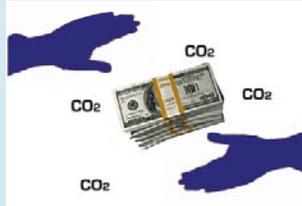


Cap and Share: Creating a carbon price to stop global warming



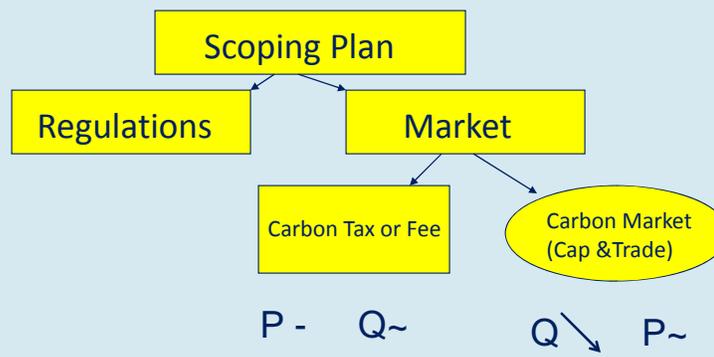
Mike Sandler

www.carbonshare.org

March 16, 2010

AB32: The Global Warming Solutions Act

- Statewide mandatory emissions limit
- The Cap: Reduce CA statewide GHGs to 1990 levels by 2020
- California Air Resources Board



We need a carbon price w/long term fairness and political support.

Why?

- Economic incentive to reduce emissions throughout the economy

How?

-Cap and Dividend

Can we do it?

-We need your help

Carbon Market Design

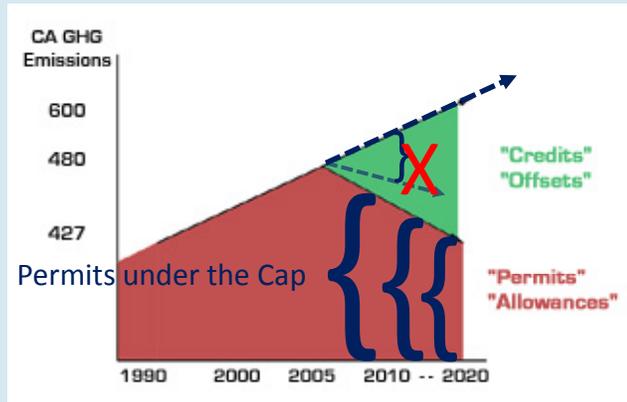
Bad Design

- Permits given free to polluters and utilities
- Unlimited, low-quality offsets
- Low price ceiling
- Rules too complex, easily manipulated by lobbyists

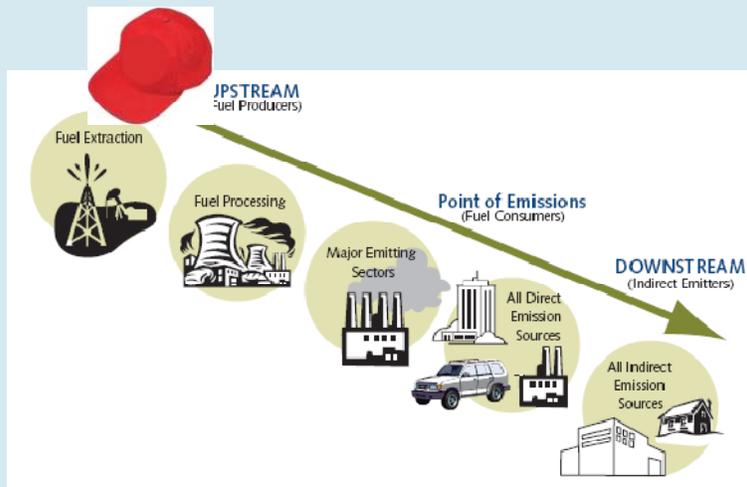
Good Design

- Tight cap, no loopholes
- Resist lobbyists, auction permits, use revenues for public purposes

