

Transportation Solutions Defense and Education Fund

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August 2, 2013
By E-Mail

Mary Nichols, Chair
Air Resources Board
P.O. Box 2815
Sacramento, CA 95812

Re: Scoping Plan Update

Dear Ms. Nichols:

The Transportation Solutions Defense and Education Fund, TRANSDEF, submits these comments to expand upon the remarks we made to the Board on its hearing on the Bay Area SCS. We urged the Board then to use the Scoping Plan Update process to revise the regional GHG emissions reductions targets. Making the per capita reductions larger percentages than overall statewide population growth percentages would ensure that GHG emissions are actually reduced statewide. Using as examples the specific comments we made on the Bay Area SCS, we seek to document the problem and provide an evidentiary basis that the previously adopted targets were inconsistent with the statutory mandate of SB 375. We provide a wide-ranging set of suggestions for other areas of the Scoping Plan as well.

2008 Emissions Projections

The 2008 Scoping Plan projected 2020 Business as Usual GHG emissions of 596 MMTCO₂e.¹ However, the actual 2010 inventory turned out to be only 448 MMTCO₂e.² For the sake of the future reliability of ARB GHG projections, the Update needs to analyze this discrepancy in great detail, considering the possibilities that (a) the projections contained a serious methodological error, (b) a serious arithmetic error was made, (c) the economic recession had a dramatic effect on emissions, (d) the implemented Scoping Plan measures were more effective than expected or (e) other possibilities.

In addition to using bar charts for the beginning and end points (Adopted Scoping Plan, p. 21), the Update needs to include a chart like Attachment E, to allow the visualization of the projections and goals in juxtaposition to inventory trends over time. The Update should include zero emission vehicles in its projections, consistent with Executive Order B-16-2012.

2050 GHG Emissions Goal

Given the pace of scientific discovery about climate change since 2006, ARB must evaluate the adequacy of both the magnitude and the timing of the emissions reductions called for by Executive Order S-3-05. Atmospheric CO₂ reached the 400 ppm level this spring, unprecedented in human history. Recent announcements indicate that climate change is occurring much faster than previously predicted. Science should dictate whether the Updated Scoping Plan needs to call for faster emissions reductions.

Work by the ARB and others provides a scientific basis for prioritizing efforts to reduce the shorter-lived and high-GWP GHGs, including methane, nitrous oxide and black carbon.³ Retrofitting diesel trucks should be an especially high priority, due to the very high public health co-benefits. Nitrous oxide is a much bigger problem than currently thought.⁴ Fugitive methane⁵ is such a significant problem that it could undo the benefits of the entire Scoping Plan.

High-Speed Rail

The project promoted by the California High-Speed Rail Authority has proven to be a complete failure as a Scoping Plan measure to reduce GHGs. Rather than reduce GHGs, the Legislative Analyst's Office released a report⁶ projecting that the project would lead to a net increase in GHG emissions for its first 30 years of operations. Given this dismal analysis, there is no justification for the continued listing of High-Speed Rail as a Scoping Plan measure.

Please note: TRANSDEF is a strong advocate for High-Speed Rail. We are confident that a properly designed High-Speed Rail system would serve as a model Scoping Plan measure. Unfortunately, political deal-making has reduced the project to a mere pork barrel for special interests, making it economically infeasible and a waste of public dollars.⁷ An impending court decision could deny the project access to High-Speed Rail bond funds.⁸

Energy

Concerns about fugitive methane should be high among the factors considered in setting the State's natural gas policies. Leak testing of working and shut-in wells, along with the entire distribution system should be a high priority for the Energy Commission and the PUC.

On the electricity side, feed-in tariffs are needed to incentivize the production of renewable resources. These tariffs have been tremendously successful in Germany. Tariffs for energy storage are needed to even out renewable sources to grid, with programs like electric vehicles-to-grid looking very promising. The State should advocate at the FERC for incentives via ancillary charges.

