Understanding California Cap-and-Trade

ORRICK

Robert F. Lawrence
Partner
Orrick, Herrington & Sutcliffe LLP
(650) 614-7655 (Silicon Valley Office)
(202) 339-8430 (Washington, DC Office)
rlawrence@orrick.com

March 3, 2011

Orrick, Herrington & Sutcliffe LLP

Introduction

- California Cap-and-Trade Program
  - Basics
    - Imposes a state-wide limit on greenhouse gas emissions
    - Allocates the right to emit
    - Affects electricity distribution systems and large industrial users of fossil fuels first
    - First compliance period begins in 9 months and 29 days (January 1, 2012)
  - Prepare for Dysfunction
    - Program is not finished yet, major component missing (allocation)
    - Major program elements will roil energy markets in California
    - Litigation will likely affect timing and requirements
    - Regulated entities who need allowances need to plan for 2012, NOW

Introduction

- Background to the Cap-and-Trade Program
  - AB 32
  - Scoping Plan
  - Mandatory Reporting Rule
  - Rulemaking by California Air Resources Board ("CARB")
  - Existing Litigation (already!)

ORRICK

Presentation Overview

- Status of the Rulemaking
- Understanding the Proposed Rule
- Major Problems with the Rulemaking
- Thoughts on the Path Forward

ORRICK

Status of the Rulemaking

- CARB approved the Cap-and-Trade Regulation in substantially the form proposed on December 16, 2010
  - CARB approved the proposed regulation with modifications as proposed by CARB's staff – certain changes will be implemented directly, others will go to pubic notice and comment
  - AB 32 authorized CARB to adopt regulations for "market-based declining annual aggregate emission limits" (*e.g.*, Cap-and-Trade) by January 1, 2011, to be effective in 2012
  - CARB endorsed the current version of the regulations on December 16, 2010
  - Allocation mechanics are undefined
  - CARB anticipates finalizing regulations in the fall (2011) with the full regulation to be adopted in December (2011)

Status of the Rulemaking
CARB's schedule going forward

- Schedule
  - Late Spring and Mid-Summer: Notices of Changes to the Regulations
  - Fall: Finalize the Regulation, to become effective January 2012
- Opportunity for Comment
  - Public may comment on the Notices of Changes to the Regulations
  - CARB has indicated the two comment periods will be "15-day changes"
    - Changes can either be "15-day changes" or "45-day changes"
    - 15-day changes are only permitted if the "sufficiently related"; or would "a reasonable member of the directly affected public could have determined from the notice that these changes to the regulation could have resulted"
    - Comments are limited to the "proposed modifications" of the regulation

ORRICK

Understanding the Proposed Rule
Overview

Program Elements of Generic Cap and Trade – 6 Basics	
Program Objectives:	Reduce emissions of specific pollutant and problem of defining objectives
The Cap:	Set overall emissions limits to avoid environmental harm and problem of offsets
Regulated Entities:	Define universe of regulated entities and problem of universality
Allocation:	Allocate new limited rights to emit (allowances) and problem of auctions
Geography:	Area within which regulations apply and problem of "leakage"
Administration:	Implement efficient and reliable means of recording trades and problem of enforcement

Understanding the Proposed Rule
Theory

Understanding Cap and Trade	
Environmental Framework:	Limit exploitation of a limited natural resource (*e.g.*, ability of atmosphere to absorb pollutants)
Economic Framework:	Allocate costs of limit and of compliance over the entire regulated community
Trading:	Purpose of trading is to provide financial incentives to those most able to reduce emissions
Efficiency:	Regulated entities discover means of compliance through private transactions
Market Mechanics:	Low costs when the limit is not reached; high costs when limit is reached or exceeded
Incentives:	As limit is reached or exceeded, financial incentives result in reduced demand and technological options
Contrasting Approaches:	Tax; command and control; government fee

Understanding the Proposed Rule
General Overview

- <u>Program Structure</u>
  - Three Separate Compliance Periods
    - Compliance Period 1: 2012 – 2014
    - Compliance Period 2: 2015 – 2017
    - Compliance Period 3: 2018 – 2020
  - Phase-in of Compliance Obligations
    - Phase I: beginning with Compliance Period 1, electricity sector and major industrial sources must comply.
    - Phase II: beginning with Compliance Period 2, all economic sectors, including fuel suppliers, commercial, consumer