The Cap

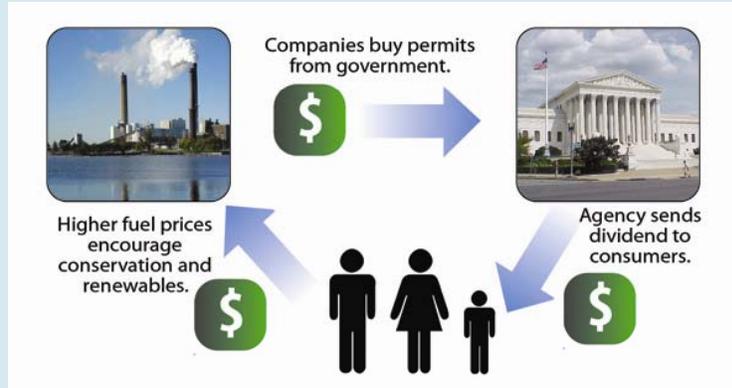


Where to Put the Cap



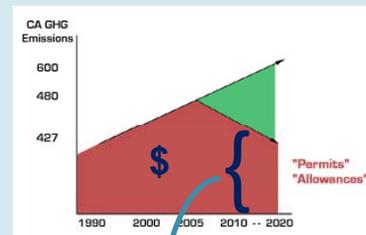
This slide courtesy of Rafael Aguilera, The Verde Group

Cap and Dividend



Why Cap and Dividend?

- Everyone gets a Dividend (Who owns the sky? We all do.)
- Companies pass the cost of the permits down to consumers.
- Keeps price signal, but helps with equity (helps low-income and middle-class).
- Maintains political support as fuel and electricity prices go up



Carbon Share

www.carbonshare.org



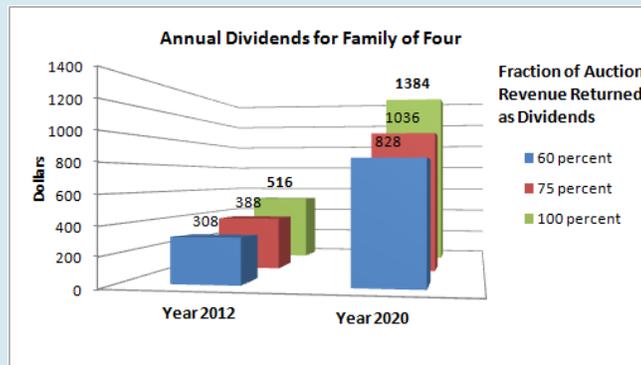
CA EAAC Recommendations

Economic and Allocations Advisory Committee

75% returned to households through dividends or tax cuts

25% investments

adds a total of \$7,004 to family incomes over the 8 year program



Estimate based on \$40 allowance price in 2020

<http://www.climatechange.ca.gov/eaac/index.html>

Next steps for ARB

Preliminary Draft Rule (PDR)

Will it include EAAC recommendations?

Dividends?

