

August 2, 2011

Via electronic submittal

Comments on the Compliance Offset Protocol U.S. Forest Projects

and

Subchapter 10 Climate Change, Article 5, Sections 95800 to 96022, Title 17,
California Code of Regulations, to read as follows:

Article 5: CALIFORNIA CAP ON GREENHOUSE GAS EMISSIONS AND
MARKET-BASED COMPLIANCE MECHANISMS

by CA EPA, ARB, July 2011

Dear CARB,

As the lengthy regulations on offsets and compliance mechanisms makes clear, it is necessary to get the details correct to avoid the problems of market systems that could trade products that will have an eventual negative impact on the original goal of reducing overall greenhouse gas emissions. Unfortunately the current forest protocols still appear to have a few accounting issues that are at odds with accepted IPCC and other GHG accounting systems. If accepted as is, the possibility of future downward valuations of CARB approved forest offset credits is high.

One of the major goals of California is to substantially increase the utilization of renewable energy by electricity generators and to reduce the energy use in our buildings. As numerous analyses have shown, these two actions could substantially reduce the GHG footprint of California. Unfortunately, the latest Forest Protocols use a number of accounting assumptions that appear to significantly overestimate the climate benefits of 'improved forest management' projects compared to internationally accepted approaches. Since these overstated benefits would be offset by an equal number of additional emissions, there could be significant backwards progress for every IFM offset credit sold under the CARB approved system.

In the attempt to measure the 'with project' and 'without project' climate benefits of forest management, the CAR protocols continue to count all the carbon in wood residues that are used to generate energy as a 100% emission rather than as a true carbon benefit that can be measured by the avoided emissions from fossil fuel burning. This significantly inflates the apparent climate benefits of an IFM project since all the wood residues used for energy from the logging operation, the sawmill operation and post-consumer collection operations are considered as emissions rather than substitutions for fossil fuels. The California Energy Commission, the California Public Utilities Commission, and every country with a wood products sector that signed the Kyoto Protocols all count wood residues used for energy as a climate benefit.

Based on survey data of harvest sites and sawmills published in tables 39 and 42 in Forest Resources of the United States, 2007 (Smith 2009), around ½ the

total biomass from a harvested forest does not end up in dimensional lumber which is the only product counted by the CAR protocols. In California, most of this biomass not going into products is used to generate RPS-eligible energy in sawmills or in biomass to energy plants connected to the electricity grid. The climate advantages of RPS-energy are well documented and are an integral part of state policy (California Energy Commission 2009) because they increase carbon sequestration of fossil fuels that can stay buried rather than burned to generate energy for Californians. Much of the wood residues collected at the harvest, sawmill, and post-consumer steps are all used for RPS-eligible energy in California but are counted as pure 'waste' by CAR. Not counting these energy-related benefits would appear to inflate the number of offset credits ascribed to a project reduces what had been sustainable harvest levels.

However, a purchaser of CAR IFM credits could actually emit more GHG by purchasing CAR IFM offset credits that 'create' credits by not burning wood residues for energy. This would be a perverse outcome and could require a revaluation of actual climate benefits if the CAR methodology was independently assessed by national or international bodies.

A second significant accounting error occurs when CAR, with no documentation, simply assert that only 20% of the forest products not produced as part of the CAR project will be replaced by other forest products. This suggests that potential purchasers of homes and desks will simply build units only 20% of the original size. While the 20% 'leakage' number does a good job in inflating the size of the claimed benefits, better estimates of leakage at the global scale that CO₂ operates at are usually well over 80%. For example, 100 tons of final product from a CAR FPP project would only increase the import of wood products from other sources by 20 tons – creating a 80 ton 'benefit' that the project can then turn around and sell as an offset. From the consumer's point of view, it is more likely that the 100 tons of reduced lumber from California would be replaced by 80-90 tons of additional imports from timber rich regions such as Oregon or British Columbia – and thereby generating far fewer net global forest storage benefits. Of course, some consumers may switch from a wood-based design to steel or cement-based design but that would probably involve an increase in GHG emissions so it really cannot be considered a global climate benefit. Using a 20% leakage factor is far below the estimates for generic timber produced in the United States. A number of scholarly articles (e.g. Wear and Murray 2004; Murray, McCarl, et al. 2004) estimated leakage factors of around 90% for west coast conifers. Using the unsubstantiated 20% leakage rate rather than a possibly more relevant leakage rate of 80-90% creates at least a four-fold change in the baseline calculations for net storage in products. Since the carbon offsets can be sold to emitters anywhere in the world, it would seem that the local benefits of more carbon inventories in a local forest are not the same as the global benefits from increased carbon storage and decrease emissions.

In addition, this protocol also underestimates how much of the harvested material ends up in forest products, such as chips that go into oriented strand board composite panels, and how long all products will stay in use. Although there are no

references to the data sources, it appears that the protocol formulas are based on historical estimates as a proxy for the life span of products rather than forward looking estimates for what will happen in upcoming decades. Empirical data analyzed by Skog (2008) documents considerably longer lifespan for products over time. In both the case of estimating the GHG benefits of renewable energy and the lifespan of wood products, the most recent federal accounting (U.S. Environmental Protection Agency 2009) uses the numbers in Smith (2009) and Skog (2008) rather than the older and less accurate measurements used in these protocols.

The sum of these three accounting errors that are avoided by the IPCC and all national GHG accounting schemes could create a scenario where the traded offsets have to be downgraded even though better information was published and known at the time of approval by various California regulatory bodies. Whether correcting any overvaluations will be the responsibility of the offset purchaser, the non-governmental offset approver, California ratepayers through the use of the public goods charge, or the global society is a policy issue that should be addressed at this point.

Sincerely,



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