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DRA's Comments on the Air Resources Board' Climate Change Draft Scoping Plan

The Division of Ratepayer Advocates is an independent division of the California Public Utilities Commission (CPUC) created by state legislation. DRA's mission is to obtain the lowest possible consumer rates for utility services consistent with safe and reliable service. DRA supports the need to combat climate change and has been an active party to the proceeding before the CPUC and California Energy Commission that is considering regulation of greenhouse gas emissions related to California's energy use. [R.06-04-009].

On June 26, 2008, the Air Resources Board (ARB) issued its Climate Change Draft Scoping Plan (Draft Scoping Plan). DRA commends the ARB for developing a thoughtful and comprehensive plan to meet the 2020 greenhouse gas emissions reduction goals established by the California Global Warming Solutions Act of 2006, or Assembly Bill (AB) 32. However, the economic analyses leading up to the preliminary recommendations in the Draft Scoping Plan lack a critical component for evaluating solutions to climate change: the Draft Scoping Plan contains no cost estimates of the various emissions reduction measures across the sectors. Making recommendations in the absence of supporting quantitative analysis is inconsistent with the legislative intent that the ARB design emission reductions measures that "minimizes costs and maximizes benefits for California's economy."[1]

[1] Health &Safety Code Section 38501(h).

DRA expects that upcoming supplemental analyses to the Draft Scoping Plan will provide a more complete picture of costs across the covered sectors. Based on this information, the ARB should create an economic loading order of GHG emissions reduction strategies, similar to the loading order for electricity resources articulated through the Energy Action Plan. An economic loading order for GHG emissions complies with the requirement that the ARB adopt emissions reduction measures to achieve the maximum technologically feasible and cost-effective greenhouse gas reductions.[2] In contrast, making recommendations that are unsupported by cost analysis would be like putting the cart before the horse.

DRA offers comments and recommendations below to the ARB staff for consideration as it prepares the final Scoping Plan to be adopted by the ARB Board in November 2008. In summary,

- The ARB should create an economic loading order of GHG emissions reduction strategies across the regulated sectors.
- The Draft Scoping Plan creates an undue burden for the electricity sector.
- The Draft Scoping Plan fails to justify the use of a cap-and-trade program to meet the goals of AB 32.
- The ARB should consider alternatives to a cap-and-trade program to meet the emissions reduction goals.
- Under a cap-and-trade program, a 33% renewable mandate is not necessary.
- DRA supports the use of a separate fee to fund AB 32 administrative costs and emerging technology research and development.
- DRA recommends expanding the statewide energy efficiency targets in the Draft Scoping Plan.

[2] Health & Safety Code Section 38560.5(c)

- DRA recommends the creation of a statewide Energy Efficiency Market Transformation organization.

On June 2, 2008, DRA responded to a series of CPUC/CEC questions about the design of a cap-and-trade program and the implementation of AB 32. DRA's June 2 response regarding design of a cap-and-trade program is appended as Attachment A.

I. The ARB should create an economic loading order of GHG emissions reduction strategies across the regulated sectors.

The Draft Scoping Plan relies heavily on emissions reduction measures to meet the goals of AB 32, recommending greenhouse gas reduction measures for each sector and listing the projected 2020 reductions associated with each measure. Markedly absent in the plan, however, is the cost per $MMTCO_2e$ reduction associated with each of these recommended measures and the other sector-based measures under evaluation. AB 32 specifically requires that the Draft Scoping Plan identify emissions reduction measures and alternative compliance mechanisms to achieve the maximum feasible and cost-effective reductions of greenhouse gas emissions.[3] To comply with AB 32's cost-effectiveness requirement, DRA recommends that the ARB provide the best available cost estimate of the emissions reduction measures (expressed in $ per $MMTCO_2e$) in the upcoming supplement to the Draft Scoping Plan. For costs that are highly sensitive to other factors, DRA suggests that the ARB provide several cost estimates based on different assumptions, e.g. natural gas price impact on the cost of renewables as a GHG reduction measure.

