

# APPENDIX A

## MWVG POLICY PLANS FOR 2010

**Option: CC-1**  
**Lead Agency: MDE**  
**Bin: 2**

**Est. GHG Reduction by 2020 (MMtCO<sub>2</sub>e): Not Quantified**

**GHG Inventories and Forecasting (CC-1)** MDE, with assistance from other state agencies, would prepare a statewide inventory and forecast of GHG sources and sinks, both anthropogenic and natural, which would provide information on trends, opportunities for mitigation, and the efficiency of Climate Action Plan policies.

**Future Actions** Throughout 2010, MDE will examine specific MD data inputs, customize GHG EI for MD, develop business as usual growth factors and publish the 2006 GHG EI and 2020 BAIJ GHG EI by mid-2011.

**Option: CC-2**  
**Lead Agency: MDE**  
**Bin: 2**

**Est. GHG Reduction by 2020 (MMtCO<sub>2</sub>e): Not Quantified**

**GHG Reporting and Registry (CC-2)** Led by MDE, the State government would establish and oversee a GHG reporting system for GHG emitting sources to help them reduce emissions, prepare for possible GHG mandates, and support the construction of GHG inventories. State government would establish a GHG registry to enable sources to record GHG reductions as a foundation for a trading program.

**Future Actions** The 2008 TCR data certified by the independent ISO/ANSI-certified verification body will be verified and made available to the public in 2010

**Option: CC-3**  
**Lead Agency: MDE**  
**Bin: 2**

**Est. GHG Reduction by 2020 (MMtCO<sub>2</sub>e): Not Quantified**

**Statewide GHG Reduction Goals and Targets (CC-3)** As a core element of its climate action plan, the state would adopt the science-based GHG emission reduction goals recommended by the Commission in its Interim Report. These are: a 25-50% consumption-based reduction in GHG emissions below 2006 levels in 2020; a 90% regulatory reduction below 2006 levels in 2050 to drive R&D off climate-neutral technology; and interim, non-regulatory targets of 10% below 2006 levels by 2012 and 15% below 2006 levels by 2015.

**Future Actions** MDE will continue to develop a schedule for developing a draft plan for submission to GA and Governor on or before 12/31/11 in addition to continuing to evaluate and implement early action options including drafting of regulations to provide credits for voluntary early actions, if appropriate.

**Option: CC-4**  
**Lead Agency: MDE**  
**Bin: 1**

**Est. GHG Reduction by 2020 (MMtCO<sub>2</sub>e): Not Quantified**

**State and Local Government Lead by Example (CC-4)** State and local government agencies would promote energy efficiencies and GHG reductions through procurement and purchasing practices. This policy would work together with the "Government Lead-by-Example" policy of building and operating energy efficient government buildings (RCI-4) to reduce government's GHG footprint and encourage the private sector to follow suit.

**Future Actions** Maryland is working towards several green building initiatives focused on state agency buildings.

**Option: CC-5**  
**Lead Agency: MDE**  
**Bin: 2**

**Est. GHG Reduction by 2020 (MMtCO<sub>2</sub>e): Not Quantified**

**Public Education and Outreach (CC-5)** *The State government would build on its current educational and action campaigns on climate change and combine them with community action and economic incentives and disincentives provided by other State climate change policies to create the foundation for behavioral and lifestyle changes by MD citizens.*

**Future Actions** MDE will continue with the annual one-day conferences for regional public media representatives on the state of climate change mitigation in Maryland and the level of attainment of State GHG goals in addition to periodic lessons on Coastal Bays and Clean Air Partners (CAP) "On the Air".

