Possible State Uses of EPA GHG Reporting Program (GHGRP) Data

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Iowa Direct-Emitting Source Categories Reported in 2010

<table>
<thead>
<tr>
<th>Reported for 2010:</th>
<th>Iron and Steel Production (Q)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stationary Combustion (C)</td>
<td>Lime Production (S)</td>
</tr>
<tr>
<td>Electricity Generation (D)</td>
<td>Nitric Acid Production (V)</td>
</tr>
<tr>
<td>Ammonia Manufacturing (G)</td>
<td>Petrochemical Production (X)</td>
</tr>
<tr>
<td>Cement Production (H)</td>
<td>Landfills (HH)</td>
</tr>
<tr>
<td>Glass Production (N)</td>
<td>CO₂ Supply (PP)</td>
</tr>
</tbody>
</table>

- 135 facilities total
- Source categories in red have only 1 – 3 reporting facilities
Breakdown of Reported GHG Emissions (MMT CO2e) from Iowa Stationary Sources by Industry Type - 2010*

- Power Plants: 67.8%
- Other Industrial: 19.4%
- Chemicals: 4.8%
- Minerals: 3.2%
- Landfills: 1.6%
- Metals: 1.6%
- Government and Commercial: 1.6%

*As reported by 12/16/11
What could DNR use the data for?

• Allows us to easily compare Iowa emissions to those of the nation, other states, and regions
  – Data provided to States in a compatible format
  – Participant in EPA/ECOS Integrated Project Team
  – In future EPA site will graph and chart trends

• Public information requests

• Fulfills statutory requirement for Iowa GHG mandatory reporting program

• Marketing for Pollution Prevention Services
  – EPA grant to offer pollution prevention interns to highest emitters of GHGs
What could DNR use the data for?

• Did not previously have site-specific landfill methane emissions
  – Could be used to identify future landfill gas-to-energy projects

• GHG Permitting and NSPS applicability
  – Phase 3 of Tailoring Rule
  – Emission guidelines for existing power plants

• Statewide GHG Inventory
  – Statute requires the inventory must be completed by Dec 31 for the previous year.
Use in Statewide GHG Inventories

1. **Bottom-up inventories**

   • EPA GHGRP data is “bottom-up” data
     – i.e. direct emissions from individual sources
     – Generally more accurate than “top-down” inventories that calculate emissions based on national or regional data aggregated down to the state level

   • Iowa has 3 years of bottom-up of direct emissions reported to Iowa prior to federal program (2007 – 2009)
     – stationary fossil fuel combustion, industrial processes, ethanol fermentation

   • We can use EPA GHGRP data for our bottom-up inventory
     – Generally same sources reported and calculated using similar method
     – Shows emissions trends; can be used to show effectiveness of mitigation measures
Use in Statewide GHG Inventories

2. *Top-down Inventories*

• Iowa has conducted 4 “top-down” statewide GHG inventories using EPA’s State Inventory Tool (1990, 2000, 2005, 2010)
  
  – More categories than our bottom-up inventory:
    fossil fuel combustion, agriculture, industrial processes, natural gas T & D, transportation, waste
  
  – Sector-wide emissions, not individual facilities
  
  – Difficult to do in 12-month time frame allowed because many data sets (eGRID, EIA energy data, national inventory, etc.) are released 6 months – 3 years after Iowa’s report is due.
Use in Statewide GHG Inventories

• We can make our statewide, bottom-up inventory more timely and/or accurate by supplementing it or replacing it with EPA GHGRP data.
  – EPA GHGRP data is more current than other data sets (eGRID, EIA data, etc)
  – Emissions reported by some industrial categories can replace emissions calculated by the SIT.
  – Investigate how emissions reported under Subpart C and D could be used to supplement or replace forecasted emissions from the electric power and industrial sectors.
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