

# **Public Technical Working Group Meeting**

## **Greenhouse Gas Reporting in a Cap-and-Trade Program**

February 18, 2009

California Air Resources Board

# Purpose of Meeting

- Identify issues relating to greenhouse gas emissions reporting for the cap-and-trade regulatory development process

# Meeting Agenda

|         |  |
|---------|--|
| 2:00 pm | Introduction & Purpose of Meeting          |
|         | Agenda & Ground Rules                      |
|         | Reporting Presentation                     |
|         | Your Questions For Clarity & Understanding |
|         | Your Ideas, Suggestions & Concerns         |
| 3:35 pm | Break                                      |
| 3:40 pm | Biomass Presentation                       |
|         | Your Questions For Clarity & Understanding |
|         | Your Feedback On Biomass (Handout)         |
|         | Your Comments On Today's Meeting           |
|         | Next Steps                                 |
|         | Closing Comments                           |
| 5:00 pm | Adjourn                                    |

# Meeting Ground Rules

## **Facilitator:**

- Guide the meeting process.
- Keep discussions focused and on track.

## **Everyone please:**

- Come up to one of the podiums to share your questions and ideas.
- Limit your comments to 2 minutes or less.
- Respect the process and the person who is speaking.
- Turn **off** your cell phones and pagers.

## **Webcast Audience**

- Your questions and comments will be shared during the meeting. Direct your e-mails to:  
**ccworkshops@arb.ca.gov**

# Agenda

- Background
- Discussion of ARB Mandatory Reporting Requirements and WCI Draft Essential Requirements of Mandatory Reporting
- Identification of reporting issues that will be discussed in future technical stakeholder working group meetings
- Reporting biomass emissions -- beginning the conversation

# California Cap-and-Trade Rulemaking Timeline

- Provided overview of timeline at January 29<sup>th</sup> workshop
- Extensive public process throughout rulemaking
- Focus in 2009 will be on working through implications of different issues
- Focus in 2010 will be on finalizing program design and developing regulatory language
- Expect Board adoption of regulation by end of 2010

# Preliminary Schedule for Initial Issue-Focused Meetings

|                                    |   |
|------------------------------------|---|
| February 18, 2009<br><i>Today!</i> | <ul style="list-style-type: none"><li>• Reporting: Greenhouse gas reporting in a California cap-and-trade program</li><li>• Reporting: Biomass emissions reporting -- identification of issues that need to be addressed</li></ul>                                      |
| March 2009                         | <ul style="list-style-type: none"><li>• Early reduction program</li><li>• Set asides</li><li>• Essentials of market oversight and operations</li><li>• Offsets compliance limits</li><li>• Competitiveness issues</li></ul>   |
| April 2009                         | <ul style="list-style-type: none"><li>• Defining the essential elements of offsets and offset system requirements</li><li>• Attributing emissions to imported electricity</li><li>• Evaluating potential impacts to vulnerable communities from cap and trade</li></ul> |

# ARB Mandatory Reporting Regulation

- Board approved in December 2007 and is now effective
- Requires reporting and verification of greenhouse gas emissions from specified sources

# WCI Design Recommendations

- September 2008
  - *Design Recommendations for the WCI Regional Cap-and-Trade Program*
    - Recommended that WCI Partners establish the essential requirements for reporting by all entities and facilities required to report in each of the WCI Partner jurisdictions

# WCI Draft Essential Requirements of Mandatory Reporting

- January 6, 2009
  - *Background and Progress Report for Draft Essential Requirements for Mandatory Reporting (WCI Reporting Document)*
    - Covers most sectors from the ARB regulation and industrial process emissions from seven additional sectors
    - Electricity sector still under development
    - Reporting elements will be developed throughout 2009 for several source categories
    - 2009/2010: States/Provinces consider rules for reporting 2010 emissions in 2011

WCI Reporting Document builds on ARB Mandatory Reporting Regulation among others

## ARB Coordination with WCI

- ARB and other California agencies are actively participating in ongoing WCI efforts
  - WCI committees: Reporting, Electricity, Offsets, Markets, Cap Setting and Allowance Distribution, Complementary Policies
  - CA staff participation on each committee

