

Climate Change Goals for the Metropolitan Washington Area

**Climate Change Steering Committee
January 23, 2008**

Joan Rohlf, MWCOC/DEP

Questions for discussion

1. Why set a regional climate change goal?
2. Options for regional goal
3. Should the region set an early goal?
4. Who would the reduction goal apply to?
5. How would these goals be achieved?
6. How would progress be measured?



1. Why set a regional climate change goal?

- Metro Washington region takes climate change challenge seriously, makes commitment to address problem
- Model for local governments in region to follow; incentive for them to contribute by making reductions
- Provide leadership to address GHG reductions that are compatible with growth in the Washington region
- Provide framework/structure for local governments to leverage their efforts to reduce GHG emissions
- Serve as a catalyst for business, transportation and other sectors of regional community to participate in GHG reduction effort



2. Options for Regional Goal

- A. All Jurisdictions Adopt Uniform Regional Goal
- B. Regional Goal With Existing Commitments
- C. No Regional Climate Change Goal

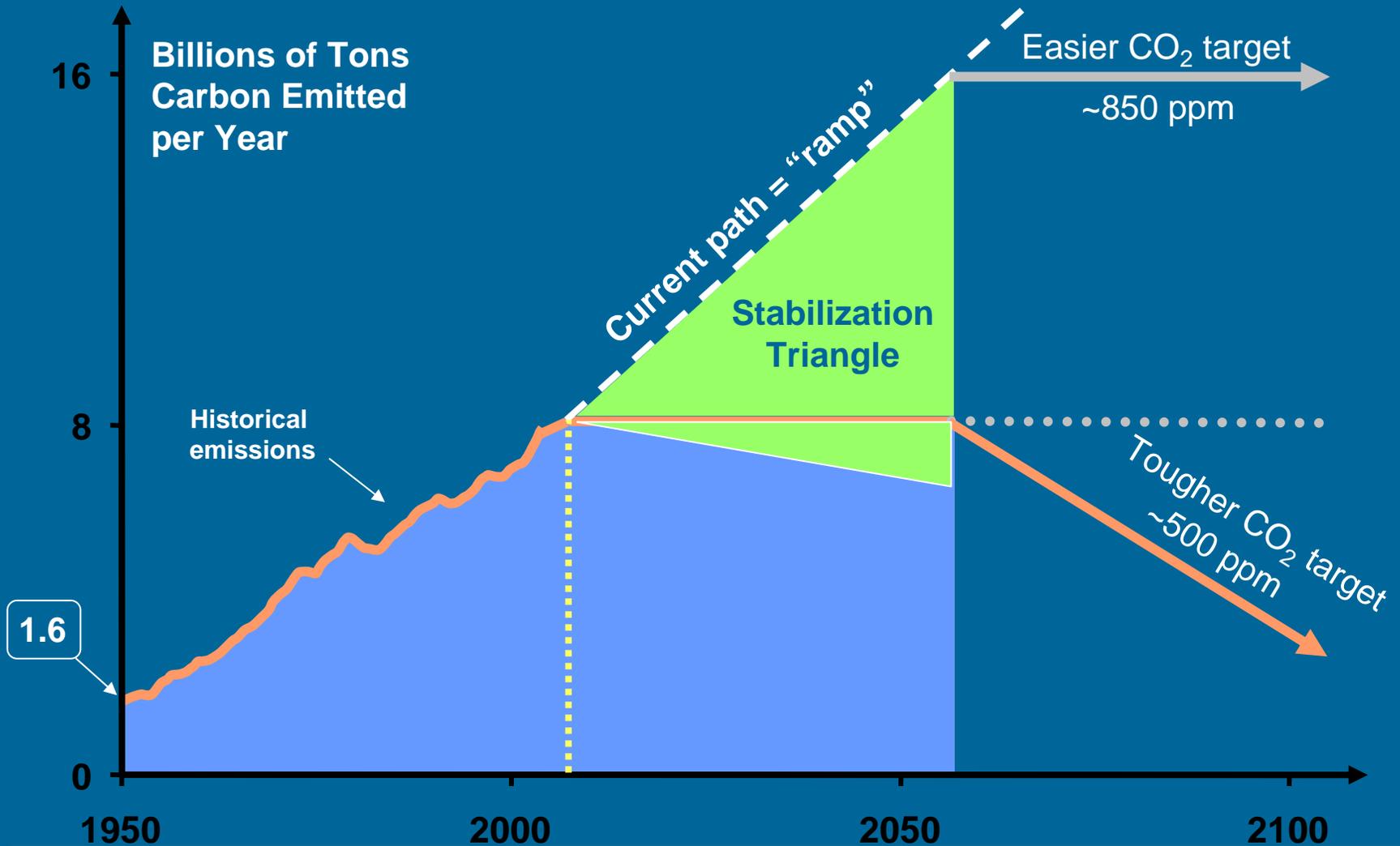


Short Term & Long Term Goals

- **short term goals** because they're doable
 - Analyze strategies using existing technology
 - Nearer term year is easier to comprehend, anticipate
- **long term goals:** scientists say they're needed to stabilize climate
 - Spur investment in new technology
 - Incentive for technological innovation



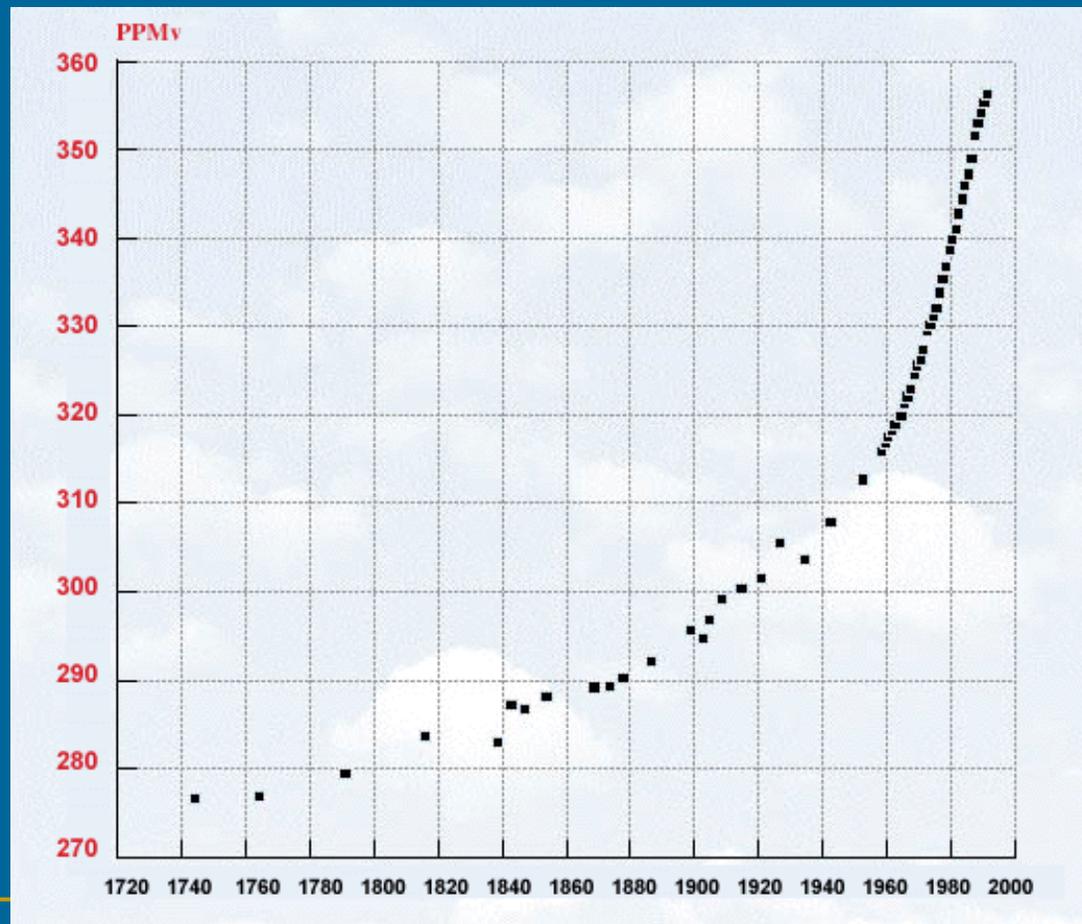
The Stabilization Triangle



Carbon Dioxide Concentration Trends & Temperature-GHG Relationship

- 379 ppm CO₂ in 2005, up from 280 ppm in 1800
- Since 1970s, 1.7 ppm/yr added via emissions
- Since 2000, 2.5 ppm/yr has been added