Incentives for energy efficiency improvements for rented/leased spaces should go forward, perhaps using a PACE-type of financing structure that captures the debt

service in an add-on charge to the lease, less than or equal to the monthly energy savings to the tenant.

The State should do nothing to encourage further use of nuclear power, due both to its radiological dangers (Fukushima) and the climate change impacts of massive concrete structures. The State should encourage the replacement of Diablo Canyon nuclear power with renewable power and associated storage, and oppose license renewals.

Transportation

1. Fundamental Transformation of Transportation System--Institutions

Staff recognizes the need for "Fundamental transformation of transportation system needed to meet goals"⁹ but seems to have little grasp of the institutional barriers to that transformation. If the Updated Scoping Plan is to seriously address the State's largest GHG emissions sector, the Elephant in the Room must be made to submit to its regulatory scheme. Caltrans still has not accepted responsibility for leading the motor vehicle sector in the age of climate change: As recently as 2011, its official journal announced that "(Caltrans) has chosen to follow the lead of the California Global Warming Solutions Act of 2006..."¹⁰ This surprisingly honest disclosure shows that Caltrans does not acknowledge any statutory duty to actually reduce GHGs.

Due to ideology, denial and faulty modeling (see below), the Environmental Impact Reports that Caltrans does for highway projects do not acknowledge that widening highways increases GHG emissions.¹¹ Facilitating future auto-dependent development is a primary impact of highway widening, in direct opposition to the policy direction set by SB 375. The entire backlog of Caltrans-supported highway widening and highway building projects needs to be re-evaluated for their climate change impacts. This would probably require an act of the Legislature, due to transportation agencies' profound resistance to change.

For the Updated Scoping Plan to be a success, Caltrans has to reformulate its strategic plan, recognizing that highway widening is essentially over. Although Caltrans' Strategic Growth Plan has a pyramid that places highway widening at the apex, indicating it is only a small element of Caltrans' strategy, in reality, this is where the vast bulk of its funds are programmed. The Strategic Growth Plan is fundamentally dishonest.

2. Fundamental Transformation of Transportation System--Funding

The institutional inertia of MPOs, CMAs and local transportation authorities is driven by the massive amounts of money committed to the projects they sponsor. As remnants of the bygone Age of the Automobile, these projects are hostile to the climate. The large flow of state, federal and especially local sales tax funds goes to reinforcing GHG emissions growth.

Using the Bay Area as an example, the burden of transportation funding has been shifted to local sales taxes.

Source	% of Total
Local	53%
Regional	15%
State	16%
Federal	11%
Anticipated	5%
Total	100%

If the State is to be serious about climate change, the grandfathering of sales tax expenditure plans in regional transportation plans needs to end. Sales tax agencies need to be ordered by the Legislature to review their plans against climate goals and to have the resulting amended plans reconsidered by the voters.

What's needed to replace omnipresent highway widening projects is the use of transportation pricing as an incentive in urbanized areas to use alternative modes, coupled with heavy funding (reprogrammed from unbuilt highway projects) for the construction and operations of cost-effective transit. Parking and/or highway usage fees need to be phased in as alternatives are placed in service.

3. Fundamental Transformation of Transportation System--Modeling

Caltrans has a flawed model that allows it to claim lower GHG emissions for what it terms "efficiency projects" (highway widenings), under the dubious claim that increasing speed reduces emissions. Besides completely overlooking the effects of induced demand, this modeling is incorrect because it uses grams/mile which it claims are higher at very low speeds. This is meaningless, as total grams are the appropriate metric.

4. Sustainable Communities

The legislative findings for SB 375 identify that:

...greenhouse gas emissions from automobiles and light trucks can be substantially reduced by new vehicle technology and by the increased use of low carbon fuel. However, even taking these measures into account, it will be necessary to achieve **significant additional** greenhouse gas reductions from changed land use patterns and improved transportation. Without improved land use and transportation policy, California will not be able to achieve the goals of AB 32. (Chapter 728, Statutes of 2008, Section 1(c) and (i), emphasis added.)

