

To: Janet Joseph

From: Karen Palmer

Re: Comments on NYSERDA Concept Paper

Date: November 20, 2008

Thanks for sharing the concept paper with me. Sorry I have to miss the kick-off meeting. I'm going to check with my IT folks and see why I wasn't receiving your e-mails. Here are some of my thoughts on the paper.

First, on the New York effort to do a McKinsey-like study of the CO₂ reduction supply curve for the state, I strongly urge you to encourage the folks who are doing that work to think not only about the engineering cost of energy savings (like the McKinsey folks do) but also about the opportunity costs of making those investments. I think the fact that things with negative engineering costs aren't being done is at least partly (and potentially largely) due to the fact that businesses and individuals in New York believe that they are putting the financial resources that they would have put into those efforts into other more highly valued uses. It could be the case that due to lack of information or other reasons they may be wrong to be of that opinion, but the point is that just because an activity has an apparently negative cost from an engineering perspective doesn't necessarily mean that it is the most valuable way for households and businesses to invest time and money. Of course, if folks aren't undertaking those negative cost activities because they don't have good information about them or the folks paying the energy bills aren't the ones paying for the energy using equipment or other well known reasons why markets for energy efficiency don't work that well, then that's another story. However, I think the McKinsey methodology may not do a good job of distinguishing among these different factors and more should be done in your study.

Another thing that I find disturbing about the McKinsey work is that it's unclear the extent to which there may be overlap among different measures that isn't being well accounted for. For example, if the lighting in a commercial building is upgraded from incandescent to CLF (or other fluorescents) there could be implications for heating and cooling load and also for the savings from upgrading those technologies to more efficient ones. These types of interactions between measures need to be carefully considered and you should encourage the folks who are doing this study for you to carefully explain how they deal with them.

I also have a few comments on the Electric Power Supply and Delivery Initiative. I think that improving the efficiency of operation at existing fossil fired generators plants should be something that the industry itself will have a strong incentive to do in the presence of the RGGI program and the requirement to surrender allowances to cover CO₂ emissions. I don't see a really compelling reason for using public dollars to fund that type of research. Also, given the RGGI cap, improving the efficiency of the electric power system will not reduce GHG emissions from electricity producers in the RGGI region

unless allowances are also retired from the program. Is that the intent? Also, similar logic will apply to SO₂ and NO_x emissions which are also capped. Improving the efficiency of fossil generators will not reduce emission of those pollutants (SO₂ year round and NO_x in the summer, although it will be year-round when CAIR or its replacement policy is implemented).

One thing to keep in mind when considering spending the RGGI auction revenue to reduce non-CO₂ GHG emissions (or even CO₂ emissions) from sectors other than the electricity sector is the extent to which that might lead to public dollars competing with private dollars that might be used to purchase offsets from these sectors. I'm not as familiar with the offset provisions of RGGI as I should be, but I think we want to be sure to consider the implications of using state dollars to purchase reductions that electricity generators in New York might want to purchase for offset purposes. Of course, when these reductions are purchased as offsets, they will count against the RGGI cap so that will *not* produce net CO₂ emissions reductions, whereas if the state is making these investments the reductions in emissions will be *in addition to* the RGGI caps unless they are sold as offsets.

The range of activities listed in the concept paper is quite large and clearly some choices will need to be made about what to do first. My expectation is that the price of RGGI allowances is likely to be low in the next several auctions due to three factors: the relatively loose RGGI cap, the economic slowdown and the uncertainty about what will happen to RGGI if there is a federal program (and in particular how banked allowances will be treated). Given that expectation, I would think that prices will be in the range of \$2 - \$3 for the foreseeable future. Nonetheless, even at that low price the auction provides a substantial amount of revenue to NYSERDA.

An important principle to keep in mind when deciding how to spend the RGGI revenue is to think about areas (1) where response to the RGGI program itself is likely to be insufficient (or potentially non-existent, as in the case of reductions in ghg emissions outside of the electricity sector), (2) where there are important market failures and (3) where the state is in the best position (say, relative to the federal government or some other entity) to have an important effect. Prioritizing among different uses of the money should also take into account the cost-effectiveness of different investments in terms of the dollars of cost per likely amount of CO₂ emissions reductions (or, in the case of programs directed at the electricity sector, drop in demand for CO₂ allowances or electric energy or other measures).

Energy efficiency satisfies all three criteria and is likely very cost-effective, and thus, increasing NYSERDA's investment in energy efficiency should be considered a high priority item. Reaching the 15 by 15 goal is a major challenge for New York State and RGGI revenues provide an important opportunity to help meet that challenge. Energy efficiency is something that is perhaps best pursued on a local level or state level (and not a federal one) and thus I think a scaling up of NYSERDA's efforts on the efficiency front would be an important way to use the RGGI allowance revenue.