In the wake of the financial market meltdown and liquidity crisis of 2008, some opponents of a cap and trade program to regulate greenhouse gas emissions have argued that such a system could lead to the kind of market manipulation that led to the 2008 crash. The UCLA School of Law Emmett Center on Climate Change and the Environment today released a report, *Rules of the Game: Examining Market Manipulation, Gaming and Enforcement in California's Cap and Trade Program*, that considers whether California's proposed cap and trade program would be vulnerable to such market manipulation. The report, co-authored by Pomona College economist Bowman Cutter, UCLA Law's Emmett Center fellow Rhead Enion, Emmett Center Executive Director Cara Horowitz and me, focuses on the extent to which the cap and trade program has created conditions of liquidity and transparency in order to avoid the potential for gaming the system. Liquidity — establishing "sufficient volume [of transactions] so that a single or small group of buyers or sellers cannot move the price" — and transparency — allowing market participants to "observe aggregate prices and quantities transacted" — are key to the smooth, efficient and fair functioning of the market for emissions allowances that a cap and trade program creates. Here's our bottom line conclusion:

> We conclude that CARB has in fact crafted a market likely to be both transparent and liquid, though we have a series of recommendations to improve further these crucial market qualities. CARB has taken important steps to construct a liquid, efficient and transparent market by taking the best practices from other allowance trading programs. We think it is unlikely that CARB will experience market manipulation that can significantly affect the efficiency or fairness of the market. We do believe, however, that our recommendations would improve the provisions and therefore reduce the (small) risk of illiquid and inefficient markets.

We make four recommendations that we think are especially important to improve transparency, liquidity, and the strength of CARB's enforcement program for those who violate the cap and trade program rules. We also make a series of smaller recommendations. The four most important recommendations include the following:

- CARB should make the penalties for and consequences of underreporting actual annual emissions stronger in order to deter companies from

understating their emissions;
- CARB should require Publicly Owned Utilities to sell at auction the allowances they are allocated; this has the effect of increasing liquidity in the market and of improving the ability of the utilities to plan and forecast their need for emissions reductions and allowances;
- CARB should publish forecasts of allowance prices and provide information about emission control technologies by sector; this can help alleviate information gaps, especially for small companies who need to reduce emissions and purchase allowances;
- CARB should modify its resource shuffling rule — designed to prevent companies from manipulating emissions from energy imported from out of state — to make sure that it does not interfere with investments in clean energy, the very goal of CARB's program.

We do not believe any of the recommendations we have made is so critical that CARB should delay the implementation of its cap and trade program; we do suggest that CARB address the four most important recommendations soon and evaluate the remainder during the roll-out phase of the program.

Our report will form the basis of testimony Cutter and Horowitz will provide today at a hearing CARB will hold to consider its final scoping plan to implement AB 32 and at which it will consider a supplemental Environmental Impact Report (EIR) about the scoping plan (the EIR was prepared by CARB in response to the judge's ruling in *Association of Irritated Residents v. CARB*) . Details about the hearing can be found here.