June 23, 2010

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Re: Proposed Comments to the California Air Resources Board on the Draft Greenhouse Gas Cap-and-Trade Regulation

This memorandum provides comments regarding the California Air Resources Board's (ARB) Greenhouse Gas (GHG) Cap and Trade program (AB 32) as it impacts The Dow Chemical Company's California Operations (Dow). These comments are based upon the AB 32 program elements discussed to date and upon ARB's presentation on the program at a public workshop on May 17, 2010. Comments are due to the ARB by June 7, 2010. The ARB has informed us they will accept late comments.

Dow Pittsburg is the largest chemical plant in the state of California, and will first report to the ARB for calendar year 2010 in 2011, since 2010 is the first year that facility emissions will be over the threshold of 25,000 CO2 for general stationary combustion sources. Dow invested in publicly reporting and voluntarily registering verified GHG inventories with the California Climate Action Registry for all eight facilities and fleet vehicles operating in California for 2006, 2007 and 2008.

Per Dow's request, URS has analyzed the latest elements of ARB's draft GHG Cap-and-Trade regulation and the key points are outlined below.

Alignment of CA Reporting to ARB with Reporting to EPA under the GHG MRR

• Dow supports ARB efforts to align ARB reporting requirements with other existing requirements for greenhouse gas reporting to EPA under the GHG Mandatory Reporting and Recordkeeping Rule (MRR), so that divergent systems are not created. Without a harmonization of the reporting requirements for ARB and EPA, Dow will need to maintain two sets of data collection and reporting capabilities, and will incur the duplicative costs.

Allowance Allocation under Cap and Trade

- Dow supports ARB's recommendation for a free allocation of allowances as an important cost-containment element. Cost containment in the capand-trade program is vitally important to ensure that California businesses remain competitive in a global economy. An immediate auction for 100% of allowances could impose very high and abrupt costs on companies subject to the program making them less economically competitive in global markets.
- Further, ARB proposed to limit the use of an auction for allocating allowances in the early years of the cap-and-trade program. This direction reflects sensitivity to current economic problems and reflects one of the important recommendations Governor Schwarzenegger detailed in his letter to ARB Chair Mary Nichols on March 24, 2010. Dow supports the Governor's statement that "a free allocation system, on the other hand, should reward companies that have already made significant investments in energy efficiency and carbon reductions, and should not penalize those that produce goods in California."
- Dow appreciates that ARB staff will be conducting in-depth analysis of covered entities as part of their effort to determine an appropriate system for allocating allowances. We believe that ARB will find that California companies, in general, and Dow, in particular, are much more energy efficient than competitors in other states and countries due to a decades-long history of high energy costs and aggressive energy efficiency programs in the state. These differences should be reflected in the design of a system for allocating allowances. Therefore, we believe the allocation strategy needs to consider the investments and efficiencies already put in place by California companies compared to their global competitors. The allocation strategy should serve to reward or at least recognize those investments and efficiencies. Dow stands ready to share reasonable information about our facility and industry to ensure that ARB has what it needs to include the chemical manufacturing sector in its consideration.

Allocations within Distinct Markets

- ARB described a system in which electricity generators monetize allocations in a double-sided auction whereas industries do not. This brings up further questions, the first of which is whether utilities will be able to buy allowances from industry to sell in the auction or if industry may buy allocations from utilities in the auction. Either possibility would seem to blur the lines between the separate markets and thus, diminish the desired price signals.
- A related question is whether an industrial entity that generates power on site would be eligible or required to participate in the double-sided auction as a retail provider. And further, if they would be so required, how would their level of participation be determined?

Benchmarking for Allowance Allocation

- ARB's proposed process for GHG allowance allocation relies heavily on the energy intensity of industries and facilities that manufacture or generate only one standard output or product. Dow manufactures multiple chemical products on site, including raw materials for use in other Dow facilities, potentially increasing the administrative cost and complexity for this rulemaking. Therefore, there is considerable concern as to the applicability of the current benchmarking proposal process for an equitable allowance allocation for Dow Pittsburg.
- The EU ETS has previously developed performance benchmarks for the chemical manufacturing sector. The existence of such data in Europe is an indication that ARB should similarly include the chemical manufacturing sector within the scope of its benchmarking effort for California. The availability of this EU ETS data would likely streamline the effort necessary to extend ARB's benchmarking effort to the chemical sector. Dow requests the ARB to identify what additional information is still needed to include chemical manufacturing as part of ARB's benchmarking effort for California and advise Dow accordingly.
- Data used for benchmarking has the potential to include proprietary information or information that could lead to disclosure of trade secrets (CBI). Dow encourages ARB to consider this when undertaking benchmarking studies and making results public.
- Dow operates several facilities in Europe with some experience with the EU ETS, the benchmarking system and purchase of offsets. Current industry newsletters are citing a major concern of European chemical plants of an expected increase in electricity prices by 5-10% when EU ETS begins its third phase in 2013.

