



December 13, 2010

California Air Resources Board
1001 "I" Street, Sacramento, CA 95812
Submitted electronically

Re: Comments on AB32 Cap-and-trade Proposed Rule

Chair Nichols and Members of the Board,

The AB 32 cap-and-trade rule proposal and supporting documents demonstrate the results of an ambitious and informative stakeholder process. EDF congratulates CARB and its staff on a well-designed and comprehensive plan that will inspire long-term investments and steer California toward an abundant low-carbon economy. The proposed rule contains the essential building blocks of a well-functioning program, incorporates lessons learned from other compliance markets, minimizes the risk of economic harm and job dislocation, and provides for a reliable allowance market to send a consistent price signal. With some adjustments, the proposed program will also provide a backstop mechanism to achieve the fundamental goal of AB 32: 1990 greenhouse gas emissions levels for a much bigger and still growing California economy in 2020.

Our major recommendations are to include biofuels and biomass combustion emissions in emitters' compliance obligations with mechanisms to account for differences in the net emissions from bioenergy, to refine the banking and allowance reserve rules, and to refine the offsets and set-aside programs to engage waste managers, foresters, farmers, urban and rural land managers, historically disadvantaged communities and renewable energy investors.

The regulation includes a well-chosen set of cost containment features that will effectively manage allowance prices, including offsets, three-year compliance periods, allowance reserve, and banking. As proposed, however, the pieces may not work as harmoniously as they could.

Additionally, while the proposed program is structured to achieve important ancillary goals, certain aspects of the allowance allocation scheme are not justified by the evidence provided in the supporting documentation. In particular, the proposed allocations to petroleum extraction and refining, and to the cement industry are more than needed to avoid leakage. Additional important priorities could be funded with allowances not allocated to industry but instead sold through auction. Notable recommendations from the environmental and social justice communities include a funding a Community Benefits Fund and crediting voluntary renewable energy projects and capped sector reductions by non-regulated entities.

Also, the adaptive management approach will need to be detailed in terms of decision metrics, and timelines for and types of adaptive responses.

These comments depict input from several EDF staff. Proposal strengths and areas in need of change are discussed by major topic area in the attached letter. Overall EDF enthusiastically supports the proposed rule; the progress and learning it embodies validates our efforts thus far, and energizes our commitment to working hard on the many important steps to come. Thank you.

Sincerely,

A handwritten signature in black ink, appearing to read 'James Fine', is written over a light blue horizontal line.

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Environmental Defense Fund Comments on the Cap-and-Trade Program Proposal for the Global Warming Solutions Act (AB 32)

December 8, 2010

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1. Fundamental Components of a Well-Designed Program

EDF applauds the adaptive management approach as a wise response to anticipated risks and risks thus far known only to be unknown. It will require carefully planned gathering and analysis of evaluative data to manage adaptively in a timely well-informed manner. This is no easy task but will be facilitated by early, deep thinking about what information must be monitored and what adaptive responses may be needed. Further, although adaptive management contingency responses typically cannot be written into regulatory constraints, we recognize and appreciate the attempt by the board to construct parts of the program (where possible) with embedded adaptive management responses.

The proposed rule contains all of the essential elements of a reliable, efficient program. A clear and declining cap for each year for major emitting sectors is the pathway toward longer term goals. Significantly, the program will encompass about four-fifths of California's emissions by 2020.

As we stated in comments on the Preliminary Draft Rule (PDR) in January 2010, EDF's preference is for a cap-and-trade program that includes all capped sectors starting in Phase I, thereby avoiding a second and third phase expansion. While the "softer" start with a Phase II expansion seems sensible, it adds complexity and uncertainty for regulated entities, and may result in unanticipated price volatility in the 2014 time frame. However, in the absence of an immediate all-in approach to the program, EDF supports the three-phase program proposed by the Board that begins first with utilities and large industry, and then expands to a full program in Phase II when transportation fuels, natural gas, and other petroleum products are added to the program.

Rules for banking and three-year compliance periods (with annual true-ups) will provide a balance between excessive regulatory interference and reduction of default risk. Additional features, including an auction reserve price (serving as a price floor) and an allowance reserve (helping to limit unexpectedly high prices), will provide markets with an important degree of regulatory certainty while preserving the environmental integrity of the program.

Economic analysis conducted by EDF gives us confidence that the allowance reserve will perform the desired function of price containment in the event of sudden price volatility. In fact, we find in our modeling that the reserve allowances are unlikely to be accessed. We estimate that the reserve has an 85% chance of not being used at all; if it is accessed, we estimate with very high confidence that it will be sufficiently large to prevent the market price of allowances from exceeding the allowance reserve price, and that the reserve will not be fully exhausted. Our analysis also suggests that under plausible conditions the auction reserve price may play an important role in providing a firm "price floor" for allowances.

With respect to allowance allocation, EDF broadly supports the proposed mix of auctions and free allocation. We support the points of regulation and allowance allocation scheme for the utility sector. The utility sector consignment auction is an effective way to direct the use of allowance value to support the goals of AB32. However, to strengthen our confidence that the consignment auction will support AB 32 goals, the uses of allowance value should be made more explicit, as should the within-sector allocation. As noted by the Global Warming Action Coalition (GWAC), the value of allowances ought to be invested in energy efficiency and renewable energy, and used to protect low-income electricity customers. CARB can and should be proactive in providing the public with a high degree of confidence that these end-goals are being met through reporting and transparency provisions.

EDF also supports the proposal to auction allowances to the sectors entering the market in the second phase 2015. However, we have concerns about some aspects of the proposed industrial allocations. While we support the use of output-based allocation in general, the provisions for specific industries, including cement and the petroleum extraction and refining, appear to be more generous than needed if the purpose of the allocation is to avoid creating an incentive for these businesses to leave the state. We

are also concerned at the absence of any mechanism to evaluate whether free allocations result in “windfalls” to regulated entities, with provisions to adjust allocations accordingly as needed.

We also commend CARB for noting the importance of domestic and international forest and agricultural offsets, but ask that CARB expand the opportunity for agricultural and forest offsets. While the proposed rule allows for some credits and identifies an opportunity for more, EDF notes that much more can be achieved. Within the state, agricultural and forestry investments that avoid or sequester greenhouse gas pollution are viable low-cost means to help to meet the AB32 cap goals and reinforce other land and resource management objectives, (such as agricultural waste recovery and water conservation). Vulnerable communities throughout the world can also benefit from the agriculture and forestry participation in the program, as contemplated by California’s partnership with Brazilian states to avoid the degradation and destruction of rainforests. In particular, Governor Schwarzenegger has led a groundbreaking partnership with tropical forest states through the Global Climate and Forest (GCF) task force to avoid the degradation and destruction of rainforests and also build the foundation for other sector-based offsets programs. Accordingly, the following pages identify the need for better and broader inclusion of these sectors within the regulation.

