

Proposed Regulation for Energy Efficiency and Co-Benefits Assessment of Large Industrial Facilities

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Cal/EPA Headquarters Bldg.
1001 I Street
Sacramento, California

California Environmental Protection Agency



Air Resources Board



Overview

- Background
- Proposed Regulation
- Impacts
- Proposed 15-Day Changes
- Summary and Recommendation

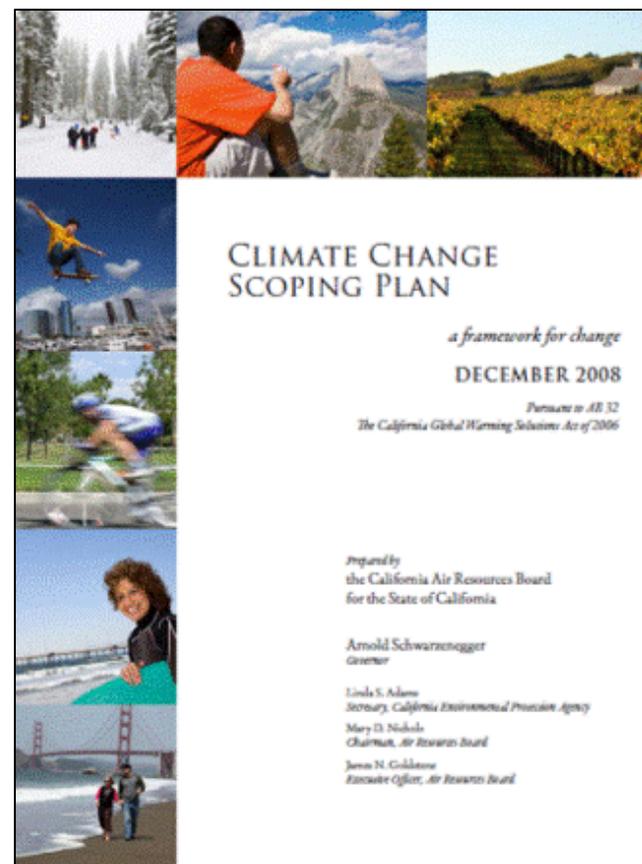


Background



AB 32 and Climate Change Scoping Plan

- AB 32 set State's 2020 greenhouse gas (GHG) limit and directed ARB to prepare a Scoping Plan
- Scoping Plan proposed a measure to require energy efficiency and co-benefits audits for the largest industrial facilities