ORRICK

Understanding the Proposed Rule
Covered GHG Emissions

- Covered GHG Emissions
  - Objective: GHG regulatory schemes aimed at reducing global warming and climate change
  - Pollutants: Targeting GHG emissions across the board
    - mainly carbon dioxide, but also other known GHGs, such as methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, sulfur hexaflouride, nitrogen trifluoride, and other fluorinated GHGs
  - CO_2e: carbon dioxide equivalent, concept that incorporates the global warming potential of different greenhouse gases

ORRICK

Understanding the Proposed Rule
The Cap

- Reduction in emissions from "business as usual" in 2012 and 1990 levels by 2020, reaching 334.2 MM metric tons of CO_2e in 2020
- Phase I Cap: 165.8 MM metric tons of CO_2e emissions in 2012
- Phase II Cap: 394.5 MM metric tons of CO_2e in 2015
- Historical Actual Emissions: Effect of Great Recession on Emissions
- Compare 2012 cap with 2008 Emissions:
  - Emissions subject to the Phase 1 Cap: 174.54 MM metric tons of CO_2e emissions, or 105% of 2012 cap
  - Total emissions: 474.64 MM metric tons of CO_2e, which was close to average for 2004-2008. CARB does not project those levels will return until 2013
- Query: Can cap accommodate economic recovery?

ORRICK

Understanding the Proposed Rule
The Cap

Compliance Period	Year	Annual Allowance Budget (Millions of GHG Allowances)
First Compliance Period	2012	165.8
	2013	162.8
	2014	159.7
Second Compliance Period	2015	394.5
	2016	382.4
	2017	370.4
Third Compliance Period	2018	358.3
	2019	346.3
	2020	334.2

Understanding the Proposed Rule
The Cap

- <u>Analysis of Cap</u>
  - Phase I:
    - Phase I cap reduces by 1.7 to 1.9 percent per year
    - Overall cap reduced by allowance “reserve” of 1% (cap at 99% of total)
      - Staff is considering removing another 0.5% of allowances for early renewable energy adoption
  - Phase II:
    - Phase II regulated entities will have to anticipate additional shortages
    - Phase II cap reduces by 3%+ per year
    - Phase II cap subject to reserves of 4% (cap at 96% of total)

ORRICK

Understanding the Proposed Rule
Covered Entities

- Covered Entity Designations
  - Phase I: Industrial and Electrical
    - "First Deliverers of Electricity": operators of electricity generation in excess of 25,000 metric tons of CO_2e per year and electricity importers
    - "Operators of [Covered] Facilities": cogeneration, stationary combustion facilities, and other industrial facilities that emit more than 25,000 metric tons of CO_2e per year
  - Phase II: Producers and Importers of natural gas, liquefied petroleum and most fossil fuels if more than 25,000 metric tons of CO_2e per year
    - All users of fossil fuels affected including residential and commercial fuels [unless very minor producers or importers]
    - All industrial users [other than minor] and electricity generators covered by Phase I
    - All electricity importers will be covered entities

ORRICK

Understanding the Proposed Rule
Covered Entities

- <u>Exempted Industries</u>
  - Biomass from solid waste, waste wood, agricultural crops or crop waste and certain harvested wood
  - Biofuels from agricultural products
  - Ethanol from cellulosic biofuels, corn starch, or sugar cane
  - MSW, but only if directly combusted or converted to a clean burning fuel
  - Biomethane from organic gas and landfill waste

ORRICK

Understanding the Proposed Rule
Covered Entities

- Covered Entities Must Submit Compliance Instruments (Allowances or Offsets) for Each Compliance Period
  - Each year, must report emissions
  - Each year, must deliver 30% of "positive or qualified positive" GHG emissions report
  - Must submit the difference at the end of the last year in the compliance period

ORRICK

Understanding the Proposed Rule
Covered Entities

- <u>Market Participants</u>
  - Covered Entities: entities with a compliance obligation
  - "Opt-in Covered Entities": an entity that emits GHGs, but not to the threshold where it has a compliance obligation, may voluntarily opt-in
    - Once voluntarily opt-in, must meet all reporting, verification, and compliance obligations
    - May also receive free allocation of allowances
  - Voluntary Participants:
    - Traders participating in the program
    - Entities and persons who want to buy and retire allowances to reduce aggregate available cap for businesses and individuals
    - Operators of offset projects

