

**Draft Recommendations of the Transportation and
Land Use Workgroup of the Governor's Climate
Change Commission**
Version 2

PART I. Reviewed (but not finalized) by the workgroup on
September 10, 2008

The defining goal of the 2008 Climate Change Commission is to create an action plan that will reduce Virginia greenhouse gas emissions by 30% from business-as-usual expected emissions by the year 2025. The Virginia Energy Plan in 2007 developed steps that will achieve a portion of this 30% reduction – the Climate Change Commission must finish this work.

The Transportation and Land Use Workgroup has looked carefully at many possibilities for contributing to the desired reductions in GHG emissions. We have done our best to make sure each of our recommendations is consistent with the short- and long-term prosperity and welfare of the citizens of Virginia. Wherever possible, we have tried to link our action plans to their related benefits, environmental, economic, cultural, and more.

Transportation sources contribute approximately 1/3 of the overall GHG emissions in the Commonwealth, and until recently this sector represented the fastest growing part of the state inventory. Over the past year, primarily as a result of higher gasoline prices, emissions from the transportation sector most likely did not increase or may have decreased as fewer vehicles miles were driven. Recent experience suggests that growth rate in vehicle miles traveled will not continue at the historic level of [2.7%] on an annual basis, but will be moderated significantly. This slower growth rate will still correspond to a robust Virginia economy while at the same time resulting in decreased state-wide GHG emissions.

As we considered our recommendations, we focused on three primary categories: (1) initiatives that reduce GHG emissions through improved fuel economy, (2) initiatives that reduce GHG emissions through low-carbon (alternative) fuels, and (3) initiatives that reduce GHG emissions through transportation and location efficiency measures.

There was a strong consensus among workgroup members that actions to support or accelerate measures in category (1) or category (2) should be actively encouraged by state policy, state incentives, or state standards, with the Commonwealth itself setting an example for local governments and the private sector.

Initiatives that reduce GHG emissions through transportation and location efficiency measures (category 3) include actions to reduce congestion, increase access, and provide a wide range of transportation options that result in fewer or shorter automobile trips while still accomplishing the desired outcomes (e.g. commuting to work, personal trips for shopping, medical appointments, education, leisure travel, etc.). Such actions include providing greater access to transit including rail transit; shifting freight transport from truck to rail; enhanced new or revitalized community designs that promote walking or bicycling, and community designs that facilitate combining of trips or shorter trips; and telecommuting, telebusiness or telecommunication.

The workgroup had a spirited discussion regarding whether the ultimate objective was to reduce vehicle miles of travel or to reduce emissions. A strong consensus emerged that reducing emissions is our objective and the transportation and location efficiency strategies for achieving this objective should focus on expanding consumer choice coupled with state support for community designs that result in lower emissions. Reduction in vehicle miles of travel (VMT) and associated GHG emission reductions may very well be the consequence of these strategies. Our desired outcomes, however, are actions retaining and expanding freedom of choice in travel modes which result in

reduced GHG emissions, rather than VMT reductions. The workgroup also notes that reduction in VMT obtained through our recommendations will also have positive co-benefits such as reduced congestion, improved air quality, and lower impacts on our transportation infrastructure.

A. Initiatives that reduce GHG emissions through improved fuel economy.

Virginia should set minimum miles-per-gallon standards for the fleet owned by the Commonwealth as well as for all rental vehicles utilized by state employees in the transaction of state business. Virginia should recommend such standards for local government-owned fleets (especially school buses and transit vehicles), NGOs, and private businesses and provide incentives to groups that adopt the suggested minimum standards. For example, the state should provide a higher rate of matching funds to localities that adopt the standards.

- GHG reductions and associated costs:
- Other environmental benefits:

Virginia should create state incentives, modeled on the federal incentives, for the purchase of high mpg vehicles, regardless of power source. Incentives could include lower registration fees or access to HOV lanes.

- GHG reductions and associated costs:
- Other environmental benefits:

Virginia should consider renewing its dormant “Cash for Clunkers” program, which subsidizes the retirement of the oldest, most polluting, least efficient vehicles on the roads. The program will be calibrated to spend the most where the benefit in GHG reduction is the greatest. The program’s efficiency should be evaluated prior to implementation, and should only be pursued if investments will produce greater GHG reductions than an equivalent investment in transit.

- GHG reductions and associated costs:
- Other environmental benefits:

Virginia should fund research on the aerodynamics of larger vehicles, especially tractor-trailers, to reduce the turbulence of their wake.