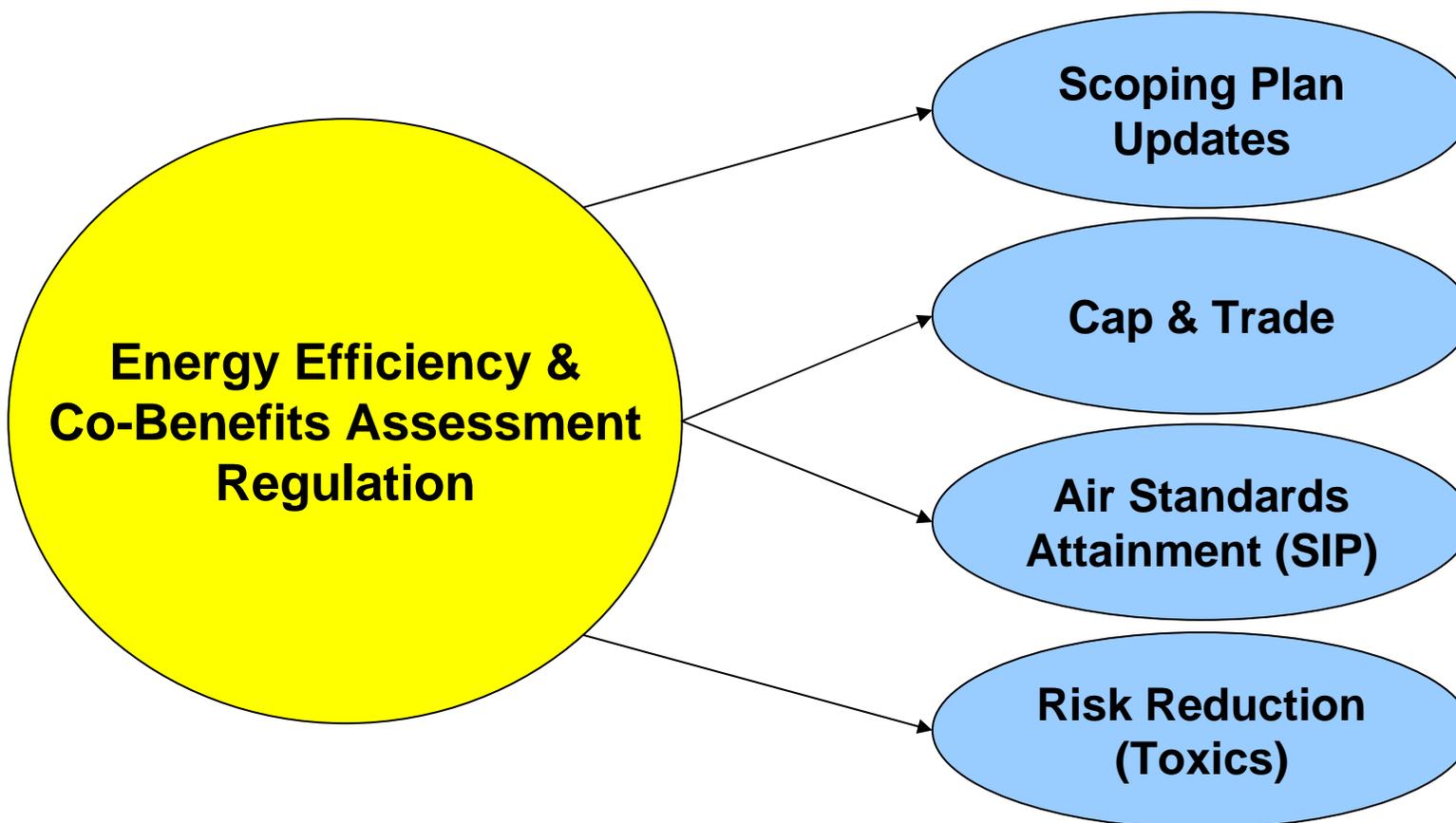
AB 32 Scoping Plan Recommended Action

- Energy efficiency and co-benefits audit (assessment)
 - who - large industrial facilities (emissions ≥ 0.5 MMTCO₂e)
 - what - identify potential GHG emission reduction opportunities
 - other considerations - identify potential criteria and toxic air pollutant emission reduction co-benefits
 - one-time assessment

Goals of the Proposed Regulation

- Identify facility energy consumption and GHG, criteria pollutant, and toxic air contaminant emissions
- Determine potential opportunities for improving energy efficiency and reducing emissions from largest stationary sources
- Provide information to direct future actions

Information Gathered Will Inform Air Quality and Climate Change Programs



Public Process to Develop the Proposed Regulation

- Three public workshops
 - shared draft concepts
 - public reviewed regulatory language and provided input
- Multiple site visits, teleconferences, and meetings with stakeholders



Proposed Regulation



Applicability

- Facilities in California with ≥ 0.5 MMTCO₂e emissions annually
- Facilities represent ~45% of GHG emissions from industrial sector (70 MMTCO₂e)
- Expect ~ 60 facilities affected
 - facility types:
 - electricity generating facilities
 - hydrogen plants
 - oil and gas extraction and transmission facilities
 - transportation fuel refineries
 - cement plants
 - mineral plants

Three Main Elements to the Proposed Regulation's Requirements

- Analysis of facility energy consumption and emission sources
- Energy efficiency improvement assessment
- Assessment Report



Analysis of Facility Energy Consumption and Emissions

- Facility reports energy use and GHG, criteria pollutant, and toxic air contaminant emissions data
 - GHG emissions from 2009 mandatory GHG reporting
 - criteria and toxics emissions from district reporting



Energy Efficiency Improvement Assessment

- Facilities identify full range of opportunities to improve efficiency and reduce emissions
- Impacts of each project are assessed (costs, timing, emissions, etc.)
- Facility can conduct the assessment or hire a third party



ARB Staff Will Work Closely with Facilities During Assessment Process

- ARB staff familiar with sector will work with individual facilities
 - address implementation questions/concerns
 - streamline compliance



