

AB 32, Carbon Markets, and Carbon Policy



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ENVIRON



Who is ENVIRON International?

- Established in 1982, ENVIRON is an international environmental consulting and engineering firm employing 1,100 people across 62 offices in 16 countries
- ENVIRON provides scientific, technical and strategic risk management services to address EHS matters and issues related to the development and use of energy and environmental technology
- Energy-related practice areas include carbon management, air quality, landfill gas, energy efficiency, energy technology and renewable energy
- Project development arm, CarbonVentures dedicated to development of GHG offset projects



First, Some Perspective

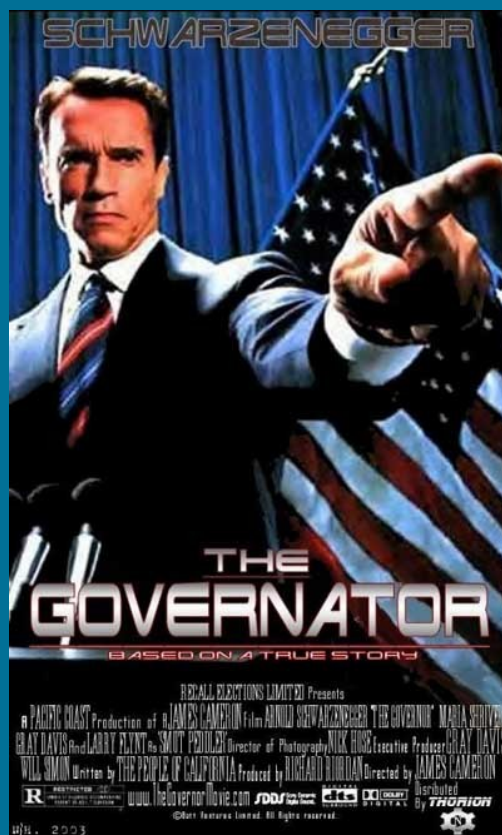
“I am not the least bit worried about the long-term ability of life on the planet to adapt to climate change, or even global nuclear war. Life is a stronger force than people who worry about biodiversity give it credit for.....

..... We as humans may not be around, but so what?
No great loss.

—*David Jefferies, M.S. 1968, Ph.D. 1979, Stanford University, now a physicist in Surrey, England*



The California Global Warming Solutions Act (AB32), September, 2006



- “Bipartisan” plan
- Phased approach
 - reduction of GHG emissions to 1990 levels by 2020
 - (understood) 80% below 1990 levels by 2050
- Allows, but does not mandate cap and trade program
- Framework for action



Motivations Behind AB 32

- Recognition of severity of issue
- Science gets worse every day
- Need to “prime” political pump
- Lead Washington; provide framework for national solution
- Demonstrate bipartisan success
- Provide ““maximum technologically feasible and cost-effective” reductions



Carbon Market Design Underway

- MAC created by Gov. Schwarzenegger; to provide recommendations on market design to California Air Resources Board (CARB)
- MAC issued report June 30
- Key elements
 - strongly support cap and trade
 - include all sectors, six gases
 - allocate first, then auction as much as possible
 - offsets should be permitted and not limited
 - linkages with other markets should be permitted
 - “first seller” approach for electricity



Rationale Behind MAC Recommendations

- Consensus for market mechanisms, broad coverage to reach target
- Sought most efficient market, i.e., most reductions at least cost
- Auctions address equity concerns, avoid over-allocation
- Quantitative or geographic restrictions for offsets would be arbitrary, costly
 - also preserves flexibility; important in economy-wide program (unlike RGGI, which covers only utilities)
- Political: resistance to “politics” entering design
- Underlying motivation of AB 32 is to create a national, international market



Design Mistakes to Avoid

- Over-allocation (as in European Trading Scheme, ETS and RECLAIM in CA)
 - registry protocol
 - auction ASAP
- Price shocks (e.g., compared with RECLAIM, Regional Clean Air Incentives Market)
 - Banking permitted
 - limit market power through economy-wide system
- Environmental Justice issues (i.e., pollution hot spots)
 - CO₂ is global pollutant



Supplementarity Concerns Are Valid

- Decrease long-term domestic investment in new technologies
- Weaken existing EU tax policies
- Increase focus on “cheap offsets,” including hot air when problem concentrated elsewhere
- Host of quality concerns, i.e., external offsets may be of questionable quality



How to Address these Concerns

- Offset quality standards
 - real, additional, measureable, verifiable, transparent, etc.
 - CDM/Gold Standard/VCS level
- Only permit with trading schemes with stringent caps
- Ensure domestic marginal cost sufficiently high to encourage investment (minimum price?)
- Regulate where price signals insufficient (i.e., transportation)



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