CLIMATE PROTECTION CAMPAIGN
Big vision, bold action

BIG VISION, BOLD ACTION

The mission of the Climate Protection Campaign is to create a positive future for our children and all life by inspiring action in response to the climate crisis. We advance practical, science-based solutions for significant greenhouse gas reductions.

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November 28, 2007

To: California Air Resources Board (CARB)

Re: Comments on the AB32 Scoping Plan

Please accept the following comments on the draft workplan on behalf of the Climate Protection Campaign. The Climate Protection Campaign is based in Sonoma County, California. Since 2001, we have worked with 10 cities and local jurisdictions, as well as schools, businesses, and other stakeholders to quantify and reduce our community's greenhouse gas emissions. Our county has set an ambitious community wide greenhouse gas emission reduction target- 25% below 1990 levels by 2015. We are making progress towards this goal. We are proud of our accomplishments, which include:

- All nine cities and County committed to reducing GHG emissions.
- All measure emissions from their internal municipal operations.
- All set targets for reducing emissions from internal municipal operations.
- All set targets for community wide emissions reduction.
- All nine Sonoma County mayors signed on to the U.S. Mayors Climate Protection Agreement.

In addition to our local efforts, we have been working at the regional level. In 2004, we consulted for the Bay Area Air Quality Management District to help create their new Climate Protection Program. At the State level, we have submitted comments to the California Climate Action Team and the AB32 Market Advisory Committee (MAC). These comments are based on some of the comments submitted to the MAC.

Market mechanisms are only one section of the Scoping Plan. They should not replace the other sections. There are many important design elements in a cap and trade system. A poorly designed system can have terrible consequences. A well-designed system can produce the right incentives to reduce GHGs throughout the economy.

We will be submitting a pdf file in a handout format to complement these comments.

The Climate Protection Campaign's comments to the MAC advocated for:

1) **An upstream system**
2) **100% auction of permits**
3) **Compensating consumers on a per capita basis**
4) **A price floor on allowances (which could be accomplished through a carbon fee)**

Principles for an environmentally just carbon market

We believe the following principles are useful in developing a fair and equitable carbon market in California.

• The atmosphere is a gift to all of us. If the atmosphere has economic value, that value belongs to everyone.

Who owns the sky? Either no one does, or we all do, equally. Fossil fuel companies may use the sky, but we all own it together. It's a Commons. The equitable ownership of the commons should be a central theme in the design of a cap and trade system.

• The fossil fuel industry and other large emitters should pay to use the atmosphere.

If the sky belongs to us all, but its use becomes limited, then companies who use the sky should compensate citizens (all of us) for its use. As long as pollution is free and has no price, companies may externalize those costs onto society. In many areas of environmental policy, fees on companies are used to raise funds to pay for clean-up and also made less-polluting alternative technologies more cost-effective.

An upstream system

The point of regulation should be upstream: The most comprehensive and easiest to administer point of regulation would be upstream. An upstream system would require only upstream companies to hold permits. They would be the buyers at the permit auction. An upstream system is the most comprehensive, and requires the least amount of administration from CARB. CARB estimated that there are only 150 upstream companies (and the original estimate was 50), versus over 450 downstream facilities. Although some people believe a system must focus on facilities, an upstream system would also encompass transportation fuels. The point of regulation for transportation fuels could be at the Terminal Rack.

Reasons for phased-in downstream system	**Reasons against phased-in downstream system and for upstream all-at-once system**
-- the ability to begin the program in the very near future with implementation of the first step	WCI and states would be faced with multiple rule-making processes.
-- the flexibility associated with a more gradual expansion of the cap-and-trade program's scope	Flexibility? Or moving target?
-- greater prior experience with the downstream regulatory approach—experience that reduces risk and can help lower administrative costs	Would this make up for the fact that you have to regulate far more facilities (in CA estimated 490 facilities downstream instead of just 50 with an upstream system)?

-- the fact that downstream entities—the entities that may have the most options for reducing emissions—are the ones required to submit allowances for compliance	An upstream system would provide a price signal to those facilities. Point of compliance does not need to be the point of allocation.
-- a larger number of regulated entities, which may promote greater liquidity in the allowance market	Our goal is to reduce emissions, not to provide more liquidity to the market. There are many ways to provide liquidity, including linkage with other upstream systems.
-- no need for special provisions to reward facilities that engage in carbon capture and sequestration.	This needs more explanation.

Load-based versus First-seller

An upstream system would simplify the following questions. You would not need to choose between load-based and first-seller if you regulated upstream. If you do not regulate furthest upstream in the electricity sector, then there are choices regarding load-based, source-based, and first-seller.

A national system for the electricity sector will most likely be a source-based or generator-based system. Some California-centric analysts and some advocacy groups in Oregon prefer the load-based approach. The California Public Utilities Commission chose load-based over a year ago because it was the regulatory lever available to them, and under a price-regulated system, the "windfall profits" problem could be avoided. However, a recent report by Dallas Burtraw of Resources for the Future shows that a load-based system would not conform to a future national cap and trade system, and California's ISO is planning a day-ahead market which will counteract load-based transparency. There would need to be a separate paper trail following load-based entities to the generators supplying the cleaner energy, and this looks difficult to implement an enforce if the ISO is not directly involved. Even if the ISO were involved, this paper trail may undermine the market efficiency which is the reason to have the day-ahead market in the first place.

The first-seller approach looks to be a slightly better choice than the load-based option for California. It can be converted to a national source based system at a later date. The main problems are that California may have to give up some authority to FERC, and there are unresolved Commerce Clause concerns.

Regarding a Western States regional system, perhaps allocations would be given to the States to auction, and revenues would be recycled to consumers at the state level through the State Income Tax system. This would be simpler than creating a regional revenues stream with awkward politics.

If there is a regional cap, it is important not to penalize California for making further reductions than the regional cap. In other words, if California makes steep reductions, then another state in the WCI should not be allowed to generate more emissions. This could be accomplished by allowing the state or actors within the state to withhold or retire allowances.

It is best to include transportation at the beginning. It will be harder to include it later, and the design of the system should assume from the beginning that transportation will be included.