**Option: CC-7**  
**Lead Agency: Commission**  
**Bin: 2**

**Est. GHG Reduction by 2020 (MMtCO<sub>2</sub>e): Not Quantified**

**Review Institutional Capacity to Address Climate Change Issues Including Seeking Funding for Implementation of Climate Action Panel Recommendations (CC-7)** *This policy calls for engagement at the highest levels of the executive branch of State government to develop the governance, organizational capacity, and funding to execute GHG mitigation and adaptation policies, implement programs, monitor and analyze results, and modify and update policies and programs over time.*

**Future Actions** Maryland continues to review staffing and the relationship to all of Maryland's climate initiatives.

**Option: CC-8**  
**Lead Agency: MDE**  
**Bin: 2**

**Est. GHG Reduction by 2020 (MMtCO<sub>2</sub>e): Not Quantified**

**Participate in Regional, Multi-State, and National GHG Reduction Efforts (CC-8)** *MD would continue to implement this policy through its own leadership example of implementing aggressive GHG reduction programs, by participating in and encouraging regional programs like RGGI and, through its elected leadership, by working with Congress and the Federal government to significantly reduce GHG emissions nationally and internationally.*

**Future Actions** MDE plans to continue to be an active member in RGGI and numerous other regional and national groups focused on climate change and multi-pollutant planning.

**Option: CC-9**  
**Lead Agency: DBED**  
**Bin: 2**

**Est. GHG Reduction by 2020 (MMtCO<sub>2</sub>e): Not Quantified**

**Promote Economic Development Opportunities Associated with Reducing GHG Emissions in Maryland (CC-9)** *The State would work with public and private entities to develop green industries and jobs in the areas of building construction and operation, energy efficiency, public transportation, renewable energy sources, and clean technology R&D.*

**Future Actions** DBED will continue with communication, education, and outreach efforts by providing assistance to 50 sector companies and visiting with 25 Maryland-based green companies by July 2010, participating in business education forums, workgroups, conventions, and seminars, and creating an outreach program for in-state small green companies.

**Option: CC-10**  
**Lead Agency: MEA**  
**Bin: 2**

**Est. GHG Reduction by 2020 (MMtCO<sub>2</sub>e): Not Quantified**

**Create Capacity to Address Climate Change in an "After Peak Oil" Context (CC-10)** *Take a proactive approach to address the after peak oil. Establish a State After-Peak Oil Advisory Council consisting of experts and stakeholders. The Advisory Council would review and evaluate all proposed climate change and energy related policies and legislation so as to avoid the potential of increased Green House Gas (GHG) emissions for inexpensive oil alternatives such as coal.*

**Future Actions** MEA will continue to increase capacity to address climate change after the first Advisory Council meeting is held prior to 4/30/10.

**Option: CC-11**  
**Lead Agency: DHMH**  
**Bin: 2**

**Est. GHG Reduction by 2020 (MMtCO<sub>2</sub>e): Not Quantified**

**Evaluate Climate Change Policy Options to Determine Projected Public Health Risks/Costs/Benefits (CC-11)** *A Commission-based work group would be established to systematically review the health risks, costs, and benefits of proposed climate change and energy-related policies and legislation before they move forward, with particular attention to policy impacts on vulnerable populations in MD.*

**Future Actions** No information provided by lead agency.

**Option: RCI-1**  
**Lead Agency: DHCD**  
**Bin: 1**

**Est. GHG Reduction by 2020 (MMtCO<sub>2</sub>e): 2.4**

**Improved Building and Trade Codes and Beyond (RCI-1) -- Code Building Design and Construction in the Private Sector (RCI-1)** *This policy option would reduce energy consumption in new or renovated residential and commercial buildings through improvement and enforcement of building and trade codes, updated periodically to reflect state-of-the-art practices.*

**Future Actions** In January 2010, Maryland will adopt the 2009 MBPS along with the State of Maryland Performance Code (MPC) for industrialized/modular buildings (local code jurisdictions will adopt the 2009 MBPS in July 2010).

Note: MDE is conducting a policy analysis of the Maryland Flood Hazard Management Act of 1976 and will take a lead role in developing any necessary legislation or regulatory amendments to remedy policy deficiencies.