- GHG reductions and associated costs:
- Other environmental benefits:

B. Initiatives that reduce GHG emissions through low-carbon (alternative) fuels.

Virginia should create a pool of research funds to reward and stimulate alternate fuel and battery research at Virginia's colleges and universities. Virginia should ask its federal legislators to expand federal research appropriations in this direction.

- GHG reductions and associated costs:
- Other environmental benefits:

Virginia should mandate a carbon standard for the fuels our transportation vehicles use, to be phased in over the years leading to 2025. [Wrap into discussions of California car standards?]

- GHG reductions and associated costs:
- Other environmental benefits:

C. Initiatives that reduce GHG emissions through transportation and location efficiency measures.

Virginia should explore ways to ensure that our highway system provides price signals to consumers. Pricing transportation on miles driven, on the nature of the trips, and on the timing and congestion of the trips taken, will do much to reduce and consolidate discretionary travel (as much as 40% of all trips). One way to do this is to initiate a pilot project on shadow pricing, in

which the price of using our highways is based on mileage driven, rather than fuel purchased. Federal funds should be accessed for this pilot project if possible, and the pilot project recently completed in Oregon could serve as a model. Another available tool is to build HOT lane networks to implement some aspects of highway pricing. In California, revenues from HOT lanes are used to support transit.

- GHG reductions and associated costs:
- Other environmental benefits:

Virginia should review the Transit Capacity and Quality of Service Manual on a statewide level, to develop a written analysis of how Virginia's transit capabilities compare nationally and against the theoretical ideal. Virginia should then create an improved action plan to address identified transit opportunities.

- GHG reductions and associated costs:
- Other environmental benefits:

Virginia should create signalization standards to improve the timing and the intelligence of traffic signalization across the Commonwealth.

- GHG reductions and associated costs:
- Other environmental benefits:

[Rue to draft a recommendation about increasing the capacity of existing roadways through access management.]

- GHG reductions and associated costs:
- Other environmental benefits:

[Davis to refine] Virginia should create a Transportation and Land Use Benchmarks program, first to set intermediate and long-term goals for specific desired outcomes, and second to create a process for monitoring our progress towards these goals. This program could be incorporated into the annual Transportation

Performance Report. If possible, this program should be connected to funding to add an incentive to meet desired outcomes. Examples include:

Transit riders per mile of transit infrastructure
% Virginians who walk or bike to work
% of freight carried by rail
% of Virginians who telework
“no net tree loss”; etc.

- GHG reductions and associated costs:
- Other environmental benefits:

Regional scenario planning should be incorporated into long-term transportation plans such as VTRANS 2020. [Rue/Davis to refine]

- GHG reductions and associated costs:
- Other environmental benefits:

Environmental review of transportation projects should include GHG emissions expected to result from project. [Pollard to refine]

- GHG reductions and associated costs:
- Other environmental benefits:

Virginia should create new or added benefits, for state workers who take transit, walk, or bike to work, and will create the program examples for local governments and private businesses. These benefits should be equal to or greater than those provided for state employees to park their personal automobiles at work. All office buildings owned or rented by the Commonwealth should provide bike racks.

- GHG reductions and associated costs:
- Other environmental benefits:

Virginia should adopt a commuter tax credit. [Pollard to refine]

- GHG reductions and associated costs:
- Other environmental benefits:

Virginia should continue to promote land conservation through tax incentives and matching grant programs. [Pollard to refine]

- GHG reductions and associated costs:
- Other environmental benefits:

Virginia should ask the Virginia Department of Transportation to establish roundabouts as the default design for all new intersections and for intersection improvements. There should be simple criteria to make roundabouts easier to build [Davis to refine]

- GHG reductions and associated costs:
- Other environmental benefits:

VDOT has amended its road construction standards to make new or upgraded roads more pedestrian and bike-friendly. VDOT should ensure that funding is available for localities to implement these standards. In addition, VDOT should compile and coordinate local and regional plans to develop a pedestrian and bicycle network. [Davis and Rue to refine]

- GHG reductions and associated costs:
- Other environmental benefits:

Virginia should develop and provide funding and technical assistance to encourage local governments to incorporate requirements pedestrian and bicycle infrastructure in local ordinances

- GHG reductions and associated costs:

- Other environmental benefits:

Virginia should enhance the convenience of using transit compared to driving. Virginia should develop and provide funding and technical assistance to local governments to amend zoning codes that currently establish excessive minimum parking space standards and encourage local governments to consider making street parking more expensive than parking in facilities served by transit or bicycle facilities. [Rue and Martinez to refine]

- GHG reductions and associated costs:
- Other environmental benefits:

Virginia should establish telework and flextime standards for eligible state employees, and should recommend that local governments and private businesses adopt these voluntary standards. Virginia should establish state and local incentives for electronic transactions. Virginia should expand the Telework!Va program and to encourage private employers to adopt these standards, and should consider rewarding high-performing public and private employers who use telework well. The effectiveness of these transportation demand management measures should be compared to that of providing access to transit for workers and those doing business with the Commonwealth.

