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Comments to the California Air Resources Board Regarding Cost Containment Mechanisms under a GHG Cap-and-Trade Program

The Division of Ratepayer Advocates (DRA) appreciates the opportunity to comment on auction allocation issues, following the California Air Resources Board (ARB) Technical Stakeholder Working Group Meeting held on April 25, 2008.

DRA is an independent division of the California Public Utilities Commission (CPUC) that advocates on behalf of customers of public utilities within the CPUC's jurisdiction. DRA's statutory mandate is to obtain the lowest rate for service consistent with safe and reliable service. DRA is currently a party to a joint proceeding before the CPUC and California Energy Commission (CEC) that is considering issues related to regulation of greenhouse gas (GHG) emissions in California.

DRA's comments below are focused on two issues: the use of a safety valve in an allowance auction market, and the use of a floating compliance period. DRA recommends that the ARB adopt a safety-valve mechanism to prevent short-term spikes in allowance price, but reject the use of a floating compliance period due to the added complexity it would impose on program design. DRA intends to submit more extensive comments to the California Public Utilities Commission and the California Energy Commission on May 27, 2008 that will address additional cost containment mechanisms and the need for an independent market oversight body.

DRA recommends that the ARB adopt a safety valve mechanism to prevent short-term spikes in allowance prices.

From the perspective of an entity that must purchase allowances, an uncapped allowance price adds a huge uncertainty to planning its operational cash flow. A transparent set of rules to prevent short-term spikes in allowances prices will help maintain a stable business environment. Given that GHGs are stock pollutants,¹ short term increases in emissions do not have a significant impact on long-term environmental damages. DRA therefore recommends that the ARB adopt a safety valve mechanism that would allow ARB the flexibility to borrow allowances from future

¹ Stock pollutants are those that build up over time due to their longevity in the atmosphere. Because carbon dioxide emissions stay in the atmosphere for decades and thus have a cumulative effect, the level of emissions in any one year is not nearly as important as the overall quantity of emissions over a longer timeframe. In contrast, flow pollutants dissipate rather quickly. The level of emissions in any given year is important.

compliance periods when allowance prices reach a threshold level. The additional allowances would be offered for sale at the price cap rather than being auctioned to the highest price bidder.

DRA's proposed safety valve mechanism is similar to a borrowing mechanism.² In this case, the borrowing of allowances, however, is done by the regulator, rather than the covered entities, to prevent covered entities from accruing an allowance debt. The total number of allowances earmarked for the subsequent compliance period is reduced by the number of borrowed allowances, such that the cumulative reductions over the two compliance periods would be the same. In other words, under this safety valve mechanism, the emissions reduction path between 2012 and 2020 could be altered, but the emissions budget, which is equal to the area under the curve of the emissions reduction path, would remain unchanged.³ DRA further notes that a recent Congressional Budget Office (CBO) study entitled "Policy Options for Reducing CO₂ Emissions"⁴ concludes that a cap-and-trade program that includes a safety-valve and either banking or a price floor could be significantly more efficient than a program with an inflexible cap.

At the April 25, 2008, Program Design Technical Stakeholder Working Group Meeting, representatives of NRDC commented that an explicit safety valve as a cost containment tool is unnecessary given that AB32 includes a built-in safety valve that allows the Governor to intervene in the event that allowance prices reach a level that may significantly impact the California economy.⁵ Section 38499(a) of the Health and Safety code, however, does not define the appropriate point of intervention by the Governor. This creates an uncertainty as to what constitutes an "extraordinary event" that would prompt the Governor to intervene. Furthermore, this provision does not prevent the ARB or a designated market oversight body from proactively preventing major economic disruptions due to runaway levels of allowance prices.

DRA recognizes that in the long term, repeated triggering of the safety valve would imply that the 2020 target for GHG emissions reduction would not be met. It would also mean that the cost of achieving AB 32 goals would be significantly greater than expected. Repeated triggering of the safety valve would warrant a reevaluation of the adopted trajectory for reaching the 2020 goal, and the effectiveness of the strategies used for reaching that goal.

