

**Climate for Community:
A Proposal to Allow Small, Dispersed Emission Sources to Participate in Assembly
Bill (AB) 32 Carbon Cap and Trade Markets**

*Aggregation of Households' and Small Businesses' Emissions Would Provide Economic
Benefits to Hard-Pressed Communities and Retire Hard-to-Reach Greenhouse Gases*

Developed by Environmental Defense Fund (EDF) and San Francisco
Community Power (SF Power)¹

AB 32 requires that the framework adopted to reduce greenhouse gas emissions not disproportionately impact low-income communities; and, where possible, produce overall societal benefits, including reductions in other air pollutants, as well as economic and public health benefits. One powerful approach to meeting these objectives – and to gaining access to a large, hard-to-reach emissions pool – would be to enable small, dispersed, emission reductions by low-income households and small businesses to be aggregated together and placed on available carbon markets. By so doing a dynamic, ongoing incentive would be created to reduce emissions in vulnerable communities, with concomitant economic and equity benefits.

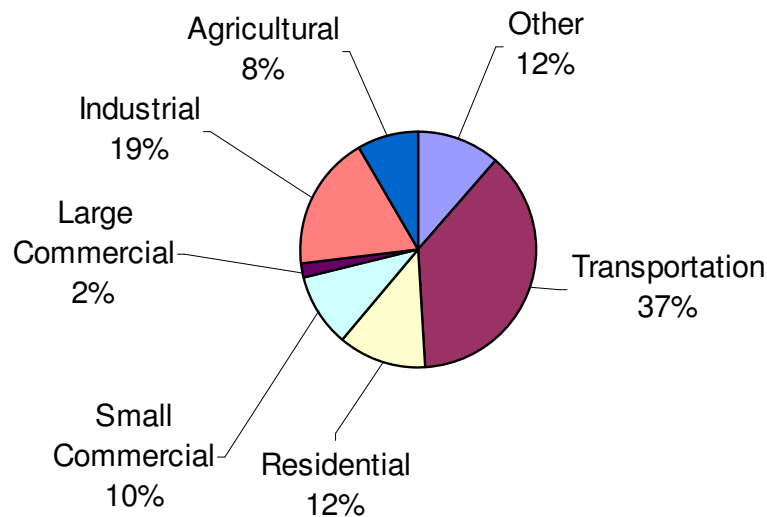
This approach would require that communities be invested with ownership rights of the emissions that occur in their neighborhoods. That is, homes and businesses located in areas that have historically been subjected to high polluting air and greenhouse gas emissions would be given the opportunity to reduce and sell their emissions. In this way populations who have previously suffered from pollution and who are at greatest risk of harm from global warming would be able to benefit economically and environmentally from reducing those harms, while achieving significant greenhouse gas emission reductions.

How this cap and trade element would be constructed would depend on the AB 32 framework that's ultimately adopted. For example, a "first-seller" allocation would allow for direct transactions between a community and an electric power wholesaler; a "load-based" allocation would require transactions between the community and the load-serving entity (LSE) to whom the emission responsibility has been assigned. Auctioning versus free allocation of allowances may have different implications related to what entity owns the rights to emission reductions. These issues will be addressed as the proposed market design solidifies; and a pilot project is being implemented by SF Power to demonstrate this concept.²

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² See "Community for Climate: Carbon Emissions Crediting for Environmental Justice," by James Fine and Steven Moss [publication date and access?].

While this initiative focuses on homes and small businesses in low-income neighborhoods, community-based reductions may be achieved in the transportation, electric utility, and land use sectors as well and in most any neighborhood. The figure below shows that these four categories were responsible for nearly 60 percent of California’s estimated 2007 greenhouse gas emissions.