2. Recommendations for Improving the Program

EDF has several recommendations for changes in the proposed rule. We organize these recommendations by topic.

2.1 Scope and Cost Containment

Treatment of biofuels and biomass should be consistent for transportation, electricity, and industrial sectors. The emissions accounting need not mirror the lifecycle accounting approach used in the LCFS, but it should endeavor to recognize that not all biofuels are equal and it should reward only biofuels that have lower greenhouse gas emissions than conventional fuels. As CARB determines how best to account for the net emissions from biofuels in the context of the cap-and-trade program, we urge it to seek input from a broad range of stakeholders. Ultimately, we urge CARB to fully account for emissions from biofuel combustion in the cap-and-trade program starting in Phase II (year 2015) with adjustments or other mechanisms to account on a performance basis for both the combustion emissions and the landscape carbon effects associated with waste utilization and biomass production and harvest.

2.1.1 Include transportation biofuel combustion emissions in 2015 cap.

EDF continues to support the inclusion of emissions from the combustion of biofuels (and biomass to make bioenergy) into the cap-and-trade compliance framework. For transportation fuels, we support an inclusion date of 2015 - the time when other transportation fuels will come into the program. Under the approach described in our comments on the PDR in January 2010, suppliers of liquid transportation fuels made from biomass would be accountable for the direct combustion emissions of the fuel they

sell, and this compliance burden would then be adjusted based on the net carbon flux into and out of the atmosphere associated with the use of biofuels they sold.

Our concern- is that California's cap-and-trade program would create an incentive to use biomass and biofuels whether or not they do in fact produce fewer emissions than the fossil fuels they would replace. The implicit subsidy such a program would create would effectively result in a form of emissions leakage from capped to uncapped energy sources and significantly erode the emission reductions that CARB intends the program to achieve. Since filing our initial comments on the PDR, increasing scientific understanding of emissions accounting shows more clearly that it is improper to assume all biomass emissions are carbon neutral.¹

Bioenergy can play an important role in meeting America's energy and climate needs under a robust policy and accounting framework that recognizes that not all biomass feed stocks are created equal. Some forms of bioenergy can reduce pollutant emissions when compared with fossil fuels and be a part of the solution to the climate crisis. Other forms will not. The net climate impacts of bioenergy vary greatly depending on the feedstock source, type, and production practices of the biomass, as well as other factors. For example, using waste biomass materials that will decompose rapidly in the absence of utilization, e.g., mill residue and logging debris, will create energy with little or no net climate impacts relative to not burning these materials. On the other hand, harvesting biomass from mature forests, where it would have otherwise remained stored for a significant time period, and then combusting this material to generate energy will reduce average carbon stocking on the landscape and produce a net increase in atmospheric GHG levels compared to not burning this biomass. The amount and composition of available biomass and the corresponding net emissions impact from its use for bioenergy vary greatly by region.

We urge CARB to seek input from a broad range of stakeholders and develop a program that allows for the accurate quantification of net carbon fluxes into and out of the atmosphere from the use of biofuels. Doing so will create an inherent incentive to utilize biomass with the lowest atmospheric impact, and an incentive for biofuel producers to provide information to demonstrate the emissions benefits of their products.

At the same time, it is inappropriate to only measure the GHG emissions at the smokestack and ignore landscape implications of biomass utilization. This option fails to account for the potentially lower emissions profile of some biomass sources compared to fossil fuels, while also ignoring the very real potential for higher total net emissions from biomass relative to fossil fuels depending on the source and production practices and time frame of analysis.

¹ Searchinger, T., Hamburg, S., Melillo, J., Chameides, W., Havlik, P., Kammen, D., Likens, G., Lubowski, R., Obersteiner, M., Oppenheimer, W., Robertson, G.P., Schlesinger, W., Tilman, G.D. 2009. Fixing a critical climate accounting error. *Science* 326: 527-528.

Several options exist to correctly account for the net emissions from biofuels and biomass production. One option would entail expanding the offsets system to reward bioenergy feedstock production activities that increase sequestration or reduce emissions on the landscape. Another option entails a system in which combustion emissions are accounted for and facilities are also credited for emission reductions occurring on the land based on documenting the specific sources and associated production practices of their feed stocks. The advantage of this approach would be that accounting would be tied to directly observable bioenergy production activities occurring at particular locations. The disadvantage is that the accounting precision gained through this approach in theory may not warrant the additional administrative burden and transaction cost of having to maintain a chain of custody.

In our comments this year to EPA in response to the call for information on this issue, we recommended counting combustion emissions and accounting for shifts in carbon stocks across a regional landscape. This would involve measuring changes in landscape carbon stocks on working lands (excluding lands not available to management though legal or practical considerations e.g. slope or very small parcel size) and utilization of waste materials at the regional level associated with bioenergy production compared with a business as usual baseline and adjusting smokestack emissions accordingly.

We recommended EPA consider this approach as one that is preferable to the other options, and when combined with the option for facilities to petition for adjustments based on finer-scale accounting, provides an accurate and low cost regulatory approach. The challenge is to design a system that balances the need for scientific integrity with the need to avoid undue transactions and reporting costs. California will have its own unique challenges to strike the appropriate balance on this issue.

To this end, ARB should begin work, including collaboration with EPA and other stakeholders and experts, to develop scientifically defensible quantitative assessments and reporting requirements by 2015 to evaluate the net carbon flux from the harvest and combustion of biomass-derived fuels. For some feed stocks that are very likely to result in negative or neutral carbon flux, (e.g., biofuels from waste products), CARB should consider easing the reporting and tracking requirements to allow landowners and biomass users to easily certify the source of their biofuel, thus streamlining the program and creating stronger incentives to utilize the best biomass available.

EDF also finds that such an approach should be applied to all forms of bioenergy (whether burning biomass to generate electricity or to create biofuels), thereby creating consistent application of scientific principles and market signals throughout the regulation with respect to biomass based emissions.

In line with our recommended approach, net **emissions from all bio-energy – as determined by methodologies that CARB should develop – should be included under the cap and generate compliance obligations.** EDF is in agreement with many

leading environmental organizations in recommending this treatment of transportation biofuels. (See joint letter on this matter from GWAC).