The availability of reduction costs for each emissions reduction measure would enable the ARB to create an economic loading order of GHG emissions reduction strategies across the sectors. This is akin to the loading order for electricity resources articulated through the Energy Action Plan[4], which identified energy efficiency and

[3] Health & Safety Code, Section 38561(b)
[4] The Energy Action Plan was adopted in 2003 by the CPUC, CEC, and the California Power Authority.

demand response as the preferred resource for meeting California's energy needs, followed by renewable resources and distributed generation such as combined heat and power. A juxtaposition of the costs of various emissions reduction measures would also be useful when determining which measures should be mandated immediately beginning in 2012. The ARB may decide to defer the regulation of high cost measures to allow for further analysis while further expanding lower cost strategies.

II. The Draft Scoping Plan fails to justify the use of a cap-and-trade program to meet the goals of AB 32.

While a cap-and-trade program may be "en vogue" in environmental policy, it should not be adopted without careful consideration against alternatives and cost protections. A cap-and-trade program in theory encourages covered entities to achieve emissions reductions in the most economical manner. However, a cap-and-trade program has many problems of its own. For example:

- A trading scheme invites speculation, market manipulation and under-reporting of actual emissions.[5]
- The complexity of a cap-and-trade program[6] increases the scope for unintended consequences down the road.
- The capped sectors would be disadvantaged if leakage or contract shuffling occurs. In these cases, the capped sectors would be paying for reducing emissions, but those emissions are simply shifted elsewhere.
- Within the electricity sector, an increased market clearing price for electricity due to the internalization of carbon cost could translate to as much as $700 million of producer surplus regardless of the allowance

[5] In Los Angeles, noncompliance rates by industry are high for the pollution monitoring requirements of the RECLAIM trading program. (source: "Pollution Trading and Environmental Injustice: Los Angeles' Failed Experiment in Air Quality Policy", Drury et al., Duke Environmental Law & Policy Forum, Spring 1999. p. 259)

allocation methodology.[7] That is, ratepayers would be paying an additional $700 million for company profits rather than for emissions reductions. Any allocation methodology that offers free allowances to covered entities would likely result in windfall profits when companies can pass the opportunity cost of the allowances to consumers, which is the case for the electricity sector.

Given these potential issues associated with a cap-and-trade program, there should be compelling rationale that it would be superior to other GHG reduction alternatives before implementing a cap-and-trade program.

The Draft Scoping Plan rationalizes the development of a California regional cap-and-trade program based on the argument that it will serve as a model for a federal cap-and-trade program.[8] However, it is speculative to assume that the California's cap-and-trade program will set a model for the national GHG cap-and-trade program. While the Air Resources Board and the CPUC/CEC are deliberating on the point of regulation for the electricity sector and the program elements of a potential multi-sector cap-and-trade scheme within California, several GHG reduction bills have been proposed at the U.S. Senate with varying levels of long-term reduction goals. Many of these bills include a cap-and-trade component that has been developed independently of the California model. DRA supports the need for California to participate in the federal process to ensure that a federal cap-and-trade program would recognize the early actions undertaken by California

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[6] The ARB recognizes the complexity to implement a cap-and-trade program, noting that the specific elements of such a program would need to be carefully worked out in a public rulemaking process in the next two years. Draft Scoping Plan, p.19.

[7] An increased market clearing price for fossil fuel-based electricity would profit electricity producers with low carbon generation. E3 modeling results show that at $30/MMT CO_2e, California pays approximately $700 million to electricity producers due to the higher market clearing price for power. If the price for carbon were higher, then the additional profits paid to electricity generators would be even higher.

[8] "Efforts under AB 32 to establish an effective, enforceable regional cap-and-trade program will greatly assist California and the region to promote the type of federal legislation that is needed. The opportunity to continue to reduce the cap over time beyond 2020 and the opportunity to link our program with others (including a federal program) are additional reasons why it is important to get this program started early." Draft Scoping Plan, p.19.

utilities and industries. However, the development of a federal carbon cap-and-trade scheme will be influenced by politics and trade issues that are beyond California's control. In any case, any California-based or regional cap-and-trade program would be superseded by a federal program when it takes effect. All these factors weigh in favor of examining other alternatives to a California cap-and-trade program, and/or waiting until there is a federal or regional cap-and-trade program.