100% auction of permits

100% auction is the easiest allocation method to administer, and when coupled with consumer compensation is the method most likely to accomplish the goals of AB32 with the fairest outcomes.

Previous cap and trade programs such as the South Coast Air District's RECLAIM program, and the European Emissions Trading System (ETS) gave away emission allowances for free to historic emitters. This rewarded historic emitters with windfall profits, provided few emission reductions, and raised prices for consumers. Some observers believe it was a problem of "giving away too many allowances," but this occurred because of the method of allocation. Under an auction system, there is no reason for purchasers to buy more allowances than they need. Purchasers will have an incentive to conduct emission inventories. Under an auction, it will be less likely that too many permits will be allocated, and less likely that the allowance price will collapse.

Here is a chart showing how we believe an auction versus a giveaway fulfills the MAC criteria:

Principles for Allowance Distribution	**Auction**	**Giveaway**
• reduces the cost of the program to consumers, especially low-income consumers	Yes	No
• avoids windfall profits where such profits could occur	Yes	Needs safeguards
• promotes investment in low-GHG technologies and fuels (including energy efficiency)	Yes	Yes
• advances the state's broader environmental goals by ensuring that environmental benefits accrue to overburdened communities	Yes	Needs safeguards
• mitigates economic dislocation caused by competition from firms in uncapped jurisdictions	Raises revenues to do this	Unclear
• avoids perverse incentives that discourage or penalize investments in low-GHG technologies and fuels (including energy efficiency)	Yes	Assumes windfall profits would be invested, not just returned to shareholders
• provides transition assistance to displaced workers	Raises revenues to do this	No
• helps to ensure market liquidity	Unclear	Yes, (through overallocation and at the expense of emission reductions which is the purpose of the program).

Note: The windfall profits problem that occurs in unregulated electricity markets (such as the ETS) may be less likely to occur in rate-regulated electricity markets. However, there are other reasons to auction, including simplifying early action rewards, incentivizing reductions beyond the cap, and providing a truer price signal. And there are ways to minimize the harm to ratepayers by returning auction revenues back to consumers.

100% auction automatically rewards early action. Companies that have reduced emissions would need fewer permits. In an upstream auctioned system, the price signal automatically rewards downstream companies that have reduced their need for fuel and electricity. It is the fairest and least discriminatory approach.

Offsets should be limited as a percent of the program, and also limited by geography to prevent "hot spots."

Offsets can allow reductions in sectors not covered by the cap to have a market value. Additionality has been problematic in current offset programs. Also, forward accounting is problematic (counting 20 years of reductions in advance all at once), and the forestry sector may have issues. Scientists predict increased wildfire in the West, and all those carbon offsets could go up in smoke.

California's Market Advisory Committee suggested that **performance standards for offsets** are necessary. One offset category in the Agriculture sector could be biodigesters at dairies. The Straus Family Creamery in Marin County, CA has a biodigester which is an example of a project that reduces greenhouse gas emissions from cows, provides renewable energy, and can provide an additional revenue source for the dairy industry. We do not feel that CDM credits are acceptable for California or the WCI. The CDM lacks the necessary accountability, and there are horror stories about Chinese factories selling millions of dollars of CDM credits and using proceeds to fund coal fires power plants. **Offsets should be limited.**

A price floor is a very important design element. However a price cap or safety valve could undermine the environmental integrity of the cap.

Forward auctioning could reduce some price volatility problems, and provide increased assurance to companies making investments. Resources for the Future recommends auctioning allowances up to 4 years ahead.

Obviously the fees for noncompliance must be substantially higher than the allowance price. Fees could go to a separate fund, not to the general fund, and be used for specific purposes.

100% auctioning would facilitate linkage because the market would not be skewed towards politically powerful entities within each system. It would allow a more level playing field for linkage.

If revenues raised in an auction are returned to consumers on a per capita basis, this is scalable can be adopted by the ETS, other states, and others. If, instead, environmental justice goals are focused on compensating certain communities with set-asides (for example, 15% of revenues from an auction set aside for certain communities), this directly accomplishes the goal, but it may be a politicized and contentious process. Other states may have different outcomes depending on their demographics and political clout of disadvantaged communities. Nationally, there will be a patchwork of different policies and set-asides. When different groups achieve more political power, they may seek to change or dismantle the system. A per capita dividend, rebate, or share is a simpler and more transferable approach.

Regarding a hybrid of free allocation and auction

Throughout these comments, we advocate for 100% auction. If the ARB chose to "compromise" and give away some allowances, it opens a can of worms. Every interest group will claim it

deserves free allowances as well. The allowances are like money, and everyone has a reason why they need it. Every allowance that is given away reduces the amount available for public trust investment or consumer rebates. A giveaway, even of 1% of allowances, necessitates the creation of a set of bureaucratic procedures, which will be phased out as the auction takes over. A better approach is to provide some lead time, and jump to 100% auction. The lead time could also consist of a forward market, which provides time for market players to anticipate costs and make changes before the system starts. When it starts, 100% auction will be anticipated, and all market players will be on a level-playing field, especially if it is an upstream system.

Compensating consumers on a per capita basis

Creating a cap and trade system which protects consumers, especially low-income consumers, is the most important criterion for allowance allocation. Regarding reducing costs to consumers, a rise in fuel prices has a regressive impact, since low-income households spend a greater portion of their income on necessities like fuel. But the amount they spend is typically lower than high-income households.

We propose methods to reduce the regressivity of fuel and electricity price increases, including a per capita rebate, dividend, or share that provides a net gain to lower-emission households in comparison with high-emission households who spend more on fuel than they receive in compensation. Low-income households who typically use less fossil fuel would benefit. Per capita dividends or shares would also reward low-emission households of all incomes. A person with a high emission lifestyle would end up spending more on fuel during the year than the dividend he received. By contrast, a low-emitting person would finish the year with a net income from the dividend.

