Proposed Final Opinion on GHG Regulatory Strategies in the Energy Sectors

Key Findings and Recommendations

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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
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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.
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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
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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
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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
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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
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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
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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
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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.
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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
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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.
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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