III. The Draft Scoping Plan creates an undue burden for the electricity sector.

The Draft Scoping Plan recommends subjecting the electricity sector to both regulatory mandates and a cap-and-trade program beginning in 2012. However, no other sector is twice-regulated from the start of the regulatory period. For example, the ARB is currently considering deferring the inclusion of the transportation and residential/commercial natural gas sectors in a cap-and-trade program.[9] Meanwhile, the industrial sector, while covered under the proposed cap-and-trade program from the start, would not face any emissions reduction mandates. The electricity sector, on the other hand, will be required to participate in a cap-and-trade program while concurrently facing multiple emission reduction mandates including expanded energy efficiency targets, increased CHP penetration, a 33% renewables target, the million solar roof program, and solar water heating.

The proposed double-regulation for the electricity sector would create an unreasonable financial burden for the sector. Under a two-industry cap-and-trade program, the electricity deliverers will have to compete with industrial facilities such as cement plants and refineries for the limited number of allowances permitted under the cap. In the meantime, aggressive emissions reduction regulatory targets for the electricity sector leave little room for additional low-cost reductions. Therefore, the two-sector cap-and-trade system may result simply in the electricity sector buying allowances from the industrial

[9] The ARB staff presentation at the June 26, 2008 ARB board meeting pointed out that the transportation and residential/commercial natural gas sectors will be capped by 2020.

sector. The combined effects of stringent regulatory programs and the requirement to obtain allowances to cover its emissions will result in a dramatic rate increase for electricity customers.

The electricity sector should not be burdened with a disproportionate share of emissions reductions costs just because it is easy to regulate. The following section illustrates how California could meet the goals of AB 32 without overburdening the electricity sector.

III. The ARB should consider alternatives to a two-sector cap-and-trade system.

The Draft Scoping Plan indicates that a cap-and-trade system will be in place by 2020, and at that time will cover the electricity, industrial, transportation, and residential/commercial sectors. However, the Draft Scoping Plan recommends that initially, the cap-and-trade program include only the electricity and industrial sectors. While DRA recognizes the need to begin emissions reductions across all sectors as soon as possible, DRA questions the need to begin a California-only cap-and-trade program in 2012 that covers only two sectors.[10]

If it is not yet feasible to include all sectors under a cap-and-trade program, DRA recommends deferring a cap-and-trade system until it can be implemented on an economy-wide basis. In the interim, reductions would be pursued in most sectors via the emission reduction strategies already recommended in the Draft Scoping Plan, accounting for 79% of reductions by 2020.[11] The Draft Scoping Plan indicates that the other 21 percent of reductions would come from the cap-and-trade system. However, under the proposed two-sector system, much of those reductions will likely come from the industrial

[10] The Draft Scoping Plan proposes that the California cap-and-trade system will link to the cap-and-trade system currently being developed under the Western Climate Initiative (WCI), thus expanding the scope of the trading system. However, it is questionable whether the WCI will be able to enact its system by 2012, given that only a few WCI member states have adopted legislation regarding greenhouse gas reduction goals.

[11] Draft Scoping Plan, Table 2, p. 11.

sector as the electricity sector will already be making most of its reductions through mandated programs. Instead of setting up a system that might result in the electricity sector subsidizing reductions in the industrial sector (and where cost-effective reductions in agriculture are not actively pursued), it would be better to seek those reductions through other means.

Those remaining reductions should come from the two sectors that are currently escaping emission reduction measures: industry and agriculture. Emission reduction measures are notably absent for these two sectors even though they will account for nearly 22 percent of emissions in 2020.[12] Fortunately, there are cost-effective opportunities for reductions in both of these sectors. DRA recommends that ARB develop emission reduction measures to achieve reductions from the agricultural sector. For the industrial sector, reductions could be achieved either through emission reduction measures, or implementing a carbon fee on the natural gas used by industry.

