

Proposed Final Opinion on GHG Regulatory Strategies in the Energy Sectors

Key Findings and Recommendations

September 12, 2008

Michael Peevey

President

California Public Utilities Commission



Jackalyne Pfannenstiel

Chairman

California Energy Commission



Agenda Topics

- Background and Context
- March 2008 Interim Opinion
- Proposed Final Opinion
- Next Steps



Background and Context

- AB 32 directs Energy Commission and PUC to develop recommendations to ARB for reducing GHG emissions in the electricity and natural gas sectors
- Joint regulatory proceeding
 - March 2008 Interim Opinion
 - October 2008 Final Opinion
- ARB is final decision-maker
- Today's Proposed Opinion will primarily inform ARB's rulemaking process to follow the Final Scoping Plan to be adopted by end of 2008



March 2008 Interim Opinion

Recommendations

- Adopt regulatory requirements as foundation for GHG reductions
- Consider a mix of direct mandatory and market mechanisms
- Pursue multi-sector cap-and-trade program for GHG emissions allowances



March 2008 Interim Opinion

Recommendations

- Set requirements for achieving all cost effective energy efficiency
- Expand electricity from renewable energy beyond 20 percent goal
- Designate *deliverers* of electricity as responsible for compliance in a multi-sector cap-and-trade system where the electricity sector participates



March 2008 Interim Opinion

Recommendations

- Some portion of emission allowances should be auctioned
- Auction revenues returned to the energy sectors for benefit of consumers, to be spent on AB 32 purposes such as energy efficiency, renewable energy or low-income bill relief
- Additional record development needed on:
 - GHG emissions allowance allocations
 - Flexible compliance mechanisms
 - Treatment of combined heat and power



Proposed Final Opinion

Overview and Context

- Energy efficiency: Cornerstone of approach
- Renewable energy: Stepping stone to 2050 goals
- Market-based strategies: Complement and backstop to regulatory measures
- Combination of approaches captures best aspects of both
- Builds on March Interim Opinion, ARB's *Draft Scoping Plan*, and extensive stakeholder input



Proposed Final Opinion

Energy Efficiency and Renewables

- Recommends pursuing all cost-effective energy efficiency
- Recommends that ARB require comparable investment in energy efficiency from all retail providers of electricity
- Recommends expanding renewable energy use to 33 percent for all retail providers



Proposed Final Opinion

Electricity sector contributions to AB 32 goal

- Electricity sector accounts for 25% of California's GHG emissions
- ARB's draft *Scoping Plan* envisions electricity sector contributing 40% of GHG reductions from programmatic measures alone
- Additional reductions are expected from cap-and-trade, up to more than 50% reductions from business-as usual projections.



Proposed Final Opinion

Electricity Sector Costs and Rate Impacts

- Cost impacts will differ by service territory and ultimate policy chosen for cap-and-trade
- Rate impacts will vary among individual retail providers and customers
- Important to have programs, policies, and allocation approaches in place to minimize consumer impacts
- High levels of energy efficiency key to keeping consumer bills down



Proposed Final Opinion

Cap-and-Trade Program: *Allowance Allocations Among Sectors*

- Not yet enough information about ARB's ultimate program design to specify exact approach to sector by sector allocation; should be analyzed relative to costs of emissions reductions in other sectors
- Generally recommend allocation to electricity sector proportional to its historical emissions contribution in baseline period, ramping down to 2020 goal proportionally with other sectors



Proposed Final Opinion

Cap-and-Trade Program: *Allowance Allocations within the Electricity Sector*

- Considered alternative approaches to allocations
- Applied the following criteria to each approach:
 - Minimizes cost impacts
 - Provides equity among market participants
 - Supports a well-functioning market with accurate prices, certainty, and predictability
 - Simple to administer
 - Aligns incentives with AB 32 goals



Proposed Final Opinion

Cap-and-Trade Program: *Allowance Allocations within the Electricity Sector*

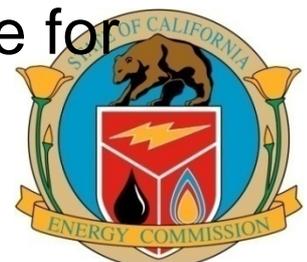
- Initially, 20% allowances auctioned, 80% distributed administratively to deliverers; ramp up annually by 20% to 100% auction by 2016
- Free allowances allocated to deliverers based on energy output and fuel source of electricity
- If emitters reduce carbon content of their power, allowances can be sold



Proposed Final Opinion

Cap-and-Trade Program: *Allowance Allocations within the Electricity Sector*

- Allowances for auction granted to the electricity retail providers, on behalf of their customers
- Retail providers required to sell allowances in an independent, centralized auction
- Allowance allocations to change over time, from grants based on historical portfolio emissions to sales basis by 2020 to allow transition time for retail providers with high emissions



Proposed Final Opinion

Cap-and-Trade Program: *Auction Revenue*

- All auction revenues to be used for purposes of AB 32
- Revenue from allowances auctioned by retail providers used to support investments in renewable energy, efficiency, new energy technology, infrastructure, bill relief for consumers
 - PUC/governing boards to decide programs
- ARB may wish to retain small portion of allowances with auction revenues used for statewide energy sector programs, consistent with AB 32



Proposed Final Opinion

Treatment of Combined Heat and Power (CHP)

- For CHP projects larger than ARB's minimum threshold: GHG emissions for electricity consumed on-site and/or delivered to the grid are included in cap-and-trade program and receive allowance allocations consistent with other electricity sources and providers
- Additional study needed to identify type and size of CHP projects that need additional encouragement
- Commissions to develop rules, programs and policies to achieve higher CHP goals



Proposed Final Opinion

Cap-and-Trade Program: *Market Design and Flexible Compliance*

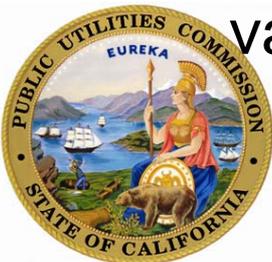
- Key market design feature is maintaining environmental integrity
- Flexible compliance options important due to electricity sector characteristics – annual weather variations, hydro conditions
- Design should also allow open and transparent trading with many participants
- Flexible compliance options can reduce costs



Proposed Final Opinion

Cap-and-Trade Program: *Market Design and Flexible Compliance*

- Support multi-sector, regional cap-and-trade market with no restrictions on market participation and links to other equally stringent cap-and-trade programs
- Recommend no safety valves or price triggers
- Three-year compliance periods to allow time for implementing emission reduction measures, as well as to account for annual weather and rainfall variations.



Proposed Final Opinion

Cap-and-Trade Program: *Market Design and Flexible Compliance*

- Unlimited banking of GHG emission allowances and offsets
- Offsets should meet the requirements of AB 32 but should not be limited geographically
- Commissions will work with ARB to evaluate additional design features



Next Steps in the Final Opinion Process

- *Proposed* Final Opinion released on September 12
- Stakeholder/party comments due on October 2
- Reply comments due on October 7
- Public Utilities Commission vote on October 16
- Energy Commission vote on October 16
- *Final Opinion* delivered to Air Resources Board on October 17