Global Atmospheric Carbon Dioxide Concentrations (PPMv)



A) All Jurisdictions Adopt Uniform Regional Goal

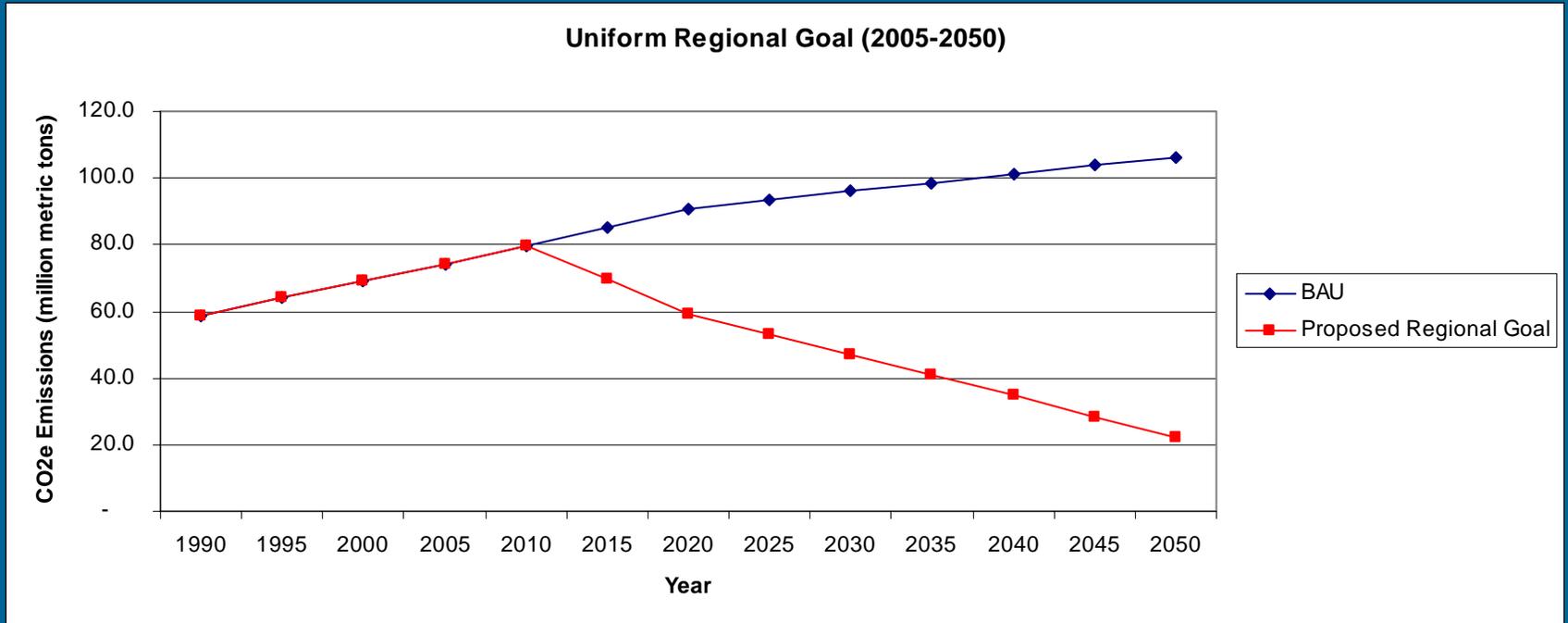
20% below 2005 by 2020

70% below 2005 by 2050

- Based on science in IPCC Report and consistent with the Warner Lieberman bill's reduction goals



Option A: Uniform Regional Goal



BAU: Business as Usual= increasing CO2 emissions



A. All Jurisdictions Adopt Uniform Regional Goal

■ PROS

- Based on science
- Demonstrates serious intention to contribute to solution
- Simple to understand

■ CONS

- Requires jurisdictions having goals to change them
- Requires those without goals to adopt the regional goal
- Same goal for every jurisdiction is not equitable; some grow faster, develop differently



B. Regional Goal With Existing Commitments

- Goals based on science in IPCC Report; consistent with Warner Lieberman bill
- Jurisdictions with goals retain them
- Jurisdictions without Goals encouraged to consider goal adoption
- Jurisdictions encouraged to adopt Regional Best Practices for greenhouse gas reduction