DRA does not have specific recommendations on setting the safety valve levels at this point, but notes that the CBO study suggests an allowance price cap based on the best available estimate of

² A safety-valve mechanism could alternatively increase the total number of allowances rather than borrowing allowances from future periods. However, increasing the total number of allowances could threaten the environmental integrity of the cap-and-trade system.

³ The Emissions Reduction Path and Emissions Path are illustrated in Figure 1 of the ARB white paper on cost containment tools as background to the April 25, 2008 program design technical stakeholder meeting.

⁴ "Policy Options for Reducing CO₂ Emissions", Congressional Budget Office, February 2008.

⁵ Section 38499 (a) of the Health and Safety Code states that "In the event of extraordinary circumstances, catastrophic events, or threat of significant economic harm, the Governor may adjust the applicable deadlines for individual regulations, or for the state in the aggregate, to the earliest feasible date after that deadline."

the benefit (or avoided costs) of GHG reductions. Put another way, the level of the safety valve could be based on the economic impact of GHG emissions under a “business-as-usual” scenario. The Stern Report⁶ projects the long-term economic costs of unmitigated GHG emissions would cost at least 5% of the global gross domestic product (GDP) by 2050.⁷ Assuming an increasing safety valve level over time to account for inflation and the increasing costs of GHG emissions reduction, the ARB could design the safety valve by either starting with a reasonable price cap in the beginning compliance period and escalating it over time, or working backwards using the long-term economic costs of unmitigated GHG emissions. Given the importance of the issue and the difficulty of establishing a proper level, DRA recommends that the ARB solicit further comments specifically on this issue.

DRA believes a floating compliance period would unnecessarily complicate the program while providing limited benefits.

At the April 25th ARB workshop, Southern California Edison (SCE) raised the idea of a floating compliance period for individual entities. SCE suggests that a floating compliance period – in which regulated entities would be able to choose the length of their particular compliance period – should help protect against market manipulation and gaming.⁸ It would also allow covered entities additional flexibility and a greater ability to contain costs. (DRA agrees that a floating compliance period would have these benefits; however, such a mechanism would introduce significant administrative complexity that must be weighed against the benefits, particularly when considering the use of other cost containment mechanisms. Overall, DRA believes the benefits of SCE’s compliance period proposal can be achieved through other mechanisms, and thus the additional administrative burden from a floating compliance period would not be necessary.

There are two main advantages to a floating compliance period: (1) a reduced potential for market manipulation, and (2) flexibility for a participant in meeting its allowance obligation. There is concern that, with a fixed compliance period, participants may be able to accumulate excess allowances early on, and then sell allowances at the end of the period at a high price since at that point covered entities will soon need to show they have sufficient allowances to cover their emissions. If all entities are surrendering allowances in different years, it is more difficult to manipulate the market. A floating compliance period would also allow participants to better manage short-term fluctuations in their emissions and compliance costs. This mechanism may be particularly useful for covered entities that use hydropower in their fuel mix, and face variations in hydropower output due to fluctuations in weather.

⁶ “Stern Review Report on the Economics of Climate Change”, published on October 30, 2006, was commissioned by UK Chancellor Gordon Brown in July 2005. The review was based on the assessment of climate science carried out by the Intergovernmental Panel on Climate Change in 2001 and calculated that the dangers of unabated climate change would be equivalent to at least 5% of the global gross domestic product each year.

⁷ The Stern Report concurrently recommends an investment of about 1% of the global GDP to avoid irreversible damage to the climate. (source: <http://www.independent.co.uk/news/business/news/stern-warns-that-climate-change-is-far-worse-than-2006-estimate-810488.html>)

⁸ The Appendix illustrates DRA’s understanding of how a floating compliance period would work.

