Table ES-1. Recommendations: Summary and Qualitative Assessment

Recommendations	Emission Impact	Implementation Timing	Cost	Economic Co-Benefits	Potential Partners
I. Regional Greenhouse Gas Reduction Goals					
1. 2012: Reduce 10 percent below BAU	Medium	Immediate	Low	Medium–High	COG members; fleet, energy, and building managers; general public; boards of trade; procurement officers; water and wastewater utilities, electric utilities, PUCs; state legislatures; federal government; private sector; others
2. 2020: Reduce 20 percent below 2005	High	Mid-range–Long-term	Low–Medium	Medium–High	COG members; fleet, energy, and building managers; general public; boards of trade; procurement officers; water and wastewater utilities, electric utilities, PUCs; state legislatures; federal government; private sector; others
3. 2050: Reduce 80 percent below 2005	High	Mid-range–Long-term	Medium–High	Medium–High	COG members; fleet, energy, and building managers; general public; boards of trade; procurement officers; water and wastewater utilities, electric utilities, PUCs; state legislatures; federal government; private sector; others
II. Energy					
Local/Regional Strategies for Government and Business					
A. Improve Energy Efficiency in Buildings					
1. Implement a COG Green Building Policy.	High	Immediate–Mid-range	Varies	Medium–High	COG members, IGBG, facilities managers, GSA, USGBC, private sector
2. Set energy performance goals for new and existing govt. buildings.	High	Immediate–Mid-range	Varies	Medium–High	COG members, IGBG, facilities managers
3. Identify best practices to reduce local govt. energy use by 15 percent by 2012.	Medium–High	Immediate–Mid-range	Low–Medium	High	COG members, COG Energy Advisory Committee, state energy offices, utilities, universities, businesses, general public, ACEEE
4. Develop incentives for retrofitting existing commercial and residential buildings.	High	Immediate–Mid-range	Varies	Medium–High	COG members, IGBG, facilities managers, GSA, USGBC
5. Develop affordable energy efficiency programs for homeowners and businesses.	Medium–High	Immediate–Mid-range	Low-Medium	High	COG members, utilities, state energy offices
6. Promote use of energy-efficient appliances.	Medium–High	Immediate-Mid-range	Medium–High	Low-Medium	COG, Clean Air Partners, Commuter Connections, Wise Water, COG Recycling Committee, IGBG
7. Revise state and/or local building codes to promote energy efficiency.	Medium–High	Immediate–Mid-range	Low–Medium	High	COG members, COG Energy Advisory Committee, state energy offices, utilities, universities, businesses, general public, ACEEE
8. Develop green affordable housing policies/programs.	Medium–High	Immediate–Mid-range	Varies	Medium–High	COG members, IGBG, facilities managers, housing directors, MDPC, planning directors, GSA, USGBC
9. Identify best practices for improving efficiency for public and private buildings.	High	Immediate–Mid-range	Varies	Medium–High	COG members, IGBG, facilities managers, GSA, USGBC
B. Reduce Demand for Energy					
1. Partner with electric, gas, and water utilities on regional energy conservation.	Medium–High	Immediate–Mid-range	Low–Medium	Medium–High	COG members, EPA ENERGY STAR®, USGBC, boards of trade, utilities
2. Expand recycling programs.	Low–Medium	Immediate–Mid-range	Varies	High	COG members, COG Recycling Committee