2.1.2 Include emissions from bioenergy in the cap starting in 2015.

Similar to biofuels, use of biomass to generate energy (electricity) can be a part of the solution to climate change, if done right. For the reasons mentioned above and in agreement with many environmental organizations, **EDF encourages the inclusion of biomass combustion to generate bioenergy in the cap starting in 2015.** (See joint letter in bioenergy emissions from GWAC dated December 7, 2010). This approach is consistent with the policy currently coming out of the US EPA that requires emissions from biomass combustion be included when making permitting decisions under the federal new source permitting processes.

In general, incorporating bioenergy into the California program will require an adjustment away from the current proposal to treat all biomass emissions as carbon-neutral without regard to the feedstock production situation. The program EDF and others in the environmental community support is based on the science of carbon flux into and out of the atmosphere during the production, cultivation and combustion of the biomass feedstock. Since changes in production methods have a direct impact on the overall carbon flux into the atmosphere, it is important that the program utilized by CARB takes that into account.

At the same time that we support the inclusion of carbon flux calculations into the rule, we also realize that CARB currently does not have the accounting and reporting framework in place to make that inclusion possible. As we mention above, we encourage CARB to develop an appropriate framework and to seek input from a broad array of stakeholders.

To lessen the overall carbon accounting burden associated with the inclusion of biomass, it could include a lighter accounting system for fuels with a very high likelihood of being carbon neutral or carbon negative (i.e. waste-based fuels) and a regional carbon stocking assessment framework for forest-based bioenergy production. For details on the use of a regional approach (and other approaches) to carbon emissions valuation from bioenergy, see our letter to US EPA ID No. EPA-HQ-OAR-2010-0560, attached as an appendix.

2.1.3 Do not exclude from the cap the fugitive and process emissions from sources identified in §95101(e) of the mandatory reporting rule.

According to the regulation at §95852(f), all fugitive and specified process emissions from facilities listed in §95101 of the mandatory reporting rule are exempt from the compliance obligations under the cap-and-trade rule. Under this provision, fugitive emissions from oil and gas systems would fall outside the regulation, though facilities would remain responsible for their other direct emissions (if over the threshold) and suppliers of gas and oil would remain responsible the emissions associated with the combustion of that gas and oil.

In 2008 and 2009, EDF participated with CARB in workgroups arranged by the Western Regional Air Partnership to develop an accounting protocol for emissions from oil and gas operations. Further, EDF has worked on the mandatory reporting rule for refineries as well as performed independent assessments of emission rates from oil and gas operations both inside and out of California. Through these and other efforts, it is apparent that emissions of methane (and other constituents of natural gas) are emitted in significant quantities in the oil and gas sector throughout California. Further, although well known methods are available to facility operators to reduce these emission rates, only a fraction of facilities are utilizing best practices to minimize fugitive emissions. By excluding these sources from the program, CARB is failing to encourage covered facilities to reduce fugitive emissions, and preventing the opportunity for large operators to take advantage of low-cost emissions reduction opportunities.

A cap-and-trade proposal to exclude these sources of emissions, regardless of emission rate, operation size or nature is not justified and is likely to miss important low cost emissions reduction opportunities in the oil and gas sector. Accounting for oil and gas emissions, including fugitive emissions from refineries, is perceived to be difficult because sources of emissions are disaggregated and robust monitoring requires significant effort. However, the mandatory reporting regulation has been developed and proposed to put into effect a fugitive emissions reporting program applicable to several sources in the oil and gas production sector. In addition, the new US EPA subpart W reporting rule follows a similar thread, requiring reporting of fugitive emissions from the sectors exempted under the California cap-and-trade program. Accordingly, EDF recommends CARB remove the blanket exemption for fugitive emissions from the oil and gas sector and develop a framework to hold operators of oil and gas extraction sites accountable.

With regard to the justification for the exemption in the ISOR document, (page IX-42), the reasoning given is that “entities whose aggregate emissions include fugitive emissions from the activities described will not count those emissions toward their total compliance obligation when reporting.” Such an explanation is not reasoning, but rather a re-description of the exemption itself. **EDF requests the agency provide a more detailed explanation of its reasoning for this exemption in the Final Statement of Reasons (FSOR)** to be published when the rule is presented as a final agency action to the Office of Administrative Law.

2.1.4 Refine rules governing access to the allowance reserve.

As noted above, EDF strongly supports the use of an allowance reserve to help manage allowance prices and provide a greater degree of certainty to regulated entities, while preserving the integrity of the cap. We have conducted modeling (summarized below) that finds that in the unlikely event that the allowance reserve is tapped, it will effectively limit allowance prices from rising above the specified threshold price.

However, EDF has a few specific suggestions regarding the design of the allowance reserve and the provisions governing how regulated entities may access the reserve.

The regulation at §95913(c)(1)(B) restricts access to the allowance reserve to regulated entities who have a zero balance in their holding accounts (i.e., no banked allowances). EDF strongly recommends changing this provision. Preventing firms with banked allowances from accessing the reserve is likely to have a number of perverse unintended consequences that will exacerbate the problem that the allowance reserve is designed to address.

Banking can help to dampen allowance price volatility. When allowance prices are unexpectedly high, individual entities can draw down their banks; in doing so, they will relieve current demand for allowances, helping to moderate the increase in market prices. Likewise, when allowance prices fall, entities may choose to buy them to build up their banks — again moderating the price fluctuation. In contrast, the proposed regulation will exacerbate price volatility, both by discouraging banking and by encouraging any firms that have maintained banks to sell those allowances *en masse* when prices are high in order to gain access to the reserve. (While such a sell-off might help bring prices down, it will do so in a much less controlled and much more volatile fashion than if banking were encouraged in the first place.)

More generally, the proposed approach will discourage firms from banking allowances, undermining the performance of the program on both economic and environmental grounds. From an economic perspective, banking will play an important role in allowing firms to do abatement when it makes the most economic sense, keeping overall costs down. From an environmental perspective, banking encourages regulated entities to reduce emissions more in the early years of the program, with corresponding benefits for the atmosphere.

EDF therefore recommends against requiring zero allowances in holding accounts before accessing the allowance reserve. Instead, there is a much better approach that can achieve the aim of the “no banking” provision — namely, to ensure that reserve allowances are used immediately to address short-term increases in prices — without the perverse side effects. First, reserve allowances should be valid only for the compliance period in which they are issued. Second regulated entities should be denied access to the reserve in any compliance period in which they increase the number of allowances in their holding accounts (i.e., add to their allowance bank). This approach will not only prevent a regulated entity from buying reserve allowances and banking them, but also from buying reserve allowances and effectively substituting them for regular allowances which it could then bank. As a further precaution against regulated entities effectively using the reserve to build up allowance banks, the regulation could deny access to the reserve to a regulated entity within 90 days of selling an allowance. Similar provisions were included in the American Power Act proposed by Senators John Kerry and Joe Lieberman.

