

# **CLIMATE CHANGE SOLUTIONS**

**Why we believe Carbon Fees with  
100% Rebate is a More Effective  
(and More Fair) Market Mechanism  
than Cap-and-Trade**

**By Laurie Williams and Allan Zabel**

# Speaking out as Parents and Citizens

## Education and Work Experience

- Laurie - B.A. Yale University, J.D. UC Berkeley
- Allan – B.A. UC Santa Cruz, J.D. UC Berkeley
- Environmental Enforcement Attorneys for 20+ years at US EPA Region IX, San Francisco
- Allan has worked extensively on Cap-and-Trade issues.
- Disclaimer – presentation does not reflect US EPA or U.S. government position

[www.carbonfees.org](http://www.carbonfees.org)



# How Urgent is the Climate Change Problem?

- **CO2 emissions are still rising rapidly = Worst case scenario of Intergovernmental Panel on Climate Change (IPCC).**
- **Arctic Death Spiral – National Snow and Ice Data Center – estimates Arctic could be ice free by summer 2030, when just a few years ago they estimated ice free after 2070.**
- **Melting Permafrost – impacts 900 miles inland from Arctic – Huge potential for CO2 and Methane releases.**
- **James Hansen and the IPCC agree that world greenhouse gas emissions must peak by 2015 to limit global temperature rises to 2.0 to 2.4 Celsius over pre-industrial times.**

# Delay = Risk

Permafrost Impacts in Shishmaref, Alaska





<http://www.inhabitat.com/2008/08/18/pge-announces-800mw-of-solar-energy-for-california/>

**The Answer – a Rapid Transition from Fossil Fuels to Clean Energy. AB 32 requires an analysis of whether Cap-and-Trade or Carbon-Fees-with-100%-Rebate be more effective and more fair.**



**California's Huge Responsibility to Get it Right!**  
**California = Environmental Leadership**

# Summary of Our Presentations

## Allan

- What Is Cap-and-Trade?
- Accomplishments of the Acid Rain Program
- Problems Experienced with Cap-and-Trade and Other Emissions Trading Programs
- Lessons for Addressing Climate Change Through a Cap-and-Trade Program

## Laurie

- What are Carbon Fees with 100% Rebate?
- Benefits of Carbon Fees w/100% Rebate
- Can we do it in California (vs. nationally)?

# What is Cap-And-Trade?

- **Total Mass Emissions Cap on Covered Sources**
- **Cap Declines Annually to Accomplish Environmental Goal**
- **Examples**
  - Acid Rain (U.S.)
  - Lead Phase-Down in Gasoline (U.S.)
  - RECLAIM (Los Angeles)
  - Phase 1 Kyoto Protocol (Europe)

# What is the Acid Rain Program and What Did It Accomplish?

- Cap-and-Trade Program Primarily Aimed at Reducing SO<sub>2</sub> Emissions from Coal-Fired Power Plants
- SO<sub>2</sub> Emissions and Environmental Impacts Were Very Significantly Reduced
- New Infrastructure: 2 New Rail Lines, Some New SO<sub>2</sub> Scrubbers, Minor Burner Modifications
- New Technology: SO<sub>2</sub> Scrubber Control Efficiency Raised from 90% to nearly 99%
- Fuel Switch: Largest Emission Reductions Achieved by Switching to Powder River Basin Low Sulfur Coal

# Did the Acid Rain Program Prove Cap-And-Trade Will Work for Climate Change?

- Addressing Climate Will Require a Massive New Infrastructure and Very Significant Technological Innovation.
- Acid Rain Program Produced Little New Infrastructure or Technology
- Answer – No! The Acid Rain Program Did Not Prove That It Can Deliver What Is Needed to Address Climate Change

# Problems Experienced With Cap-And-Trade and Other Emissions Trading Programs

- Over-Allocation
- Inaccurate Measurement
- Price Unpredictability/Artificial Commodity
- Windfall Profits and Harm to Consumers
- Market Failure = Safe Harbor
- Offsets (Set Of Problems)

