



**Department of the Environment**

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# Global Warming Activities in Maryland



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**COG Climate Change Steering Committee, May 23, 2007**



# Background



- Concern over global warming and climate change has increased dramatically over the past 6 months
  - Likely to become the dominant air issue for the foreseeable future
- MD, VA, DC and COG have all begun to take steps related to global warming
- Need for inter-regional, multi-faceted strategy and regional coordination is clear



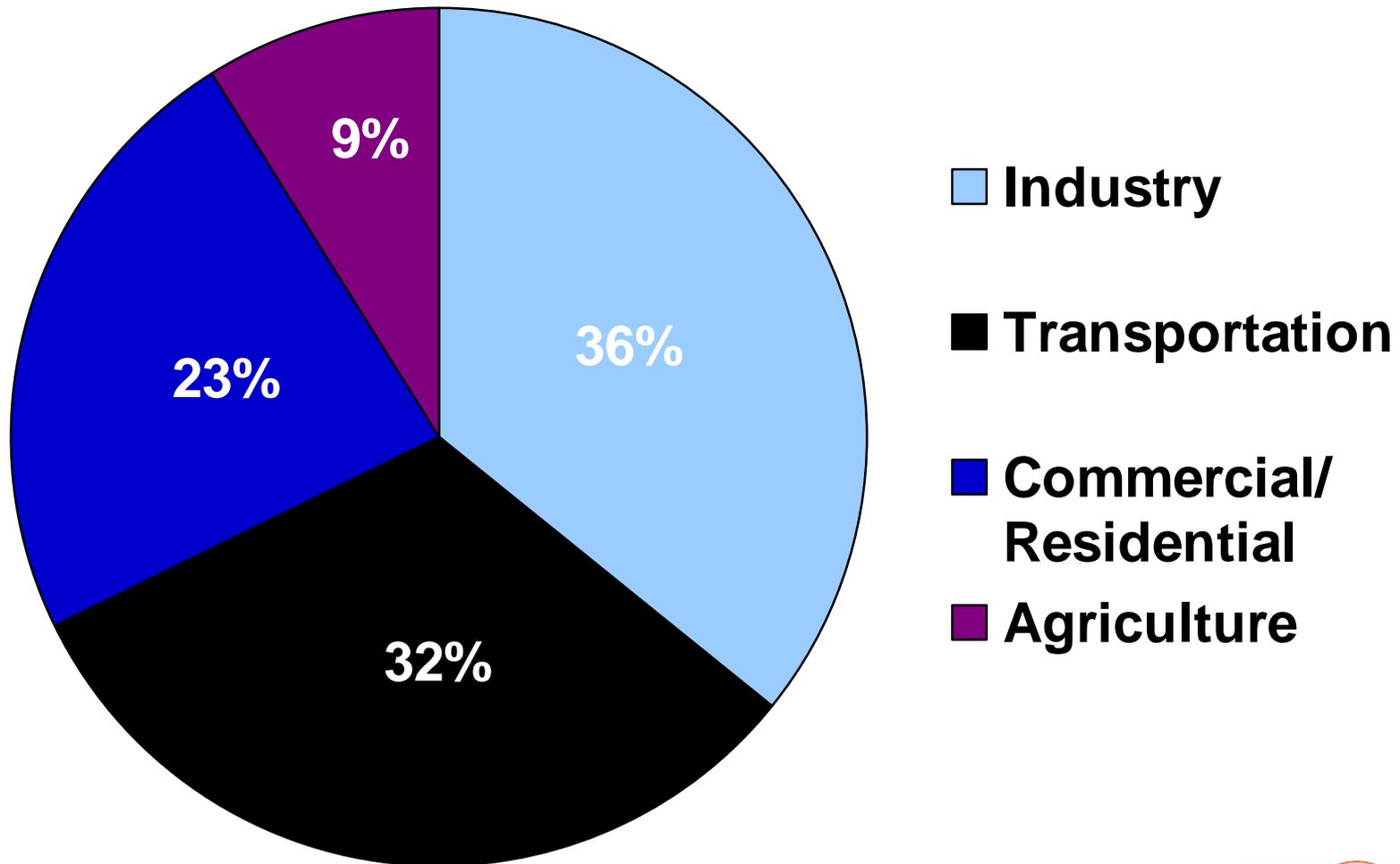
# Greenhouse Gases (GHG)

- The debate related to the science of global warming is now over
- The time to act is now
- Major concerns in MD:
  - Rise in coastal waters
  - Loss of aquatic life (impacts to oysters, crabs and the bay ecosystem)
  - Potential for extreme weather conditions
  - More ...