Cantwell-Collins CLEAR Act

Carbon Limits and Energy for American Renewal Act

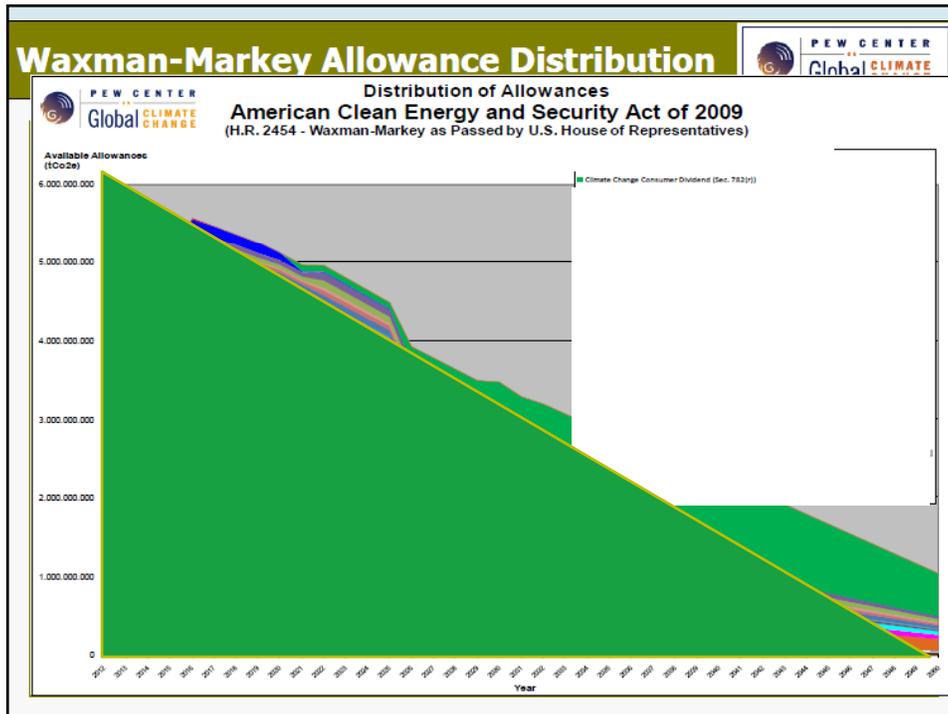
- Permits auctioned upstream
- Revenues used for 75% dividends, 25% investments
- Price collar to reduce volatility – between \$7 and \$21/ton
- President can use “fast track” to tighten cap
- Clean Energy Reinvestment Trust (CERT) Fund for “supplemental reductions” outside cap

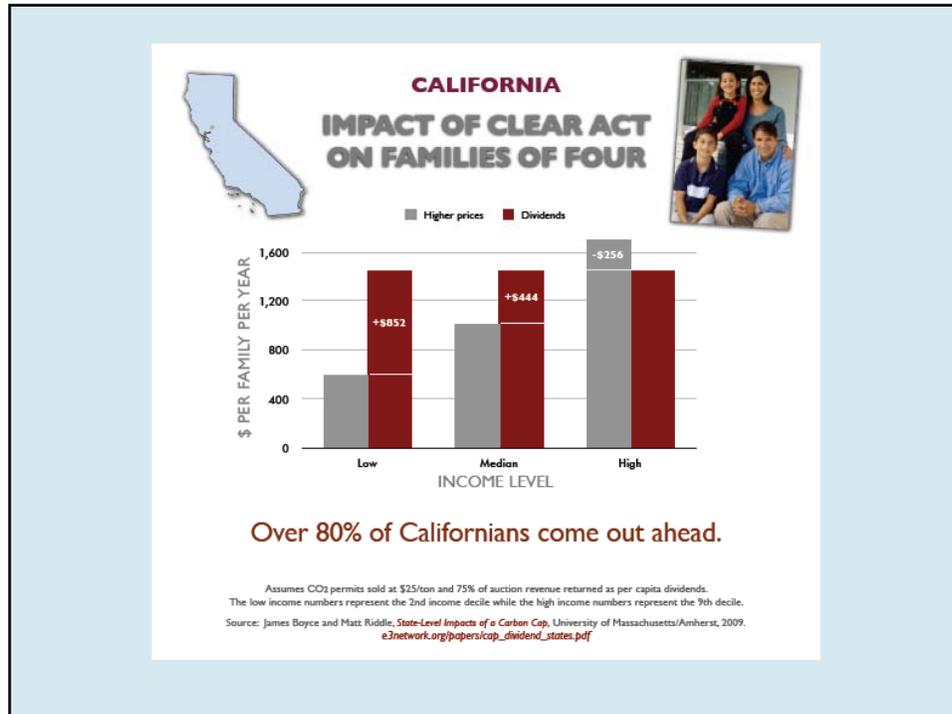
<http://cantwell.senate.gov/issues/CLEARAct.cfm>