# California Source Reporting Requirements

- California's mandatory reporting rule is currently in effect
  - Reporting beginning in 2009 for 2008 emissions
- ARB does not plan to revise these rules until the full cap-and-trade regulation is adopted in late 2010

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**ARB Mandatory Reporting  
Regulation and WCI Essential  
Requirements for Reporting  
Document**

# Reporting Sectors and Thresholds

- ARB Mandatory Reporting Regulation:
  - Specified sectors and combustion sources  $\geq 25,000$  MT CO<sub>2</sub>
  - Power plants  $\geq 1$  MW +  $\geq 2,500$  MT CO<sub>2</sub>
- WCI January 2009 Reporting Document:
  - Potentially any source  $\geq 10,000$  MT CO<sub>2</sub> *equivalent*

# Industrial Process Emissions Covered

- ARB Mandatory Reporting Regulation:
  - Cement, Refineries, Hydrogen Plants, Power Plants
- WCI January 2009 Reporting Document:
  - ARB sources plus ~15 identified process sources
  - Sources in California include
    - Oil/gas production and distribution, pulp and paper, lime, glass manufacture, and mineral production

# Electricity Imports

- ARB Mandatory Reporting Regulation:
  - Extensive information from retail providers, marketers to guard against paper reductions
- WCI January 2009 Reporting Document:
  - First jurisdictional deliverers report

# Transportation Fuels

- ARB Mandatory Reporting Regulation:
  - Optional at reporting facilities
  - Methods to be developed to cover fuels in 2015 cap
- WCI January 2009 Reporting Document:
  - Upstream reporting
  - Methods to be developed in 2010

# Residential, Commercial, Industrial Fuels

- ARB Mandatory Reporting Regulation:
  - Only at reporting facilities for industrial
  - Methods to be developed to cover fuels in 2015 cap
- WCI January 2009 Reporting Document:
  - Upstream reporting
  - Methods to be developed in 2010

# Source Testing for Emission Factors

- ARB Mandatory Reporting Regulation:
  - Allowed for CH<sub>4</sub>, N<sub>2</sub>O; geothermal CO<sub>2</sub>
  - ARB regulation also allows source testing for CO<sub>2</sub> at sulfur recovery units, and for CO<sub>2</sub> from biomass solids and waste-derived fuels.
- WCI January 2009 Reporting Document:
  - Has included source testing for all above, and also for sulfur recovery, but not for CO<sub>2</sub> from biomass solids/waste-derived fuels, yet

# Verification

- **ARB Mandatory Reporting Regulation:**
  - Annual third party after conflict of interest (COI) review
  - Some sources triennial
- **WCI January 2009 Reporting Document:**
  - Annual third party after COI review for capped sources

# Verifier Accreditation

- ARB Mandatory Reporting Regulation:
  - ARB accredits
- WCI January 2009 Reporting Document:
  - ARB and TCR-ANSI accredited Verifiers are grandfathered
  - Other verifiers will be accredited to ISO 14065 program developed under ISO 17011
  - WCI may have additional accreditation criteria

# Verification Program Appeals

- ARB decides on all appeals
- WCI may require a regional body to handle all appeals for consistency

# Reporting Issues for Discussion in 2009

- Working definition of biomass
  - Basic discussion today
  - Discussion of sustainability guidelines and a method to assess carbon neutrality to be scheduled later
- Source testing for facilities burning biomass and waste-derived fuels when above the cap-and-trade threshold
- Quantification methods for new sectors, including industrial process emissions

# Reporting Issues for Discussion in 2009

- CA and WCI different reporting thresholds
- Reporting threshold for power plants
  - WCI does not establish a different threshold for power plants
  - 2,500 metric tons for CA program is lower than the WCI proposal
- Cogeneration
- Point of regulation for transportation fuels and natural gas for commercial/residential uses
  - Methods to differentiate upstream and downstream coverage