Assessment Report

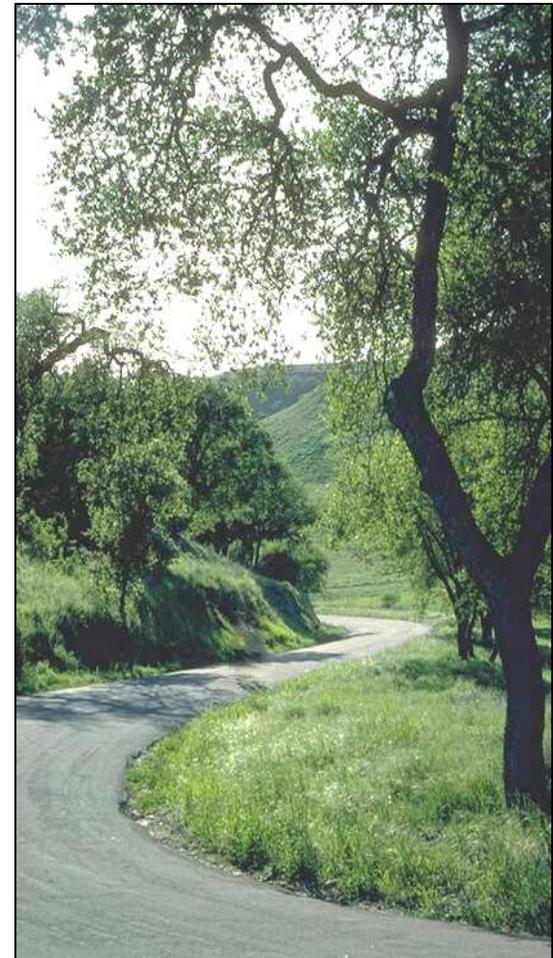
- Facilities submit report to ARB by December 15, 2011
- Report includes:
 - energy consumption and emissions data
 - comprehensive energy efficiency improvement assessment
 - additional supporting data
- ARB staff will review reports for completeness
- Some reports will be selected for a third-party review

Public Disclosure

- Facility assessment reports to be posted online by April 30, 2012
 - allows time for review, compliance extensions, and third party assessments (if required)
- Disclosure is critical to inform public, facilities, and ARB of available emission reduction opportunities

Post-Reporting Actions

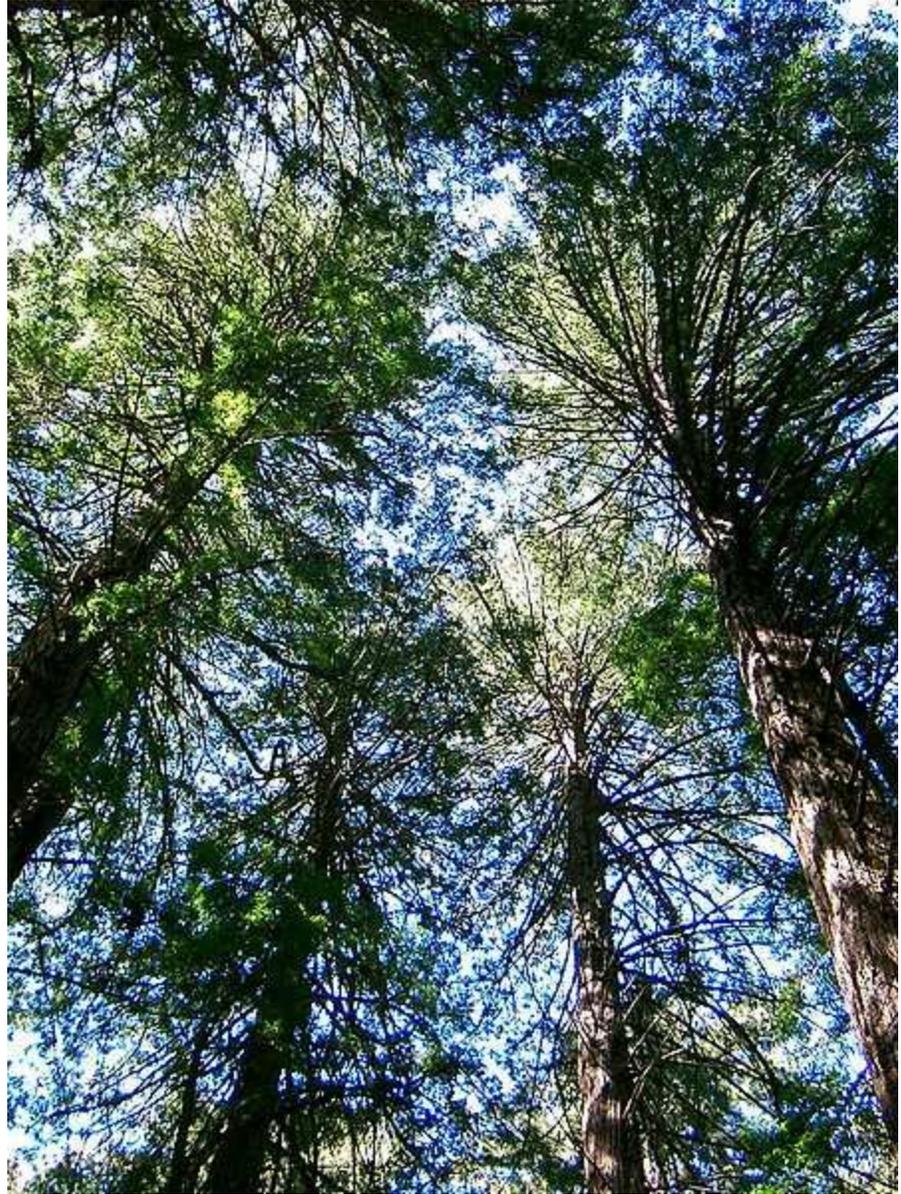
- ARB staff prepares a summary report of preliminary findings (mid-2012)
- Public workshop(s) to discuss the data
- Identify possible actions for obtaining further reductions in GHG, criteria pollutant, and toxic air contaminant emissions