Waxman-Markey vs. CLEAR Act

	Waxman-Markey	CLEAR Act
Length of bill	1,400 pages	39 pages
Giveaways	Yes, LDCs	No, 100% auction
Offsets	Yes, 2 billion tons	No, but funds "supplemental reductions"
Funding for nuclear, coal	Yes	No
Dividends to households	Does not start until the year 2030	Yes, starts in 2012





What you can do

National

- *Send letters to Boxer, Feinstein*
- *Letters to the Editor*
- *Endorse Cap & Dividend*
- *Learn more:*
- www.supportclearact.com

California

- *Send comments to ARB*
- *Attend AB32 hearings (ARB)*
- *Endorse Cap & Dividend*
- *Learn more:*
- <http://www.climateprotectioncampaign.org/capanddividend>
- *Help us spread the word!*

Thanks!

Mike Sandler

(707) 529-4620

Websites for more info:

www.climateprotectioncampaign.org

www.capanddividend.org

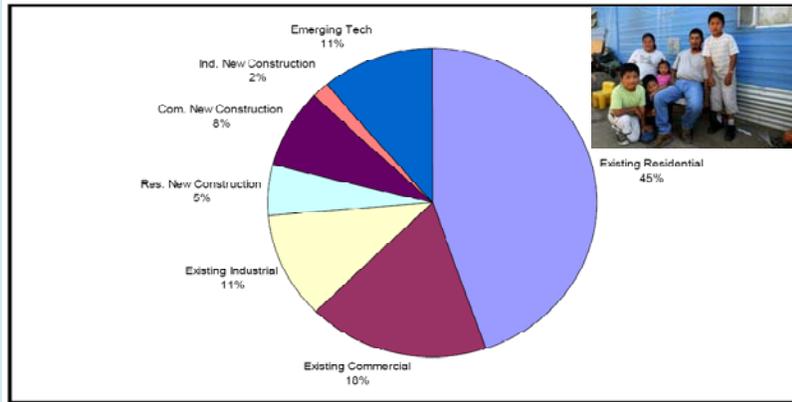
www.carbonshare.org

FAQ slides



Energy Efficiency Potential

Figure ES-8: Distribution of Electric Peak Demand Market Potential, Current Incentives – 2016



Existing Residential

Source: I-tron, California Energy Efficiency Potential Study

Cap and Invest vs. Cap and Dividend

- | | |
|---|--|
| <ul style="list-style-type: none"> • Stuff (Investments) • Reduce emissions • Invest in new technologies (Sierra Club, NRDC) | <ul style="list-style-type: none"> • People (Dividends) • Who owns the sky? • Equity (helps low-income and middle-class) • Political support |
|---|--|

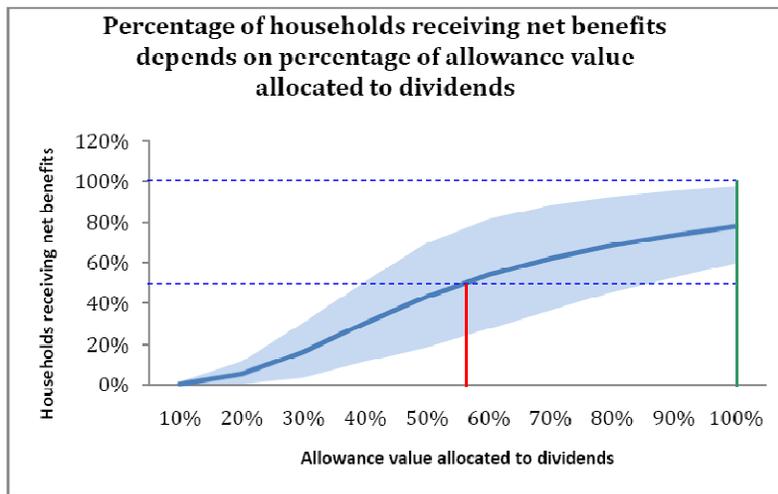


Taxable Dividends and State and Local Tax Revenues

If dividends are taxable, then some money returns to govt, and can be invested

	Fraction of Auction Revenue Returned as Dividends				
	100%	90%	80%	70%	60%
State Income Tax revenue (in millions)	\$440	\$400	\$350	\$310	\$260
State and Local Sales Tax Revenue (in millions)	\$275	\$250	\$219	\$194	\$162

Figure 5.1: Percentage of California Households Receiving Net Benefits⁸⁴ from Alternative Allocations to Dividends



What about giving permits to LDC's?