The revenues from the permit auction would be used for 1) public goods and 2) compensating consumers. Examples of public goods are: energy efficiency, public transit and R&D for clean technologies. A portion of auction revenues could be set aside for per capita consumer compensation, giving consumers a choice of cash dividend, tax rebate, or a share that could be sold to companies via banks and brokerages. Since fuel and electricity prices may increase under a GHG cap, consumers must be protected. Compensation may provide popular political support for further emission reductions, and if done on a per capita basis, would address disproportionate impacts and environmental justice concerns.

Consumer compensation is a specific way to address environmental justice concerns, if it is done on a per capita basis. The reasons for consumer compensation are: it is based on the equitable ownership of the commons; it protects citizens from higher energy prices; it sustains consumer purchasing power, without which all California businesses and households will suffer; and most importantly, it will create and help maintain political support for a carbon cap over time. The per capita aspect addresses disproportionate impacts to low-income households (who typically use less fossil fuel), and provides a net gain to lower-emission households in comparison with high-emission households who spend more on fuel than they receive in compensation.

Four methods of consumer compensation are: 1) using revenues from an auction of allowances for a cash dividend to consumers (the Sky Trust model similar to the Alaska Permanent Fund), 2) a tax break (such as the Earned Income Tax Credit), 3) an earmarked credit (such as a coupon for Energy Star appliances, transit passes, or hybrid cars), or 4) distributing a share to consumers representing the emissions (which could be sold to regulated companies in a private market) . Each of those options has benefits. We encourage CARB to commission a study on these

options. They are not mutually exclusive, and may be used in various combinations, but additional study is needed.

Additional design elements of a Cap and Auction system include: 1) a price floor but NOT a price ceiling; and 2) a limited role of offsets but NOT unlimited, unregulated, out-of-state offsets.

Many environmental advocates believe the funds should be used exclusively for public goods such as low-carbon technology research and development, public transit, weatherization, or energy efficiency. Many states already have public goods charges for energy efficiency. There are many subsidies for renewable energy, including tax breaks and rebates.

There is a special reasoning for creating a new universal dividend program with the auction funds, first described in Peter Barnes' book *Who Owns the Sky?* The two central concepts are the equitable ownership of the commons, and the polluter pays principle. When society creates a cap, they give the permits value. The rents from the sale of permits is owned by society as a whole, and the only fair distribution is per capita. This concept will be expanded internationally through a concept called Contraction and Convergence, where the 1st world contracts and the 3rd world converges toward per capita equity in GHG emissions. A per capita justice perspective is the only framework that will work for a long term international climate treaty that we need to last 50 years or even centuries.

Some environmental advocates ask why should "rich" people also get rebates or dividends. The argument is that they are rich and don't need $500. If you give them $500, they will spend it on airfare or something that requires additional fossil fuel consumption. These advocates believe that if there are to be rebates, they should go exclusively to low-income people, or the rebates that do go to middle and upper class people should be "earmarked" to be used only on Energy Star appliances, transit passes, or solar energy systems. There are two reasons why we disagree with this argument. First, the universality of the program makes it transparent and acceptable to everyone. The idea that even the rich get a rebate makes it a societal pact equivalent to Social Security. Second, the rich also "own" a piece of the sky, and therefore they are entitled to their share of the societally created rents on allowances. Wealthy people will still spend more on average than they receive, and the incentive will still be for them to reduce their emissions in order to come out ahead at the end of the year.

A price floor on allowances

A reserve price is an excellent idea. It can be implemented through a carbon fee that rises over time. This reduces low-end price volatility, and can help companies justify long term capital investments.

If you have any questions about these comments, please feel free to contact Mike Sandler, Carbon Share Program Manager. Thank you for your consideration.

Sincerely,

Mike Sandler
Carbon Share Program Manager

Ann Hancock
Executive Director

Climate Protection Campaign Background Materials for the Comment to CARB on the AB32 Scoping Plan

Submitted 11-30-07 by Mike Sandler, Climate Protection Campaign

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The Climate Protection Campaign, based in Sonoma County, California, has submitted comments to the California Air Resources Board regarding the AB32 Scoping Plan. The following materials serve as background materials to accompany our comments. Although the comments focus on market mechanisms, we also support other regulatory means of achieving the cap set in AB32. These comments follow previously submitted comments to California's AB32 Market Advisory Committee, which are archived at www.carbonshare.org.

The Climate Campaign's main recommendations for a future carbon market are:

1) Regulate fuel and electricity *upstream,*

2) Auction 100% of the permits,

3) Return auction revenues to consumers as a per capita rebate/dividend/share:

- Helps consumers deal with fuel and electricity price increases.
- Helps low-income households particularly.
- A per capita approach is based on the principle that the sky is a commons we all share.
- Can easily be adopted by other states or countries

4) A price floor (through a carbon fee)

- The debate between carbon tax versus cap and trade can be resolved by using a carbon fee as a price floor in a cap and auction system. The combination improves both.
- The floor reduces low-end allowance (permit) price volatility, which allows businesses to make longterm investments, and the cap continues to guarantee reduced emissions.

The following pages describe:

- The Market Advisory Committee/WCI Guidelines
- Learning from RECLAIM and the ETS
- Upstream or Downstream
- Allocation of Allowances
- The Sky Trust
- How to Spend the Revenues from an Auction
- Two Types of Consumer Compensation
- The per capita framework
- How would you like your climate entitlement: Dividend, Rebate, or Share?

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How to implement the Market Advisory Committee Guidelines

Market Design Guiding Principles

From the California Market Advisory Committee

1. Avoid localized and disproportionate impacts on low income and disadvantaged communities or communities already adversely impacted by air pollution.
2. Avoid interference with achievement of state and federal ambient air quality standards and toxic contaminant reductions.
3. Minimize the administrative burden and maximize the total benefits to California, including reductions in other air pollutants, diversification of energy sources, and other benefits to the economy, environment and public health.
4. Be simply designed, easily understood, easy to administer and easy to comply with.
5. Minimize transaction costs.
6. Minimize the potential for leakage.
7. Include as many sources or categories of sources as practical. Encourage participation beyond the capped sources.
8. Provide appropriate credit for early voluntary reductions.
9. Stimulate investment and reward innovation.
10. Inspire other states, the federal government, and other countries to take action, by serving as a robust effective model and offering mechanisms to facilitate linkage with regional, national and international GHG reduction programs. Be consistent with established international standards and build upon existing international programs.

