August 7, 2017

To: Regional Planning and Highways Committee

From: Darrell Johnson, Chief Executive Officer

Subject: Regional Planning Update - Greenhouse Gas Target Review

Overview

Regional planning updates are provided periodically to highlight transportation planning issues impacting the Orange County Transportation Authority and the Southern California region. This update focuses on draft greenhouse gas reduction targets currently proposed by the California Air Resources Board. Once finalized, the Southern California Association of Governments is required to address them as part of the 2020 Regional Transportation Plan and Sustainable Communities Strategy. A discussion of the Orange County Transportation Authority's concerns and actions to date, is provided for informational purposes.

Recommendation

Receive and file as an information item.

Background

In 2008, SB 375 (Chapter 728, Statutes of 2008) was enacted to encourage more sustainable development through coordinated land use and transportation planning. SB 375 addresses this by tasking the California Air Resources Board (CARB) with setting greenhouse gas (GHG) reduction targets for passenger vehicles. Each of California's 18 metropolitan planning organizations (MPOs), including the Southern California Association of Governments (SCAG), was assigned targets for 2020 and 2035 that must be addressed through a Sustainable Communities Strategy (SCS) within their Regional Transportation Plans (RTP). If the targets are not met, the MPOs must develop a financially unconstrained Alternative Planning Strategy detailing how the targets could be met.

In 2010, the SCAG region was assigned eight percent and 13 percent per capita GHG emission reductions from 2005 levels to be met by 2020 and 2035, respectively. SCAG's first SCS to address these targets was included in the 2012 RTP. In this plan, SCAG exceeded the targets with reductions of nine percent for 2020 and 16 percent for 2035. These reductions were predicated on assumptions that local jurisdictions would encourage more compact growth patterns, especially multi-family housing and employment closer to transit. It also assumed expansion of transit, increased investments in active transportation, and mileage-based user fees.

However, as 2020 draws closer, there is less time for these types of assumptions to impact actual travel behavior and development patterns. This became apparent in SCAG's 2016 RTP, where the SCS narrowly met the 2020 target of eight percent per capita, indicating a decline from the nine percent reduction in the 2012 RTP. Conversely, since 2035 was almost 20 years out, this lead time allowed SCAG to implement more refined strategies that produced an 18 percent reduction by 2035, again exceeding the 2035 target (13 percent).

Discussion

Currently, CARB is reviewing GHG emission reduction targets for MPOs throughout California. This review is optional after four years, but is required by statute every eight years. Statute also requires that the review use a consultative process involving MPOs. This allows MPOs to recommend targets prior to CARB staff proposing draft targets. It should also be noted that this review is only focusing on the 2035 targets, since 2020 is nearing.

SCAG worked collaboratively with the San Diego Association of Governments, the Sacramento Area Council of Governments, and the Bay Area's Metropolitan Transportation Commission to develop a joint recommendation for the revised 2035 target. These agencies make up the four largest MPOs in the state, representing about 85 percent of the state's population. The focus of their analysis was on identifying targets that are ambitious, but achievable within a financially constrained RTP/SCS. This collaboration resulted in all four MPOs agreeing to recommend a target reduction of 18 percent per capita by 2035.

In developing the recommended target, each of the MPOs tested what might be achieved beyond approved SCS documents by expanding on assumptions for land use, transportation expenditures, and user fees. These "stress tests" ignored financial constraints and other limiting policies in order to explore all potential avenues for additional GHG emission reductions. In general, strategies that can be implemented at the local and regional level provided few benefits and had high costs. For example, SCAG's stress test determined that an additional investment of $10 billion in regional strategies would only achieve an additional 2.5 percent reduction in GHG emissions.

Common findings from the MPOs also showed that state initiatives were more effective than regional initiatives, which highlights the need for the state to provide more support and funding if they want to see larger emission reductions. Specifically, these tests showed that statewide clean vehicle technology programs have the greatest effect on reducing GHG emissions. Unfortunately, CARB does not allow SCSs to take credit for reductions from these programs. This is because the SCS and clean technology improvements are independent strategies in the Scoping Plan, each contributing toward the statewide GHG emission goals. However, when conducting federally-required RTP emissions analyses, both must be accounted for, which creates a challenge for MPOs.

Clean technology strategies reduce the cost of driving, making it more attractive and increasing vehicle miles traveled (VMT). This VMT increase from improved fuel efficiency is referred to as the "rebound effect". RTPs must report this VMT increase, but also must report the SCS-related GHG emission reductions separate from the clean technology strategies for state-required analyses. This is to avoid double counting reductions from Scoping Plan strategies. Therefore, MPOs must disregard the GHG reductions associated with clean technology strategies, while still accounting for the rebound effect's VMT increase. SCAG estimates that this results in a GHG emissions increase of about five percent.

Since SCAG's 2016 RTP/SCS achieved an 18 percent reduction in GHG emissions for 2035, the additional 2.5 percent reduction from the $10 billion investment assumed in SCAG's stress test could increase GHG reduction potential to 20.5 percent by 2035. However, SCAG's rebound effect estimate would increase GHG emissions by about five percent, putting SCAG's 2035 reduction estimate at 15.5 percent.