As proposed, it appears that the allowance reserve will be accessible “three weeks after each quarterly allowance auction” (§95913(c)(3)(B), but may remain open in perpetuity. In the American Power Act proposal, the allowance reserve was “open” for only a three-month window prior to the end of each compliance period. Opening the allowance

reserve toward the end of the compliance period is a sensible means to constrain access to the reserve and thus to increase the likelihood that only firms needing allowances to meet their compliance obligations will purchase reserve allowances.

These recommendations are informed by EDF's own detailed economic modeling to simulate the performance of the proposed allowance reserve in the California cap and trade program (see EDF memo, Modeling the Effectiveness of a Strategic Allowance Reserve in a Cap and Trade Program in California, December 2010). Using data provided from CARB, EDF forecasted how well the allowance reserve will perform under various assumptions about the supply of offsets and the availability of abatement opportunities outside the cap, in a way that explicitly incorporates uncertainty about future allowance prices. In light of EDF's preliminary modeling results, we expect the reserve will perform the expected functions, but we highlight two major considerations that have important influence on our findings:

1. **Expectations about the Federal market after 2020** have significant influence on banking behavior and thus on the equilibrium allowance price in the California market during the period 2012-2020. If unlimited banking is allowed, and a Federal program comes on line after 2020, the allowance price in the AB32 market will be determined in part by the expected federal price. The strength of this effect depends on the stringency of the AB32 cap relative to the BAU baseline (taking into account offsets and complementary measures). The less abatement is required by AB32, the more the California price will be driven by the expected federal price. The importance of the federal price also means that assumptions about the design of a federal cap-and-trade system — for example, the trigger price for a federal allowance reserve — are key drivers of predicted outcomes in the AB32 market.
2. **The effectiveness of complementary policies** also plays a central role in the market price of allowances and in the performance of the reserve. The base-case assumptions provided by CARB include an estimate of reductions from complementary policies, such as energy efficiency measures, the renewable electricity standard, and the low-carbon fuel standard. These complementary policies (along with the projected supply of offsets) will likely be more than sufficient to achieve the reductions required by AB32. In this case, if the program is modeled without banking after 2020 (i.e., we consider the AB32 market from 2012-2020 as "self-contained"), the allowance price is likely to be set by the marginal cost of offsets. If post-2020 banking is allowed, the only economic reason for abatement (beyond offsets and complementary policies) prior to 2020 is to bank in anticipation of post-2020 price. In this case, the price distribution will be dominated by expectations of the future federal allowance price.

These initial findings suggest that the allowance reserve is unlikely to be a significant determinant of the equilibrium price in California, given the proposed trigger prices. In particular, we find that the probability of triggering the reserve, even with conservative assumptions about reductions from complementary policies, is roughly 15 to 20 percent.

2.2 Allowance Allocation

EDF broadly supports the proposed approach to allocation. As a general matter, EDF supports the emphasis on auctions as a preferred means to allocate allowances, while also recognizing the appropriateness of free allowance allocation to smooth the transition for regulated entities. In instances where regulated entities, such as electric utilities, are “obligated to serve” and need regulatory approval to change electricity rates, EDF supports the administrative allocation in conjunction with specific guidance ensuring that allowance value will be used to protect low-income electricity customers and to support the goals of AB32. Indeed, one of our recommendations below is to incorporate a similar focus on low-income consumers into the allocation of allowances to natural gas suppliers.

EDF supports the principle of output-based free allowance allocation to highly trade-exposed, energy intensive industries, in order to minimize emission leakage, eliminate any incentive for these industries to invest outside of California, to avoid competitive imbalances, and to help those industries make the transition to a low-carbon future. However, we have a number of concerns about provisions for specific industries, which are presented below.

2.2.1 Consider allowance allocation to natural gas suppliers in ways that protect low-income natural gas consumers.

The thoughtfulness that has and will go into the proposed allocation and ultimate use of allowance value for the utility and industrials sectors needs to be applied to the natural gas sector as well. The basic goal should be to avoid price spikes for low-income consumers through free allocation or impact mitigation (e.g., dividend). The guidance in the proposed rule does not make it clear that at least some of the value of allowances will be used to protect natural gas customers.

2.2.2 Revisit the allowance allocation scheme for industrial sectors.

Preventing leakage is an important policy objective, particularly given current economic conditions. However, the provisions in the regulation do not appear to be warranted by the available evidence on the likelihood of emissions leakage as a result of AB32, or the magnitude of allowance allocations necessary to ameliorate it.

Drawing on a review of the scholarly literature, the CARB-convened Economic and Allocation Advisory Committee (EAAC) concludes that “addressing leakage through free allocation would require a very small share of allowance value ” (pg 64)². Despite this finding, CARB proposes an allocation scheme that may use generous benchmarks and fail to phase out the free allocation over time for the vast majority of covered industrial emissions. Instead, CARB proposes using a constant assistance factor of 100 percent for significant portions of industrial emissions. Of particular concern, as we discuss in more detail below, is assistance given to cement and petroleum extraction and refining

² The EAAC report can be found at http://climatechange.ca.gov/eaac/documents/eaac_reports/2010-03-22_EAAC_Allocation_Report_Final.pdf (last visited Dec. 10, 2010)

that may comprise approximately eighty percent (80%) of the value of the industrial sector allowance allocation.

CARB has not provided adequate justification for the proposed allocation scheme. EDF appreciates CARB's commitment to basing allocation decisions on a data-driven, objective comparison of industrial sectors by energy intensity and trade balance, rather than a more subjective approach. However, the comparative metrics chosen by CARB are not sufficiently descriptive of leakage risk and the need for trade assistance, and CARB acknowledges the thresholds for categorization to "not be based on any theoretical or practical justification." (CARB ISOR, K-27) . **Regardless of the framework used however, EDF encourages CARB to explain their allocation assistance scheme reasoning more completely.** In particular, for reasons given below, EDF disagrees with the categorization of petroleum extraction and refining as a high leakage risk, so CARB needs to revisit the treatment of both petroleum sectors.

EDF also recommends that in determining the risk of leakage (and therefore the appropriate allowance allocation), CARB take into account the amount of existing excess capacity in particular industries. Existing facilities are likely to be sufficient to meet demand for the next several years, so in the cement industry output will not be met with new infrastructure investments, either within or outside California. Existing facilities will likely be sufficient to meet demand. As a result, new investment in cement production facilities will not be economic — with or without the introduction of a cap and trade program in California. In such circumstances the risk of emissions leakage is mitigated, since existing facilities are not mobile.

