



Date: May 19, 2010
To: Regional Advisory Working Group
From: Doug Kimsey, MTC
Subject: **California Air Resources Board's Greenhouse Gas Target-Setting Process: Update**

Background

At your April 28, 2010 meeting, I provided a summary of MTC's and the other region's data-exchange activities among ourselves and with CARB; the intent being that the regions want to provide adequate and internally consistent data to CARB to help inform its target-setting process as required by SB 375. As I reported at your April meeting, SB 375 requires CARB to release draft 2020 and 2035 GHG reduction targets for the State's 18 regions by June 30, 2010 and final targets by September 30, 2010.

You will recall that I also reported that several of the regions were doing a number of scenario assessments that are intended to narrow to an achievable range of GHG emission reductions (measured in % reduction of weekday pounds per capita compared to a 2005 base year in 2020 and 2025). For our target-setting scenario assessments, MTC/ABAG has mostly relied on recent analyses done for the 2009 RTP, adopted by the Commission in March 2009 (see attached memo from MTC to CARB summarizing our data development for CARB's target-setting process).

Recent Target-Setting Activities

A number of regional and CARB activities have occurred, are ongoing, or have been planned since our April 28 RAWG meeting:

- ABAG's Administrative Committee and MTC's Planning Committee met jointly to discuss GHG target setting and other SB 375-related activities. GHG target-related comments provided include:
 - will need to depend on technology to clean up passenger car and truck fleet
 - need to set slower freeway design speeds
 - Look at both the infrastructure, pricing mechanisms and aggressive land use
 - Aim high
 - Regions don't set local land use or parking pricing policies – local buy-in critical
- Several of the larger regions continue to meet to share data with CARB. This effort will lead to a report submitted to the Regional Targets Advisory Committee (RTAC), which is advising CARB on target-setting methodology; RTAC will meet on May 25, 2010 in Sacramento to discuss the report

- CARB still intends to release GHG targets by June 30, 2010 as required by law; there has been some talk about separate targets for each region, or possibly providing a range, at least for the draft target release; CARB intends to hold a series of public hearings across the state in mid-July 2010

CARB's website (<http://www.arb.ca.gov/cc/sb375/data/data.htm>) includes some data already provided by the regional agencies. The final report from the regions on GHG target-setting that will be discussed at the May 25 RTAC meeting should be posted on CARB's website in the next few days.

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Memorandum

TO: Regional Targets Advisory Committee

DATE: May 17, 2010

FR: Steve Heminger

W. I.

RE: Senate Bill 375 Implementation: GHG Target-setting – Scenario Testing

INTRODUCTION

MTC has traditionally evaluated several scenario assessments as part of its RTP process. The evaluations typically range from constrained project, land use and pricing assumptions to totally unconstrained and admittedly unachievable alternatives. The purpose of these diverse scenarios have been to test a broad range of options and what their impacts are on various measures, including GHG emissions (our RTPs have been measuring GHG emissions since the early 1990s).

2009 RTP EVALUATION

Background

MTC adopted its 2009 RTP, known as Transportation 2035 (or T2035), in April 2009. T2035 did not deviate from this past practice of looking at a very broad range of constrained/unconstrained transportation, land use and pricing scenarios.

The T2035 process took a two step scenario evaluation approach. First, our “Vision Analyses” evaluated financially unconstrained investment packages – HOV/Express Bus, Freeway Operations and Rail/Ferry; the second round, conducted as part of our RTP EIR process, looked at several financially constrained options. Our analyses consistently have found that infrastructure by itself does not do much for reducing GHG emissions. What makes more of a difference is when these infrastructure improvements can be combined with options that price the private automobile and provide more dense and mixed use land use patterns in urban areas that are well served by transit and are conducive to walking and biking. This was true for both our Vision and RTP EIR analyses for T2035.

Our RTP EIR evaluation provided the basis for the range of scenarios that have been included in the MPO submittal to RTAC and CARB. Because we consistently found that infrastructure has little impact on emissions, the analyses focused mainly pricing and land use options and combinations of the two. In addition, in the financially constrained environment of the RTP, our agency has consistently prioritized a “fix it first” credo, to the extent that nearly 80% of all RTP expenditures are for maintaining and operating our existing transportation system; most of the rest of the expenditures are on transit expansion, with a smaller amount to road expansion. This heavy maintenance is attributed to the overall age of the transportation system that was mostly built 50 – 60 years ago – in addition, there is limited right of way available to expand transit or highway system – as a result, our more recent focus has been to squeeze more capacity out of the existing system through ramp metering, BRT and other operational improvements

Alternatives Tested

Given that our T2035 plan invests more than 80% of revenues into maintaining and operating or existing transportation system, there was very little variation in the transportation networks among our scenarios; most of the variation was in land use and pricing assumptions. In summary, the scenarios are defined as follows:

Project: The proposed Transportation 2035 Plan is financially constrained, as defined in the past four plans, and consistent with federal planning regulations. A total of \$226 billion in projected revenue is estimated to be available under the proposed Transportation 2035 Plan.