About half of the cost identified in SCAG's stress test is addressed through the Los Angeles County Metropolitan Transportation Authority's Measure M sales tax program, and leaves a $5 billion shortfall to get to a 15.5 percent GHG emission reduction by 2035. Knowing that CARB is in need of further reductions to address the statewide GHG reduction goals set by SB 32 (Chapter 249, Statutes of 2016), 40 percent below 1990 levels by 2030 for all sectors, SCAG recommended an ambitious reduction target of 18 percent. However, to achieve this, SCAG notes that the state must be proactive with supportive strategies and funding.

SCAG submitted their recommendation to CARB in early April 2017, and in mid-June CARB released draft targets. The draft targets maintained the 2020 target of eight percent, but increased the 2035 target to 21 percent (from 13 percent). This increases the gap that the SCAG region needs to address from 2.5 percent (based on SCAG's recommended 18 percent target,

which assumes SCAG identifies funding to cover the $5 billion shortfall) to 5.5 percent. SCAG does not believe this is achievable without unprecedented support from the state, in terms of funding and strategies to reduce vehicle miles traveled.

CARB justifies the increase over the SCAG recommendation through the following claims:

- The rebound effect will only result in a one percent increase (rather than SCAG's estimate of five percent);
- Funding will be made available through SB 1 (Chapter 5, Statutes of 2017), the GHG cap-and-trade funds, the Volkswagen Settlement, and "statewide pricing" (probably referring to a potential shift to a mileage-based user fee);
- New and enhanced SCS strategies; and,
- Revised modeling methodologies that better account for emission reductions from SCSs.

SCAG is coordinating with CARB to discuss the differences in assumptions regarding the rebound effect. This is the primary point of divergence between SCAG's recommendation and CARB's draft target. They will also need to resolve differences in assumptions regarding opportunities to enhance existing strategies. In general, SCAG's stress test seems to account for any opportunities to enhance strategies included in the 2016 RTP/SCS.

CARB assumes that over $53 billion in new funding will be made available over the next ten years through the programs mentioned above. The vast majority of this would come from SB 1 ($52.4 billion). However, SCAG's 2016 RTP/SCS already assumes that the gas tax would be raised ten cents per gallon, beginning in 2020. Therefore, the new funds generated through SB 1 are largely accounted for in the 2016 RTP/SCS. Furthermore, cap-and-trade funding distributed through the Greenhouse Gas Reduction Fund program has been unreliable to date, and the SCAG region has not received its fair share.

OCTA submitted comments on the draft targets proposed by CARB (Attachment A). These comments emphasize the need to clarify discrepancies between SCAG's and CARB's assumptions, and encourages CARB to rely on input from MPOs. CARB is only now preparing to gather input on the effectiveness of SCS strategies. There is also active legislation, SB 150 (Allen, D-Santa Monica), which proposes that CARB monitor and report on the progress of SCS implementation by September 1, 2018. Until CARB documents and evaluates the effectiveness of SCS strategies, they should defer to the MPO recommendations, as they are the agencies most familiar with SCS issues and emission reduction capabilities.

The public comment period for CARB's draft targets closed on July 28, 2017. CARB will consider all comments received, and make revisions as they see appropriate before presenting their recommendations to the CARB Governing Board in October 2017. Once finalized, MPOs throughout the state will be required to address the revised targets beginning in 2018, which first impact the 2020 RTP/SCS for the SCAG region. CARB has the option to review the targets again for 2022, and must review them again for 2026.

Summary

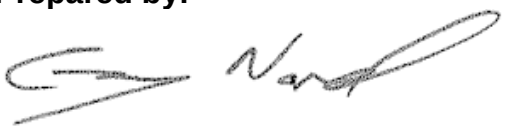
The California Air Resources Board is proposing to raise the targets for greenhouse gas emission reductions by 2035 from 13 percent to 21 percent for the Southern California Association of Governments (SCAG). Although the four largest metropolitan planning organizations, including SCAG, collaborated on studies that determined that 18 percent would be ambitious yet achievable, the California Air Resources Board believes more can be done. This belief is based on assumptions that the CARB derived independently, while trying to achieve the recently established statewide goal of a 40 percent reduction below 1990 levels in greenhouse gas emissions by 2030 across all sectors.

OCTA submitted comments to the CARB, encouraging them to establish goals that are achievable. Furthermore, the comments encourage them to avoid basing the targets on optimistic assumptions about sustainability strategies before actual performance data becomes available.

Attachment

A. Letter dated July 19, 2017, Clerk of the Board, California Air Resources Board, Proposed Update to SB 375 (Chapter 728, Statutes of 2008) Greenhouse Gas Emission Reduction Targets and Environmental Analysis

Prepared by:



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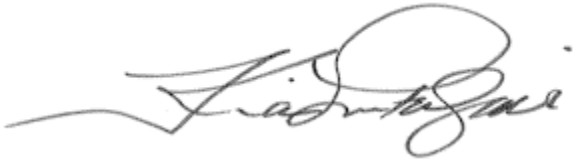

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