Solutions from the Climate Protection Campaign:

Per capita consumer dividend, rebate, or share.

Regulate companies upstream. Include transportation by regulating fossil fuels at the Terminal Rack. Auction 100% of permits.

Load-based is less transparent than first-seller or source-based. Upstream is better than either. Combine administration of auction and consumer compensation with state-level state tax system. Auction 100% of permits. Companies that have made voluntary reductions would not need to buy as many permits, which is their reward. The price signal rewards downstream companies. A price floor on allowances stimulates investment.

The per capita approach will be the new international standard. Do not emulate failed systems such as a giveaway. 100% auctioning will facilitate linkages. Do not emulate weak voluntary programs, or depend on imported offsets.

Make our system the model.

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Cap and Trade: RECLAIM and the ETS

In a cap and trade system, emissions are capped, rights are distributed, and the market sets a price for carbon. Two well-documented previous systems were RECLAIM and the ETS. Both offer lessons and experience in designing California's statewide cap.

RECLAIM

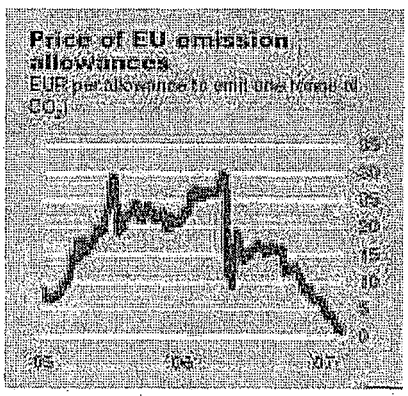
The Regional Clean Air Incentives Market (RECLAIM) was created by the Southern California South Coast Air Quality Management District in 1994 to allow companies to cap and trade criteria pollutants. Community groups such as Healthandcleanair.org describe the following problems with RECLAIM:

- It gave away permits for free to historic large emitting companies
- Permits were given based on estimates, not actual emissions (the Air District was said to have inflated baselines and allowed imported credits from outside the area)
- too many loopholes and exemptions to the cap
- the frequent use of safety valves (the Air District was said to have pre-empted the market from functioning by allocating additional credits whenever companies complained of price increases)

ETS

The European Emissions Trading System (ETS) began operation in 2005. The ETS covers about 43% of European emissions in 6 sectors. Companies in certain sectors such as electricity and cement which emitted above a given threshold were allocated permits. However, the ETS has faced the following problems:

- The price of permits plummeted after it became known that too many permits had been allocated.
- Even though permits are allocated freely to companies, they still passed on costs to consumers
- Free allocation of permits to selected companies led to windfall profits for those companies.
- Since too many permits were allocated, few emissions reductions resulted.
- Free allocation to established firms prevented new, cleaner firms from entering the market.
- The choice to regulate mid-stream facilities forced some hospitals, who were not allocated permits, to buy permits from coal companies, who were.



Sources from Deutsche Bank to Citigroup to The Economist (October 19, 2006), have stated that the ETS has had problems because "allowances were handed out free to companies, rather than being (as economists wanted) auctioned." In Phase 3 (2012-2017) the EU may increase the percentage of auction from a mere 5% to closer to 100%. Another option, described by a European group called Cap and Share, is initial allocation to consumers on a per capita basis.

Lessons for the AB32 Scoping Plan:

Based on an evaluation of previous cap and trade systems, the Climate Protection Campaign has submitted a list of suggestions including:
1) Regulate fossil fuels and electricity upstream,
2) Auction (or sell) 100% of emission permits,
3) Use revenues for public goods and to compensate consumers for increased prices,
4) Use a carbon fee as a price floor in an cap and auction system to reduce low-end price volatility.

Additional aspects to consider:

- Conducting the auction and consumer compensation at the state level will allow for combined administration through State tax system.

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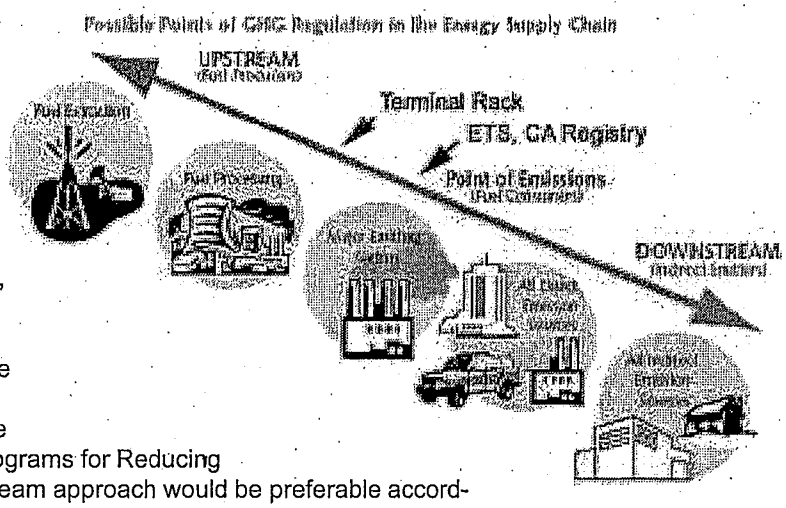
Cap and Trade: Upstream or Downstream?

The terms ***upstream*** **and** ***downstream*** refer to the location in the economy where the fossil fuels are regulated. Upstream is where the fossil fuel first enters the economy. For example, an upstream system would require fossil fuel importers to hold permits for fossil fuel brought in at the dock when an oil tanker unloads, or at the pipeline. Downstream is closer to consumer end uses, such as a gas station, or a retail business.



A major question in designing a cap and trade system is who gets regulated: upstream or downstream? A Congressional Budget Office study titled "Evaluation of Cap-and-Trade Programs for Reducing U.S. Carbon Emissions" states that "an upstream approach would be preferable according to several criteria, including administrative simplicity and consistent pricing of emissions throughout the economy, which would help achieve allocational efficiency."

