

Cap-and-Trade Program Electricity Workshop

California Air Resources Board
May 4, 2012

Workshop Materials and Emailed Questions

The slides are posted at:

[http://www.arb.ca.gov/cc/capandtrade/
meetings/meetings.htm](http://www.arb.ca.gov/cc/capandtrade/meetings/meetings.htm)

Questions during the workshop can be sent to:

auditorium@calepa.ca.gov

Introduction

- Purpose of Today's Meeting
 - Address electricity related items identified by staff and Board Resolution
- Agenda
 - First deliverers
 - Use of allowances for sales into CAISO
 - Resource shuffling
 - Qualified exports
- Stakeholder Input
- Next Steps

Context for Cap-and-Trade Program Approach to Delivered Electricity

- Cap-and-Trade Program regulatory approach for electricity is part of coordinated State GHG policy
 - Renewable Portfolio Standard
 - Energy Efficiency
 - Emissions Performance Standard (SB 1368)
 - Combined Heat and Power

First Deliverers of Electricity

- AB 32 direction is to account for emissions from in-State generation and imported electricity
- Regulatory approach assigns the first deliverer as the point of regulation
- Electricity importer is first deliverer for imported electricity
- Electricity importer is identified in two ways:
 - As the Purchasing-Selling Entity (PSE) on the NERC E-Tag when electricity is delivered between balancing authority areas
 - As the facility operator or scheduling coordinator when electricity does not cross balancing authorities

Purpose and Criteria (1)

- Criteria that led staff to use this regulatory approach and identification of the first deliverer:
 - First deliverer must be identifiable
 - ARB must rely on verifiable data
 - ARB must have jurisdiction over the first deliverer
 - Approach must be able to be duplicated and integrated with a linked program in a regional or comprehensive GHG program

Purpose and Criteria (2)

- Regulation and resulting compliance obligation must:
 - Facilitate an appropriate and timely price signal
 - Minimize unintended market signals that would inhibit or interfere with market structure or operation
 - Treat all first deliverers equally, whether they are in-State generators or electricity importers

Current Regulatory Approach Meets Criteria (1)

- The electricity importer is clearly identified
 - NERC E-tag identifies Purchasing-Selling Entity (PSE)
 - Facility operator or scheduling coordinator
- Utilizes reliable data:
 - Mandatory Reporting Regulation
 - US EPA
 - EIA

Current Regulatory Approach Meets Criteria (2)

- ✓ Treats in-State and out-of-State deliverers equally
- ✓ Resulting carbon price is applied based on actual emissions in State and out of State for specified sources, or default emissions factor for unspecified sources
- ✓ Does not interfere with market structure or operation

Stakeholder Issues Raised in Comments

- ✓ Expressed concern about compliance obligation when acting as an agent of another electric power entity
- ✓ Interpretation of the definition contained in the Mandatory Reporting Regulation for “written power contract” could result in the assignment of an inaccurate emissions factor

Staff Recommendation

- Maintain current regulatory approach for first deliverers
 - Propose minor modification to the definition of the term “electricity importer” to clarify the hierarchy of looking to NERC E-tags first and then the scheduling coordinator or facility operator for instances when no NERC E-tag is created for the delivery
- Clarify in guidance
 - Mandatory Reporting Regulation to clarify the definition of written power contract

Stakeholder Input

- Are there other criteria staff should consider as we work on the first deliverer issues identified?
- Are there other instances in which electricity does not cross balancing authority areas, and no NERC E-Tags created, that we have not identified and should also be considered?
- What implications could be encountered if ARB clearly delineates a hierarchy where the NERC E-Tag is the primary determiner of compliance obligation and then the scheduling coordinator or facility operator only for cases only in which no NERC E-Tag is generated?

Use of Allowances/Allowance Value for Sales into CAISO Market

- Section 95892(d)(5) prohibits the use of allowances or allowance value for electricity sold into the CAISO market
- Purpose of the provision is to ensure equal treatment of in-State and out-of-State first deliverers

Purpose and Criteria

- Purpose and Criteria for 95892(d)(5):
 - Treat all first deliverers equally, whether they are in-State generators or importers of electricity
 - Facilitate an appropriate and timely price signal

Stakeholder Issues Raised in Comments

- Claim there could be potential financial risk exposure when managing emissions and obtaining compliance instruments
- Administrative burden for some POUs that might not have otherwise participated in the allowance market

Staff Recommendation

- Maintain Section 95892(d)(5), which prohibits allowances or allowance value from being used to meet a compliance obligation for electricity sold into the CAISO market
 - Current regulatory approach treats all first deliverers equally
 - Current regulatory approach allows for:
 - Efficient dispatch of electricity
 - Wholesale market to include appropriate carbon pricing
- Continue to work with Stakeholders to address concerns over risk and administrative burden

Stakeholder Input

- Are there other options that meet the design intent of treating in-State and out-of-State deliverers equally, while addressing stakeholder concerns of managing risk?
- Are there other options that meet the design intent of treating in-State and out-of-State deliverers equally, while addressing stakeholder concerns of administrative burden?