Key new projects include: buildout of our HOV lane system and conversion to Express (HOT) lanes; completion of several transit expansion projects, including BART/San Jose/Santa Clara extension, SF MTA’s Central Subway to China town, BART extension to Eastern Contra Costa County; new Marin/Sonoma County rail system, ferry expansion; regionwide ramp metering; and completion of our Regional Bicycle Network

Heavy Maintenance/Climate Change Emphasis: This alternative maximizes the use of available discretionary funds for investments that (1) reduce shortfalls for transit and local roadway maintenance; (2) improve walkability, bicycling, transit access, and carpooling and ridesharing; (3) help local jurisdictions to plan and build housing near transit; and (4) implement public education and outreach programs to raise awareness and facilitate behavior changes that help the region to meet its climate protection goal. It excludes the Express Lane and transit expansion projects mentioned above in the Project alternative.

Add Land Use and Pricing Assumptions: Applies one or both of the land use and pricing assumptions to the Heavy Maintenance and Project Alternatives. Our pricing and land use scenarios include very aggressive assumptions. We increase auto operating costs nearly 5 fold – this is necessary to move the GHG emissions “needle” because the Bay Area is a relatively high-wealth region. Our land use assumptions including moving 200,000 people, over and above current projections, in 2035 to San Francisco to better match jobs with workers; alternatively, we remove a like number of people in several suburban counties that have much higher jobs/housing imbalances.

Needless to say, these pricing and land use assumptions are not considered attainable by any stretch of the imagination. Given that MTC has little control over what it can price and even less control over local land use decisions, a more likely scenario would be to provide incentives to local agencies that do implement innovative pricing strategies or take on larger shares of housing and population.

Alternative Assessment Results

The RTP EIR alternatives produced a range of GHG emission results as follows:

Alts/GHG emissions reductions from 2005 (% per capita)	Project	Heavy Maint.	Project + Land use	Heavy Maint + Land Use	Project + Pricing	Heavy Maint + Pricing	Project + Land use + Pricing	Heavy Maint + Land use + Pricing
2020	-5%	-3%	-7%	-5%	-7%	-5%	-10%	-7%
2035	-3%	-1%	-10%	-8%	-10%	-8%	-12	-9%

As shown from the above table, there are several observations regarding GHG emissions compared to 2005 base year:

1. The Project performs better than the Heavy Maintenance alternative. This makes sense since most of the T2035 system expansion investments are for transit improvements; even highway expansion, which is only 4% of total RTP funding, is for expanding HOV/Express lanes, which have been shown encourage more carpooling and improve transit performance.
2. Our pricing and land use options perform about the same. Combined land use and pricing scenarios perform better than one or the other; while the two scenarios are synergistic, they are not additive.
3. Project assessments that we have tested in 2035 range from -3% weekday pounds per capita GHG emission reductions (2035 RTP) to -12% per capita reductions.

SUMMARY

Given that our maintenance and operations RTP financially constrained expenditures have and will likely continue in the 80% range, the region will likely not be able to depend on massive infrastructure improvements to support GHG emission reductions. We can expect some modest reductions as a result of strategic expansion through priced Express Lanes and select transit corridors and operational improvements that squeeze more capacity out of our existing transportation system.

Most of the GHG reductions that can be realized will result from how successful the region can be in moving toward more dense/mixed use and transit oriented development, and implementing more creative ways price the transportation system to adequately reflect the true costs of a limited resource. To these ends, we have been incentivizing local agencies over the past several years to do these things through our Transportation for Livable Communities (TLC – which offers planning assistance and capital grants for TOD totaling about \$30 million per year) program, our Blueprint program (known as Focus, which in cooperation with local agencies, identified about 120 Priority Development Areas, or PDAs, where we will focus all of our TLC funds), and various other regional programs, including our Regional Bike Network (about \$20 million/yr) and Climate Change Initiative Program (about \$40 million/yr).

However, it's difficult to measure the impacts of these programs. Given what we know today, we can achieve a 5% GHG reduction per capita in 2020 and 5% in 2035 – those are based on our adopted plan. While SB 375 does allow each MPO to submit a target for CARB to consider, for now we will continue to work closely with the other MPOs and provide CARB with as consistent and complete data as we can. This data will allow CARB to set a target that is both ambitious and achievable.