Reasons to regulate Upstream:

· **Administrative ease:** Carbon entering into the economy equals carbon emitted. Administratively it is easier to limit carbon as it enters the economy in a few places (by boat or at the wellhead), than as it leaves through millions of tailpipes and smokestacks. Fossil fuel imports are already monitored closely, which facilitates data collection. Regulating the upstream companies greatly simplifies the reporting requirements, since there are fewer companies upstream, making emissions easier to track.

· **Comprehensive:** California's AB32 calls for a market that is comprehensive. The easiest way to ensure a comprehensive market is to regulate fossil fuels at the point at which they enter the economy. The system would regulate fossil fuel importers and producers.

The Terminal Rack: A convenient place to regulate motor fuels

The Terminal Rack is a point in the motor fuel distribution chain where tanker trucks are filled for distribution to gas stations. Federal motor fuels taxes are collected at this point, and there is an administrative system in place for monitoring the sale of fuels at this point. Since fossil fuels used for transportation accounts for about 50% of CA emissions, it is a very important place.

- For electricity, a load-based system will conflict with the California ISO's coming day-ahead market leading to reduced transparency. A first-seller or source-based system will fit better with a future national system, and is preferable to load-based, but still faces legal uncertainty. An upstream system is better than either.

In an upstream system, are downstream businesses or households off the hook?

Permits would be required to be held only by fossil fuel producers and importers. Other (downstream) businesses would still receive the price signal in proportion to their fuel use, but would not need to hold permits or participate in complex reporting and compliance. An important part of the program will be compensating consumers through a rebate, to ensure that poor and disadvantaged communities are not overly burdened.

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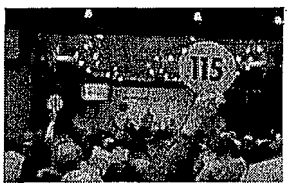
Cap and Trade: Allocation of Allowances

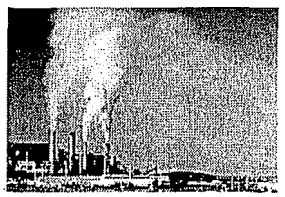
The single most important market design issue in a new cap and trade system is how to allocate carbon allowances/permits. The 'who' and 'how' of allocation could determine the success or failure of a future cap and trade system.

Who gets the emissions rights?

Government?



Industry?



1) Auction (selling): The State could sell the rights to the highest bidder, then use the proceeds to fund public goods such as energy efficiency or renewable energy to reduce more greenhouse gases, or provide cash dividends to consumers.

Instead of a giveaway, the state auctions permits to companies for whatever the market will bear.

- The state uses the auction revenue for:
  - Investment in new energy infrastructure and other public goods
  - Rebates or dividends to consumers
- Auctioning avoids windfalls for unregulated oil companies and large emitters.
- Auctioning avoids lobbying for preferential treatment. Every carbon emitter is treated equally.
- With auction revenue, the state can return money to consumers.

2) Giveaway (grandfathering): Emission permits are given to fossil fuel companies for free.

Studies show that even though fossil fuel companies are given permits for free, they raise prices anyway. This option has provided windfall profits to oil and coal companies in Europe.

- The more a corporation emitted in the past, the more permits it gets.
- Value created by scarcity is captured by shareholders of large corporations.
- Industry windfalls would be so large (and they'd rise as the cap declines) that public support for a carbon cap would collapse.
- The receiving corporations can sell their permits or raise their prices to capture the value of the permits.
- Result: windfall profits for the fossil fuel industry, and no public benefit.

The best allocation method for California will:

- Create a fair, equitable market,
- Achieve maximum reductions at the lowest possible cost,
- Shield the most vulnerable citizens from disproportionate economic impacts,
- Avoid the problems faced by the European Trading System (ETS) and RECLAIM.

All the economic literature states that an auction carries fewer social costs than a giveaway. Each industry will claim "special circumstances." Economists have shown that many industries will benefit from a carbon cap, and most electricity generators have a fleet where some facilities will rise in value. All costs will be passed on to consumers (regulated utilities can provide on-bill rebates. A phased-in auction results in a giveaway of the public trust, and disadvantages companies that performed early action.
Note: Allocation could also go directly to consumers. For more information, check www.carbonshare.org.

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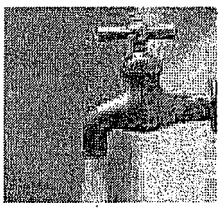
The Sky Trust: A Carbon Fed by Peter Barnes

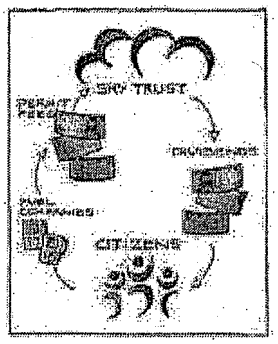
An 80 percent reduction in GHGs is challenging when our economic engine is so deeply addicted to fossil fuels. Encouraging efficiency and new technologies is not sufficient. We need *macro-economic tools* that drive down emissions steadily and promote private and public investment at all levels.



The first thing needed to achieve a steady 40-year decline in America's CO_2 emissions is a 'carbon valve' at the top of the economy that can be cranked down year after year. To make a crude but useful analogy, think of carbon as flowing through our economy the way water flows through a garden sprinkler system. To reduce the flow of water, we would turn the handle at the spigot, reducing the carbon flowing through the economy. This is what economists call an 'upstream cap.' All companies that bring burnable carbon into the economy — from coal mines, oil or gas wells, tankers, pipelines or biofuel refineries — would be required to buy permits for the carbon content of their fuels. Each year the number of permits would be reduced.

The entity empowered to control the valve would be mandated to move as rapidly as possible to a safe emissions level, as determined by scientific consensus. Let's call this entity the Carbon Fed. (Its formal name might be the U.S. Atmospheric Trust.) The Carbon Fed would be to the carbon supply what the Federal Reserve Board is to the money supply. Obviously, it would be a body of great importance, and we would want its members to be of the utmost competence and integrity. We would also want them to be insulated from political pressure, as are the members of the Fed.