# Offsets – An Interactive Set of Problems

- Inaccurate Measurement
- Unenforceability
- Additionality
- Fraud
- Unintended Consequences/Perverse Incentives

## Examples

- HCFC-23
- Car Scrapping
- Forestry and Agricultural Practices
- “Low Emission” Busses and Hot Water Heaters

# Why Cap-And-Trade is a Limited Tool for Climate Change

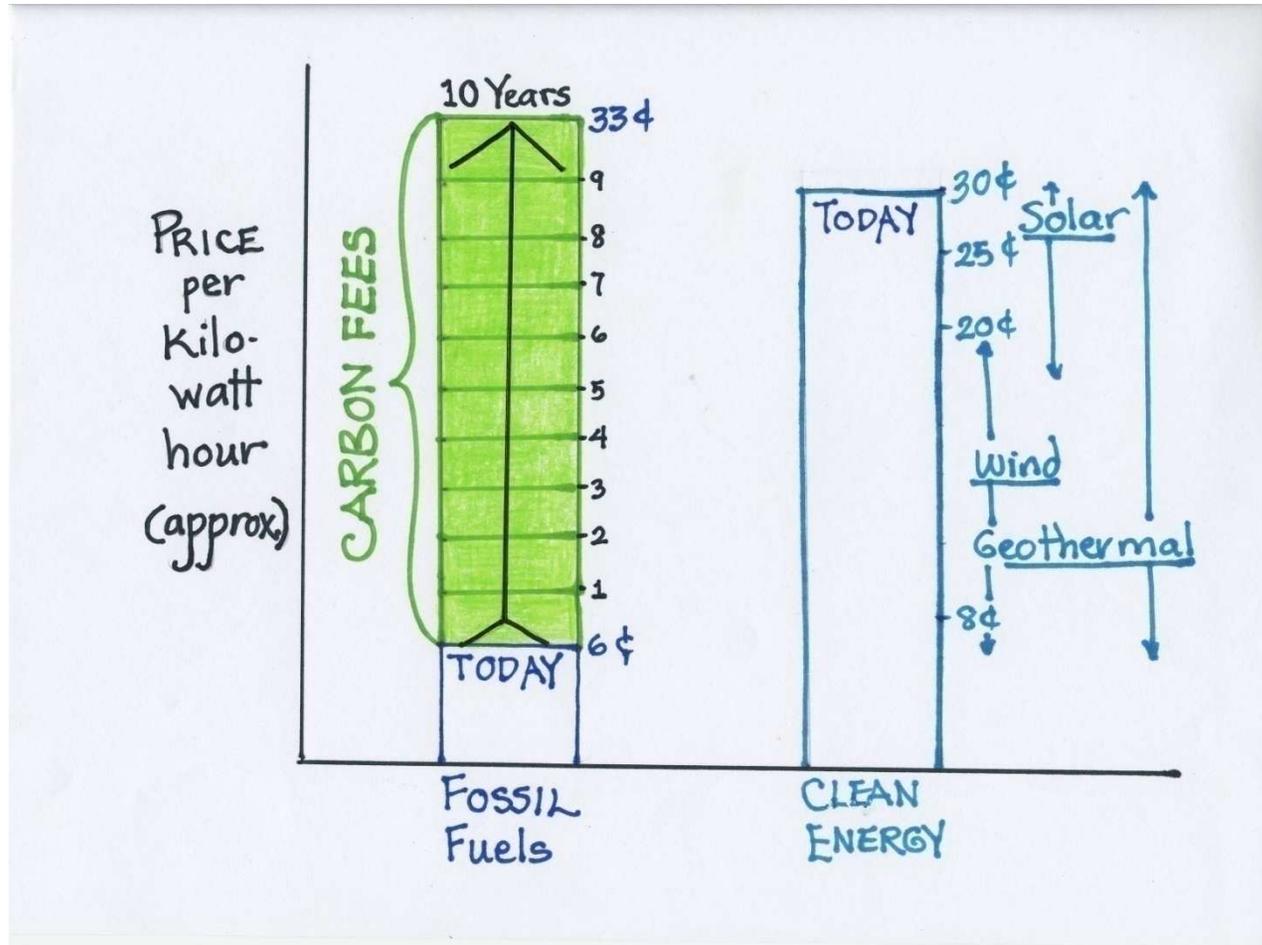
- Unproven
- Weakened/Vulnerable Version of Acid Rain
  - Offsets
  - Inaccurate Measurement
- Inadequate Incentives for Clean Energy
  - Price Unpredictability
  - No Assurance of Relative Price Advantage for Clean Energy