**Option: RCI-2**  
**Lead Agency: MEA**  
**Bin: 1**

**Est. GHG Reduction by 2020 (MMtCO<sub>2</sub>e): 4.5**

**Demand-Side Management Energy Efficiency Programs (RCI-2)** *Promote increasing investment in electricity and natural gas demand-side management programs run by MEA, energy service companies (ESCOs), utilities and others to meet demand reduction and energy consumption reduction goals. Consideration should be given to DSM activities that can work in tandem with other strategies and can encourage energy efficiency improvements.*

**Future Actions** MEA will develop a plan for demand-side management energy efficiency programs by January 31, 2010, and will review and analyze options with recommendations for achieving policy goals by 2014.

**Option: RCI-3**  
**Lead Agency: MEA**  
**Bin: 2**

**Est. GHG Reduction by 2020 (MMtCO<sub>2</sub>e): 0.5**

**Low-Cost Loans for Energy Efficiency (RCI-3)** *Establish revolving low-interest loan fund(s) for small-scale residential and commercial energy efficiency projects. The fund(s) targets distribution service areas that are not covered by existing utility programs, and is intended to complement existing energy efficiency programs and those being considered as a part of RCI-2 and RCI-10.*

**Future Actions** Loan programs - Res/Comm/Ind. - will be implemented on April 30, 2010.

**Option: RCI-4**  
**Lead Agency: MDE**  
**Bin: 1**

**Est. GHG Reduction by 2020 (MMtCO<sub>2</sub>e): 1.3**

**Government Lead-by-Example (RCI-4)** *State and local governments would adopt practices beyond established building codes to obtain high performance and energy efficient buildings in government-owned and leased buildings.*

**Future Actions** MDE, DGS, and MEA will continue to work with other state agencies on implementation plans and regulatory changes, if appropriate, as well as attend quarterly meetings of the Green Building Council (GBC) with a final report due to Governor each year in November.

**Option: RCI-7**  
**Lead Agency: MEA**  
**Bin: 2**

**Est. GHG Reduction by 2020 (MMtCO<sub>2</sub>e): 0.2**

**More Stringent Appliance/Equipment Efficiency Standards (RCI-7)** *Appliance efficiency standards reduce the market cost of energy efficiency improvements by incorporating technological advances into base appliance models, thereby creating economies of scale. Appliance efficiency standards can be implemented at the state level for appliances not covered by federal standards, or where higher-than-federal standard efficiency requirements are appropriate. Regional coordination for state appliance standards can be used to avoid concerns that retailers or manufacturers may either resist supplying equipment to one state that has advanced standards, or focus sales of lower efficiency models on a state with less stringent efficiency standards.*

*There are federal standards for 19 residential products and 19 pieces of commercial equipment, as well as 14 lighting standards. Laws require the U.S. Department of Energy (DOE) to set minimum appliance efficiency standards that are technologically feasible and economically justified. However, there are many appliances not covered by federal standards for which state standards can play a role.*

*Options related to state standards include:*

- Lobbying for more stringent appliance standards at the federal level,*
- Establishment and enforcement of higher-than-federal state-level appliance and equipment standards (or standards for devices not covered by federal standards), and*
- Joining with other states in adopting higher standards.*

**Future Actions** MEA will develop a plan for more stringent appliance/equipment efficiency standards from the final report on January 31, 2010.

Option: RCI-10  
Lead Agency: MEA  
Bin: 1

Est. GHG Reduction by 2020 (MMtCO<sub>2</sub>e): 11.9

**Energy Efficiency Resource Standard (RCI-10)** *Establish mandatory utility electricity and natural gas reduction targets and utility plans to achieve energy savings of at least 15% of per capita demand by 2015.*

**Future Actions** MEA will develop a plan for an energy efficiency resource standard from the final report on January 31, 2010.