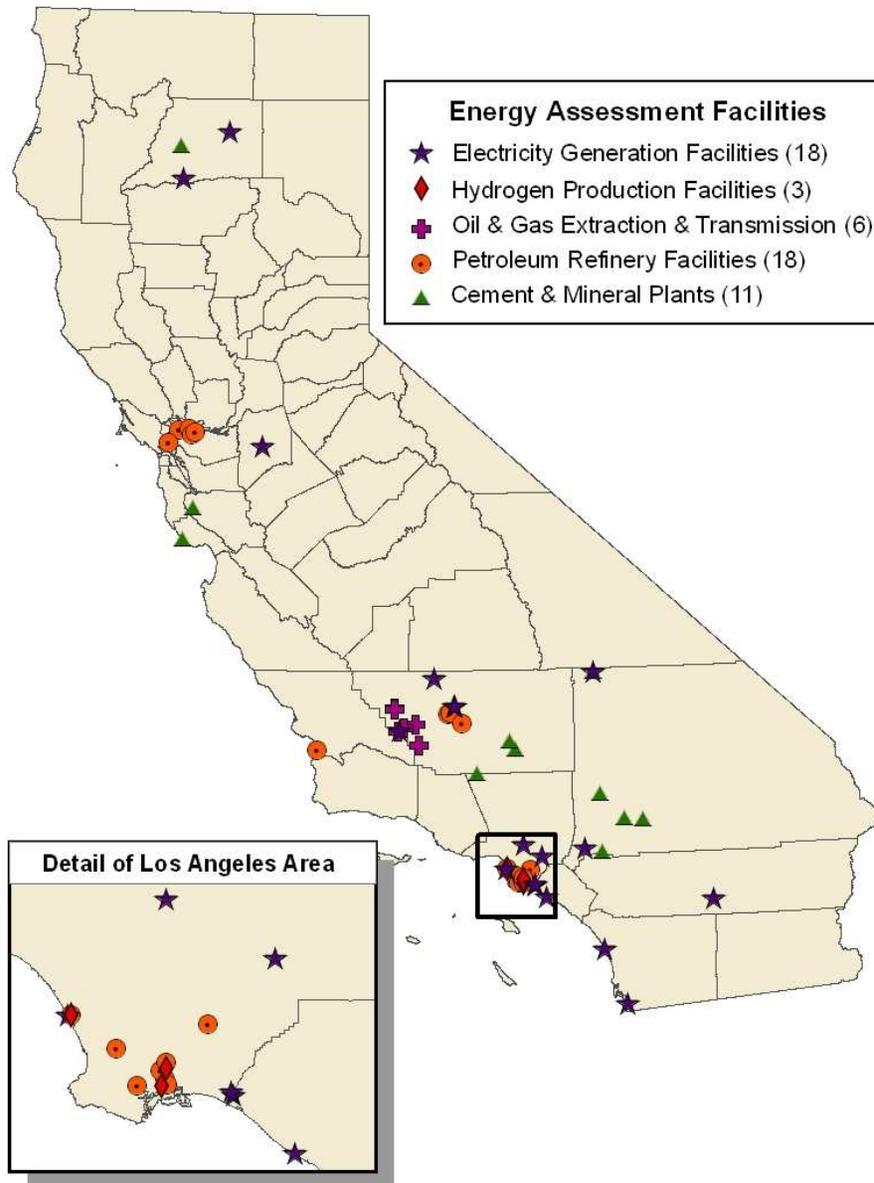
Industry and Public Concerns

- Confidentiality of data reported
 - ARB will release data as permitted by law
 - requirements designed to avoid reporting of confidential information
- Inclusion of biogenic CO₂ emissions in applicability threshold
 - may affect 4 biomass facilities and one landfill
 - surrogate to explore energy efficiency and emission reduction opportunities