Other policymakers are recognizing the benefits of a carbon fee for its simplicity and effectiveness. In fact, British Columbia recently implemented a carbon fee. On July 1, 2008, British Columbians began paying a fee equivalent to $10 per metric ton of carbon emissions; that fee will rise to $30 by 2012.[13]

To the extent that there are additional cost-effective emission reduction strategies in other sectors, they should also be pursued, consistent with DRA's primary recommendation that ARB develop an economic loading order for its emission reduction measures.

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[12] Draft Scoping Plan, p.8.

[13] "B.C. carbon tax kicks in on Canada Day." CBC News, 1 July 2008. http://www.cbc.ca/canada/british-columbia/story/2008/06/30/bc-carbon-tax-effective.html.

IV. Under a cap-and-trade program, a 33% renewable mandate is not necessary.

If ARB does decide to pursue a cap-and-trade program, it is not necessary – and perhaps harmful – to mandate a 33% renewable portfolio standard. It is true that, under a market-based approach, some emission reduction opportunities (such as energy efficiency[14]) could face market barriers that would prevent their implementation. For these emission reduction strategies, ARB appropriately recognizes that regulatory mandates are necessary to capture lower cost emission reductions. [15] However, renewable energy would not face such market barriers.

Once a price is placed on carbon, renewable energy will become more cost-competitive with fossil fuels. Under favorable market conditions, e.g. when the price of carbon causes fossil-fuel based generation to be more expensive than renewable generation, there will be naturally be an increased demand for renewable energy without any regulatory intervention. Using the E3 model, NRDC demonstrated that at natural gas prices of $13.50/MMBTU, utilities will be indifferent between renewable generation and gas-based generation. At natural gas prices above $14/MMBTU, the dispatch order is flipped such that utilities will prefer renewable generation as a least-cost resource over gas-based generation.[16] In other words, under the proper market conditions, an increased renewable mandate is *unnecessary* to increase renewable penetration.

It is true that, if the price of carbon is low enough, some renewable energy may still not be as competitive as its fossil fuel counterparts. However, this situation indicates that

[14] Although energy efficiency provides cost savings over the long term, there is an initial cost barrier to invest in an energy efficient equipment or appliance. Energy efficiency program incentives are often used to lower the upfront investment costs. Furthermore, there remains a conflict of interest for investor-owned utilities to administer energy efficiency programs that reduces electricity demand and indirectly the opportunity for the IOUs to earn a return on supply-side investment.

[15] Draft Scoping Plan., p.13.

[16] Opening Comments of the Natural Resources Defense Council and the Union of Concerned Scientists on Allowance Allocation, Flexible Compliance, CHP, Emission Reduction Measures, and Modeling issues, submitted to the CPUC under R.06-04-009 on June 2, 2008, p..9. http://docs.cpuc.ca.gov/efile/CM/83884.pdf.

the market has found lower-cost reductions elsewhere – which means the cap-and-trade system has succeeded. As long as the cap is maintained, California should be indifferent to whether those reductions came from increased renewables, less energy use, or other means. The purpose of a cap-and-trade is to allow flexibility in seeking out lower-cost reductions; by in unnecessarily mandating certain policy goals, California would restrict the ability of the market to find the most cost-effective options.

Should the ARB decide to adopt a cap-and-trade approach, DRA recommends that the ARB refrain from promulgating an increased renewable mandate until it is demonstrated that doing so will assist in minimizing the costs of compliance with AB 32 or meeting other policy objectives. In the meantime, DRA continues to support the ongoing work on the Renewable Energy Transmission Initiative (RETI) to put in place an infrastructure to support new renewable projects.

V. DRA supports the use of a separate fee to fund AB 32 administrative costs and emerging technology research and development.

DRA supports funding the ongoing administration of AB 32 programs through the use of a separate fee. The administrative aspects, overseen by the ARB, should cover monitoring program compliance and ongoing evaluation of new technologies and strategies to further reduce emissions.

DRA does recommend, however, that the ARB change the language in the Scoping Plan to refer to this fee as the "AB 32 administrative surcharge." Currently, the Draft Scoping Plan refers to it as a "carbon fee," which is typically interpreted as analogous to a "carbon tax" to induce changes in consumer behavior.