Option: RCI-11  
Lead Agency: MEA  
Bin: 2

Est. GHG Reduction by 2020 (MMtCO<sub>2</sub>e): 1.1

**Promotion and Incentives for Energy-Efficient Lighting (RCI-11)** *Leverage incentives and an aggressive marketing campaign to encourage Maryland residents to choose screw-in compact fluorescent light bulbs, or other high efficiency lighting, as a replacement to screw-in incandescent light bulbs.*

**Future Actions** MEA will continue to promote and incentivise energy-efficient lighting into the future.

Option: ES-1  
Lead Agency: MEA  
Bin: 2

Est. GHG Reduction by 2020 (MMtCO<sub>2</sub>e): 0.5

**Promotion of Renewable Energy Resources (ES-1)** *Identify and devise strategies to reduce or remove regulatory and financial barriers to large scale centralized and onsite generation and to ensure that any state resource planning process includes consideration of renewable energy projects.*

**Future Actions** MEA will continue to develop plans to promote renewable energy sources and will hold a state agency review meeting in April 2010

Option: ES-2  
Lead Agency: MEA  
Bin: 2

Est. GHG Reduction by 2020 (MMtCO<sub>2</sub>e): Not Quantified

**Technology-focused Initiatives for Electricity Supply (ES-2)** *Provide technology focused initiatives that support the development of biomass co-firing, energy storage, fuel cell, landfill gas, and clean energy supply; and that increase the rates of technology adoption that can contribute to green house gas reductions and help position Maryland as a world leader in climate-related technology development and deployment.*

**Future Actions** Through 2010, MEA will identify new technology variables, develop a new technology tracking mechanism and then train and implement a tracking system.

Option: ES-3  
Lead Agency: MDE  
Bin: 1

Est. GHG Reduction by 2020 (MMtCO<sub>2</sub>e): 6.95

**Cap and Trade (ES-3)** *Support Maryland's continued active participation in RGGI and consider expansion of RGGI beyond the power sector if the Federal government fails to enact a credible national cap and trade program in 2009.*

**Future Actions** The RGGI auction process will continue beginning with the seventh auction in 2010.

**Option: ES-5**  
**Lead Agency: MEA**  
**Bin: 2**

**Est. GHG Reduction by 2020 (MMtCO<sub>2</sub>e):**  
**Distributed Generation = 1.1**  
**Combined Heat/Power = 1.0**

**Clean Distributed Generation (ES-5)** Provide financial incentives and other strategies that encourage investment in distributed energy and combined heat and power systems such that by 2020, 1% of all electricity sales are from distributed renewable generation and 15% of CHP technical potential is recognized at commercial and industrial facilities. Goal was established as a result of the Commission on Climate Change final report and it can be consistent with RPS goals, depending on growth of distributed resources.

**Future Actions** MEA and PSC will develop a plan for clean distributed generation by January 31, 2010 and will hold a state agency review meeting on April 30, 2010.

**Option: ES-6**  
**Lead Agency: PSC**  
**Bin: 2**

**Est. GHG Reduction by 2020 (MMtCO<sub>2</sub>e): Not Quantified**

**Integrated Resource Planning (ES-6)** The regulatory and planning process that evaluates meeting future electricity demands and selects the optimal mix of resources that minimizes the cost of electricity supply while meeting reliability needs, aligning environmental and energy supply policies, and other objectives. Under this policy option, an objective review of energy supply options from both conventional and renewable energy sources as well as energy efficiency options would be considered prior to approving utility expansions of electricity generation or transmission. IRP would better align GHG emissions reductions and other environmental goals and energy supply policies by requiring consideration of more options than under current law and a longer time horizon in making resource decisions.

**Future Actions** The following is expected in the first quarter of 2010: *The Ten Year Plan (2009 – 2018) of Electric Companies in Maryland, The EmPower Maryland Energy Efficiency Act Standard Report* is planned to be submitted to the General Assembly by March 1, 2010, and the PSC in conjunction with the EmPower Maryland utilities is conducting an assessment and characterization study (i.e., baseline study) of existing electric end-use baseline data in the residential (existing and new), commercial, industrial and agricultural sectors in Maryland, with preliminary results expected in March 2010.

