

# Mandatory Commercial Recycling Regulation

June 16, 2010  
CalRecycle

# Overview

- Goals and Justification
- Informal Rulemaking/Feedback Process
- Review of Draft Regulation
- Cost Issues
- Environmental Impacts
- Timeline and Next Steps
- Contact Information

# Global Warming Solutions Act of 2006

AB 32 established the first U.S. economy wide climate change regulatory program

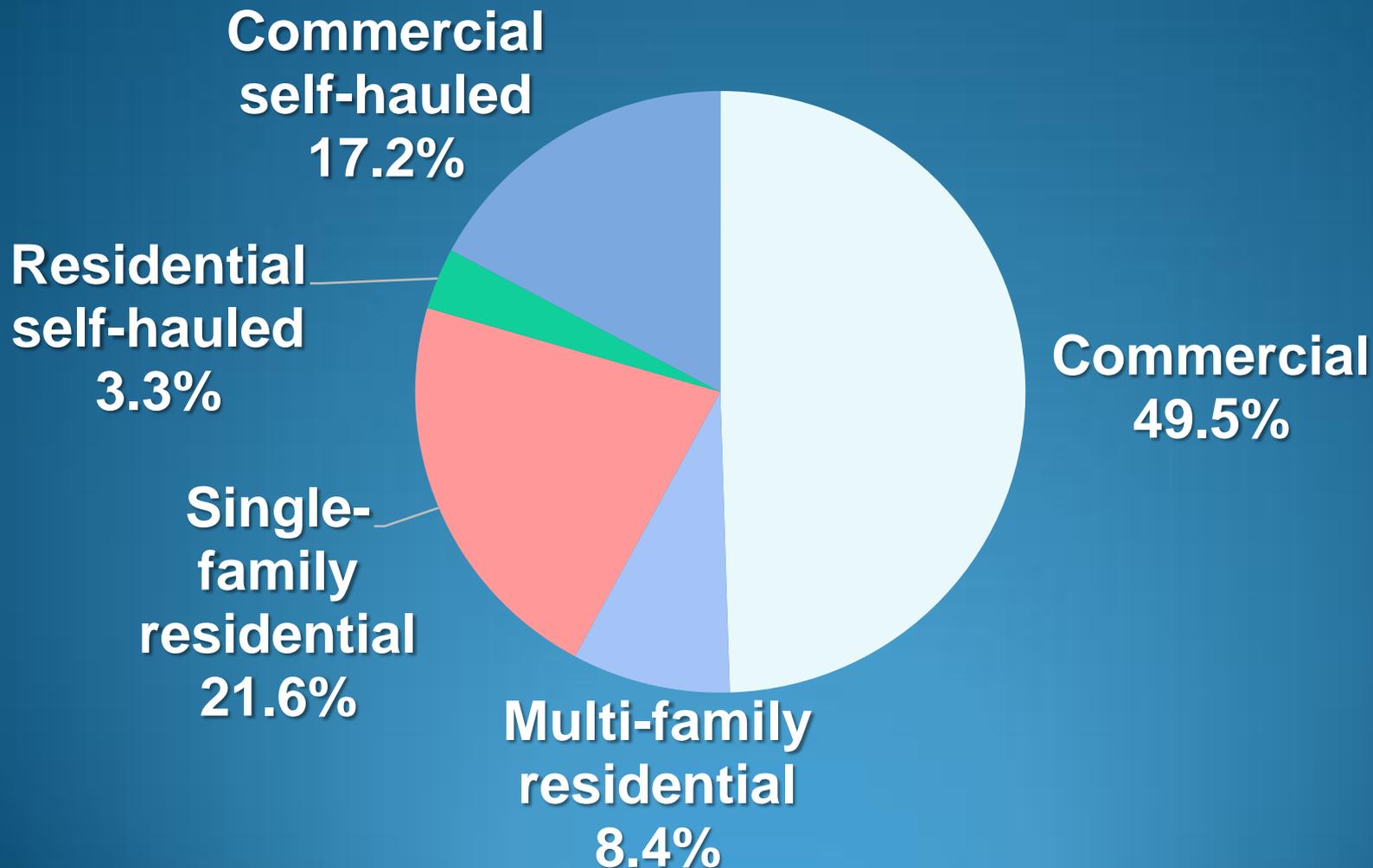
- Sets GHG emissions cap for 2020 at 1990 level, an 11% reduction from 2006 levels
- Points way toward 80% reduction by 2050
- Scoping Plan provides framework to meet GHG reduction targets
  - 14 of 30 Scoping Plan measures approved to date
  - Expected to accomplish nearly 45% of 2020 goal