Allowances – Terminology

- <u>Allowances, Offsets, and Compliance Instruments</u>
  - Allowances: “limited tradable authorization to emit one metric ton of CO_2e”
  - Offsets: “tradable compliance instrument issued or approved by ARB that represents a GHG reduction or GHG removal enhancement of one metric ton of CO_2e”
    - Real, additional, quantifiable, verifiable, enforceable, and **<u>permanent</u>**
    - Also, “Sector-based offset credits” include credits issued from a sector-based crediting program
      - Offset credits generated by a specific sector in a particular jurisdiction. Concept not fully developed yet, but a typical situation would be if Brazil developed a program to halt deforestation and applied for offset credits in California
  - Compliance Instruments: global defined term that includes Allowances, Offsets, and Sector-Based Offset Credits

Understanding the Proposed Rule
Allocation

- Overview to Allowances
  - Allowances (or other Compliance Instruments) are required to be submitted to emit regulated substances (GHGs)
  - Allowances are issued for free to many regulated entities
  - Auctions required for investor owned utilities and regulated entities that do not receive allowances (including independent power generators and electricity importers)
  - Allowance distribution, holding and trading are subject to extensive limitations
  - In Phase II, some industrial users and importers or producers of fossil fuels will be required to purchase allowances at auction
  - Most of the allocation aspects of the rule are not finalized

Understanding the Proposed Rule
Allowances - Distribution of Allowances

- Distribution of Allowances: Reserve Accounts
  - CARB is Retaining 1% of Allowances from 2012-2015 for a reserve account from which allowances will be made available at $40 - $50 per allowance
    - Percentage of retained allowances increases to 4% to second compliance period and 7% for third compliance period
    - Price of Allowances from Reserve Account increases 5% (plus inflation) annually
    - An additional 0.5% of allowances each year may be set aside for voluntary production of renewable energy
  - Allowances from reserve account may only be purchased to satisfy compliance obligations
    - May not be traded
    - May not purchase Allowances from Reserve Account unless Holding Account is empty

Understanding the Proposed Rule
Allowances - Distribution of Allowances

- Distribution of Allowances: Industrial Sources and Electricity Generators / Importers
  - Industrial Covered Entities Receive Free Allowances
    - 100% free allowances for covered industries first three years to prevent leakage
      - Includes about 30 industries, organized by NAICS number
      - CARB is considering expanding the free allocation, but details not yet available
    - Percentage of free allowances available after first compliance period may decrease depending on "leakage" risk
  - Free allowances depends on "positive or qualified positive" emissions report
    - Relates to Mandatory Reporting Rule

ORRICK

Understanding the Proposed Rule
Allowances - Distribution of Allowances

- Non-Allocation: Electricity Generators and Importers
  - Are Regulated Entities but Receive No Allocation
  - CARB is freely distributing the Allowances allocated for emissions from electricity generators and importers to Publicly Owned Utilities and Investor Owned Utilities
  - Investor Owned Utilities then consign the Allowances back to CARB
    - allowances remain owned by utilities, but CARB sells them and delivers the proceeds of the sales of these allowances to the investor owned utilities
    - Publicly Owned Utilities may opt into this process, but also may opt to just keep the allowances that were distributed to them at no additional cost
  - At auction, Investor Owned Utilities, Electricity Generators, Importers, and any other market participant (including Publicly Owned Utilities or Industrial Users) may then bid on allowances

Understanding the Proposed Rule
Allowances - Distribution of Allowances

- Auctions
  - Auctions will be held quarterly and will be one round, blind bid
  - Price floor of $10 per Allowance in 2012, increases annually 5% plus inflation
  - Allowances for later years will be made available
- Purchase Limit
  - Covered Entities and Voluntary Opt-in Entities: No more than 10% of the Allowances offered for auction
  - Investor Owned Utilities: No limit
  - All other market participants: No more than 4% of the Allowances offered for auction
  - Direct and Indirect Corporate Associations Count

Understanding the Proposed Rule
Allowances – Limitations on Market

- Allowance Market: Buying, Selling, Affiliation, and the Holding Limit
  - Trading may be best understood by what is not allowed
    - Common sense prohibitions against manipulative trading, corners, or trades based on false information
    - Also, trades cannot result in "an entity or group of associated entities" exceeding their holding limit
  - Holding Limit
    - Limit on number of allowances that may be held. Formula is based on the number of allowances available in a given year
    - Holding limit for 2012 is just over 6 MM allowances (see chart next page)
    - Exemption for allowances in compliance account equal to amount of emissions reported in previous year
    - Applies to direct and indirect corporate associations