A secondary objective of the proposed free allocation is to assist industries in the transition to a lower-carbon, higher-efficiency economy. While EDF supports this rationale in principle, the specific approach in the proposed regulation raises concerns. For example, the cement industry has been described as "technologically mature," with "no foreseeable major technological shifts" and an infrastructure that is "more efficient and cleaner," so it is not clear what types of investments will be made as a consequence of significant allowance value allocation. In this respect, transition assistance needs to be clearly linked to opportunities for change and evolution. Allocation benchmarks should be based on best available technologies and practices.

The free allocation of allowances should reward facilities that are "best in class," rather than reinforcing the status quo. Accordingly, EDF recommends that allocation benchmarks for the industrial sector should be more ambitious, based on best available technologies and practices worldwide rather than reflecting the current performance of California operators.

2.2.3 Adaptively manage allowance allocation to address reduced leakage risk, windfall profits or lack of meaningful transitional investments.

Core to the proposed adaptive management approach will be systems to tighten the program as needed. On the basis of recently updated projections of "business as usual" emissions, it appears that the proposed emission targets may turn out to be less

ambitious than initially anticipated — raising the possibility of a sustained, persistent overabundance of emission allowances. However, the proposed approach appears to offer no dynamic, adaptive response in the event of sustained oversupply other than to stockpile unsold allowances in the allowance reserve. Moreover, CARB has no plan for an ongoing assessment of whether free allocation results in windfall profits to particular sectors. Similarly, there is no means to adjust free allocation to the industrial sector in the event of a strong regional, national or international emissions cap (or similar policy) that reduces or eliminates the risk of leakage.

These concerns are magnified by in the absence of any requirement that allowance recipients document how the value of allowances is invested in lower-emitting, higher-efficiency processes or low-carbon sustainable fuels. This information needs to be identified as part of the rule-making process, not in retrospect after allowances are dealt out. This is particularly relevant to the second phase of the program. By 2014, when the allocation decision for Phase II must be made public, industrial and utility recipients of allowance value will have had ample opportunity to report on their use of allowance value.

If such information is not currently known to be available, then the onus should be on the receiving regulated entities to explain how their free allowance allocation will be used to prevent leakage and to transition their firm to be more competitive..

2.2.4 Categorize the petroleum extraction and refining sectors as low leakage risk in Table 8-1 Industrial Assistance, Page A-76, §95870.

EDF supports an output-based performance benchmark as the basis for allocation to industrial sectors. EDF also agrees that the allocation equation should include adjustments for a declining cap and transition assistance for trade-exposed, energy intensive sectors. However, as currently proposed, the petroleum refining and extraction sectors are categorized inappropriately as high risk. In fact, these industries face very low leakage risk; statewide extraction and refining output does not change measurably with changes in worldwide energy prices. Extraction opportunities are place-based, and refining capacity in place already within the state is not likely to relocate.

2.2.5 Revisit the treatment of the cement sector

The regulation provides an inappropriately generous allowance allocation to the cement sector. The cement sector is given a unique, more generous cap adjustment factor; a 100% assistance factor that remains constant for the entire length of the program; and a performance benchmark based on 90% of the current industry average. The rationales presented (that process-related emissions are unavoidable, and that cement production needs to be incentivized as part of a strategic response to climate change) are not compelling, and fail to provide any rigorous public policy justification for the proposed approach.

EDF does not agree with arguments that process-related emissions are unavoidable. Even if the emissions intensity of clinker production is fixed, changes to building and

product specification standards to allow blending of SCM into clinker and cement have begun to emerge on a wider scale. Also, analyses by CARB and the Climate Action Team show that blending SCM into clinker has a great potential to reduce emissions. Therefore, EDF cannot agree that the industry has no ability to reduce process emissions since the trend is towards producing less overall clinker per ton of finished cement. With less overall clinker produced, less process emissions per the same unit of overall output will occur.

In addition, the substitution of other building materials for cement provides another means of lowering overall emissions. Even if process emissions are judged to be unavoidable given current technologies, it does not follow that cement should be favored over other building materials; rather, all materials should compete on a level playing field with accurate internalization of external costs, including greenhouse gas emissions. While EDF agrees that cement may be a desirable building material in some instances, there is no public interest in giving any particular material, including cement, more favorable treatment.

Under the proposed regulations, the cement industry may receive over a billion dollars worth of allowances with little requirement to demonstrate existing and sustained need, and with no plan by CARB for information gathering to evaluate the extent to which transition is occurring and leakage is prevented. Without such evaluation, the justification for continuing to freely administer allowances to the cement sector is lacking, and is not, on balance, any more persuasive than arguments that might be forwarded by many industries. **Accordingly, EDF recommends CARB revisit the cement sector allocation and require firms receiving allowances to demonstrate how the value of those allowances is being used to avoid leakage. EDF recommends that CARB revisit this portion of the ISOR and provide additional justification for the leakage assistance given while taking into account the emerging trend of allowing for increased use of SCM blending in finished cementitious products used in roads and buildings throughout California and the western United States.**

EDF agrees with CARB and participating stakeholder associations, such as the Coalition for Sustainable Cement Manufacturing & Environment, that cement is an intensely and inherently emissive product. This is not sufficient rationale, however, for multiplicative assistance factors in the calculation of allowance allocation. As proposed, the performance benchmark will be set near the current industry average, the assistance factor will remain unchanged at 100 percent, and the cap adjustment factor will be slower than that applied to all other sources in the program. The performance benchmark should be pinned to best available technologies, and the cap adjustment factor should be the same as applied to other industries. The persistent 100 percent assistance factor seems particularly inappropriate amidst claims by the industry that they are operated at state-of-the-art already. If that is the case, it is not at all clear how transition assistance will facilitate any transition.

In putting forth this strong position on the cement sector allowance allocation, we observe that there is need to incentivize blended cement products, and to spur a transition from conventional fossil fuel-based power. Cement production is California's top user of coal, and is the single largest emitter of mercury on a per BTU fired basis in the state. Inaction should not be rewarded through allocation entitlements. The threat of this unintended possible consequence of a free allowance allocation is also exacerbated by the short 9-year program horizon.

2.2.6 Set aside allowances to credit voluntary renewable energy projects.

EDF supports setting aside allowances for use in crediting voluntary renewable energy projects.