# Scoping Plan Recommendations

Combination of regulations, market and voluntary measures

- Advanced Clean Cars
- Renewable Electricity Standard
- Low Carbon Fuel Standard
- High GWP Refrigerant Management Program
- Regional targets for transportation-related emissions
- Cap-and-trade program
- Mandatory Commercial Recycling

# Statewide Commercial Overall Disposal, 2008



# Goals

- Reduction of 5 million metric tons CO<sub>2</sub>E
  - 27 million tons is disposed by commercial sector
  - Targeting reduction about 3 millions tons of commercial disposal by 2020
- Flexible for jurisdictions and businesses
  - Does not specify which materials must be diverted
  - Allows jurisdictions to design program
  - Allows businesses various ways to recycle depending on local infrastructure
- Builds on existing AB 939 processes

# Informal Rulemaking Process

- July 2009 - White Paper
- July & August 2009 - Stakeholder Workshops
- September 2009 – CIWMB Policy Committee
- December 2009 - CIWMB approval of draft language
- Other presentations/meetings

# Joint CalRecycle/ARB Process

- Scoping Plan designates CalRecycle as lead
- Joint Rulemaking & Implementation Plan
- CIWMB approved regulatory concept Dec 2009
- ARB hearing to consider regulation -- tentative Oct 2010
- ARB retains ultimate oversight authority

# Draft Regulatory Approach: Jurisdiction Requirements

- Jurisdictions must implement commercial recycling program that consists of education, outreach, and monitoring by July 2012
  - Regardless of meeting 50% per capita disposal target
  - Can use existing programs and protects franchise agreements
  - Have the flexibility to phase in program components

# Draft Regulatory Approach: Business Requirements

- Businesses and Multifamily (5 units or more) that generate 4 cubic yards of waste and/or recyclables/week must:
  - Subscribe to recycling service, or
  - Send materials to mixed waste processing facility, or
  - Self-haul recyclables

# Draft Regulatory Approach: Jurisdiction Requirements

- Can utilize a combination of programs, e.g., education/outreach/monitoring to meet the program requirements
- Can determine type of education, outreach, monitoring that fits infrastructure and resources;
- Report to CalRecycle in Electronic Annual Report

# Draft Regulatory Approach: Jurisdiction Requirements

- Jurisdictions may also choose to implement a program that includes enforcement of businesses:
  - Ordinance, policy, existing franchise agreement, etc.
  - 40 cities have a mandatory program
  - Variations:
    - Types and sizes of businesses
    - Specific materials
    - Enforcement—city, hauler, combination
    - Education key in all mandatory programs!

# Draft Regulatory Approach: Roles & Responsibilities

- CalRecycle:
  - Evaluate jurisdiction programs
  - Measure emission reductions statewide
  - Provide tools, models, peer matching, technical assistance
  - Report to ARB

# Draft Regulatory Approach: Roles & Responsibilities

- CalRecycle (continued)
  - Review jurisdictions' implementation upon receipt of Annual Reports in 2013
    - For jurisdictions on 2-year cycle, evaluation begins 2014 and continues every 2 years
    - For jurisdictions on 4-year cycle, evaluation begins 2016 and continues every 4 years.
  - CalRecycle may conduct a compliance review anytime outside of two and four-year cycles

# Draft Regulatory Approach: Roles & Responsibilities

- CalRecycle (continued)
  - Review jurisdictions' implementation
  - Good Faith Effort—determine whether:
    - Businesses are subscribing to recycling programs
    - Jurisdictions are conducting outreach and education
    - Jurisdictions are monitoring and notifying businesses that are not in compliance
    - Local/regional markets are constrained

# Draft Regulatory Approach: Roles & Responsibilities

- CalRecycle (continued)
  - Same compliance process as AB 939
  - If on Compliance Order, then Local Implementation Plan created with jurisdiction
  - Only if Plan is not implemented would penalties be assessed

# Draft Regulatory Approach: Roles & Responsibilities

- CalRecycle (continued)
  - Estimate emission reductions statewide
    - Statewide baseline
    - Estimates will be applied to projected statewide disposal for measurement years
    - Waste characterization studies in 2014-15 and 2019-20
    - Determine if met GHG reduction goal

# Methodology for Estimating GHG Emissions Reductions

- Estimate of potential statewide GHG reductions will be based on:
  - Estimate of tons of diverted commercial waste
  - Emission reduction factors for recyclable materials (&organics)
- Factors based upon life-cycle methodology
  - Recycling emission reduction factor (metals, glass, plastic, paper): Quantifies emission reductions from the manufacturing stage and forest carbon sequestration.
  - Compost emission reduction factor (food scraps and yard waste): Evaluates the avoided emissions due to compost application as an agricultural amendment.