**Option: ES-7**  
**Lead Agency: PSC**  
**Bin: 1**

**Est. GHG Reduction by 2020 (MMtCO<sub>2</sub>e): 13.8**

**Renewable Portfolio Standard (ES-7)** Increasing renewable energy development by requiring electricity providers to obtain a minimum percentage of electricity sales from renewable energy sources, escalating annually to a standard of 20% by 2022.

**Future Actions** PSC expects the Renewable Energy Portfolio Standard Report of 2010 to be released before the February 1, 2010 deadline.

**Option: ES-8**  
**Lead Agency: MEA**  
**Bin: 3**

**Est. GHG Reduction by 2020 (MMtCO<sub>2</sub>e): 2.0**

**Efficiency Improvements and Repowering Existing Plants (ES-8)** Identify and pursue cost effective emissions reductions from existing generating units through improving their operating efficiency, adding biomass or other fuel changes such that by 2014, 8% of total energy input to coal fired plants is biomass.

**Future Actions** MEA will coordinate with PSC on monitoring and tracking on May 31, 2010 and will hold a state agency review meeting on April 30, 2010

**Option: ES-10**  
**Lead Agency: MDE**  
**Bin: 3**

**Est. GHG Reduction by 2020 (MMtCO<sub>2</sub>e): 6.6**

**Generation Portfolio Standard (ES-10)** *Require load serving entities to acquire electricity on an average portfolio basis that meets a per-unit GHG emission rate below a specified standard (in lb per Mwh). This policy complements Efficiency Improvements and Repowering Existing Plants (ES-8).*

**Future Actions** Through 2010, MDE will continue tracking the progress of federal climate change legislation in the 111th session of Congress as it pertains to GPS.

**Option: AFW-1**  
**Lead Agency: DNR**  
**Bin: 2**

**Est. GHG Reduction by 2020 (MMtCO<sub>2</sub>e): 0.09**

**Forest Management for Enhanced Carbon Sequestration (AFW-1)** *Through a mix of legislative, programmatic, education/outreach, and market measures, promote sustainable forestry management practices in existing Maryland forests on public and private lands in order to increase CO<sub>2</sub> sequestration in forest biomass, carbon storage in durable wood products, and available biomass for energy production.*

**Future Actions** DNR will continue to develop and promote new sustainable forestry management practices in Maryland to increase CO<sub>2</sub> sequestration.

**Option: AFW-2**  
**Lead Agency: DNR**  
**Bin: 2**

**Est. GHG Reduction by 2020 (MMtCO<sub>2</sub>e): 1.9**

**Managing Urban Trees and Forests for Greenhouse Gas Benefits (AFW-2)** *Recognizing that urban trees sequester CO<sub>2</sub>, reduce cooling and heating energy demands in buildings by reducing summertime temperatures and cold winds, and slow the formation of ground level ozone and volatile organic compounds (VOCs) from vehicle emissions, this policy would maintain and improve the health and longevity of urban trees and increase urban tree canopy throughout the state through POS funds, measures to protect against invasive species, outreach-education, and planning measures.*

**Future Actions** DNR will continue to pursue periodic outreach efforts to communities regarding the values of establishing an Urban Tree Canopy (UTC) goal.

**Option: AFW-3**  
**Lead Agency: DNR**  
**Bin: 2**

**Est. GHG Reduction by 2020 (MMtCO<sub>2</sub>e):**  
**Afforestation = 0.6**  
**Riparian Areas = 0.05**

**Afforestation, Reforestation, and Restoration of Forests and Wetlands (AFW-3)** *Promote forest and wetland CO<sub>2</sub> sequestration - both ecosystems being natural carbon "sinks" - using a suite of strategies including green infrastructure planning, reforestation offsets under RGGI, tax incentives, fee-in-lieu payments, and acquisition of landward properties to allow migration of coastal wetlands at risk of inundation from sea level rise.*

**Future Actions** DNR will continue to pursue periodic meetings with local governments to refine local policies towards establishment, expansion and protection of riparian zones and wetlands.