The Draft 2013 Regional Transportation Plan/Sustainable Communities Strategy for the Bay Area will result in:

- an 18% **overall increase** in transportation GHG emissions between 2010 and 2040
- a 28% **overall increase** in land use GHG emissions between 2010 and 2040.

The addition of the Scoping Plan measures (new vehicle technology and low-carbon fuel) implemented by the Air Resources Board, will reduce emissions enough to create:

- a net 19% reduction in transportation GHGs by 2040.
- a net 12% reduction in land use GHG emissions between 2010 and 2040.
- a net 15% reduction in total regional GHG emissions between 2010 and 2040.¹²

Because the Bay Area SCS does not reduce 2040 regional GHG emissions apart from reductions from Scoping Plan measures, the SCS violates the legislative intent of SB 375. Despite meeting the ARB-adopted regional per capita GHG emissions reduction targets, the overall GHG emissions for the Bay Area will increase. This is because the population is projected to grow by 30%,¹³ while the target was only 15%. Had the SB 375 GHG emissions reduction targets required an **actual** reduction in GHGs, that would have forced MTC to use its financial resources strategically, in sharp contrast to its past wasteful practices.

The problem here is that regional GHG emissions reduction targets were set as per capita numbers, without taking overall population growth into consideration. This results in a statewide increase in GHGs in the regional transportation land use measure. For SB 375 to produce actual statewide GHG emissions reductions, the statewide per capita emissions reduction target average has to be higher than the projected statewide population increase, on percentage bases. While there were valid policy reasons to provide different per capita targets for regions with markedly different population growth projections, ARB failed to set targets high enough to comply with SB 375. The first cycle of regional targets will result in an increase in GHG emissions for California.

5. Hydrogen as Motor Vehicle Fuel

At best, hydrogen is only a storage medium--unlike petroleum, it offers no net energy benefit. The requirement to build an entirely new distribution infrastructure therefore disqualifies hydrogen as a serious candidate to replace petroleum-based liquid transportation fuels. Given the acknowledged need for massive investment in the electricity grid to support distributed renewable sources, it makes no economic sense to invest in a parallel energy distribution system. It is unlikely that adequate private capital would be committed by industry.

Natural and Working Lands

Planting trees is the only proven carbon sequestration program. The long-term effectiveness of programs attempting to mitigate the burning of coal and natural gas remains unproven. Equally important to planting trees is protecting them. The CEQA Guidelines should be strengthened to require an analysis of the impacts on carbon sequestration of both agricultural burning and conversion of forest lands to either urban uses or other agricultural uses, such as vineyards.

Carbon Tax

The British Columbia carbon tax offers a real-world example of successfully reducing pollutants by taxing them.¹⁴ Instituting a revenue-neutral carbon tax has led to a higher GDP growth than Canada as a whole,¹⁵ demonstrating that GHG emissions reductions

do not have to have an economic cost. A carbon tax can be structured to exempt lower-income people¹⁶ and can be modified, once in place, to cover larger segments of the economy and have a larger emissions reduction effect.¹⁷ TRANSDEF advocated for a carbon tax for the 2008 Scoping Plan, and objected to the dismissive treatment the carbon tax received in the Functional Equivalent Document. The Final Supplement to the FED was somewhat less dismissive, following the court's remand, but still reached what TRANSDEF believed to be the wrong conclusion.

The FED for the Updated Scoping Plan must consider the evidence of BC's successful carbon tax implementation and contrast that with California's disappointing first Cap-and-Trade auction and the distressing price instability of the European Emissions Trading Scheme.¹⁸ Circumstances have changed dramatically since the FED was adopted, requiring a reconsideration of the decision to proceed with Cap-and-Trade.

