California's SB375: A Closer Look at the Numbers

SB375, California's much touted effort to reduce greenhouse gas (GHG) emissions through integrating land use, housing, and transportation policy, is targeted to achieve a 3 million metric ton CO2 equivalent reduction in greenhouse gases from a base year of 2005 by 2020. This is roughly 1.7 percent of the overall GHG reductions planned for California by the California Air Resources Board (CARB). In fact, although per capita GHG emissions may decrease as a result of SB375, it is expected that there will be a net increase in total GHG transportation-related emissions once expected population growth is factored in. The total weekday on-road CO2 emissions in all 18 metropolitan planning organizations impacted by SB375 is expected to grow from 372,536 tons in 2005 to 426,938 in 2020 and to 501,086 in 2035, a 34.5 percent increase. Population growth in these MPO regions is expected to grow 43 percent over this period. This article, written by Sarah J. Siwek, takes a closer look at the SB375 program to put its potential in perspective. In addition, some key SB375 implementation issues are discussed.

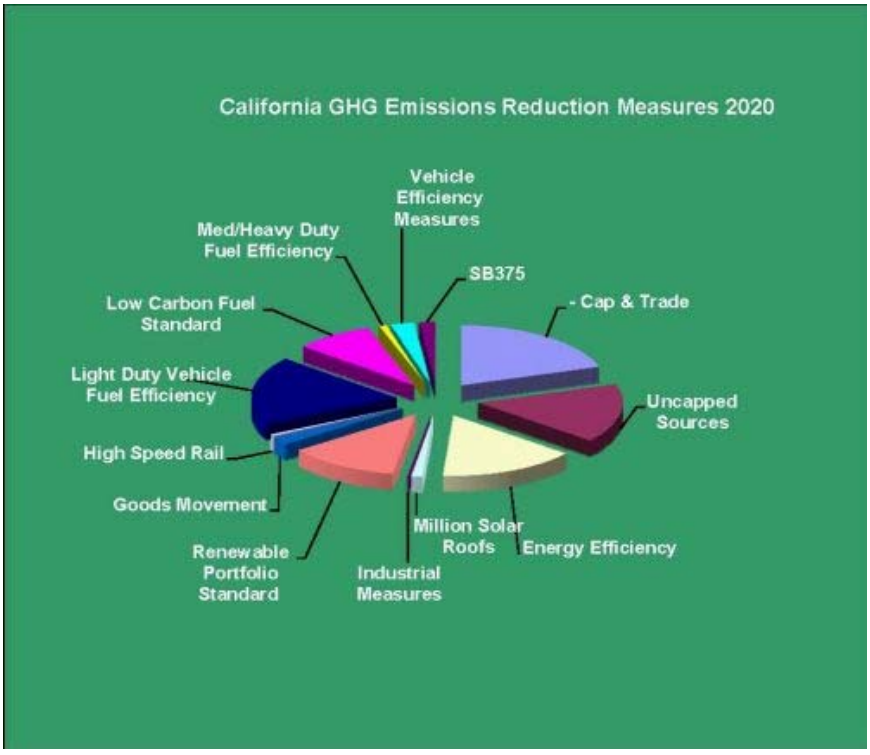
AB32, the Global Warming Solutions Act of 2006, established the first comprehensive program of regulatory and market mechanisms in the nation intended to achieve GHG emissions reductions. AB 32 set GHG emissions limits for 2020 at the 1990 level (30 percent reduction from "business as usual") and targets reductions of 80 percent below 1990 levels by 2050.

In 2008, CARB adopted a Scoping Plan to achieve AB 32's GHG emission reduction targets. Senate Bill 375 is the implementing legislation for non-technology based reductions from transportation-related greenhouse gas emissions.

The Big Picture

As can be seen in the chart below, SB375 is expected to achieve 3 million metric ton CO2 equivalent (MMTCO2E) daily in 2020 of a total of 172 MMTCO2E, or 1.7 percent. Aside from the reductions attributable to SB375, the technology-based transportation sector is expected to achieve a 57.3 MMTCO2E reduction daily, primarily from the adoption of a low carbon fuel standard (15 MMTCO2E) and light-duty vehicle efficiencies (31.7 MMTCO2E).

Looking just at the transportation sector, SB375 would account for only 4.9 percent of all daily transport-related GHG emission reductions in 2020.