Permits Auctioned and Dividends Distributed



The permits issued by the Carbon Fed would be tradable, and because of their scarcity (relative to demand) would have considerable economic value. The permits would therefore not be given away free, as in older cap-and-trade systems, but auctioned in competitive markets, much like Treasury bills. The ultimate owners would be companies that bring carbon into the U.S. During the course of a year these companies would have to own permits equal to the carbon content of the fuels they bring in. Once a year they would 'true up' with the Carbon Fed and pay a substantial penalty if they don't own sufficient permits. Revenue from the sale of these permits would be placed in a fund. Money in the fund would be used for dividends and public investments.

A portion of permit revenue would be set aside for equal yearly dividends to legal residents of the U.S. The Alaska Permanent Fund pays equal dividends to all Alaskans based on revenue from state oil leases. Equal dividends create the right micro-economic incentives. Thus, when energy prices rise, people who drive Hummers (or otherwise burn more carbon than average) will pay more into the fund than people who ride the bus (or otherwise conserve carbon). If all receive equal dividends, carbon gluttons will lose while carbon conservers gain. Ultimately, the carbon absorption capacity of the atmosphere is a gift of creation to all living beings. If that gift has economic value, a portion of that value belongs to everyone. Note that as the carbon supply is cranked down, carbon dividends would rise along with carbon prices. The rising dividends would be a tangible reward for Americans as we make progress on emission reductions.

Advantages of a Carbon Fed

- Creates a politically shielded entity to make hard decisions on emission limits
- Assures timely emission reductions and political viability of continued reductions
- Covers every sector of the economy
- Offsets higher energy prices faced by consumers
- Avoids unfair burden on low-income households
- Avoids political battles over who should receive free permits (and unfair windfalls)
- Generates revenue for public investments
- Provides correct 'micro' incentives (because higher prices for carbon encourage conservation, efficiency and investment in low-carbon technologies)
- Provides correct 'macro' incentives (because a declining cap generates higher dividends)

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How to spend the revenues from an auction?

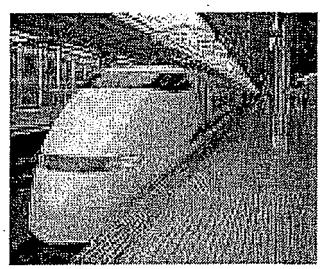
If the Western States create a carbon market and auction permits to companies, it could generate a steady income stream of over $2.5 billion per year. How should we spend it? Because the climate is a public trust resource, any income derived from its use should be used in the public interest. The revenues from an auction can be used to provide additional emission reductions to meet the Western State's climate goals, and to compensate disproportionately impacted communities. In other words, revenues can be spent on public goods, and to compensate consumers.

Energy/Environment

Revenues can be used for the administration and enforcement of the cap. Also, they can fund additional Energy and Environmental projects that help the State achieve its climate protection goals.

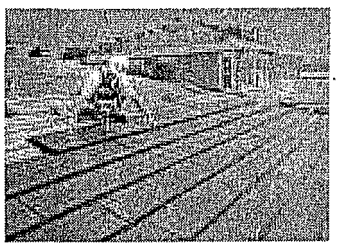
In general, these projects could fall into the following categories:

- Energy efficiency,
- Public transit
- Research and development



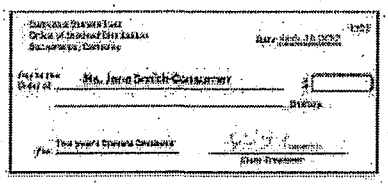
Within those categories, revenues could be spent on:

- Big ticket items (trains, transit, infrastructure)
- Small ticket items (decentralized solar incentives, Energy Star appliance retrofits)
- Research and development for new technology
- Adaptation (levees, dams, emergency preparedness for climate events)



Equity

A high priority is compensating citizens for higher energy prices, and reducing impacts on specific communities including environmental justice. Limiting carbon emissions will necessarily raise fossil fuel prices. These higher prices can be offset by distributing 'dividends' or 'carbon shares.' Failure to offset higher prices will harm the economy and low-income households particularly.



Equity goals can be achieved through any or all of the following methods:

- Expanding the Earned Income Tax Credit
- A Per capita cash rebate/dividend
- An earmarked rebate (a coupon, "climate-friendly food stamps" which can only be used to purchase Energy Star appliances, transit passes, hybrid vehicles,)
- Set-aside for specific communities ("good green jobs in the inner city"?)

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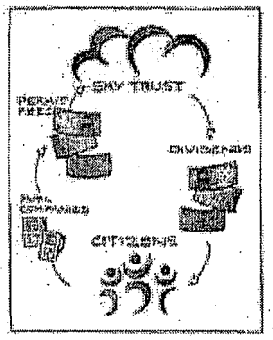
Two Types of Consumer Compensation

Consumer compensation acts as a rebate for the higher fuel or energy prices which may result from a carbon cap. Equal per capita compensation addresses the regressive impacts of fuel price increases. Consumer compensation may be key to maintain political support for the cap over time.

Auction/Dividend

In Auction with Dividends, the State auctions emission rights to the highest bidder, then uses the proceeds to provide cash dividends to people on a per capita basis.



Carbon Share

In Carbon Share, emissions permits are allocated directly to households on a per capita basis. People cash the share at a bank or brokerage. The bank or broker sells the share to carbon importers and producers on the open market.

What's the difference?

Government runs the auction.
Brokers may represent companies, but most commercial banks are not involved.
Dividends can be wired directly to bank accounts.

Government regulates a private market.
Financial services industry is involved.
Consumers can choose to withhold their share, or "play the market."
People may feel greater sense of ownership but require financial acumen.

Benefits of both the Dividend and Carbon Share:

- State citizens would have a stake in climate protection
- The share or dividend offsets higher energy prices residents may pay
- The share or dividend helps low-income people, who typically emit less carbon.
- If Auction/Dividend and Carbon Share are both adopted, companies would have two sources for permits: the government auction and a private market
- Per capita framework can be easily explained when other states create similar systems

Auction (sell) permits, then include per capita compensation:

The Climate Protection Campaign recommends that the State auctions (sells) 100% of carbon emission permits. Use revenues for public goods and per capita compensation. Consider the Dividend, Carbon Share and other forms of household per capita compensation in the design of a state or regional carbon market.

