

# TRANSPORTATION PLANNING BOARD

## TECHNICAL COMMITTEE MINUTES

### 1. **Welcome and Approval of Minutes from the April 4, 2008 Technical Committee Meeting**

Minutes were approved as written.

### 2. **Briefing on a Cost-Benefit Analysis Framework for Transit Investments in the Washington Region**

Mr. Kirby introduced Mr. Lewis, of HDR-HLB Decision Economics, Inc. He said that Mr. Lewis had prepared the paper in the mailout on a cost-benefit analysis framework which provides a comprehensive approach for assessing transit investments in the Washington region. He explained that many transit improvements such as the Purple Line in Maryland and the transit projects in the TPB scenarios have land development benefits that could be examined as possible financing mechanisms. He commented that the Federal Transit Administration (FTA) uses "cost-per-rider" as the primary measure of the value of transit when funding New Starts transit projects. He said that today's presentation on this cost-benefit framework would be condensed and revised based upon the Committee's comments, and the new presentation would go to the Committee and the TPB in June.

Mr. Lewis briefed the Committee on a comprehensive value assessment of transit investments and explained in detail the three types of economic benefits called: mobility, congestion management, and community economic development. He summarized examples of transit projects that compared the costs with the three types of benefits.

Mr. Srikanth commented that this was an interesting and comprehensive economist's approach. However, it was not clear if it is being proposed that the TPB consider using cost-benefit analysis for the transit projects in the scenarios. He also asked how the life-cycle costs of investments and the time lag for land development benefits to develop are considered. Mr. Lewis responded in detail to these questions.

Ms. Harvey inquired if Mr. Lewis was advocating that FTA use this more comprehensive approach. Mr. Lewis replied no, that the FTA approach was used to compare projects across cities and regions, and not to determine the full value of the transit investments.

Mr. Owolabi asked if the project example in the presentation showing the full benefits and costs of BRT versus rail service demonstrates that one mode is better than the other. Mr. Lewis said this type of determination depends on the specific project conditions and should not be generalized.

Mr. Mokhtari asked if this value assessment of transit investments could be used in this region. Mr. Lewis replied that it could, and that FTA will consider the full benefit approach.

Mr. Kirby commented that a major reason why FTA is not comfortable with measures of congestion management and community economic development benefits is that FTA cannot quantify them.

Mr. Sanders of Purple Line Now thanked Mr. Kirby for a presentation that addresses the full range of transit benefits. He commented that a comprehensive benefit-cost approach should be considered in the FTA studies and used in future TPB scenario work.

Mr. Kirby said that the Committee in June would receive a revised and more focused presentation on this comprehensive cost benefit analysis framework for assessing and financing transit investments, including those that are in the TPB scenarios.

**3. Status Report on the Air Quality Conformity Assessment of the 2008 CLRP and FY 2009-2014 TIP with NFTA Funded Projects**

Mr. Clifford gave a status report on the various work tasks proceeding in parallel on the current conformity analysis. He stated that network coding was complete for 2009, 2010, and 2020, that travel demand was complete for 2009 and 2010, and that emissions estimates were complete for 2009. He noted that EPA is currently reviewing the 8-hour ozone budgets for adequacy, so they may be legally binding for the first time this year. The PM<sub>2.5</sub> budgets have been submitted to EPA for approval/adequacy review. While it is uncertain whether the budgets will be in effect, staff will assess the pollutant levels relative to the new budgets, as well as doing a comparison to the 2002 base.

There were no questions.

**4. Status Report on Two Versions of the Draft 2008 CLRP and FY 2009-2014 TIP (with and without NFTA Funded Projects)**

Mr. Austin gave a brief report on each agency's status on completing their data submissions for the FY 2009-2014 TIP. He said that further information was needed from Frederick and Charles Counties in Maryland and that WMATA and VDOT were continuing to make some revisions as well. He said he would distribute PDF files to each agency over the next few weeks.

Mr. Austin noted that the TIP forum was scheduled to take place on May 15. He said that a draft TIP document would not be distributed at the forum. Instead, the forum would focus on the progress of a few key projects from each agency.

Mr. Foster inquired what else needed to be completed for Virginia's submissions. Mr. Srikanth replied that VDOT was comfortable with their progress and was beginning the process of grouping together projects that don't affect conformity and reviewing the status of projects that do have conformity impacts.

**5. Briefing on Cost-Effectiveness of Travel Demand Measures (TDM) for Reducing CO<sub>2</sub> in the Washington Region**

Mr. Clifford distributed a May 2, 2008 memo on this subject to the group. He mentioned that staff is computing cost-effectiveness numbers for CO<sub>2</sub>, as has been done for other pollutants. He noted that about a year ago the COG Board formed a Climate Change Steering Committee (CCSC). He referred to page 4 of his handout, and noted that CO<sub>2</sub>, unlike other pollutants analyzed by the TPB, is projected to increase through time.

He explained that the CCSC is finalizing the setting of targets to control CO<sub>2</sub> emissions and referred to proposed reduction targets of : by 2012, to get back to 2005 levels; by

2020 a 20% reduction from 2005 levels; and by 2050, an 80% reduction from 2005 levels.

Mr. Clifford discussed mobile CO<sub>2</sub> projections, as shown in exhibit 2 of the handout. He noted that without the 2007 CAFE standards (35 mpg average by 2020) emissions are projected to increase by approximately 25% between 2005 and 2020 and by 30% between 2005 and 2030. With the 2007 CAFE standards these increases would be significantly mitigated. With an enhanced CAFE standard of 55 mpg average by 2020 (sensitivity test), levels would decrease to 5% below the 2005 levels by 2020, and to 16% below the 2005 levels by 2030.