# What are Carbon Fees?

- 1. Carbon Fees – a Market Mechanism to address the relatively low cost of Fossil Fuels as compared to Clean Energy.**
- 2. A fee gradually phased in on all Fossil Fuels at the first point of sale following import or extraction.**
- 3. All fees to be placed in a Carbon Fees Trust Fund and promptly distributed to the public.**

# Why are Carbon Fees needed?

To insure adequate incentives for the rapid scale-up of clean energy!



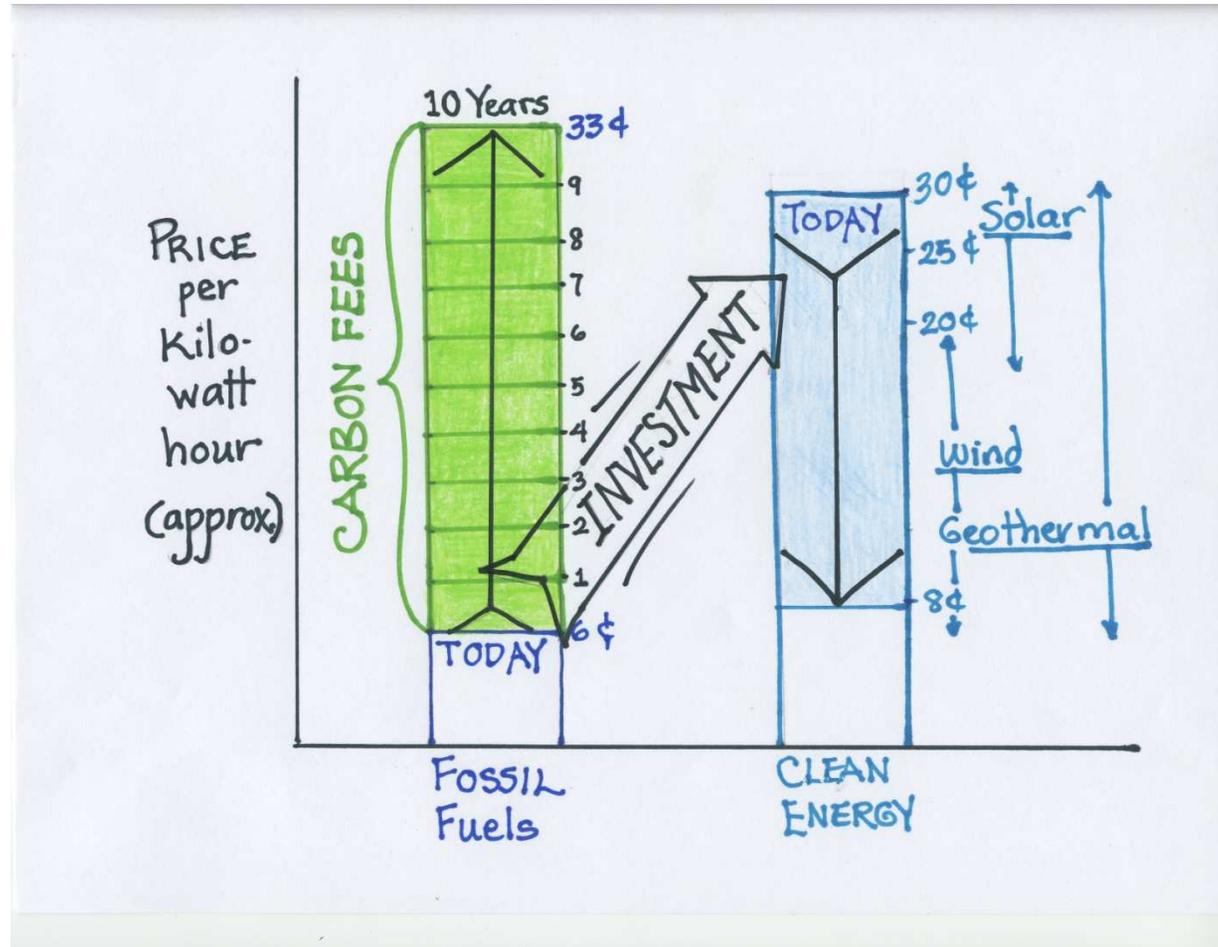
# What are Carbon Fees with Monthly 100% Rebate?