Option: AFW-4  
Lead Agency: MDA  
Bin: 2

Est. GHG Reduction by 2020 (MMtCO<sub>2</sub>e):  
Agricultural Land = 0.28  
Coastal Wetlands = Not Quantified  
Forested Land = 2.7

**Protection and Conservation of Agricultural Land, Coastal Wetlands, and Forested Land (AFW-4)** Map, designate, prioritize, and conserve existing forests, agricultural land, and wetlands - all major carbon sinks - to sequester additional carbon and to avoid GHG emissions from development, degradation, and clearing. Strategies include purchase of land or development rights, tax incentives, zoning, POS funds, and bond initiatives.

**Future Actions** GreenPrint Targeted Ecological Areas and statistical measures will be updated to reflect revised forest and wetland protection priorities in February 2010, MALPF will continue to new sources of funding, and MET will continue working with DNR on legislation to improve the tax benefits for donation of conservation easements.

Option: AFW-5  
Lead Agency: MDA  
Bin: 2

Est. GHG Reduction by 2020 (MMtCO<sub>2</sub>e):  
Farmers' Market = 0.03  
Local Produce = Not Quantified  
Locally Grown/Processed Lumber = Not Quantified

**Buy Local Programs for Sustainable Agriculture, Wood, and Wood Products (AFW-5)** State agencies would work with local governments, farmers' markets, lumber mills, etc. to promote the sustainable production and consumption of locally produced agricultural and durable wood products, displacing high-energy products and reducing GHG emissions from long-distance travel to market.

**Future Actions** MDA will continue to pursue monthly promotions of various activities and produce through press releases, advertising on print, radio, and social media, in addition to periodic promotional and educational campaigns to increase consumption of locally-grown fruits and vegetables to combat childhood obesity.

Option: AFW-6  
Lead Agency: DNR  
Bin: 4

Est. GHG Reduction by 2020 (MMtCO<sub>2</sub>e):  
Biomass = 0.5  
Methane Utilization = 0.04

**Expanded Use of Forest and Farm Feedstocks and By-Products for Energy Production (AFW-6)** Promote the use of local biomass from sustainable supplies of chicken litter, methane, switchgrass, corn stalks, food processing waste, etc. for generating electricity and thermal energy. Strategies include installing community manure digesters, Fuels for Schools and biomass loan programs, and amendment of MD's RPS to include Biomass.

**Future Actions** DNR will continue to promote the use of local biomass from sustainable supplies for generating electricity and thermal energy.

Option: AFW-7b  
Lead Agency: MEA  
Bin: 4

Est. GHG Reduction by 2020 (MMtCO<sub>2</sub>e): 0.17

**In-State Liquid Biofuels Production (AFW-7b)** Promote sustainable in-state production and consumption of transportation biofuels including ethanol and bio-diesel from agriculture or agro-forestry feed-stocks to displace the use of fossil fuels. The purpose is to improve the GHG profile of in-state liquid biofuel production and consumption. This initiative is to be combined with policies to reduce the overall transportation fuel consumption in order to gain a true reduction in Green House Gas (GHG) emissions. Support and development for localizing the distribution of biofuel from production to point of use will lower embedded Carbon Dioxide from saving transportation of the fuels. Note: these policies are to exclude feed-stocks that could be used as food supplies (human and animal).

**Future Actions** A preliminary action to implement AFW-7 goals will be established on February 28, 2010 and coordination with supporting agencies to determine final action plan to include monitoring and tracking of targeted performance will occur on May 31, 2010.