Understanding the Proposed Rule
Allowances – Allowance Market

Allowance Market: Holding Limit

Year	Annual Allowance Budget	Holding Limit
2012	165,800,000	6,020,000
2013	162,800,000	5,945,000
2014	159,700,000	5,867,500
2015	394,500,000	11,737,500
2016	382,400,000	11,435,000
2017	370,400,000	11,135,000
2018	358,300,000	10,832,500
2019	346,300,000	10,532,500
2020	334,200,000	10,230,000

ORRICK

Understanding the Proposed Rule
Allowances – Allowance Market

- Allowance Market: Affiliation – Definitions
  - Holding Limit Applies to "Direct and Indirect Corporate Associations"
    - Direct Corporate Association occurs when one entity: (1) Holds more than 20% of any class of listed shares (or has the right to purchase such amount); (2) can appoint more than 20% of common directors; (3) holds more than 20% of the voting power; (4) controls more than 20% of the other entity's affairs; or (5) holds compliance instruments in its holding account in which another entity has an ownership interest
    - Indirect Corporate Association: occurs when an entity has a direct corporate association with another party that has a direct corporate association with the other entity in question, or through a longer line of direct corporate associations, as long as there is 20% ownership throughout the attenuated association

Understanding the Proposed Rule
Allowances – Allowance Market

- Allowance Market: Affiliation
  - CARB has very stringent definition of associated entities and infers a controlling affiliation on a minority ownership
  - The corporate associations must be disclosed to CARB, so any ownership in any affiliate of more than 20%, regardless of how distant or whether there is actual control (for example, a 21% passive ownership in a two-member LLC would have to be disclosed)
  - Holding limit will apply to all associated entities "unless existing law or regulation prohibits coordinated market activity by the associated entities, including the transfer of instruments between accounts controlled by associated entities"

Understanding the Proposed Rule
Offsets

- Offsets May Be Used to Satisfy Up To 8% of a Compliance Obligation, but Caveat Emptor
  - Offsets are created by an offset project and then approved by CARB
    - Offsets may be generated by forestry projects, urban forestry projects, manure digester projects, and projects that remove ozone-depleting substances
  - BUT one of the criteria of an Offset is that it must be permanent. So if the Offset project ever fails, the Offset becomes invalid
  - CARB assigns this risk to the ***Purchaser*** of the Offset. An offset that has been retired and then becomes invalidated must be replaced by the entity that retired the offset within 30 days

Understanding the Proposed Rule
Geography

- <u>California Rule Limited to California</u>
  - Covers industries located in California and electric distribution utilities delivering electricity to customers in California
  - Covers electricity importers (Phase I) and importers and producers of fossil fuels (Phase II)
  - Imports of manufactured goods not covered
    - Intent to allocate free allowances to industries initially and then continue partial free allocations over time to offset leakage risk
    - Industries to be graded on energy efficiency in relation to benchmarks, in order to determine "appropriate" level of free allowance
    - No effective mitigation on cross-border competition with non-regulated out-of-state producers
      - For example, CARB is exploring the implementation of a "border adjustment" on imports of concrete
  - Linkage with Western Climate Change Initiative states and provinces

ORRICK

Understanding the Proposed Rule
Administration

- <u>Administrative Issues</u>
  - Monitoring requires inspection and verification of accurate monitoring
  - Penalties imposed for inaccurate reporting
  - Central registry is established for verifying trades and making transfers
  - Enforcement
    - Authorized Account Representative is assigned to be responsible to agency for compliance
    - Non-compliance is subject to a variety of penalties, including obligation to purchase 4x allowances for surrender

ORRICK

Critique: Does CA Program match criteria for cap and trade?