- **Carbon Fees with 100% Rebate means all Carbon Fees collected in a particular month will be distributed to the public the following month.**
- **Equal Payments to All Adults.**
- **1/3 for Kids.**

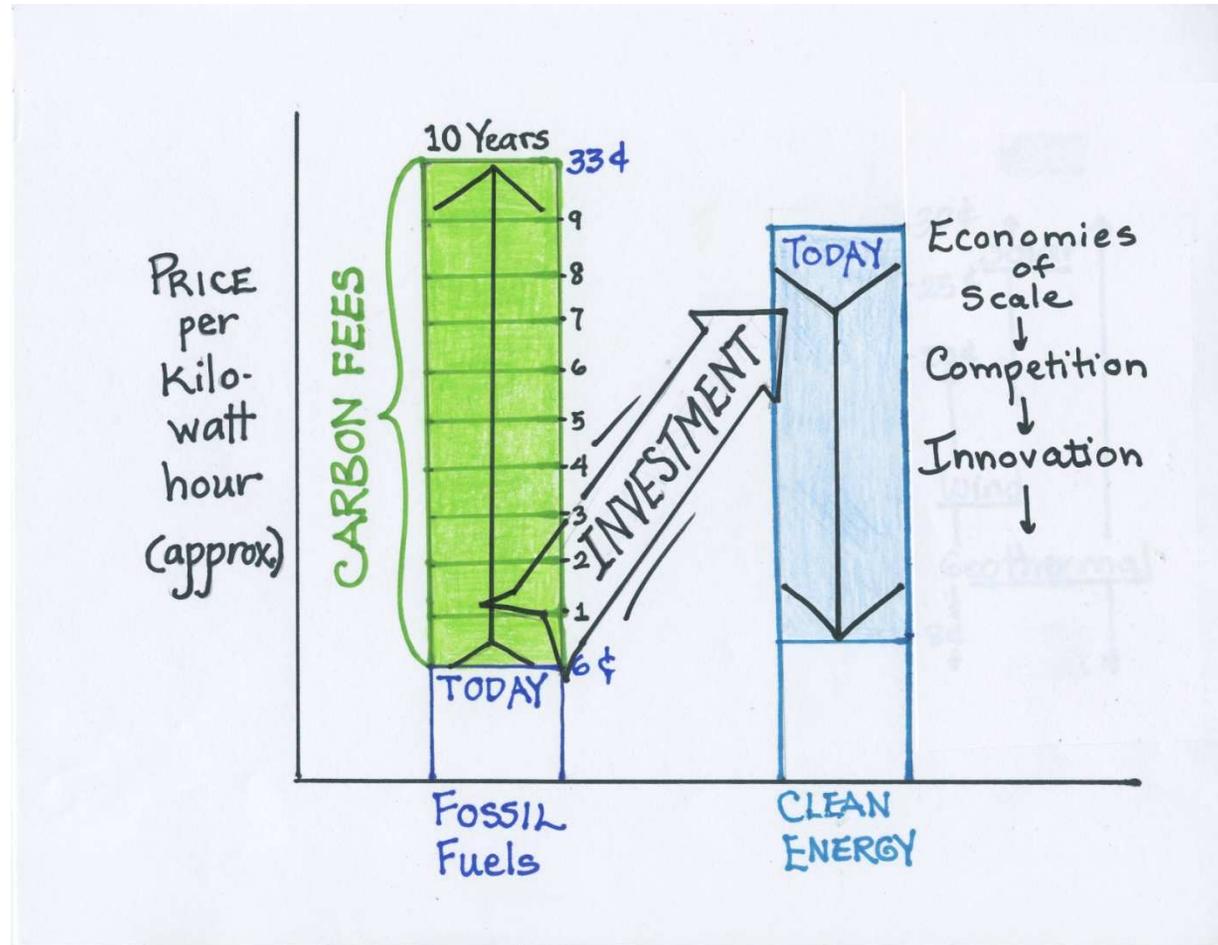
# What is the Impact of 100% Rebate to Consumers?