DRA further recommends that the ARB expand the scope of the surcharge to provide funding for ongoing emerging technology research and development (R&D). The idea behind this is similar to the California Climate Initiative proposed by the CPUC. However, rather than limiting the funding source to the ratepayers of investor-owned

utilities, a surcharge that applies to all sectors will ensure a more equitable distribution of R&D costs.

Funding R&D through an AB 32 is preferable to relying on auction revenue given the importance of starting R&D activities as soon as possible. The debate over the use of auction revenue (or even if there will be auction revenue) is far from over. Once it is settled, there will not be any revenue until 2012 at the earliest, and even after that, if a cap-and-trade system or allowance auction is postponed. Thus, any auction revenue-related funding for R&D is years away. Given the importance and immediacy of R&D funding, the AB 32 surcharge should be leveraged as soon as possible so that ARB can begin allocating funds to R&D as soon as possible.

Section 38597 of the Health and Safety Code would allow use of a surcharge to fund R&D. In Section 38597, AB 32 states:

> The state board [ARB] may adopt by regulation, after a public workshop, a schedule of fees to be paid by the sources of greenhouse gas emissions regulated pursuant to this division, consistent with Section 57001. The revenues collected pursuant to this section, shall be deposited into the Air Pollution Control Fund and are available upon appropriation, by the Legislature, for purposes of carrying out this division.

"This division" refers to the California Global Warming Solution Act of 2006, AB 32, and its goals. Since R&D will be one component of meeting AB 32 goals, it appears to be an appropriate recipient of AB 32 surcharge funding.

VI. ARB should expand the statewide energy efficiency targets to encourage publicly-owned utilities (POUs) to pursue aggressive energy efficiency programs.

The Draft Scoping Plan recognizes the economic benefits of energy efficiency and proposes expansion and strengthening of existing building and appliance standards as well as energy efficiency programs as a key GHG reduction measure. In particular, the Draft

Scoping Plan proposes statewide energy efficiency (EE) targets of 32,000 GWh and 800 million therms in energy demand reductions from business-as-usual projections for the year 2020. These targets are based on the CPUC proposed EE targets for investor-owned utilities (IOUs), combined with equivalent level of EE targets applied to publicly-owned utilities (POUs).[17]

DRA recommends that the ARB further expand the statewide energy efficiency targets in the final Scoping Plan to encourage POUs to pursue aggressive energy efficiency programs and to account for the growing economic potential of energy efficiency. These are explained in more detail below.

The CPUC recently adopted energy efficiency goals for the IOUs that recommend target EE savings for the IOU service territories at 26,000 GWh by the year 2020[18]. This represent total market gross savings including savings attributed to the IOU administered EE programs, building and appliance standards, lighting standards as required by Assembly Bill (AB) 1109 (Huffman), the CPUC's Big Bold Energy Efficiency Strategies (BBEES),[19] and naturally occurring energy efficiency savings.[20] Given that the IOUs serve about 72% of the total retail electricity sales in California, an additional 10,111 GWh[21] of energy efficiency savings should be a reasonable gross target for the rest of the electricity service providers, which include municipal utility districts, rural electric cooperatives, irrigation districts and public utilities, if they are held to similar EE

[17] Draft Scoping Plan, p.21.

[18] CPUC Decision 08-07-047 was adopted at the July 31, 2008 Commission meeting. http://docs.cpuc.ca.gov/PUBLISHED/FINAL_DECISION/85995.htm

[19] The BBEES, established by CPUC Decision D.07-10-032 and D.07-12-051, established four specific goals: (i) all new residential construction in California will be zero net energy by 2020; (ii) all new commercial construction in California will be zero net energy in 2030; (iii) Heating, Ventilation and Air Conditioning (HVAC) will be transformed to ensure optimal energy performance for California's climate; and (iv) all eligible low-income customers will have the opportunity to participate in the low income energy efficiency program and will be provided all cost effective energy efficiency measures in their residences by 2020.

[20] Naturally occurring energy efficiency savings include energy savings attributed to customer adoption of EE measures in the absence of utility program incentives.

