June 8, 2012

RE: Zero Emission Transit Bus Value Proposition -Argument for use of Cap & Trade Proceeds for ZEB Mass Transit

Transit buses offer a cost effective means of reduction of vehicle miles traveled, offering both significant fuel use and air pollution reduction as cars are left at home. However, public bus transportation has been deemphasized and de-funded in recent tight budget years. Disadvantaged city communities are twice aggrieved by this, losing public transport to get to work while the resultant increase in traffic adds to criteria and GHG pollution. California can be a national leader in replacing dirty fuel buses with quiet and clean zero emission electric drive buses. An attractive and convenient bus system, will lead to job creation and massive reductions in emissions!

Zero emission transit buses were stipulated by the CARB ZEB rule twelve years ago. Although ZEB transit buses routinely operate at demonstration sites in California, Connecticut and Canada, widespread implementation will require assurances of continued ability to fund the production of these buses and infrastructure. It is proposed that the ARB receive supplemental funding at the rate of $150M/year to implement the ZEB rule. Inner city use of zero emission buses will directly address air quality equity concerns, will increase ridership and reduce commuter traffic. Studies show that monies spent on public transit are the best investment in job creation, with 36,000 jobs created or supported per billion dollars of investment. With recent capital cost reductions in fuel cell hybrid and battery electric buses, and federal matching funds supporting up to 80% of the cost of ZE transit buses, the investment by California in the incremental bus costs will result in real value for the State. Mature ZEB technology has demonstrated equivalent or better vehicle performance in multiple demonstrations, what is left in order to realize the vision of the CARB ZEB rule is to reduce the production costs of the buses through volume deployments. These Cap & Trade proceeds present the opportunity to enable this.

This investment in Zero Emissions buses can have dramatic results:

* The supplemental investment will result in annual GHG emission reductions of near two million metric tons CO2per year. For an assumed 20 yr bus life, these emission reductions come at a price to California of approximately $40/metric ton CO2 reduction.[[1]](#footnote-1)
* Fuel savings and ghg emissions reductions *solely by transit bus replacement* would amount to near half the California Energy Commission annual projected 2020 emissions reductions.[[2]](#footnote-2)
* Savings to the transit agencies from replacement of petroleum based fuels by hydrogen and electric fuel (at a fraction of the cost) will provide further fiduciary benefits over the bus life.
* Health related benefits related to e.g. asthma, cancer are also significant.

1. High speed rail, by comparison, accepting the presently promoted $68billion cost will have only one tenth the cost effectiveness and that only after a decade delay. [↑](#footnote-ref-1)
2. California Energy Commission, *2011 Integrated Energy Policy Report,* CEC100-2011-001-LCD, p. 164 [↑](#footnote-ref-2)