- Basic Elements of Cap and Trade: Purpose, limit (cap), regulated entities, allocation, geography and administrative matters
- Major Issues arise in California under all of these headings
- These major issues pose substantial challenges for entities doing business in California

ORRICK

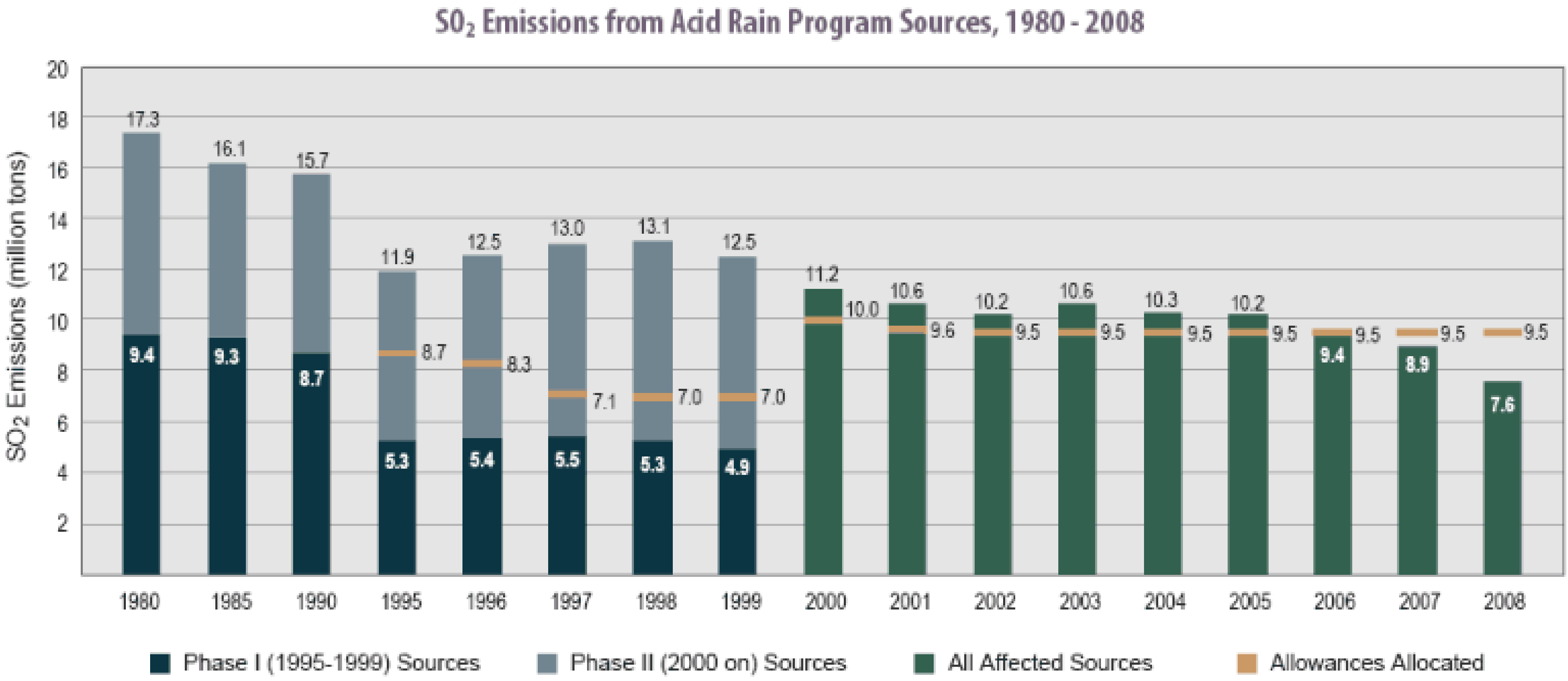
Critique: Purpose

- Purpose: Targeting an activity that can be reduced by imposing a cap and allocating rights to use it
- Multi-pollutant framework: Trading allowances across industry sectors may not have economically predictable consequences.
- Using the same type of allowance for multiple types of air pollutants and across industrial sectors may result in cessation of low-margin, high GHG businesses or activities that cannot afford to operate
- Multi-sector framework: Trading allowances equally among differing industries may have the same effect. Less economically useful or valuable activities will be supplanted by activities that can afford to outbid competition in the market
- Analysis: Proposed cap and trade program may not have a sufficiently focused purpose

Critique: Limit

- Limit: From economic perspective, limit is not initially high enough
- SO_2 Allowance Program: Initial limit exceeded emissions
  - SO_2 Allowance program enacted into law 1990
  - Phase I effective 1995
  - Phase II effective 2000
  - Industry responded to future limitations and planned for them
- Phase-In Period: California program phases-in over 10 months of 2011 (and is not yet final)
  - By imposing a limit that is below “business as usual” the regulation creates an instantaneous shortage
  - Similar to musical chairs, where the music stops on Jan 1, 2012