- GHG reductions and associated costs:
- Other environmental benefits:

PART II. Recommendations not yet discussed by the workgroup

A. Initiatives that reduce GHG emissions through improved fuel economy. **NOTE: DEQ has completed a preliminary analysis of the effect of the CAFÉ standards imposed by Congress in 2007. Virginia will see a 17 MMte reduction from BAU in 2025, according to this analysis.**

Virginia should amend the current vehicle titling tax to weight the taxation based on fuel efficiency – the less efficient, the higher the title tax %.

Virginia should advocate, through its federal delegation, the establishment of CAFE standards for heavy trucks (which currently have no fuel economy standards).

B. Initiatives that reduce GHG emissions through low-carbon (alternative) fuels.

Virginia should ask scientists at its universities to describe the GHG impact of sugar-based ethanol, and of other biofuels.

Virginia should create funding to accelerate the electrification of truck stops and the adoption of idling avoidance technology.

Virginia should lead the Atlantic and Southeast Regions in establishing One Standard for diesel biofuel (e.g. B15) for state-owned equipment and school buses, and will work with our neighboring states to adopt this same standard.

Virginia should identify and enhance plug-in charging areas and services, to make and market Virginia as “hybrid friendly.”

C. Initiatives that reduce GHG emissions through transportation and location efficiency measures.

Virginia should increase State Police funding for more consistent enforcement of existing speed limits.

Virginia should change the state transit funding formulas to include state funding for operations, specifically for funding the salaries of bus drivers and other operators. Virginia should also consider making transit funding contingent on certain land use decisions that will make of transit attractive and convenient.

VDOT will allow its rights-of-way to be used for solar and wind farm connections to the power grid.

Virginia should expand the Virginia Rail Enhancement Fund, from \$24 million to \$200 million per year, to develop the enormous potential for North-South freight rail (especially along the I-81 corridor), for adding tracks, and for making the existing network more efficient through signalization.

Virginia should amend its Corridor Analysis process, to make sure that transit, rail, and other transportation modes are included in every analysis.

Virginia should direct VDOT to provide technical assistance to local governments on the prevention of sprawl, and for the assessment of the land use impacts of major transportation projects.

Virginia should target available state funds towards compact, walkable, transit-oriented development areas.

Virginia should undergo, in partnership with the Planning District Commission and with local governments, statewide region-by-region scenarios analyses for local land use planning. These scenarios will be most useful in guiding future land use decisions.

Virginia should increase funding for the Access Management Fund, to preserve new transportation corridors and to retrofit existing corridors.

Virginia should direct the State Corporation Commission to provide regulations for pay-as-you-drive insurance, where the cost of insurance is best on miles driven, with weighting for driving during peak congestion periods.

Working with local governments and VDOT, Virginia should harmonize the state transportation plans and local land use plans on the same five-year schedules.

Virginia should encourage local governments to establish tree canopy preservation goals.

Virginia should amend VDOT landscaping standards to minimize mowing and increase carbon retention.

D. Cross-cutting recommendations

Virginia should establish “tree banking” to expand our carbon sinks.

Virginia should create a voluntary action plan for Virginia citizens: 10 things we can do in our private lives to help achieve the 30% reduction goal.

Virginia should develop specific goals for the coming reauthorization of the federal ISTEA legislation, and will work closely with our federal delegation to achieve these goals.

Our Workgroup also recommends that the full Commission establish an actual specific number for 2025 Greenhouse Gas Emissions anticipated and desired, in order to provide certainty and specificity to the Executive Order goal of 30% reduction from Business As Usual.

Not included:

Virginia should adopt the California tailpipe emissions standards. Bordered by four states that have not adopted this standard (North Carolina, West Virginia, Tennessee, and Kentucky), this standard would wreak commercial havoc. Its legality is still uncertain, pending a Supreme Court decision.

Virginia should adopt a specific goal for reduction in Vehicle Miles Driven, with five-year adjustable benchmarks. Rather, we have recommended a number of action plans that will, in fact, reduce VMT, while our focus remains on the Commission goal of reducing GHG emissions.

Virginia should lower its statewide speed limit to 60 mph.

Virginia should create greater flexibility within VDOT Transportation Districts to modify allocation formulas.

Virginia should take funds currently accrued for future highway projects, and reallocate them for priorities more closely related to the GHG reduction goal: transit, bicycle infrastructure, etc.