# Reporting Issues for Discussion in 2009

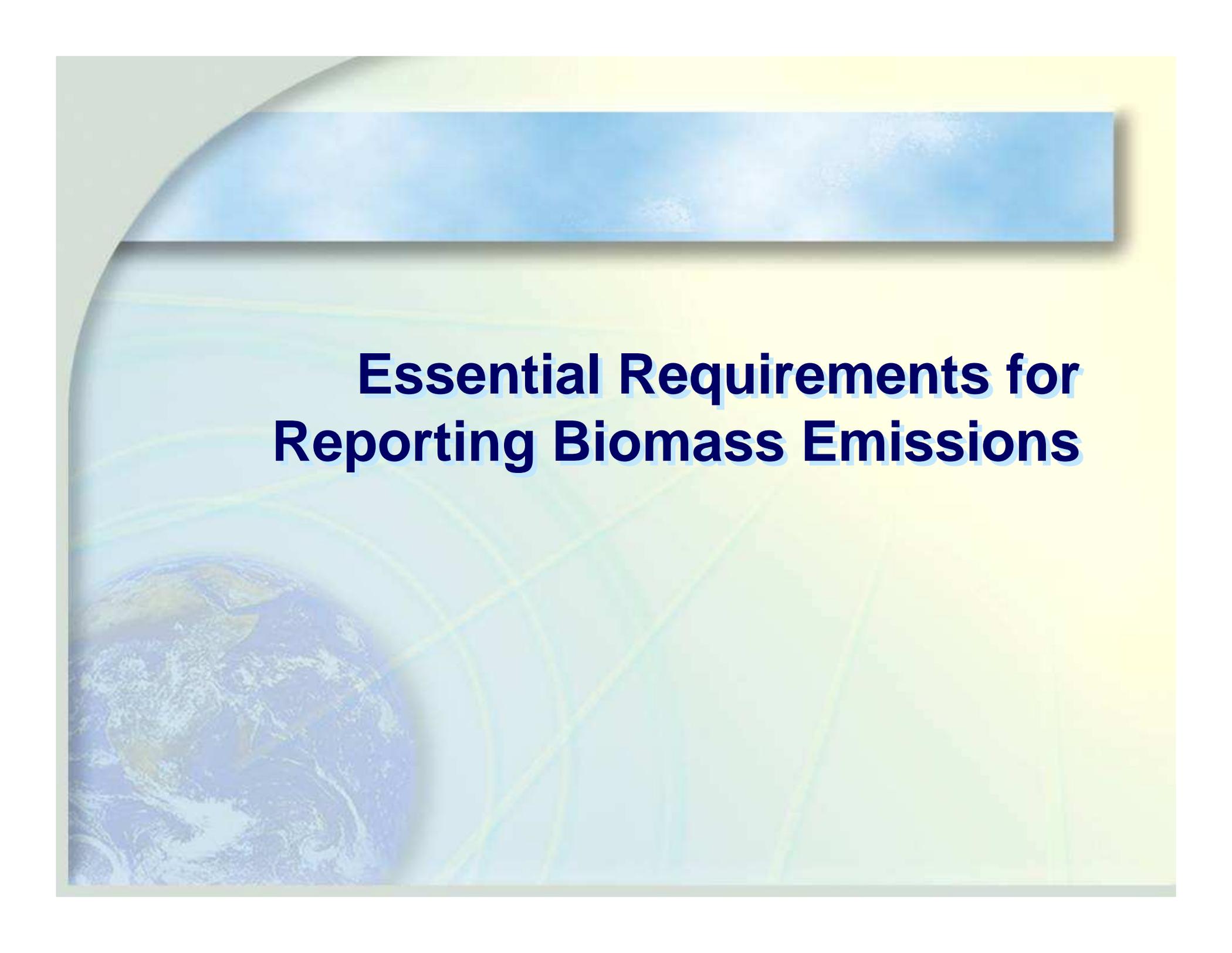
- Fuel testing requirements for general combustion facilities not combusting pipeline-value natural gas
- Electricity transaction reporting changes to assist in tracking electricity imports
- Potential changes in quantification methods, e.g., further specification of sampling techniques
- Reporting exemptions for schools, hospitals, backup generators