LIEE Needs Assessment

KEMA Study, 2007

Table 1-2
Estimates of Annual CARE and LIEE Program Penetration (2006)
 (2006, by IOU)

	CARE Eligible Households (200%)	CARE Participants	Annual CARE Penetration	LIEE Eligible Households (200%)	LIEE Participants	Annual LIEE Penetration
PG&E	1,601,238	1,133,663	71%	1,868,594	58,250	3%
SCE	1,351,845	1,055,710	78%	1,365,633	53,004	4%
SCG	1,762,569	1,264,264	72%	2,005,118	36,852	2%
SDG&E [1]	335,015	220,010	66%	394,242	13,965	4%

[1] SDG&E CARE penetration estimate is based on the electric tariff counts of CARE participants and the electric service counts of CARE eligible households.

A Tale of Two Households' Dividends

The Smith Family



Spends \$2,500 per year on gasoline
 + \$500 to gas cost (when gas goes up 50 cents/gal)
-\$200 dividend
 = \$2,800

\$300 net loss.

The Jones Family

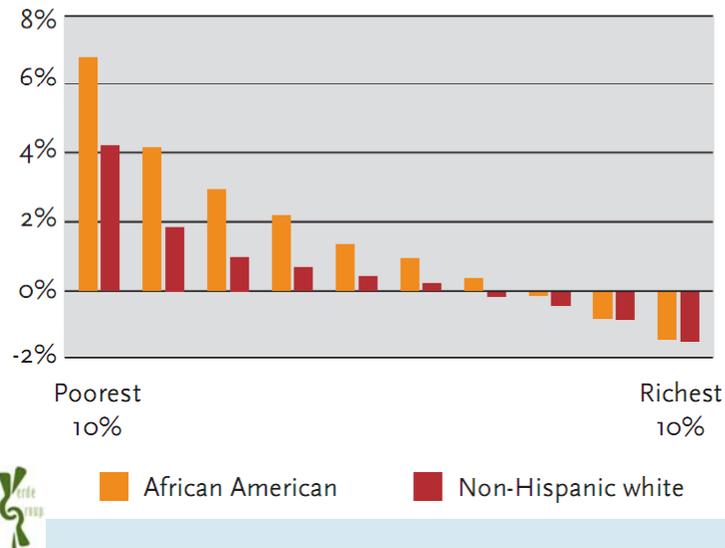


Spends \$840 per year on gasoline
 + \$160 to gas cost (when gas goes up 50 cents/gal)
-\$200 dividend
 = \$800

\$40 net gain!

www.fueleconomy.gov Hummer 15 mpg, Prius 46 mpg, both driven 15,000 miles/year, at \$2.58/gal -> \$3.08/gal; \$15/ton CO2 cost could produce 14 cents/gal cost to gas price.

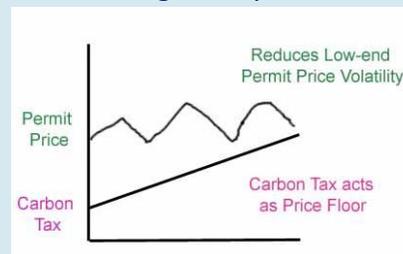
**FIGURE ES 2: Equal Per Capita Payment Scenario:
Benefits and Burdens of \$50/tonne CO₂ Charge**