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Carbon Rebates for Everyone

The Social Security Act of 1935 exemplifies a universal program. Everyone pays in, everyone gets something out. The rules are understandable and apply to everyone. The inclusiveness of the Act has helped it endure for over 65 years. Reducing greenhouse gases (carbon) is a 50 year project, and must include everyone.

The Social Security Act of 1935 was based on universal principles, helping it survive for over 65 years.

A Per Capita framework:

- is based on equity.
- is universal, not divisive.
- is the basis of our country: "All men are created equal."
- is easy to understand and other states may adopt it.
- avoids complicated or subjective set-asides (for low-income, or special groups) but accomplishes the same goal: equity across disparate communities.

Universal Principles can be applied to Carbon Rebates:

A cap and trade program must last for decades. If emission permits are auctioned to companies, the use of the revenues will determine the fairness, economic efficiency, and political support of the program over time. Most cap and trade design principles state that the costs should not disproportionately fall on low-income communities. Auction revenues may be used to compensate low-income or impacted communities. This could be accomplished through a per capita rebate, a dividend, or a share.

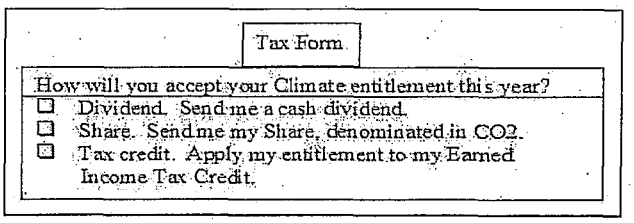
Ida May Fuller was the first recipient of a Social Security check on January 31, 1940.

A per capita rebate, dividend, or share provides a net gain to lower-emission households in comparison with high-emission households who spend more on fuel than they receive in compensation.

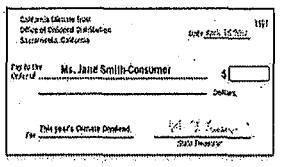
The distribution of per capita rebate, dividend, or share goes beyond the idea of mitigating the impact or burden of changing to a low-carbon economy to specific groups. The per capita framework institutionalizes the idea that we all share ownership of the commons together, and that wealth should be shared with everyone. It enshrines inclusiveness and equality, some of America's highest values, into our economy.

How it could work:

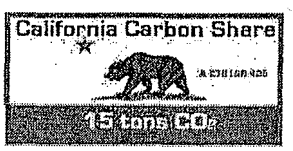
1) A check box on your state tax form asks how you wish to receive your annual climate entitlement.



2) Your dividend, rebate, or share is administered by the State tax authorities.



3) As prices rise, low-emitting consumers come out ahead, while large-emitters spend more back into the system.



4) The cap is reduced each year, which increases the value of each dividend.

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Questions about a Per Capita Dividend

Why give money to rich people who don't need it? Won't rich people spend their dividend on Hummers or plane tickets, causing more emissions?

The Commons belongs to everyone, even wealthy people. The increased price of fossil fuels will make inefficient products more expensive. Some people suggest issuing wealthy people a dividend as a coupon redeemable only for compact flourescent lightbulbs, hybrid cars, or Energy Star rated appliances. We believe that this may decrease the political support for the rebate. Instead, local government agencies could offer special incentives to redeem dividends or shares for transit passes or other public goods, which would encourage that behavior.

Table 7: Distributional Impact of a Cap-and-Rebate Policy

(based on a carbon charge of $200/tC, with 100% recycling to individuals)

Per capita expenditure decile	Per capita expenditure ($)	Average household size	Per capita incidence ($)			As percentage of expenditures		
			Charge	Rebate	Net benefit	Charge	Rebate	Net benefit
1	1927	3.4	215	678	463	11.2%	35.2%	24.0%
2	3521	3.3	338	678	341	9.6%	19.3%	9.7%
3	4736	3.2	424	678	254	9.0%	14.3%	5.4%
4	5991	2.7	514	678	164	8.6%	11.3%	2.7%
5	7380	2.6	576	678	102	7.8%	9.2%	1.4%
6	8847	2.5	649	678	30	7.3%	7.7%	0.3%
7	10711	2.3	732	678	-53	6.8%	6.3%	-0.5%
8	13228	2.1	837	678	-158	6.3%	5.1%	-1.2%
9	17178	2.0	1024	678	-346	6.0%	3.9%	-2.0%
10	29043	1.8	1475	678	-797	4.9%	2.3%	-2.7%

This Table estimates that if fuel and electricity prices rise when GHGs are reduced by 15%, low income people (decile 1) benefit from a $678 annual rebate. The wealthiest group (decile 10) spends $797 more than they receive. Per capita alleviates the regressivity of fuel and electricity price increases. **Source: James Boyce and Matthew Riddle. "Cap and Rebate" PERI, Amherst, MA, Oct 2007.**

• Wouldn't rebates shield consumers from price increases in fossil fuels? Isn't making fuel expensive the best way to change consumer behavior?

An increase in fuel or electricity prices is regressive, meaning that it impacts poor people more than rich people. We suggest social policy to make the impacts more even. A per capita rebate, such as Carbon Share, would alleviate some of the impact. High carbon emitters would still pay more.

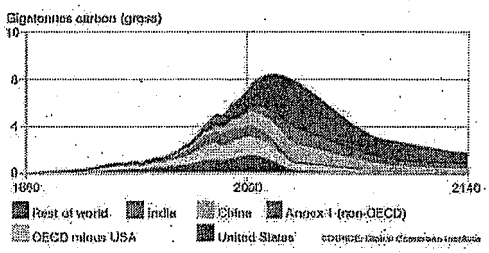
A Per Capita International Climate Treaty

The per capita framework can also be the basis of a post-Kyoto international climate treaty.

The Kyoto Protocol divided countries into "Annexes" based on the historic disparity of emissions between developed and developing countries. By contrast, a per capita framework for greenhouse gas emission reduction assigns allowances to countries (or states) according to their population.