[21] (26,000 GWh / 72%) – 26,000 GWh = 10,111 GWh

standards as the IOUs.[22] Combining the total EE savings for the IOUs and the rest of the electricity service providers gives a total EE target of over 36,000 GWh. The Draft Scoping Plan proposes statewide EE goals of only 32,000 GWh. This represents a significant lost opportunity in pursuing low or zero-cost GHG reductions through cost-effective energy efficiency savings. DRA urges the ARB to adopt the higher statewide EE target (36,000 GWh) in the final Scoping Plan. DRA further recommends the creation of a statewide Market Transformation organization as part of the implementation strategy to achieve maximum energy savings (see section VII below.)

The proposed EE savings target in the aforementioned CPUC proposed decision is based on an underestimated economic potential for energy efficiency. The proposed EE savings target is informed by the Itron Goals Update Study and the 2008 California IOU Energy Efficiency Potential Study, which in turn relies on the avoided costs adopted by the CPUC in 2006 for energy efficiency program planning. The development of the avoided cost relied on the natural gas price forecast at the time, which ranged between $6/MMBtu to $8.50/MMBtu for the period 2008 through 2020 (in nominal dollars.) Natural gas price has risen sharply since and is likely to remain high compared to historical gas price levels[23]. Additionally, the carbon adder used in calculating the avoided cost is currently set at $8/ton starting in 2004, escalating at 5% per year. The cost of carbon will likely be greater than the assumed value of this carbon adder, in light of the allowance price within the EU Emission Trading Scheme (as of July 29, 2008, the EUA price is about $37/ton.) The combined effects of higher natural gas prices and the higher carbon cost translate to higher avoided costs for energy efficiency, and therefore higher economic potential for energy efficiency. As noted by CPUC Energy Division staff, “a 20% increase in avoided costs could result in a 5 to 10% increase in economic

[22] The building and appliance standards administered by the CEC and the implementation of AB 1109 will apply to all electricity customers regardless of their utility provider.

[23] Natural gas prices hit over $13/MMBtu in early July and remains above $9/MMBtu as of July 29, 2008.

potential."[24] DRA expects that future updates to the EE avoided cost methodology will reflect the significant increase in natural gas price and higher carbon adder costs. DRA recommends that the ARB account for the growing economic potential of energy efficiency as it develops the statewide EE targets as a key GHG reduction strategy.

VII. DRA recommends the creation of a statewide Energy Efficiency Market Transformation organization.

Achieving unprecedented levels of energy efficiency will require untapped strategies that have been overlooked in the past. DRA is aware of the limitations of electric utilities in pursuing the full potential of energy savings within California. In fact, the utilities perceive their energy savings pie to be shrinking[25]. At a time when California must maximize energy savings, the energy savings that IOUs appear capable of delivering appear to be shrinking. A recent study of California's energy efficiency potential between 2012 and 2020 projects significant declines in IOU annual energy savings.[26] Markets for many of the key energy efficiency measures that have provided energy savings in the past are saturated and the IOUs have failed to introduce new measures. To reflect the study's finding, the CPUC recently adopted a decision that lowered the bar on the IOUs' energy efficiency savings goals for 2009 – 2011.

[24] CPUC Energy Efficiency Staff Paper on Recommended 2012-2020 Energy Efficiency Goals, May 12, 2008, p.6. http://www.cpuc.ca.gov/NR/rdonlyres/07370637-C0E0-4195-845F-0CB049B3C789/0/GoalsUpdateStaffPaper.pdf

[25] The IOUs appear to concur with the studies' assessment that their potential to attain energy savings has become reduced, based on their reaction to the CPUC's proposed decision to set energy savings goals through 2020. PG&E finds that even goals set at the mid-range of potential determined by the study to be "too optimistic." (PG&E Opening Goals Comments, p. 1 (http://docs.cpuc.ca.gov/efile/CM/85597.pdf).) Southern California Edison Company, Southern California Gas Company, and San Diego Gas & Electric Company raised similar concerns about their ability to achieve additional energy efficiency savings. Hence, the IOUs believe that they will be challenged to meet the proposed energy savings goals, which have already been significantly lowered by the Commission. This is starkly demonstrated in the utilities' recent applications for EE funding for 2009-11 that request twice the previous funding at $4 billion dollars for approximately half the savings.