The main drawback of a floating compliance period is the additional administrative burden it creates. The added complexity of separately tracking compliance periods and obligations for each individual participant could be significant. From a monitoring perspective, the overseeing regulatory body would not know how many allowances are to be retired (and by whom) in any given year. From an administrative standpoint, it would be much easier to monitor and track allowance obligations if there is a uniform compliance period. Other administrative issues would also likely be complicated. For example, compiling periodic progress reports on the success of the program would be more difficult in terms of aggregating emission reductions and program compliance in any given year. These administrative complexities are not insurmountable, but they do not appear worth the limited benefits they would offer.

The advantages a provided by a floating compliance period can be achieved through other means. For example, a market oversight committee could help directly monitor and prevent market manipulation. It is unclear how much additional benefit a floating compliance period would offer in preventing market manipulation, as the incentives for accumulating excess allowances may not change significantly. To help participants manage individual costs, there are other flexible compliance mechanisms under consideration – such as banking, borrowing, and multi-year compliance periods. All of these mechanisms serve to even out short-term fluctuations in market prices and participant emissions. Simultaneously allowing for all of these mechanisms would greatly increase the complexity of the system while those same benefits could be achieved with a fewer number of flexible compliance mechanisms. Short-term fluctuations could be smoothed out with one or two of these mechanisms; employing all four may be excessive. A market oversight committee, coupled with banking and a multi-year compliance period, should be adequate to control market manipulation and manage costs without overly complicating administration of the cap-and-trade system. If, ultimately, ARB believes more is needed to prevent manipulation, staggered-compliance periods of the same length, rather than compliance periods of indeterminate length established at the discretion of the regulated entity, would be administratively more manageable.

Appendix: Explanation of Floating Compliance Period

As DRA understands the SCE proposal, covered entities would individually be allowed to choose the length of their compliance period. At the end of the chosen compliance period, the entity must surrender enough permits to cover its emissions for that period; then, the compliance period will start over again, with the entity again being allowed to choose the length of the next compliance period. The total number of allowances that each entity must surrender will not change.

As an example, consider hypothetical Deliverer A and Deliverer B (illustrated in the tables below). Assume that both deliverers receive allowances for 10 tons of carbon for years 1-4, and no borrowing or banking is allowed. Both deliverers on average emit 10 tons of carbon per year, but have variations in these emissions.

As shown in the tables below, the deliverers have several options for meeting their compliance obligations without needing to purchase allowances. For Deliverer A, it could choose a three-year length for the first compliance period and a one-year length for the second. Or it could choose a one-year length for the first and third compliance periods, and a two-year length for the second. For Deliverer B, it could choose either two two-year compliance periods, or one four-year compliance period.

If the compliance period was instead fixed at, say, three years in length, Deliverer A would have sufficient allowances to cover its emissions for the first three years, but Deliverer B would be short five allowances for that compliance period. If the compliance period were fixed at two years in length, this time Deliverer A would be short five allowances at the end of the compliance period, while Deliverer B would have enough.

Deliverer A	Year 1	Year 2	Year 3	Year 4	<i>Average</i>
Emissions	10	5	15	10	<i>10</i>
Allocated Allowances	10	10	10	10	<i>10</i>

Deliverer B	Year 1	Year 2	Year 3	Year 4	<i>Average</i>
Emissions	15	5	15	5	<i>10</i>
Allocated Allowances	10	10	10	10	<i>10</i>

The variability in compliance period length makes predicting the number of allowances needed in any given year more difficult to estimate. It is this unpredictability of allowance need that makes market manipulation more challenging – and also creates greater administrative burden.

A floating compliance period would require certain elements to be effective. First, the length of the compliance period must be capped to prevent participants from indefinitely deferring their compliance obligations. A three-year maximum for any given compliance period, for example,

would allow participants to have flexibility while still ensuring they are regularly covering their emissions with permits. Second, allocations/auctions of allowances should be held at least once a year in order to ensure that allowances are equally available for all lengths of compliance periods. Without an annual distribution of permits, there may be situations where no distribution of permits takes place during a time period that a particular participant chooses as its compliance period.