The long term goal is global per capita equity at the level of the scientific imperative, a reduction in total global GHGs of 80% by 2050. The fairest distribution of the emissions under the cap is equally to all people.

California and the Western States can help advance this goal by incorporating per capita elements in their design of a carbon market. A per capita consumer rebate, dividend, or share is a step in this direction.



This graph illiustrates a per capita framework for international GHG emissions called Contraction and Convergence. Developed by the Global Commons Institute in the UK, it proposes **a goal of per capita equity**. To get there, the developed countries **contract** their per capita emissions toward the global per capita average, and the developing countries **converge** toward the global average.

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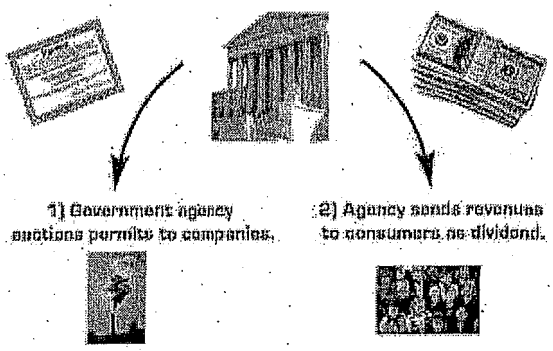
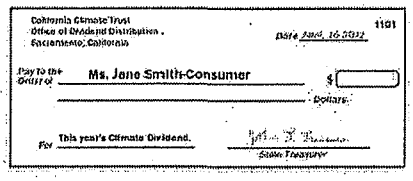
How would you like your Climate Entitlement: Dividend, Tax Credit, or Share?

Who owns the Sky? Either no one does, or we all do, equally.
A cap and trade system should compensate consumers as the sky becomes more valuable.
Then you choose on your tax form how to receive your annual climate entitlement.

Auction/Dividend or Tax Credit:

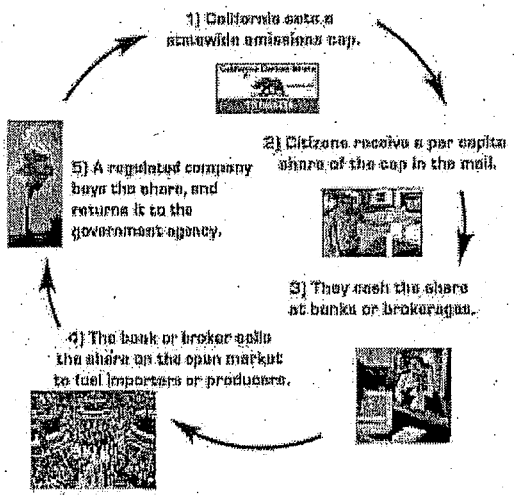


You receive: Cash Dividend/Tax Cut

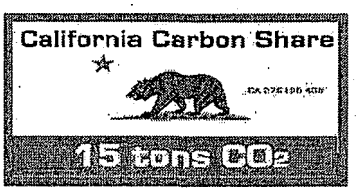


Deposit the check in your bank account.

Carbon Share:



You receive: A Carbon Share



Deposit the share in your brokerage account to sell later on private market.

An Auction/Dividend and Carbon Share can co-exist, and parallel markets may benefit both. In both, low-income and low-emitting consumers come out ahead. Per capita consumer compensation can make climate protection feasible and popular.
For more information, check www.carbonshare.org.

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The undersigned organizations jointly support the following principles and believe that they should form the foundation for an AB 32 forest sector strategy.

1) California forests should play a key role in helping the state meet the emissions reductions goals of AB 32.

   - ARB should adopt an explicit target for emissions reductions from the forest sector.
   - The forest sector target should address both annual reductions in 2020 and cumulative reductions to 2020 and beyond.
   - The state should consider a range of policies to achieve forest sector emissions reductions including market mechanisms, incentives, regulations, and voluntary programs.

2) Forest climate policies must be designed to maintain and expand existing environmental and social protections.

   - Forests provide a range of significant public and environmental benefits including clean water, biodiversity, fish and wildlife habitat, recreation, aesthetics, and sustainable local economies. Climate policies adopted under AB 32 should not undermine these benefits, but instead should support and expand on them.
   - California's AB 32 strategy should include policies specifically designed to enhance the adaptive capacity of forests through increased forest ecosystem diversity and resilience in the face of climate change impacts.
   - Forest sector emissions reductions and sequestration projects should include strong environmental standards to protect ecosystems.

3) A rigorous and credible GHG accounting system is essential in order to achieve forest sector emissions reductions.

   - Greenhouse gas accounting for the forest sector must be standardized and comprehensive, and should ensure that emissions reductions meet the requirements of AB 32 of being real, permanent, quantifiable, verifiable, and enforceable. The California Climate Action Registry (CCAR) Forest Protocols, which were recently adopted by the Air Resources Board for voluntary

emissions reductions from the forest sector, provide the foundation for this accounting framework.

- Forest sector projects should not be credited with emissions reductions under AB 32 unless they comply with adopted, rigorous accounting protocols. In particular, fuels reduction and forest thinning projects should not be credited with emissions reductions benefits until and unless they comply with rigorous, credible accounting protocols that demonstrate climate benefits.

- Any new additions or modifications to the accounting standards already adopted by ARB should meet or exceed the existing standards of the CCAR Forest Protocols.

4) California's forest sector climate strategy should address total GHG emissions associated with the consumption of forest products, in addition to net emissions from in-state forestlands.

   - The forest sector strategy must include the development of an accounting framework that accurately assesses total forest sector emissions, including emissions associated with imported wood products.

   - The forest sector strategy should include measures to reduce greenhouse gas emissions associated with the demand for wood products, such as wood use efficiency and recycling. Measures to substitute wood for more carbon-intensive products such as steel and cement may also be helpful.

Endorsing organizations:

CalTrout

California Council for Land Trusts

Environmental Defense

Natural Resources Defense Council

Pacific Forest Trust

The Nature Conservancy

Sierra Club California

January 24, 2008