# Reporting Issues for Discussion in 2009

- Annual third-party verification for all capped sources
- Potential changes to the verification administration

# Additional Issues on Reporting?



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# **Essential Requirements for Reporting Biomass Emissions**

# Biomass Definition

- ARB Mandatory Reporting Regulation
  - “Biomass”
    - non-fossilized and biodegradable organic material originating from plants, animals and micro-organisms, including products, byproducts, residues and waste from agriculture, forestry and related industries
    - non-fossilized and biodegradable organic fractions of industrial and municipal wastes, including gases and liquids recovered from the decomposition of non-fossilized and biodegradable organic material
  - “Biomass fuels” or “biomass-derived fuels”
    - Fuels derived entirely from biomass

## Biomass Definition (cont'd)

- Definition of biomass under consideration by the WCI Reporting Committee is consistent with ARB's Mandatory Reporting Regulation
- WCI's September 2008 design document recommends that carbon neutrality of biomass be determined by each jurisdiction
  - “For biomass determined by each WCI Partner jurisdiction to be carbon neutral, the carbon dioxide emissions from the combustion of that biomass are not included in the cap-and-trade program, except for purposes of reporting.”
- Carbon neutrality is closely related to defining biomass for reporting purposes
  - California will work through this issue

# WCI Treatment of Biomass

- Combustion emissions reported; biomass CO<sub>2</sub> tracked separately
- Limited deduction of biomass emissions relative to reporting threshold
- Fewer quantification options currently proposed
  - CEMS or carbon testing

## Developing a Cap-and-Trade Biomass Reporting Definition (See Handout)

- What principles and criteria should guide California's biomass definition for the purpose of reporting and inclusion/exclusion of fuels under the cap?
- Should the ARB definition take into account other working definitions?
  - Consistency across RPS, RFS, LCFS, and WCI
- What reporting provisions should be considered regarding data collection, measurement, emission factors, etc.?
- E-mail your name, agency/organization information, and responses to **ccworkshops@arb.ca.gov**

# Discussion

# Closing Comments and Next Steps

- How ARB will use your feedback
  - Consolidate data received
  - Post on reporting website by 3/5
  - Use feedback to inform content and process for future meetings

# Team Leads for Cap & Trade Rulemaking

|   |   |
|---|---|
| Sam Wade, Mary Jane Coombs  | Cap setting and allowance distribution  |
| Ray Olsson  | Market operations and oversight   |
| Brieanne Aguila   | Offsets and cap-and-trade project manager   |
| Claudia Orlando   | Electricity   |
| Karen Khamou  | Transportation  |
| Manpreet Mattu  | Reporting<br>Energy efficiency  |
| Bruce Tuter, Mihoyo Fuji  | Industrial sectors  |
| Mihoyo Fuji, Claudia Orlando  | Natural gas for residential and commercial  |
| Mihoyo Fuji   | Marginal abatement costs and competitiveness issues                                 |
| Barbara Bamberger, Mihoyo Fuji, Jeannie Blakeslee, Judy Nottoli, Jerry Hart | Impact analyses (environmental, economic, localized, small business, public health) |

## For More Information...

- Mandatory Reporting Web Page  
<http://www.arb.ca.gov/cc/reporting/ghg-rep/ghg-rep.htm>
- ARB's Cap-and-Trade Web Site
  - <http://www.arb.ca.gov/cc/capandtrade/capandtrade.htm>
- To stay informed, sign up for the Cap-and-Trade listserv:
  - [http://www.arb.ca.gov/listserv/listserv\\_ind.php?listname=captrade-ej](http://www.arb.ca.gov/listserv/listserv_ind.php?listname=captrade-ej)
- Western Climate Initiative
  - <http://www.westernclimateinitiative.org>