**Option: AFW-8**  
**Lead Agency: MDA**  
**Bin: 4**

**Est. GHG Reduction by 2020 (MMtCO<sub>2</sub>e): 0.14**

**Nutrient Trading with Carbon Benefits (AFW-8)** *Add carbon credits and enhanced nitrogen credits to the Upper Chesapeake Bay incipient nutrient trading program, which encourages farmers and other non-point and point sources to reduce their nutrient loads - chiefly nitrogen and phosphorus - through practices which also increase soil carbon sequestration and reduce formation of nitrous oxide, a potent GHG.*

**Future Actions** MDA will finish pilot testing of calculation tools and issue final guidance on January 30, 2010, hold public workshops in Salisbury, Chestertown, Central Maryland and Hagerstown through February 2010, and begin development of a carbon calculation tool on April 20, 2010.

**Option: AFW-9**  
**Lead Agency: MDE**  
**Bin: 1**

**Est. GHG Reduction by 2020 (MMtCO<sub>2</sub>e): 29.27**

**Waste Management Through Source Reduction and Advanced Recycling (AFW-9)** *Reduce MD's waste stream through programs that reduce waste production, expand recycling and "up-cycling," and enhance re-use of components and manufacturers' lifetime warranty responsibility. Strategies include preferential purchasing by state and local government agencies, identifying incentives to reduce use of raw materials in manufacturing, and phasing out subsidies that encourage wasteful manufacturing practices.*

**Future Actions** MDE will continue to refine and implement as many practices as possible to meet the goals of this policy.

**Option: TLU-Area 1**  
**Lead Agency: MDOT**  
**Bin: 3**

**Est. GHG Reduction by 2020 (MMtCO<sub>2</sub>e):**  
**Climate Action Plan Total = 16.7**

**Reduce VMT's Contribution to GHG Emissions (TLU Area 1)** *TLU Area 1 is a suite of policy options aimed at reducing vehicle miles traveled (VMT) as a means of reducing GHG emissions in the transportation sector. Because the strategies in this area are highly inter-related, multiple strategies implemented through a coordinated approach will realize more significant GHG reductions. Therefore, the strategies are intended to be deployed as a bundle. As the bundle is implemented, some of the strategies in the bundle may become more important and some less important. Individual policy option summaries in Area 1 follow.*

**Future Actions** MDOT completes the re-assessment of the GHG emissions modeling update for the transportation sector that includes: (1) a revised transportation sector BAU VMT and GHG emissions analysis for 2006 and 2020, and (2) revised VMT / emission reduction goals to help meet the emission reduction targets of the Maryland Climate Action Plan.

MDOT completes initial assessment of the following - (1) transportation infrastructure included in the completed State and MPO plans and programs to be in place by 2020; (2) transportation sector related technology and fuels programs implemented through 2020; (3) all TERM projects planned and programmed through 2020. MDOT also completes initial assessment of additional transportation related infrastructure and technology programs that are organized by TLU that were recommended by MDOT's multi-agency (state, regional and local agencies) Working Groups and Coordinating Committee; and (4) DRAFT macro-level cost assessment of all TLUs.

**Option: TLU-2**  
**Lead Agency: MDOT**  
**Bin: 3**

**Est. GHG Reduction by 2020 (MMtCO<sub>2</sub>e):**  
**Climate Action Plan Total = 4.6**

**Integrated Planning for Land Use and Location Efficiency (TLU-2)** *Implement integrated land use and transportation planning, investment incentives and other strategies to promote compact, transit-oriented development (TOD) and other growth management objectives that encourage less driving while ensuring a competitive economy and affordable house opportunities.*

**Future Actions** MDOT will continue to conduct periodic meetings with TLU working groups, and coordinating committee and consultants to discuss policy options and implementation.

**Option: TLU-3**  
**Lead Agency: MDOT**  
**Bin: 3**

**Est. GHG Reduction by 2020 (MMtCO<sub>2</sub>e):**  
**Climate Action Plan Total = 2.8**

**Transit (TLU-3)** *Shift passenger mode choice to transit and carpooling by improving transit service and expanding transit infrastructure through increased funding and planning, focusing development on transit-served corridors, and expanding transit marketing and promotion.*

**Future Actions** MDOT will continue to conduct periodic meetings with TLU working groups, and coordinating committee and consultants to discuss policy options and implementation.