SO_2 Limit Phase-In



Source: EPA, 2009

Critique: Geography

- Rule Limited to California
  - Problem #1: Lack of ability to regulate other states. Actions in California will not have significant effects outside of California
  - Problem #2: Lack of ability to control “leakage” in industrial and commercial sectors
    - These sectors compete globally
    - Other states and jurisdictions don’t have GHG regulation
    - California will be at a cost disadvantage
  - Problem #3: Regulation at state border in potential violation of US Constitution Commerce Clause

ORRICK

Critique: Administration

- Administrative Issues
  - Problem #1: Significant governmental involvement in validating measurement
    - Unnecessary and inefficient
    - SO_2 program alternative
  - Problem #2: Significant limitations on real trading market
  - Problem #3: Administrative costs of compliance, in forms of disclosure and allowance acquisition
    - Disclosures of corporate associations are not congruent with the administrative needs of the program

Major Issues on Implementation

1. Cap is lower than existing market activity, creating instant shortages
2. Cap is phased in so quickly that no one has time to plan for it or implement technical or business solutions
3. Allocations to some regulated entities for free and to other regulated entities by auction creates market dislocations that do not appear to have been analyzed (IPPs and contracts)
4. Auction process redirects capital away from technological alternatives and discourages conservation
5. Intersectoral competition has not been analyzed adequately and is likely to favor utilities and disfavor industrial and commercial businesses
6. No meaningful way to mitigate “leakage” (no ability to tax at border to avoid cross-border competition from other providers and producers)

Timeline

- As of February 8, CARB's planned activities for 2011 on cap and trade are:
  - Spring: hold workshops on offsets, compliance and penalties, allocation of allowances, and program management
    - Includes discussion on holding limits and corporate associations
    - By end of spring, publish notice of first set of 15-day changes
  - Summer: report to CARB by July 31 on implementation issues, including allowances and auction / trading mechanics, as well as publish second notice of 15-day changes
  - Fall: finalize the regulation and hold compliance workshop
- Cap-and-Trade Regulation to be Effective in December
- <u>BUT</u>: What effect will litigation have on the process?
  - Litigation already pending that may enjoin implementation of program
  - Additional litigation is likely

Update on Current CEQA Litigation Against Cap and Trade Program

- Tentative Decision Issued January 24 Would Likely Enjoin Program
  - Lawsuit brought by environmental groups challenged CARB's Scoping Plan on two grounds: (1) improper delegation to an agency; and (2) failure to properly review the environmental impacts of the Scoping Plan under CEQA
  - Superior Court of California in San Francisco issued Tentative Order enjoining implementation of Scoping Plan on January 24
    - Not Binding
      - Ruled in favor of CARB on delegation issue
      - Enjoined implementation of Scoping Plan because CARB failed to follow CEQA procedures
  - Not clear what the effect of enjoining implementation of Scoping Plan is on the cap and trade program – and CARB has asked for clarification
  - Both sides filed objections, and CARB asked for another hearing

Will Other Litigation Delay Program Implementation?

- Almost Certainly
- Impact on the Regulation and its Effectiveness is Unclear
- Uncertainty Creates Problems for Businesses with Compliance Obligations
  - Business planning requires companies to implement processes and program into place before January 1, 2012
  - How do you anticipate all the possible contingencies that must be planned for in compliance? In other words, how do you create a binding obligation to comply with the flexibility that is required by a regime that is in such flux?

Summary and Conclusions

- The Reality
  - The first compliance period starts in 10 months
  - No one knows what the allocation system will look like
  - Some regulated parties will not receive allowances
  - Lack of phase in means instant shortages
- The Options
  - Conserve, reduce emissions or move out of the state
  - Evaluate technical options and requirements
  - Alternatives including planning business to stick within historical emissions and/or entering into agreements with other companies to buy excess allowances

ORRICK

Summary and Conclusions

- <u>Contract Issues</u>
  - We have developed a form of contract
  - Includes many contingencies and "outs" in the event that the program does not start on time or is significantly changed
  - Commences upon satisfaction of various conditions, including successful bidding and auction results
  - Designed to avoid "association" that would trigger holding limits

ORRICK

Thank you.

ORRICK

Robert F. Lawrence
Partner
Orrick, Herrington & Sutcliffe LLP
(650) 614-7655 (Silicon Valley)
(202) 339-8430 (Washington, DC)
rlawrence@orrick.com