[26] Assistance in Updating the Energy Efficiency Savings Goals for 2012 and Beyond, Task A4.1 Final Report: Scenario Analysis to Support Updates to the CPUC Savings Goals Volume 1 – Main Report, Itron, March 24, 2007, http://w ww.cpuc.ca.gov/NR/rdonlyres/D72B6523-FC10-4964-AFE3-A4B83009E8AB/0/GoalsUpdateReport.pdf

In the short-term, DRA appreciates the CPUC's leadership role to mitigate this problem by expanding California's universe of energy savings through its long-term strategic planning effort. The CPUC's Strategic Plan identifies many other sources of energy savings in the state beyond traditional utility programs. DRA believes that the combination of a long-term strategic plan, an umbrella market transformation agency, and the transition of ratepayer funds to proportionally fund a statewide strategy will result in optimizing California's energy savings and GHG mitigation statewide.

While the CPUC has taken a strong leadership role to spur collaboration among the IOUs in the development of their energy efficiency programs, the CPUC is limited in its jurisdiction. Accordingly, DRA supports a statewide integrated strategic effort that builds on the CPUC's efforts while leveraging the resource and expertise of all Load Serving Entities in California.

DRA believes the most effective strategy to achieve such a high level of collaboration and energy savings is for the Legislature to mandate coordination of market transformation efforts through a statewide entity that promotes energy efficiency as well as green economic development in California. "Market transformation is both a strategy and a desired "end-point." It is defined as elimination of barriers to the adoption of energy efficiency measures such that publicly funded intervention is no longer appropriate in that specific market.[27] Current factionalized efforts will never be as effective as a single, unified effort by the state. A statewide Energy Efficiency Market Transformation organization would allow California to invest in itself and build capacity for permanent, yet evolving change. The work of such an organization would complement the energy efficiency programs administered by the utilities. Specifically, its role would include:

- Development and coordination of statewide Market Transformation efforts.
- Workforce development of K-12 and college level to re/training efforts to ensure a green labor force to supports California's green economy goals.

- Coordination of energy efficiency efforts across jurisdictions: local government, state, and federal agencies.

- Creation of business development opportunities related to green energy and conservation working closely with manufacturers, retailers, venture capitalists, entrepreneurs, and other influencers.

- Coordination of efforts to integrate and leverage market activities for Energy Efficiency, CSI, Climate Change, and other resource conservation programs that will serve to maximize energy savings.

- Management of the California "green" energy brand that would guide all messages, marketing, education, and rating systems under a statewide marketing brand as the umbrella for all integrated energy programs to promote education, awareness, social change, and reconcile all green energy brands to mitigate customer confusion.

- Integration of sustainability knowledge into curriculum beyond workforce training target.

- Coordination of codes & standards / city ordinances and compliance efforts between the natural synchronicity of the CEC and Local Governments.

- Management of the Emerging Technology pipeline between the CEC, IOUs, and the market to ensure that technology is developing new markets for new energy savings opportunities with a seamless process from conception to market.

- Management of the capacity building of local governments that have the ability to create market transformation through optimal city ordinances, land use, code compliance, financing, and other creative solutions.

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[27] Draft California Long Term Energy Efficiency Strategic Plan, p.5. http://docs.cpuc.ca.gov/efile/RULINGS/85174.pdf

- Coordination of the energy / water nexus to maximize conservation of both resources, which can only be realized at a statewide level.

Such a market transformation /green economic development entity could be proportionally funded through multiple sources of ratepayers across energy and water IOUs / MUNIs that already support such programs in a more factionalized manner. Funds that are now administered separately could be more cost-effective and powerful and when aggregated.

As witnessed by the success of recycling in California, statewide attention on an issue can result in significant and permanent changes in behavior. Achieving comparable results in energy efficiency and reducing GHG emissions, will require concerted efforts at the statewide level to realize the same level of permanent change. DRA, therefore, urges ARB to pursue regulations and any necessary legislation to form a statewide energy efficiency market transformation entity to mandate statewide participation and manage all the complex pieces that will result in a cohesive solution for California to significantly reduce its contribution to GHG.

