Montgomery County Climate Protection Initiative

Presented At: Metropolitan Washington Council of Governments Climate Roundtable July 29th, 2007

> Eric R. Coffman Senior Energy Planner Department of Environmental Protection Montgomery County, Maryland



Climate Protection Initiative (CPI)

- Established by Council Resolution 14-582, adopted July 11th, 2000. Pledges:
 - Montgomery County to join the International Council for Local Environmental Initiatives (ICLEI) Cities for Climate Protection (CCP) campaign.
 - Take Leadership in increasing energy-efficiency and reducing GHG emissions from municipal operations
 - Conduct a GHG emissions inventory and develop a local action plan.
 - Interdepartmental effort led, DEP lead agency for monitoring, enforcement and public programs.

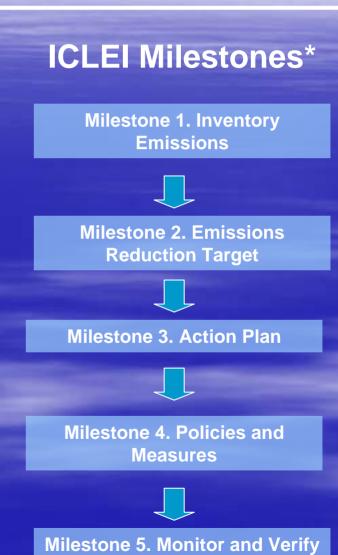
Climate Protection Initiative (CPI)

- Reflected in County Energy Policy (latest in resolution 15-1529 July 11, 2006):
 - Encourages a reduction in public and private energy consumption, per capita.
 - Authorizes and defines county clean energy purchase.
 - Encourages energy performance improvements for County facilities.

CPI Phase I Actions

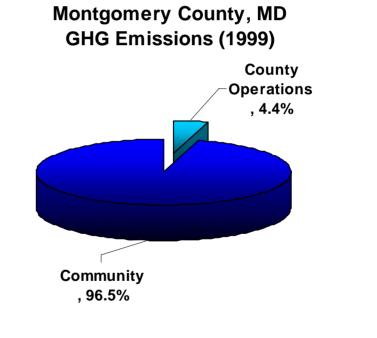
- Roughly correlates to the ICLEI Milestones
- Completed an emissions inventory in December of 2002 using an external consultant.
- Developed an action plan
- Implemented actions and programs
- Now it is time to revaluate the inventory and improve the action plan.





Results of the 2002 Inventory

- General upward trend between 1995 (baseline) 2001, approximately 8% but less than 1% per capita.
- Total County Emissions = 10 million+ Short Tons CO₂-E in 1999.
- Major efforts needed in the private sector to make a significant impact.



Action Plan

An action plan was developed for County Agencies, implemented actions include:

- Energy-efficiency measures for County facilities and fleets.
- Clean energy purchases
- Light emitting diode (LED) traffic signals

Public Programs to encourage GHG reductions

Measures and Programs

County Operations:

- County led wind power purchase, currently the group is the 3rd largest municipal purchaser.
- Energy-efficiency improvements to buildings and other facilities
- Hybrid Electric buses and sedans and alternative fuels.
- 5 year plan to retrofit traffic signals with energy-efficient LED signals

Measures and Programs

 Private Sector (The BIG piece of the pie)

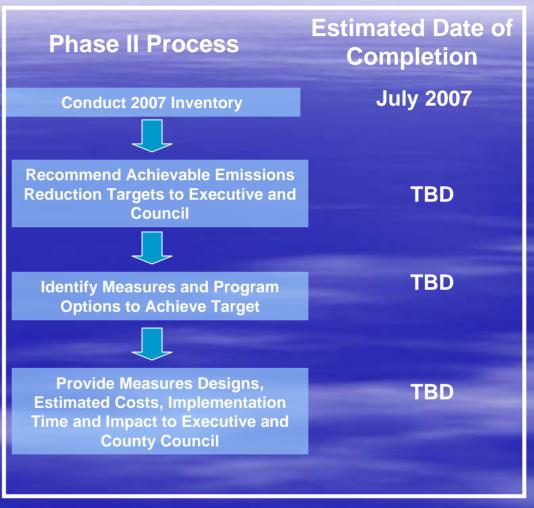


- Clean Energy Rewards Program: Provides incentives to residents, small businesses and other organizations to purchase clean energy.
- Innovative green buildings mandate for private and public buildings
- Education including clean energy and energy-efficiency workshops for the public.
- Other pilots addressing forest conservation and energy efficiency.



Phase II CPI

- Four years since last inventory, time for reassessment
- New inventory effort including analysis and data from the community and public.
- In-house "team" effort involving a variety of DEP staff
- Using ICLEI CCAP Software (earlier version used in 2002 inventory)
- New process adapting ICLEI milestones



Phase II Initiative

- Phase II Initiative emphasizes collaboration with jurisdictions within Montgomery County and the region:
 - DEP recently hosted a meeting of Montgomery County jurisdiction to discuss sharing resources and combing efforts.
 - Work closely with MWCOG Efforts
 - Exchange ideas with other jurisdictions in the region.



Challenges

Policy

- Accurate, appropriate, and jurisdiction specific analysis for policy makers
- Emissions targets that a local government has the ability to meet
- Limits to the policy levers available to a local government
- Enacting the programs with most positive impact per unit of resources for a particular jurisdiction
- Public awareness and expectation, very positive but some may desire immediate action before analysis can determine the most effective actions.

Programmatic

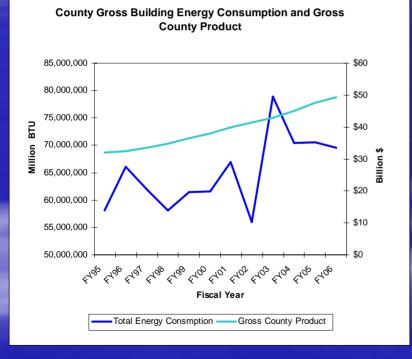
- Resources
- Building "Institutional" Knowledge
- Data availability and quality Implementation time for programs
- Difficulty of changing public behavior
- Coordination among departments and programs

Economic and Regional

- Regional population growth
- Economic growth
- Transportation

Final Images on the Challenges Ahead

 Graphics depict building energy consumption trends in Montgomery County and does not present the whole GHG picture for the County but it is indicative.



County Gross Building Energy Consumption and Population