Emissions Intensive Trade Exposed Entities

• ARB recognizes issues such as an entity's ability to pass along GHG costs, emissions leakage, and the ability to reduce GHG while still remaining competitive. Dow's operations are potentially trade exposed, which will likely impact the burden of the Cap and Trade program on Dow. However, ARB has not included chemical manufacturing in their preliminary classification of sectors at risk of leakage. Dow requests the ARB to identify what additional information is needed from the chemical manufacturing sector to designate it as a sector at risk of leakage.

Indirect Causes of Leakage

• ARB has described a scheme for preventing carbon leakage due to the inability to pass on carbon allocation costs. However, for many industries, the cost of electricity and/or fuels is likely to increase while the industry remains unable to pass the costs along. This would also result in leakage pressure even if costs from direct emissions are addressed through free allocations.

Program Transitional Assistance

- Dow supports ARB consideration of transitional assistance for the first compliance period. For our Pittsburg facility, our plant currently operates very efficiently and for that reason there may not be small changes we can make to reduce GHG emissions onsite. Our facility may be faced with a major capital investment to replace equipment. These modifications would all be very expensive investments. Time will be needed to plan, budget, purchase, and install necessary changes to our facility, requiring several years to execute. Again, Dow is prepared to share available data with ARB to ensure that our facility is included in the scope of ARB's consideration.
- Dow remains concerned regarding the absence of details in the proposed regulation regarding how the state program would be dismantled or otherwise modified after a comprehensive national cap-and-trade program is established. How the program is modified could result in substantial economic harm to regulated entities, their customers and/or to the state. Dow urges the ARB to provide a detailed description of the mechanism by which the California cap and trade program will be transitioned in the future. This description should be included as part of the regulation. If this cannot be done by the statutory adoption date, then it should be pursued and adopted as soon as possible thereafter.
- California's intent to pursue development of GHG reporting regulations that do not conform to already-existing federal GHG reporting regulations suggests that ARB may impose other state-level carbon standards even after a comprehensive national program is established. Dow requests that ARB clarify the methods that will be applied to modify the state program so that the long term intent of the proposed state program is clear.

Avoiding Conflicting Initiatives

 Recently adopted and potential future regulatory requirements may provide for conflicting initiatives and market incentives. One example is a recently adopted low NOx requirement for air pollution abatement for boilers in California air districts. A second example is federal requirements for improved energy efficiency including increased building insulation (under revised building codes). As the market demand increases for building insulation, Dow plans to expand their capacity to manufacture insulation and expects an associated increase in emissions, despite fuel efficiency improvements.

Emissions Reduction Credits and Offsets

• To date it is unclear if and how credits will be awarded for reductions in GHG emissions, or whether any such credits will be freely tradable among facilities reporting under the Cap and Trade system. Specific questions include whether reductions credits created at facilities that are not capped may be used at facilities that are capped, or alternatively sold to other entities.

- Allowing a broad use of offsets to contain costs will become increasingly important as the total allowance budget (the cap) declines in the years leading up to 2020. Offsets are essential to any recovery and/or expansion of the California economy. These potential benefits of offsets cannot be realized until the ARB begins authorizing credits in accordance with compliance offset standards. Dow supports expeditious development by ARB of compliance offset standards and adoption in a timely manner to meet the 2012 date for start of the cap and trade program in California.
- Dow would like to know if ARB is planning to grant GHG shutdown credits for the emission reductions that closing a facility would provide. The reductions are certain, legally enforceable through the voidance of the respective construction and operating permits, and are based upon the past actual emissions. Independently verified GHG emissions inventories in CCAR for 2006 through 2008 collectively document the emission reductions stemming from the shutdown of Dow's Tracy and Torrance facilities. Dow's reductions were motivated in part by Commitments in California statute that the State of California would "use its best efforts to ensure" that reductions documented by CCAR participants would "receive appropriate consideration under any future ... regulatory scheme relating to greenhouse gases."
- Dow welcomes further public discussions with CARB staff to develop proposals to create a robust offsets market to help contain costs of the program, as recommended in the Governor's letter. Implementation of AB 32 is an opportunity to promote offset projects, such as wetlands sequestration projects, that produce adaptation benefits as well as GHG emission reductions. ARB can both establish and demonstrate the use of new offset standards. Offset projects will play a significant role in providing cost-effective emission reduction strategies to contain allowance costs for companies that want to keep jobs and expand in California.

Sincerely,

Dale Backlund

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