June 28, 2015 Mark R. Powell

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California Air Resources Board

Sacramento, California

Regarding: Comments on Draft of *Cap-and-Trade Auction Proceeds - Funding Guidelines for Agencies that Administer California Climate Investments*

To Whom it May Concern:

**Comment:**

In finalizing its *Cap-and-Trade Auction Proceeds* - *Funding Guidelines for Agencies that Administer California Climate Investments* the ARB should incorporate a requirement that the California High-Speed Rail Authority issue a Supplemental Program EIR for the Statewide High-Speed Train System that in an open and transparent way addresses the issues raised in this letter and assures the ARB and all Californians that Cap-and-Trade Auction Proceeds actually go towards reducing GHG emissions in meaningful and substantial way before receiving Cap-and-Trade Auction Proceeds.

**Discussion:**

Following the passage of AB32, California’s Global Warming Initiative, the Air Resources Board was directed to “determine the statewide greenhouse gas emissions level in 1990. The act also requires that the Board approve a statewide greenhouse gas emissions limit, equal to the 1990 level, as a limit to be achieved by 2020.”[[1]](#endnote-1) The initial equivalent greenhouse gas emissions (CO2e) limit for 2020 (set at actual 1990 emissions) was established to be 427 million metric tonnes (MMT) annually. Subsequent revisions to the calculation resulted in raising this limit to 431 MMT CO2e.

The most recent year for which data is available on the ARB website is 2012 and shows California’s annual greenhouse gas emissions standing at 459 MMT CO2e.[[2]](#endnote-2) A reduction of 28 MMT CO2e is required to meet the state’s goal for 2020. In seeking to gain access to California’s Greenhouse Gas Reduction Fund (GGRF) the California High-Speed Rail Authority (the Authority) claims in its June 2013 report, *Contribution of the High-Speed Rail Program to Reducing California’s Greenhouse Gas Emission Levels,* that by the year 2022 when it is scheduled to begin service on its Initial Operating Section the operation of its train will reduce the state’s GHG emissions annually by between .16 and .33 MMT CO2e*[[3]](#endnote-3)*. The midpoint of these projections, .245 MMT CO2e, represents less than 1% of the reduction needed to achieve the state’s 2020 goal. Yet, the Authority with the backing of the governor seeks to access 25% of all available GGRFs. As late as 2050, as Phase 1 linking San Francisco and Los Angeles is completed and ridership projections increase the midpoint of the Authority’s projected reduction in annual GHG emissions increases to only 1.6 MMT CO2e. This still represents less than 6% of a reduction mandated to occur 30 years earlier. And these claims of the Authority, distressing even taken at face value, are skewed in the Authority’s favor.

The Authority bases its claims on the assumption that “the Authority has purchased a renewable power mix of 20 percent solar, 40 percent wind, 35 percent geothermal, and 5 percent biogas converted to electricity”[[4]](#endnote-4). In other words, power for their train will be free of GHG emissions. However, this is a physical impossibility in the real world. In the real world all the power sources cited run independently of the train. Solar and wind power flow into California’s power grid whenever the sun is shining and the wind is blowing. Geothermal and biogas power is generated on a nearly continuous basis and again flows into the power grid for all to use. This is the physical reality whether the train is running or not. All electrical power, except that stored in batteries, is used at the moment it is produced. That being the real situation, when a train starts its engine additional power must flow into the electrical grid. That additional power cannot come from renewable sources as those sources are already sending power to a balanced electrical grid. Therefore, when a train starts consuming electrical energy a new source of electrical power must flow into the grid. And that power will have to come from a variable source of power generation. Aside from nuclear power, which generally runs at maximum rates due to low variable operating costs, this leaves only fossil fuel power plants. When this reality is taken into account one wonders whether the train will even emit less GHGs than passenger automobiles and airplanes on a per passenger mile basis.

Moreover, in calculating emissions from passenger automobiles the Authority’s report cites the “ARB’s latest model, EMFAC 2011”[[5]](#endnote-5). “EMFAC 2011 includes the latest data on California’s car and truck fleets and travel activity.”[[6]](#endnote-6) However, EMFAC 2011 still reflects vehicles on the highways mandated to achieve CAFE fuel economy standards established in the late 1990’s[[7]](#endnote-7). New CAFE standards established in 2012, and that are to be in place by 2025, essentially double the previous standards to 54.5 mpg[[8]](#endnote-8). These are the cars and light trucks that the train, operating on fossil fuel powered electricity, should be compared against to determine the train’s GHG emission reductions, if any.

Other issues that should be of grave concern to the ARB include the following:

* The Authority in its report to the ARB has potentially disclosed only a small fraction of the GHGs to be emitted during construction because it knowingly has failed to disclose “GHG emissions that occur outside the project associated with materials used during construction.”[[9]](#endnote-9) Given just the massive amounts of concrete planned for use in constructing the rail’s soaring viaducts, the fact that concrete production accounts for nearly 2% of all US GHGs emitted annually[[10]](#endnote-10) , and the fact that GHG emissions are a global (not a local) problem, failure to account for these types of construction emissions is a glaring omission.
* The Authority, after nearly two decades of searching, has yet to secure a funding source that might assure that it can even complete its Initial Operating Segment. Its 2014 Business Plan skirts the issue of paying for even this small segment by merely avoiding any discussion of where the required $28 billion[[11]](#endnote-11) will come from other than a previous references to ARRA funds ($3.3 billion) and Proposition 1A Bonds ($8 billion still held up in court battles) and a current reference to Cap and Trade Funds[[12]](#endnote-12). Paying for the IOS over the next 7 years may require a minimum of $17 billion in GGRF proceeds (nearly $2.5 billion annually) which is probably more than the sum total available.
* Lastly, the Authority’s calculated savings in CO2e emissions projected out to the year 2050[[13]](#endnote-13) make no mention of Phase 2 which would connect Sacramento and San Diego to the system, make common use of the Phase 1 track between Los Angeles and Merced, and promote greater ridership and further reduce GHG emissions. This omission implies that the Authority is no longer seriously planning to build Phase 2 even though the California High-Speed Train Final Program EIR/EIS, approved by the Authority in November 2005, certifies the environmental benefits of only the Statewide System. This Program Level EIR never even contemplates a Phase 1 and a Phase 2. Furthermore, the passage of Proposition 1A requires the Authority to construct the system consistent with the authority’s certified environmental impact report of November 2005.[[14]](#endnote-14)