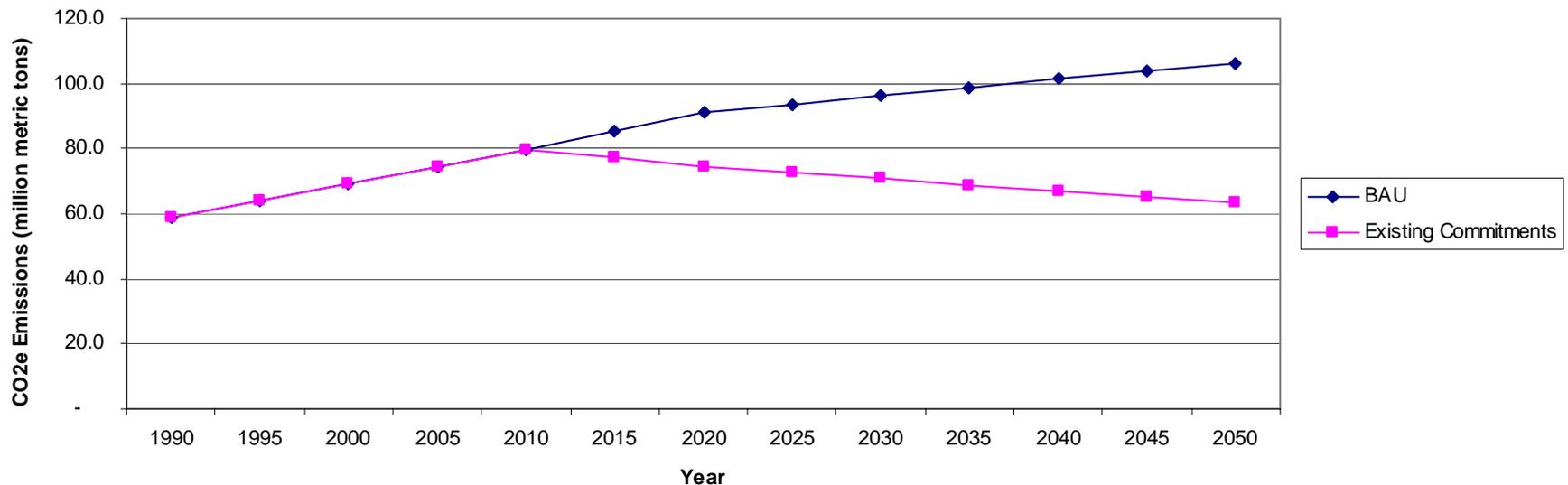
Reduction Goals: Examples

- Cool Counties (Arlington, Montgomery, Fairfax Counties)
 - Stop growth in 2010
 - 80% below current levels by 2050
- Mayor's Agreement (D.C.)
 - 7% below 1990 levels by 2012
- Maryland Goal (Proposed)
 - 25% below 2006 levels by 2020
 - 90% below 2006 by 2050
- Virginia Energy Plan
 - 2000 levels by 2025 (Reduce 30%)



Existing Local Government Goal Commitments Compared to BAU

Existing Commitments (2005-2050)