Table ES-1. Recommendations: Summary and Qualitative Assessment, *continued*

Recommendations	Emission Impact	Implementation Timing	Cost	Economic Co-Benefits	Potential Partners
B. Reduce Demand for Energy, continued					
3. Reduce energy use at area water and wastewater treatment plants and landfills.	Medium–High	Mid-range–Long-term	Medium–High	Medium–High	COG members, wastewater treatment facilities, landfills, EPA
4. Promote energy-efficient street lights across the region.	Low–Medium	Immediate	Medium–High	Medium	COG members, energy managers, utilities, boards of trade, private sector
5. Promote regional energy performance contracting and cooperative purchasing.	Low–Medium	Immediate–Mid-range	Medium–High	Medium	COG members, energy managers, state energy offices, utilities, private sector
6. Explore opportunities to remove the disincentive for utilities to invest in energy conservation.	Medium–High	Immediate–Mid-range	Low–Medium	High	State energy offices, state PUCs, utilities, state legislatures
C. Promote Clean Energy Sources					
1. Adopt a goal of 20 percent renewable energy purchase by local governments by 2015.	Medium–High	Immediate–Mid-range	Medium–High	Medium	COG members, COG Energy Advisory Committee, EPA Green Power Partnership, energy managers, utilities, procurement officers
2. Evaluate regional cooperative purchase to meet the 20 percent local government renewable energy purchase goal.	Low–Medium	Immediate–Mid-range	Medium–High	Medium	COG members, COG Energy Advisory Committee, EPA Green Power Partnership, energy managers, utilities, procurement officers
3. Examine options for removing barriers to implementing renewable energy (e.g., solar panels).	Low–Medium	Immediate–Mid-range	Medium–High	Medium	State legislatures, county leadership, state PUCs, utilities, COG Energy Advisory Committee, DOE
4. Explore the possibility of implementing a community energy planning process in the region.	Medium–High	Mid-range–Long-term	Medium	Medium–High	COG Energy Advisory Committee, utilities, energy managers
5. Develop a regional inventory of renewable energy capacity and production, including solar, geothermal, district heating/cooling, wind, and biofuels.	Low	Immediate–Mid-range	Low	Medium	COG Energy Advisory Committee, utilities, energy managers
D. Reduce Greenhouse Gas Emissions					
1. Identify and implement best practices to reduce methane and biosolids from wastewater treatment facilities.	Medium–High	Mid-range–Long-term	Medium–High	Medium–High	COG members, water and wastewater treatment facilities, landfills, EPA
2. Develop industry standard protocols to quantify greenhouse gas emissions and reductions for drinking water and wastewater utilities.	Medium–High	Mid-range–Long-term	Medium–High	Medium–High	COG members, water and wastewater treatment facilities, landfills, EPA, ICLEI, WRI

III. Transportation and Land Use

Local and Regional Strategies for Government and Business

A. Increase Fuel Efficiency and Use of Clean-Fuel Vehicles

Recommendations	Emission Impact	Implementation Timing	Cost	Economic Co-Benefits	Potential Partners
1. Promote clean-fuel vehicles (cars, trucks, buses).	High	Immediate–Mid-range	Medium–High	High	COG members, state legislatures, fleet managers, auto manufacturers, AFV partnerships
2. Adopt a regional green fleet policy.	Medium–High	Immediate–Mid-range	Medium–High	Medium–High	COG members, state legislatures, fleet managers, auto manufacturers, AFV partnerships
3. Promote the use of clean fuels.	Medium–	Immediate–Mid-range	Medium–High	Medium–High	COG members, state legislatures, fleet managers, auto manufacturers, AFV partnerships

Table ES-1. Recommendations: Summary and Qualitative Assessment, *continued*

Recommendations	Emission Impact	Implementation Timing	Cost	Economic Co-Benefits	Potential Partners
B. Reduce Vehicle Miles Traveled (VMT)					
1. Adopt VMT reduction goals.	Medium–High	Mid-range–Long-term	Medium–High	Low–Medium	COG members, TPB, DOTs, local govt., transit authorities
2. Expand transit use.	Low–Medium	Immediate–Mid-range	Low–Medium	Medium–High	COG members, Commuter Connections, TPB, DOTs, local govt., transit authorities
3. Invest/expand transit infra-structure.	Medium–High	Mid-range–Long-term	Medium–High	Medium–High	COG members, transit authorities, TPB, DOTs
4. Expand commuter options.	Low–Medium	Immediate–Mid-range	Medium–High	Low–Medium	COG members, local govt., Zipcar, Flexcar
5. Promote transit-oriented development.	Low–Medium	Immediate–Mid-range	Medium–High	Medium–High	COG members, TPB, DOTs, local govt., transit authorities
6. Examine parking policies to reduce VMT.	Low–Medium	Immediate–Mid-range	Medium–High	Low–Medium	COG members, state/local govt.
C. Increase Travel Efficiency					
1. Adopt best practices for traffic engineering improvements and road management to reduce VMT and congestion.	Low–Medium	Mid-range–Long-term	Varies	High	COG members, DOTs, TPB
2. Implement the Metropolitan Area Transportation Operations Coordination Program.	Low	Immediate	Medium	High	COG members, DOTs, TPB
3. Enforce existing idling regulations.	Low–Medium	Immediate	Low–Medium	Low–Medium	COG members, local govt., police
4. Explore opportunities to reduce emissions from the aviation sector.	Medium	Immediate–Mid-range	Medium–High	Medium–High	Airlines, MWAA, fleet managers
5. Explore opportunities to reduce emissions from the freight sector.	Medium	Immediate–Mid-range	Medium–High	Medium–High	Railroads, American Trucking Association, shippers, TPB, DOT
D. Improve Land Use					
1. Develop plan to meet goal of increased tree canopy.	Low–Medium	Mid-range–Long-term	Low–Medium	High	COG members, state and local forestry agencies, U.S. Forest Service, Casey Trees, Center for Chesapeake Communities
2. Evaluate LEED-ND standards for new development.	Medium–High	Immediate–Mid-range	Medium	Varies	COG members, planning directors, MDPC, TPB, boards of trade, DOTs, WMATA
3. Carefully plan the location and design of new, infill, and redevelopment projects.	Low–Medium	Midrange–Long-term	Medium–High	Varies	COG members, MDPC, planning directors, local planning agencies, local developers
4. Integrate GHG analyses into comprehensive planning and new capital projects.	Low–Medium	Immediate–Mid-range	Low–Medium	Medium–High	COG members, MDPC, planning directors, local planning agencies, local developers
E. Develop a Regional Metropolitan Planning Process					
1. Develop a regional metropolitan planning process for addressing greenhouse gases.	Medium–High	Mid-range–Long-term	Medium–High	Medium–High	TPB, MWAQC, DOT, EPA, state air agencies, state legislatures, Congress
2. Make greenhouse gas reduction a stated goal of regional trans-portation planning activities.	Medium–High	Mid-range– Long-term	Medium–High	Medium–High	TPB, DOTs, boards of trade, NVTC, WMATA
3. Consult with other regions around the country to broadly evaluate options for regional approaches to greenhouse gas reductions.	Medium–High	Mid-range– Long-term	Medium–High	Medium–High	TPB, DOTs