2.3 Community Benefits

CARB can design the rule to intensively engage historically disadvantaged communities in a prosperous fight against global warming. Some offsets programs, such as urban forestry, can deliver direct benefits to disadvantaged communities, whereas others must be carefully scrutinized to avoid direct and indirect adverse impacts.

2.3.1 Carve out allowances from the cap for a community benefits fund.

At a minimum, CARB should definitively establish a community benefits fund (CBF) and give stakeholders greater confidence that a CBF will be funded sufficiently with revenue from the sale of allowances. EDF joins with our colleagues in GWAC in encouraging the setting aside of allowance value for the CBF.

2.3.2 Carve out allowances from the cap to credit verified third-party reductions achieved in disadvantaged communities.

While the AB 32 Scoping Plan notes the important roles to be played by all communities of California, the current proposal has only weak links between the cap-and-trade program and the communities that are currently at risk from a variety of environmental health risks, and that also face the greatest risks of climate change. These same communities are poised to be a part of the solution, and that solution may include a variety of measures including household and commercial building energy efficiency investments, regional transportation and land use planning, agricultural conservation strategies, and urban forestry. Some system for incentivizing reductions from third party community benefits organizations, land managers and municipalities should be built into the program to leverage the important opportunity to engage and reward investments that benefit California's disadvantaged communities.

EDF continues to support the idea of setting aside allowances to credit actions by third parties that demonstrate verified emissions reductions. While CARB has not included such a program in the proposal, doing so at this stage would require little more than a willingness to consider a community-based emissions reductions protocol. CARB need only embrace protocol development for community-based, within-capped-sector reductions achieved by third parties, and set aside allowances to credit such reductions

once they are verified. Because these credits would be given for emissions reductions that are achieved in capped sectors, we emphasize that such a program must be funded by allowances taken from under the cap, rather than using allowances that are “on top of” the cap.

2.3.3 Encourage the development of verification methodology for crediting third-party emissions reductions achieved within capped sectors.

As a concrete step going forward, CARB should encourage the development of a methodology to verify third-party emissions reductions achieved within capped sectors. EDF also recommends that CARB include placeholder language, perhaps creating §95998 (Reserved for Third-Party Crediting of Capped Sector Reductions) or a program to credit third party reductions once they are verified.

2.3.4 Clearly link industrial and utility sector free allowance allocations to benefits in disadvantaged communities.

In addition to a CBF and allowance set aside for third-party, community benefits organizations that achieve reductions within capped sectors, the cap-and-trade program should have a more direct linkage between specific industrial and utility sector allowance allocations to specific actions that benefit historically disadvantaged communities and low-income ratepayers. Concurrently, CARB should err on the side of under allocation when doling emissions allowances to major sources in disadvantaged and historically impacted communities. There are important priorities that can be funded, at least in part, without first funneling allowance value through regulated entities. The conceptual adaptive management regime can be quite effective in this regard as systems must be in place to detect for windfall profits and then to adjust free allocation accordingly.

2.4 Offsets

EDF has consistently provided comments to CARB expressing our views on the need to ensure that an adequate supply of high quality credits are available for use within the California program. We have joined with entities that will be part of the AB 32 cap-and-trade program in highlighting the benefits of high quality offsets (see August 4, 2009 letter signed jointly by EDF, The Nature Conservancy, PG&E and BP). Prior comments we filed on the PDR discussed the need to develop a process for certifying offset protocols and projects that meet specified criteria as well as cautioned against using arbitrary limits to temper the amount of available offsets.

We have also submitted joint comments with Conservation International on the structure of REDD and other sector-based offset crediting. We strongly commend CARB for pioneering efforts to build the foundations of a sectoral crediting program, including REDD, as part of California’s cap-and-trade system. We also commend CARB for including the potential of a nested architecture through which projects and other sub-state/province activities can be credited within an accounting system at the state or province level. The sector-based offsets program established by CARB will be crucial

to contain costs and provide environmental and social benefits under California's climate program. More broadly, this program is critical in creating a roadmap for how REDD and other sector-based programs can work within compliance markets for emissions reductions. We encourage CARB to maximize opportunities for these credits with California's compliance market.

The offsets program proposed by CARB provides the initial stepping stones, providing pathway certainty and a clear plan for treatment by CARB and others. There is more to be done. For example, the development of REDD protocols must provide social and environmental safeguards to the greatest degree possible, and the development of agricultural crediting under the program must be leverage the considerable work already underway in the field and performed under voluntary actions. These types of credits, REDD and agriculture are important for solving climate change, improving the biosphere, and providing opportunities for investment in rural areas of utmost importance.

2.4.1 Consider increasing the allowable amount of sector-based offsets, clarify the bankability of offsets, and ensure REDD programs are not excluded from consideration under the full allowance trading criteria.

EDF has estimated that the number of sector-based offsets allowed for compliance will rise from 3.6 million metric tons (MMT) in 2012 to 14.5 MMT in 2020, with about 80.1 MMT cumulatively over the nine-year period, 2012-2020. Relative to the potential supply, these are low limits will unnecessarily constrain the emissions reductions that can be achieved in these sectors by discourage supplying regions from participating, so it may be prudent to consider raising the quantitative limit on sector-based offsets.

EDF believes that the constraints on sector-based crediting should be according to quality rather than quantity criteria. Rigorous quality standards should ensure the integrity of the environmental goal while providing regulated entities with as much flexibility as possible in terms of how those entities can achieve that goal. This approach will allow market incentives to determine where and when emission reductions occur. Such flexibility, including the ability to bank credits generated in one compliance period for use in future compliance periods, is important to contain costs. The limited size of California's market makes it even more critical not to impose further quantitative constraints so as to ensure a robust demand for REDD and other sector-based credits.

Apart from the quantitative limit, it is paramount to ensure that the sector-based offset credits are bankable. This would provide essential efficiency and cost containment benefits as well as potentially strengthen near-term demand for REDD and other sector-based credits in anticipation of greater demand in the future. This is likely the intent of the proposal, but the section on banking (§95922) says only that allowances from California or other external cap-and-trade programs are bankable. It also says that other "California compliance instruments" do not expire until surrendered or retired. However, it is important to make sure that the sector-based credits from REDD are defined as "California compliance instruments" since Subarticle 4 on compliance

instruments distinguishes between "compliance instruments issued by the ARB" and "compliance instruments issued by approved programs." There is no explicit definition of "California compliance instruments."