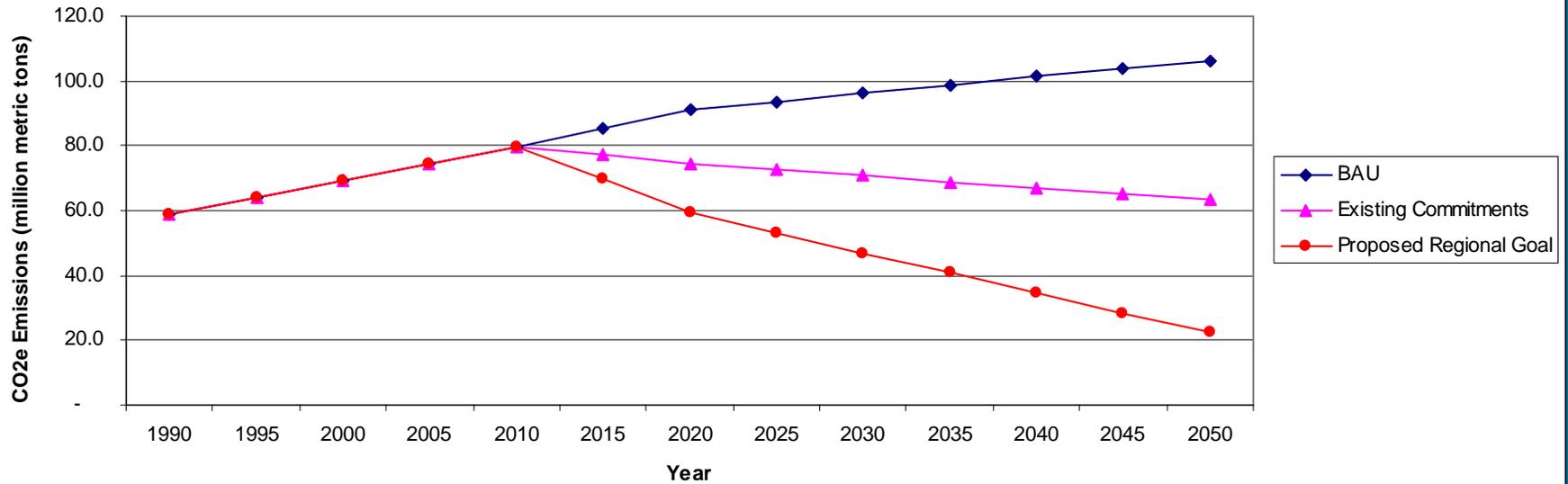


BAU = Business as Usual



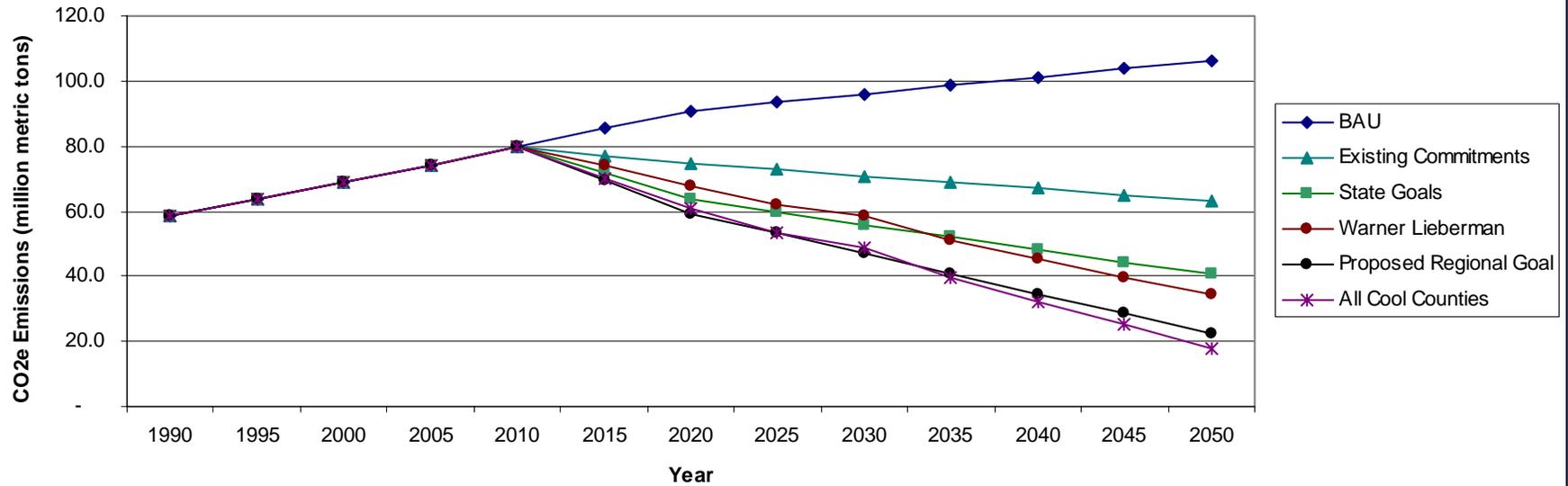
More Needed

Possible Reduction Scenarios (2005-2050)



Additional Options

Possible Reduction Scenarios (2005-2050)



B. Regional Goal With Existing Commitments

■ PROS

- Goal based on science, consistent with Warner Lieberman bill
- Establishes leadership for Washington area community

■ CONS

- May be inconsistent with local jurisdictions' goals
- Voluntary goal that doesn't "require" jurisdictions without goals to adopt goals



3. Should the Region Set an Early Goal?

- Cool Counties agreement : **Stop emissions growth in 2010**
- Mayors' Agreement: Reduce 7% below 1990 by **2012**