Since 2008, massive financial misdeeds have been revealed,¹⁹ utterly demolishing the foundational assumption that financial markets are trustworthy. Wall Street has demonstrated a propensity for gaming everything it touches, including manipulating LIBOR rates, swap rates, foreign-exchange markets, electricity markets, and municipal bond bid-rigging. With this history and with the U.S. Assistant Attorney General tacitly admitting that major financial institutions are "Too Big to Jail,"²⁰ it is no longer prudent to rely on market-based trading to protect our environment. Without criminal sanctions, there is no rational basis to assume the effectiveness of any compliance and enforcement programs. Many of the very agencies listed in the Final Supplement to the FED²¹ have massively failed to enforce their respective markets. Wall Street's strong preference for a Cap-and-Trade program it can game must not be allowed to outweigh the public benefits of a revenue-neutral carbon tax.

In light of all of the above, the 2008 decision to proceed with Cap-and-Trade has turned out to have been an unwise one, and must be reversed if California is to succeed with GHG emissions reductions. If California were to change course and move to a revenue-neutral carbon tax like British Columbia's, the resulting example would create momentum for a GHG emissions reduction approach that might be able to get through a tax-phobic U.S. Congress.

Conclusion

TRANSDEF sincerely hopes the Board will consider the suggestions made herein and produce an Updated Scoping Plan that can lead our State and our Nation to a more stable climate. We would be pleased to assist staff in the development of any of these suggestions.

Sincerely,

/s/ DAVID SCHONBRUNN

David Schonbrunn,
President

Attachment E

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- 1 Adopted Scoping Plan, p. 12.
 - 2 http://www.arb.ca.gov/cc/inventory/data/tables/ghg_inventory_ipcc_00-10_sum_2013-02-19.pdf and http://www.arb.ca.gov/cc/inventory/archive/tables/ghg_inventory_ipcc_90_04_sum_2007-11-19.pdf
 - 3 <http://www.nature.com/news/soot-a-major-contributor-to-climate-change-1.12225>
 - 4 <http://www.sciencedaily.com/releases/2012/12/121204145914.htm>
 - 5 <http://www.nature.com/news/methane-leaks-erode-green-credentials-of-natural-gas-1.12123>
 - 6 Funding Requests for High-Speed Rail, Legislative Analyst's Office, April 17, 2017, p.
 - 7 <http://transdef.org/HSR/HSR.html>
 - 8 <http://transdef.org/HSR/Taxpayer.html>
 - 9 http://www.arb.ca.gov/cc/scopingplan/meetings/071813/sjvuapcd_spu_workshop_presentation.pdf, slide 42.
 - 10 http://www.dot.ca.gov/ctjournal/2011-1/climate_change.html (emphasis added)
 - 11 See Climate Change section of the Caltrans Environmental Impact Report/ Environmental Impact Statement Annotated Outline
 - 12 Plan Bay Area DEIR, pp. 2.5-53 to 2.5-56.
 - 13 Plan Bay Area DEIR, pp. 3.1-11.
 - 14 <http://www.sustainableprosperity.ca/dl872&display>
 - 15 <http://daily.sightline.org/2013/01/30/three-things-everyone-should-know-about-bcs-carbon-tax-in-pictures/>
 - 16 <http://www.csmonitor.com/Commentary/Opinion/2013/0110/The-beauty-of-a-carbon-tax-and-its-exemption-for-the-poor>
 - 17 <http://daily.sightline.org/2013/01/08/from-good-to-great>
 - 18 EU carbon prices crash to record low, Financial Times, January 24, 2013
 - 19 <http://www.rollingstone.com/politics/blogs/taibblog/chase-once-considered-the-good-bank-is-about-to-pay-another-massive-settlement-20130718>
 - 20 <http://www.rollingstone.com/politics/news/gangster-bankers-too-big-to-jail-20130214>
 - 21 Final Supplement to the FED, p. 50.

Attachment E--CA GHG Emissions