Mr. Clifford discussed a TERMS CO<sub>2</sub> cost-effectiveness analysis currently underway. He pointed out the formula on page 2 for calculating cost-effectiveness. He noted that the Commuter Connections program has a cost-effectiveness value of \$17/ton. He mentioned that staff is working on cost-effectiveness calculations for the measures on the TERM tracking sheet. He referred to Exhibit 3 which lists grouped TERMS and shows ranges of cost-effectiveness. He noted that EPA's Mobile model was used to get emissions rates for these calculations, and that the location of a project in the region has a big effect on the benefit value.

Mr. Clifford stated that staff is planning to analyze additional measures in a "What Would It Take" scenario being developed by the TPB Scenario Task Force. After additional measures are prepared, the results will be reported back to the TPB Technical Committee and to the CCSC and MWAQC.

Mr. Foster asked which projects within the categories specified in Exhibit 3 have higher vs. lower cost-effectiveness values. Mr. Sivasailam responded that the cost-effectiveness varies by type of project and location. For example, a number of projects are more cost-effective in an urban area because of a larger demand within that travel shed.

Ms. Samarasinghe asked how to get jurisdictions to work towards the CCSC goals with no federal regulations backing the initiative. Mr. Clifford replied that the goals are voluntary, but that a number of jurisdictions were actively pursuing such reductions and had already made commitments. Mr. Kirby noted that looking at decreasing CO<sub>2</sub> is relatively new, but that many groups are looking at strategies. He referred to the McKinsey report which suggests that there is lots of "low hanging fruit", and that these easier and more cost-effective measures are the current focus of much research. He remarked that CO<sub>2</sub> concerns are certainly a global issue.

Ms. Samarasinghe asked what is the difference between "Fuel Use" and "Transportation" on Exhibit 1. Mr. King answered that "Fuel Use" refers to non-surface transportation items such as heating fuel and jet fuel.

Mr. Mokhtari mentioned that earlier presentations showed other benefits for projects and asked if staff was going to do that for projects in Exhibit 3. Mr. Clifford replied that other types of benefits were important, but that this exercise focused on CO<sub>2</sub> only. Mr. Mokhtari suggested listing projects that have high sub-benefits vs. low sub-benefits. Mr. Kirby indicated that it is very complicated to do so, and that this exercise is just to analyze CO<sub>2</sub>.

Mr. Viola asked if the money put into ridesharing was doubled, would there be the same good return on the investment. Mr. Kirby replied that staff has not specifically looked at

that, but that there definitely are diminishing returns for most projects beyond a certain level. Mr. Ramfos added that if the current voluntary setting was changed for ridesharing that there might be room for more investment with the high rate of return that is currently seen. Mr. Kirby noted that the investment in the telecommuting promotion has decreased because the program has taken off on its own. Mr. Clifford pointed out that the programs originally came about to mitigate other pollutants and were selected due to their high cost-effectiveness ratings, so it was natural that they be similarly cost-effective in addressing CO<sub>2</sub>.

Mr. Ramfos asked if there would be some type of regulation in the future. Mr. Clifford replied that there are currently many voluntary programs such as COOL Cities and COOL Counties. He pointed out that there is some talk of regulatory rather than voluntary procedures, as is shown on page 3 in Appendix A. Mr. Kirby noted that there has been much discussion of the issue by Congress, and that there is broad agreement about the need to decrease CO<sub>2</sub> emissions.

## **6. Breifing on Draft Report on Regional Travel Trends**

Mr. Griffiths gave an updated Power Point presentation of his draft travel trends report that included more information on the slight decline in regional auto travel between 2005 and 2006 and the drop in AM Peak Period single occupant vehicles and carpools crossing the Central Employment Area cordon line between 2002 and 2006.

## **7. Update on the Development of the “CLRP” Aspirations” and “What Would it Take” Scenarios**

Mr. Kirby provided an update on the development of the two new scenarios, the CLRP Aspirations and What Would it Take? scenarios. He went over two different PowerPoint presentations, one of which was presented to the COG Climate Change Steering Committee (CCSC) on April 23, 2008 and the other which was presented to the Greater Washington 2050 Coalition on April 25, 2008. The first presentation focused on the development of the What Would it Take? scenario, which is taking CO<sub>2</sub> reduction goals as determined by the COG CCSC and then determining what combinations of mobile emissions reduction strategies, such VMT reduction, fuel efficiency, and less carbon intensive fuels will be necessary to meet those goals. He stressed that because the effects of climate change are global and not local or regional as they are for ozone or particulates, it will be important to analyze these strategies in the global context of cap and trade programs.

The second presentation to the Greater Washington 2050 Coalition focused on the CLRP Aspirations Scenario and the connection between the scenario and their visioning efforts. Mr. Kirby stressed that while the regional impacts of the previous RMAS study were limited, the strategies were effective on a local level where applied. He also noted that since the previous and current studies only look out to 2030, there is very limited growth with which to work. In this regard, the 2050 visioning could provide more opportunity for substantial change. Mr. Kirby also pointed to Sacramento’s visioning efforts and recommended the use of some of their themes, such as a drastically reduced development footprint. He stated that he will return with another update at the next Committee meeting.

**8. Other Business**

None.

**9. Adjourn**