From: Schwartz, Andrew
Sent: 4/11/2012 1:21:33 PM
To: Monardi, Marino (/O=PG&E/OU=Corporate/cn=Recipients/cn=M3Mt)
Cc: Allen, Meredith (/O=PG&E/OU=Corporate/cn=Recipients/cn=MEAe)
Bcc:
Subject: Alternative approach to GHG compliance instrument procurement limits in LTPP PD

Hi, Marino,

After hearing the IOUs out on their various concerns about the proposed compliance instrument procurement limits in the LTPP PD, I think I have a much greater appreciation for the issues raised. Based on my understanding of the issues, and especially being mindful of the issues Edison raised about the need to hedge financial exposure in addition to purchasing to address direct compliance obligations, I'm wondering if something along the lines of what I describe below might work. Obviously this would also require getting rid of the prohibition on selling, and also envisions getting rid of the purchase minimums. As I'm thinking of this, there would be two purchase limit calculations, one associated with the IOUs ability to procure GHG compliance instruments for purposes of a utility's direct compliance obligation (including circumstances where the utility is obliged to procure instruments on behalf of a third party); and another that would establish limits on their purchases of compliance instruments for hedging purposes. Does this work? If you can get back to me sometime today or tomorrow it would be really helpful. I realize this is a short time frame…

Thanks,

Andy Schwartz

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1.) Purchase Limit Associated with Procurement of GHG Compliance Instruments for Direct Compliance Obligation Purposes

Below is the formula I would propose for establishing a purchase limit on purchases of compliance instruments used to fulfill a utility's "direct compliance obligation" which is defined as those circumstances where the utility has an obligation to retire allowances to cover emissions for which it is the regulated entity under the cap and trade regime, and/or is otherwise obligated to procure instruments on behalf of a third party that is the regulated entity under the cap & trade regime (i.e., certain contractual arrangements where the IOU is responsible for procuring allowances on a third parties behalf). The number that results from this calculation would set the maximum amount of compliance instruments the IOU would be allowed to buy in the current year.

Direct Compliance Obligation Purchase Limit$_{\text{Current Year}}$ = Net Remaining Compliance Obligation to Date + 100% of Forecasted Compliance Obligation $_{\text{Current Year}}$ + 60% of Forecasted Compliance Obligation $_{\text{Current Year + 1}}$ +40% of Forecasted Compliance Obligation $_{\text{Current Year + 2}}$

Where:

"Net Remaining Compliance Obligation to Date" is the sum of the actual emissions for which the utility is responsible for retiring allowances (or purchasing on behalf of a third party) up to the Current Year, less the total allowances or offsets the utility has purchased (inclusive of forwards and futures) up to the Current Year that could be retired against those obligations. This term in the calculation ensures the IOUs are always able to buy sufficient allowance to cover any prior years' shortfalls, given that actual emissions may end up being less than forecast and/or to make up for prior decisions about how much procurement to do.

“Forecasted Compliance Obligation” is the projected amount of emissions for which the utility is responsible for retiring allowances, or responsible for purchasing on behalf of third parties, calculated using an implied market heat rate (IMHR) that is two-standard deviations above the expected IMHR consistent with the approach described by PG&E in comments.

“Current Year” is the year in which the utility is transacting in the market.

Note that should this equation result in a negative number in a given year, the utility’s Direct Compliance Obligation Purchase Limit for that year should be set at zero, meaning they wouldn’t be allowed to purchase additional instruments.

2.) Purchase Limit Associated with Procurement of GHG Compliance Instruments for Hedging Purposes

This formula sets a specific limit on the amount of purchasing the IOUs can do to hedge their financial exposure. The number that emerges from this calculation would set the maximum amount of GHG compliance instruments the IOUs would be allowed to purchase in the current year for purposes of covering their GHG financial exposure.

$\text{Financial Exposure Purchase Limit}_{\text{Current Year}} = 20\% * \text{Financial Exposure}_{\text{Current Year}} - \text{Net Purchases to Date} + 10\% \text{ Financial Exposure}_{\text{Current Year} +1} + 5\% \text{ Financial Exposure}_{\text{Current Year} +2}$

Where:

“Financial Exposure” is an estimate of the tons of CO_2 for which a given IOU believes it will bear the costs through an embedded cost of carbon as reflected in energy prices. This amount does not include the costs the IOUs anticipate incurring as a result of their direct compliance obligations or the costs associated with procuring allowances on behalf of third parties that have a direct compliance obligation.

“Net Purchases to Date” refers to total purchases of GHG compliance instruments for purposes of hedging an IOU’s Financial Exposure up to the Current Year minus those sold up to the Current Year. This term helps ensure that if the IOUs have hedged a lot in prior years and those hedges didn’t pay out (i.e. the price they saw in the market for carbon stayed below what they paid for a compliance instrument and so they didn't sell) that gets factored into the amount of additional hedging they are allowed to undertake.

"Current Year" is the year in which the utility is transacting in the market.

Should this equation result in a negative number in a given year, the utility's Financial Exposure Purchase Limit for that year will be set at zero, meaning they wouldn't be allowed to purchase additional instruments.

From: Monardi, Marino [mailto:M3Mt@pge.com]
Sent: Monday, March 26, 2012 1:33 PM
To: Schwartz, Andrew; Schultz, Adam
Subject: Follow up

Andy, Adam

I need to correct the statement I made just a little while ago.

PG&E recommends that the compliance period procurement limits proposed by the CPUC be applied to the compliance obligation calculated from two standard deviations above the forecasted implied market heat rate.

Please call if you have any other questions or the above is not clear.

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