

## **Attachment 1: Description of Emission Reduction Measure Form**

Please fill out one form for each emission reduction measure. See instructions in Attachment 2.

**Title: Carbon Share**

**Type of Measure (check all that apply):**

- |   |   |
|---|---|
| <input type="checkbox"/> Direct Regulation  | <input checked="" type="checkbox"/> Market-Based Compliance |
| <input type="checkbox"/> Monetary Incentive | <input type="checkbox"/> Non-Monetary Incentive             |
| <input type="checkbox"/> Voluntary          | <input type="checkbox"/> Alternative Compliance Mechanism   |
| <input type="checkbox"/> Other Describe:    |   |

**Responsible Agency: ARB**

**Sector:**

- |  |  |
|--|--|
| <input checked="" type="checkbox"/> Transportation | <input checked="" type="checkbox"/> Electricity Generation |
| <input type="checkbox"/> Other Industrial          | <input checked="" type="checkbox"/> Refineries             |
| <input type="checkbox"/> Agriculture               | <input type="checkbox"/> Cement                            |
| <input type="checkbox"/> Sequestration             | <input type="checkbox"/> Other Describe:                   |

**2020 Baseline Emissions Assumed (MMT CO<sub>2</sub>E):**

**Percent Reduction in 2020:**

**Cost-Effectiveness (\$/metric ton CO<sub>2</sub>E) in 2020:**

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**Description:** Carbon Share is a market approach to stopping global warming where total greenhouse gas emissions are capped, and emission permits are distributed to consumers who then sell the permits to regulated companies via banks or a private exchange. Carbon Share is similar in many respects to Cap and Auction, and may be adopted alongside an auction. Three market design elements that are shared with an auction are: 1) An upstream, comprehensive system, 2) 100% of permits are sold or auctioned to upstream companies, and 3) consumers receive compensation in the form of either a rebate, dividend, or share on a per capita basis. This recommendation builds on options discussed in the AB32 Market Advisory Report.

The Carbon Share cycle begins with the State distributing a carbon share, representing 1 ton of upstream GHGs, to each consumer in the State. Consumers cash the share at a bank or brokerage. The bank gives the consumer the market price for 1 ton, based on what companies will pay. The bank or broker then sells the share to carbon importers and producers on the open market. The upstream companies are required to turn in a

certain amount of shares (permits) to government regulators, equivalent to their emissions for that year.

Carbon Share can be implemented alongside an auction. Consumers would be given the choice on their State Income Tax Form of how to receive their annual climate entitlement. They could choose to receive the cash dividend, tax credit or rebate, or share. Making the Share an opt-in choice would help reduce waste from people not understanding the share, or not cashing it.

There are some differences between Carbon Share and Cap and Auction. In an Auction, the government runs the auction. In Carbon Share, the government regulates a private market. In an auction, the government controls how permits are sold, and can wire consumer dividends from the revenues from an auction directly to consumers' bank accounts. In Carbon Share, citizens can choose to withhold their share from the market, or sell it at a time of their choosing. Consumers sell their share to banks or brokers who sell the share to companies. Consumers may feel greater sense of ownership but require financial acumen.

Carbon Share is a private market approach that provides consumer compensation through the Share. It allows some compensation to flow from upstream companies to downstream consumers to reduce the price impacts on consumers from rising fuel and electricity prices. Since the Shares are distributed on a per capita basis, a Congressional Budget Office study has shown that there are environmental justice outcomes, and would create broad based political support for an economywide GHG cap.

Having both a government auction and a private carbon market would provide two sources of permits for regulated companies. Having a market run by the financial services industry would show if the government auction was not getting the right price, and the government auction would show consumers that they were getting the right price for their share from the banks. Setting an important precedent that the rights to emit carbon resides with all of us, equally, will be an important step towards a post-Kyoto international climate agreement. This per capita framework was recently recognized as an international necessity by German Chancellor Angela Merkel.

More information about Carbon Share may be found at [www.carbonshare.org](http://www.carbonshare.org). Mike Sandler is available to provide additional details to ARB staff.

**Emission Reduction Calculations and Assumptions:** A price floor through a Carbon Permit Fee will help reduce price volatility and reassure companies that long term investments in low-carbon technologies will be economical.

**Cost-Effectiveness Calculation and Assumptions:**

**Implementation Barriers and Ways to Overcome Them:** 1) Political Will to make companies pay for the permits. The AB 32 Market Advisory Committee report recommended auctioning permits in the long term. They were divided about auctioning 100% right now. California must show political leadership. If more people knew that they could receive a dividend or share from the proceeds, there would be increased desire to auction or distribute shares to consumers.

2) Coordinating between government agencies. CARB would coordinate with the State Board of Equalization to make the Share an opt-in on the State Income Tax Form. Additional outreach and education would be necessary to inform Californians that they would be receiving a cash dividend, tax rebate, or share, and if they chose the Share, what they would do with it (i.e. deposit it in brokerage account or cash it at banks or brokers).

3) Working with the private sector to implement the Share. I have spoken with some bankers and brokers about these concepts. Although some in the financial community are promoting a giveaway of permits, unlimited offsets, and other recommendations that would undermine the cap and the public interest, there are some banks and financial companies that may be interested in the Share. I recommend that CARB conduct a study, or hold some hearings on this idea, in order to gauge the level of acceptance among the financial services industry. CARB could also form an advisory committee of financial services industry representatives to assist with the study. Please contact me for more information about this.

**Potential Impact on Criteria and Toxic Pollutants:**

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