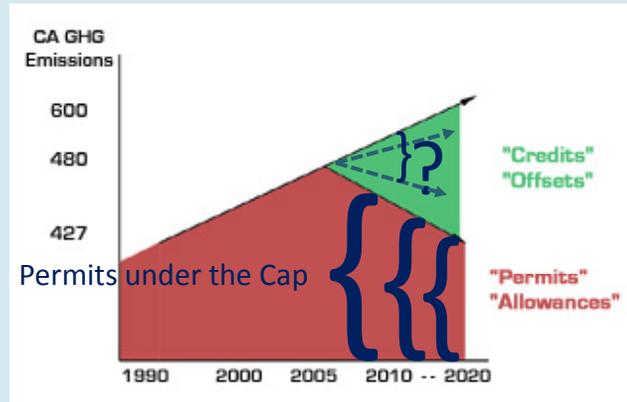
Carbon Tax vs. Cap & Trade

- Set Price (ex: \$4/ton), but no set Quantity (of emissions)
- Pro: Creates price signal, raises revenue
- Con: Emissions could still rise (no cap)
- Set Quantity (# of permits), fluctuating Price
- Pro: Limited permits means limited emissions
- Con: Hot spots and EJ, too complex, market ideology, design is key

They can co-exist.



The Cap



Cap and Trade Design

“The Amp”



Scope
Allocation
Using Revenues
Equity
Cost

Design elements are like controls on an amp.

Reasons not to use permit revenue for investing

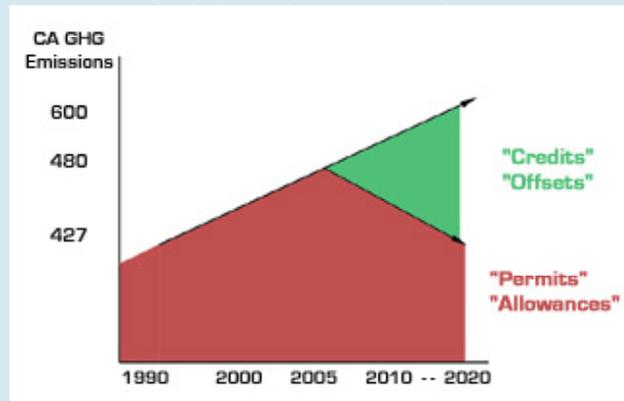
- **Govt has poor record (ethanol, Supercar, FutureGen)**
- **People who don't experience program benefits will become constituency for opposition**
- **If dividends are taxable, then some money returns to govt, can be invested**

Revenue stream too tempting in the age of deficits

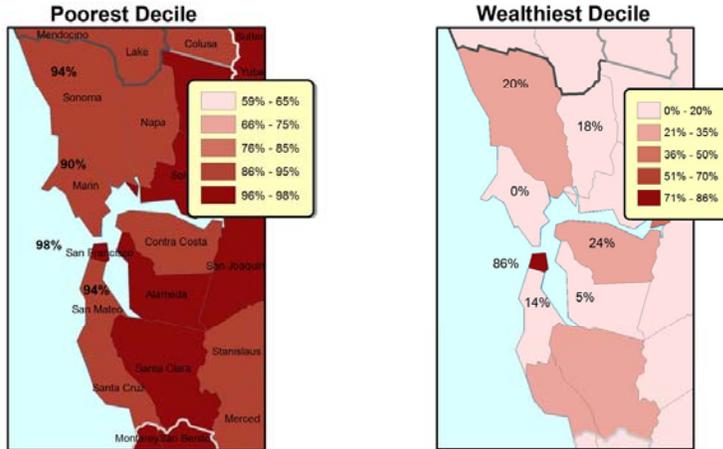
- **Fluctuating carbon price makes it difficult to budget projects**
- Investments can be better funded with fees, changing subsidies to oil and highways, and regular budget process
-

FAQ slides

Offsets vs. Permits



Fraction of households receiving positive net benefits from cap and dividend by county, at \$30/tC with 50% to govt



SOURCE: Cathy Kunkle and Daniel M. Kammen, Draft Memo to EAAC, August 11, 2009