Source: CARB AB32 Scoping Plan

SB375 in the State's Largest MPOs

SB375 GHG emission reduction targets for the four largest MPOs range from 6 percent to 8 percent per capita reduction from 2005 to 2020, and 13 percent to 15 percent per capita reduction in GHG from 2005 by 2035. These four MPOs, which comprise over 87 percent of the state's population, include Southern California Association of Governments (SCAG), Metropolitan Transportation Commission (MTC), Sacramento Council of Governments (SACOG), and San Diego Association of Governments (SANDAG). After a lengthy and collaborative effort by the Regional Targets Advisory Committee (RTAC) these targets were released by the MPOs and adopted by the California Air Resources Board (CARB) in a staff report earlier this year.

The thrust of SB375 is that by integrating land use, housing and transportation investments, the MPO regions will be able to achieve significant per capita reductions in GHG emissions. SB375 requires each MPO to develop a Sustainable Communities Strategy (SCS) as part of its fiscally-constrained long-range transportation plan and that the SCS demonstrate that each MPO can meet the CARB-adopted targets. If the SCS cannot demonstrate that it will achieve the targeted reductions, the MPO must develop an alternative planning strategy (APS) which is financially unconstrained and shows how, if funding were not an issue, each MPO could meet the targets.

In all four major MPO regions, the program relies heavily on infill development to accommodate population growth over time. For example, in the San Francisco Bay Area, new growth would be focused on priority development areas and directed to the three largest cities, San Francisco, Oakland, and San Jose. Various scenarios studied by the Metropolitan Transportation Commission, the MPO for the nine-county region, show that by directing growth to these priority growth areas, along with other measures, including road pricing, it would be possible to reduce per capita GHG by 15 percent from 2005 levels.

Some Caveats

The success of SB375 to achieve GHG reductions will depend on several factors.

First, housing costs in California have been a major reason why suburban sprawl has dominated residential housing growth in recent years. If infill development is to be the solution to suburban sprawl, then housing costs in already expensive cities will have to be affordable. Local communities will have the responsibility to develop enough affordable housing in targeted infill areas to accommodate new growth. This is a local decision and not in the MPO's purview. Moreover, whether real estate markets will accommodate such a development scenario remains uncertain.

Second, local jurisdictions in California rely heavily on sales tax revenues to provide public services. If suburbs and outlying communities are discouraged from growing, then they will likely see falling revenues over time to support ever-increasing costs of providing public services like police, fire, and refuse disposal. Whether those communities are likely to accept limited growth and declining revenues seems uncertain.

Third, there is no funding associated with implementing SB375 except for a small amount of planning funds that were recently made available. The majority of funding in the MPOs long-range plans goes to maintaining and operating the existing transportation system, which is aging and requires substantially greater investment just to achieve a state of good repair. For example, in the MTC region, 81 percent of the long-term plan investments are for maintenance and operations of the existing system. Also, SB375 grandfathered all transportation investments included in county sales tax measures for transportation in California that were approved through 2009. These twenty-year expenditure plans and associated funding are thus all programmed through 2030. Additionally, bonding costs associated with advancing projects in counties that have no sunset date on sales tax measures will stretch to 2035 and beyond.

SB375 provides incentives in the form of streamlined environmental review to residential developers that build new housing consistent with MPOs' Sustainable Communities Strategies. Yet, with the collapse of the housing market in California during the past several years there is an abundance of existing housing inventory, especially in recently developed suburbs far from the four major metropolitan centers of San Francisco, Sacramento, San Diego, and Los Angeles. Further, it is difficult to predict how the collapse in the housing market will impact future development.

Success Hinges on Acceptance by Local Jurisdictions

Only time will tell if SB375 will result in meaningful reductions in transportation-related GHG emissions. As the MPOs begin the process of updating their transportation plans and developing their SCSs, we

should begin to see whether this much-touted effort to integrate land use, housing, and transportation policy is accepted by local jurisdictions and results in the anticipated 3 MMTCO2E of daily GHG reductions by 2020.

If our history in reducing criteria pollutants is a guide, the technology-related measures to reduce transportation-related GHG emissions are the best and only real hope of achieving meaningful GHG reductions from the transportation sector.

For more information, link to CARB's SB375 Implementation website.

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