# GHG Emission Sources



Data: EPA's 2004 National GHG Emissions by End Use Economic Sector





# Climate Change Initiatives in MD

- RGGI
  - The Regional Greenhouse Gas Initiative
- Clean Cars Act of 2007
- Governor O'Malley's Executive Order on Climate Change
- MD Energy Initiatives





# RGGI

- On April 20<sup>th</sup> Maryland officially became a member of RGGI
- RGGI is a regional cap and trade program focused on reducing carbon dioxide (CO<sub>2</sub> – a major greenhouse gas) emissions from power plants
- Not your “typical” cap and trade program
  - CO<sub>2</sub> reductions achieved by reduced demand not “scrubbers” or other end-of-the-pipe pollution control technologies
  - RGGI reductions to be achieved by
    - Setting caps for sources
    - Auctioning allowances to sources
    - **Using auction proceeds to create incentives for energy efficiency and reduced demand**
- Auction proceeds for MD could approach \$100 Million per year





# Clean Cars (CAL LEV II)

- The Maryland Clean Cars Program will provide small but meaningful reductions of:
  - Nitrogen Oxides (NO<sub>x</sub>)
  - Volatile Organic Compounds (VOCs)
  - Air Toxics
  - These reductions will help the Washington area meet federal ozone and fine particle standards
- The major new pollutant reduced is greenhouse gases
  - Approximate 30% additional reduction by 2016
- Because of fuel savings, the Clean Cars Program will reduce the overall cost of new vehicles for MD consumers





# Maryland Executive Order

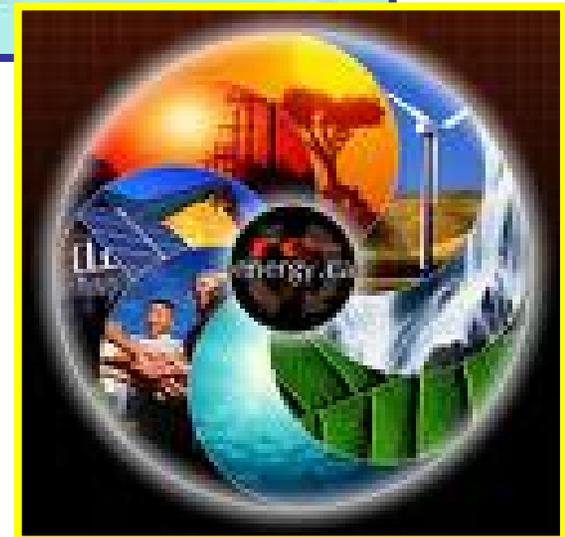
- Establishes a climate change commission charged with addressing Maryland's climate challenge on all fronts
- Three specific areas of concern:
  - Mitigation (MDE)
  - Adaptation (DNR)
  - Science and effects in Maryland (U of M)
- Presumptive GHG reduction targets
  - 1990 levels by 2020
  - 80% of 2006 by 2050
- Initial report by November 2007
  - Action Plan by April 2008





# Clean Energy Programs in MD

- Renewable Portfolio Standards
- Clean Energy Incentives Act
- Renewable Fuels Incentives Act
- Energy Efficiency Standards Act
- State Buildings Energy Efficiency and Conservation Act
- Green Building Tax Credits
- More ...





# Other Activities in the DC Region

- Clean Cars in the District
  - Under consideration
- Active effort in the District to join RGGI
- Virginia developing comprehensive state energy plan
- Virginia Air Board studying greenhouse gas reduction programs
- MWCOG signs resolution on April 11, 2007



# Issues to Discuss

- Clean Cars
  - Regional approach?
- RGGI
  - MD public benefits/energy efficiency fund by 2009
  - Coordination with local governments on potential energy efficiency and renewable energy projects
- Harmonizing State and Local climate change efforts