**Option: TLU-5**  
**Lead Agency: MDOT**  
**Bin: 3**

**Est. GHG Reduction by 2020 (MMtCO<sub>2</sub>e): 0.3**

**Intercity Travel: Aviation, Rail, Bus, and Freight (TLU-5)** *Enhance connectivity of non-automobile transportation modes between cities through infrastructure and technology investments, focusing in particular on rail expansion to reduce short-range air travel and to increase rail freight transportation.*

**Future Actions** MDOT will continue to conduct periodic meetings with TLU working groups, and coordinating committee and consultants to discuss policy options and implementation.

**Option: TLU-6**  
**Lead Agency: MIA**  
**Bin: 3**

**Est. GHG Reduction by 2020 (MMtCO<sub>2</sub>e): 4.3**

**Pay-as-You-Drive Insurance (TLU-6)** *The Maryland Insurance Administration (MIA) would lead a work group with MDOT, MDE, the insurance industry, consumer advocacy groups, and other stakeholders to explore options for implementing and marketing insurance policies that tie the cost of premiums to miles or hours driven.*

**Future Actions** MIA will continue to conduct TLU working group meetings.

**Option: TLU-8**  
**Lead Agency: MDOT**  
**Bin: 3**

**Est. GHG Reduction by 2020 (MMtCO<sub>2</sub>e):**  
**Included in TLU-3 Quantification**

**Bike and Pedestrian Infrastructure (TLU-8)** *State government would work with local governments and private stakeholders to develop infrastructure planning and design tools, and would provide financial incentives to local governments, to improve, expand, and promote bicycle and pedestrian travel.*

**Future Actions** MDOT will continue to conduct periodic meetings with TLU working groups, and coordinating committee and consultants to discuss policy options and implementation.

**Option: TLU-9**  
**Lead Agency: MDOT**  
**Bin: 3**

**Est. GHG Reduction by 2020 (MMtCO<sub>2</sub>e):**  
**Climate Action Plan Total = 4.7**

***Incentives, Pricing, and Resource Measures (TLU-9)*** *Establish GHG emission-based road user fees, time-of-day cordon pricing, parking pricing, and fuel fees based on carbon-intensity, and use revenues to fund transportation programs that advance GHG reduction goals.*

**Future Actions** MDOT will continue to conduct periodic meetings with TLU working groups, and coordinating committee and consultants to discuss policy options and implementation.

**Option: TLU-10**  
**Lead Agency: MDE/MDOT**  
**Bin: 3**

**Est. GHG Reduction by 2020 (MMtCO<sub>2</sub>e):**  
**Climate Action Plan Total = 0.44**

***Transportation Technologies (TLU-10)*** *Reduce GHG emissions from on- and off-road vehicles (e.g. marine, rail, construction equipment) by providing incentives for purchasing fuel-efficient vehicles, adopting a "Green Port" strategy for Baltimore area port facilities, adopting state government contracting and fleet standards, and developing state-level "smart transportation" system management mechanisms.*

**Future Actions** MDOT will continue to conduct periodic meetings with TLU working groups, and coordinating committee and consultants to discuss policy options and implementation.

**Option: TLU-11**  
**Lead Agency: MDOT**  
**Bin: 3**

**Est. GHG Reduction by 2020 (MMtCO<sub>2</sub>e): N/A**

***Evaluate the GHG Emissions from Major Projects (TLU-11)*** *Require state agencies and other large capital project sponsors to conduct an evaluation of the resulting transportation and land use GHG emissions related to state and local major capital projects such as major road construction or modifications.*

**Future Actions** MDOT will continue to conduct periodic meetings with TLU working groups, and coordinating committee and consultants to discuss policy options and implementation.