- **Front Page News** – Everyone will be focused on the size of their rebate check and whether it covers their Fossil Fuel usage.
- **Affordable** - Everyone will be able to afford the average amount of Fossil Fuels.
- **Conservation** – Creates an incentive to conserve because using more than the average amount of Fossil Fuels will be increasingly expensive.
- **Fair**: Since low and middle income people use less energy, they will be able to afford the energy they need.

# What is the Impact on Clean Energy Investment and Clean Energy Costs?



# Why Will Clean Energy Prices Fall?



# What are Other Critical Measures?

- **Ban on new Coal-Fired Power Plants without safe long-term sequestration (still unproven)**
- **Efficient Energy Superhighway**
- **Carbon-Fee-Equivalent Fees on Out of State Goods**
- **Energy Efficiency Standards for Building, Cars and other devices (as proposed by CARB)**
- **Job Retraining for those displaced by the transition to Clean Energy**

## Can Carbon Fees with 100% Rebate Be Used Under AB 32?

- **AB 32 – “maximum technologically feasible and cost effective reductions in greenhouse gas emissions.”**
- **CARB “may adopt a regulation that establishes a system of market-based declining annual aggregate emissions.” (Cap-and-Trade optional)**
- **CARB is also tasked with evaluating “monetary . . . incentives.” (Carbon Fees a choice)**
- **CARB is required to consider environmental justice. (Fairness to everyone is important)**

# Are Carbon Fees with 100% Rebate Taxes under California Law?

- AB 32 did not pass by a 2/3 majority and so cannot authorize taxes.
- However, Carbon Fees with 100% Rebate are not taxes.
- Taxes are imposed for revenue purposes, rather than in return for a specific benefit conferred or privilege granted. Sinclair Paint Co. v. State Bd. Of Equalization, 15 Cal.4<sup>th</sup> 866 (1997)

# Can California Apply Carbon Fees to Imports of Out-of-State Goods?

- The concern is the Commerce Clause of the U.S. Constitution - no state must unduly burden interstate commerce
- Balancing approach of U.S. Supreme Court - Answer depends on whether the law (a) discriminates against out of state goods, and (b) is necessary to achieve an important public purpose. Hunt v. Washington State Apple Advertising Comm. 432 U.S. 333 (1977)

# Who Else Supports the Carbon Fees Concept (over Cap-and-Trade)?

- **Environmental Justice Groups**
- **James Hansen**
- **Al Gore**
- **Mayor Bloomberg**
- **Many Economists (see a partial listing by Greg Mankiw of Harvard at: <http://gregmankiw.blogspot.com/2006/09/rogoff-joins-pigou-club.html>)**

# What are successful examples of fees like those we are proposing?

- **Cigarette taxes have been shown to significantly reduce smoking in adults and to reduce the number of youth who begin smoking.**

[https://www.policyarchive.org/bitstream/handle/10207/26/210\\_06-C25.pdf?sequence=1](https://www.policyarchive.org/bitstream/handle/10207/26/210_06-C25.pdf?sequence=1)

- **Alcohol taxes have been shown to reduce underage drinking and mortality.**

<http://www.econ.brown.edu/econ/sthesis/AnnePapers/Anne8.html>

# Summary of Benefits of Carbon Fees

- **Rapid Transition - Clear Price → Investment**
- **Cushions the Impact of Transition**
- **Fair and Affordable for Everyone**
- **Encourages Conservation**
- **Little Government Funding**
- **Cleaner Air**
- **Energy Independence (No Foreign Oil Needed)**
- **California – Global Leadership in Clean Energy**