3. Should the Region Set an Early Goal?

■ PRO

- Emphasize need for immediate action
- Take credit for energy efficiency programs in place

■ CON

- No accountability yet—metrics aren't in place
- Reduction programs not fully adopted yet
- Size of reduction needed won't be possible in 2-4 years



C) No Regional Climate Change Goal

- COG defers to existing individual jurisdictional and state climate change goals
- COG focuses efforts on promoting best practices to reduce GHG emissions

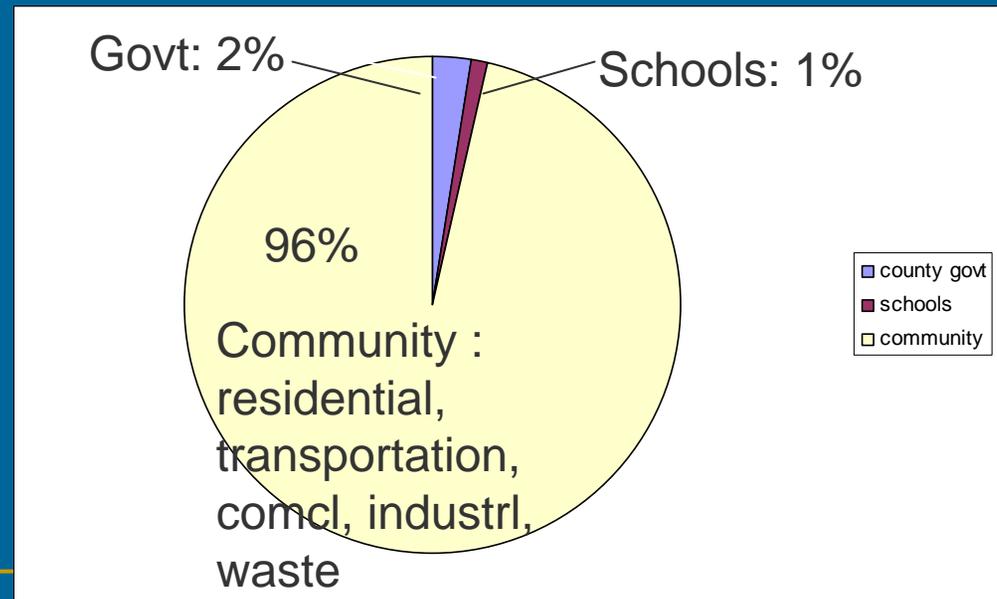


4. Who would the Reduction Goal Apply to?

- Local government operations, schools
- Community at large: Residents, businesses, transportation, agriculture

Arlington County GHG Emissions Inventory*

*Doesn't add to 100% due to rounding



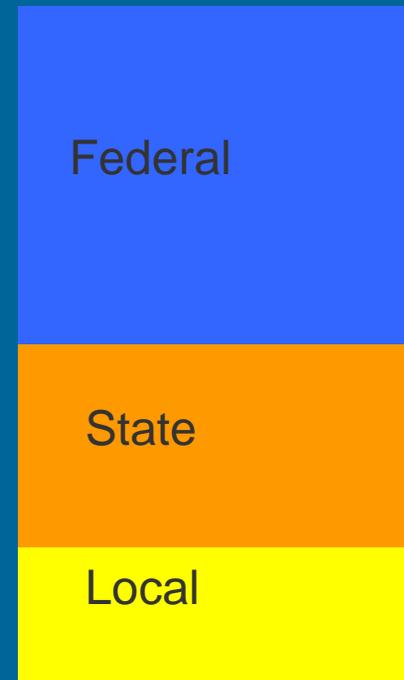
5. How would these goals be achieved?

- Individual actions, government actions, business actions, federal & state policy and regulations, and new technology
- Partnership between all sectors of the region's economy: local government, businesses, transportation, academia, state and federal legislators