Impacts



~ 60 Facilities Affected



- About 70 MMTCO₂e emissions in 2008
- ~45% of total statewide GHG emissions from the industrial sector

Estimated Costs

- Total estimated cost to affected businesses over 16 to 18 months
 - \$14 million
- Estimated costs per facility
 - electricity generating facilities and hydrogen plants: \$78,000
 - cement and mineral plants: \$175,000
 - refineries and oil and gas extraction and transmission facilities: \$425,000

Benefits

- Allows resources to be directed towards the most cost-effective opportunities to reduce GHG, criteria pollutants, and toxics
- Facilities can reduce costs by implementing cost-effective projects
- Provides the public with preliminary information to meaningfully participate in the next phase

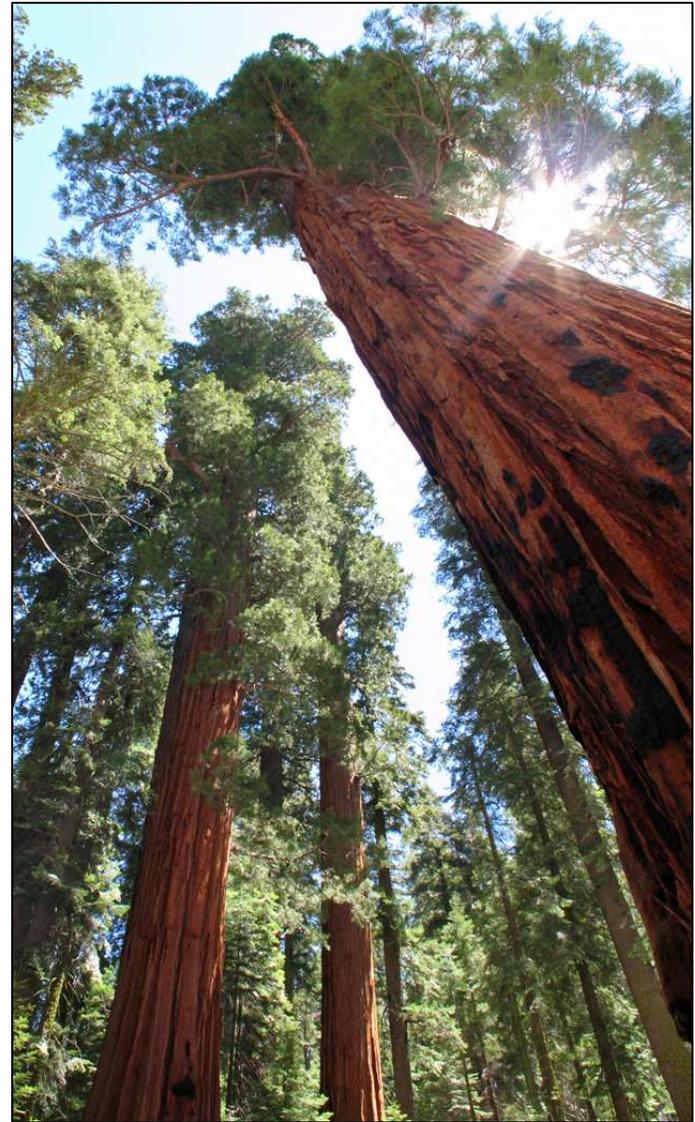
Proposed 15-Day Changes



Proposed 15-Day Changes

- Minor changes to clarify intent or provide flexibility
 - provide guidance on reporting criteria and toxic emissions when facility hasn't previously reported
 - clarify third party responsibilities when conducting a third party assessment
 - other miscellaneous changes

Summary and Recommendation



Summary

- Regulation affects ~ 60 large industrial sources
- One-time requirement to collect valuable information on opportunities to reduce GHG, criteria pollutant, and toxic air contaminant emissions
- Informs potential future actions for reducing emissions
- Benefits industrial facilities looking for ways to improve efficiencies
- Ongoing process for public participation

Recommendation

- ARB staff recommends the ARB approve the regulation with proposed 15-day changes