Table ES-1. Recommendations: Summary and Qualitative Assessment, *continued*

Recommendations	Emission Impact	Implementation Timing	Cost	Economic Co-Benefits	Potential Partners
IV. Economic Development					
Local and Regional Strategies for Government and Business					
1. Promote green businesses and green jobs.	Low	Immediate–Mid-range	Medium–High	Medium–High	COG members, boards of trade, universities, Sustainable Business Alliance
2. Promote eco-business zones.	Low	Immediate–Mid-range	Medium–High	Medium–High	COG members, boards of trade, universities
3. Promote cooperative green purchasing.	Low–Medium	Immediate–Mid-range	Low–Medium	Medium–High	COG members, procurement officers, boards of trade
4. Promote local vendors and suppliers.	Low–Medium	Immediate–Mid-range	Low–Medium	Medium–High	COG members, state/local govt., farmers' cooperatives, economic development authorities, COG Regional Agricultural Workgroup, community-supported agriculture, Freshfarm Markets
5. Promote regional green jobs analysis.	Low	Immediate	Low–Medium	Medium–High	COG members, boards of trade, universities, Sustainable Business Alliance
V. Adaptation					
Local and Regional Strategies for Government and Business					
1. Research best practices to prepare for effects of climate change.	Low	Immediate–Mid-range	Medium	Medium	COG members, universities, NOAA
2. Develop a regional climate adaptation plan to assist localities with vulnerability assessments, adaptation planning, and emergency preparedness.	Low	Mid-range–Long-term	Medium	Medium	COG members, utilities, state and federal govt., NOAA, private sector, universities
3. Partner with universities to research climate change and adaptation strategies.	Low	Immediate–Mid-range	Medium	Medium	COG members, universities, NOAA
4. Analyze impacts on and risks to the region's transportation infrastructure, buildings, and populations in low-lying areas.	Low	Immediate–Mid-range	Medium	Medium	COG members, universities, NOAA
5. Develop regional adaptation policies.	Low	Mid-range–Long-term	Medium	Medium	COG members, utilities, private sector, state and federal govt.
6. Conduct adaptation workshops.	Low–Medium	Mid-range–Long-term	Medium	Medium	COG members, universities, NOAA
VI. Financing Mechanisms					
Local and Regional Strategies for Government and Business					
1. Evaluate financing mechanisms for energy efficiency projects (energy fee, tax, other).	Medium–High	Immediate–Mid-range	Low–Medium	High	COG members, Chicago Climate Exchange, MD Strategic Energy Fund, block grants, Energy Efficiency Partnership of Greater Washington
2. Establish a clean energy fund.	Medium–High	Immediate–Mid-range	Low–Medium	High	COG members, Chicago Climate Exchange, MD Strategic Energy Fund, block grants, Energy Efficiency Partnership of Greater Washington
3. Participate in cap-and-trade program revenues.	Medium–High	Immediate–Mid-range	Low–Medium	High	COG members, Chicago Climate Exchange, MD Strategic Energy Fund, block grants, Energy Efficiency Partnership of Greater Washington
4. Develop a regional carbon offset fund for preserving tree canopy.	Medium	Immediate–Mid-range	Medium	Medium	COG members, state and local forestry agencies, U.S. Forest Service, Casey Trees, Center for Chesapeake Communities

