December 10, 2010

Via electronic submittal

California Air Resources Board
Attn: Kevin Kennedy
1000 I Street
Sacramento, CA 95812

Re: Comments on how the treatment of 'market leakage' in the version 3.x Forest Protocols may overestimate the benefits of some improved forest management projects and pull funds away from projects with multiple forest-based benefits

Dear Mr. Kennedy and CARB staff:

It is good to see the recognition in the latest protocols for afforestation and reforestation actions by private landowners. The slow but steady accumulation of climate benefits from afforestation and reforestation is similar to the stream of benefits from purchasing and deploying energy efficiency technology. The implementer must finance the improvements upfront while the benefits are stretched out over time. As many observers have noted, public investments in interventions that provide a stream of climate benefits may be some of the best climate mitigation options to promote – even if they do not meet the desire of emitters for a lot of cheap and immediate offset credits. Although most other states, see http://www.dep.state.fl.us/air/rules/ghg/electric/offsets.pdf. and http://www.nicholas.duke.edu/ccpp/ccpp_pdfs/transaction.07.09.pdf, are considering the full range of forestry protocols rather than just one in which a state agency was an active participant in development, all roads may eventually end at the same destination.

In the realm of CAR forest offset projects, it appears that the improved forest management (IFM) projects, rather than afforestation and reforestation projects, have garnered the greatest interest from offset purchasers. However there appear to be a few oddities in how CAR projects address 1) wood products other than finished lumber and 2) the market leakage factor when consumers buy wood from elsewhere to make up for reduced harvests a registered project.

It would appear that all forest biomass can be treated as a tradable forest carbon sequestration credit if it is in the forest, but that only the biomass than ends up in finished lumber- but not in energy chips, pulp chips for paper, landscaping amendments – is counted as sequestration for finished products. This imbalance may be corrected if the emission substitution benefits of energy chips used to generate RPS energy are accounted for in a new CAR protocol. At the present time, such a protocol does seem to be on the horizon.

The more significant issue is how the project proponent is directed to calculate 'market leakage'. Market leakage occurs when a project produces less of a product and the consumer goes elsewhere to buy a substitute product. A simple example is if a homeowner wants to build a deck but there is less redwood lumber available, then they can do one of three things:

1) build the deck with western red cedar from Canada or Ipe from Brazil,
2) build a patio out of cement, or
3) don't build a deck or a patio.

CAR v3 simply asserts that 80% of people will do 3) 'don't build" and 20% will do 1) 'use imported wood'. This is captured in equation 6.1 and the attached footnote in the v3 protocols. While this is an improvement over the 0% market leakage factor in v1 and v2, it is not justified and is far below the only published estimates that appear relevant for the United States. A number of scholarly articles (e.g. Wear and Murray 2004; Murray, McCarl, et al. 2004) estimated a continental-scale leakage factor of 84% for west coast conifers from the largest carbon sequestration project ever undertaken – the reduction in federal timber harvests under the Northwest Forest Plan during the 1990s.

How important is it a single number in estimating the number of offset credits that will be sold from a project to GHG emitters so that they can continue emitting? If we use the Murray and Wear calculated rate of market leakage of 84% at the global level (reasonable since GHGs and GHGs offset credits operate at the global sale), then a 100 GHG ton project would only get 16 GHG tons of offset credits to sell since 84 units would have simply been balanced by forest harvests elsewhere. Under CAR v1 and v2, they could have claimed 100 GHG ton credits. Under CAR v 3, they could still claim 80 GHG ton credits. It is important to point out that none of the market leakage numbers used in CAR v1, v2 or v3 are backed up by any references to published literature, trade statistics, or official government reports. Simple math (80/16) suggests that the latest CAR formula overestimates the global climate benefits by a factor of 5 for improved forest management projects that involve a reduction in the level of harvested products. This is larger than a rounding error and could serious diminish the credibility of offsets developed in California. Our partners in the Western Climate Initiative will notice the inflated nature of CAR v3 forest offsets since many of them (e.g. Oregon, Washington, British Columbia, Ontario, Quebec) are major wood product exporters.

Managed forests in California represent one of the few bright spots in California's greenhouse gas inventories. In addition to adding terrestrial carbon inventory since at least the 1980s, they also provide low-emission building products that are important in earthquake prone regions as well as considerable amounts of carbon-neutral energy from the utilization of harvest and sawmill residues. However, the poorly justified estimate of only a 20% market leakage would appear to generate a huge overestimation of true climate benefits from some types of 'improved forest management' projects. Given that it is in the interest of both the project proponent

and the certifier to go with procedures that generate greater amounts of financial benefits, it could be in the interest of the government body (CARB) that is essentially guaranteeing the correct valuation of the credits to get a truly independent appraisal of a more appropriate approach to estimating market leakage. Without such an independent appraisal, the CAR FP v3 IFM offsets run the risk of becoming yet another high profile example of inflated offset credits that could have a negative effect on credibility of the overall strategy (Victor 2010).

If you need any additional technical information on these topics, I would be pleased to work with CARB staff or other state specialists.

Sincerely,

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References

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