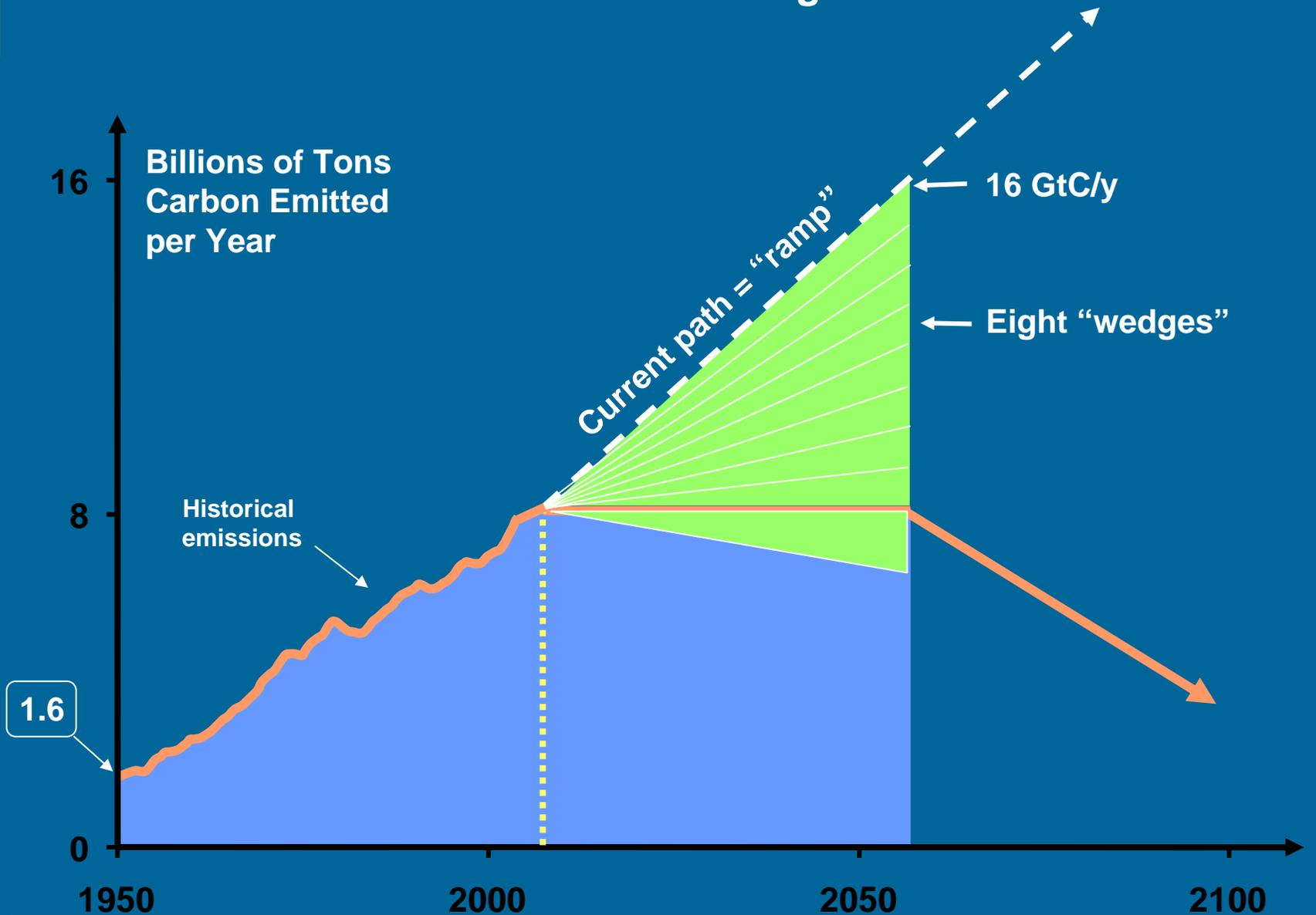


List of Actual and Potential Government Programs to Reduce GHG Emissions

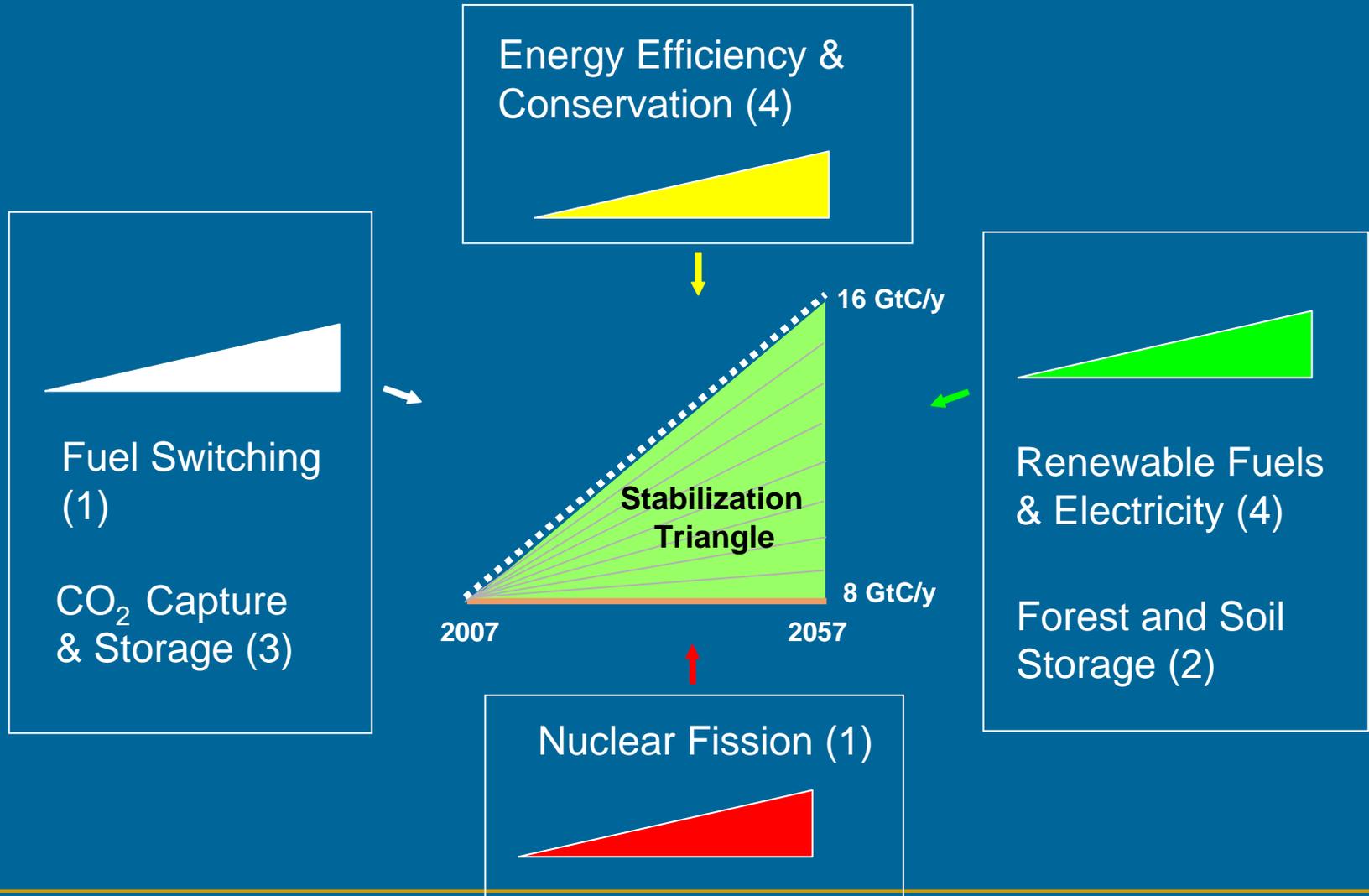
- Federal Measures
 - Energy Bill of 2007 (CAFÉ standards, EEE)
 - Energy Efficient appliance standards
 - Establish price and trading for carbon emissions
 - Limit CO2 emissions from power plants, motor vehicles
 - Invest in Renewable energy technology (solar, wind, hydro)
 - Support nuclear energy research
- State Measures:
 - CAL LEV limits on mobile CO2 emissions
 - RGGI
 - Renewable Portfolio Standards (RE as % of Energy Efficiency goals)
 - Require GHG emissions analysis as part of Environmental Impact analyses
- Local
 - Purchase of alternative/renewable energy
 - Increase tree canopy
 - LED traffic lights
 - Incentives to build to LEED standards (green buildings)
 - Education and Outreach



Stabilization Wedges



15 Wedge Strategies in 4 Categories



6. How Would Progress be Measured?

- Periodic emissions inventories using energy consumption data (3-5 years?)
- Entities (governments, businesses) register with Climate Registry
- Analysis of GHG benefits for different measures is in progress
- Methodologies for tracking energy efficiency (software) available for buildings, residents



Questions for Discussion

- Should the Region set a Climate change Goal?
- Which option?
 - Option A: All Jurisdictions Adopt Uniform Regional Goal
 - Option B: Regional Goal With Existing Commitments
 - Option C: No Regional Climate Change Goal
- If so, should there be an early goal, 2012?

