO₂ & CH₄ emissions from combustion, fugitive & vented sources.
- Associate GHG emissions from each source type as closely as possible to the appropriate SI.
- If a source type does not exist as a SI include the total emissions from that source type in your Excel SS calculation attachment.
- ***Example 1:*** Using AEIR tool report vented pneumatic device emissions under fugitive tab as vented CH₄ & CO₂.

2009 GHG Reporting Process

- No Fugitive Tab?: Aggregate emissions from pneumatic devices and report as vented CH₄ & CO₂: include these emissions with the electronic attachment associated with your GHG submittal.
- **Example 2:** Aggregate CH₄ & CO₂ compressor vented emissions and associate with one compressor SI.
- **Example 3:** Indirect Emissions as required by 20.2.87 (NMAC) – applies to Electric Utilities and Petroleum Refineries.
- No tab for Indirect Emissions: include these emissions with the electronic attachment associated with your GHG submittal.

2009 GHG Reporting Process

- Reporters may use API SANGEA™ 2009 version to assist in calculating emissions.
- CO₂ & CH₄ emissions from combustion can be estimated using 95125 (a) & (b) as outlined by the procedures.
- Carbon content for fuels having a HHV less than 975 btu/scf can be estimated from fuel composition as outlined in section 4.1 of the API compendium.
- Use the GHG calculation method that reflects the emissions estimate method used to calculate emissions for a given SI.
- Use calculation method “Other Publication Referenced” when calculating GHG emissions using API compendium & “GRI-GLYCALC” for calculating dehydrator GHG emissions.

2009 GHG Reporting Process

- Landfills are required to report CO₂ & CH₄ emissions.
- Industry specific protocols can be used to report vented CO₂ & CH₄ emissions.
- Landfill combustion emissions should be calculated following our 2009 procedures (See Section 95125).
- Landfill reporters may voluntarily submit as an attachment sequestered carbon emissions to demonstrate the complete carbon footprint of their facility.

2009 GHG Reporting Process

- Electric Utilities – CO₂ & CH₄ stationary combustion emissions are not required from emergency generators & fire-fighting equipment operating less than 500 H/Y.
- Fugitive emissions from coal storage piles shall be calculated in accordance with 95125(i).
- Purchased coal records, and basin specific CH₄ emissions default values found in Appendix A of the procedures are inputs for the calculation method.

2010 GHG Reporting Requirements

- 20.2.73 NMAC requires minor oil & gas sources to report CO₂ & CH₄ emissions in 2011.
- Sources subject to 20.2.87 NMAC reporting shall report all six GHG as defined by 20.2.2.7.M NMAC.
- All other sources: GHG reporting requirements are similar to 2009 except for those sources subject to EPA reporting
- In an effort to avoid duplicative reporting we're accepting EPA GHG reports for sources subject to federal GHG reporting.

2010 GHG Reporting Requirements

- EPA Reporting Rule 40 CFR Part 98
- Source categories potentially subject to EPA requirements include:
- Stationary Combustion – Subpart C
- Electricity Generation – Subpart D
- Petroleum Refineries – Subpart Y
- Municipal Solid Waste Landfill – Subpart HH
- Oil and Gas – Subpart W (pending)

2010 GHG Reporting Requirements

- EPA rule only applies to sources emitting > than 25,000 metric tons.
- EPA provides a handy combustion applicability tool.
- This tool may be used to calculate stationary combustion GHG emissions for a variety of fuels.
- <http://www.epa.gov/climatechange/emissions/GHG-calculator/index.html>
- Demonstrate Tool

2010 GHG Reporting Requirements

- EPA's pipeline quality emission factor found in Table C-1 applies to field gas composed of at least 70% methane and has a high heat value between 910 and 1150 Btu/scf.
- Therefore most combustion sources burning PLQNG meeting the above definition may measure Fuel HHV & consumption and apply default CO₂ emissions factor to calculate emissions (EPA Tier 2).
- Sources combusting natural gas not meeting the above criteria need to measure fuel carbon content as required by EPA Tier 3.

2010 GHG Reporting Requirements

- Review NMED 2010 reporting matrix
- March 11th and 25th meetings
- Questions/Comments?