Table ES-1. Recommendations: Summary and Qualitative Assessment, *continued*

Recommendations	Emission Impact	Implementation Timing	Cost	Economic Co-Benefits	Potential Partners
VI. Financing Mechanisms, Local and Regional Strategies for Government and Business, *continued*					
5. Secure additional financing for public transit.	Medium–High	Immediate–Mid-range	High	High	COG members, state and federal govt., WMATA
6. Establish funding for building retrofits.	Medium–High	Immediate–Mid-range	High	High	COG members, state and federal govt., ESCOs
VII. Regional Outreach and Education					
Local and Regional Strategies for Government and Business					
1. Implement a regional public education campaign.	Medium–High	Immediate–Mid-range	Medium–High	Low-Medium	COG members, Clean Air Partners, Commuter Connections, Wise Water, Recycling Committee, IGBG
2. Develop partnerships with private-sector and other organizations.	Medium–High	Immediate–Mid-range	Medium–High	Low-Medium	COG members, boards of trade, federal government, WMATA, MWAA, Cool Capitol Challenge
3. Support COG member outreach efforts.	Low–Medium	Immediate–Mid-range	Low–Medium	Low-Medium	COG members, Cool Capitol Challenge, EPA, ICLEI, Sierra Club
VIII. COG Climate Change Program					
Local and Regional Strategies for Government and Business					
1. Establish a COG Climate and Energy Policy Committee.	—	Immediate	Low–Medium	—	COG members, state/local govt.
2. Develop work program priorities, schedule, staffing plan, and budget.	—	Immediate	Low–Medium	—	COG members, state/local govt.
3. Prepare regional plans to achieve the 2012 and 2020 goals.	—	Immediate	Low–Medium	—	COG members, state/local govt.
4. Evaluate the cost-effectiveness of the proposed measures.	—	Immediate	Low–Medium	—	COG members, state/local govt.
5. Design an outreach and education program.	—	Immediate	Low–Medium	—	COG members, state/local govt.
6. Track state and federal initiatives, and develop and advance regional advocacy positions.	—	Immediate	Low–Medium	—	COG members, state/local govt.
7. Develop a system for tracking progress toward GHG goals and periodically review targets.	—	Immediate–Mid-range	Low–Medium	—	COG members, state/local govt., EPA, ICLEI, WRI, state air agencies, state energy offices, state PUCs, utilities
8. Develop a regional standardized analytical methodology for use by individual local governments in developing their greenhouse gas emission inventories.	—	Immediate–Mid-range	Low–Medium	—	COG members, state/local govt., EPA, ICLEI, WRI, state air agencies, state energy offices
9. Prepare an annual progress report to the COG Board of Directors on implementation progress for COG's Climate Change Initiative.	—	Immediate–Mid-range	Low–Medium	—	COG members, state/local govt.

Abbreviations: ACEEE = American Council for an Energy Efficient Economy; AFV = alternative-fuel vehicle; COG = Metropolitan Washington Council of Governments; DOE = U.S. Department of Energy; DOTs = state departments of transportation; ESCO = energy service company; EPA = U.S. Environmental Protection Agency; GHG = greenhouse gas; govt. = government; GSA = General Services Administration; ICLEI = Local Governments for Sustainability; IGBG = Intergovernmental Green Building Group; LEED-ND = Leadership in Energy and Environmental Design for Neighborhood Development; MD = Maryland; MDPC = Metropolitan Development Policy Committee; MWAA = Metropolitan Washington Airports Authority; MWAQC = Metropolitan Washington Air Quality Committee; NOAA = National Oceanic and Atmospheric Administration; NVTC = Northern Virginia Transportation Commission; PUC = public utility commission; TPB = National Capital Region Transportation Planning Board; USGBC = United States Green Building Council; WMATA = Washington Metropolitan Area Transit Authority; WRI = World Resources Institute.

Timing: Immediate = present to June 2009; Mid-range = 3 years; Long Term = more than 3 years.

Emission Impact: Low = minimal emission reduction expected; Medium = some emission reduction anticipated; High = significant emission reduction anticipated.

Cost: Low = relatively low cost; Medium = moderate financial costs; High = expensive option to implement.

Economic Co-Benefits: Low = action will have limited impact on other areas of the economy; Medium = some economic synergies are anticipated; High = significant enhancements to the economy or sector are possible.