Resource Shuffling: Background

- AB 32
 - California's GHG emissions include all in-State emissions plus emissions from imported electricity
 - Leakage is defined as reduction of in-State emissions with parallel increase in emissions out of State; AB 32 explicitly requires prevention of leakage
- Board direction – consider potential changes to:
 - Provide appropriate incentives for accelerated divestiture of high-emitting resources
 - Ensure that changes in reported CA emissions reflect overall emissions reductions in WECC

Why Resource Shuffling Must Be Addressed

- Purpose of C&T is to apply a price signal to drive investment in cleaner technology and more efficient energy usage
- GHG cost must be included in all electricity pricing
- C&T creates significant incentive to minimize costs by resource shuffling, a form of leakage
- ARB's approach must balance many considerations

Resource Shuffling: Considerations (1)

- Encourage reduction or elimination of high-emitting resources
- Encourage and accommodate replacement of high-GHG generation with low/zero-GHG generation
- Compatibility with other laws and regulations
- Maintain strong and equitable price signal on California wholesale and retail electricity

Resource Shuffling: Considerations (2)

- Treat in-State electricity generation and imported electricity equally
- Facilitate linkage with other jurisdictions
- Resource shuffling prohibition not needed when all WECC jurisdictions are capped

Resource Shuffling: Our Approach

- Definition of Resource Shuffling
 - “any plan, scheme, or artifice to receive credit based on emissions reductions that have not occurred, involving delivery of electricity to the California grid”
- Prohibition
 - Section 95852(b)(2) prohibits resource shuffling
- Attestations
 - Company or facility has not engaged in resource shuffling
 - Subject to jurisdiction of California

Resource Shuffling: Current Staff Thinking

- No recommended change to the definition
- Staff will provide limited guidance regarding what is not resource shuffling
- Staff will work with stakeholders to help inform stakeholders whether specific actions constitute resource shuffling

What is Resource Shuffling?

- Examples of Resource Shuffling:
 - Cherry Picking
 - Facility Swapping
 - Laundering
- Examples that are not Resource Shuffling:
 - Changes in delivery of electricity pursuant to state or federal laws and regulations
 - Deliveries of emergency power

Qualified Export (QE) Adjustment: Background (1)

- AB 32 counts all in-State emissions *plus* all emissions from imported electricity consumed in California
- Current regulation allows reduction (QE adjustment) in compliance obligation for importers who simultaneously import and export electricity
- Adjustment is the product of lowest emissions factor (EF) for all imports and exports and the lower MWh of imports or exports during the hour

QE Adjustment: Background (2)

- Exemption grew from concepts of “virtual wheel” and “simultaneous exchange”
 - MRR recognized electricity “wheeled” through California (generated out of State, passes through, consumed out of State)
 - Simultaneous exchange: imported electricity sinks in CA, and electricity generated in CA is simultaneously exported to the same counterparty
 - Stakeholders asked that simultaneous exchanges be treated the same as wheeled electricity, and therefore have no compliance obligation

QE Adjustment: Background (3)

- Development of the Cap-and-Trade Regulation and revisions to Mandatory Reporting Regulation increased focus on documentable physical path of electricity deliveries
- QE adjustment approach was designed to be conservative and strictly limit cases in which adjustment would be allowed
 - Cannot reduce total compliance obligation below zero
 - Must be the same PSE for import and export
 - Hourly adjustment limits quantity and emissions factor (EF)

QE Adjustment: Background (4)

- Stakeholders requested changes to allow import and export transactions to count against each other from the lowest EF up (stacking of transactions by EF) and claim unintended market consequences from current approach
- Further staff analysis shows that current regulatory language does not meet policy intent to limit adjustment to simultaneous exchanges, but could also exclude some simultaneous exchanges

Options for QE Adjustment

- Option 1. Eliminate QE adjustment
- Option 2. Amend regulation to allow importers to only receive credit for simultaneous exchanges with same counterparty and same quantity of MW
- Option 3. No change to regulation, but monitor market effects
- Option 4. Amend regulation to adopt one of the approaches recommended by various stakeholders
 - Allows credit for hourly transactions beyond simultaneous exchanges, but does not meet original intent

Stakeholder Input: Resource Shuffling & Qualified Exports

- Is there any other approach to resource shuffling that meets the criteria outlined?
- Comments on qualified export options

Next Steps

Taking comments through May 11, 2012:
[http://www.arb.ca.gov/cc/capandtrade/
comments.htm](http://www.arb.ca.gov/cc/capandtrade/comments.htm)

Additional Information

- General Cap-and-Trade Program page

<http://www.arb.ca.gov/cc/capandtrade/capandtrade.htm>

- Join the Cap-and-Trade Program listserv at

http://www.arb.ca.gov/listserv/listserv_ind.php?listname=capandtrade

Contacts

Claudia Orlando, Air Pollution Specialist

corlando@arb.ca.gov

Bill Knox, Air Pollution Specialist

wknox@arb.ca.gov

Greg Mayeur, Manager overseeing compliance obligations

gmayeur@arb.ca.gov

Mary Jane Coombs, Manager overseeing allowance allocation

mcoombs@arb.ca.gov