



John W. McClelland, Ph.D.
Vice President, Government Affairs

1101 Vermont Ave. NW, Suite 400
Washington, D.C. 20005
202-289-4460 Phone
202-289-4461 Fax
John.McClelland@ararental.org

Comment on Off-Road Inventory

December 17, 2010

The American Rental Association (ARA) commends ARB staff for recognizing that there were inconsistencies in the Off-Road inventory related to a large discrepancy between diesel fuel consumption as estimated from the Off-Road Model and from data reported by US Energy Information Administration (EIA). We believe that the effort that was carried out because of this recognition represents an opportunity to improve the inventory in the future.

In the revised estimate, staff reported new data for equipment "Activity" and "%Load". Activity, the number of hours per year a vehicle is driven, should be directly related to the economy. On the other hand, %Load should be more nearly independent of economic activity as it is a measure of the duty cycle required to complete a job. If the number, but not distribution of job types, is dependent on economic activity, then %Load should not change from year to year.

Activity was estimated from substantial data reported under AB82X. We analyzed a portion of the AB8-2X data and found that activity in 2009 was about 2/3 that in 2007; this mirrors the economy. The ARB-revised %Load was estimated by reducing the load factor by a fixed percentage across all equipment types based upon very few pieces of data. Staff claimed that the better agreement between reported and calculated fuel use demonstrated that their new model parameters were more correct. We would argue that if they chose a nearly arbitrary universal adjustment factor for load, they could have selected one that caused the model to reproduce the EIA fuel assigned to Off-Road equipment. We believe that the new Off-Road model is not robust because of the way Staff modified %Load.

ARB staff should institute procedures to collect data on annual fleet fuel consumption. These data should be used to gain agreement between the quantity of fuel used and the quantity of fuel estimated from the Off-Road emission model. Off-Road fuel use could be better known by improving the EIA FOKS survey and BOE data collection and reporting. Staff should work with those Agencies. Activity, %Load and most importantly, cumulative fuel consumption could be better quantified by working with willing fleet operators to gather these data. New electronic engines are equipped with computerized data loggers that readily provide this information if the appropriate interface equipment is available. We also provided ARB Staff with publically available fleet data where fuel use was reported.

- Closure of the fuel balance should be done on an annual basis because fuel consumption is a direct measure of economic activity.
- Since improvements in fleet fuel efficiency that results from changes in operating practices and the addition of new technology impact fuel consumption over time, such an effort would be proactive as far as inventory is concerned.
- Closing this balance would also be valuable in the State's effort to quantify greenhouse gas emissions.
- Finally, anchoring fleet fuel use to fuel sales would provide confidence to stakeholders regarding the veracity of the Inventory estimate.

Respectfully submitted,

A handwritten signature in black ink that reads 'John W. McClelland'.

John W. McClelland, Ph.D.

A handwritten signature in black ink that reads 'Michael S. Graboski'.

Michael S. Graboski, Ph.D.