The “Climate for Community” approach could be implemented by including the following elements in the AB 32 emissions reduction framework:

- (1) *Create Ongoing Incentives to Reduce Emissions:* A first step would be to create a market-based incentive to achieve reductions in low-income communities that are currently subjected to disproportionate emissions levels – termed “environmental justice” communities - or that may experience additional emissions burden as a result of emissions trading once a carbon market is established for California. This incentive could be created in several ways, including
 - (a) Emissions purchased from environmental justice communities³ could fetch a higher value than standard emission reduction credits (e.g., preferred emission reductions); or
 - (b) Emitters located in environmental justice communities could be required to purchase a significant portion of their offsets from within communities that bear

³ Program design needs to include a clear definition of the communities eligible for preferred emissions reductions. In this vein the California Air Resources Board (ARB) has engaged Manuel Pastor, University of Southern California, and Jim Sadd, CalPoly, to develop a Cumulative Impact Screening Tool, which could form the basis to identify EJ communities. Similarly, the Bay Area Air Quality Management District’s Communities at Risk Evaluation analysis, which estimates air toxic emissions on a two by two kilometer grid for the San Francisco Bay Area, along with other studies, could provide methodological guidance for characterizing these areas. And communities located nearby the 700 major green house gas point sources in California could be assumed to be EJ communities.

extra emissions burden as a result of local sources purchasing credits from elsewhere and continuing to emit at higher levels than if reductions occurred equally across all sources. In many cases, these credits will be the same as those defined by (1a) and (1c); or

(c) A portion of auction or tax revenues could be set aside and dedicated to being invested in emission reductions obtained from low-income households and small businesses.

- (2) *Establish a Clearinghouse to Facilitate Emission Reduction Measurement Development.* A clearinghouse for evaluating emission reduction measures and packages (see below) of emission reducing activities oriented towards households and small businesses would be established or integrated into an existing organization.⁴ The clearinghouse would provide research resources, advice and protocols on verifying community-based reductions, specifically those oriented towards low-income households and small businesses. The clearinghouse would also facilitate program transparency and outreach to EJ communities by sponsoring public meetings, media communication, and technical support, and would be responsible for reviewing and approving third party verifiers and verification methods.
- (3) *Package Reductions to Minimize Costs:* A combination of new technologies and behavioral modifications will be needed to achieve significant emission reductions in households and small business. Providing packages – education- and institutionally-based interventions and a full suite of appropriate technologies – will minimize programmatic costs and maximize cost-effectiveness. Possible packages, which could be developed by public or private sector entities, might include plug load management programs, in which schools or buildings reduce electricity consumption associated with devices that are not in active use;⁵ transportation management programs, in which individuals or businesses tangibly reduce their vehicle use; and early adoption of emission-reducing technology.

Packages could include:

- Technology measures (e.g., refrigerator or streetlight replacement); or
- Technology measures with a behavioral component (e.g., automobile or general lighting replacement; land use changes); or
- Behavior-only measures (e.g., provision of localized or segmented transit services; reducing electricity use during peak periods through demand response programs).

⁴ Possible models for this include the California Energy Commission’s Public Interest Energy Research building program; see <http://www.energy.ca.gov/pier/buildings/index.html>; and the Statewide Emerging Technology Coordinating Council; see <http://www.etcc-ca.com>. This Council coordinates among its members to facilitate the assessment of promising energy efficient emerging technologies.

⁵ This concept may be similar to “White Tags,” or “White Certificates,” in which bundles of electricity use reductions are sold.

The emission value of these packages would be determined by whether or not they are implemented in predefined communities; and the quality of the associated measurement and verification. For example, technology measures, or measures for which comprehensive outcome data can be provided, would receive full credit, with discounted credit provided for less reliable measurement and validation (e.g., statistical sampling). Estimates for measures that rely on behavioral changes would be based on existing data or supporting analyses created as part of package development. Actual outcomes could then be validated using parameters drawn from locally observable data (e.g., gasoline sales reported to the Board of Equalization for local service stations; ridership on specific transit routes; local circuit loads).

- (4) *Aggregate Community-Scale Reductions*: Allow aggregators to propose packages to the clearinghouse, and implement packages.
- (5) *Secure Ownership*: Ensure that ownership of the resulting emission reductions would devolve to the entity paying to obtain them. If multiple parties pay for package implementation, ownership would be allocated according to a mutually agreed upon shares. Defining ownership rights as distinct from other instruments or measures being implemented by other parties could be assigned using several methods, including "carve out" for community-based reductions within the utility sector cap, and/or by implementing offsets rules and requirements.