In addition, there are no valid scientific justifications for discriminating among ETS programs based on the source of emissions as long as the overall program meets the environmental integrity standards and other linkage criteria for an ETS established by CARB. We commend CARB for its path breaking leadership on REDD and for specifically highlighting REDD as the preeminent example of a valid sector-based crediting program. It would also be helpful if CARB also ensured that programs focused on emissions stemming from deforestation and/or other forestry and land-use activities, in cases where these sectors are the bulk of total emissions, are not limited to be considered as sector-based offsets but could also potentially qualify to enter the California market as allowances from a GHG ETS specified under §95942(b) issued by a program approved under §95941 and not subject to the quantitative usage limit. This would further encourage the development of a robust system of emissions trading that reduces emissions comprehensively and cost-effectively.

2.4.2 Clarify the offset protocol review process

EDF supports the programmatic approach CARB has adopted for offsets incorporation into the regulation, including the mechanism and criteria for allowing new protocols into the program and the quantitative limits for offsets. In our view, the credits developed and certified by the Climate Action Reserve under the four protocols slated for adoption, as well as credits certified under protocols meeting the pre-established criteria identified in the proposed rule, will represent real reductions of greenhouse gases and provide a critical cost containment mechanism for California. It is also a means to prosperously engage non-capped sectors in the pursuit of AB 32 goals.

Although EDF supports the approach CARB has designed to get high quality offset credits into the California program, more work is needed because a significant lack of clarity remains over the details concerning how CARB will actually certify additional offset protocols and registries.

The proposed process for protocol and project developers to get emissions reductions credited remains opaque. While the requirements and expectation on emissions reductions projects with regard to additionality, project baseline calculation, leakage accounting, uncertainty accounting, permanence, crediting periods, and verification are reasonably clear, **the mechanism and timing for agency consideration of submitted protocols and data transfer provisions are not sufficiently clear.** Since submission and agency consideration of additional protocols is critical to ensure a sufficient quantity of certified offset tons is available within the program, CARB should strive to address and clarify outstanding questions in this area. **Therefore, EDF recommends CARB develop additional, stand alone, guidance documents that clearly spell out the process that interested entities should use to submit completed protocols for consideration in the program.** These guidance documents will, of course, reference and follow the important provisions in the rule, but will assist the overall offset approval

process by ensuring better uniformity of submissions and document quality. Additionally, once developed, EDF recommends CARB actively outreach to interested stakeholders with the guidance documents through open forums and public dialogue to ensure lingering questions are resolved prior to submission of project protocol applications.

2.4.3 Environmentally sound agricultural offset opportunities should be maximized.

In addition to developing projects that result in reduced greenhouse gas emissions, the CARB offset process represents an opportunity for the agriculture sector to meaningfully participate in the California program. When projects are developed in this sector, often times improvements to local biologic resources occur and local land owners are able to capitalize on financial incentives which otherwise are unavailable. For this reason, **EDF encourages CARB to pay special attention to make sure agricultural sector stakeholders are involved and opportunities to reduce emissions in this sector are maximized**, subject to the robust criteria established by CARB. As part of this effort by CARB, current work in the field by non-regulatory entities ought to be encouraged and utilized by CARB.

2.4.4 Improve the adopted protocols and reporting requirements.

EDF respectfully requests the board consider making the following changes and clarifications to the protocol and offset framework:

Forest Buffer Accounts – EDF recommends CARB consider **expanding the use of the buffer pool mechanism to include all agricultural and terrestrial sequestration projects**, as well as other offset types. Although forest project have a specific risk of reversal by way of forest fires or changes in management, terrestrially sequestered carbon associated with agriculture and other potential offset types retain several of the same risks for carbon reversal.

Data Confidentiality – Although the four proposed offset protocols and mandatory reporting regulations identify the types of data necessary to confirm and then verify greenhouse gas emissions reductions, these protocols do not address the confidentiality of that data in significant detail. Typical data retention and confidentiality provisions tend to protect confidential business information from public disclosure in order to protect the interest of the company involved. For offsets, similar issues are implicated, though at a much smaller and disaggregated level. Emissions offsets are new to California, participants operate on a voluntary basis, and reporting of agricultural practices is new to CARB. Accordingly, **EDF recommends the agency develop, as soon as possible, a clear confidentiality framework specific to agriculture projects and operations and with input from offset project developers.**

Accounting for uncertainty – In §95977, starting at page A-137, CARB discusses the need for offset project protocols to account for uncertainty. Without more explanation, this provision seems to potentially preclude, at the outset, any project where further scientific developments in emissions accounting are necessary. This could potentially

stifle valuable emissions reduction projects by making the perfect the enemy of the good. In response, **EDF recommends CARB evaluate conservative crediting of emissions** reductions and consideration of uncertainty in the aggregate across a pool of individual projects **to account for uncertainty, thereby allowing for expansion of scientific knowledge during the lifetime of specified emissions reduction projects without disqualifying that project from the start.** We also encourage CARB to allow for continuous updates to protocols as scientific information and experience with these issues evolves, while not retroactively changing the rules on projects approved in the past.

2.4.5 Enforcement process is strong but needs clarification

In EDF's PDR comments, we noted the need for CARB to design the system so that it was more attractive for emitters to comply than not to comply, while ensuring that the entire system maintains the environmental integrity of the cap. We requested that any non-complying source be required to submit missing compliance instruments in addition to an automatic penalty. In total, this submission would include four times the amount of compliance instruments for everyone not initially presented by the regulated entity (i.e. the "excess emissions"). We also indicated the need for special penalties for willful or bad faith non-compliance.

We are pleased that many of the compliance mechanisms included in the proposed regulation reflect these comments – adopting these regulations, with some minor clarifications, will maintain the integrity of the cap. The proposed regulation includes a penalty of four times the excess emissions, of which CARB will retire a portion equal to the source's excess emissions. However, **to increase the impetus for timely and complete compliance, EDF encourages CARB to make the entire untimely surrender obligation be immediately due upon failure to meet the compliance deadline.** Although this may be the intent of the rule as written, the phrasing of §95857(c)(1), is not clear as to what amount is "immediately due." Is it the entire untimely surrender obligation or just the portion that represents the excess emissions? Accordingly, §95857(c)(1) should be amended to clarify that it refers to the untimely surrender obligation and refers to the entirety of the amount.

EDF fully supports the proposed incorporation of additional penalties for entities that do not meet their untimely surrender obligation within 30 days, as outlined in Subarticle 15. This subarticle provides for additional monetary penalties and injunctions. Critically, it designates a separate violation for each compliance instrument and each day the entity fails to meet its compliance obligation – this provides strong incentive for timely compliance.