# Draft Regulatory Approach: Roles & Responsibilities

- ARB
  - Ultimate authority for oversight and implementation of the proposed regulation
  - If required, use ARB's statutory enforcement procedures

# Commercial Cost Study

- Cost to local governments and businesses is key
- Regulation is as flexible as possible for jurisdictions, allowing local design based on local conditions
- Cost study being finalized

# Tonnage Classification

- Data Sources:
  - 2008 Statewide Waste Characterization Study
  - 2008 Disposal Reporting System
  - State, L.A. City, L.A. County Generator Studies
- Tonnage Categories
  - Commercial & Multi-Family, Hauled, Non-C&D
  - Commercial & Multi-Family, Hauled, C&D
  - Commercial & Multi-Family, Self-Hauled, Non-C&D
  - Commercial & Multi-Family, Self-Hauled, C&D

# Cost Study Methodology

- Data Collection & Sources
  - Industry-Provided
  - HF&H Files
  - Public Procurements
  - CalRecycle Studies & Reports
  - Literature Review
- Cost-of-Service Estimation (Collection)
- Market Pricing (Processing, Transport, Disposal)
- Commodities Pricing

# Programmatic Scenarios

- Baseline – All Materials to Disposal
  - 26.9M Tons Disposed
- Scenario 1 – Traditional Recyclables
  - 1.48M Tons Recovered (5.5% Recovery Rate)
- Scenario 2 – Traditional Recyclables and C&D
  - 1.56M Tons Recovered (5.8% Recovery Rate)
- Scenario 3 – Traditional Recyclables and Organics
  - 3.57M Tons Recovered (13.3% Recovery Rate)
- Scenario 4 – Recyclables, Organics, and C&D
  - 3.35M Tons Recovered (12.5% Recovery Rate)

# Preliminary Conclusions

- High GHG Material = Lowest Tons to Target
- Programs Including C&D = Low Cost
- Programs Including Organics = High Cost
- Economies of Scale are Significant
  - Available Tons
  - Density
- Avoided Disposal is Significant

# Environmental Impacts

- Net reduction in air emissions may result:
  - Reduced extraction, processing, and transportation of mineral resources
  - Reduced manufacture and use of synthetic pesticides and fertilizers
  - Avoided landfill emissions
  - Reduced transportation emissions to landfills
- Increase in emissions associated with recycling:
  - Transportation, processing, & manufacture
  - Increased VOCs from compost facilities

# Environmental Impacts

- Additional Benefits
  - Soil Quality and Carbon Sequestration
  - Water Quality
    - Avoided impacts associated with mining
    - Increased compost and mulch use reduces sedimentation, filters stormwater runoff, assists in revegetation

# Environmental Impacts

- Additional Benefits (continued)
  - Water Use
    - Increased compost and mulch use increases water infiltration and water holding capacity
- Energy
  - Reduction in fossil fuel consumption related to extraction, transportation and manufacturing
  - Increased production of biofuels / bioenergy

# Additional Issues

- Transformation
- Rural exemptions

# Related Tools & Resources

- Institute of Local Government
  - Sample ordinance
  - Case studies
  - Pilot City(s)
  - Award program
- Infrastructure Project
  - Centralized info on waste mgt. & recycling facilities
- H,F&H Commercial Cost Study Tools
  - Calculator to estimate business costs/savings & GHG benefits
  - Partnering with ARB and coolcalifornia.org tools
- CalRecycle general business assistance

# Timeline

<b>Initial Informal Stakeholder Feedback</b>	<b>Draft Regulation Development</b>	<b>Additional Informal Stakeholder Workshop</b>	<b>Formal Rule Making</b>	<b>Adoption/ Implementation</b>
July – September, 2009	September – December, 2009	June 16, 2010	August-October, 2010	2011/2012

# Proposed Implementation

- Initiate formal rulemaking process (August 2010)
- Consideration at ARB October 2010 meeting
- CalRecycle implementation in 2011
  - Workshops
  - Tools
  - Assistance
- Jurisdictions/businesses implement July 2012
- Jurisdiction reviews begin 2014 and 2016

# More Information

- CalRecycle's Mandatory Commercial Recycling web page at  
<http://www.calrecycle.ca.gov/Climate/Recycling/default.htm>
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