By diverting GGRF proceeds to the high-speed train project at this time the ARB risks using valuable dollars that could be used to actually reduce GHG emissions and instead (1) fund a project that in operation might not reduce GHG emissions at all and will perhaps result in an increase of GHG emissions, or (2) fund a partially completed and unusable construction project, the partial construction of which would result in the massive release of an undetermined amount of GHGs. Funding a project that might not meaningfully reduce and could possibly lead to an increase in GHGs emissions puts at risk all Cap and Trade Revenues flowing into the GGRF because if Cap and Trade Revenues are not directly tied to expenditures that reduce GHGs, then revenues flowing from AB32 are more likely to be viewed as a tax and not a fee. This should be viewed as a serious issue by the ARB since AB32 did not pass with the necessary two-thirds vote required for all tax increases in California.

Thank you for your consideration.

Sincerely,



Mark R. Powell

cc:

Mike Brady, Attorney for Plaintiffs in Central Valley suit versus High-Speed Rail Authority
Harold Johnson, Pacific Legal Foundation

Ted Hart, Tea Party Coordinator Against High-Speed Rail

Rita Wespi, Co-Founder of CARRD (Californians Advocating Responsible Rail Design)

David DePinto, President of SAFE (Save Angelus Forest for Everyone)

Footnotes:

1. California 1990 Greenhouse Gas Emissions Level and 2020 Limit

<http://www.arb.ca.gov/cc/inventory/1990level/1990level.htm> [↑](#endnote-ref-1)
2. California Greenhouse Gas Inventory for 2000-2012, Last Updated March 24, 2014

<http://www.arb.ca.gov/cc/inventory/data/tables/ghg_inventory_scopingplan_00-12_2014-03-24.pdf> [↑](#endnote-ref-2)
3. *Contribution of the High-Speed Rail Program to Reducing California’s Greenhouse Gas Emission Levels*, June 2013 report, page 10

<http://www.hsr.ca.gov/docs/programs/green_practices/HSR_Reducing_CA_GHG_Emissions_2013.pdf> [↑](#endnote-ref-3)
4. *Contribution of the High-Speed Rail Program to Reducing California’s Greenhouse Gas Emission Levels*, June 2013 report, page 10

<http://www.hsr.ca.gov/docs/programs/green_practices/HSR_Reducing_CA_GHG_Emissions_2013.pdf> [↑](#endnote-ref-4)
5. *Contribution of the High-Speed Rail Program to Reducing California’s Greenhouse Gas Emission Levels*, June 2013 report, page 19

<http://www.hsr.ca.gov/docs/programs/green_practices/HSR_Reducing_CA_GHG_Emissions_2013.pdf> [↑](#endnote-ref-5)
6. *EMFAC2011 Overview September 19, 2011* (Updated January 2013), Published by the Air Resources Board [↑](#endnote-ref-6)
7. *California High-Speed Train Final Program EIR/EIS*, Chapter 3 Affected Environment, Environmental Consequences, and Mitigation Strategies Part 2, Section 3.5 Energy, page 3.5-1

<http://www.hsr.ca.gov/docs/programs/eir-eis/statewide_final_EIR_vol1ch3part2.pdf> [↑](#endnote-ref-7)
8. *U.S. Sets Higher Fuel Efficiency Standards*, New York Times, August 28, 2012

<http://www.nytimes.com/2012/08/29/business/energy-environment/obama-unveils-tighter-fuel-efficiency-standards.html> [↑](#endnote-ref-8)
9. Contribution of the High-Speed Rail Program to Reducing California’s Greenhouse Gas Emission Levels, June 2013 report, page 14

<http://www.hsr.ca.gov/docs/programs/green_practices/HSR_Reducing_CA_GHG_Emissions_2013.pdf> [↑](#endnote-ref-9)
10. Concrete CO2 Fact Sheet February 2012© Copyright, National Ready Mix Concrete Association, page 6

<http://www.nrmca.org/sustainability/CONCRETE%20CO2%20FACT%20SHEET%20FEB%202012.pdf> [↑](#endnote-ref-10)
11. 2014 Business Plan, CAPITAL COST ESTIMATES IN 2013 DOLLARS, page 34

<http://www.hsr.ca.gov/docs/about/business_plans/BPlan_2014_Business_Plan_Final.pdf> [↑](#endnote-ref-11)
12. 2014 Business Plan, page 10 and page 34

<http://www.hsr.ca.gov/docs/about/business_plans/BPlan_2014_Business_Plan_Final.pdf> [↑](#endnote-ref-12)
13. Contribution of the High-Speed Rail Program to Reducing California’s Greenhouse Gas Emission Levels, June 2013 report, page 10

<http://www.hsr.ca.gov/docs/programs/green_practices/HSR_Reducing_CA_GHG_Emissions_2013.pdf> [↑](#endnote-ref-13)
14. Text of Proposition 1A as found in the Official Voter Information Guide, Article 2, Section 2704.04 [↑](#endnote-ref-14)