2.4.6 Use enforcement to ensure that offsets maintain cap integrity

The proposed regulations seek to address the unique questions raised by offsets, but need to be further developed to avoid creating gaps in enforcement. Under the proposed regulation, the failure to submit sufficient offsets (in addition to allowances) to meet an entity's compliance obligation would be enforced according to the rules discussed above. Beyond this type of enforcement, however, CARB should clarify what

it will do when 1) offsets that are found to be inappropriate or are reversed and 2) verifiers fail to perform their jobs as required.

Of course, CARB must take the necessary steps to develop a comprehensive monitoring and enforcement program for offsets to ensure that emissions do not exceed the cap. In this vein, the proposed regulations requires that offsets that are reversed be replaced within 30 days, before further enforcement actions are taken. Replacement plays a valuable role against offset reversal impacting the ability to stay under the cap, but it is the last step – the first step is a strong system for offset verification.

The proposed regulations set up a system where third party verifiers are responsible for ensuring that offsets meet CARB standards. Presumably, this system was created because CARB does not have the resources to verify all potential offset projects. However, this is only a beneficial division of labor if the third party verifiers are first certified using rigorous standards set by CARB. In order to ensure that the verifiers meet these standards, the program needs to provide for CARB to regularly conduct disinterested audits of offsets, offset registries, and verifiers, and to decertify as necessary. Requiring an independent reviewer pursuant to §95977(e) – who may be an employee of the verifier – does not meet this purpose. As written, it is uncertain whether CARB has clearly set up a process that minimizes this potential conflict of interest, and should therefore be clarified.

While the proposed regulations would allow CARB to audit a verifying body in regards to submission of an Offset Project Data Report, the regularity, scope, and consequences of an audit is unclear. Accordingly, **EDF recommends CARB set up a process as rigorous as the one required for the offset project registries in §95987 to avoid attracting lower quality offsets and verifiers with conflicts of interest. Ultimately, CARB should make explicit that verifiers and registries that act in bad faith or repeatedly have Qualified Offset Verification Statements reversed should be subject to decertification for good cause as authorized to the Executive Officer under section 95132(d).** There also should be a means for third parties to challenge verifiers' certifications.

In addition, to ensure its ability to regulate the offset market, **CARB should make clear that it will deny requests for offset credits that fail to meet these criteria and will invalidate any previously issued credits that are discovered to not meet these criteria.** Section 95981(d) sets up this standard for offsets that are routed through an offset registry, but needs to clearly state (rather than just imply) that CARB will not accept offsets that do not meet project criteria. Critically, no similar process is set up for offsets that are approved directly by CARB – the regulation needs to be clear that these will not be accepted for compliance if they do not meet the criteria. Finally, the regulations need to state that offsets are not automatically certified simply because CARB fails to issue approvals within its deadlines, including those in §98951.

2.4.7 Use insurance mechanisms to ensure that offsets cannot threaten the integrity of the cap.

In EDF's comments on the PDR, we suggested that CARB set up a built-in insurance program designed to create a buffer in the event that the offsets are reversed. We noted that one way to do this is to require buyers to surrender additional offsets credits for offsets that are later found to fall short of standards. These credits can be secured through buffer-pools that CARB requires be connected to various offsets types (i.e., terrestrial sequestration projects), CARB-issued emissions allowances, third party insurance, or other insurance mechanisms. As CARB establishes these buffer systems, it must be very careful to avoid creating a system that encourages moral hazard on the part of offset credit developers, auditors, or compliance entities.

CARB is following a version of this approach, but only for forestry projects (see §95983-§95985). As we state above, forestry offsets are not the only offsets that face the risk of reversal. Moreover, this approach may have the effect of making forest sequestration projects less attractive to potential offset buyers, when they offer important ecological and community benefits. CARB should have the same requirements for the use of this type of backup account and/or other insurance mechanisms for all offsets, even if it requires replacement as a first resort. CARB may also consider not requiring replacement first for offsets that it certifies without the use of a registry, to support the use of its offset program.

2.5 Transparency

2.5.1 Provide transparency about allowance trading and compliance obligations to enable the public to police the program.

Transparent, open, and central exchanges are the key elements of price discovery in a well-functioning market. In EDF comments on the PDR, EDF suggested that the regulatory framework used for oversight must recognize that carbon markets contain attributes that make them unique from other types of markets, including the overall purpose of furthering the public good by activating low cost reductions opportunities. Core to the idea of furthering the public good is a program that is sufficiently transparent to be overseen by the public. Furthermore, **CARB should require that all trades (with the possible exception of offset initiation contracts or the first sale of an offset contract) be cleared by federally regulated clearing organizations.**

2.5.2 Fully disclose firm-level information used to administratively allocate allowances to regulated entities.

Toward these transparency goals, EDF recommends that reports of emissions and trading activities be made publicly available so that public advocates can police the program by verifying compliance of the facilities. Similarly, the calculation of allowance allocations to regulated entities in the industrial and utility sectors should be made transparent and publicly available in a manner and format that is readily accessible. This would include making the data available for download via the internet in commonly used file formats. This transparency should include the values used for output based

performance benchmarks, and output and energy use reported from entities receiving allowances. Much of this information will be readily available as part of Mandatory Reporting.

2.6 Mandatory Reporting

During the development of the cap-and-trade regulation CARB staff worked to make necessary modifications to the mandatory reporting rule to both conform to EPA reporting requirements and to prepare for the implementation of the cap-and-trade program. Among the modifications made were harmonization of industry specific reporting requirements, addition of missing data procedures, additional conflict of interest provisions, and changes to report submission deadlines. Further, CARB added significant provisions related to the reporting of fugitive emissions from onshore and offshore oil and gas operations.

In general EDF finds that CARB's modification to the reporting rule was accurate and necessary to achieve the desired results. However, EDF respectfully requests that where output based benchmarking is used to determine the allowance distribution for specific facilities, such initial information be made public through the mandatory reporting process. This would enable the public to understand how emissions budgets are calculated and the basis for allocation allotments to specific sectors.

2.7 Documents included by Reference

- EDF memo, Modeling the Effectiveness of a Strategic Allowance Reserve in a Cap and Trade Program in California, December 2010
- EDF comments on preliminary draft rule (PDR) comments, Jan. 11, 2010
- EDF comments on allowance price management, July 13, 2010
- EDF & Conservation International letter on REDD, Aug. 20, 2010
- EDF, TNC, BP and PG&E letter on offsets benefits, Aug. 4, 2009
- Global Warming Action Coalition letters on program design, transportation biofuels, bioenergy, public health, voluntary renewable set aside allowances, forestry protocols, and mitigation funding.

2.8 Documents included as Appendix

- A: EDF comments to US EPA Docket ID No. EPA-HQ-OAR-2010-0560