

Monday, December 08, 2008 (file cac177)

To: Dan Breedon

Subj: State Air Resources Board plan for global warming mitigation

Ref A: D. Weintraub, Something in the air, Sac Bee Dec 7, 08, California Forum Sec E1/E2  
([dweintraub@sacbee.com](mailto:dweintraub@sacbee.com))

Ref B: [www.arb.ca.gov](http://www.arb.ca.gov), Proposed AB 32 scoping plan, Latest news

Ref C: [www.lao.ca.gov](http://www.lao.ca.gov), recent publications re to legislative analyst's critique of economic assessment of air boards assessment

Ref D: Business coalition [www.ab32lg.com](http://www.ab32lg.com), keeping California competitive while attacking global warming

Ref E: Natural Resources defense Council, [www.nrdc.org](http://www.nrdc.org), Explore the issues

Ref F: B. Chiaro, director or clean energy programs for environment California,  
[www.environmentalcalifornia.org](http://www.environmentalcalifornia.org), upbeat assessment of opportunities in addressing global warming technology solutions

Ref G: T. Tanton, Senior fellow at Pacific Research Institute, (See Ref A), cautionary approach based on flawed analysis

Background: Californians are now looking at the practical implications of a serious carbon emission plan scheduled for vote on Dec 12 that calls for an overall reduction in GHG by 29% below the expected value in 2020. The following is a flow down of the plan at the Butte County level candidate that needs to be encouraged/required/predicted/ quantified.

1. 27% reduction in transportation associated GHG:
  - a. Conversion of buses to natural gas fuel
  - b. Improved existing rail service
  - c. Availability of conventional mobile vehicle liquid fuels with reduced carbon content
  - d. Housing and commercial development that reduces reliance on automobiles
  - e. Support of new limits on vehicle emission
  - f. Vehicle charging stations in support of all-electric or hybrid vehicles
  - g. Support expanded use of parking facilities that encourage vehicle/vanpool vehicle utilization and connection with future high speed rail linkage.
  - h. Expanded/improved trails/pathways for bicycle and foot traffic
  
2. 32% reduction in GHG associated with electricity generation
  - a. 33% from renewable sources

- i. Increase/expansion of cogeneration facilities with and without sequestration/ancillary use of CO<sub>2</sub>
  - ii. Increase/expansion of solar PV/solar thermal facilities by fast track approval process and subsidization
  - iii. Encourage study/application of geo-thermal power
  - iv. Encourage study/application of wind power
  - v. Recognize load leveling by smart metering, AC night freezing, hydraulic/thermal energy storage will reduce new construction/imputed energy
  - vi. Provision for energy system distribution right of ways that will allow for efficient use of remote energy sources outside of Butte County while maintaining safety and aesthetics.
- 3. 17% reduction of GHG associated with industry
  - a. Encourage use of no-till farming practices
  - b. Encourage planting of CO<sub>2</sub> capture vegetation that does not increase wildland fire risk
  - c. Measurement/auditing of gas distribution system leakage
  - d. Encourage use of Cap and Trade
  - e. Develop and apply improved solid waste management practices
    - i. Conversion of used tires/building waste for road building
    - ii. Conversion of Ag/forest/cogeneration particulates for soil enhancement/sequestration
    - iii. Capture and utilization of syn gas
    - iv. Encourage use of salvage structural materials in new construction
- 4. 8% reduction in GHG from consumer and commercial gases with high global warming potential
  - a. Require use of newer classes of refrigerant gases
  - b. Provide for salvage/conversion of refrigerant and dispersal gases
- 5. 9% reduction in GHG from residential/commercial construction/operation
  - a. Enhancement/Enforcement of new energy efficiency regulations
    - i. Expansion of title 24 requirements
    - ii. Encourage use of solar hot water heaters
    - iii. Encourage use of heat recovery ventilation systems
    - iv. Encourage use of heat sinking structures that capture/release heat at optimal times
    - v. Encourage use of low thermal loss windows
    - vi. Encourage use of low-e glass
    - vii. Encourage use of summer-winter switching by structural devices or deciduous trees

## General public policy

References A-G and public policy gurus like Reich at U.C. Berkeley are expected to weigh in on the costs and benefits for GHG direct and indirect benefits and world modeling that we expect going forward at various levels of government. The planned State effort does provide some weighting for Butte County efforts in the General plan segment on global warming mitigation. Many of the State mitigation efforts are not applicable to Butte County. Many of the unique Butte County mitigation efforts are not applicable to higher levels of government. New development such as industrial atomic fusion and breakthroughs in cellulosic biomass conversion could turn AB 32 on its head so flexibility/adaption should be key words in the general plan.

Topics untouched by Air Resources Board: Wildland fire has been and is likely to continue to be a major contributor to global warming in the absence of major mitigation efforts. I suspect that the Air Resource Board's desire is to create well defined wedges that are potentially enforceable. Wildland fire mitigation to be economically feasible needs to cut across multiple contributors using win-win techniques that may be difficult to enforce.

Conclusions: The Weintraub analysis per Ref A does highlight the low hanging fruit by predicting the life costs and the direct economic benefits subject to the criticism of Ref G. Many of the plans such as high global warming gases create a negative economic benefit. Many of the plans are economically neutral or beneficial. The December 12 date for AB 32 resolution marks the beginning of what promises to be a long term debate on funding and associated priorities. Costs and benefits have large uncertainty issues. Columbia and U.C. Santa Barbara and the Australian National University have been trying to directly address the accounting problem associated with global warming and cross over problems like water conservation tradeoffs with global warming. What comes out the tailpipe or smokestack is a tractable problem that lends itself to focus studies that may prevent overloading government agencies that have been bloodied by 2000-2001 efforts at deregulating electrical utilities and providing green voluntary options.