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Attachment A: Design Elements within a Cap-and-Trade Program

On June 2, 2008, DRA submitted a set of comprehensive recommendations to the Joint CPUC/CEC in response to a set of questions related to the design of a cap-and-trade program and the implementation of AB 32. DRA's positions in the June 2 comments related to the design of a cap-and-trade program are summarized as below.

Allowance Allocation

The allocation of emission allowances is largely a distributional question. While a full auction of allowances is considered most equitable and is the least likely to result in windfall profits, DRA recommends a phased approach to a 100% auction. The fact that markets are imperfect is often overlooked in economic theories; this has been the Achilles heel to the California electricity market restructuring experience. It is critical to minimize exposure of California ratepayers to the potential problems of an untested 100% auction market.

- A phased approach for allowance allocation, with initially 25% of the allowances to be auctioned and 75% of allowances distributed to deliverers based on their historical emissions.

- Increasing the proportion of allowances to be auctioned every year, such that by 2017, 100% of the total available allowances to the electricity sector would be auctioned. This relatively quick transition to a full auction ensures that any potential windfall profits attributed to free allowance allocation would be short-term and declining in nature.

- As the basis for allowance allocation, DRA recommends using the average emissions between 2004 and 2006. This is consistent with the intent of AB 32 to encourage early voluntary reductions prior to the adoption of mandatory emission reduction measures in January 2011.

- Auction proceeds should primarily be returned to electricity ratepayers. The percentage of auction revenue used to support the administration and oversight of an auction should be capped.

Flexible Compliance Mechanisms

As long as a cap-and-trade program is in place, flexible compliance mechanisms will provide opportunities to meet the goals of AB 32 at a lower cost, regardless of the scope and design of the cap-and-trade program.

- The market for emission allowances and/or offsets should be open to all market participants, rather than only entities with compliance obligations.

- A three-year compliance period accommodates annual variations in carbon demand.

- Unlimited banking of allowances should be allowed to help smooth out price variations in the carbon market.

- A price safety valve is necessary to prevent short-term spikes in allowance prices. When a predetermined auction price level is triggered, additional allowance would be borrowed from future years.

- Offsets provide an opportunity to meet GHG reduction goals at a lower cost. However, strict protocols are necessary to ensure that offset reductions are real. Quantity limits should apply to the use of offsets initially. Geographic limits should not be placed on offsets as long as vigorous verification protocols are in place.

California should take advantage of the lessons learned from other existing offset programs.

- Linkage to other trading systems should be gradually phased in after the markets have gained maturity and linkage conditions have been developed. Program characteristics such as price safety valves, strictness of protocols, and penalty structures should be reasonably harmonized prior to linkage in order to protect environmental goals and prevent large transfers of wealth.

Emissions Reduction Responsibility

The CPUC contracted with a consulting firm E3 to model the electricity sector's compliance with AB 32. While the E3 modeling exercise provides an estimate of costs under various regulatory scenarios within the electricity sector, they constitute just one piece of the puzzle that will serve to inform ARB's decision about sectors' responsibility. The least cost path of compliance with AB 32 mandates will depend on the economics of GHG reductions across all covered sectors.

- The Joint Commissions should not make recommendations regarding emission caps for the electricity and natural gas sectors until reliable information on emission reduction costs for other sectors within California becomes available.

- The Joint Commissions should resist the temptation to increase regulatory mandates and to place a disproportionate amount of emissions reduction responsibility on the electricity sector.

- Given the high cost of GHG reduction through the use of renewable resources as demonstrated by the E3 modeling results, ARB should not increase the mandated 20% renewable procurement until the multi-sector modeling exercise demonstrates that this is in fact the most cost effective means to reduce GHG emissions.

- An increase in regulatory mandates is likely unnecessary under a cap-and-trade program and may increase overall compliance costs when more cost effective market solutions are displaced by the mandated programs. For example, if 33% renewable energy is in fact a cost effective means to achieve AB 32 goals, then the market will provide that incentive.